

**Transcript**  
**Cleveland Fed Conversations on Central Banking: Wages and Inflation**  
**Federal Reserve Bank of Cleveland, November 22, 2022**

Opening remarks:

**Dr. Loretta J. Mester**, President and CEO, Federal Reserve Bank of Cleveland

Panelists:

**Jan Hatzius**, Head of Global Investment Research Division and Chief Economist, Goldman Sachs

**Sebnem Kalemli-Ozcan**, Neil Moskowitz Professor of Economics, University of Maryland

**Aaron Sojourner**, Senior Researcher, W.E. Upjohn Institute for Employment Research

Moderator:

**Michael McKee**, International Economics and Policy Correspondent, Bloomberg Television and Radio

Chengcheng Jia: Welcome, everyone, to the Cleveland Fed's Conversations on Central Banking series. Thank you all for joining us today. I am Chengcheng Jia with the Cleveland Fed. Today, our topic is wages and inflation. We have an outstanding program today in a short format. We will jump into that in just one moment.

[00:00:30] Before we start, please ensure that you are muted, and your video is off if you are not a presenter. We will have time for questions at the end. So, if you've a question, please put in the chat box for our moderator to consider. We will now turn to Loretta Mester, President and CEO of the Cleveland Fed for our opening remarks. Loretta, the virtual floor is yours.

[00:01:00]

Loretta Mester: Thanks a lot, Chengcheng, and I also want to thank everyone for joining us for this session of the Cleveland Fed's Conversations on Central Banking, and I also want to thank today's panelists and moderator.

So, today, as Chengcheng said, today's conversation is going to center on the relationship between wage growth and inflation and, of course, the Federal Reserve's monetary policy aims to meet our dual mandate goals of price stability and maximum employment.

[00:01:30]

Now, given the high level of inflation, restoring price stability remains the number one focus of the FOMC and we're committed to using our tools to put inflation on a sustainable downward trajectory to 2%. But it's also important to remember that price stability is really a foundational element. It's necessary in order to sustain healthy labor market conditions over the medium and long run. So, I really see our current monetary policy actions as important for promoting both parts of our dual mandate.

[00:02:00]

The FOMC has been raising interest rates, which will bring into better balance demand and supply in both product and labor markets, thereby alleviating price pressures. Wages reflect that degree of balance of labor demand and labor supply and, at this point, labor demand is still outpacing labor supply. If you look

at year-over-year growth in the ECI, the employment cost index, it's still at 5%, which is well above the level consistent with price stability based on estimates of trend productivity growth.

[00:02:30] Why are we looking at wages? Well, wage inflation can be a driver of price inflation. If you think back to the 1970s, oil price shocks spurred higher prices. Then, expectations of inflation rose and that fed into wage offers by businesses and wage demands by workers. And as expectations of inflation continued to increase, that led to still higher wage growth which supported demand and added to price pressures.

[00:03:00] That dynamic has been called a wage price spiral, but I note that a real important component of that dynamic was unanchored inflation expectations. It was the expectation that inflation would continue to rise that drove that dynamic.

[00:03:30] During the last two years, inflation has been high, and wages have been rising, so that's similar, but in most sectors and categories, wage growth isn't keeping up with inflation and longer-term inflation expectations have remained reasonably well anchored. So, the dynamics today are different from the '70s.

The other thing that's going on is the pandemic and its aftermath have led to changes in the labor market. Some of those are cyclical but some of them are structural. For example, early in the pandemic, workers withdrew from the labor market to take care of children and other family members, reducing labor supply, and labor demand also moved down especially in high contact service industries. Now, all that's reversed over the last year, so ...

[00:04:00] So, the increase in remote work and automation, though partly driven by labor scarcity, is likely to be longer lasting and those structural changes have also likely affected wage dynamics. In fact, there's a recent NBER working paper that I would recommend you look at that finds that the increase in remote work has reduced wage growth pressures.

