
Going the Distance on Inflation Redux

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Federal Reserve System or the FOMC.

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Introduction

The last time I spoke at a NABE event was in September 2021.¹ At that time we had only begun to see some broadening of inflation beyond items most directly affected by pandemic-related relative price swings. Most forecasters, including myself and many of you in this room, thought the momentum wouldn't be sustained and were forecasting inflation to return near the Fed's 2 percent target by the end of 2022.²

Well, the economic landscape certainly looks different now! In the U.S. and elsewhere around the world, what began as narrowly concentrated shocks to relative prices has spread, turning into broad-based increases in overall inflation to levels far above every central bank's target. Accordingly, monetary policymakers now are significantly tightening policy in order to bring inflation back in line with their price stability mandates. Since March 2022, the Federal Open Market Committee (FOMC) has increased the federal funds rate—our main policy tool—by 3 percentage points. We also are reducing the size of our balance sheet at a relatively rapid clip.

The Federal Reserve is committed to returning inflation to its 2 percent average goal. To do so, I expect we will need to raise rates further and then to hold that stance for a

¹ Evans (2021).

² The median projection in the September 2021 *NABE Outlook Survey* for core inflation in 2022 as measured by the Price Index for Personal Consumption Expenditures (PCE) was 2.2 percent (National Association for Business Economics, 2021). Core inflation strips out the volatile food and energy sectors and is a better indicator of underlying inflation trends than is total inflation.

while. Of course, the exact path forward for policy will depend on the evolution of the economy and risks to the outlook. My talk today will describe my thinking behind this path in more detail, as well as why I think we can bring inflation down relatively quickly while also avoiding a recession.

Before I begin, I am obliged to remind you that the views I share with you today are my own and do not necessarily represent those of my colleagues on the FOMC or others in the Federal Reserve System.

Economic overview

This audience is certainly familiar with the current situation. So I won't spend too much time discussing the incoming data—which as you know have been mixed. Household and business spending have been moderating. Lower real disposable income and a policy-induced tightening in financial conditions are clearly in play, most notably in the very interest-rate-sensitive housing markets, where mortgage rates have about doubled since the beginning of the year.

In contrast, the labor market remains strong, with robust job growth, elevated job openings and quits, and an unemployment rate that is at the very low level we experienced before the Covid crisis. However, over the past few months we've heard more reports from our business and community contacts of reduced job turnover and that some are finding it easier to attract qualified workers. These are signs that some of the unusual strength in labor demand may be waning. Increasing pay and more flexible work arrangements may be part of the explanation, as well as the softer growth in spending. As of yet, these anecdotal reports haven't shown through strongly in the aggregate data, although job growth has moderated some from its extremely rapid pace

and last week's JOLTS (*Job Openings and Labor Turnover Survey*) report contained a notable drop in vacancies.

On the labor supply side, while many workers who left the labor force during the pandemic have reentered the labor market, many others have not, and today labor force participation is still well below its pre-pandemic rate. Most of this shortfall is accounted for by older workers, as the pandemic apparently accelerated the retirement decision for many baby boomers who would have eventually exited from the labor force anyway. Another factor weighing on labor supply is the quite low inflow to the U.S. labor force from immigration.

A strong labor market may still help draw some of those sitting on the sidelines back into the workforce and alleviate some labor market pressure. When I spoke here last year, I expected the labor supply response to be fairly large, but as time passes, I've become less optimistic that this channel will provide much relief from labor market pressures. Indeed, the labor force participation rate currently does not appear far from its long-term trend.³

Policy adjustments needed to bring inflation into line with goal

This brings me to a discussion of what is the principal issue facing the economy in the U.S. and elsewhere around the world—inflation. After more than a decade of missing our average 2 percent target to the downside, PCE inflation has risen quite quickly—

³ After many years of sustained economic growth leading up to the Covid crisis, labor force participation had been higher than demographic and other trends would have predicted.

from under 1 percent in mid-2020 to 6.2 percent in the most recent August data.⁴

Excluding food and energy, core PCE prices rose 4.9 percent over the past 12 months.

