Economic Outlook:
Finding "Neutral" Policy
October 2018

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STIFEL | Fixed Income Capital Markets

SME Review: 10/4/2018

Learning Objectives

1. Examine macro-economic trends including the health of the consumer, and manufacturing sector

2. Understand Fed policy effects and initiatives

3. Analyze U.S. growth and rate outlook

Fed Raises Rates in September, Following Two Hikes in 1H

Historically Low Rates

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Fed raised rates 25bps to a range of 2.00% to 2.25% at September meeting, the third rate increase in 2018 and the eighth rate hike since liftoff in December 2015

Fed raised rates 25bps to a range of 1.25%-1.50% at December 2017 meeting, the third rate increase in 2017 (March & June)

Fed raised rates 25bps to 0.75% in December 2016 after seven consecutive meetings of unchanged policy

Source: Federal Reserve Board /Haver Analytics

Consolidated Balance Sheet

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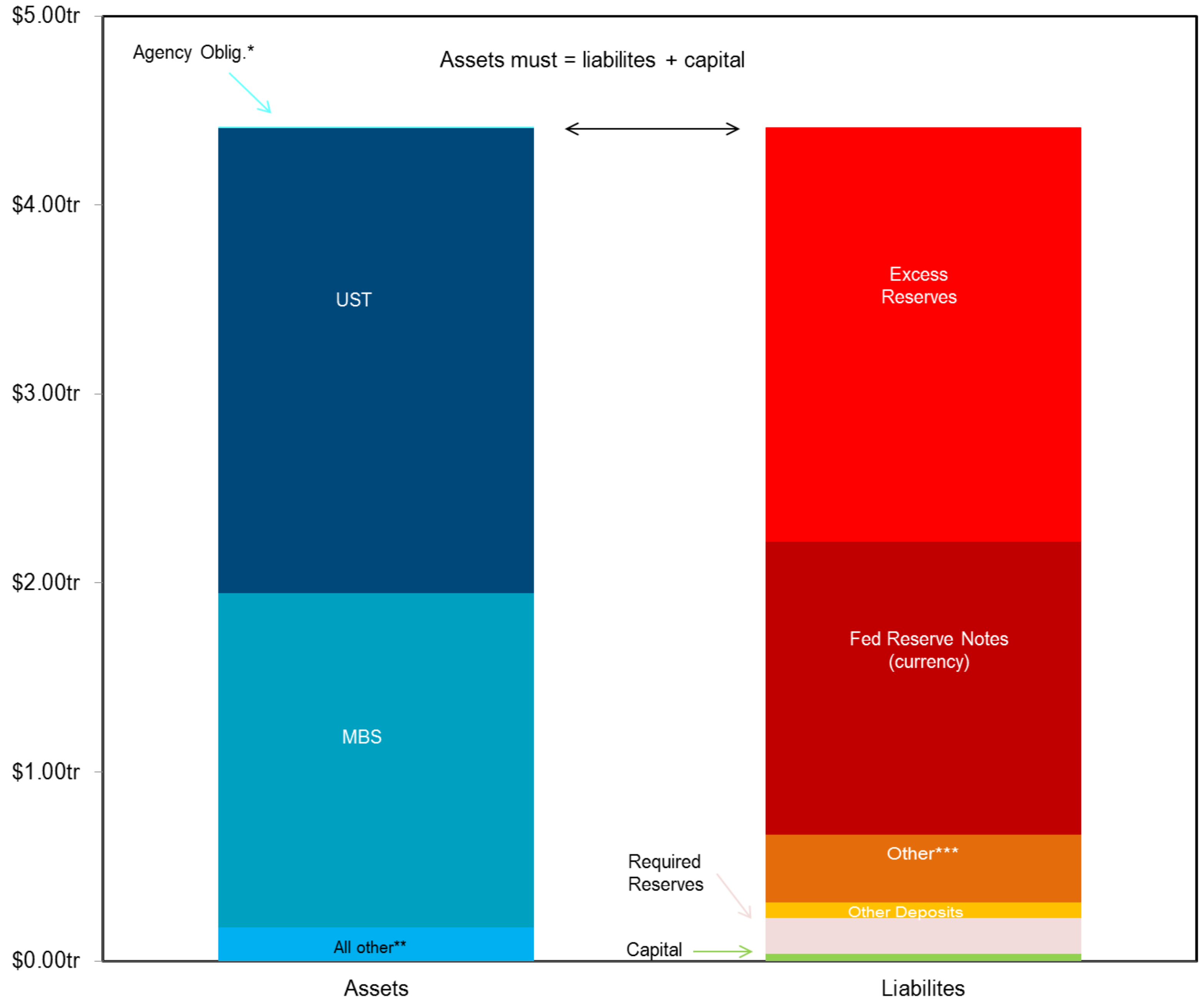
An increase on both sides of the Fed's balance sheet, as the Fed purchased bonds from primary dealers in reverse auctions but paid for them by essentially making a ledger notation in the dealers' reserve accounts

Essentially an equivalent impact had the Fed mandated purchases by the banks themselves



**Agency refers to the current face value of federal agency obligations held by Federal Reserve Banks. These securities are direct obligations of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.

**Other assets: discount window lending, lending to other institutions, assets of LLCs that have been consolidated onto the Fed's balance sheet, and foreign central bank liquidity swaps

**Other liabilites: term deposits and other deposits held by depository institutions, official foreign deposits, and the U.S. Treasury general account

Source: Federal Reserve Board/Haver Analytics

"Strong" Growth

Moderate U.S. Growth

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U.S. GDP in Q2 rose **4.2%,** the fastest pace since Q3 2014 and following a 2.2% rise in Q1

