EMBARGOED FOR RELEASE AT SPEECH TIME OF NOON CT/1 PM ET

Monetary Policy in a Low Inflation Economy

Remarks by

Esther L. George
President and Chief Executive Officer
Federal Reserve Bank of Kansas City

October 11, 2017
Kansas City, Mo.

The views expressed by the author are her own and do not necessarily reflect those of the Federal Reserve System, its governors, officers or representatives.

Thank you. It's always a pleasure to join you at the Central Exchange.

The U.S. economy has now entered its ninth year of expansion, and labor markets have normalized. Real gross domestic product (GDP) growth has averaged 2.1 percent over the last seven years, and the unemployment rate has fallen from 10 percent in 2009 to 4.2 percent today. Overall, the economy looks to be in good shape.

Despite this positive news, there has been a great deal of attention focused on inflation. Not because the inflation rate is high like it was in the early 1980s, but rather because it is low. Based on the Federal Reserve's preferred measure of inflation—the Personal Consumption Expenditures (PCE) price index—the current inflation rate is running just under 1.5 percent. Of course, this is an aggregate measure of inflation. If a specific component of the consumption basket is taking a greater bite out of your paycheck, such as the rental cost of housing, you might feel inflation is plenty high. On the other hand, you might find that the price of a big-screen television is more affordable. Taken together, this preferred measure of inflation includes a collection of hundreds of different individual prices, gets revised periodically, and doesn't take into account asset price inflation.

Now you may be asking yourself "what's wrong with low inflation?" It's a fair question and one I plan to address in my remarks today. I'll talk about why I believe that, in the context of a growing economy at full employment, low inflation is not a current worry. I'll also review some of the factors that are contributing to soft inflation readings and talk about the implications for monetary policy.

Before continuing, I must tell you that any views I share are wholly my own.

Why the FOMC targets 2 percent inflation

As background, let me explain why inflation plays a prominent role in the Fed's policy decisions. You may know that Congress has given the Federal Reserve a mandate that is spelled out in the Federal Reserve Reform Act of 1977, and it specifies that the Federal Reserve "promote … maximum employment, stable prices, and moderate long-term interest rates." This mandate is often referred to as a "dual mandate" because moderate long-term interest rates are the expected result of achieving the goals of maximum employment and stable prices.

Historically, the price stability mandate was viewed largely in qualitative terms. For example, former Fed Chairs Paul Volcker and Alan Greenspan defined price stability as a state in which expectations of inflation are not a pervasive influence on economic and financial behavior. Over time, however, as major central banks around the world—including, first, the Reserve Bank of New Zealand, then the Bank of Canada, the Bank of England, and the European Central Bank—adopted inflation targets, the Federal Reserve began considering a numerical inflation objective for the United States. Seeing how inflation targets in other countries were viewed to have helped successfully bring inflation down from undesirably high levels and stabilize it near target, many academics and policymakers advocated a numerical inflation objective for the Federal Reserve. This was despite inflation having already stabilized at moderate rates in the United States in the late 1980s and throughout the 1990s and early 2000s.

After several years of debating the merits of an explicit numerical inflation objective, the Federal Open Market Committee (FOMC) adopted a 2 percent inflation objective in January 2012.[1] In its "Statement of Longer-Run Goals and Monetary Policy Strategy," the FOMC stated

[1] See https://www.federalreserve.gov/monetarypolicy/files/FOMC19960703meeting.pdf, https://www.federalreserve.gov/monetarypolicy/files/FOMC20050202meeting.pdf, https://www.federalreserve.gov/monetarypolicy/files/FOMC20070321meeting.pdf, https://www.federalreserve.gov/monetarypolicy/files/FOMC20101015confcall.pdf,

that "inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate."[2]

The Committee chose 2 percent as its objective based on a number of factors. One factor was a consideration of the costs of inflation. When inflation is much above 2 percent, relative price signals get distorted, uncertainty about the future price level increases, and income is arbitrarily transferred from creditors and savers to borrowers. On the other hand, some argue that inflation much below 2 percent also could be costly. For example, when inflation is low, nominal interest rates tend to be low. As a result, there is less room to cut rates in an economic downturn and policymakers could be faced with resorting to unconventional policy instruments when interest rates are at zero, as occurred in 2008.

At the time the target was adopted in 2012, inflation in the United States appeared to be anchored near 2 percent, and many other central banks had adopted 2 percent as either the center of a target range for inflation or as a specific target. In addition, monetary policy was highly accommodative in 2012, with the policy interest rate near zero and the Fed's balance sheet large by historical standards, and growing. This highly accommodative stance of policy caused some concern that inflation expectations could become unanchored and move higher.

