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# Fed Report

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The Fed's monetary policy has important implications for the bond, stock, and currency markets, and the economic cycle generally. In this report my goal is to track the data that I think Fed officials, and Chair Powell specifically, are most focused on based on ongoing public communications.

# Fed's Dual Mandate

## Established Objectives of Federal Reserve Monetary Policy:

**Stable Prices** ("Price Stability"): 2 percent inflation rate as measured by the annual change in the price index for personal consumption expenditures (Headline PCE YoY). The Powell Fed views the core (excluding food and energy) PCE as a better indication of future inflation. It is worth noting that the Fed interprets the inflation objective as symmetric, meaning they are trying to prevent persistent deviations, either above or below, from their 2 percent inflation target.

**Maximum Employment**: The highest utilization of labor resources that is sustainable over time, generally viewed as the unemployment rate that is consistent with low and stable inflation over the longer term- often estimated as the "natural rate of unemployment." The natural rate of unemployment comprises both the "frictional" unemployment of people who are temporarily between jobs or searching as they have reentered the labor force and the more "structural" unemployment of people whose skills or physical location are not a good match for the jobs available. In other words, the Fed aims to reduce "cyclical" unemployment. As Powell likes to point out, the unemployment rate that is consistent with maximum employment is largely determined by nonmonetary factors (i.e., not heavily influenced by Fed policy). The Fed has no fixed goal for this rate, the current longer run estimate for unemployment is 4.2%, from Fed's Summary of Economic Projections.

# Fed Policy Tools

**Federal Funds Rate**: the primary policy tool of the Fed, it is the overnight benchmark interest rate. The Powell Fed aims for this rate to be at the estimated normal longer-run level when the policy objectives are met (i.e., when inflation is running at the target rate of 2% and the economy is operating at maximum employment).

**Fed Balance Sheet**: Quantitative Easing ("QE") is Fed balance sheet expansion via bond purchases using "printed money," Quantitative Tightening ("QT") is essentially the opposite, i.e., Fed balance sheet contraction via allowing bonds to mature without reinvesting the proceeds.

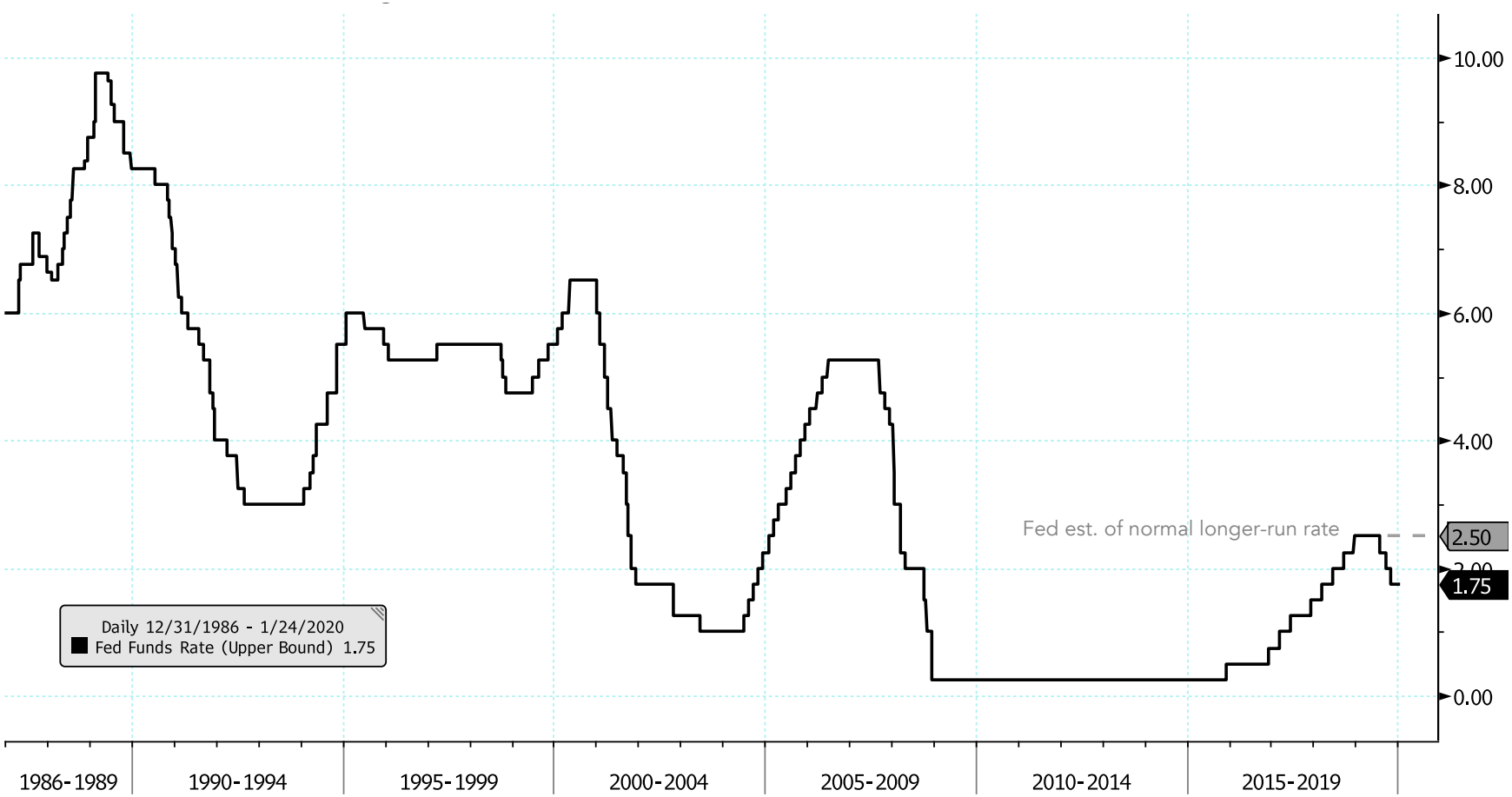
**Forward Guidance**: a commitment to hold rates at a certain level (e.g., zero) over a certain period of time.

# Fed Key Concepts

**Data Dependency**: The Fed describes its policy making process as data dependent, which might be best summarized by Chair Powell's words: "Our views about appropriate monetary policy in the months and years ahead will be informed by incoming economic data and the evolving outlook. If the outlook changes, so too will monetary policy." Many of the following charts represent the relevant data followed by the Fed, and specifically by Chair Powell.

# Fed Funds Rate

Fund funds rate (black) and Fed estimate (based on median dot) of normal longer run rate (grey)




Source: © Merk Investments, Bloomberg

*Analysis: Powell cut three times last year, and is expected to be on hold for the time being.*
*For historical reference, former Fed Chair Greenspan cut rates only to hike them again later in the cycle in 1987, 1995, and 1998.*

# Fed Estimate of the Natural Real Rate of Interest

"R-star" is the natural real rate of interest


Source: © Merk Investments, Bloomberg

*Analysis: Estimates of the natural real rate of interest have increased somewhat over the past quarter. As a general framework: if the natural real rate of interest is about 1% and inflation is about 2%, the neutral nominal rate should arguably be about 3% (1% + 2%).*

