Transcript

Cleveland Fed Conversations on Central Banking: Why is the Fed's Inflation Target 2%?
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Opening remarks:
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Panelists:
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Henning Weber, Economist, Research Centre at Deutsche Bundesbank

Moderator:
Nancy Marshall-Genzer, Correspondent, Marketplace

Chengcheng Jia:

Welcome, everyone, to the Cleveland Fed Conversations on Central Banking series. I am Chengcheng Jia with the Cleveland Fed. First, I would like to thank you all for joining us today. This event is part of the work that we are doing at the Cleveland Fed and our Center for Inflation Research to help researchers, policymakers, and the public understand inflation and monetary policy. I would like to invite everyone to go to our website and explore our commentary, research, and analysis on inflation, to see all of our data and indicators and to find out more about upcoming inflation related events.

[00:01:00] The topic of today's conversation is, why is the Fed's inflation target 2%? Well, many of you may have asked yourself this question before and you are not alone. Economists have long debated what the optimal inflation target is, with different studies coming up with different estimates. The thinking behind what makes a good inflation target has also changed over time. Some of those changes come from modeling choices, but some also have come about in response to changing real world events that have suggested different costs and benefits of certain levels of inflation or deflation.

So, why did the Fed land on a 2% target? Should the Fed aim higher today? What were the theoretical models and empirical reasons to select this target? How did this target help the Fed gain credibility over time and ensure long-run inflation expectations remain well anchored?

[00:02:00] Well fortunately, we have an outstanding panel of speakers today who will talk about why the Fed's inflation target is 2% and we look forward to this conversation. Before we start, please ensure that you are muted and your video is off, if you are not a presenter. We will hopefully have time for questions at the end. If you have a question, please feel free to put it in the chat box anytime during the course of this conversation. You don't need to wait until the last minute.

[00:02:30] We will now turn the mic over to Nancy Marshall-Genzer, Correspondent for Marketplace who will introduce our panelists.

Nancy Marshall-Genzer:

Hi, everyone. So the way this is going to work is, each panelist will make a presentation and then we are going to be opening things up for Q&A. So another reminder, go ahead and put your questions in at any time into the Q&A box in the chat function.

[00:03:00] So I'm going to introduce our three panelists. Argia Sbordone is head of macroeconomic and monetary studies at the Federal Reserve Bank of New York. Henning Weber is an economist at the Research Center at Deutsche Bundesbank. He's researched why the 2% inflation target works.

[00:03:30] And Richard Clarida was vice chair of the Federal Reserve's Board of Governors. He began his four-year term as vice chair in September 2018 and took office as a board member to fill an unexpired term which ended on January 31st of 2022. Now he is a professor of economics and international affairs at Columbia University and global economic advisor at PIMCO.

Argia is going to go first, and she is going to start by talking about why the 2% target was chosen. This is a question that has been on my mind for quite some time. Argia, the virtual floor is yours.

Argia Sbordone:

[00:04:00] Okay. So, thank you very much for inviting me to be in the panel with these distinguished panelists. And, of course, because I'm from the Federal Reserve Bank of New York, everything I say is my own responsibility, doesn't implicate the New York Fed or the Federal Reserve System. So let me just start. That's what I will use my few minutes.

[00:04:30] On the left-hand side, just remind everyone that this is the inflation measure on which the target of the Federal Reserve has been set. This is the Personal Consumption Expenditure Index. The blue line is the headline. The green line is the core. And the shorter length red bar is the 2%, which is the target that was set in 2012.

On the right-hand side I put the federal funds rate just for you to put in your mind one of the issues that I will talk. So, the interest rate was very close to zero. **[00:05:00]** So, I want to talk a little bit about establishing of inflation target. Then I want to talk about the challenges, in particular the effective lower bound and the upshoot in the picture you can see has been quite a feature of the recent period in pre-pandemic and then ask whether there are a reason for raising the target, and then look at the post-pandemic period which has a completely different situation in which the target has been overshoot and ask again are there still reasons for raising the target?