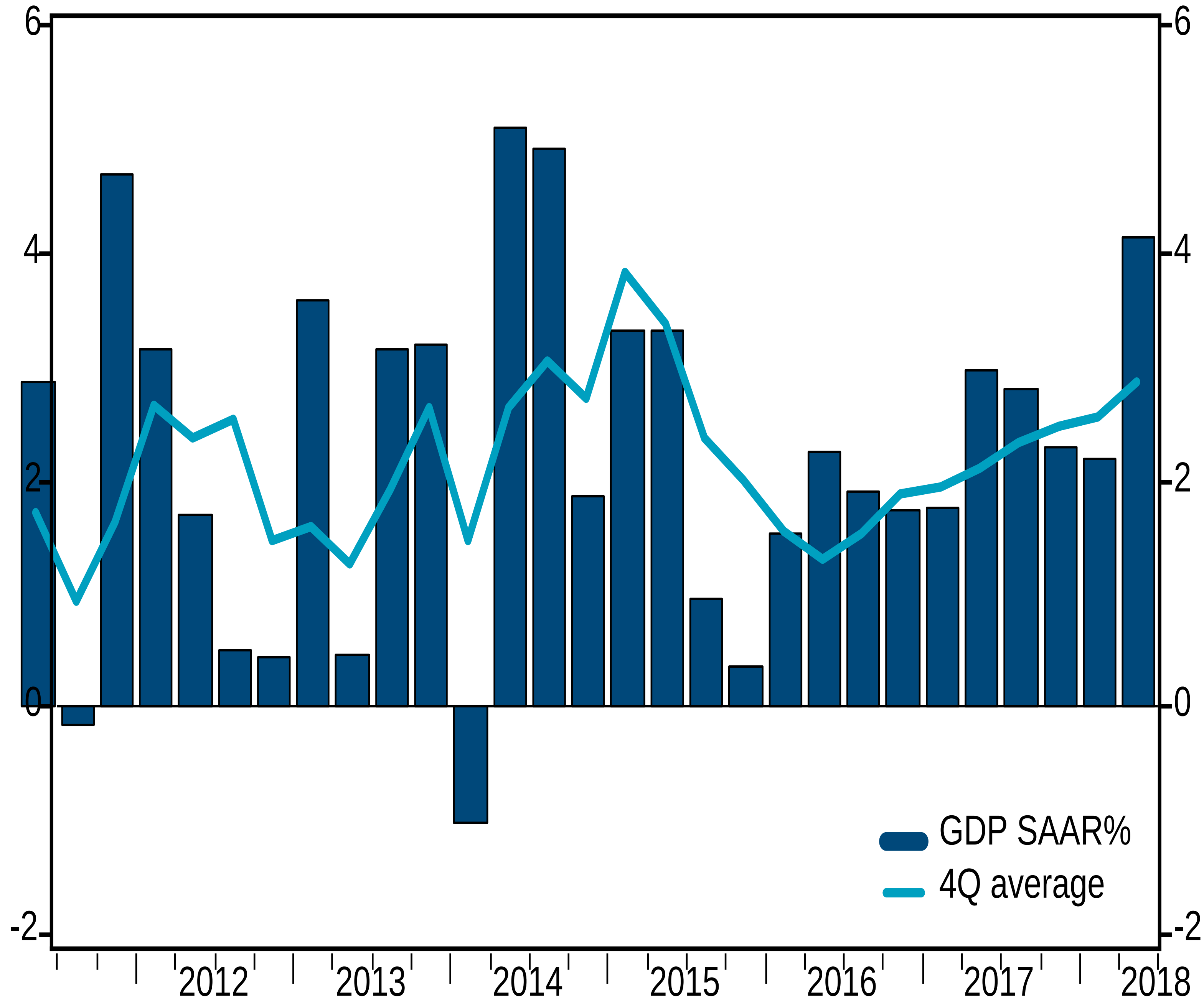
U.S. growth in 2017 averaged 2.5%

4Q avg U.S. GDP: 2.9% in Q2 vs. 2.6% in Q1

3.2% avg GDP in the first half of 2018

2.8% Q2 GDP excluding trade

2015 avg growth: 2.0%
2016 avg growth: 1.9%
2017 avg growth: 2.5%



Source: Bureau of Economic Analysis /Haver Analytics

Average Growth vs. Previous Recoveries

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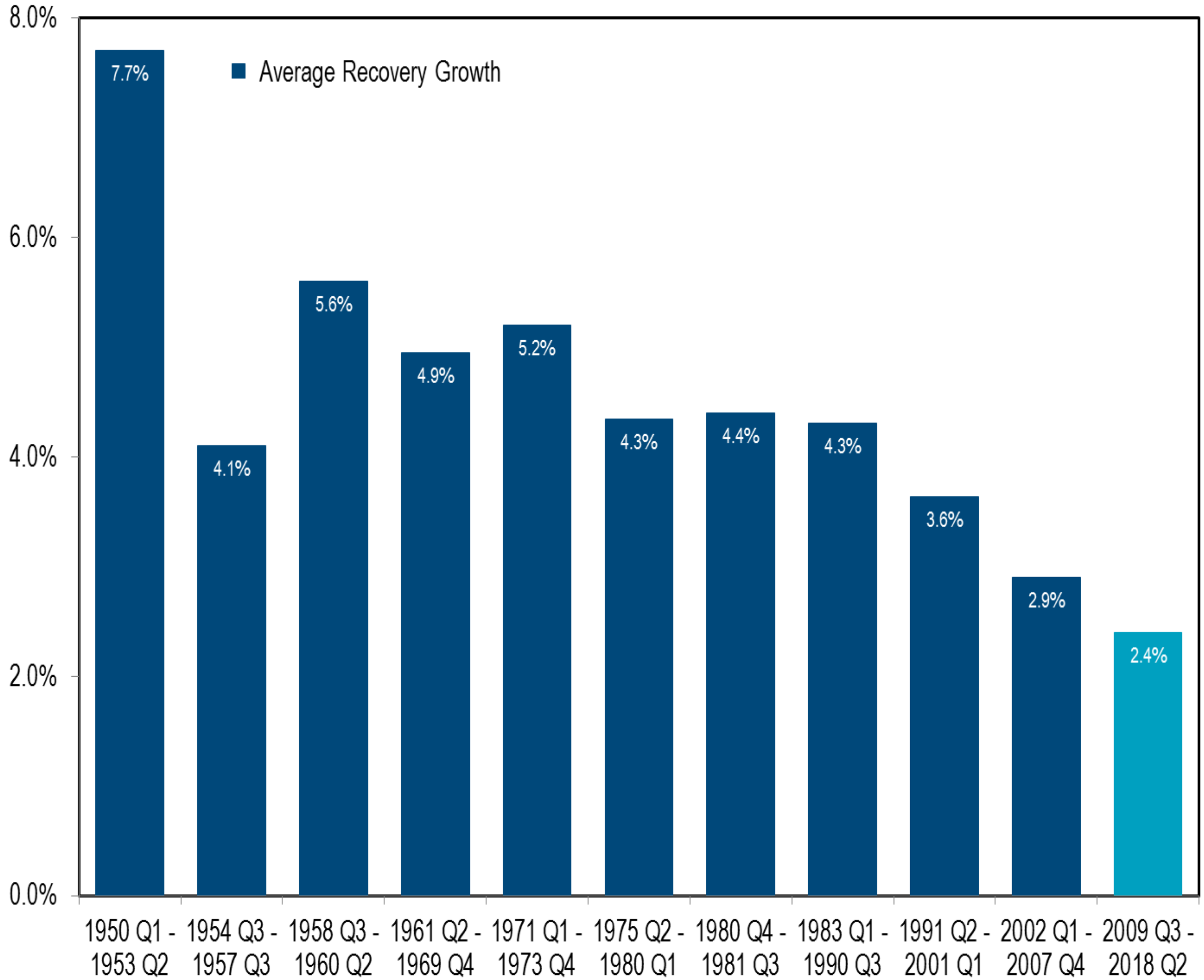
2.4% average growth since the Great Recession, the lowest average growth rate compared to previous recoveries