# Market Expectations of Fed Funds Rate in 1 year

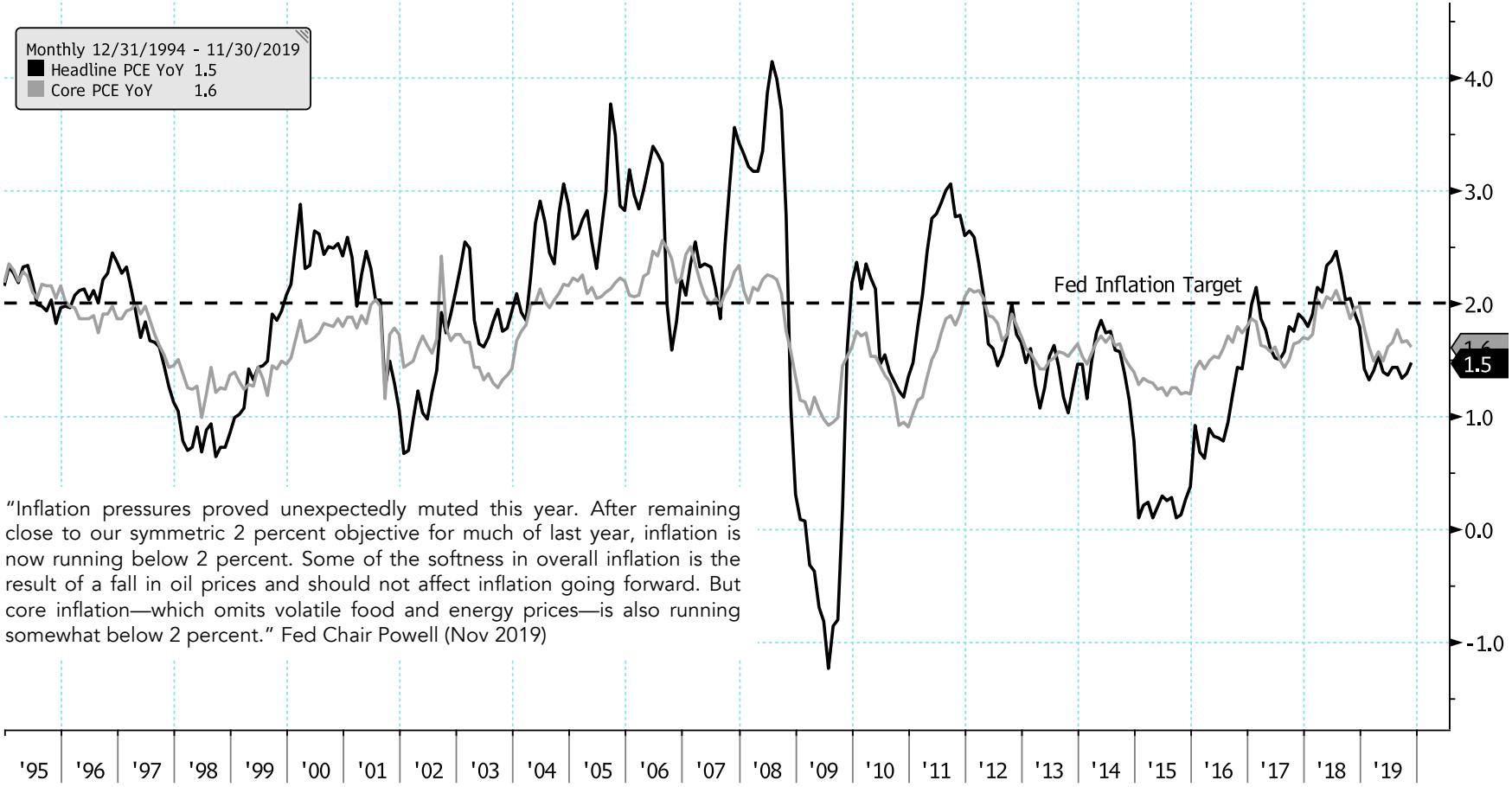
What's Priced-in based on the +1-year Fed Funds Futures contract


Source: © Merk Investments, Bloomberg

*Analysis: Market expectations of the Fed funds rate in one year have come down since the Fed's last meeting. The market is pricing the Fed Funds rate in one year at 1.26%, which implies about one rate cut over the coming twelve months. (Fed funds futures are priced on the effective rate which is between the upper and lower bounds of the target range, the current Fed funds target midpoint is at 1.625% (between 1.50 and 1.75)*

# Inflation Readings

The Headline and Core (excluding volatile food and energy prices) Personal Consumption Expenditures (PCE) Index YoY Seasonally Adjusted




"Inflation pressures proved unexpectedly muted this year. After remaining close to our symmetric 2 percent objective for much of last year, inflation is now running below 2 percent. Some of the softness in overall inflation is the result of a fall in oil prices and should not affect inflation going forward. But core inflation—which omits volatile food and energy prices—is also running somewhat below 2 percent." Fed Chair Powell (Nov 2019)

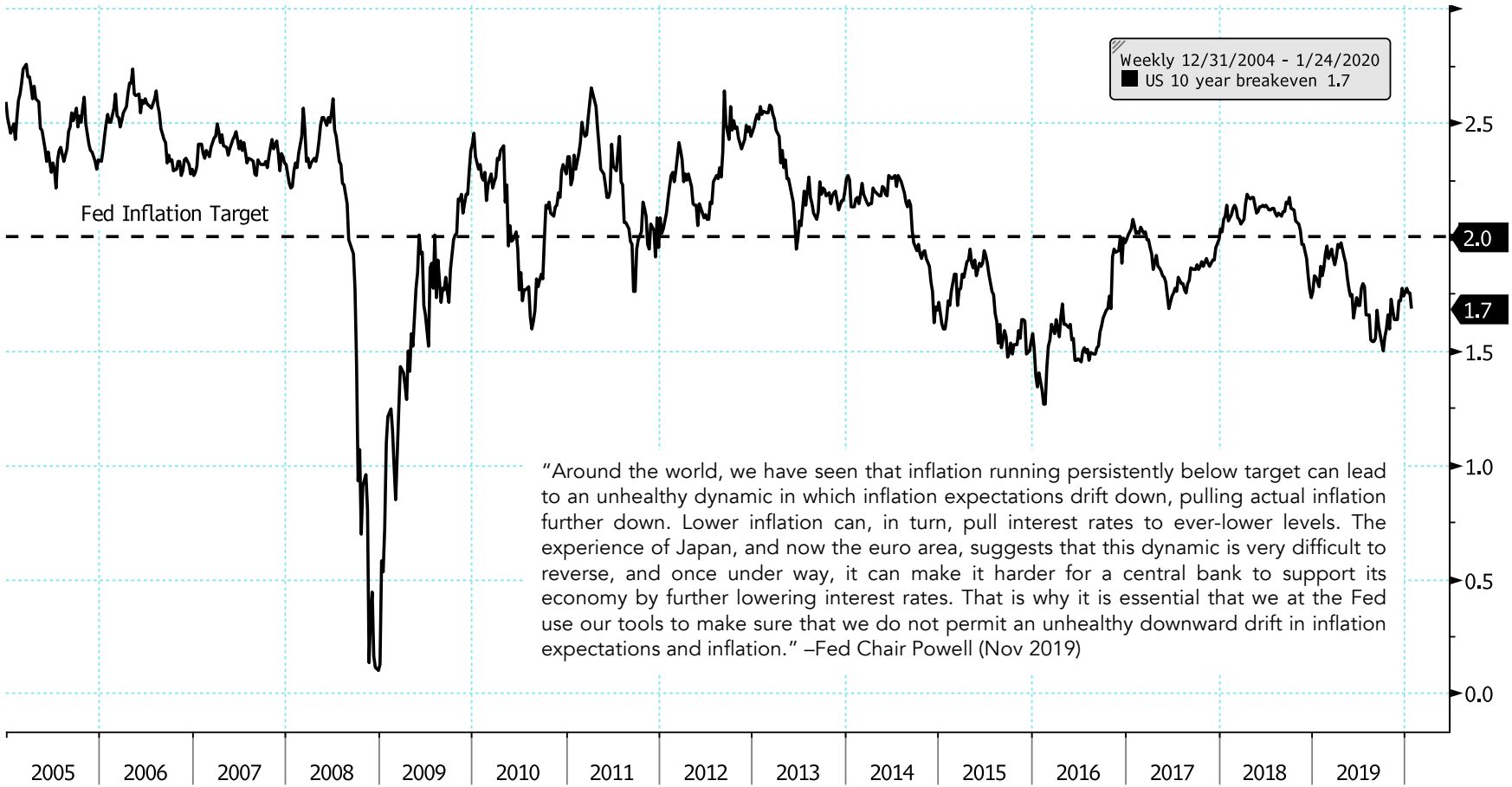
Source: © Merk Investments, Bloomberg

*Analysis: The November PCE data shows the headline inflation rate at 1.5%, below the target of 2.0%. The Fed expects PCE YoY to run at 1.9% this year according to the Fed's latest Summary of Economic Projections. The Core PCE YoY (Chair Powell's preferred inflation measure) is at 1.6% and is also expected to run at 1.9% this year. Some at the Fed have noted that the Core PCE reading has been below 2.0% for the past seven years (except for a few months in 2018).*

**This chart relates to the price stability mandate**

# Market-based Inflation Expectations

10-year "breakeven" refers to the inflation rate implied by 10-year Treasury Inflation Protected Securities (TIPS)




"Around the world, we have seen that inflation running persistently below target can lead to an unhealthy dynamic in which inflation expectations drift down, pulling actual inflation further down. Lower inflation can, in turn, pull interest rates to ever-lower levels. The experience of Japan, and now the euro area, suggests that this dynamic is very difficult to reverse, and once under way, it can make it harder for a central bank to support its economy by further lowering interest rates. That is why it is essential that we at the Fed use our tools to make sure that we do not permit an unhealthy downward drift in inflation expectations and inflation." –Fed Chair Powell (Nov 2019)