Reducing inflation to a level consistent with the Fed's 2 percent objective will require a period of restrictive financial conditions to restore better balance between supply and demand economy-wide. This will generate below-trend growth and some softening of labor market conditions. But ensuring low and stable inflation is a prerequisite for achieving the sustained strong labor market outcomes that bring benefits to everyone in our society.

These broad contours are demonstrated in the FOMC's latest Summary of Economic Projections (SEP), which this audience is undoubtedly familiar with.⁵ The SEP dot plot shows that most FOMC participants are looking at something like another 100 to 125 basis points of rate increases this calendar year, with the median projection for the federal funds rate then rising a bit further to 4.6 percent at the end of next year.

This monetary restraint is clearly showing through in the projection for GDP growth, which the median participant sees running somewhat below its long-run rate over the next year and a half or so before moving back up to trend later in the projection period.

The unemployment rate is projected to rise to 4.4 percent by late next year and then remain near that level in 2024 and 2025. While this does represent a noticeably

⁴ The Fed's preferred inflation gauge is the annual change in the Price Index for Personal Consumption Expenditures.

⁵ Federal Open Market Committee (2022). The quarterly Summary of Economic Projections presents FOMC participants' forecasts of key economic variables over the next three to four years and for the longer run.

softer labor market when compared with today's, these certainly are not recession-like numbers.⁶

As for inflation, with supply-side improvements, restrictive monetary policy, and below-trend growth, inflation is expected to moderate significantly. According to the median SEP projection, total PCE inflation is expected to fall to 2.8 percent in 2023 and eventually return to our 2 percent target by the end of 2025. I should note that my personal forecast is broadly in line with the median SEP forecast. This is also true for many outside forecasters as we see in the *NABE Outlook Survey* that was released this morning, although the NABE survey's median federal funds rate is somewhat below the SEP's median.⁷

Does this forecast make sense?

In sum, the consensus baseline is projecting a large decline in inflation over the next year and a half, but with only a modest increase in the unemployment rate. A pretty good-looking soft landing. Now, we all recognize the substantial uncertainty surrounding the outlook today. But what about this baseline? What rationale can get us there? I can't speak for others, but let me walk you through some of my thinking. And remember this is a modal forecast, and other, less rosy alternatives have a reasonable likelihood of occurring.

I'll begin with some familiar observations about the role that relative price adjustments and supply chain problems played in the rapid increase in prices. The pandemic

⁶ For comparison, the U.S. unemployment rate has peaked at over 6 percent either during or shortly after every recession since World War II.

⁷ The *NABE Outlook Survey* is available online, <https://nabe.com/NABE/NABE/Surveys/Surveys.aspx>.

induced a shift in household spending from services, such as travel or dining out, toward goods, such as appliances for home improvement projects or consumer electronics. Many goods-producing businesses struggled to keep pace with this strong demand, particularly as they faced Covid-related disruptions in production and supply chains. Labor shortages due to a broad-based drop in labor force participation were part of the story, too.

Inflation began to pick up in early 2021 as prices rose sharply for goods that were especially sensitive to supply chain problems and for services that were just beginning to reopen from the pandemic shutdowns. It has taken us time to get there, but today there are a number of signs that supply chain difficulties are improving: Ports are less congested, freight costs are falling, and supplier delivery times are improving. And with the pandemic bounce-back behind us, some heat is coming off items such as airfares and hotel prices.

But all is not well yet. For example, for quite a while, a shortage of microprocessors held back the production of motor vehicles. Well, the chip shortage seems to be largely resolved, but shortages of other parts are now reportedly limiting assemblies. The problems at parts suppliers appear related to difficulties they are still having in staffing production lines. I'm sure we've all heard many other anecdotes that highlight this interaction between labor market tightness and supply chain issues. Save this idea—I'll come back to it in a moment.