[00:04:30] So, you know, understanding that dynamic relationship between wage growth and inflation and any changes that have occurred in that dynamic during the past few years is really a crucial component of calibrating our monetary policy in order to achieve price stability. So, I'm really looking forward to today's discussion and hearing what our panelists have to say and also the Q&A part.

So, now I'm really happy to turn over the microphone to our moderator, Michael McKee of Bloomberg Television and Radio. Michael?

[00:05:00]  
Michael McKee: Thank you very much, Loretta and, I think this is a very timely event today. I know you think it's probably about you and the Fed, but it is the time of year when people are having their conversations with managers about their wage structure for next year, so hopefully we will all learn something and the

conclusion is I should be paid a lot more. But I promise not to spend it all, so I won't cause inflation.

[00:05:30] We have people who know a lot more about inflation than I do with us today who, a very distinguished panel and let me introduce them. Jan Hatzius is head of the global investment research division and the firm's chief economist. He joined Goldman in 1997. He was named the managing director in 2004 and a partner in 2008. He's the number one ranked global economist in the annual institutional investor global fixed income research team, a position he's held in the global or US category for the past decade. He is also a member of the economic advisory panels of the Federal Reserve Bank of Chicago and the Congressional Budget Office.

[00:06:00] Sebnem Kalemli-Ozcan is the Neil Moskowitz Professor of Economics at the University of Maryland. She's a research associate at the National Bureau of Economic Research and a Research Fellow at the Center for Economic Policy Research. Professor Kalemli-Ozcan has published extensively in the areas of international finance, international development, and applied growth theory. She's the first Turkish social scientist who's received the Marie Curie IRG prize in 2008 for her research on European financial integration. Her current research focuses on real and financial linkages in the global economy and the implications of such linkages on economic fluctuations and growth.

[00:06:30]

[00:07:00] Aaron Sojourner is a labor economist and senior researcher at the W.E. Upjohn Institute for Employment Research. His work focuses on effects of labor market institutions, policies to promote efficient and equitable development of human capital with a focus on early childhood and K to 12 education systems and behavioral economic approaches to consumer financial decisions. He's a wide range of policy experience in consumers, uh, community service. He's a member of the Minnesota State Advisory Council on Early Childhood Care and Education. He served as a senior economist for labor at the President's Council of Economic Advisors. He's a research director at the institute, a research fellow at the Institute of Labor Economics, a visiting scholar at the Minneapolis Federal Reserve Bank and a fellow of the Roosevelt Institute.

[00:07:30]

The way our program will work today is that each panel member will give a short presentation and then we will open it up to Q&A. I will have some questions to get things started but hopefully you in the audience will overwhelm me with so many different questions that we will run out of time before we get to ask them all. Please put them into the chat function on the Zoom box so that I can see them, and I will try to ask as many as possible.

[00:08:00] Since I've been doing this in the order that the Cleveland Fed listed everyone, I will turn to Jan first and ask him for his presentation on wages and inflation. Jan Hatzius?

Jan Hatzius: Thank you so much. I will talk about wages and inflation but let me start with just where we are on the risk of recession is obviously very closely related to this.

[00:08:30] The consensus view among forecasters according to the most recent Wall Street Journal survey is a recession starting in the next 12 months the median probability is 65%. We're at 35%, so definitely more than an average year, which is maybe 15%, but well below consensus.

[00:09:00] Now, what's the, the dominant story among people who are forecasting a recession is that the labor market is very overheated. Therefore, wages are growing way too fast. Inflation is way too high and, in order to bring wage and price inflation down to mandate consistent levels, uh, you're going to need to see a large loosening of the labor market, a sizeable increase in the unemployment rate, and a sizeable increase in the unemployment rate is likely

[00:09:30] to trigger a recession or you could perhaps say, is basically the, the same thing as a recession.

