Investment Insights

Inflation Checkpoint: Hitting the 2% Bullseye

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Highlights

- Stable levels of inflation are important for investor, consumer, and business confidence.
- In the U.S., current inflation levels are close to the target set by the Federal Reserve.
- The Bessemer Price Index, which measures inflation trends like those our clients experience, has grown at slightly lower levels than headline inflation so far in 2018.
- Into 2019, we do not expect a material acceleration in inflation, and we expect the Federal Reserve to continue gradually raising interest rates.

Inflation fears have grabbed the headlines two notable times this year. The first was at the end of January and into February, when the U.S. equity market sold off by more than 10% and bond yields rose. The second was in October, when the U.S. equity market declined by over 7% in one week and yields increased.

The common theme of these two market corrections was a fear that inflation was going to rise faster than the market was pricing and cause the Federal Reserve (Fed) to raise the federal funds rate more rapidly than expected to achieve its dual mandate to maintain price stability and maximize sustainable employment.

In this *Investment Insights*, we focus on the price stability directive to gain a better understanding of what it means and why it is important. We also provide an update on global inflation trends as well as the Bessemer Price Index, which is a measure of the inflationary environment that more closely matches the experience of our typical client households.

Price Stability and the 2% Target

Price stability is considered important because it provides a sense of confidence for investors, consumers, and business people. Stable prices and price trends better enable companies to plan for the future. For instance, companies may base employee wage increases on projected inflation rates.

Sharp or unexpected price changes, meanwhile, can wreak havoc on economies, and the Fed is committed to avoiding deflationary and hyperinflationary environments. There have only been a few periods of extreme deflation in the U.S. One of the most famous is the Great Depression, when the U.S. money supply contracted significantly and financial institutions failed. In contrast, Venezuela today is being crippled by hyperinflation. The International Monetary Fund projects that inflation there will reach one million percent by the end of 2018 and rise 10 million percent in 2019. Food shortages are commonplace, and violence has increased.

The Fed has done extensive research on inflation and determined that 2% is the approximate rate at which price stability is best achieved. This target is thought to be symmetric, meaning there is some breathing room on either side. The central bank would become concerned if inflation were "persistently above or below this objective." That said, the explicit decision to have a specific target rate has been openly criticized by some, including former Fed chair Paul Volcker.

What Is Inflation?

Inflation is an increase in prices of goods and services. Deflation represents falling prices. The Fed targets an inflation rate of 2% using the Personal Consumption Expenditures (PCE) index. On January 24, 2012, for the first time, the Fed explicitly stated its target inflation rate in its "longer-run goals and policy strategy." Previously, the Fed was less forthcoming about its inflation target rate; market participants believed the target rate to be around 1.7% to 2.0% at the time. Over the years, this governing body has become more transparent about its policy agenda — today, each quarter, the Federal Open Market Committee (FOMC) publishes its members' projected federal funds interest rates and economic projections in the short to medium term, including inflation. In addition, new Fed Chair Jerome Powell now hosts a press conference after every FOMC meeting.

Inflation Targeting in a Global Context

Most other developed countries have also adopted explicit inflation targets and ranges over recent decades (Exhibit 1). New Zealand's central bank is believed to have pioneered the modern-day concept of inflation targeting in 1990. Most major central banks use their countries' headline consumer price indices (CPI) as their preferred inflation measures ("headline" metrics include all categories of goods and services, while "core" metrics typically strip out volatile elements, such as food and energy prices). The Fed does monitor the U.S. core CPI but prefers to target core PCE, which captures a wider range of household spending.

Hitting the Bullseye

Where does inflation stand today, and how does this compare to history? The U.S. core PCE increased by 1.96% year-over-year as of September 2018. This rate has been hovering around the 2% target rate since March. The core CPI, using a different basket of goods and services to measure overall price changes, increased by 2.2% over the same time period. Exhibit 2 includes a time series of core and headline PCE and CPI. As the chart highlights, business cycles were shorter in duration and inflation was much more volatile until the mid-1980s (the Fed didn't set price stability as a policy goal until 1977). Over the past few decades, inflation has fluctuated around the 2% target rate, with core PCE averaging 2.0% since 1990. Less inflation volatility has helped smooth broader economic cycles.