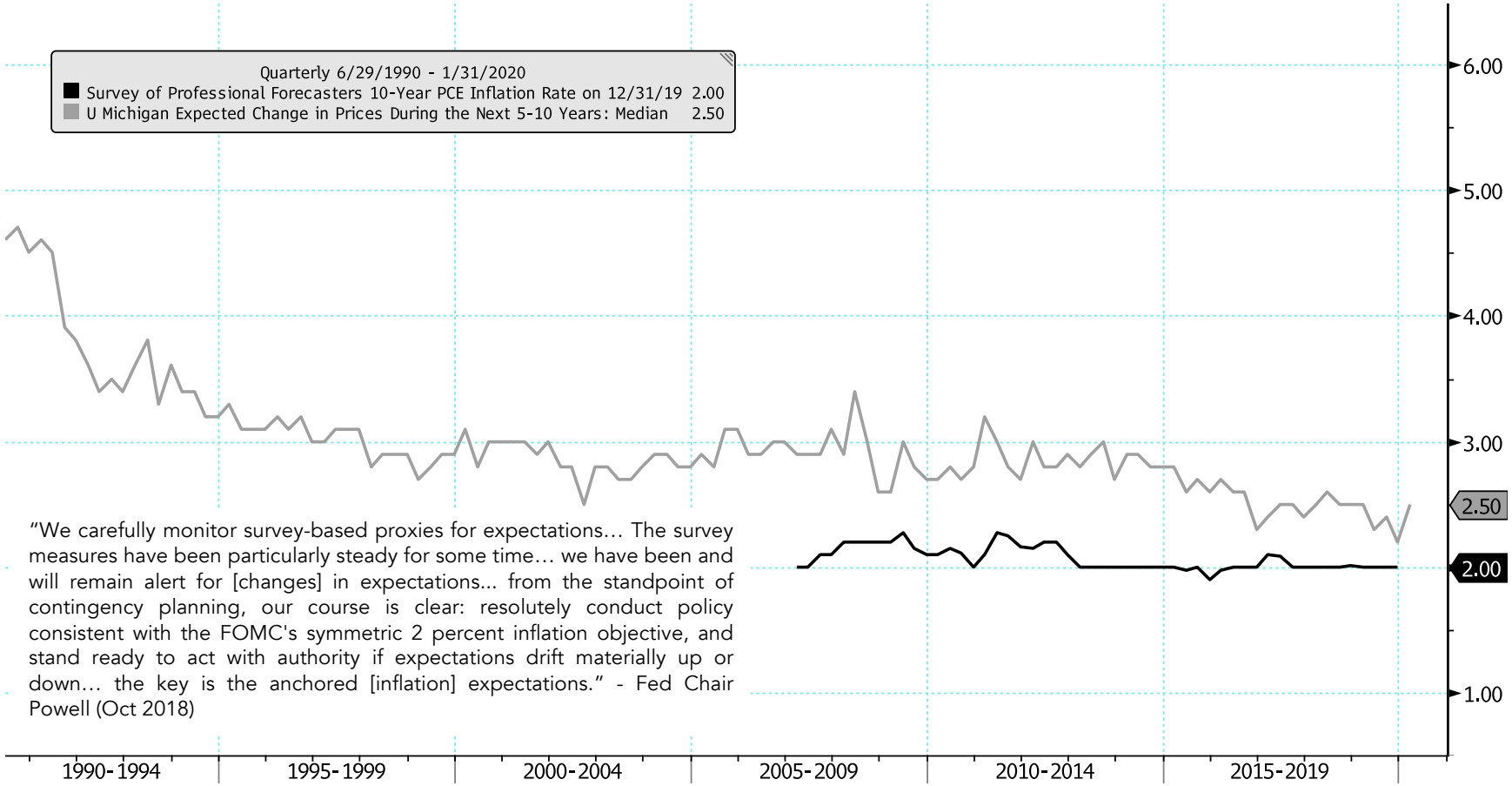
Source: © Merk Investments, Bloomberg

*Analysis: Market-based inflation expectations have been relatively stable recently. The market is suggesting average annual inflation over the next 10 years might be around 1.7%, based on the TIPS. This inflation expectation is calculated by subtracting the 10yr TIPS yield (real rate) from the 10yr US Treasury yield (nominal rate). This is considered a market-based measure, the Fed also looks at other market-based measures as well as survey-based measures. Market-based inflation expectations tend to exhibit a relationship to oil prices.*

**This chart relates to the price stability mandate**

# Survey-based Inflation Expectations

University of Michigan Consumer Inflation Expectations and Survey of Professional Forecasters Expectations



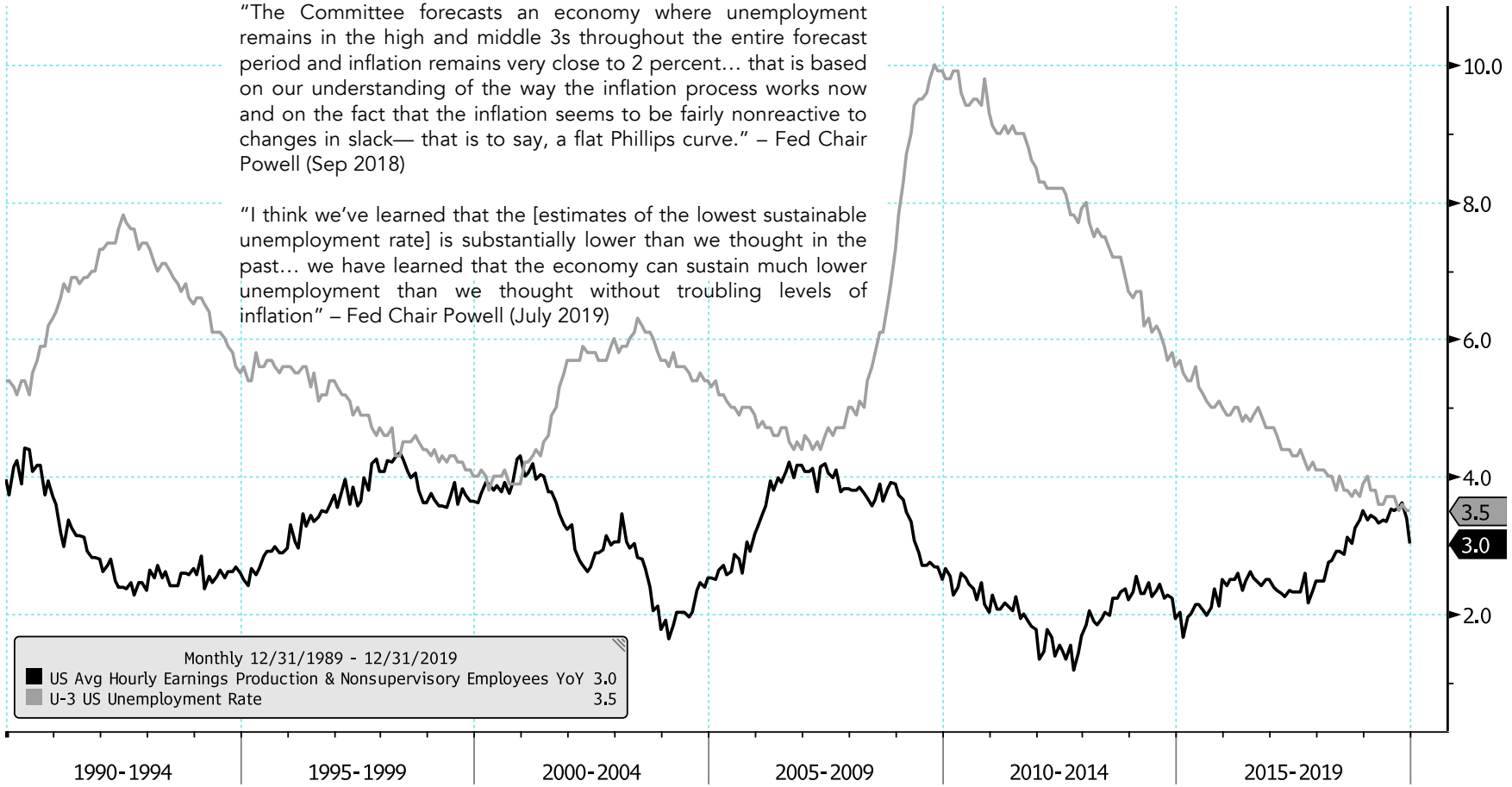

"We carefully monitor survey-based proxies for expectations… The survey measures have been particularly steady for some time… we have been and will remain alert for [changes] in expectations... from the standpoint of contingency planning, our course is clear: resolutely conduct policy consistent with the FOMC's symmetric 2 percent inflation objective, and stand ready to act with authority if expectations drift materially up or down… the key is the anchored [inflation] expectations." - Fed Chair Powell (Oct 2018)

Source: © Merk Investments, Bloomberg

*Analysis: The University of Michigan inflation expectations survey reading recently ticked up. Powell is particularly focused on the role of anchored inflation expectations in terms of meeting the Fed's price stability mandate over the medium term. Based on a speech and presentation given in October 2018, it appears he watches the above survey-based indicators to monitor for material changes.*
**This chart relates to the price stability mandate**

# Unemployment Rate and Wages

The relationship between the unemployment rate and wages is referred to as the "Phillips Curve"



