THE BROOKINGS PODCAST ON ECONOMIC ACTIVITY

"How bad will the economy get before inflation gets better?"

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Episode Summary:

While President Biden has officially declared the COVID-19 pandemic "over," America now faces a new challenge in the form of an overheating economy and high inflation, and the prospect of a Federal Reserve-induced recession is looming. In the latest Brookings Podcast on Economic Activity, David Wessel, director of the Hutchins Center on Fiscal and Monetary Policy, spoke with Laurence Ball of Johns Hopkins University about his new paper, "Understanding U.S. inflation during the COVID era." In the study, Ball and his co-authors find that the Fed may need to push unemployment higher than its 4.1% projection to return inflation to the 2% target.

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EBERLY: I'm Jan Eberly, James R. and Helen D. Russell Professor of Finance at Northwestern University.

STOCK: And I'm Jim Stock, Harold Hitchings Burbank Professor of Political Economy at Harvard.

EBERLY: We're the coeditors of the *Brookings Papers on Economic Activity*, a semiannual academic conference and journal that pairs rigorous research with real time policy analysis to address the most urgent economic challenges of the day. This is the Brookings Podcast on Economic Activity.

In this episode, we're presenting a conversation between David Wessel, director of the Hutchins Center on Fiscal and Monetary Policy at Brookings, and Larry Ball, a professor of economics at Johns Hopkins University. Larry is one of the authors of a new paper on U.S. inflation during the COVID era.

STOCK: The past six months have seen tremendous rises in the cost of living. CPI inflation is currently running around 8%, causing significant problems for consumers, firms, and financial markets. Perhaps the most pressing question facing macroeconomists today is how high does the unemployment rate need to go to bring inflation back to the Fed's 2% target?

EBERLY: Answering that question requires understanding the sources of the currently high rate of inflation, which is the problem tackled by Larry Ball, Daniel Leigh, and Prachi Mishra in their recent Brookings paper. Doing so requires some econometric sleuthing in the data, and they uncover some interesting observations along the way that are relevant for these very unusual times.

STOCK: And spoiler alert: According to the authors, the news is not good. But judge for yourself as you listen to David Wessel's conversation with Larry Ball.

WESSEL: Thank you, Jan and Jim. I'm David Wessel of the Hutchins Center on Fiscal and Monetary Policy. And today I'm speaking with Larry Ball of Johns Hopkins University about his recent paper, "Understanding U.S. Inflation during the COVID era," which is coauthored with Daniel Leigh and Prachi Mishra. Larry, thanks for joining us. So, in this paper, you very carefully dissect the reasons that inflation has been running at a 40-year high, 8.5% between July 2021 and July 2020. And you distinguish between increases in the underlying inflation rate—economists call it core inflation—and very industry specific or supply side issues.

So, I'm going to walk through your calculations because I think a lot of people are wondering why do we have so much inflation? But I'd like to start by defining a few terms. So, when you say core inflation, what do you mean? And why are you choosing a definition different from the one we most commonly hear about, which is the prices of everything except food and energy?

BALL: Headline inflation, which is the 8.5% inflation that's in the news, fluctuates a lot from month to month. If you look just at the monthly level, annualized headline inflation in June was 17% and then in July was actually slightly negative. And this, of course, reflects the big run up in oil prices and then a decrease in oil prices. And so, headline inflation is very volatile. Economists think that headline inflation is fluctuating around some relatively stable underlying or core level, which depends on expected inflation and on slack or tightness in the labor market. And in studying inflation, economists spent a lot of time trying to isolate this underlying trend level, in part because we think that gives us an idea of where inflation is heading in the future.

So, there's a question of how do we measure this underlying or core measure of inflation. As you mentioned, since the 1970s, the standard measure has simply been the inflation rate excluding food and energy prices. So, the idea has been just throw out the volatile food and energy sectors to get a measure of core underlying inflation. And sometimes that works pretty well. Again, in recent months, we've seen fluctuations driven by energy prices, and taking them out gives you a smoother measure of inflation.

But we've learned that there can also be big shocks to the economy and other sectors besides food and energy, which cause volatility in headline inflation. And that's been very clear during the pandemic.

So, going back to the beginning with the shutdowns, we had huge decreases in airfares, hotel prices, things like that. Then huge rebounds in those sectors. In 2021, we had the big run up in used car prices, the other price spikes due to supply chain problems. And those have caused volatility in headline inflation and just taking out food and energy doesn't take out hotels or airfares or used car prices.