[00:10:00] Now, why do we disagree with that logic? I would say the first point is that, while we agree that the labor market's overheated, the overheating in the labor market is really related to excessively high vacancies as opposed to excessively high levels of employment.

[00:10:30] If you just look at total US labor demand, you stack on top employment and job openings, employment isn't at a level that looks particularly excessive. Basically, the same level as where we were in the stronger parts of prior cycles immediately before the pandemic, but job openings are clearly at unprecedented levels. So, bringing down labor demand to more sustainable levels, there, there is a path, and that path is to bring down job openings. That, in fact, is what's currently occurring. We are seeing sizable declines in job openings.

[00:11:00] There's an official series, the so-called JOLTS series which has been pretty noisy, though with the downward trend over the last several months, but there are also timelier private sector measures of job openings which continue to trend down pretty sharply, and I would say, I'm pretty high confidence that JOLTS is going to be coming down in coming months as well.

[00:11:30] You can also cross check the signal from job openings by looking at related measures such as quits looking at private sector quits here. Also, moving in the, the right direction. Still at high levels but coming down pretty meaningfully.

[00:12:00] I would say specifically on wages, I've also been encouraged by the indicators that we've seen on wage growth in recent, in recent months. It's true that the employment cost index has only decelerated very slightly but that's a quarterly indicator. It's not as timely as other indicators such as average hourly earnings. Average hourly earnings has composition effects in the calculation. If you see sizable changes in sectoral employment, that can have an impact on average hourly earnings growth, which is why we calculate a composition adjusted version of average hourly earnings that's clearly been slowing. And if we look at monthly wage surveys including a number of surveys published by various

[00:12:30] Federal Reserve Banks, there's also clearly been a deceleration there.

So, my takeaway is that the labor market is adjusting very clearly. It needs to adjust further but it is adjusting in an environment in which the unemployment rate has not increased and in, in my view, does not need to increase by a large amount for the labor market to get back into better balance.

[00:13:00] Now, the other point I would make is that there are a couple of very important drivers of this inflation that don't even require a sizable loosening of the labor market that are, that are somewhat independent of the loosening of the labor market that I am seeing.

[00:13:30] On the good side clearly, we're seeing a move from very substantial energy price inflation to energy price disinflation or even energy price deflation if you look at what's likely to happen to the year-on-year change in gasoline prices. It's very likely to go negative in 2023 as we basically cycle the big increases in oil prices that occurred especially earlier this year in the wake of the, the Russia-Ukraine war.

[00:14:00] If you look at core prices, also clearly were on track for some pretty sizeable price decline in areas such as used cars and other consumer durables and a lot of that really is driven by the end of the supply constraints or at least the loosening of the supply constraints that drove up prices sharply earlier in the year.

[00:14:30] On the service side, I would mainly point out the shelter disinflation that appears to be very clearly in the pipeline shelter, rent, an owner's equivalent rent, obviously some very important components of the consumer price index and the PCE index that they have been pushing the core numbers sharply higher in 2022 but leading indicators are pointing towards the substantial amount of disinflation. Surveys on the left-hand side of this chart. This is the national multi-housing council apartment market tightness index, which has had some leading indicator properties for, for rents recently and is pointing towards a significant amount of disinflation.

[00:15:00] On the right-hand side, you can look at median asking rents in this case by a form called apartment list. There are a number of these kind of measures that are also pointing towards disinflation in rents over the coming year. This is going to take longer to show up, but I would say that the, the indications that rent inflation is going to come down over the next year are now very strong.

[00:15:30] Then last point came up briefly, previously, of course, uh, long-term inflation expectations remain very well anchored and that is going to make it easier, in my view, to bring inflation back down and put it on a path back to 2%.

[00:16:00] So, what's our forecast for headline and core inflation? Here you have headline inflation, headline CPI on the left, core PCE on the right. I'm showing it out to the end of 2024, and we basically have both of these indicators go back to about 3% by the end of 2023 and then back to about two-and-a-half percent by the end of 2024.