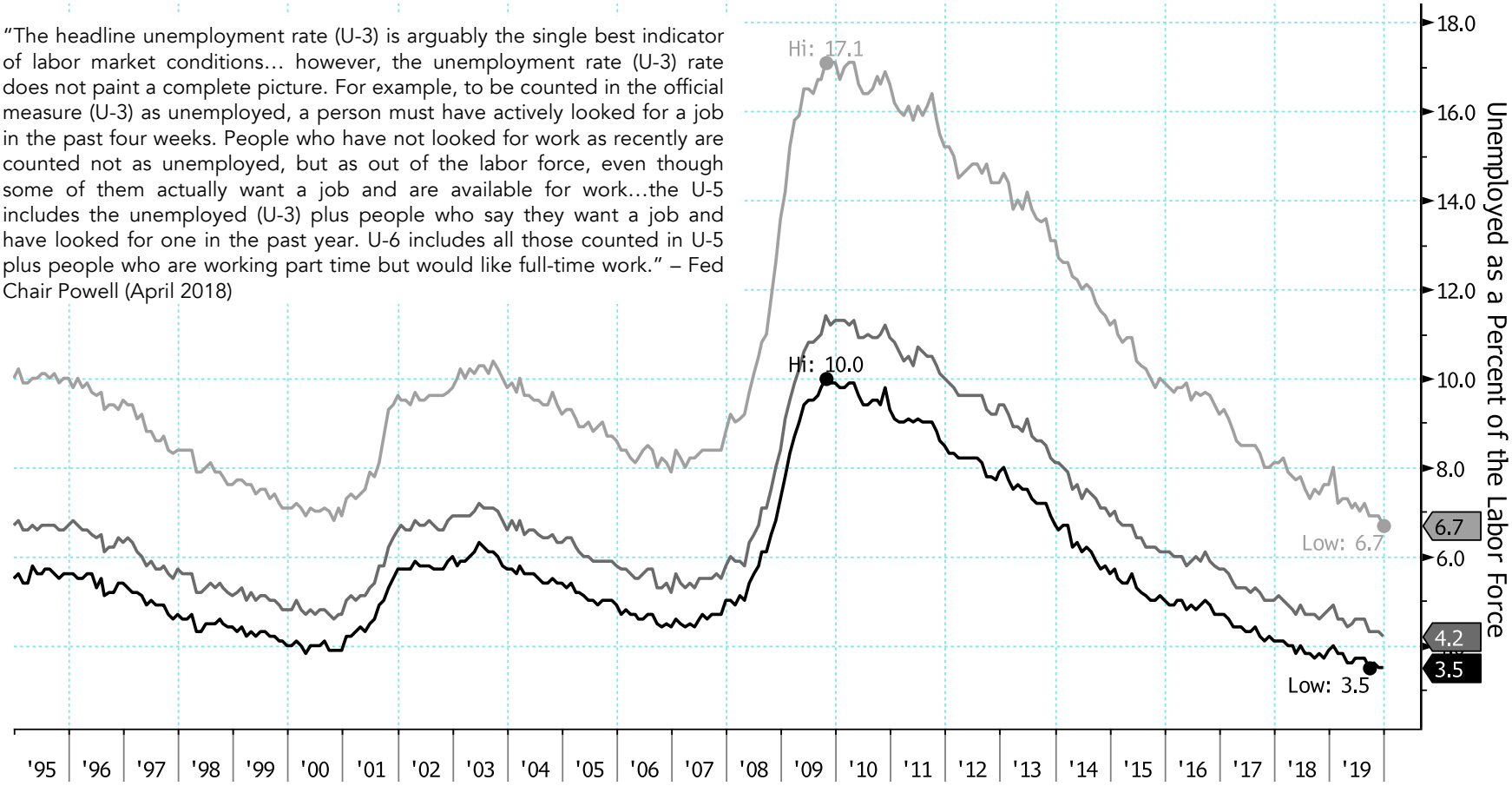

Source: © Merk Investments, Bloomberg

*Analysis: Wage inflation recently fell. Fed policy makers have been surprised by the lack of wage inflation (and general inflation) in recent years. I think in Powell's mind that suggests the labor market might not be at maximum employment yet.*
**This chart relates to both the price stability mandate and the maximum employment mandate**

# Unemployment Rate Measures

U-3, U-5, U-6 Unemployment Rates

"The headline unemployment rate (U-3) is arguably the single best indicator of labor market conditions… however, the unemployment rate (U-3) rate does not paint a complete picture. For example, to be counted in the official measure (U-3) as unemployed, a person must have actively looked for a job in the past four weeks. People who have not looked for work as recently are counted not as unemployed, but as out of the labor force, even though some of them actually want a job and are available for work…the U-5 includes the unemployed (U-3) plus people who say they want a job and have looked for one in the past year. U-6 includes all those counted in U-5 plus people who are working part time but would like full-time work." – Fed Chair Powell (April 2018)

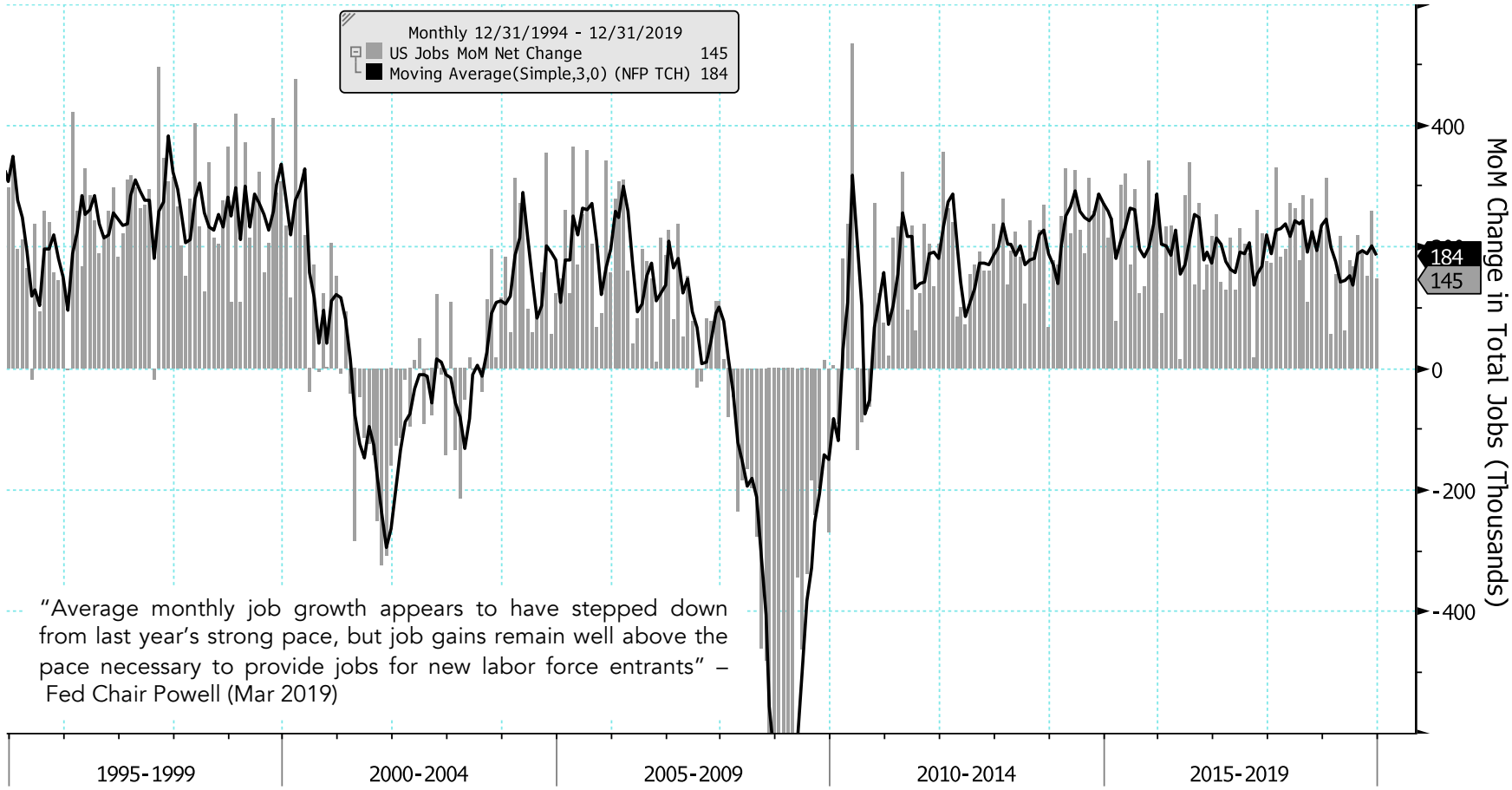



Source: © Merk Investments, Bloomberg

*Analysis: The U-3 unemployment rate is at a cycle low of 3.5%. The U-6 underemployment rate is making new cycle lows at 6.7%*
**This chart relates to the maximum employment mandate**

# Job Gains

The Net Monthly Change in Non-farm Payrolls (grey) with 3-month Moving Average (black)