Okay, so establishing inflation target. This came to establishment in the statement of the longer run goals and monetary policy strategy that was issued in January 2012. This was a judgment of the Committee that inflation rate at the **[00:06:00]** 2% was most consistent over the long run with the Federal Reserve statutory mandate. And this target has been implicit for quite a long time since 2009. It was even in the Summary of Economic Projection in which the participants were saying where they think the long-run inflation is.

So the question is whether this 2% is an optimal target. **[00:06:30]** So I did some research with co-author Ascari which we tried to look at the implication that in the models that we typically use for monetary policy, implication that having a higher long-run trend or long-run target would imply. So we generalized the New Keynesian model, GNK to incorporate a positive long-run rate of inflation, and we found that highertrend inflation has a number of consequences, in particular increases price dispersion, lowers productivity, and **[00:07:00]** makes inflation less sensitive to current economic condition and more sensitive to future condition, which means that you have to come down your current condition more in order to have the present inflation. So it is not at no cost. Also, it tends to un-anchor inflation expectation, create more instability, more volatility. So the results are consistent with the literature that examine what is the optimal long-run inflation rate.

[00:07:30] So this leads to generally, but we will see some counter examples discussed by the next panelist. Generally, the optimal rate is considered to be close to zero but there are practical considerations, in particular measurement of inflation, the grease in the wheel of the labor market, by which you can with higher inflation lower the real wages which is promoting and common. **[00:08:00]** So generally, central banks have adopted rates that are in the vicinity of 2%.

But this 2% then start to be criticized of the time in which there is a frequent occurrence of the zero rebound. And in fact, in 2010, Blanchard at the time at **[00:08:30]** the IMF says that the zero rebound or the effective rebound has been very costly. Having inflation higher would probably have made it possible to have more room for monetary policy because it could have allowed to cut the real rate more and therefore you know, probably reduce the drop in output.

[00:09:00] But, the question is, do having a real ELB with a certain frequency perhaps occurring alter the consideration that I just said that make more desirable to have a very low long-run inflation rate? The distortion that having a higher inflation target, that cost in the economy are there even outside the zero lower bound.

So, the question is, how or whether the cost of having inflation higher all the time is offset by the benefits of having more monetary policy space in period in which **[00:09:30]** there is a zero bound? And clearly this depends on the assessment that one makes of how frequently the economy can be at the low bound, which means how frequently there can be big shocks that bring you to the lower bound and in particular how low is the natural rate of interest, then there is the negative shock pushes the economy close to zero bound?

And the results are very sensitive to how they specify the model, how you parametrize the shocks. So there is no conclusion about whether in **[00:10:00]** fact we have underestimated or overestimated the ELB costs of whether the inflation rate should be raised.

Fortunately, there are other possibilities of addressing the ELB and mitigate the constraint with alternative policies. First of all, one could have the negative nominal rate that the Fed has always excluded that but in many other countries have been implemented. But I'm thinking more of policy that **[00:10:30]** trade-off instead of positing permanently higher inflation, they conduct policy allowing inflation to be only temporarily above the target. And those are the policies that have that commitment to easier, to be more accommodative in the future when you are constrained only to be more accommodative in the present.

[00:11:00] And these policies are discussed, and some people call it makeup policies. I think those are partly after the long debate and Professor Clarida will talk about the debate that has occurred when the

framework of the Fed was reviewed in 2019. In 2020, some of this new strategy of the [inaudible 00:11:22] time consistent with those policies.

[00:11:30] So in 2020 the Fed reviewed the strategy and the tools and the monetary policy and confirmed the same inflation target of 2% but adopted a new strategy. And this new strategy that, again, in my view reflect this alternative policy to create more room to monetary policy to compensate for periods in which inflation has run persistently below 2% to aim at inflation moderately above 2% for some and this is how it has labeled flexible average inflation target here, FAIT.

