

**Transcript of Fed Challenge 2021 Winner Q&A: Pace University
November 10, 2021**

LAURA SHIPLEY. I'm going to read -- oh, here she comes right now. I'm going to read the team ID we have for you. If you could verify that it's correct. We have 202100138656.

GISELA RUA. Good morning, everyone.

LAURA SHIPLEY. Good morning, Gisela. How are you?

GISELA RUA. I had some issues connecting.

LAURA SHIPLEY. Totally understandable. I'm going to read the team ID one more time just in case people need to jot it down. It's 202100138656. Great.

Advisors and spectators, please mute your lines and do not show yourself on video. I think we are all set there. Teams, are all your presenters ready to go? And they're present. Great. Please do not have any school identifiers behind you in the WebEx. I think we're good there. A few rules before we get started. If you're not part of the team presenting, please mute your line and don't show video. When you're not speaking, it is a good idea to also mute your line so that we can sound or hear the people clearly that are speaking. We are recording today's session. You can have your slides up if you like. But the presentation should not have been updated with data since the economy is essentially locked in when you submitted that on October 8. You may verbally reference updated data. This is not going to help your team or hurt a team score that does not do the same. In a few minutes, we'll start a timer, and I believe Robin is going to be our timekeeper today. She's going to say "two minutes" when we reach the two-minute mark and then "end" verbally. This may interrupt your sentence, but you can listen out for it, and please allow it. Jose, can you verify that we're recording?

JOSE ACOSTA. Yes. This session is being recorded.

LAURA SHIPLEY. Great. Thank you. And I know all the judges have the common questions from the last two days. So now we'll give the judges a moment to introduce themselves. Let's see. Let's see. Maxim, do you want to go first?

MAXIM PINKOVSKIY. Sure, of course. My name is Maxim Pinkovskiy. And I am an economist in the Research and Statistics Department at the Federal Reserve Bank of New York. My research is primarily in microeconomics.

LAURA SHIPLEY. Thank you. We'll let Gisela go next.

GISELA RUA. Hi, I'm Gisela Rua. I'm an economist at the Fed Board, and I'm at the Division of Research and Statistics.

LAURA SHIPLEY. And Martin.

MARTIN LAVELLE. Hi, I'm Martin Lavelle, economist with the Chicago Fed based in Detroit. And a large chunk of my work goes to the Beige Book submission from the Chicago Fed.

LAURA SHIPLEY. Great. And thank you again, judges, for your time today. Students, are you ready to go? Great. Judges, are you ready to go? Okay. When Robin starts -- or sorry -- yeah. Robin, when you start the timer, she'll say "go" and then the judges can start with your questions. Good luck today.

ROBIN CAPPETTO. Okay, everybody. Time to start.

MAXIM PINKOVSKIY. Excellent. So, here's the first question. The FOMC announced at its November meeting that it will start reducing the pace of its assets purchases. Can you just give us your team's thoughts on that decision, whether that decision was appropriate given the macroeconomic conditions and the outlook at the time? What are your views on what the cost and benefits would be if the tapering were done more quickly or more slowly?

CHRISTOPHER BECK. So, in December of 2020, the Federal Reserve came out with an outcome-based forward guidance that stated the Federal Reserve would begin tapering their large-scale asset purchases when they met substantial further progress on their dual mandate of maximum employment and price stability. And first, looking at our maximum employment side, in April of 2020, we saw the U-3 unemployment rate at a high of 14.7 percent. And we now currently see it in the month of October, it fell down to 4.6 percent. And looking at our price stability side, the Federal Reserve has a flexible average inflation targeting, stating that when we see inflation persistently below the Fed's 2 percent longer-run target, the Federal Reserve will aim for inflation above that target to average 2 percent in the long run. And while we are currently seeing higher than expected inflation, a lot of this is because we see a pent-up demand from, you know, from fiscal stimulus and from being at home all these months. And we also see supply chain bottlenecks currently affecting inflation. So, we do believe that the Federal Reserve is right in stating that they have met their substantial further progress for both inflation and maximum employment, which is the reason why we agree with their decision to begin tapering at their November meeting.