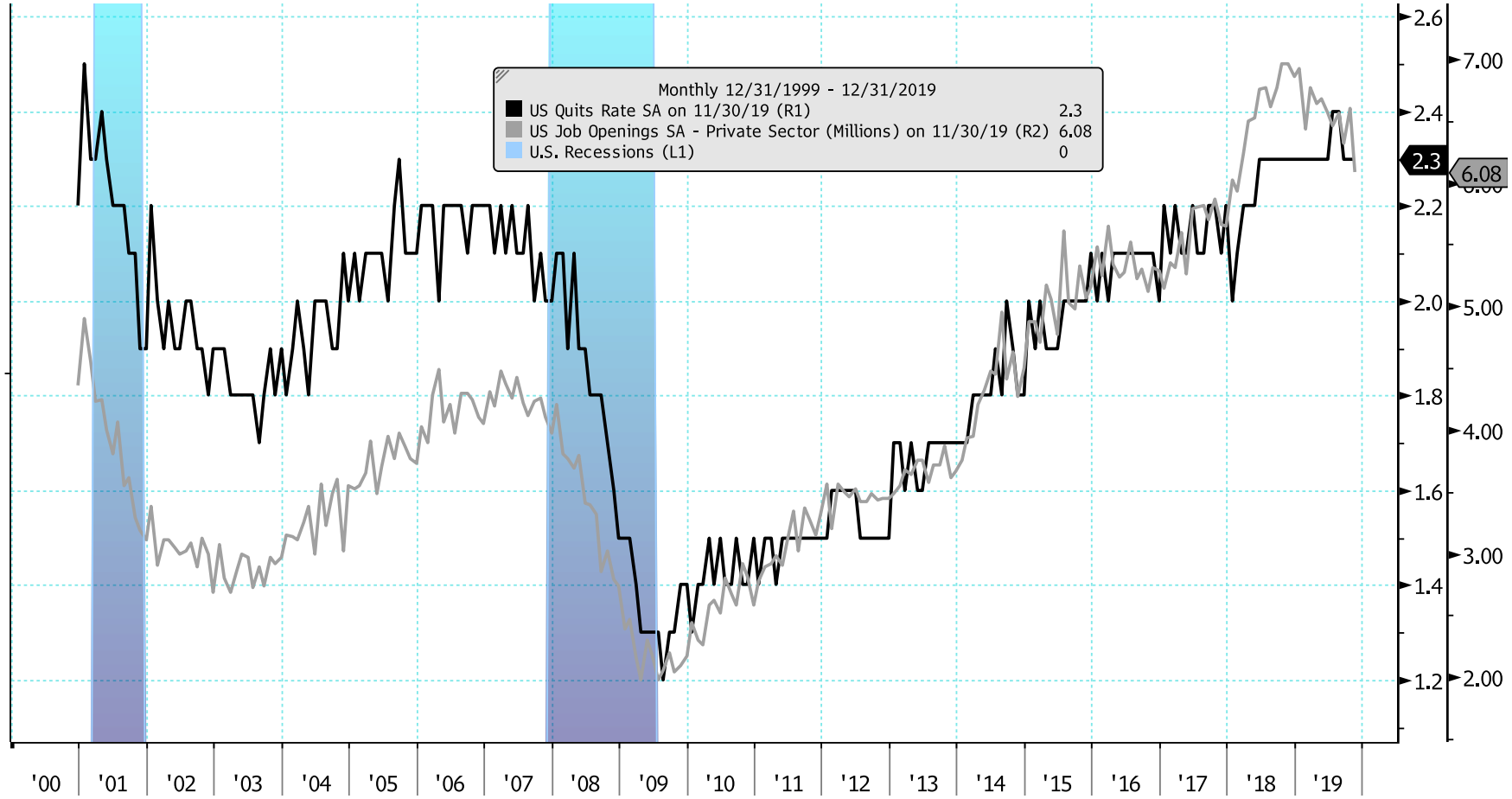

Source: © Merk Investments, Bloomberg

*Analysis: The 3-month moving average of the net change in non-farm payrolls is 184k, likely above the pace needed to provide jobs to new entrants into the labor force. This picture currently indicates a healthy labor market.*

**This chart relates to the maximum employment mandate**

# Jobs Openings and Labor Turnover Survey (JOLTS)

Jobs Openings (millions) and Quits Rate (percent)

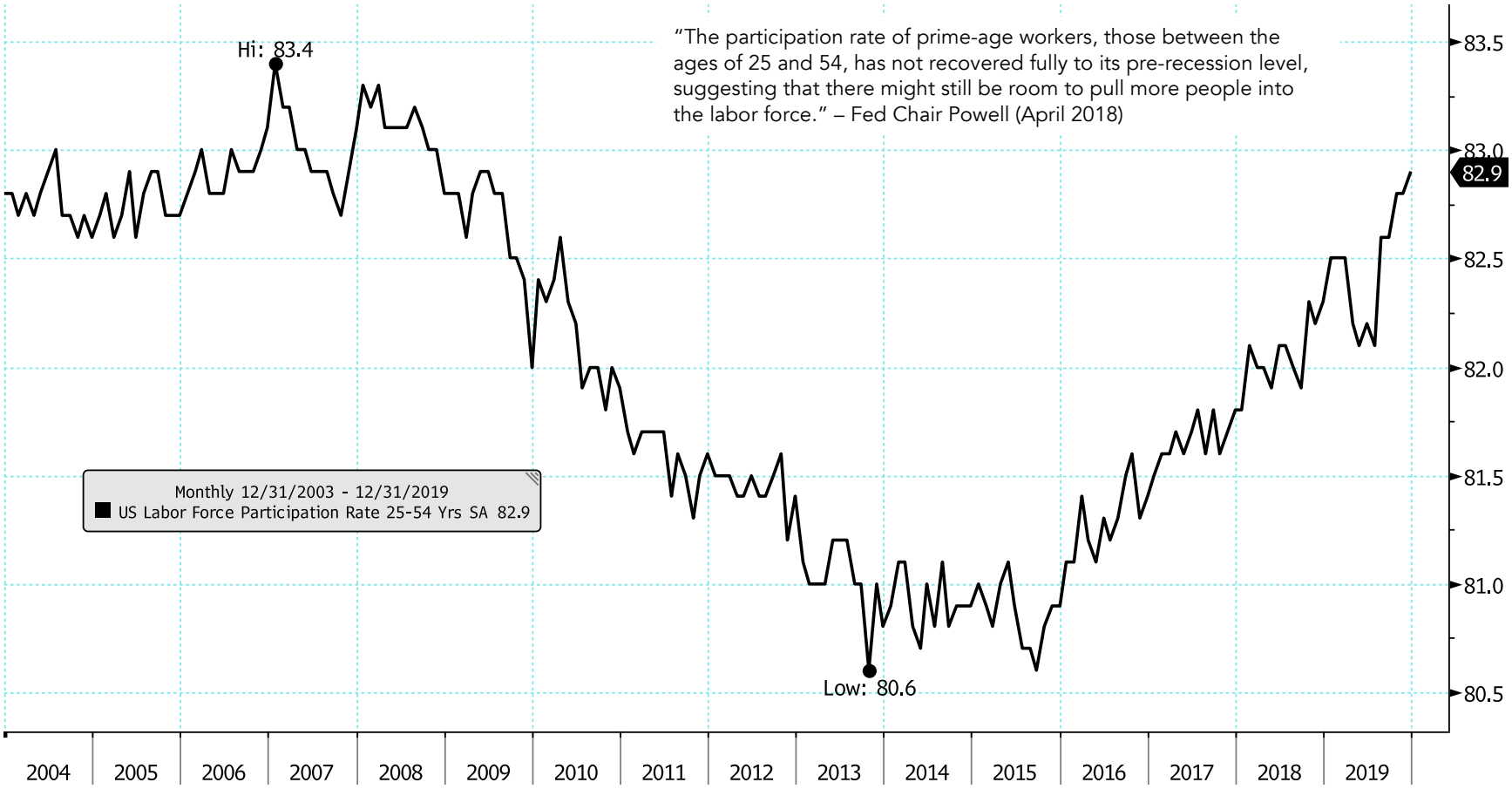



Source: © Merk Investments, Bloomberg

*Analysis: Former Fed Chair Yellen was an advocate of looking at the JOLTS report for guidance on the labor market. The JOLTS report looks mixed: with the job openings numbers continuing to come down, but the quits rate stable.*
**This chart relates to the maximum employment mandate**

# Prime-age (25-54) Labor Force Participation Rate

The labor force is the percent of the population that is either working or actively looking for work, in this case between the ages of 25-54