Now, in the post-pandemic, and this is my last slide, as you saw now, we are in the opposite situation. We are not in a situation which we undershoot the target but in which we are massively overshoot the target. **[00:12:30]** Are there rationale to still consider raising the target? And I think that there are some rationales for reconsidering the target, some of the previous argument apply, there is a low r-star probably at the moment in... On the right-hand side I just put a picture of the estimate of Holston-Laubach-Williams that we've resumed now to publish on the website of the New York Fed. **[00:13:00]** There is an estimate of the natural rate of interest that should guide the bank to policy.

And so you see that still hasn't been too much higher than it was before the pandemic. But I would argue that there are contrary considerations to revise up the target. First of all, is not obvious that the long-run outlook is still for a very low r-star and since the pandemic there's been more acceptance of or I would say more demand for expansion in fiscal policies and there's the time to raise the r-star. **[00:13:30]** And increasing the target now will be especially damaging to Federal Reserve credibility and Central Bank credibility in general because it allows people to think that the target can and perhaps will always be adjusted every time there is an inflation shock and therefore if we discuss today raising the target or considering a target of 4%, it would be a very different proposition than starting with 4% discussing the 4% [inaudible 00:13:55]. And I think-

Nancy Marshall-Genzer:

Argia-

Argia Sbordone:

I'll stop there-

Nancy Marshall-Genzer:

Argia, thank you so very much. Henning Weber is next, and he is going to talk about what his research has shown as far as the 2% inflation target.

Henning, if you can, try to keep your presentation to about five minutes. You got the floor.

Henning Weber:

[00:14:30] Thanks a lot, Nancy. So also, thanks to the Cleveland Center. I'm glad I can join the conversation. And, actually, I wanted to talk about three points briefly, existing estimates of optimal inflation, optimal inflation and product level productivity trends, and then suboptimal inflation and excess price dispersion.

[00:15:00] Now, before I jump in, let me remind you of the usual disclaimer. I express in my own views and opinions and those do not necessarily reflect the views of the ECB, the Deutsche Bundesbank, or the ECB. Now, with this, let's look at this graph here which I take from work by Anthony Diercks. And this graph is a summary of the literature on optimal inflation. So, each dot in this figure is a paper in this field

and then you see for the paper on the horizontal axis, the date when the paper was published, and on the vertical axis, the paper's main estimate of the optimal inflation rate.

[**00:15:30]** Now, apparently this literature started with an important paper by Milton Friedman and that paper claims that deflation is optimal and at the time that estimate was minus 4%. And this idea is well known, deflation is desirable because you want to make the cost of liquidity cheap. Now, this result has been confirmed a number of times in the literature, but in the late 90s you seem to experience a **[00:16:00]** paradigm shift from the optimal deflation of minus four to optimal inflation equal to zero.

Now, this was the time when people worked in the idea that firms face costs when they change their product prices, and these costs could be in terms of customer anger, informational costs, or menu costs. And of course, if you are a central bank in a world in which firms face costs in order to change their **[00:16:30]** prices, the best thing you can do is keep the price level constant, because then firms don't need to catch up with an increasing or declining price level and can save on the cost of price adjustment.

Now, more recently in this literature we see much more dispersion in terms of the estimates for optimal inflation, but it seems to be true that zero inflation is a main focal point in the field even today and that suggests a little bit of a **[00:17:00]** discrepancy with respect to the 2% targets that we see in the real world. And there are various reasons for reconciling this discrepancy and Argia pointed out in particular to the effect of lower bound as one important reason, also to downwardly nominal wages, so think more about the labor market. And I want to point to another reason which I think is quite important and that is product dynamics.