YUWEI LIU. And just to quickly follow up on my colleague's point on the maximum employment mandate, the Fed judges its maximum employment mandate, which is the highest level of employment that can be sustained without generating excess inflation. The Fed assesses this mandate with a range of indicators. So, in addition to the unemployment rate, we're also seeing a high level of job openings for unemployed workers. That indicates labor demand has been strong. So, this is another reason that we have seen substantial further progress on the maximum employment mandate. And it is -- therefore, it is appropriate to begin the tapering process.

FIONA WATERMAN. And to address the second part of your question, it could be appropriate for the Federal Reserve to taper at a faster pace if they do see that inflation or employment -- the other side of their dual mandate -- is not in line with their substantial further progress or is deviating from their perceived path that they thought. So, if inflation, if the supply chain bottlenecks are more persistent, if inflation expectations becomes unanchored, this could threaten the dual mandate, so the Federal Reserve would need to taper faster. On the other hand, if the economy reverts and the Delta variant becomes more of a problem, then it could be appropriate for a slowing of these asset purchases.

GISELA RUA. Thank you.

MAXIM PINKOVSKIY. Thank you very much.

GISELA RUA. So, I'll turn to the second question which is about your inflation outlook. In its November statement, the FOMC said that inflation is elevated, largely reflecting factors that are expected to be transitory, as you mentioned. Supply and demand imbalances are related to the pandemic and the reopening of the economy have contributed to a sizable price increase in some sectors. So, can you describe the most important factors affecting your inflation outlook in the near term and in the longer term?

FIONA WATERMAN. Yeah. So, inflation has currently, as you've mentioned, it's been elevated. It is -- the Fed's preferred measure of inflation year over year, PCE Price Index, is currently at 4.4 and the core PCE Price Index is at 3.6. So, when looking at these measures, it's important to keep in mind how inflation is actually calculated, because last year we saw, due to the measures taken to control the coronavirus, severe reduction in purchasing, and this affected prices. So, the year-over-year part, the base effect, is contributing to the higher inflation. This

base effect will go away once we are out of that year-over-year period. It's important to keep in mind right now.

KATE FONG. Adding on to my colleague's point, I think for my near-term and long-term inflation outlook, I definitely think the prevalence of the supply chain bottlenecks is extremely important. So, as you mentioned, we saw supply chain bottlenecks due to producers' inability to respond to the quick demand that we saw from the reopening of the economy. But according to President Daly, I think it's important to note that transitory doesn't necessarily mean quick to recede. It means unlikely to persist when COVID is past us, unlikely to persist when the supply chain bottlenecks have moderated. So, depending on whether these supply chain bottlenecks persist throughout next year, I think this will give us great indication of how inflation will look in the longer term as well as near term as well.

CASEY CLOUTIER. That's a great point, Kate. It's also important to mention that we're also seeing a lot of inflation on the demand side as well. So, during the pandemic, we saw a lot of consumers pull back on spending for certain goods and services because of the high contact environment during the pandemic and fears of the pandemic as well. So, as we recover from the pandemic and vaccine rollout continues, we're seeing elevated prices in goods and services such as airlines and hotel prices. So, as mentioned by Chair Powell in his press statement after the most recent November FOMC meeting, we expect that as the economy returns back from a good-based economy during the pandemic to a service-based economy as we were before the pandemic, these price increases in goods should begin to fall as consumers begin to spend more on services again.