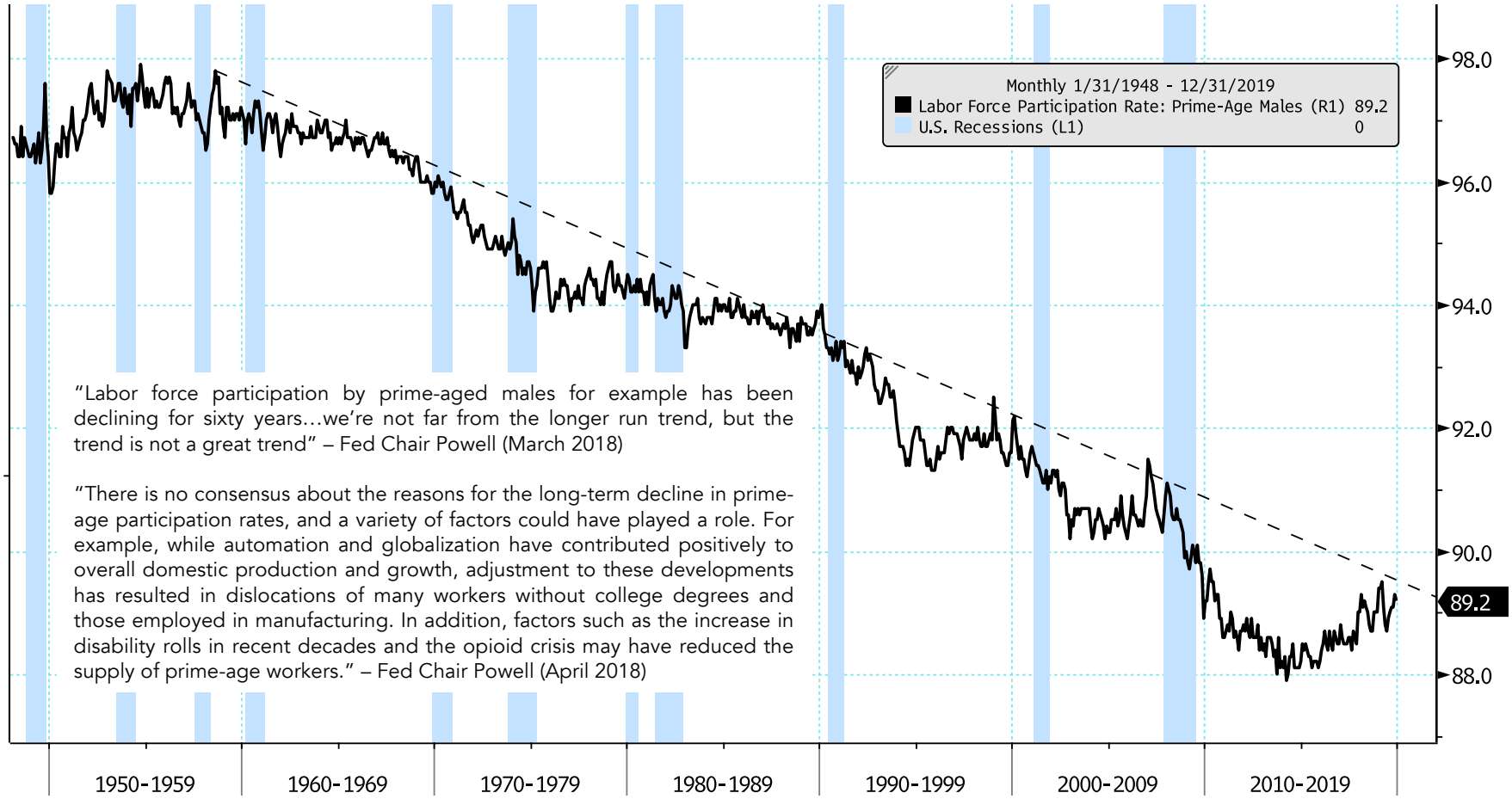



Source: © Merk Investments, Bloomberg

*Analysis: The prime-age participation rate is still below the previous cycle high (83.4%), although is trending higher and at a multi-year high. I think in Powell's mind this picture suggests the labor market might not be at maximum employment yet.*
**This chart relates to the maximum employment mandate**

# Prime-age (25-54) Male Labor Force Participation Rate

The labor force is the percent of the population that is either working or actively looking for work, in this case males between the ages of 25-54




"Labor force participation by prime-aged males for example has been declining for sixty years…we're not far from the longer run trend, but the trend is not a great trend" – Fed Chair Powell (March 2018)

"There is no consensus about the reasons for the long-term decline in prime-age participation rates, and a variety of factors could have played a role. For example, while automation and globalization have contributed positively to overall domestic production and growth, adjustment to these developments has resulted in dislocations of many workers without college degrees and those employed in manufacturing. In addition, factors such as the increase in disability rolls in recent decades and the opioid crisis may have reduced the supply of prime-age workers." – Fed Chair Powell (April 2018)

Source: © Merk Investments, Bloomberg

*Analysis: A prime-age male labor force participation rate above the dotted line might represent a labor market that is close to maximum employment in Powell's framework.*
**This chart relates to the maximum employment mandate**

# Fed Funds Rate and Financial Conditions

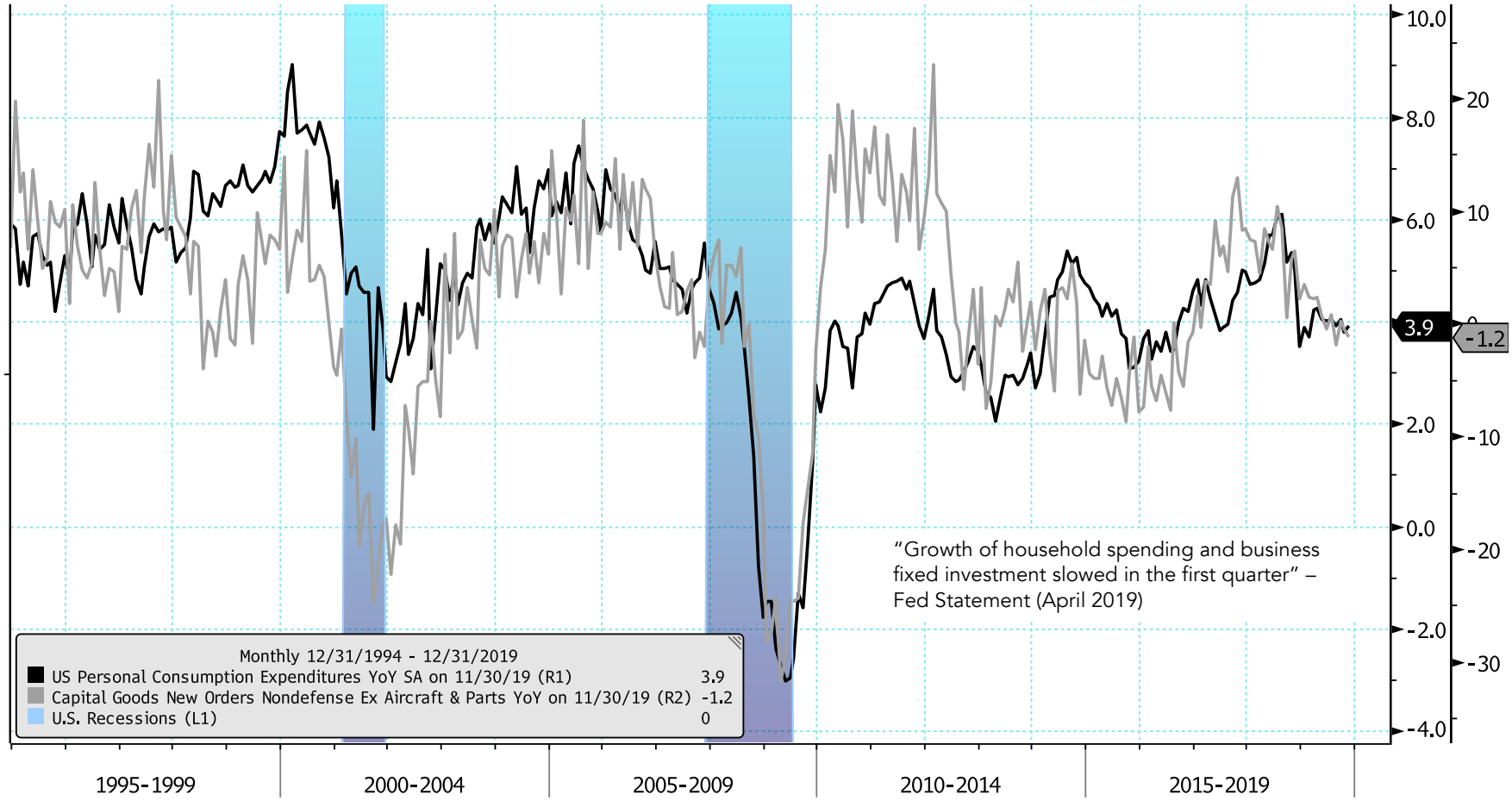
Chicago Fed National Financial Conditions Index and the Fed Funds Rate


Source: © Merk Investments, Bloomberg

*Analysis: The financial conditions index has been easing over the past few months and is now at a cycle low. Financial stability, which can be measured by financial conditions, is sometimes thought of as an implicit third mandate of the Fed. Fed hikes so far have had little impact on financial conditions as measured by this index, although Fed officials have historically commented that monetary policy acts with a lag (some estimates suggest an 18 month lag).*

# Household Spending and Business Fixed Investment

U.S. Personal Consumption expenditures (black) and U.S. Capital Goods New Orders (grey)