[00:17:30] So what do I mean by product dynamics? So, take a look at the left figure and you see blue lines in this figure which would be the price of a product at the point in time when the product enters the market and then this price goes through a very stylized life cycle. So basically, the product enters at a high price and leaves the market at a relatively low price. And one way to think about these type of price dynamics is that firms streamline their production in the course of the product lifecycle, say, through learning by doing, and these productivity gains then **[00:18:00]** justify that firms reduce their prices and hand these efficiency gains over to consumers and at the same time raise their market shares, right?

Now, what you also see in the figure is the average price in this economy and that's just at a given point in time the average of all the product prices which are around, and that average price is constant here. So that's a world of zero inflation and this means that in this world all the adjustment in product prices **[00:18:30]** has to be done by firms. And of course, as we said before, this price adjustment is supposedly costly.

Now, if you look on the right-hand side, you see a different type of world, which is so to say a less costly alternative. So that's a world of positive inflation in which the average price increases over time. And you see that in this world product prices in fact can stay constant after the firm entered the market, right? **[00:19:00]** And of course that saves on the price adjustment costs on the level of firms. And the question is, how do we get to this cost-free world? So, to say, how do we get the average price to increase? Well, that we achieve by letting incoming products enter at a relatively high price. But in that way, you raise the price level over time.

[00:19:30] Now, this is work that I did jointly with Klaus Adam, and we took this idea and applied it to the micro price data in the UK economy in order to see what this type of idea implies in terms of quantitative estimates. And it turns out that you get an estimate between 1.5 and 2.5%, which apparently does encompass the 2% targets that we see nowadays quite frequently.

But how about going higher, say, to three or 4%, which is what some people have proposed. Now, that would be a situation in which the average price increases even more.

[00:20:00] So firms actually will respond to this by raising their individual product prices also because otherwise this high inflation rate is going to erode their relative prices by too much, and that is something that's not good for firms. But of course, this price adjustment at the level of firms is not going to happen for all firms at the same time. So, there's going to be quite a bit of staggering and you're going to see relative price distortions. And of course, those relative price distortions arise only because inflation is suboptimal.

Now, in recent work with Klaus and Andrey Alexandrov, we tried to measure this subcomponent of overall price dispersion and we call this subcomponent of price dispersion, inefficient price dispersion, simply because it arises only when inflation is suboptimal. And in the figure, you see the estimate that we produce **[00:21:00]** again for the UK. So, in blue you see inflation and in red you see our measure of inefficient price dispersion and apparently there is a little bit of an association here at the aggregate level and over time which suggests that indeed this cost of suboptimally high but also suboptimally inflation is there and we can see it and we can measure it. And, interestingly, this cost seems to be there even at relatively low rates of inflation so one and 4% and that is probably something that complements the literature a little bit.

[00:21:30] Now, this suggests that yes, we can go above 2%, something that seems consistent with the product dynamics, but once we do, we probably going to face costs in terms of inefficient price dispersion, which eventually is going to end up as misallocation in the economy. So, I stop here. Thanks a lot, and back to Nancy.

Nancy Marshall-Genzer:

Thank you so much, Henning, we very much appreciate it. **[00:22:00]** Richard Clarida is next, of course the former vice chair of the Federal Reserve Board of Governors. He is going to give us an inside take on why the 2% inflation target was set by the Federal Reserve. Richard, the floor is yours.

Richard Clarida:

Thank you for that and I really benefited more so than usual from Argia and Henning's comments because it will save me some time. In particular, Henning, your chart on the evolution of optimal inflation, **[00:22:30]** I definitely want to grab that, because I teach that every year and I've never had the chart to convey that. That's fabulous.

A couple of things. First of all, let me say what it's not, because there's this meme in the popular press that the reason why the Fed and every other central bank has a 2% inflation target is because New Zealand was the first country to formally adopt inflation targeting as a strategy and they arbitrarily chose two. That's actually not the case. It is the case that New Zealand was an early inflation **[00:23:00]** targeter and they chose two, but it is not the case that other central banks did so solely because New Zealand did.