CHRISTOPHER BECK. Exactly, Casey. Another indicator that we could look at for near-term and long-term inflation views is inflation expectations. So, in the near term, we are

seeing elevated inflation expectations by consumers, but in longer-run inflation expectations that are market-based and survey-based, we are seeing that inflation expectations are well anchored around the Federal Reserve's 2 percent goal. And since we've seen a flattening of the Phillips curve, it actually puts less weight on the unemployment gap when looking at future inflation but puts more weight on inflation expectations in measuring actual inflation. So, as I mentioned before, the survey-based measures and market-based measures are consistent with the Federal Reserve's mandate of a longer run 2 percent goal. But as mentioned by Chairman Powell, the Federal Reserve will not hesitate to react -- to act if we see that longer-run inflation expectations become unanchored in the future.

YUWEI LIU. Exactly, Chris. And as mentioned by President George, another factor that contributed to inflation in the near term is a change of relative prices. We're seeing that currently, the economies experience some structural changes in which the U.S. economy is used to be a service-based economy. But because of COVID, people avoided services and started buying more durable goods. So, we're actually seeing now with the reopening of the economy, we're transitioning from a good-based economy back to a service-based economy. And theoretically, we're going to see inflation in the goods sector falls and in the service sector rise. However, in reality, prices and wages are sticky, so that the fall in the goods sector may not come so fast while the service sector inflation is rising. So overall, in the near term, we're going to see relatively higher inflation. However, as this allocation process proceeds, in the longer term, I expect inflation to fall again. In fact, we're actually seeing the month-over-month measure of inflation in the goods sector to be falling, further proves my point that the reallocation process is ongoing. And in the longer run, inflation should fall back to its normal level.

GISELA RUA. Thank you.

MARTIN LAVELLE. Great discussion. [Inaudible] -- on anchor inflation expectations. Do you think it's the -- what's going on with the supply side as far as supply chain bottlenecks and the factors associated with those? Or is it on the wage side with, as you just mentioned, with sticky wages? What's the bigger threat to unanchoring inflation expectations? And then -- that might, unfortunately, lead to a loss of confidence in that inflation target the Fed has?

YUWEI LIU. I'm sorry, I think you cut off in the first part. Is it okay to repeat the question?

MARTIN LAVELLE. Oh, sure. Sorry, I swear I'm not being affected by the Xfinity, whatever it is going on. But maybe it's leaking over. So, what do you think the biggest threat is to unanchoring inflation expectations? Is it what's going on in the supply chain side? Or is it on the wage pressure side with the potential for sticky wages?

CASEY CLOUTIER. Sure, so when looking at the equation which says that the price inflation is equal to the change in real wages minus the growth in productivity, we're seeing that the growth in productivity, as of the most recent measure which was released on November 4th, we're seeing that productivity is below -- is currently below real wages. If we're looking at PCE inflation to adjust for these real wages, we're seeing productivity below. So, this means that we could potentially see some kind of inflation factored into it because we're seeing these real wages rising above productivity levels. However, if we look at the CPI index to calculate our real wages, then we're actually seeing productivity above this level of real wages. So, this would not, in fact, factor into the price inflation. So, it's also important to note that productivity is highly volatile and can change as new indicators are released. So, this has high potential to change in the future. So, it's likely that wages at this moment in time are not so much factoring into prices as much as other factors.

YUWEI LIU. I believe what my colleague was trying to say is that the firms are being -- the equation goes like the growth in nominal wages is equal to the gains in productivity plus inflation. So, if we're seeing nominal wages to increase persistently and materially above the growth in productivity plus inflation, then firms are going to likely to pass on these increases to consumers. Then that will lead to a wage-price spiral. However, currently, we're seeing real wages still below the growth of productivity. That means firms are unlikely to pass on these increases to consumers.