Source: NBER/ Haver Analytics

GDP Forecast

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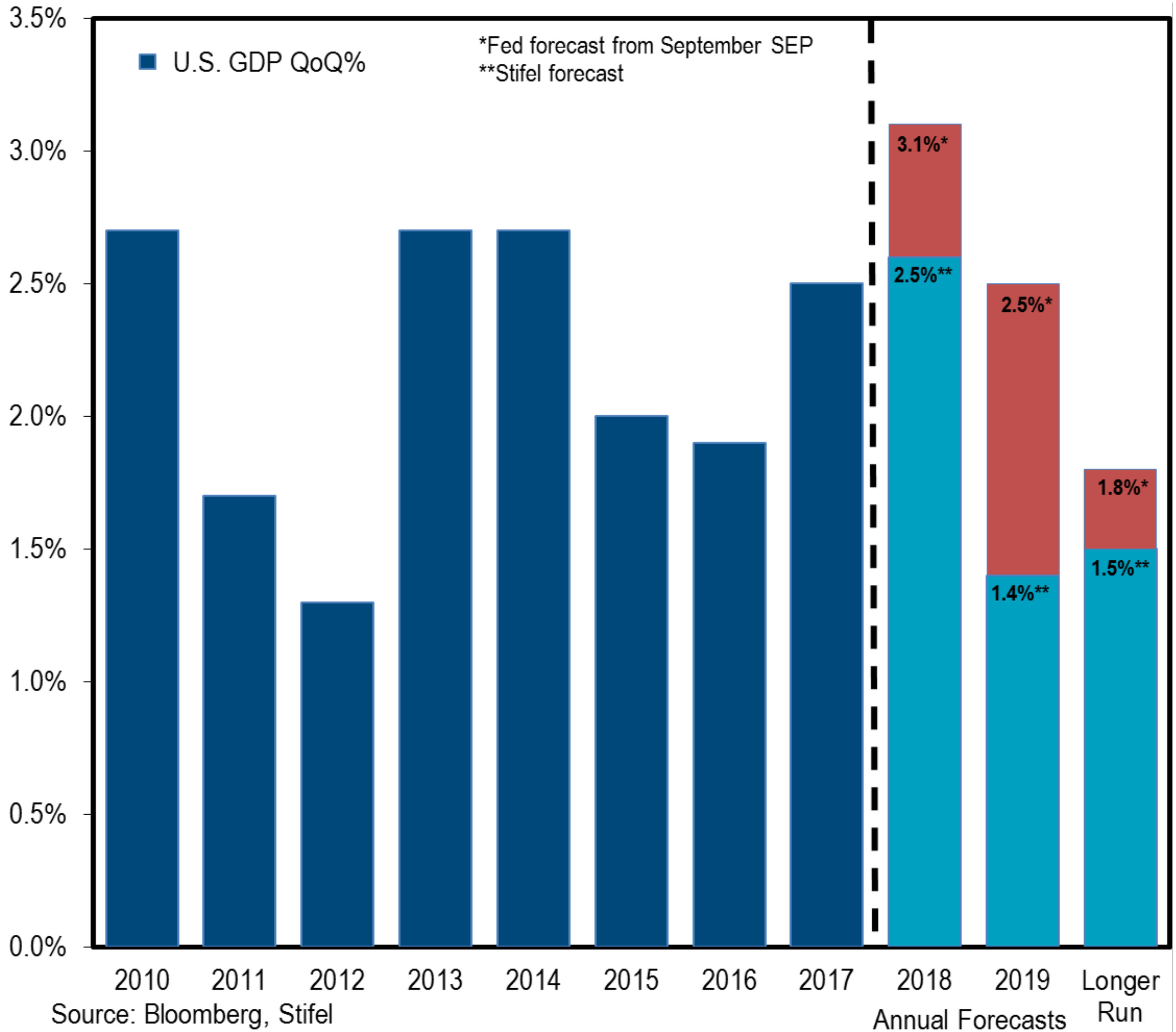
The Fed increased its 2018 GDP forecast to **3.1%** from 2.8% and its 2019 GDP forecast to **2.5%** from 2.4%, while its longer-run forecast was unchanged at 1.8% in the latest September SEP



Source: Bloomberg, Stifel

"*Strong*" Job Gains, On Average

Job Growth has Slowed

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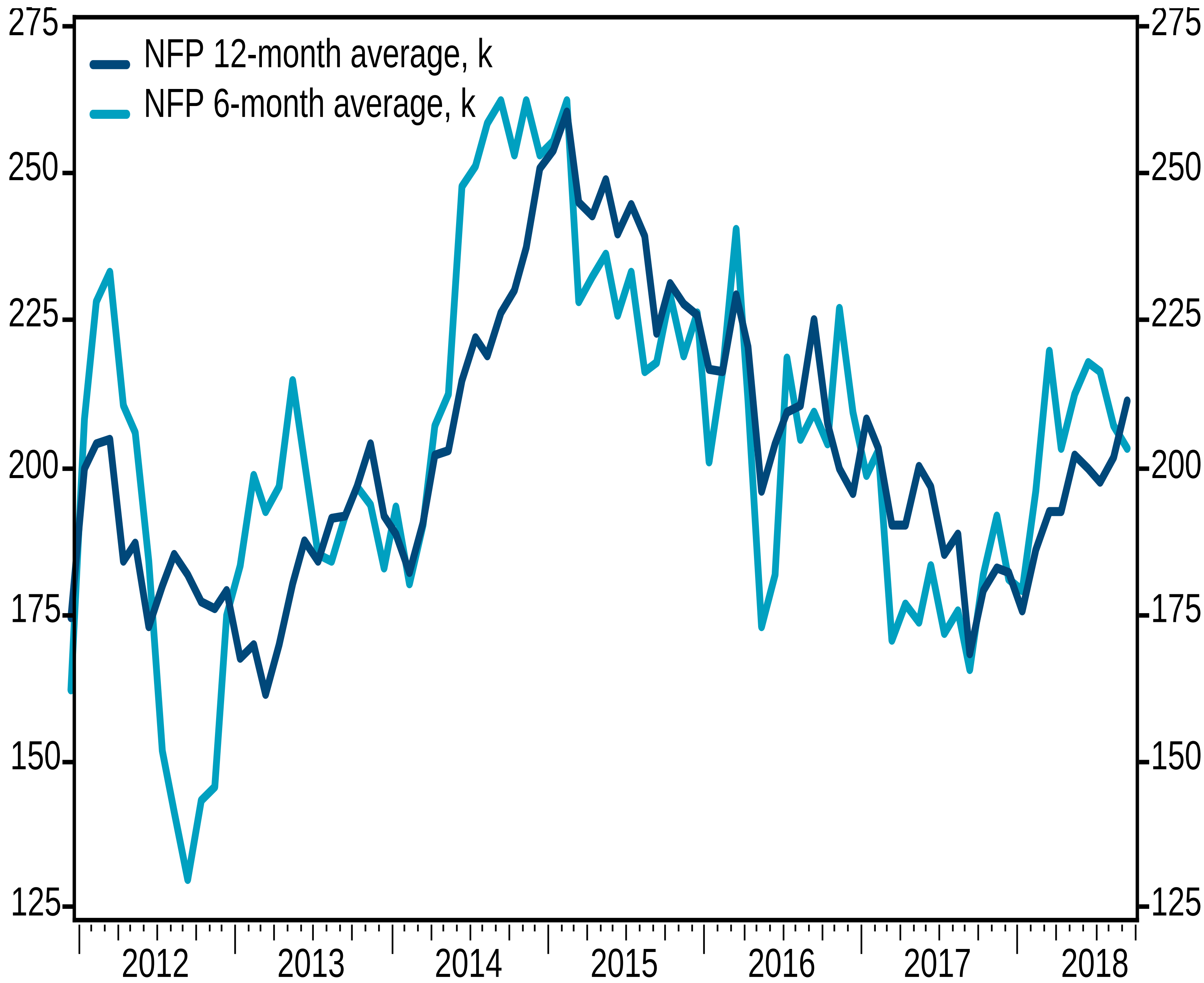
96 consecutive months of positive payroll growth