The short history, and you could write books on this, is that all the major advanced economies in the 70s when the end of Bretton Woods and the collapse of the old monetary order had about a very, very high volatile and elevated inflation, almost everybody except Switzerland had double-digit inflation, **[00:23:30]** even the Germans. And as a result, in the 80s and early 90s, although not coordinated, correlated, central banks in the U.S. led by Volcker and other countries led by other central bankers went through a very painful process of disinflation.

In the case of the U.S., Volcker brought inflation down from 11 or 12% to four and kept it there. **[00:24:00]** When Greenspan came in '87 he inherited four and through a combination of running a tight policy and a recession in 1990, by the early 90s inflation in the U.S. was running at two point something.

In the U.S., Greenspan made the decision in '94 to embark on a very aggressive rate hike cycle, not because he wanted to reduce inflation but because he didn't want it to go above two point something and the transcripts of the FOMC, which had been released, make it very clear that the Fed at the time in **[00:24:30]** effect... the Greenspan Fed had converged on the idea that inflation around 2% should be the target.

Now, for a variety of reasons, Greenspan himself was always hesitant to publicly articulate that he was targeting 2%. My own academic work with Mark Gertler and Jordi Galí, Mike Woodford's theoretical work, there's been a lot of research and now that we have the Fed transcripts, it's clear that the Fed **[00:25:00]** settled on two, not because of New Zealand, but because it was a balance. You can explain zero to everyone and a natural inflation target would be zero, but for a variety of reasons, even Greenspan who tended to skew pretty hawkish on these matters wasn't comfortable targeting zero. One is simply that, in a dynamic economy there will be measurement error, so 0% published inflation is probably deflation. And secondly, the arguments that Argia put out were very influential I think both within the Fed and outside that there is some advantage to greasing the wheel.

There was less concern in the 90s about hitting the zero bound because real rates were really high. When TIPS were introduced in 1997, the real return on an inflation index bond was 4%. And so, a number of countries when they adopted inflation targeting, adopted a target that included the number two. **[00:26:00]** Many of them actually target a range, not a number. Australia, for example, is one to three, the UK is two to three, but in almost every country the number two is somewhere in the discussion.

The Fed was the last central bank to publicly adopt a numerical inflation target. It had been a priority of Ben Bernanke's for a decade. It's telling that Ben got to the Fed in '06 but did not formally persuade the Committee to adopt the inflation target until 2012.

[00:26:30] Now, it's been mentioned that the Powell Fed in the first Powell term undertook a public and very extensive review of its monetary policy framework, and the chair asked me to oversee that system-wide effort, and we reaffirmed that the target in the long-run is 2%. Our evolution of inflation targeting **[00:27:00]** was to say that, in a period where the zero bound is binding and the Fed can't cut rates into deep negative territory, that if it wants to keep inflation expectations anchored at two that it would have to allow for inflation to rise above two in recoveries.

The logic is actually quite simple. Suppose you've got a very successful monetary policy and away from a zero bound you can always get inflation to 2%. Well, then what that will mean is that in recessions inflation will be below two because you're constrained and then in recoveries inflation will equal two. **[00:27:30]** Well, a number less than two plus a number equal to two with some average is going to be less than two. So, the challenge of inflation targeting with a binding zero bound on the policy rate is that average inflation will be less than two and then expectations can drift down.

[00:28:00] So that's the brief history. It wasn't New Zealand, there were a number of factors, but I think that's the quick version. I would say it's quite important that central bankers don't just look at the data on inflation. The key thing that your viewers should understand is, and I think actually central bankers including my former colleagues and myself at the Fed could do a better job of explaining this, in the real world, there're always going to be shocks. Productivity goes up and down, there are trade wars, there's

fiscal policy, there are oil price shocks. So, inflation, even a very successful central bank, is going to spend **[00:28:30]** a lot maybe most of the time away from target. What you hope for is that those average out and so when people are looking at expected inflation, it's equal or at or close to target.