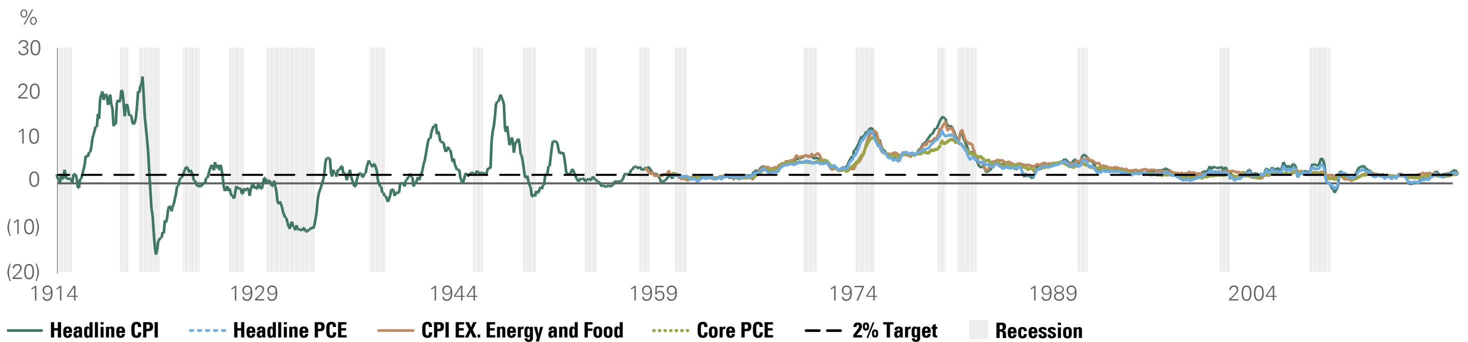
Exhibit 1: Developed Country Central Bank Inflation Targets

Central Bank	Target Inflation Rate/Range	Measure
U.S. Federal Reserve	2%	Core PCE
Reserve Bank of New Zealand	1% to 3%	Headline CPI
European Central Bank (ECB)	Below, but close to 2%	Headline CPI
Bank of Canada	2% target, 1% to 3% range	Headline CPI
Reserve Bank of Australia	2% to 3%	Headline CPI
Bank of Japan	2%	CPI, all items less fresh food
Sveriges Riksbank (Sweden)	2%	CPI, all items less energy and perishable goods
Norges Bank (Norway)	2%	CPI, all items less energy
Swiss National Bank	Less than 2%	Headline CPI
Bank of England	2%	Headline CPI

Source: National central banks

Exhibit 2: Headline and Core PCE and CPI, Year-Over-Year

Key Takeaway: The Fed's price stability goal, established in 1977, has helped to smooth volatility in inflation and lengthen business cycles.



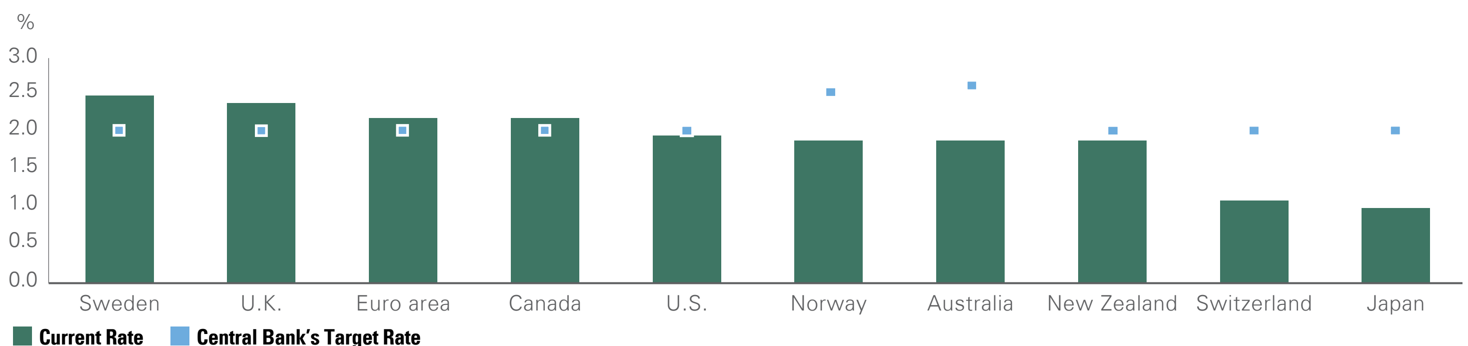
As of September 30, 2018.

Source: Bloomberg, U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

In a global context, the U.S. is one of the few developed economies today to have an inflation rate roughly equal to the target rate (Exhibit 3). The Fed publishes economic projections every quarter. The most recent set was released in September, indicating that the Fed expects core PCE to be 2.0% this year and increase to 2.1% in 2019, 2020, and 2021. Neither the Bank of Japan (BOJ) nor the European Central Bank (ECB) expects its target rate will be achieved in the medium term, according to most recent projections. Specifically, while the euro area's headline CPI rate is currently just above the 2% target rate, the ECB expects it to equal 1.7% for fiscal years 2018 to 2020. The BOJ expects Japan's core CPI rate to be 0.9% for fiscal year 2018 and only slightly increase to 1.6% by 2020. The Bank of England (BOE), on the other hand, is experiencing slightly higher inflation relative to its target rate, partially due to a depreciation in the pound sterling and issues related to Brexit.