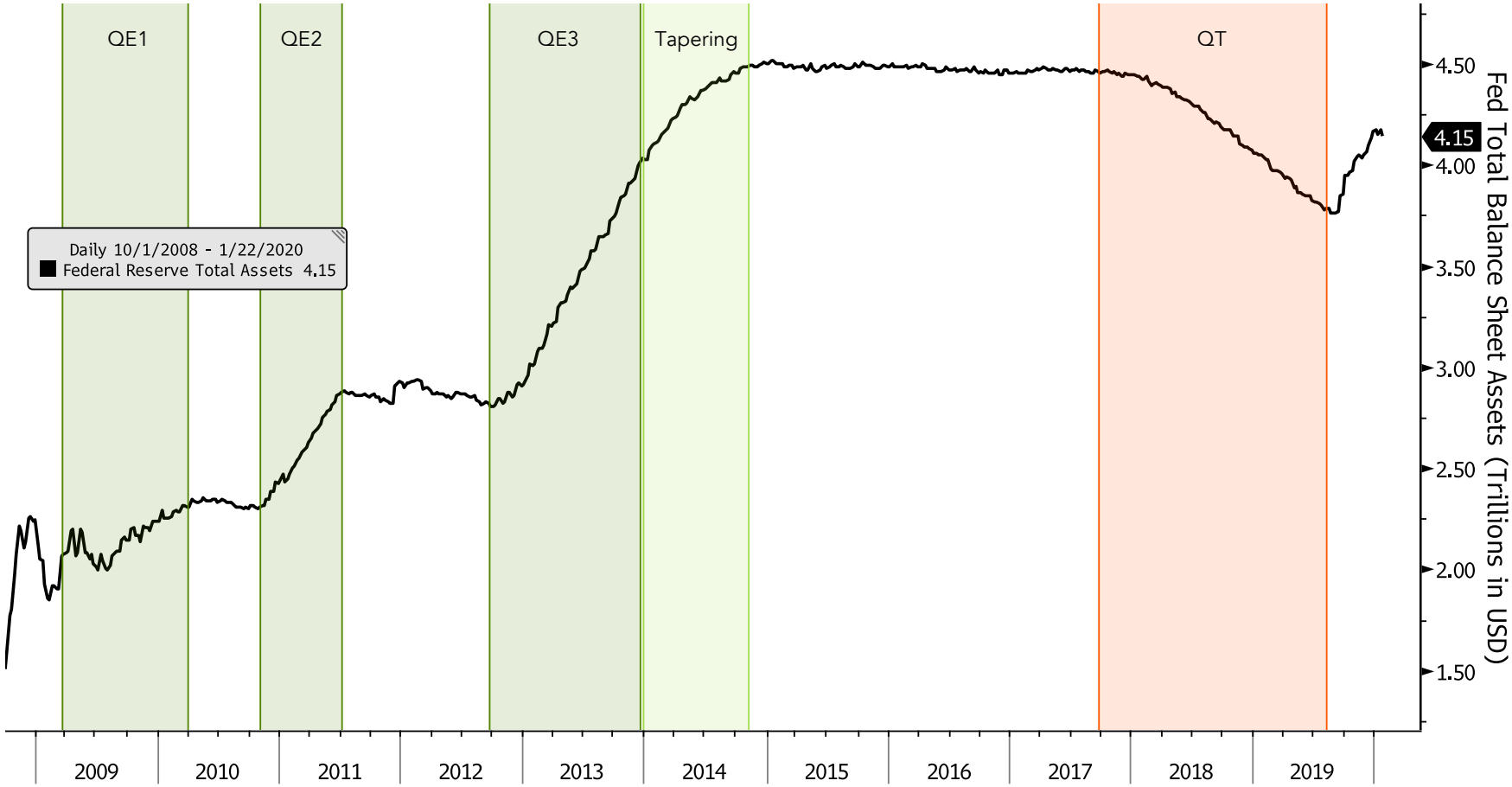



Source: © Merk Investments, Bloomberg

*Analysis: Powell has commented frequently about the slowdown in both household spending and business investment, which is illustrated in the above chart.*

# Fed Balance Sheet

Federal Reserve Balance Sheet Total Assets and QE/QT Operation Phases

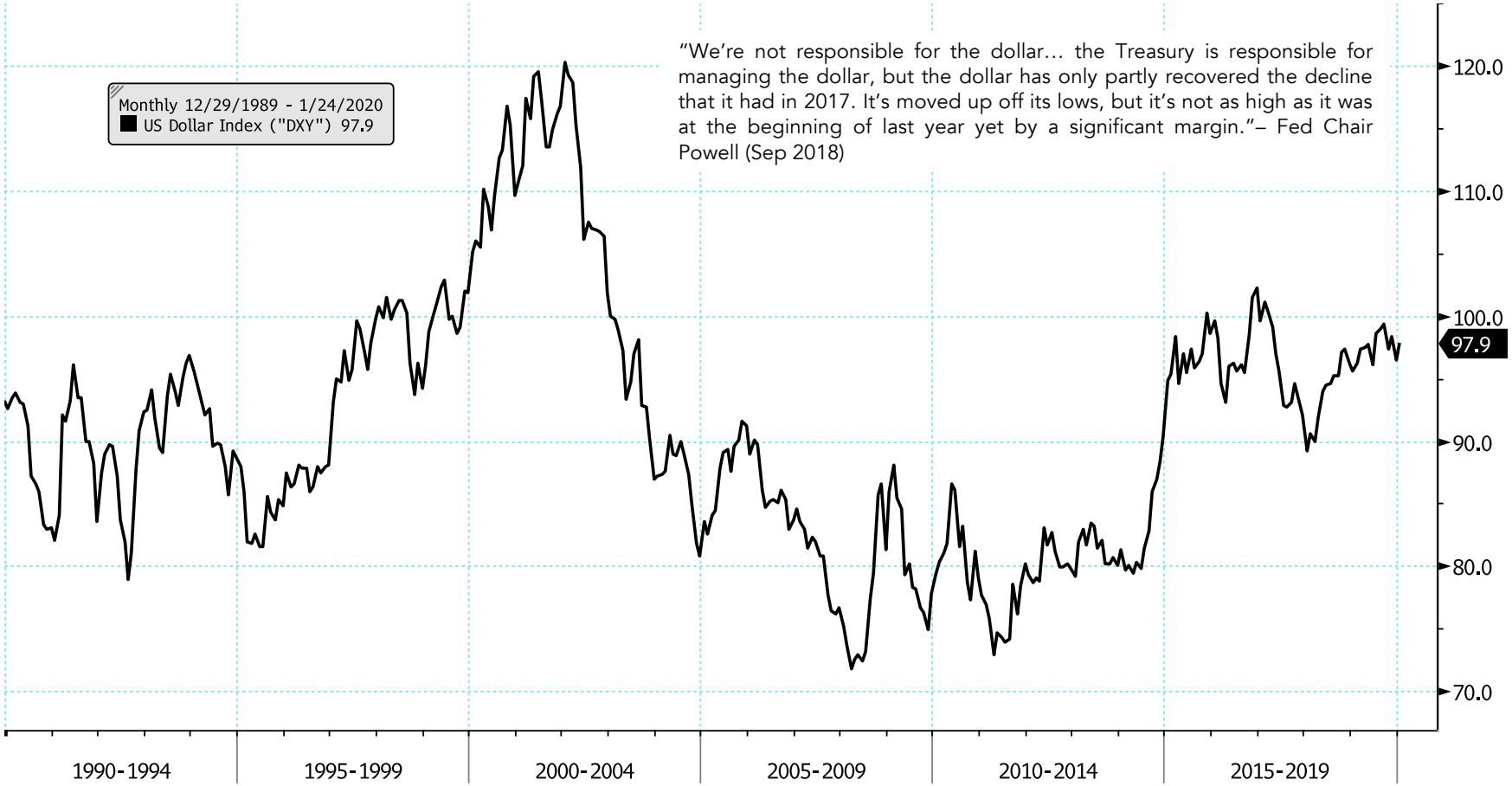



Source: © Merk Investments, Bloomberg

*Analysis: Balance sheet run-off ("Quantitative Tightening (QT)") ended in August 2019. Since then issues in the repo market have induced the Fed to conduct special repo operations and to start increasing the size of its balance sheet again.*

# U.S. Dollar

Dollar Index ("DXY")