CHRISTOPHER BECK. Exactly, Yuwei. And to bring up your second part about supply chain bottlenecks, this is a big concern right now to, not only the Federal Reserve, but also to businesses as well. We have seen institutions stating that they believe that these supply bottleneck disruptions could be persistent until 2023. We're seeing that these -- we are seeing supply shortages and this pent-up demand combined is leading to higher prices in the economy for lumber, for new cars, for used cars because of the supply chip problems that are global. And while we are seeing that we are recovering strongly from the COVID pandemic and we're seeing vaccination rates pretty high, globally, they're still pretty low in vaccination rates, which could affect supply chains for longer than expected. And when consumers see that they're paying more for these goods that they used to pay less for, they're going to factor this into their longer-run inflation expectations which could potentially unanchor them in survey-based measures. So that's another potential thing that we need to keep in mind and the Federal Reserve needs to keep in mind when looking at the future path of inflation.

YUWEI LIU. And in addition, going back to the price side. If firms are consistently seeing higher inflation in certain category of goods, they may further increase their precautionary demand for those goods and further exacerbate the increase in prices. So, we definitely think that

the price side of inflation that we're currently seeing is a further threat to sustain inflation in the future.

MAXIM PINKOVSKIY. Great. So, I have another question. A few days ago, Congress passed the bipartisan infrastructure framework which most likely will be soon signed into law. This will add 1.2 trillion to the economy over a period of years. How does this change your forecast and monetary policy recommendations?

ROBIN CAPPETTO. Two-minute warning.

FIONA WATERMAN. Yeah. So, increase in government spending, according to GDP, government spending is a part of GDP. So, this will likely increase output into the economy and further sustain the development or the progress in the economy towards recovery. So, keeping in mind that monetary policy does not have a say in fiscal policy and cannot dictate fiscal policy, but it should keep fiscal policy in mind when making monetary policy decisions. So, this may, the Federal Reserve may need to keep an eye on the economy, keep an eye on inflation, their dual mandate of maximum employment and price stability with how this fiscal package is going to play into that. And they may need to adjust their pace of tapering in response.

CHRISTOPHER BECK. Exactly, Fiona. And bringing up that part on inflation, some might believe that with this large government spending package that we might see inflation increase. But there has -- but they have stated that while we will see increased government spending, this will likely span over the span of one to five years. So, we won't see this increase right now, which can help supply chain bottlenecks temper down a little bit before we see this large increase in government spending on infrastructure and roads and, you know, railroads. And it could also help productivity as well, you know. People can move to places with more jobs, and it can help the overall economy as well.

GISELA RUA. So, we have very few – oh, go ahead. Oh, okay, so I'll ask a quick question. I think we have one minute. Can you tell me quickly about monetary policy? And what's the role of monetary policy in achieving a stable financial system?

ROBIN CAPPETTO. I'm sorry, that's time.

GISELA RUA. Oh.

LAURA SHIPLEY. No worries. And I know we experienced a tiny bit of buffering there. We did add time to the end just to make up for that, so you didn't lose any time there.

Thank you, again, for all your time today and your participation in College Fed Challenge. You should have received an invitation for the winner's announcement on November 19 starting at 2:30 PM Eastern Time. We have programming from 2:30 to 3:00, and then we'll be delivering the results. So please do tune in. A press release will also announce the winners that day, and winning video presentations and Q&A sessions will be uploaded to the Board's website after that announcement. After that time, we will also be in touch with all the teams from the Q&A sessions to supply you with your video the week after the 19th. On behalf of the Economic Education Team at the Board, thank you for competing in the College Fed Challenge, and have a great day. And thank you, judges.

SEVERAL PARTICIPANTS AND JUDGES. Thank you very much. Thank you very much. Thank you. Have a great day, guys. Have a good day.

MARTIN LAVELLE. Your presentation was really strong by the way.

GISELA RUA. It was very good.

MARTIN LAVELLE. I just want to say that.

SEVERAL PARTICIPANTS. Oh, thank you. Yeah. Thank you very much. Thank you.

MARTIN LAVELLE. I'm going to steal a couple things if that's okay.

CHRISTOPHER BECK. Hey, that's okay.

SEVERAL PARTICIPANTS. That's fine. That's fine. Thank you very much. We appreciate that a lot.

MARTIN LAVELLE. Yeah, have a good day.