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## **Going the Distance on Inflation**

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**FEDERAL RESERVE BANK OF CHICAGO**

The views expressed today are my own and not necessarily those of the  
Federal Reserve System or the FOMC.

# Going the Distance on Inflation

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## Introduction

Thank you for the introduction. I'm very happy to be here in person after quite a long year and a half. Before I begin my comments, I should note that these views are my own and do not necessarily represent those of my colleagues on the Federal Open Market Committee (FOMC) or others in the Federal Reserve System.

I've had the privilege of regularly attending FOMC meetings for nearly 20 years—first as director of research and for the past 14 years as president of the Chicago Fed. During that long span, the economy has faced significant challenges—the dot-com bubble, the uncertainties of 9/11, the Great Financial Crisis, and now the Covid pandemic. Each situation presented unique difficulties that we monetary policymakers grappled with in pursuit of our dual mandate objectives.

The challenge I want to discuss today is one I never would have suspected dealing with when I first started going to FOMC meetings—that we have not been able hit our inflation target on a sustained basis and that for the past 15 years those misses have been because inflation has been too low, not because it has been too high. This comment may seem a bit odd to you, given the surge in prices we are seeing currently. But it is precisely because the policy response to today's events is so important that I want to talk about this topic today.

Before we turn to that discussion, I'd remind you that the primary reason for these inflation shortfalls is the fact that—for a variety of well-known reasons—the equilibrium real rate of interest, or  $r^*$ , has fallen to historically low levels. In a low  $r^*$  world, the effective lower bound (ELB) on nominal policy rates presents asymmetric risks to inflation that, under our old policy framework, led to a downward bias in inflation, as well as downside risks to attaining our full employment mandate.

Last year the FOMC adjusted its long-run strategy to emphasize that monetary policy should seek inflation outcomes that average 2 percent over time and acknowledged the desirability of allowing for periods of overshooting 2 percent inflation.<sup>1</sup> The European Central Bank (ECB) also recently adjusted its longstanding goal of seeking inflation below but close to 2 percent. It now aims for symmetric 2 percent inflation and will allow for periods of overshooting. Both central banks noted that the challenges that low  $r^*$  presents were key factors in moving to their new monetary policy strategies.

An obvious question to ask about the Fed's new framework is: How much overshooting is really being contemplated? Today's combination of accommodative policies and sharp price increases due to supply bottlenecks heightens the importance of this question. Does the strong imprint these factors are leaving on inflation today satisfy the overshooting criteria contemplated by the FOMC? Many have said yes, but I'm not so sure. To answer that, we need to consider what the overshooting is trying to achieve. The new long-run framework is pretty specific here—overshooting is aimed at anchoring

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<sup>1</sup> Federal Open Market Committee (2020c).

long-run inflation expectations at 2 percent in order to enhance the Committee's ability to hit both our price stability and maximum inclusive employment targets.

To be sure, inflation expectations are somewhat of a black box. But it seems to me that they are more likely to become realigned with our inflation objective by an intentional policy-generated overshooting of target as opposed to an accidental supply-side-generated spike in inflation followed by a quick deliberate retreat to 2 percent. I would think this latter tactic risks falling short of cementing inflation expectations at 2 percent. So in my remarks today, I am going to argue that the inflation we've seen to date does not yet satisfy the FOMC's overshooting criterion. Instead, we should be focused on producing sustainable inflation that aligns longer-run inflation expectations with our 2 percent goal.

Furthermore, because ELB risk imposes such a substantial inflation-undershoot bias, I wonder if it is possible to average 2 percent inflation over time without a constant long-run aim for inflation above but close to 2 percent. Would explicitly following this approach do a better job of achieving 2 percent average inflation and, hence, more strongly anchor inflation expectations at 2 percent even during episodes at the ELB, as well as during mature expansions? I think such an approach might strongly reinforce expectations at 2 percent.