And so really inflation targeting at some level really comes down to either inflation forecast targeting or making sure that you run a policy so that inflation expectations are anchored at the target. So, I think I **[00:29:00]** can conclude there.

Nancy Marshall-Genzer:

Richard, thank you so much. I want to remind everyone that if you have a question, please put it in the chat. And we do have a question which is, "Just to clarify, does the U.S. currently have an inflation target of an average of 2% over the long run? Could it be said this inflation target of 2% is due to the average **[00:29:30]** U.S. growth, approximately 2%. So, is this an average of 2% in the long-run? Richard, do you want to take that?

Richard Clarida:

Yes. Well, what the framework statement says is that the Fed wants inflation expectations to be anchored at 2% and in service of that long-run goal it would like inflation to average 2% over time. It's not a mechanical rule that says that you will raise or lower rates whenever the average inflation rate is **[00:30:00]** away from two, but it's really thought of as a regime or an ongoing rate of practice that in the absence of some really big shocks, like a pandemic and the like, you would hope that if you did this long enough inflation would average 2%.

What I would point out in answer to that question is that in the macro models that central bankers use, one of the key deliverable properties of models **[00:30:30]** is that if policy is not constrained by the ability to not cut rates below zero, then if the shocks hitting the economy are symmetric, then inflation actually averages two under good policy. So, the averaging is not so much part of the policy rule, it's an outcome of good policy and I think that's the way to think about it.

Nancy Marshall-Genzer:

Argia, and Henning, would either of you like to take a stab at that question? Is the 2% just a range, is it actually 2%? Argia?

Argia Sbordone:
[00:31:00] Well, I mean think Richard said correctly, that's supposed to create the anchoring and then nobody expect that it's going to be 2% all the time, but it's useful to give an anchor. And given the anchor then you will be committed **[00:31:30]** to restore the 2% if you have inflation that has gone for a longer period of time. I mean, the language is relatively vague because there is, if inflation has been above target for a significant amount of time, then you are committed to have it above target for some time. So sometimes modestly above. So those are term that language, and Richard can say, they were **[00:32:00]** on purpose left sufficiently vague to accommodate a good policy and a commitment, but without the specificity there would be too much tying the hand to something that is not, you know, realizable.

Henning Weber:

Yeah-

Nancy Marshall-Genzer:

Oh, Henning, there's actually a question about your presentation. The question is, "What did Mr. Weber mean by misallocation in the economy in this last or near last point?"

Henning Weber:

[00:32:30] Yeah, perfect. So let me maybe add a small point. So some of the central banks do have point targets, right, but are intentionally a bit fuzzy about the horizon in which these point targets are supposed to be reached? So you often hear the phrase, medium term, and that medium term could vary depending on the type of shock that hits the economy. And if you want this type of variation in the medium term that is applied depending on the shock then also gives you a bit of a range even for those central banks that explicitly announce point targets, right? So maybe that's something that one could also keep in mind.

[00:33:00] Now, regarding the question in the chat. Yes, indeed, I said, "a misallocation." So the idea is that when relative prices are distorted, so differ from each other for non-fundamental reasons, but only for the reason that they are costly to adjust and firms do not want to pay the cost each and every period, then this type of relative price distortion's going to also distort the demand for **[00:33:30]** relative demand. And of course that's going to feedback via factor markets and production into misallocation in the real economy. So you could have misallocation on the side of, say, capital or labor and these type of factor markets that we usually see and think about. Yes.

Nancy Marshall-Genzer:

Thank you, Henning. Another question is, "What would be the pros and cons of raising the expected inflation target to 3% to help achieve a soft landing?" Richard, you want to take that one?