September payrolls rose **134k,** following a 270k gain in August

12-month average rose from 201k to **211k** in September

Above 200k in January, June, August, October & November 2017

On a 6-month average basis, the trend has slowed from 250k in 2014 to 232k in 2015 to 203k in 2016 to 169k in 2017



Source: Bureau of Labor Statistics /Haver Analytics

Unemployment at 3.7%

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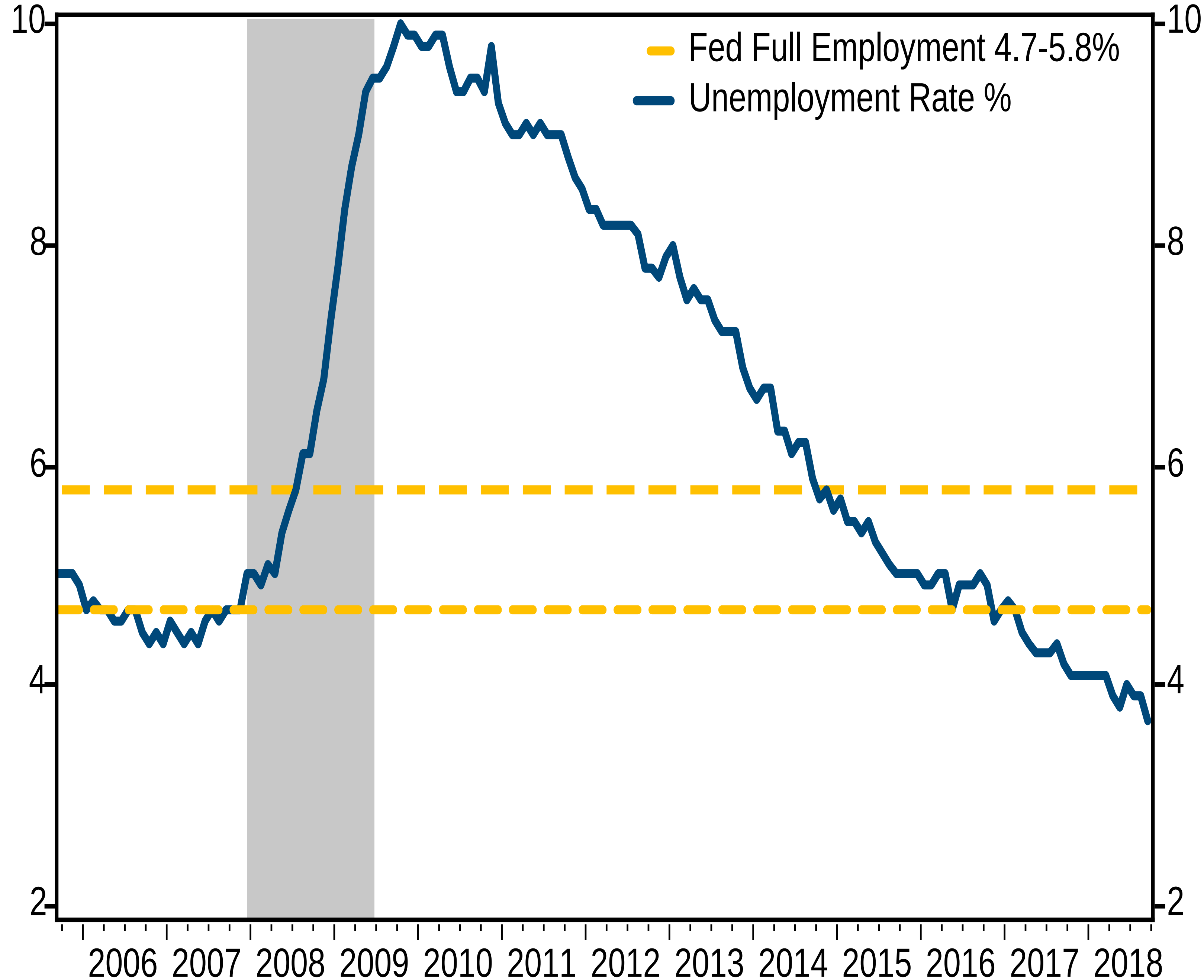
U.S. unemployment fell two-tenths of a percentage point to **3.7%** in September, the lowest rate since December 1969

The unemployment rate has been well within the Fed's full employment range since October 2014 and now falling below the Fed's target range since March 2017



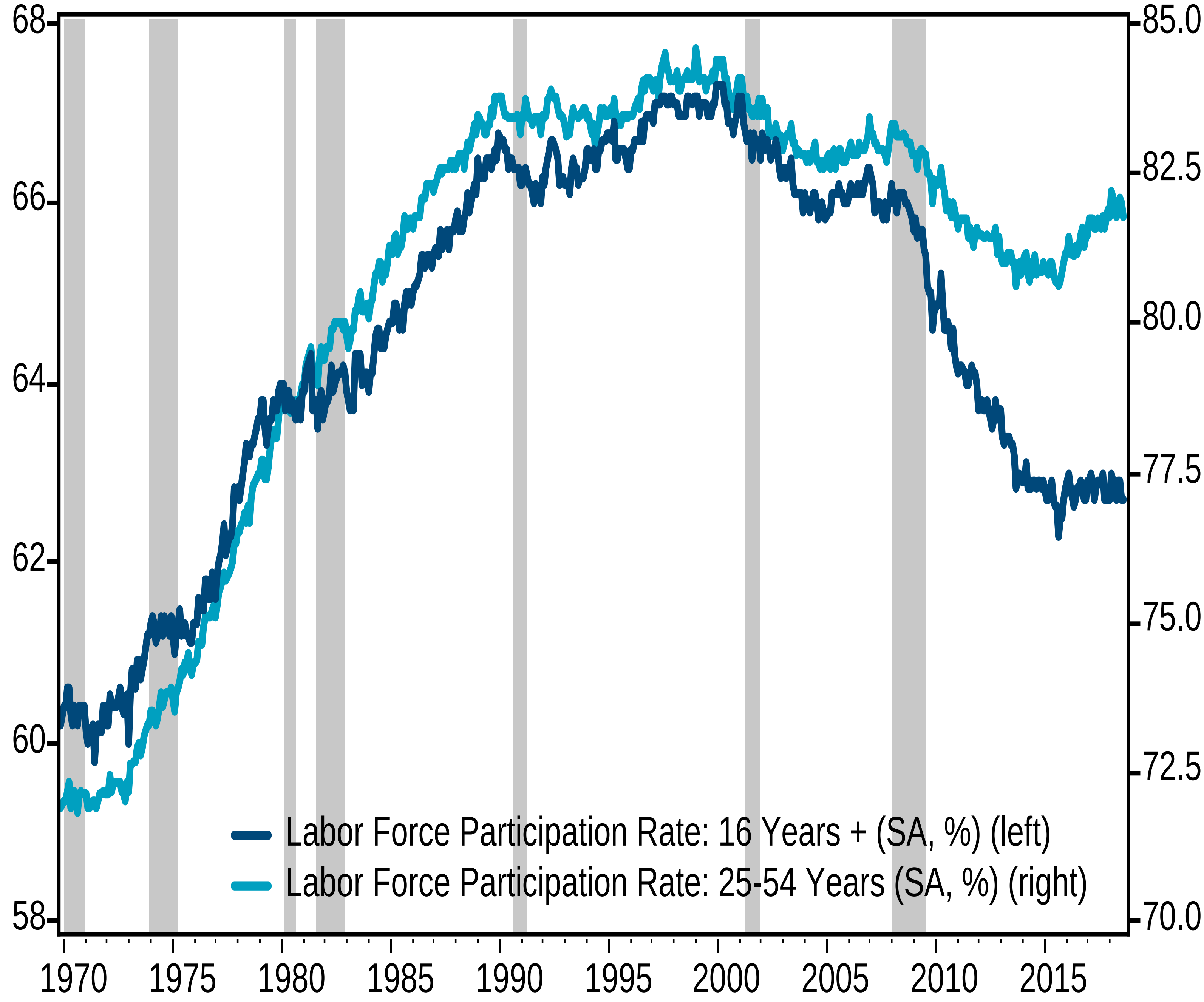
Source: Bureau of Labor Statistics /Haver Analytics