### **Is inflation sustainable?**

The keyword when discussing today's inflation outlook is "sustainable." Many of us at this conference forecast the economy for a living. After a shocking burst of relative price increases and attention-grabbing year-over-year headline PCE inflation above

4 percent,<sup>2</sup> how many of you see that unacceptably high inflation being sustained into 2023 and beyond? The *Survey of Professional Forecasters* tells me that most of you aren't writing down those kinds of numbers.<sup>3</sup> And it's because most don't expect sustained momentum in inflation.

Well, according to the latest Summary of Economic Projections (SEP), neither do my colleagues on the FOMC. In September, the median SEP projection for PCE inflation in 2023 was 2.2 percent and for 2024 was 2.1 percent.<sup>4</sup> Though one can't be sure from the report what drives the individual forecasts, this anticipated reduction from 4.2 percent inflation in 2021 to 2.1 percent in three years cannot be due to restrictive settings of the funds rate. Looking at the dot plot—that most important and valuable piece of Fed transparency—one can see that even the most aggressive path only has two 25 basis point rate increases next year and the funds rate just returning to near its long-run neutral level by 2024. Because monetary policy acts with a lag, this removal of accommodation likely has only a modest effect on inflation. And the rate path described by the median dots is clearly too low to have much of a restrictive impact. So something else is dragging down the inflation forecast.

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<sup>2</sup> The FOMC's inflation goal is measured by the annual change in the Personal Consumption Expenditures (PCE) Price Index.

<sup>3</sup> Details on the *Survey of Professional Forecasters*, conducted by the Federal Reserve Bank of Philadelphia, are available online, <https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters>.

<sup>4</sup> Federal Open Market Committee (2021a). Four times a year the FOMC releases its Summary of Economic Projections, which presents FOMC participants' forecasts of key economic variables over the next three years and for the longer run. Participants also provide their assessments of the appropriate monetary policy that supports those forecasts.

Could anticipated high unemployment be weighing on projections of inflation? This seems unlikely. The median SEP forecast sees the unemployment rate falling below its longer-run level of 4.0 percent by the end of next year and then to 3.5 percent in 2023 and 2024. With the current unemployment rate at 5.2 percent, this would be a highly welcome development with regard to our maximum employment objective and would support more inclusive labor market outcomes. But it also means that there wouldn't be any downward pressure on inflation coming from labor market slack. Indeed, to the contrary, one would think that such low levels of unemployment would be associated with higher, not lower, inflation rates. How much higher inflation we'd expect is an open question. Most of us used to take as dogma that such low unemployment rates would generate higher or possibly accelerating inflation. However, for more than 20 years, unemployment falling below estimates of the NAIRU has not been a reliable signal of higher inflation.<sup>5</sup> Simply put, the Phillips curve appears pretty flat, so this 1/2 percentage point unemployment undershoot isn't going to produce a lot of inflation.<sup>6</sup>

Strong fiscal policy actions gave important support to the economy during the early phase of the crisis and over the course of the recovery, but on net are unlikely to provide an outsized impetus to growth as we move forward. This is because many of the current payments and programs are behind us, and the future actions currently contemplated by Congress will be spread over a number of years. So, unless you

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<sup>5</sup> NAIRU stands for non-accelerating inflation rate of unemployment.

<sup>6</sup> The Phillips curve is a statistical relationship that describes a negative correlation between inflation and unemployment—that is, lower unemployment is associated with higher price and wage inflation. It is often drawn as a negatively sloped curve that has a measure of labor market tightness, such as the unemployment rate, on the horizontal axis and a measure of wage or price inflation on the vertical axis. See Phillips (1958).

subscribe to an independent role for deficits on inflation, fiscal policy should not be an important factor in the inflation outlook.

Quite importantly, the lower long-term inflation outlook reflects the consensus view that current supply-side disruptions are unlikely to leave much of a lasting imprint on underlying inflation. Markets work, and higher prices will eventually bring forth increases in supply. To be sure, risks remain. As many have noted, the pandemic continues to drive economic developments both here and abroad. Notably, the resurgence in the pandemic could mean sidelined workers do not quickly return to the labor force. And even though the U.S. economy has found ways to power through shockingly high levels of public health distress and deaths, emerging market countries with low vaccination rates and protections may continue to struggle with the pandemic, which could fuel the spread of other variants. This could add to supply-side headwinds. Eventually, though, these disruptions should pass as Covid becomes more manageable both domestically and abroad. The supply chain disruptions we've seen will resolve. It's hard to know the timing of this, but I expect most of the supply problems will be largely resolved as we move through next year.