So, what we need is some measure of core inflation that filters out big price changes in any industry. And one simple measure, which has been around since the 1990s, developed at the Federal Reserve Bank of Cleveland, is the weighted median inflation rate. And the basic idea is to look at the distribution of price changes across industries and take the one in the middle. And this measure has the property of medians, that it's not strongly affected by outliers. So if you have 100% inflation in one industry, that would have a big effect on the mean price increase, which is the normal measure of inflation, but it would be filtered out by the median. So, long story short, this Cleveland Fed weighted median measure gives us quite a smooth measure of underlying inflation even during the pandemic.

WESSEL: I see. So, it's not that headline inflation is irrelevant. Obviously, people are buying a big market basket of goods. Some go up and some go down. It's that the reason we look at core inflation is because we want to get some sense of what's the underlying rate of inflation in the economy, because that's pretty important, particularly to the Federal Reserve, right?

BALL: Yes. I mean, that's what the Federal Reserve can influence. That arguably gives us a better idea of where we're going in the future.

WESSEL: Okay. So when we look over inflation over the past 12 months, how much, by your calculation, is accounted for by this measure of core inflation and how much by all these other weird things that have been going on in the economy?

BALL: Well, both of them have been important, first of all. The tightness of the labor market, the labor shortage, has pushed up core inflation. And then we've had these oil price increases, crazy changes in used car prices, and so on. So, both an increase in core inflation and these what we call headline inflation shocks have been important.

One subtlety is that these things do interact. So, one thing we find is that over time headline inflation shocks get passed through into core. So, if oil prices jump up, for example, and that raises headline inflation, it also raises costs of firms throughout the economy, and that gets passed through broadly into prices. Also, when headline inflation goes up, real wages go down, and that leads to pressure for wage increases, which gets passed through inflation.

Quantifying the different roles is a little tricky and depends on what time period you're looking at, because the importance of labor market tightness and its effects on core inflation have been rising over time. So, in the paper we do a decomposition of the 8.5% inflation rate that you mentioned, which is over the last 12 months. And there, only about 1 percentage point of that is explained by tightness of the labor market and its effect on core inflation. So, these headline shocks are really the dominant problem.

But if you look just at recent months, if you look just at July at annualized inflation, then 3 or 4 percentage points of inflation are explained by the tightness of the labor market and its effects on core inflation. So, over the last year it's been mainly headline shocks, but right now and probably looking into the future, the tightness of the labor market, that the high ratio of vacancies to unemployment that I expect we'll talk about, that's become really a primary problem.

WESSEL: Yeah, let's talk about that. So, conventionally economists and newspaper reporters look at the unemployment rate, when it's low as it is now, they say the labor market is tight. And when it's high, they say the labor market is not tight. But in your paper, you say that maybe that's not the best measure. And in fact, it was watching that measure that led people to misunderstand what was going on with the economy. So, talk a little bit about what happened, what did we get wrong and why is looking at job vacancies a better measure?

BALL: So, that's exactly right. So, going back to Phillips, who invented the Phillips Curve in the 1950s, economists have used the unemployment rate as a rough and ready measure of slack or tightness in the labor market. And of course, at the beginning of the pandemic, the unemployment rate went way up. It then has come down, but still, the unemployment rate in recent months has been pretty close to what it was before the pandemic, when we didn't think that there was a tight labor market raising inflation.

So, I think that the number one mistake, which most economists—I mean, there were a few people who were either prescient or lucky, and said the economy is overheating. But for most of us and the Federal Reserve, in retrospect, a key mistake was saying, oh, well the unemployment rate is more or less at a normal level, so there aren't any big underlying inflationary pressures, it's just these transitory shocks that are going to go away.

Researchers, including Jason Furman and Larry Summers and others over the last couple of years have pointed out that that we need to look not only at the unemployment part of the labor market, but also at job vacancies. And I think we quite quickly moved towards thinking that if you want a simple, rough and ready measure of tightness of the labor market, it's the ratio of job vacancies to unemployment, sort of a supply/demand type thing of how many workers are looking for jobs, how many job openings are firms trying to fill.

And as soon as you look at that variable—the ratio of vacancies to unemployment—you get a radically different view of the labor market because that ratio is has been close to 2, almost two job openings for every unemployed worker in recent months. And that's the highest it's been since we have data back to the 1950s. So, by that measure, the labor market is very, very tight.

And if we had gone in the last couple of years using that as our measure of labor market tightness, everybody, including the Federal Reserve, would have seen much more quickly that the labor market was overheating.

WESSEL: So, if you look at this government data that shows us how many jobs are open, how many job vacancies have been posted, and you compare it to the unemployment rate, if the Fed had

been watching that in 2021, do you think they would have moved to raise interest rates sooner to head off the inflation we're having now?