Richard Clarida:

[00:34:00] Yes. On this one, Nancy, I think you have to distinguish between the pros and cons of initially setting inflation target of three versus changing it now after having committed to doing so implicitly for 30 years and explicitly for 10 years. It would be counterproductive. The advocates of raising the inflation target say that the Fed would have to tighten by less, and thus the economy would do better.

[00:34:30] What they miss, is that bond markets now believe the Fed. 10 year bond yields reflect the fact that markets think that over the next several years this Fed's going to get inflation down to 2%. The same is true for public surveys of inflation are also consistent.

[00:35:00] So suppose tomorrow Jay Powell said, "You know what, forget it, we're raising the inflation target to four and we're done hiking." What would happen? Well, bond markets would sell off substantially because they'd have to price in a much higher inflation, right, and workers going in to talk to their boss for wage demands would ask for higher wages, and as a consequence you would probably get a slowdown in the economy.

The ironic thing is, if the Fed had just said 30 years ago, "We're doing three," you can actually make an ex-ante case that might have been a good choice, **[00:35:30]** because it would give more room to cut in downturns and it would be hard to argue in a lot of models, maybe not all of them, Henning, but a lot of models, it makes a big difference in terms of the value to the economy of keeping inflation at two versus three. But clearly once you've committed to doing that, it would be very costly in the transition.

[00:36:00] Moreover, as Ken Rogoff and other folks have said and I really respect, what we see time and a time again in economies that have devaluations of their exchange rate, they say, "You know what? We devalued our exchange rate and we promise never to do it again." The markets never believe it. Once you've devalued, they start to price in the next devaluation. So, the short answer is, had central bankers decades ago converged on three versus two, we would've had probably somewhat the same or maybe even slightly better outcomes that central banks would've had more room to cut. **[00:36:30]** But at this point, it would be very costly. And that's why when Jay Powell is asked that question, the couple of times he's been asked that question in the last year, he's always said, no, he would not support raising the inflation target.

Nancy Marshall-Genzer:

We have one more question which is, "There are different inflation measures that can be associated with the 2% target. So what are your thoughts on the particular measure, CPI, PCE price index, or something else?" Argia, do you want to take that one?

Argia Sbordone:
[00:37:00] Well, if I recall there was a big discussion on which measure to adopt as a reference and I think there was a question of the index, there was a question of whether look at core, whether to look at the headline. I don't think… I mean, the measures are related. So sometimes there is a more **[00:37:30]** divergence. If you look at CPI versus PCE, they comove most of the time except and there are some measurement issues why they are different.

I don't think it would make a big difference. One of the pros in adopting CPI was that CPI is revised much less often while the PCE index is revised every time there is a revision of the national income and **[00:38:00]** product accounts. But I think it was a decision of the Committee. I don't see one particular reason. Maybe Richard has something to maybe remind, although it was a previous time sitting on the FOMC.

Again, I don't see that there is some specificity. People refer, there was a reason also in favor of CPI because say the pensions' thing more indexed the **[00:38:30]** CPI that people can relate to that. But in some sense the personal consumption expenditure to reflect more the basket that changes of the consumer as opposed to be linked into a particular basket which is updated at very different -

Nancy Marshall-Genzer:

Yeah, the Fed seems to prefer the core PCE. Richard, did you want to add anything to that?

Richard Clarida:

[00:39:00] Couple of things. There is some path dependence here too. One reason the Fed focus on PCE is Alan Greenspan who was and is quite a aficionado, an expert on data, felt it was a preferable index conceptually as Argia mentioned, essentially because it allows for substitution whereas the CPI is a fixed weight basket.

What I would say, and I think core inflation also dates back to Fed practice in the 70s and 80s. Don Kohn always made the point when he was vice chair that the **[00:39:30]** Fed targets PCE price inflation but it looks at core because core over time tends to be a better forecaster of underlying inflation than headline just because food and energy tend to be volatile and mean revert.