[00:17:00] In that environment, you might ask the question if you're pretty optimistic about inflation coming back down, are you dovish on Fed policy? The answer is we're not particularly dovish. Our view is that we will need to see, and the committee is likely to decide to deliver additional rate increases at a slower pace with a 50 basis point hike at the December meeting and then three more 25s in the early, first three meetings of 2023 in an environment in which the economy continues to expand, though at a below trend pace of about 1%. Thank you very much.

Michael McKee: Thank you, Jan. And now we will turn to Sebnem Kalemli-Ozcan for her presentation. Sebnem?

Sebnem Kalemli-  
...:  
[00:17:30] Thank you very much again and I would just like to start, uh, by saying, uh, since currently I am at advisory board of New York Federal Reserve and Bank of International Settlements and the results I'm going to present here also product of joint work with colleagues at Federal Reserve Board and New York Federal Reserve. These are our views and do not present the views of, of institutions.

[00:18:00] So, I would like to talk about wages and inflation but I would like to take a step back and really go back to the pandemic and give you a narrative for the last two years because I believe to understand what is going on now for instance, in the inflation that is going to come down and how different factors are playing and you really need to understand what happened in the last two years in terms of what is different from 1970s.

[00:18:30] Yes, there are similarities to 1970s, but this has been a very, very different shock and a very different posed response played out at the sectoral level. The sectoral look is extremely important here. And unfortunately, if we just look at aggregate data like the one Jan is showing, just for the US, it is going to be extremely difficult to put the pieces together and tell when this is going to end and what the monetary policy should be doing.

[00:19:00] So, we start with COVID. It started a negative supply shock of this leading lockdowns, then many other things. Remember the negative oil prices and all that? But again, I, please do not look at this as just an energy shoe because it is not. And at that same point, demand shock was relative. We structured pretty much all the countries, from services to goods and that does lead to also pandemic itself and many other things.

[00:19:30] This next level, of course and with demand stimulus. Many countries reacted to this shock as seeing huge increase on unemployment with big stimulus packages. So, now, what we are doing is you are already mess up supply chain disrupted world because of the original negative supply shock.

[00:19:30] Then, you are two but charging these relative demand changes like increasing durable good demand and still in an environment where service has not improved with that huge demand stimulus. Result, of course, worsening supply chain disruptions as we see in throughout 2021, inflation, and, during the

recovery, we do what we are waiting to in 2022, inflation persisting because of the now service inflation increasing because now services start to be covered.

[00:20:00] Then, you have this thing playing out. These types of supply demands imbalance at the sector level playing out in the global network. Then, it becomes very clear how we connect labor market, wages, and inflation because when these whole thing plays out in a global network here in this slide, you see on the left global network in terms of trade for countries, right? Countries like US, light blue is less open, dark blue island, more open, but what is important is what the figure on the right. These are the domestic linkages that is true for every country. Not only connecting dark red trade group sector like electronics but also construction, wholesale, and retail.

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Now, when you in, a region, the pink, red figure inside the blue figure, it becomes very clear that that the story sectoral and when certain things like go to shortages, that is going to affect labor because labor market and intermediate inputs are connected to each other, through complementary it is and through this network.

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So, very simple picture in this world is going to tell you inflation is not just going to depend on aggregate demand, how much aggregate demand is increasing through money supply increases, fiscal stimulus and all that but, more importantly, these labor changes, these labor shortages. So, you can see here in this inflation equation, I have the network, global network rated labor change and turn to the negative sign. What does it mean?

[00:21:30]

So, you have any sector where there is a labor shortage, that's going to show up as inflationary and that sector can be linked to other sectors through this intermediate input usage. So, the story is very much a segmented labor market where intermediate inputs and labor connected to each other and depending on what is happening in what sector, we can be in this for quite a period of time and the way we are going to see it in the aggregate data is as wage growth.