This brings me to a very important factor in the inflation outlook, especially for 2023 and 2024. The lesson of the inflation of the '70s and '80s—and articulated so well earlier by Milton Friedman and Edmund Phelps—is that to generate higher inflation in the long run, you have to generate higher long-run inflation expectations. We are not seeing that today. Importantly, in my view, the current surge in relative prices due to supply factors is not leaving a worrisome imprint on long-run inflation expectations.

Now, as the minutes to the July FOMC meeting indicated, there is some disagreement on the Committee as to whether long-run inflation expectations currently are in ranges that are consistent with our goals.<sup>7</sup> And several of my colleagues indicated they saw survey-based measures as signaling a risk that expectations could be moving above 2 percent. But I don't subscribe to that view. I think long-run inflation expectations are still likely somewhat below target. Important for me in this judgment is the fact that inflation break-even rates in financial markets over the five- to ten-year horizon are still below the levels we saw in 2012 and 2013—a period when they were arguably better aligned with 2 percent PCE inflation. Let's face it: A ten-year nominal Treasury rate in the range we've seen recently simply can't have a whole lot of expectations of long-run inflation built into it.

I think the FOMC's own actions and communications are playing an important role in restraining long-run inflation expectations. After the Volcker era during which the Fed established its credibility as an inflation fighter, people reasonably expected that the Fed would not allow inflation to exceed 2 percent for very long. This interpretation seems consistent with many policymakers' public expressions over the years of great discomfort at the prospect of inflation above 2 percent, but a more relaxed attitude whenever inflation was below 2 percent. Correcting too-low inflation often invoked talk that modest policy monitoring will eventually solidify inflation closer to 2 percent. But there was no sense of urgency in those communications and little sense of alarm at undershooting the inflation objective.

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<sup>7</sup> See Federal Open Market Committee (2021b, p. 11).



It's almost like policymakers were following the ECB's old policy goal—that is, to aim for inflation somewhat below, but close to 2 percent. This could create a downward bias to inflation, which has now been intensified by the heightened ELB inflation-undershoot risks. So, today, a policy mantra such as “above but close to 2 percent inflation” seems appropriate. Such an approach would naturally mitigate the downward bias by producing inflation above 2 percent during normal times in order to offset the periods of below-target inflation that occur when the economy is at the ELB for extended periods of time.

In any event, our new framework requires some kind of a different operational model than we have used in the past. And today is the first test of our commitment to this new view. It's not surprising that the public may be thinking we have not really changed our ways and will rein in accommodation with the aim of a quick return in inflation back to 2 percent. If so, we have more work to do to convince them this is not the case and that we will tolerate a more sustained inflation overshoot.

Here I have to ask if the median projected SEP inflation path is sufficient to solidify inflation expectations and inflation at our longer-run target. Though the modest overshooting projected from 2022 through 2024 is an improvement, I don't think it is a strong signal of sustainable inflation above 2 percent. I feel we need to go beyond trying to thread the needle by a couple of tenths in order to be assured of a sustainable moderate overshoot.

Taken altogether, I am more uneasy about us not generating enough inflation in 2023 and 2024 than the possibility that we will be living with too much. My concern is that

when the Covid distress ultimately recedes broadly around the world, we will not have been freed from the downward bias on inflation imparted by the ELB.

Of course, the ELB risk would be smaller if  $r^*$  eventually rises. Is this in the cards? I think not. The factors we saw underpinning low  $r^*$  prior to the pandemic still remain, with the possible exception of the larger fiscal debt and borrowing that are clearly ahead of us. But if the rising debt load is boosting  $r^*$ , why is the ten-year Treasury rate so low? Markets see that debt coming, but pricing remains calm. So I don't see fiscal deficits as providing monetary policy with more space.