While I supported the 2012 decision to specify a 2 percent objective for inflation, in hindsight I think it has proven to be far more challenging than expected both as a communications mechanism and a policy guide. Too much focus is placed on achieving this specific numerical target when, in fact, inflation is likely to fluctuate around that target with

---

https://www.federalreserve.gov/monetarypolicy/files/FOMC20110126meeting.pdf, and https://www.federalreserve.gov/monetarypolicy/files/FOMC20111213meeting.pdf.

[2] See https://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals.pdf.

deviations that occasionally might persist. In fact, the qualitative definition of price stability that guided Volcker and Greenspan rings true today: An inflation rate that does not materially affect the decisions of business or households is an inflation rate that is consistent with price stability. While I still see 2 percent as an appropriate long-run objective for policy, I think it makes sense to evaluate deviations from that objective in a broader context.

The mandate is not as simple as a number

Clearly, the current inflation rate is running below 2 percent and has been for several years. But let's put that in the context of the other leg of our dual mandate—maximum employment. The unemployment rate is currently 4.2 percent, below most estimates of the full-employment unemployment rate, including that of the Congressional Budget Office (4.75 percent), the Survey of Professional Forecasters (4.5 percent), and the FOMC participants' median projection for the longer-run unemployment rate of 4.6 percent.

In addition, FOMC participants project real GDP to grow faster over the next two years than its longer-run growth rate of 1.8 percent, pushing the unemployment rate down further. These projections suggest that the recent, and persistent, softness of inflation relative to 2 percent has not prevented the economy from achieving and, arguably, overshooting maximum employment. Indeed, as recently as last year, the PCE inflation rate less food and energy prices came in at 1.9 percent on a Q4 over Q4 basis. It's only been since February that we have seen a weakening in this measure of core inflation.

Taking the recent performance of the labor market and inflation together, I would argue that the FOMC is, by historical standards, meeting the dual mandate. Yet our policy interest rate remains below FOMC participants' estimate of its longer-run level. Specifically, FOMC

participants have lifted the federal funds rate—our target policy rate—four times beginning in December 2015, with the latest move in June. With these moves, the federal funds rate now stands at 1 to 1¼ percent compared to the FOMC's median projection of the longer-run funds rate of 2.8 percent.

Soft inflation is not an indicator of cyclical weakness

So what is driving this slowdown in inflation? It does not appear that the slowdown is associated with a weakening economy. As I mentioned earlier, the current unemployment rate is lower than many estimates of the full-employment rate, and the economy has been growing faster than estimates of its longer-run trend growth rate. These conditions might normally be associated with rising inflation. That inflation has instead been falling does not, however, appear to reflect slack in labor markets.

Readings from the Kansas City Fed's Labor Market Conditions Indicators (LMCI) support this view.[3] The LMCI looks at 24 different labor market variables and constructs two measures to describe labor market conditions: the level of activity and momentum. The level of activity continues the improvement we've seen throughout this expansion and, except for May and July, it's at its highest level since the end of the recession and is about equal to its level at the end of the last expansion, suggesting tight labor market conditions. The other measure, focused on the momentum in the labor market, has remained at a high level, suggesting strength over the near-term. Among the key variables driving improvement in the level of activity over the last six months were an increase in the quits rate and a decrease in the number of people working part time for economic reasons as a share of household employment. In other words, more people left

[3] See https://www.kansascityfed.org/~/media/files/publicat/research/indicatorsdata/lmci/2017/lmci_091317.pdf.

their jobs for other employment and fewer people were working part-time because they couldn't find full-time jobs. These are favorable signs, but history reminds us that they are unlikely to be sustainable in the longer-run.

Labor markets also show limited slack based on behavior of the labor force participation rate. Demographic trends, particularly the aging and retirement of the large baby boom generation, have been exerting downward pressure on participation in the labor force for some time. However, over the last four years, the labor force participation rate has stabilized, after five years of unprecedented sharp declines that started in the last recession. The steady participation rate in recent years therefore signals that improving labor market conditions have drawn workers from the sidelines and more people are remaining in the workforce. Again, this is not a development that can continue unabated. As the demographic trend reasserts itself, the labor force participation rate will fall, tightening labor market conditions further.