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You can see this in the figure. We start at point A, you ... The, before the pandemic. Now, labor supply shifts in during the pandemic. Labor demand can go down originally but of course wages are rigid. Wages cannot go down, but wages can go up, meaning you are going to observe this unemployment issue originally at point C and during recovery, of course, what happens? You recover labor demand but now, because labor supply not recover, you are at point D. So, unfortunately, you cannot go back point A and point D you see there is wage growth and still at the same time, you can have slack and tight labor markets with figures only for one sector at the same time in the economy, which is going to give you a lot of stubborn inflation.

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Here is my final slide. We use this global macro network model to decompose demand and supply drivers of both, US, and Euro area inflation. This is the world we live for this year, European Central Bank's Sintra conference in June 2022 and you see that we are going to use 45 sectors for Euro area on the left, 66 sectors

[00:23:00] for US on the right, and what you see is the [inaudible 00:22:56] observed inflation at the end of 2021. Why? Because we don't want to get into Russia-Ukraine war, which gives you yet another supply shock. Even before the Russia-Ukraine war, you can see on the left in Euro area, 5% observe inflation in blue, comes only 3% from demand and 2.8% comes from the supply side and this is not just energy, but this is all these sectors' supply shocks.

[00:23:30] Now, when you look at the US, 9% observe headline inflation in US, easily matched by our model is going to be only 6.3 deliver [inaudible 00:23:30] aggregate demand that was huge stimulus we could decide, and you can see that three-percentage point in purple is going to be driven by supply-side factor. This is very important because always is coming down from nine to two, six to two versus coming down from nine to two is a bit different than coming down six to two. Then knowing that that three comes from the supply side and with extra sectoral supply side that can go up immediately explains why we are in this, why goods and services interacting with each at different times keeps as wage growth and the labor market tightness that is taking a long time to ease up. Thank you very much.

[00:24:00]

Michael McKee: Thank you, Sebnem. Now, let's turn to our final panelist here, Aaron Sojourner. Aaron, up to you.

Aaron Sojourner: Thanks for having me and I've wanted to associate myself. I, I think Jan's and Sebnem's comments were both really insightful and I agreed a lot with especially Jan's analysis of the prospects from here. I do want to put up one sort of factor that he didn't talk about much. Which is that, you know, over the pandemic, profit rates in companies have grown a lot faster than labor costs and consumer price inflation has been sort of in the middle. So as far composed of, of both of those things.

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[00:25:00] If you look at, from the last pre-pandemic full quarter you can see profit, the trends going into the pandemic. Here is the last full pre-pandemic quarter. It's normalized to a hundred and then you can see profits on a unit basis for each sort of dollar, real dollar of value added by the company. It's up about 32%.

[00:25:30] Consumer prices are up about 13% and labor costs in the private sector are up, you know, less.

[00:26:00] So, it's true that wages and labor compensation make up a big part of the costs of production and have a, a big influence on, on prices. But there's also profits happening in the background, and, to me, a big question is how do we promote competition, how do we get more vigorous competition in product markets to create downward price pressure, how do we get more vigorous competition in labor markets? Honestly, to create upward pressure on wages. I know the Fed and if you care about as price stability this has, is a double-edge sword but you know, we don't want to lose consumer wage and worker's wage gains. Those have real benefits for people for the broad majority of people and so the question becomes, and this is outside of the Fed's purview to a large extent.

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[00:27:00] This is in the hands of everyday people and entrepreneurs and investors and elected officials. But how do we create an economy with more vigorous competition, with more supply, with more productive capacity so that we're not stuck on this steep part of the supply curve where things are inelastic and everything's priced absorbed into prices and we can see sort of an expansion of capacity and productivity instead.

[00:27:30] There have been some investments made at the federal level through fiscal policy. I think that will pay off hopefully in the longer run. They don't address immediate needs but, maybe they help with expectations for the future in terms of infrastructure and moving towards more resilient energy and less volatile energy price system based on green energy.