Participation Rate Still Low

Participation rate at a multi-decade low, **62.7**% in September

The prime-age participation rate while improved from a low of 80.6% in September 2015, remains depressed at **81.8**% in September, a multi-decade low

20-55 year olds account for the majority of the decline in the labor force, **8.0m** Americans (only 59% of working age population)



Source: Bureau of Labor Statistics /Haver Analytics

Where Have All the Workers Gone?

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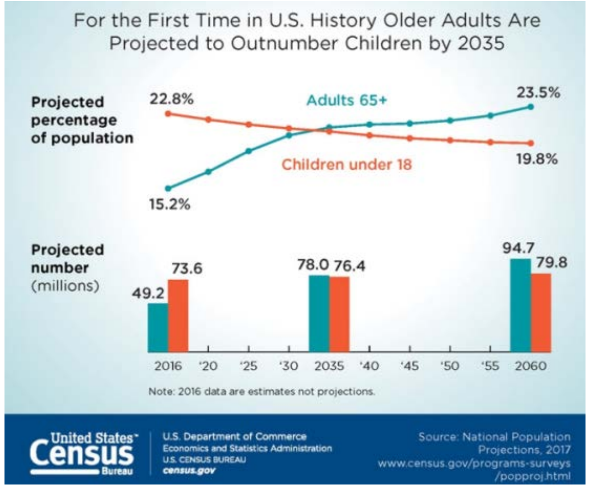
The opioid epidemic. According to the Brookings Institute, an increase in opioid prescriptions could account for roughly 20-25% of the decline in labor force participation over the past decade.



An aging population. 10k Baby Boomers a day reach retirement age. According to the Census Bureau, by 2035, there will be 78.0 million people 65 years and older compared to 76.4 million under the age of 18, the first time in U.S. history older Americans will outnumber children.

Childcare costs. According to the Bureau of Labor Statistics (BLS), childcare costs have risen 168% over the past 25 years.

Rising rate of disability. According to the Conference Board, increasingly more Americans consider themselves disabled. The portion of working age adults who say they're not in the labor force because of a disability has risen to nearly 20%. Currently, over 24M Americans consider themselves disabled.

Gains in Household Spending Have *"Grown Strongly"*

Retail Sales Uneven Momentum

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August sales rose **0.1%,** following a 0.7% rise in July

Y/Y sales rose **6.6%** vs. 6.7% in July

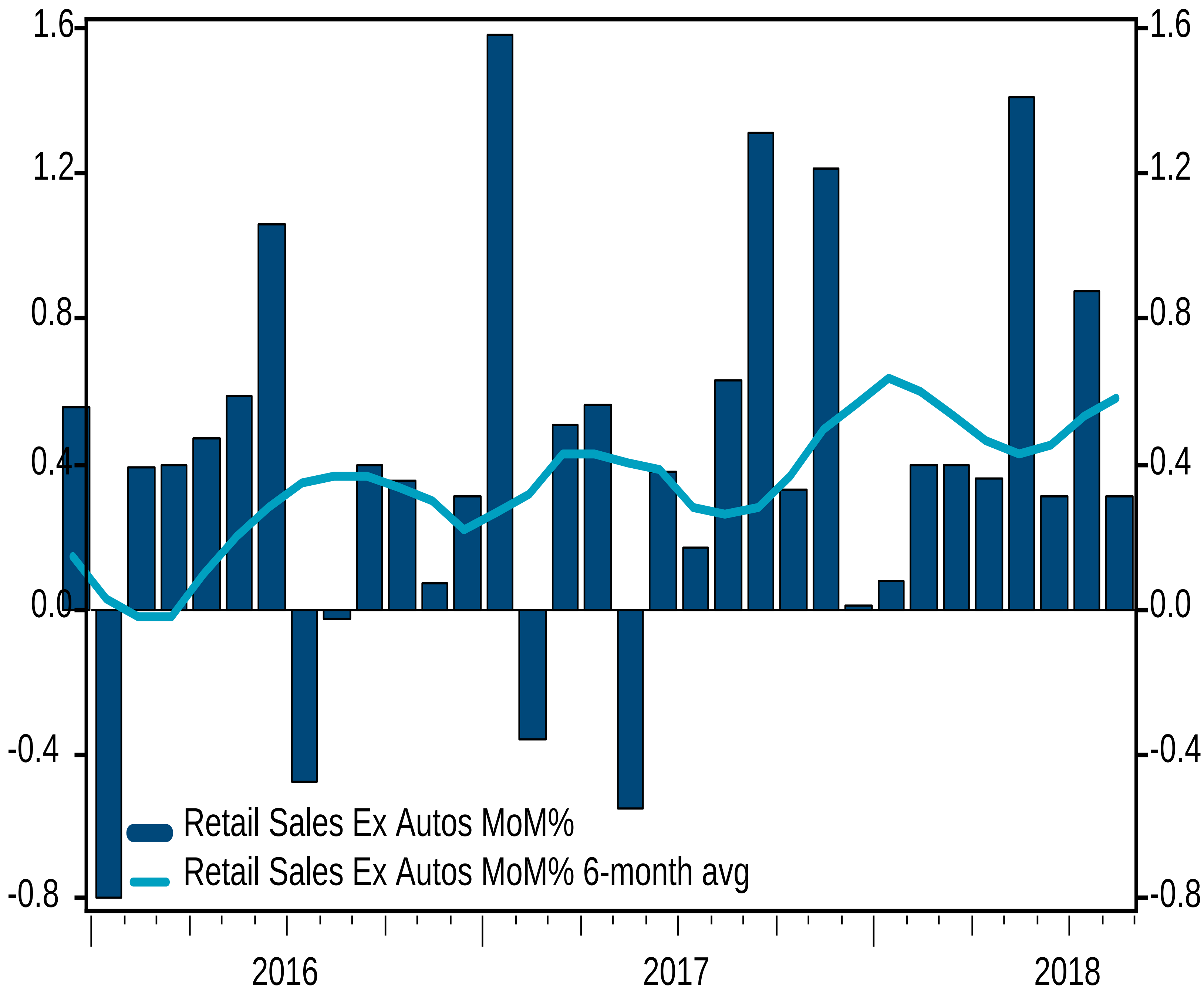
Excluding autos, sales rose 0.3% in August and 7.3% Y/Y, down from 7.7% in July