Additional evidence is based on research by economists at the San Francisco Fed who looked at unemployment over the past 100 years.[4] They estimate a hypothetical unemployment rate that is consistent with stable inflation and aggregate production being at its long-run level, based on the relationship between inflation and labor market slack. Going back to 1890, they find that this stable-inflation unemployment rate fluctuates in a relatively narrow range of 4½ to 5½ percent. With today's unemployment rate of 4.2 percent, we are below the low end of this range.

If weakness in the economy is not a cause of soft inflation, then what is? My best guess is that it is a combination of idiosyncratic shocks combined with a number of longer-run changes that are holding down inflation. Examples of idiosyncratic shocks are large declines in the prices

[4] Regis Barnichon and Christian Matthes, "The Natural Rate of Unemployment over the Past 100 Years," Federal Reserve Bank of San Francisco *Economic Letter*, August 14, 2017.

of telecommunications services associated with the introduction of unlimited data plans and one-time downward movements in pharmaceutical prices as various drugs come off patent. Among the longer-run forces holding inflation down are the lingering effects of the appreciation of the dollar and decline in oil prices from 2014. While these forces should now be abating, several structural factors—such as global competition, an aging population, technological change and disruptive forces in the retail sector—may persist. For example, Amazon's purchase of Whole Foods and the expansion of Aldi and Lidl in the U.S. market are disrupting the grocery business and increasing competitive pressure.

These developments, along with the persistence of inflation below target, may also have contributed to inflation expectations settling at a level somewhat less than 2 percent. If so, monetary policy may be confronted with a difficult dilemma. Should policy normalization proceed on a gradual path to avoid overheating the economy? Or would it be more prudent to wait until inflation reaches 2 percent before taking further steps to tighten policy?

Patience is not always a virtue

Recent experience suggests inflation has not been very responsive to labor market slack. Even in the aftermath of the Great Recession, when unemployment reached 10 percent, the inflation rate excluding food and energy prices has fluctuated in a relatively narrow range (roughly 1 percent to 2 percent). In my view, because of the weakness of the relationship between inflation and slack, it would take a considerable overheating of the economy to move inflation more quickly up to 2 percent. Such overheating would, in the meantime, foster a misallocation of resources and risk financial instability as asset prices continue to climb. In addition, there is a meaningful risk that if the unemployment rate fell significantly further,

inflation might move considerably above 2 percent, causing policymakers to tighten policy abruptly. Monetary policy affects the economy with considerable lags such that, by the time we see inflation actually moving up to 2 percent, it may be too late to prevent an undesirable overshooting. This go-stop approach to monetary policy serves to foster uncertainty and too often ends in recession.

I also recall another time when concern about low inflation led to a delay in interest rate normalization. From 2002 to 2006 as the economy recovered only gradually from the 2001 economic recession, the FOMC cut the federal funds rate to 1 percent and held it there for a year. In doing so, the FOMC was responding in part to a concern that inflation was falling below desired levels, with an outside risk of actual deflation. During this period, the real time data on the core PCE price index fell below 1 percent. And in May 2003, the FOMC pointed explicitly to the risk of an "unwelcome substantial fall in inflation."[5]

In retrospect, the inflation data was subsequently revised up, and by 2005 inflation had risen above 2 percent. Arguably, and although not the root cause, the low level of interest rates in this period fostered the financing of asset purchases with short-term borrowing, feeding a buildup of financial imbalances and a bubble in the housing market. These excesses ended with a severe financial crisis and the Great Recession.

To be sure, our understanding of inflation dynamics is imperfect. It is prudent for the FOMC to move cautiously and continue to monitor inflation developments to better understand the causes and consequences of low inflation. In saying this, I recognize the various tradeoffs between maximum employment and price stability and their implications for financial stability

[5] See https://www.federalreserve.gov/monetarypolicy/files/FOMC20030506meeting.pdf.

and sustainable economic growth. On balance, therefore, my judgment is that we should continue to make gradual adjustments to normalize policy rates.

Waiting for solid evidence that inflation will reach 2 percent before taking further steps to remove accommodation carries risks of overheating the economy, fostering financial instability, and perhaps putting in motion an undesirable increase in inflation. Delaying monetary policy adjustments could further tighten labor markets and stretch the economy's productive capacity. The resulting inflationary pressures may build slowly, though they may be difficult to contain once released.

Conclusion

Low inflation, in itself, is not a problem in an economy that is growing and operating at full employment. In such an environment, it is desirable to sustain the economic expansion by avoiding overheating and financial market instability. The best way to do that is to gradually adjust policy rates to more-normal settings. With this approach, it seems reasonable to expect that inflation will gradually rise as labor markets tighten further and the effects of past oil price declines, dollar appreciation, and idiosyncratic price movements fade.