[00:28:00] So, I think, you know, to me that's the big question is how do we as an economy, move towards more vigorous competition that pulls these profits towards consumers and towards workers and bring them into line is a big question.

[00:28:30] A second question is I think the public health risks remain a big wild card in the economy. It's a, a source of harm in families and communities and uncertainty in disruption for producers.

[00:28:30] The pandemic caused a surge. This is a trend in the number of employees who have missed an entire week of work mainly due to their own illness, injury, or medical problem due to childcare problems or other personal or family obligations and shows that over the last 12 years or so.

[00:29:00] And where you can see is it's sort of just above a million for a long time and then the pandemic hit and it's gone up to ... And it's followed you can see the Omicron wave there. It spiked up to four million. It's still elevated. It's still elevated by about .4 percentage points of the total number of employees in the economy.

[00:29:30] So, every week about a half a percent of employees are missing work and that's putting downward pressure on productivity and it's putting upward pressure on prices. It's not necessarily the main things that's driving the situation, but I think it's an underappreciated factor. And we have a lot of, maybe a million Americans who suffered some sort of disability or debilitation from symptoms of long COVID. We have and that's based on, on very good research by economists at Stanford and MIT and so, you know, this is a negative supply shock that we need to figure out how to keep those people engaged with the economy and

[00:30:00] productive and we need to prevent harm over the coming winter.

[00:30:30] You know, we have, we're facing this flu RSV and COVID tripledemic possibility here. Rates are rising in, in a few states now very quickly. The public health response has been quite meager this could be a source of real disruption in families and business operations over the next five months or so.

So, I'll stop there. Thanks.

Michael McKee: Thank you very much, all three of you for great presentations. We have a  
[00:31:00] number of questions from the audience, and I've got a few of my own.

One of the questions that came in sort of fits with a question that I wanted to ask about sort of an underlying measure here. So, I'll make it as sort of a two-part question.

[00:31:30] My question was and I think I'll put it to Jan first is in your research and in what you were discussing you were using both CPI and PCE. The Fed's target is based on PCE, and we see a great wedge between the PCE numbers and the CPI numbers these days.

So, what would be your preferred metric if people out there want to track what is happening with inflation and the response to the Fed's actions. Which one would you use? And then the second part of the question is one from somebody in our audience that says, "Oh, why not just use the money supply as a former Fed chairman did?"

[00:32:00]

Jan Hatzius: I would use PCE, I think, partly because that's the Fed's target. But partly also because I think it is a better index, all things considered, in particular because the shelter weight in CPI is so enormously high and of that shelter weight basically three quarters 30% of the core CPI is owner's equivalent rent which is a price that nobody pays. It's a very problematic measure of owner-occupied housing costs. There are not great alternatives. I think they are, but it is a very problematic measure and because PCE is based on a much broader concept of consumption, a much broader basket that somewhat brings down the importance of rents and especially owner, owner's equivalent rent so I have a strong preference for using PCE.

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Normally, it doesn't matter a whole lot because CPI only runs a few tenths above PCE. Right now, CPI is running almost two percentage points above PCE, so it matters quite a lot but, but PCE is the, the measure to use.

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The money supply, I mean, I certainly don't think that the money supply is inflation. Sometimes one hears that the money supply sort of is a measure of inflation. I don't agree with that. I think the prices are inflation and whether the money supply is an important input into one's inflation forecast I think that that depends on the situation, and it depends on the episode. It doesn't play a huge role in my own thinking about inflation, but I certainly wouldn't ignore it but it's an input. It's certainly not an output.

[00:34:00]

Michael McKee: Thank you, Jan. A question for Aaron. Has worker/employer inflation dynamics changed in the pandemic in a way that will continue? President Mester, this is part of our question from one from our audience, talked about the impact of remote working. We have not really seen a case coming out of a recession where there was such a shortage of workers available because of the pandemic itself.

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So, does that dynamic change the way that we will think about wage increases in the future?