Exhibit 3: Central Bank Target Inflation Rates vs. Current Inflation Rates

Key Takeaway: The inflation rate in the U.S. is close to its target level set by the central bank, but this is not the case for many developed economies.

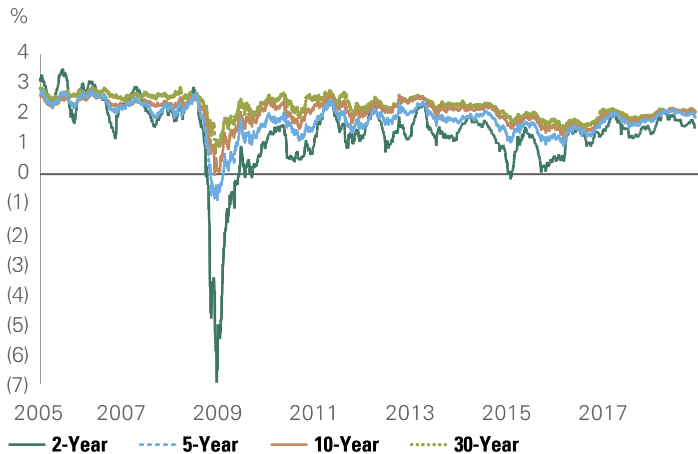


As of September 30, 2018, except euro area, which is as of October 31, 2018. Current rates reflect the central bank's perferred inflation rate. Preferred inflation rates are measured as follows: headline CPI (New Zealand, euro area, Canada, U.K., Switzerland, Australia), CPI less fresh food (Japan), CPI less energy and perishable goods (Sweden), CPI less energy (Norway), and core PCE (U.S.).

Source: Bloomberg, national central banks, national statistics bureaus

Exhibit 4: U.S. Breakeven Government Bond Yields

Key Takeaway: The difference between nominal and real government bond yields is widely used as a proxy for the inflation rate.



As of October 31, 2018.

Source: Bloomberg

What do financial markets expect for inflation rates? One widely viewed measure of what the market is pricing in is breakeven yields. This metric is the difference between nominal and real government bond yields. Typically, the media quotes the nominal yield. In the U.S., real yields are measured using Treasury Inflation-Protected Securities (TIPS) bond yields. The difference is how much the market is pricing in for inflation over a given time period. For instance, the current U.S. breakeven 5-year yield is 1.9%, meaning the market is pricing in an average inflation rate of 1.9% over the next two years. Exhibit 4 charts out the 2-year, 5-year, 10-year, and 30-year breakeven rates. The shorter-term rates are more volatile since they are more responsive to the current economic conditions than long-dated rates. Longer-term bonds tend to have yields around the 2% Fed target rate.

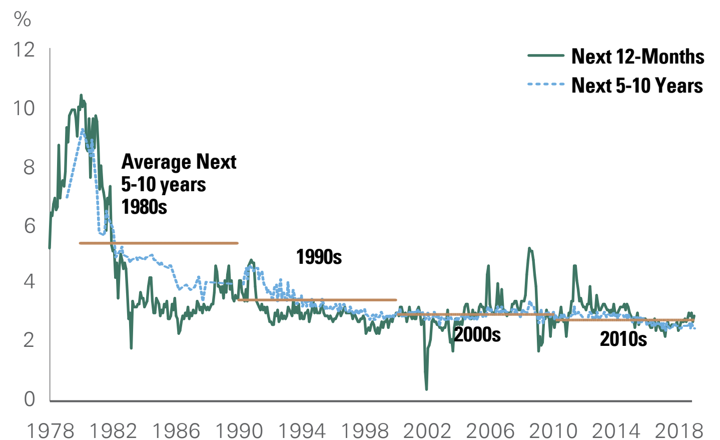
Another common metric of inflation expectations is the University of Michigan monthly consumer survey, which asks U.S. consumers what they expect the change in prices to be during the next year and the next five to 10 years. Generally speaking, consumers expect inflation to exceed the Fed's target and breakeven rates (Exhibit 5). Since the Fed is concerned with keeping prices stable and the U.S. economy is consumer-based, consumer inflation expectations matter. It would be concerning if consumers expected inflation to rise or fall substantially, because their consumption decisions would likely change and perhaps not be favorable for the economy. That said, consumers are not economists, so the market and Fed do not tend to react much, if at all, in response to small changes in these survey metrics.