BALL: Absolutely. Yes. In general, it's clear that everybody, including the Federal Reserve, could get in a time machine and go back a year or so ago and redo history, they would raise interest rates more quickly if people knew what was coming at it. But more specifically, if we had been looking at this vacancy/unemployment ratio, the Fed would have seen signals of inflationary pressures much earlier.

WESSEL: Now, a lot has been said about the impact that President Biden's Stimulus package, the American Rescue Plan, had on inflation. So, in your paper, you do some calculations about how much less inflation we'd have today if that bill hadn't passed. So, how big an impact did that have?

BALL: So, that had an impact. So, the channel is that the stimulus spending contributed to strong demand in the economy and that presumably contributed to firms wanting to hire more workers and a rise in this vacancy/unemployment ratio. We actually did not directly look at that. We take estimates from other studies of how much the American Rescue Plan raised the vacancy/unemployment ratio. Given those estimates, we use our inflation equations to ask how much higher is inflation than it would have been if there had been no American Rescue Plan. And the numbers we get—again, it's quite sensitive to the time period you look at; if we think about the 8.5% inflation over the last 12 months, just about 1 percentage point of that is explained by the American Rescue Plan in our back of the envelope calculations.

However, again, if you look just at the current, at the most recent months, it's 2.8 percentage points and it's growing over time. So, at the moment and looking forward, that's a major factor causing the inflation problem.

I hasten to say that there were benefits of helping to restore full employment, and we don't take a stand on the cost benefit analysis, but there does seem to be significant effect on inflation.

WESSEL: Right. By that you mean we had less unemployment because we had the American Rescue Plan and we have more inflation. And that's a policy choice, and we won't really know until we see how hard it is to wring inflation out of the economy, whether it was a good move or not.

If I understand what you're saying correctly, there are a lot of one off factors—COVID-related supply chains, energy prices, and all that—that were responsible for a lot of the inflation we had over the past year. But where we are now and looking forward, it's much more of these fundamental forces, an economy in which demand is simply stronger than the capacity of the economy to supply it. So, that suggests that containing inflation is going to require substantial slowing of the economy and an increase in unemployment. Is that what you expect?

BALL: Well, if we think that the vacancy/unemployment ratio is the key variable, then controlling inflation will mean reducing that ratio. Now, the vacancy/unemployment ratio, there's a good way that ratio can go down and a bad way it can go down. The good way is that job vacancies go down while unemployment stays low. And this has been hotly debated. So, Governor Waller of the Fed has written about his view and the view of some Fed staff that indeed it's possible with the right amount of tightening to reduce overheating in the sense of job openings going down but without unemployment changing very much. So, we can have the much dreamed of soft landing.

And other people, Olivier Blanchard and Larry Summers, have very strongly argued that that's unrealistic, that that historically slowing down the economy means that vacancies go down, but also unemployment goes up. We discussed this in the paper. And the way we put it is by looking at the

so-called Beveridge Curve, the relationship between unemployment and vacancies in the economy. That relationship has worsened during the pandemic.

WESSEL: So, what is the Beveridge Curve and what does it measure?

BALL: So, the Beveridge Curve, you can think of it as a graph where the variable on one axis is the unemployment rate and the other axis is the vacancy or job opening rate. And it's downward sloping because as the economy gets stronger, there are more and more job openings and fewer and fewer unemployed workers. And as the economy gets weaker, you move in the other direction with more unemployment, fewer job openings. The position of the Beveridge Curve is generally interpreted as capturing the efficiency of the labor market at matching unemployed workers and vacancies.

So, saying that the Beveridge Curve has shifted out, which is what's happened during the pandemic, means that we have unemployed workers and vacant jobs who somehow are having more trouble than usual finding each other and getting matched. You have for any given level of vacancies more unemployed workers, which then has the policy implication that to reduce the ratio of vacancies to unemployment you're going to need substantially more unemployment.

WESSEL: And do we have any idea what policies can move the Beveridge Curve in the desired direction?

BALL: So, that is a great question. The obvious thing that comes to mind is some kind of active labor market policy. If there is some way for the government to have programs that help workers to find jobs or provide job training or somehow improve the matching process, that's maybe easier said than done. That might be one policy area to think about.

WESSEL: Right. So, basically there seems to be something going on in the labor market where there are a lot of job openings, but they don't seem to be connecting with the people who are looking for jobs. That's what the Beveridge Curve shift is. And so we don't really know is this some permanent change in the economy because of COVID and all the stuff that's going on or whether this is just one of the things that will revert to what is more normal pre-pandemic. But, Larry, you have a view on do you think it's possible to bring down the number of job vacancies and have this much-sought soft landing? Or do you think that Blanchard and Summers are more likely to be right, or do you not have a view?