Looking ahead, supply chain repair will continue and consumption patterns will normalize; and we may also see some further recovery in labor force participation, though as I mentioned, I think the prospects for this are limited. Admittedly, these

adjustments have taken much longer than I had expected. And disruptions from the Russian invasion of Ukraine and unpredictable Covid-related shutdowns, notably in China, haven't helped. But progress has been made, and more is coming. And the reduced price pressures from these supply-side adjustments are an important factor in my forecast for declining inflation.

However, over the past year or so we've seen a lot more inflation than can be explained by changes in relative prices: We've experienced a broad-based increase in inflationary pressures that monetary policy must address. Without a period of restrictive policy, inflation will come down some, but not to anything near our 2 percent objective. The required monetary response will restrain aggregate demand. An important question then is, how much will this restraint weigh on the employment leg of our dual mandate?

Obviously, the pandemic-era shocks have wreaked havoc on the usual relationships between economic variables and on the models we use to explain them. This has been particularly true in the labor market. Here, though, the unfamiliar patterns point to reasons why our inflation forecast may be achieved with only moderate increases in unemployment.

For example, there is the configuration of the Beveridge curve, where we have seen a marked increase in the vacancy rate observed for any given unemployment rate.⁸ It is possible that as labor demand subsides, we could see a large decline in vacancies and reduced pressure on wages and inflation without a corresponding large increase in the

⁸ The Beveridge curve refers to the inverse relationship between the unemployment rate and the job vacancy rate. A chart plotting the Beveridge Curve from the U.S. Bureau of Labor Statistics is available online, <https://www.bls.gov/charts/job-openings-and-labor-turnover/job-openings-unemployment-beveridge-curve.htm>.

unemployment rate. Indeed, the drop in the ratio of vacancies to unemployment in the August JOLTS report is good news for this hypothesis.

Now, there is a good deal of debate over this topic, and I don't want to wade into that here. Indeed, I have a confession—I've always been more comfortable viewing labor market dynamics and inflation through the lens of the Phillips curve.⁹ Call me a hopeless romantic. Anyway, here, too, I see unusual behavior that suggests we can disinflate without a large increase in unemployment if we navigate the path to a reasonably restrictive policy setting carefully and judiciously.

The rapid increase in inflation we've experienced can be explained by a temporary steepening in the Phillips curve. Conceptually, this steeper-than-usual Phillips curve is due to the unusual interactions between labor market tightness and supply chain problems that I noted earlier—namely, the lack of materials and parts arising from shortages of labor at upstream suppliers. This phenomenon appears to be fairly widespread.

Because of this additional supply chain channel, at recent unemployment rates, labor market stress is having a larger effect on inflation than would typically be the case. These extra supply chain interactions were not an issue when the unemployment rate was around the same low level in 2019, and so we saw less of an inflationary impact from tight labor markets back then. If this steeper-than-usual Phillips curve is generating much of the higher inflation we are seeing now, then we should also expect this steeper

⁹ 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).

curve to help bring inflation down relatively quickly with only moderate increases in unemployment. Steep on the way up is steep on the way down.

Furthermore, I have in mind a nonaccelerationist Phillips curve, in which inflation expectations are not a mechanical function of recent inflation. Today, longer-term inflation expectations are anchored near our target, and so provide an important downward force on actual inflation. So my baseline forecast sees the combination of further supply-side repair, a steeper Phillips curve, and anchored long-run inflation expectations moving inflation back to target without having to generate an inordinate amount of slack in the economy.

This mechanism *does*, however, require reducing the heat in labor and product markets as well as maintaining a downward pull from inflation expectations. This is where tighter monetary policy comes into play. I see the nominal funds rate rising to a bit above 4-1/2 percent early next year and then remaining at this level for some time while we assess how our policy adjustments are affecting the economy. When you factor in inflation expectations and the reductions in our balance sheet, we'll be at something equivalent to nearly a 2 percent *real* funds rate at this time. This is a fair amount of restriction when compared with the 1/4 to 1/2 percent long-run real neutral federal funds rate that is implied in the SEP. But I feel it is needed to facilitate market adjustments by bringing aggregate demand into better balance with aggregate supply and to ensure that long-run inflation expectations remain in check.