### **Monetary policy should aim to produce sustainable 2 percent inflation**

What does all of this mean for my views about the more-immediate questions surrounding balance sheet policy and potential upcoming interest rate moves?

For the balance sheet, I see the economy as being close to meeting the “substantial further progress” standard we laid out last December as the bar for beginning to taper our asset purchases.<sup>8</sup> If the flow of employment improvements continues, it seems likely that those conditions will be met soon and tapering can commence.

Future decisions regarding the path of short-term policy rates seem much less clear to me at the moment. Recall that the criteria we laid out for funds rate liftoff are that 1) labor market conditions need to reach levels consistent with the Committee's

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<sup>8</sup> Federal Open Market Committee (2020a).

assessments of maximum employment and 2) inflation needs to rise to 2 percent and be on track to moderately exceed 2 percent for some time.<sup>9</sup>

If unemployment decreases in line with the SEP projections, I would view that as excellent progress and a very good outcome. However, by itself, a low unemployment rate would not dictate a change in policy rates. If not associated with an undesirable rate of inflation, I would be hard-pressed to be convinced that some kind of labor market dysfunctionality, such as widespread unproductive churning, would offset the benefits that low unemployment brings to American households.

For me, I still expect the key dual mandate issue governing liftoff will be inflation—and whether we are on the way to a sustainable level of inflation high enough to offset the downward bias created by the ELB. Now, I know the new long-run framework says our goal is for inflation to average 2 percent over time. And given the surge in inflation we are seeing today, it's easy to pick a reasonably sized time frame over which inflation averages 2 percent.

Some might see this arithmetic as justifying liftoff under our new framework sometime soon. But I do not subscribe to such an approach. Our new long-run framework was deliberately vague on the operational specifics of the period of time over which we were looking for inflation to average 2 percent, as well as the size and persistence of the overshooting we were seeking to generate. But the reason given for these operational tactics was clear: to anchor expectations for inflation over the long run at 2 percent. This anchoring should be the determinative criterion for the path of policy rates going

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<sup>9</sup> Federal Open Market Committee (2020b).

forward—not whether inflation has mechanically averaged 2 percent over some particular time frame. Furthermore, even once we see a welcome rise in long-run expected inflation measures, we still have to follow through on policies that would validate those expectations. Otherwise, we could see expectations falling back, as occurred in 2010, 2011, and 2018. So this will be an important consideration for my policy views going forward.

## **Conclusion**

To conclude, let me circle back to my original question: How much overshooting should we be contemplating? The answer is this: enough to appropriately align long-run inflation expectations with our average 2 percent inflation target, taking into account the likelihood of future visits to the effective lower bound.

I do not think the supply-side-induced transitory surge in inflation we are seeing today will be enough to do the trick. I expect that we will need a period of sustained, monetary-policy-induced overshooting of 2 percent inflation to boost long-run inflation expectations enough to deliver on our mandated goals. Of course, I could be wrong about that, and I will be attuned to alternative data developments. The risks, however, are not symmetric. After all, one can handle an undesirably large overshoot with somewhat higher policy rates, but the ELB constrains what can be done to address undesirably low inflation.

In my view, to anchor long-run inflation expectations at 2 percent, we must be willing to accept inflation reasonably above 2 percent during the expansionary phase of a cycle to offset the underruns that would almost inevitably occur when the economy is at the ELB

for extended periods of time.<sup>10</sup> This would make any conservative central banker uncomfortable, but it is the lesson that has emerged from my 14 years of experience on the FOMC.

Perhaps this is why I am drawn to operationalize our long-run framework using a tactic something like aiming for inflation that is above but close to 2 percent. Would this be sufficient? I don't know, but some such change in the mentality of central bankers along such lines would probably go a long way toward more effectively achieving our policy goals in an economic environment permeated by the risks of the ELB.

Thank you.

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<sup>10</sup> By removing the deflationary bias, this strategy raises long-term inflation expectations and makes self-fulfilling disinflationary spirals less likely to occur. By intentionally raising the risk of inflation on the upside, it offsets the downside risk generated by the proximity of the ELB. See Bianchi, Melosi, and Rottner (2019) for an asymmetric strategy.

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