Aaron Sojourner: Yeah. I think that the pandemic it's still hard to tell what's permanent and what's transitory in the labor market as well as inflation. But my assessment is that we had a lot, we had the intersection of three things that pushed a lot of people out of the labor force for good, I think, especially older Americans.

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So, we have this demographic bulge for baby boomers who are on the margin, who are close to ... We had, so we had a disproportionate number of people who are close to retirement an age and were thinking about it. We had a big run up in asset prices and real estate prices over the last decade that put some, some of them, not all of them but a good chunk of them in a pretty good financial position and when you're about that age, you're kind of at the height of your asset holding because you worked your whole career and you haven't spent down yet. So, that made a big difference for them.

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And then the, the pandemic happened and there was this disproportionate health risk that really affected older American or older people around the world but other Americans in particular. And so, a lot of people said, "Well, my kids need help with care. You know, it's more dangerous than I bargained for to be working right now. I have some options given my savings." I think a lot of people stepped out and it wasn't like early retirement early. It was more like accelerating late retirements, people in their late 60s and 70s who had been working just like, "I'm done," you know.

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And I think it's going to be really hard to get a lot of those people to come back. So, I think there is a persistent shift. It's really an acceleration of a trend that would happen anyway. But it's here now.

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In terms of remote work and options, the pandemic really forced every organization to do all the investments and every worker to do all the investments that they could in operating with maximal efficiency remotely, forced everybody to that extreme. Now they've made those investments and making their organizations work as best they can at high degree of remoteness.

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It's not, we're not going to stay there but we have, like, new options that we didn't have before and that's not going away and we're going to see a lot more hybrid and remote and I think overall that's really good news and I think that does create downward pressure on wage growth because workers value flexibility. That's one thing and so they might ask for flexibility and some operations might be able to offer it and that might substitute for wage growth.

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The other thing is that all of a sudden, there's all these local labor markets where a worker and a firm have to match locally. That's gone. Now, they can match nationally or globally and so you can get much more efficient matches and a much bigger labor market where you don't, you're not restricted to a small set of partners to match with.

[00:38:30] And that's going to be great. I mean, that doesn't really shift bargaining power, but it should raise productivity because you can find better matches now. So, I think that also will increase productivity and ease inflation and wage pressures.

Michael McKee: [00:39:00] Sebnem, I want to go back to one of the graphs in your presentation. We have moved from A to D in terms of the wage rate and we know that wages are sticky and they're not going to go back down again, but is D in a sort of a large, amorphous sense where we're going to stop now? In other words, have we reached the end of the idea that I have to pay up for workers? Is the pool of workers who are going to respond to that marginal increase in wages shrinking enough that employers can now say, "This is my wage rate, and I don't want to take a chance on losing customers because I keep raising prices and maybe others are not raising wages and prices as much." In other words, what happens to D going forward here?

Sebnem Kalemli-...: [00:40:00] Yeah. No. This is very important. This, again, goes back to these sectoral shifts, right? So, that, that deep one, that wage growth is about demand/supply imbalance, right? So, it will go down. It's not that, I mean, it's when I said wages cannot go down, that's the starting point in, at the end of 2019. Right now, we have this excessive wage growth. So, think this as a coffee shop, very similar to a coffee shop related to energy but it is happening in the labor markets. Why it is happening in labor markets is because now the demand for services is high and unfortunately, there is not enough labor to match that demand. I mean, this is exactly why I believe Governor Powell always says, "We need to give a chance for supply to catch up with the demand." And since Federal Reserve cannot do anything on the supply side. They cannot do anything on the supply side. They have to bring down that labor demand and the way to bring down that labor demand is to bring down consumer demand for service.

[00:40:30] When that happens, obviously now and even the supply doesn't improve, you are going to have downward pressure on the wage growth. So, of course, it would have been great if supply improved so we didn't, we wouldn't be in this position, and this goes back with trends that are permanent today.