Our rapid pace of rate increases has fast-tracked our arrival to such a restrictive stance. Front-loading was a good thing, given how far below neutral rates were. But overshooting is costly, too, and there is great uncertainty about how restrictive policy

must actually become. This puts a premium on the strategy of getting to a place where policy can plan to rest and evaluate data and developments.

Risks and policy communications

There are many risks that could derail this optimistic forecast. And, unfortunately, many of those risks appear to be to the downside: Supply-side repair could continue to move too slowly; events in Ukraine or further Covid-related shutdowns could put additional pressure on costs; and monetary policy may, on the one hand, not rein inflation in enough or, on the other hand, weigh too heavily on employment.

Another risk is that inflation expectations could become unanchored. Inflation will be much more difficult to rein in if households and businesses start thinking outsized increases in wages and prices are the new norm and incorporate those expectations into their decision-making. But the good news is that, in general, measures of longer-horizon inflation expectations have remained within a range that is consistent with our 2 percent inflation objective. This is true in most surveys or in the compensation for inflation that is priced into financial market assets, suggesting households and businesses see the primary drivers of inflationary pressures as being shorter-lived.

These perceptions can change and aren't something we can take for granted. I believe the Federal Reserve's strong policy actions and communications have played an important role in anchoring long-run inflation expectations by demonstrating and conveying our commitment to bring inflation back into line with our 2 percent average objective. The public and markets appear to believe we will be successful. But it is up to us to follow through and do our job.

Now policy communications has many aspects to it. I admit we don't always get it perfect—and we certainly hear from you when we don't! Then again, sometimes we receive criticism about what I see as useful communications. In particular, I know some are uncomfortable with the idea that the Fed provides projections for policy rates in the SEP, knowing that we will certainly see a different path for rates if economic conditions or risks turn out otherwise. Some even say this is a good reason not to provide such projections at all—if you can't tell me the number for sure, why tell me anything? I strongly disagree with this view. Monetary policy is clearly influencing our projections, so what's the downside of revealing how we view its role in doing so?

I know we have had elevated financial market volatility at times over this rate cycle. These are uncertain times, and no communications can—or should—reduce underlying fundamental economic uncertainty. But think how much *additional* uncertainty and costly volatility we would have unnecessarily generated over the past year if we had not augmented our policy moves with guidance about our plans for the ultimate level for the federal funds rate and its expected influence on economic outcomes.

Indeed, even though rate hikes didn't begin until March, the information in the SEPs and other Fed communications likely assisted in substantially tightening financial conditions by mid-year, and did so without the large dislocations in financial flows that have at times accompanied past changes in the trajectory of policy. And given how quickly financial conditions reacted to our policy communications, perhaps we have shortened one leg of the long and variable lags of the monetary transmission mechanism. This seems like a good development.

Conclusion

I realize I may have come off this morning sounding rather optimistic. I don't want to diminish the task in front of us or downplay the difficulties some may experience under the less favorable labor market conditions envisioned by my baseline outlook. And there is a real risk of seeing heavier costs with a larger-than-expected drop in employment.

These are things we must be mindful of.

No matter the circumstances, the FOMC will always set policy with the goal of progressing toward both our dual mandate objectives of maximum inclusive employment and price stability as expeditiously as possible. Today, though, inflation is our primary concern. Reducing it will likely require a sustained period of restrictive monetary policy, below-trend growth, and some softening of labor market conditions. But this is necessary to restore inflation to our 2 percent target. We hope to achieve this goal as quickly and efficiently as possible, leading to a period of sustained price stability and strong labor market outcomes under which all can prosper.

Thank you.

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