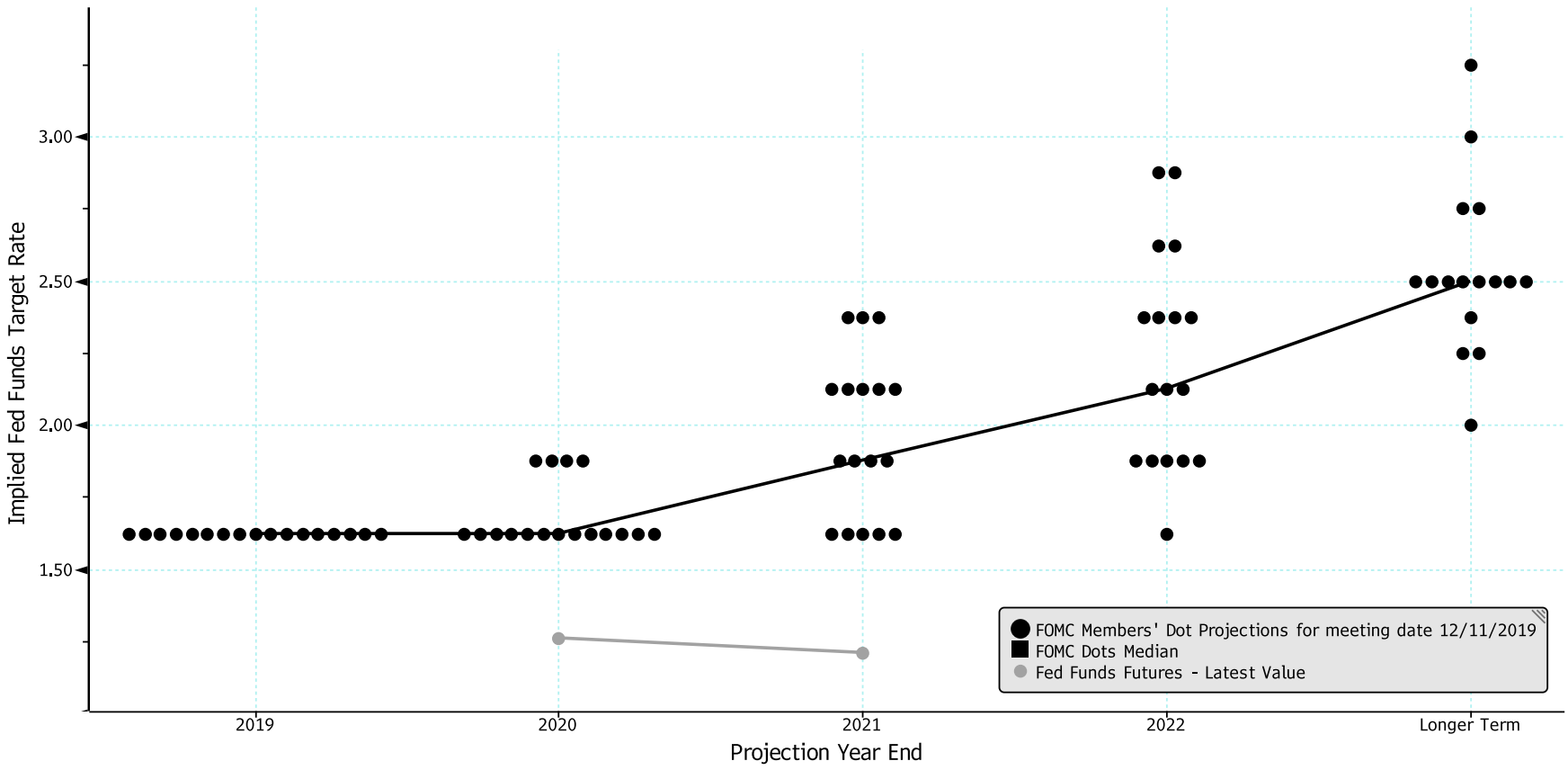



Source: © Merk Investments, Bloomberg

*Analysis: Powell does not seem to be concerned about the value of the dollar at current levels, which is still below its multi year highs.*

# Fed "Dot Plot"

FOMC participants' assessments of appropriate monetary policy from Dec 2019 Meeting (black), and Fed Funds Futures (grey)




Source: © Merk Investments, Bloomberg

*Analysis: The dots represent FOMC participants' assessments of appropriate monetary policy. The market pricing, represented by the Fed Funds Futures (grey line) is substantially below the median dots for year end 2020 and 2021, and reflects the expectation for more rate cuts.*

# Fed Median Economic Projections: Dec 2019

FOMC participants' economic projections are under their individual assessments of projected appropriate monetary policy

| Variable | 2019 | 2020 | 2021 | Longer run |
|---|---|---|---|---|
| Change in Real GDP | 2.2% | 2.0% | 1.9% | 1.9% |
| Unemployment Rate | 3.6% | 3.5% | 3.6% | 4.1% |
| PCE Inflation | 1.5% | 1.9% | 2.0% | 2.0% |
| Core PCE Inflation | 1.6% | 1.9% | 2.0% | N/A |
| Fed Funds Rate | 1.6% | 1.6% | 1.9% | 2.5% |

Source: Federal Reserve, © Merk Investments LLC

*Analysis: Compared to the September meeting, the median projections shifted slightly lower for unemployment, and were stable for inflation and growth.*

*The above economic projections of Federal Reserve Board members and Federal Reserve Bank presidents are made under their individual assessments of projected appropriate monetary policy, which are represented in the previous dot chart.*

*The longer run inflation expectation is 2.0%, the longer run Fed Funds rate projection is 2.5%, which represents the Fed's best guess of the natural rate of interest. The natural rate can be disaggregated into a natural real rate (i.e., net of inflation) and an inflation rate. The Fed's longer run inflation projection is 2.0% which suggests they view the natural real rate of interest around 0.5%, which is roughly consistent with NY Fed President Williams' academic work on estimating the natural real rate of interest.*

*The longer run unemployment rate projection is 4.1%, which is the Fed's best guess of the natural unemployment rate. At the current rate of 3.5% there is some chance that the economy is operating above capacity; however, Powell has acknowledged that past estimates of the natural rate of unemployment have been too high, and may still be too high.*

# Who's Who at the Fed

| Category | Name | Role | Status | Dove-Hawk Scale* |
|---|---|---|---|---|
| Board of Governors | Jerome Powell | Chair | Voter | Neutral |
| Board of Governors | Richard Clarida | Vice Chair | Voter | Neutral/Dovish |
| Board of Governors | Lael Brainard | Governor | Voter | Neutral/Dovish |
| Board of Governors | Randal Quarles | Governor | Voter | Neutral |
| Board of Governors | Michelle Bowman | Governor | Voter | Neutral/Hawkish |
| Board of Governors | [Judy Shelton (nominee)] | Governor | [Voter] | |
| Board of Governors | [Christopher Waller (nominee)] | Governor | [Voter] | |
| | | | | |
| Regional President | John Williams | New York Fed President | Voter | Neutral/Hawkish |
| Regional President | Eric Rosengren | Boston Fed President | | Neutral/Hawkish |
| Regional President | Patrick Harker | Philadelphia Fed President | Voter | Neutral |
| Regional President | Loretta Mester | Cleveland Fed President | Voter | Neutral/Hawkish |
| Regional President | Thomas Barkin | Richmond Fed President | | Neutral/Hawkish |
| Regional President | Raphael Bostic | Atlanta Fed President | | Neutral/Dovish |
| Regional President | Charles Evans | Chicago Fed President | | Neutral/Dovish |
| Regional President | James Bullard | St. Louis Fed President | | Dovish |
| Regional President | Neel Kashkari | Minneapolis Fed President | Voter | Dovish |
| Regional President | Esther George | Kansas City Fed President | | Hawkish |
| Regional President | Robert Kaplan | Dallas Fed President | Voter | Neutral/Hawkish |
| Regional President | Mary Daly | San Francisco Fed President | | Neutral/Dovish |

Source: © Merk Investments, Bloomberg

*Analysis: All board members vote. The NY Fed President always votes, and then four rotating regional presidents vote. There are two vacancies on the board.*

**The dove-hawk scale relates to the views on appropriate monetary policy: with hawks likely representing the upper end of the spectrum on the dot plot and the doves likely representing the lower end of the spectrum.*

## Conclusion/Thoughts

The Fed will likely be on hold at 1.50-1.75% for at least this meeting and the next. As of writing, market pricing is suggesting the next move is probably a rate cut, with a 60% chance of another 25 bp cut between now and the July Fed meeting.

If the 10yr yield falls below 1.50% a rate cut becomes very likely in my opinion. And I would guess that a hike from the current level is unlikely unless and until the 10yr yield is above 2.0% for a sustained period given that the Fed doesn't want an inverted yield curve.

As always, the market will be looking at language changes in the Fed statement and the tone of Chair Powell's comments in the post meeting press conference and Q&A. He's likely to reiterate that the economy remains on strong footing and that the Fed will be data dependent in assessing its next move.

This is the first meeting of 2020. The 2020 rotating regional voters are Mester, Harker, Kaplan, and Kashkari. On balance the voting group this year is probably slightly more "hawkish" than last year's, with the obvious exception of Kashkari. Kashkari might issue a dovish dissent at today's meeting.

While the last Fed hiking cycle (from 2004 to 2006) was a constant move higher in rates, historically it's not uncommon for hiking cycles to have periodic phases of rate cuts. For example, the Fed cut rates three times in 1998, and then resumed hikes to the rate cycle peak in 2000. Former Fed Chair Greenspan reversed course many times, cutting rates only to hike them again later in the cycle in 1987, 1995, and 1998. Resumed rate hikes in this economic expansion are not out of the question.

-Nick Reece, CFA

## About the Author

**Nick Reece, CFA**: Nick is a Senior Analyst & Portfolio Manager at Merk Investments. He focuses on macroeconomic research and private wealth management, regularly publishing reports on the U.S. business cycle and equity market. Prior to joining Merk in 2012, Nick gained experience working on capital markets deals with Paul Hastings in Hong Kong, and with Atlantis Investment Management. Mr. Reece holds a B.A. in Economics from Trinity College and is a Chartered Financial Analyst (CFA) charterholder. Nick lives in New York City. Outside of work, he is an avid reader and volunteer high school math tutor. You can follow Nick on Twitter @nicholastreece.

*Disclosure*

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