[00:41:00] Everything is still transitory, and I really want to highlight that. This is just transitory playing out on a two-year time frame because we shift the economy to growth, and we shift back the services. Everything is a cost-push shock here. Everything is transitory in that sense but first we observe that the price will fell some. Then, we are observing with the price of restaurant workers, which is basically the wage growth in the services sector.

[00:41:30] The key here is the segmented labor market. When we originally fired people from restaurants because there was low demand, they couldn't go and produce your laptop computers, Peloton bikes or all these things we needed and, of course, that's how the pressure build up. Then, we increase that with this huge demand for services sectors that kept increasing the wage pressure.

[00:42:00] So, it is going to come down but, the key is demand because that's only how you know, Federal Reserve have power to affect. So, it is definitely going to come. That's exactly this early indication is now we are seeing. We started seeing on the good side because there is less demand for durable goods now and now next, we are going to see on the services side. Once we see the demand also for service coming down, that wage growth at any price linked to wage growth is going to come down.

[00:42:30] Now, this is very important because, remember, we talk about in expectations being anchored, right? What do we know? What do we teach our students? Long ground's persistent, like stable inflation is only when these expectations going to be the anchor. If expectation's anchored, how on earth we getting this wage growth, right? Normally, the expectations are anchored. We shouldn't get that. The reasoning is, instead of wage price wider, we are leading the price wage spiral. Why is that? Because everything started with the prices on durable goods and now trickling down to the wages through the service sector basically because these things are connected. So, I think it's very important to understand that, in this world, we can have both price wage spiral, wage price spirals because of the connection between use a job into medium goods which are goods and labor together and the shift in the consumption demand, across these sectors.

[00:43:00] So, that's what. We are living and it's going to take some time but at the end it is going to come down and that's, in a way, feeding to price index expectations, which is why we don't have this deanchored expectations problem.

Michael McKee: We have a lot of questions from the audience but we're kind of running out of time here but let me see if I can sneak a couple more in quickly. Jan, there's an old saying in the computer business of garbage in, garbage out and do you have a lot of economists working with you who spend them time modeling and I'm wondering, given the unique nature of this pandemic, how much confidence do you have in your forecasts that inflation will fall and that say the process that Sebneem was just describing, will happen as it has happened in the past. This relates to a question from somebody in the audience who is asking, "What are the possibilities of a downside surprise, a very quick drop in inflation that would change the dynamic for the Federal Reserve?"

[00:43:30] Jan Hatzius: Well, our forecast is the more gradual decline but obviously there are risks on both sides of that. I mean, in 2022, certainly, numbers have generally come in higher and so we've been revising up all forecasts. We try to catch up but, when we get those signals, we balance our, our models and hopefully, that puts in a place where surprises could come on either side.

[00:44:00] I think there's a very strong case that inflation will come down and, in fact, we are seeing wage inflation come down. We're seeing inflation, price inflation generally come down more clearly in some areas than in others but I think we've now moved from that being a forecast to being a reality but there's still a lot of uncertainty around the speed with which it will come down and I do think that

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the errors around economic forecasts, which are always sizeable, are more sizeable than normal and you control that certainly if you look at average forecast errors around individual data releases or around kind of quarterly and annual paths. Take the consensus forecast or the projections by Federal Reserve officials and generally the, the errors are larger than normal. I suspect that's probably still going to be true for, for a while but I do think that the direction is down.

Michael McKee:

Well, we have reached the end of our time period, so I'm going to have to cut it off here and unfortunately, we aren't going to be able to get to everybody's questions but save them because the Cleveland Fed will continue doing these conversations on the economy and on inflation. Like to thank them. I'd like to thank our panelists, Sebnem Kalemli- Ozcan, Aaron Sojourner, and Jan Hatzius for joining us today and thank you to the Cleveland Fed and the Center for Inflation Research for hosting us and on behalf of Bloomberg and myself, have a great day.

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