BALL: I certainly don't have a strong view. And, you know, in our research, we sort of give a menu of different scenarios. One tidbit—there actually was a newsletter that came out from Goldman Sachs that pointed out that among workers who are counted as unemployed, the percentage that said they were actively looking for work in the sense of filling out job applications or having job interviews, that that was low. So, the interpretation is that unemployed workers are not looking as hard for jobs as they usually do. Which would explain why unemployed workers and job openings don't get matched up as quickly. And of course, that might be resolved if people still have money in their checking accounts because of their stimulus payments or unemployment insurance. Maybe that's a reason why you're not looking as hard, but maybe eventually that money will be spent and we'll go back to normal. That's all very, very speculative.

So, this is maybe the number one unknown about why the Beveridge Curve has shifted out. Will it shift back? What we do know is that the unemployment/inflation trade off would be much more benign if we go back to a normal unemployment/vacancy relationship than if we don't.

WESSEL: At the time we're talking, Larry, the most recent projections from Fed policymakers, the ones they issued in June 2022, suggested that by raising interest rates they can get inflation as measured by the one index they use down to 2.2% in 2024, but with unemployment rising somewhat, but only to about 4.1%. Do you think this is overly optimistic?

BALL: Well, it is certainly quite optimistic. So, as I mentioned, we look at different scenarios in our paper with different assumptions about the Beveridge Curve. And also the other key factor is inflation expectations. So, there have been signs of inflation expectations rising a little bit and it's very unclear whether that's a little blip which is going to be reversed now that it's clear the Fed is pushing back against inflation. Or on the pessimistic side, maybe we're seeing a trend towards a de-anchoring of expectations.

Anyway, so the Beveridge Curve and inflation expectations are the two big unknowns. If you make quite optimistic assumptions, not crazy, but quite optimistic assumptions about each of those things, you can sort of make the Fed story work that we'll have a soft landing. But you need a pretty close to best case.

The analogy that always occurs to me here is if you're rooting for a baseball team and saying that they have a chance to win the pennant—well, if their big stars keep playing well, and the guys who had an off year last year bounce back, and the rookies are good, well, then they have a shot, and all those things are possible. But you need several things to go right. And probably it's not the most realistic scenario.

WESSEL: So, it's a better chance that the Fed will get a soft landing than the Washington Nationals will make the World Series. But it's not a sure thing.

BALL: Yeah, that's a low bar. Yeah.

WESSEL: So, Larry, one final question. The last time we had a really bad bout of inflation in the early 1980s, Paul Volcker was the chair of the Fed. He pushed interest rates way up into the double digits to bring inflation down. It worked, but it took a very deep recession. Unemployment peaked at nearly 11%. So, how would you see the similarities and the differences between that episode and the one we're in today?

BALL: Well, the big difference is inflation expectations. So, inflation expectations have been quite anchored at the Fed's target for the last 20 or 25 years, that the Fed has established a track record of keeping inflation near target, and when it deviates, people expect it to go back to target. And that gives a substantial self-correcting feature to inflation and reduces the costs of controlling inflation.

Now, again, we have in the last year or so seen some worrisome signs of expectations de-anchoring somewhat. But we're still a long way from the 1970s, where we had high inflation and high inflation was deeply embedded in expectations. And Paul Volcker really needed to cause a very deep slump to push inflation down below the high expected level and eventually to have expected inflation fall.

So, given that we don't have anything like the entrenched expectations of high inflation that we had in the '70s going into the early '80s, it's quite likely that the costs of getting inflation under control this time will be smaller than they were then. Of course, that's a that's a low bar. We still could have a substantial increase in unemployment necessary.

WESSEL: So, Larry Ball, thank you very much for your time today and especially thank you for taking such a hard look at a question which is really the one that's on the minds of a lot of people today, like how the heck did we end up in this situation with so much inflation?

BALL: Well, thank you very much. I really enjoyed working on the project and the chance to be involved with Brookings.

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STOCK: I'm Jim Stock, Harold Hitchings Burbank Professor of Political Economy at Harvard University.

EBERLY: And I'm Jan Eberly, James R. and Helen D. Russell Professor of Finance at Northwestern University. We're the co-editors of the *Brookings Papers on Economic Activity*, and this has been the Brookings Podcast on Economic Activity. Thanks to our colleagues for this great conversation, and be sure to subscribe to hear more discussions with BPEA authors.

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