Control group*
August sales rose 0.1%
Y/Y up **5.2%** in August following a 5.5% increase in July

Three months of flat or negative sales since end of Q1 2017

Consumption rose **3.8%** in Q2, a two-quarter high

*Control group excludes auto, building materials, & gas stations sales



Source: Census Bureau /Haver Analytics

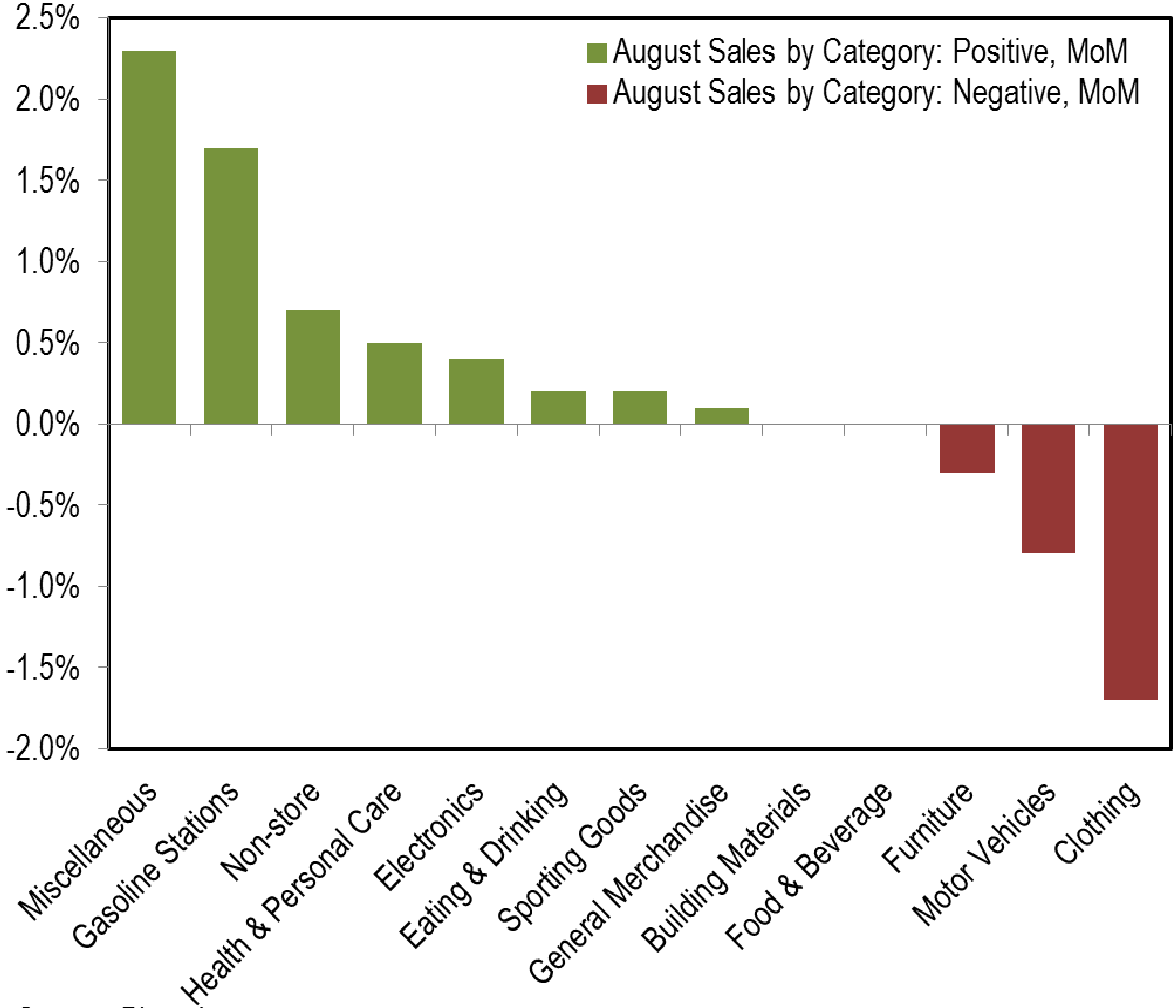
Retail Sales by Category

Americans were quite particular regarding what and where they spent their money with a number of categories losing out

On the weaker side, food and beverage and building materials sales were flat in August

Furniture sales declined 0.3% and motor vehicle sales fell 0.4% in August, a six-month low

Clothing sales dipped 1.7% in August, the largest monthly decline since February 2017



Source: Bloomberg

Avg. Hourly Earnings Stagnant

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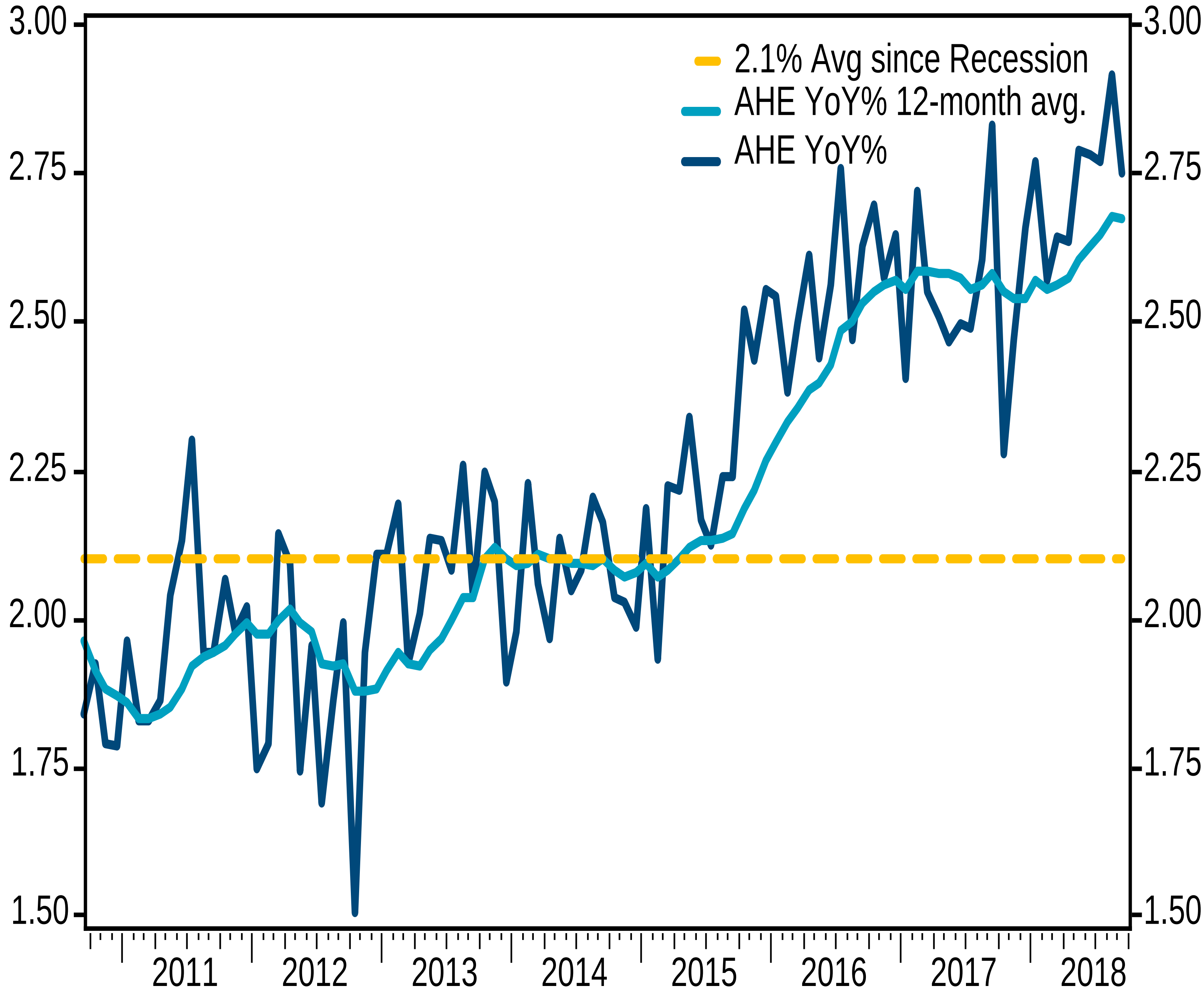
Wages rose **0.3%** in September, following a similar rise in August