There are different ways to get an underlying inflation and one that I and I know some of my former colleagues at the Fed preferred is a trimmed mean or trimmed median measure of inflation. That's essentially doing what the core does. But instead of arbitrarily stripping out food and energy, it uses a **[00:40:00]** statistical procedure to strip out outliers. And especially in 2021, when we had, for example in the spring of 2021, virtually all of the overshoot and inflation relative to our target was due to used car prices. And I can tell you as Fed vice chair that I was not keen to throw people out of work because used car prices were going up.

[00:40:30] And so I think, myself and my colleagues over time began to really pay more attention to statistical measures that try to get an underlying inflation. And so, for example, Cleveland Fed produces a number of those measures which must read as does the Dallas Fed.

Nancy Marshall-Genzer:

The trimmed mean, that's fascinating. Henning, I'm going to give you the last word on this question. Various measures of inflation. What do you think? What's your favorite?

Henning Weber:

[00:41:00] Yeah, I mean, maybe a bit of a trivial statement, but if all the subcomponents in the different measures average at 2%, then of course it doesn't matter at all what type of basket we are looking at. But if this happens to be in the long run not the case, then the type of basket and the type of measure of course becomes important then you might think that maybe in the green transition we see relative price trends in energy for instance**. [00:41:30]** And I think it's quite important to keep in the long run these longer term trends in the measure that we look at because otherwise we would get quite a bit of distortion of what inflation in fact rises on the side of consumers.

Nancy Marshall-Genzer:

We have time for one more question and this really gets at the news of the day. "Does the 2% target relate to fiscal policy? Will the expansion of the fiscal policy say increasing the debt limit raise the optimal inflation rate?" Who would like to take that one? Richard?

Richard Clarida:

[00:42:00] Well, I think the debt limit is going to get resolved. The old saying, "If you like the meal don't go in the kitchen," but eventually that ceiling is going to get resolved. So I don't see that as being a big deal.

[00:42:30] I think it is important, however, when you're thinking about the recent inflation to, and it's difficult to do this with any precision econometrically, but my own view and I think the evidence is pretty clear that we've had a pretty broad-based inflation surge across most advanced economies, except Switzerland. And if you're trying to look for a cross-country variation in inflation, it's much more correlated with cross-country variation in the fiscal response to the pandemic than it is to the growth in the monetary base. But there is no doubt, it's very intuitive that if you have an economy operating at or close to potential or full employment, then incremental stimulus, whether or not it's coming from money or fiscal is probably going to lead to some inflation.

Argia Sbordone:

[00:43:30] But this would be not a reason why to change the long-run optimal inflation. So what is the discussions is whether, I guess it was Richard thinking of whether the fiscal expansion is being responsible for the growth inflation, I don't know what the question was in particular, not suggesting that the fact that there have been the **[00:44:00]** fiscal expansion could be a reason to reconsider the target. And in particular, I think this expressed the common sense here that any change of inflation target, which is a long-run trend done now under these particular circumstances in which we are, would be detrimental to the whole reputation and credibility of the Federal Reserve.

Nancy Marshall-Genzer:

Yes, you don't want to subject that to the risk of Congress? Henning, did you want to add anything? You get the last word?

Henning Weber:
[00:44:30] Yeah, let me just say, I can think of some work that establishes a very indirect link. So there, I think, is work by Gauti Eggertsson and co-authors who argues that the level of fiscal debt is related to the natural interest rate. And of course, if you get that link then through the backdoor of movements in the natural interest rate, you could also see some effect on the optimal inflation target in the economy. **[00:45:00]** But I think that's not the most direct link to exploit and it's probably not the first thing that comes to mind. Yeah.

Nancy Marshall-Genzer:

Well, we are out of time. I want to thank our panelists, Richard Clarida, Argia Sbordone, and Henning Weber. I want to thank you all and I want to thank everyone for joining us.

Richard Clarida:

Thank you.

Argia Sbordone:

Thank you.

Henning Weber:

Thanks a lot.