Bessemer Price Index in Today's 2% Inflation World

The Bessemer Price Index (BPI) measures inflation trends that more closely resemble what our clients experience. Both CPI and PCE measure inflation pressures experienced by all U.S. consumers, using a basket of goods and services that is designed to capture how they typically allocate disposable income. For

Exhibit 5: University of Michigan Expected Change in Prices, Median Estimate

Key Takeaway: Consumer expectations for inflation rates generally exceed the Fed's target.

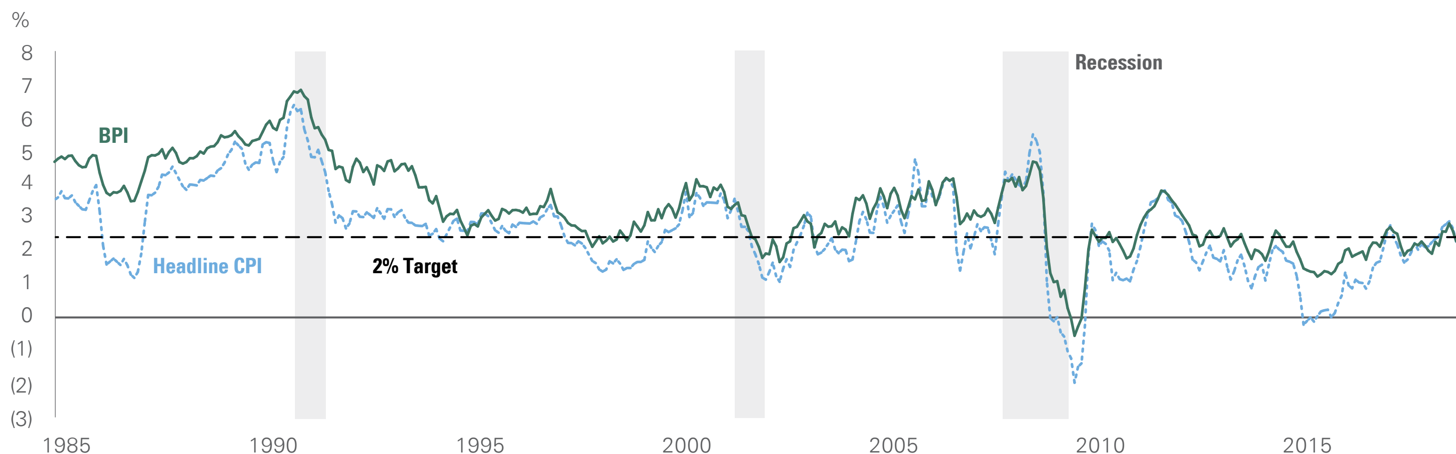


As of October 31, 2018.

Source: Bloomberg, University of Michigan

Exhibit 6: Headline Consumer Price and Bessemer Price Indices, Year-Over-Year

Key Takeaway: For most of 2018, Bessemer's Price Index was increasing by slightly less than headline CPI.



As of September 30, 2018.

Source: Bessemer Trust, FactSet, U.S. Bureau of Labor Statistics

instance, in the CPI basket, 22% of the total weighting is assigned to owners' equivalent of rent and 3% to tuition and childcare. BPI uses the same price changes used to calculate CPI but reweights the consumer basket to more closely resemble how Bessemer clients typically spend disposable income. Owners' equivalent of rent (OER) is a smaller weighting, making up 12% of the basket, for instance, while school tuition and childcare is a greater share at 13%.

Headline CPI and BPI tend to be higher than the Fed's 2% target rate for core PCE (Exhibit 6). Both headline CPI and BPI increased by 2.3% year-over-year as of September 30. For the majority of 2018, BPI was increasing by slightly less than headline CPI.

What accounts for this lower rate of increase for BPI? Primary drivers include CPI's higher weightings to motor fuel and OER, both of which have accelerated at rates higher than inflation. BPI has a higher weighting to tuition and childcare, which has also increased at an accelerated rate — but this impact was not enough to offset the lower weightings of motor fuel and OER.

Inflation Outlook

In the months to come, we expect core inflation to continue at 2% in the U.S. Headline inflation will likely also approach the target rate as the base effect of higher oil prices materializes. The Fed will continue to monitor all measures of inflation closely, partially in light of the federal funds rate approaching more normal levels and signs that the labor market is at or near full employment. We expect market volatility to remain elevated at times as U.S. monetary policy tightens. This is particularly likely if the gap between inflation expectations and actual inflation grows and the latter exceeds 2% for a prolonged period of time. At the moment, we do not foresee this happening. All inflation metrics suggest that the 2% target plus or minus a few percent is where the majority of key indicators will fluctuate — in which case the Fed should maintain the current pace of hiking. As such, we remain comfortable with our current asset allocation, with an overall neutral equity allocation (with an overweight to the U.S. within equities) and an underweight position in high-quality bonds.

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