Up **2.8%** Y/Y as of September, following a 2.9% annual rise the month prior

2.7% 12-month average in September

2.8% 3-month average in September

"Many participants commented on the fact that measures of aggregate nominal wage growth had so far picked up only modestly."
-August 1st FOMC Meeting Minutes



Source: Bureau of Labor Statistics /Haver Analytics

Home Price-Income Spread Widens

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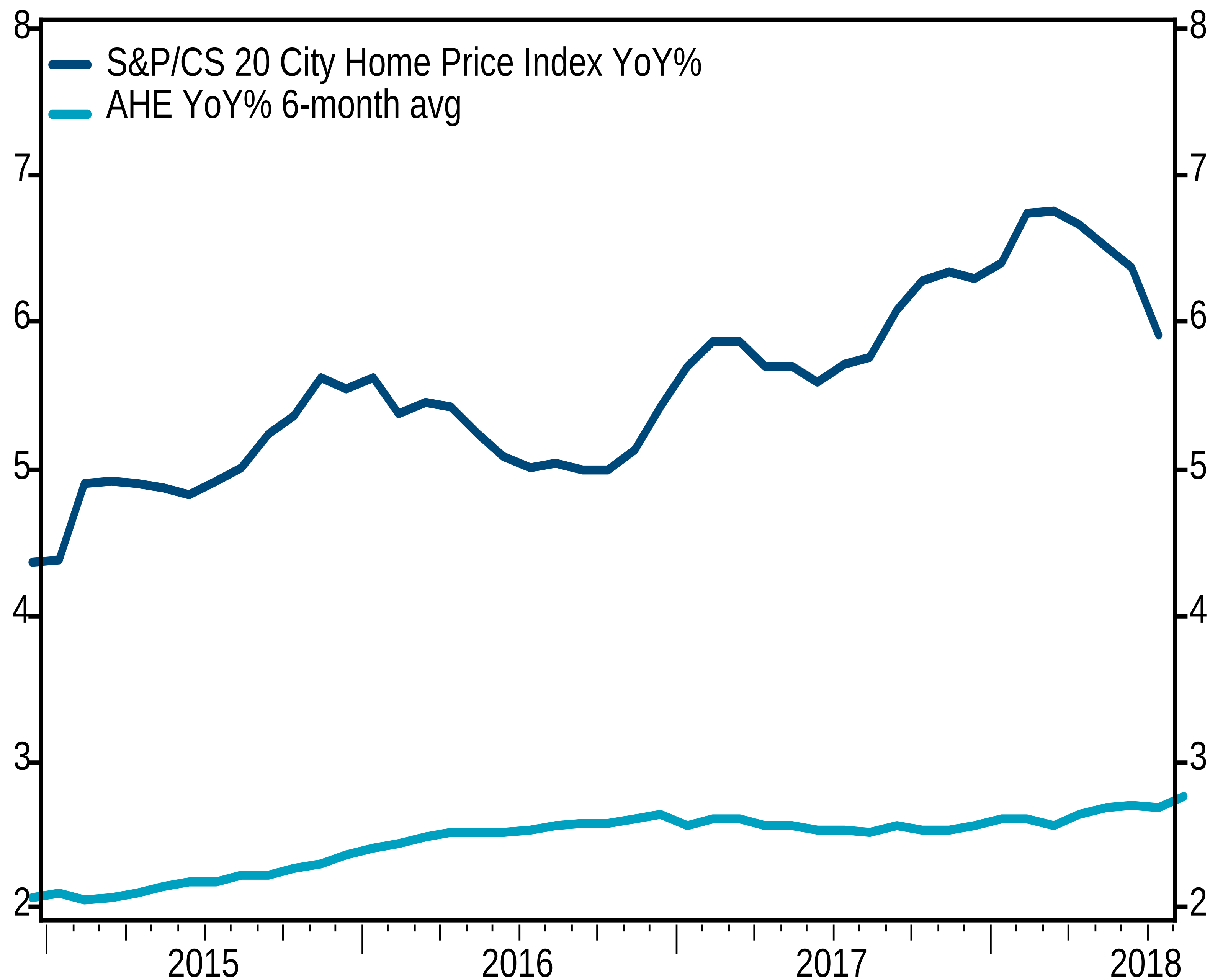
U.S. existing home sales were unchanged in August, following four consecutive months of decline

Down 1.5% YoY, the seventh month of decline in the past eight

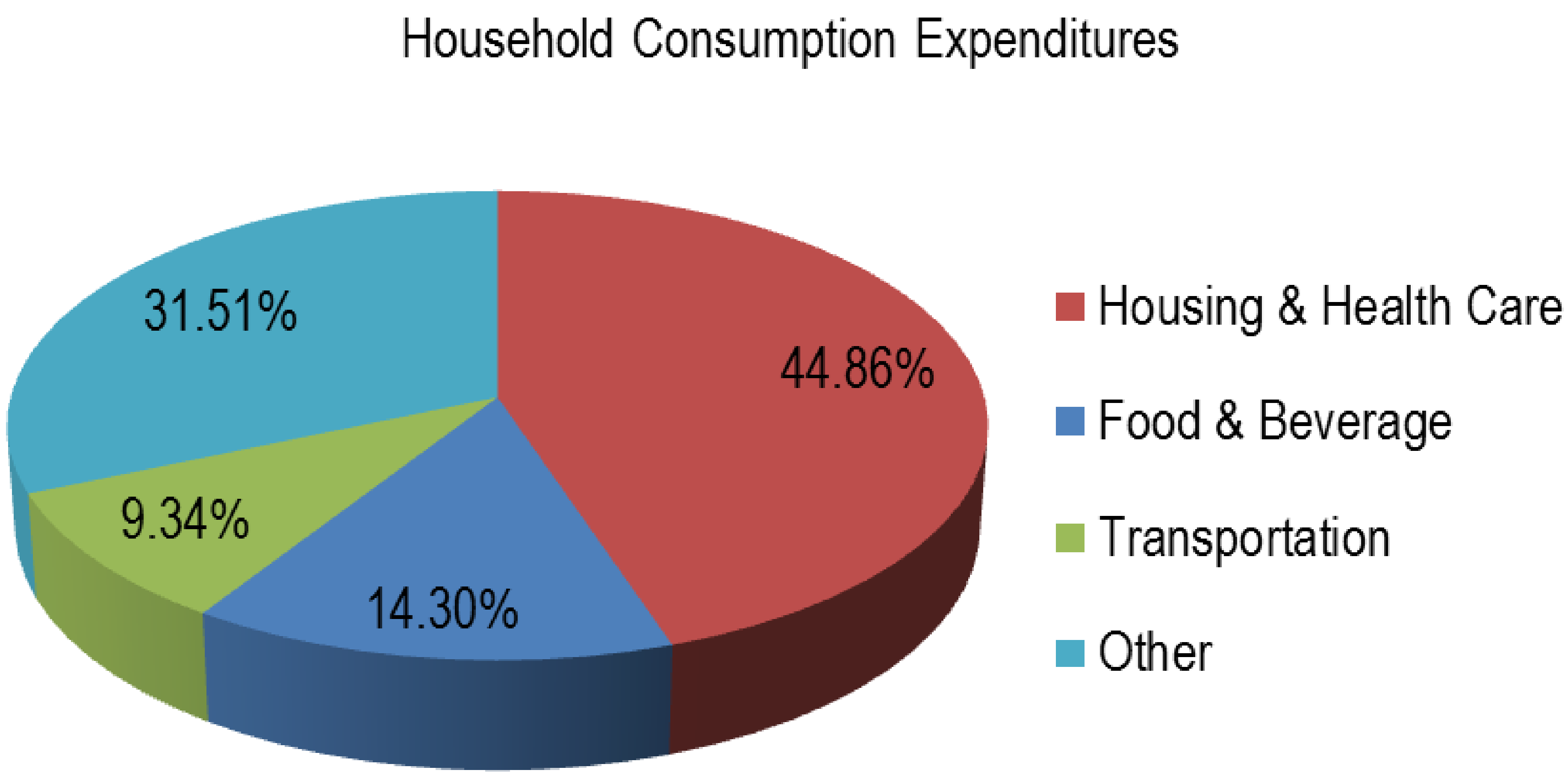
U.S. home prices rose **5.9%** in July, up from a 5.7% annual pace one year prior

Income growth has averaged **2.7%** since the beginning of 2017



Sources: Standard & Poor's, Bureau of Labor Statistics /Haver Analytics

Household Balance Sheet



Source: Haver Analytics

Gains in Business Investment Have *"Grown Strongly"*

Uneven Business Investment

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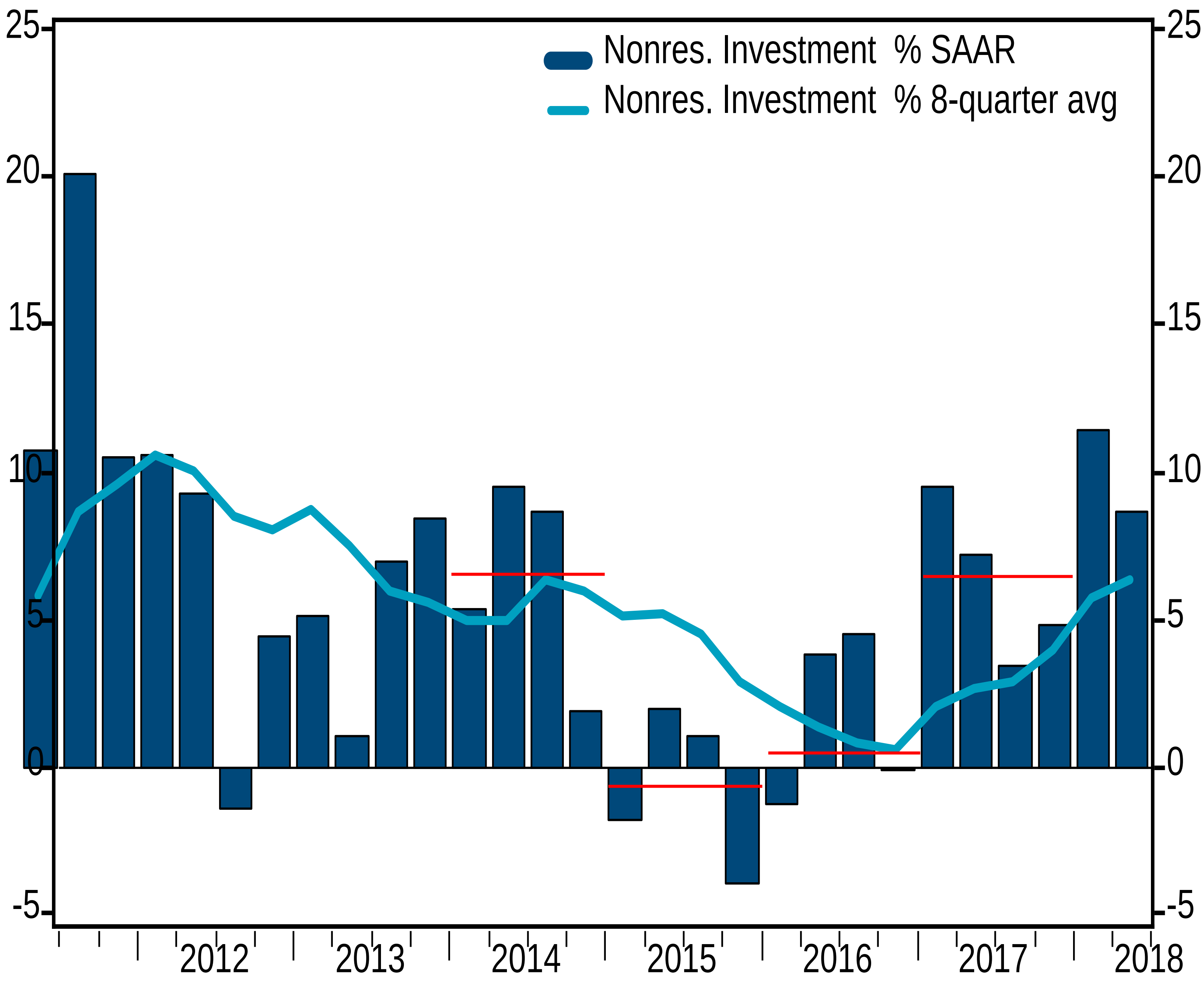
Nonresidential fixed investment fell 3.9% at the end of 2015, the largest quarterly decline since Q2 2009

Investment rose 6.4% in 2014, declined 0.7% in 2015, rose 1.8% in 2016 & increased 6.3% in 2017

Investment rose 8.7% in Q2, following an 11.5% rise in Q1, thanks to a 14.5% increase in structures, a 10.5% rise in intellectual property and a 4.6% rise in equipment investment in Q2



Source: Bureau of Economic Analysis /Haver Analytics

Corporate Investment Slows

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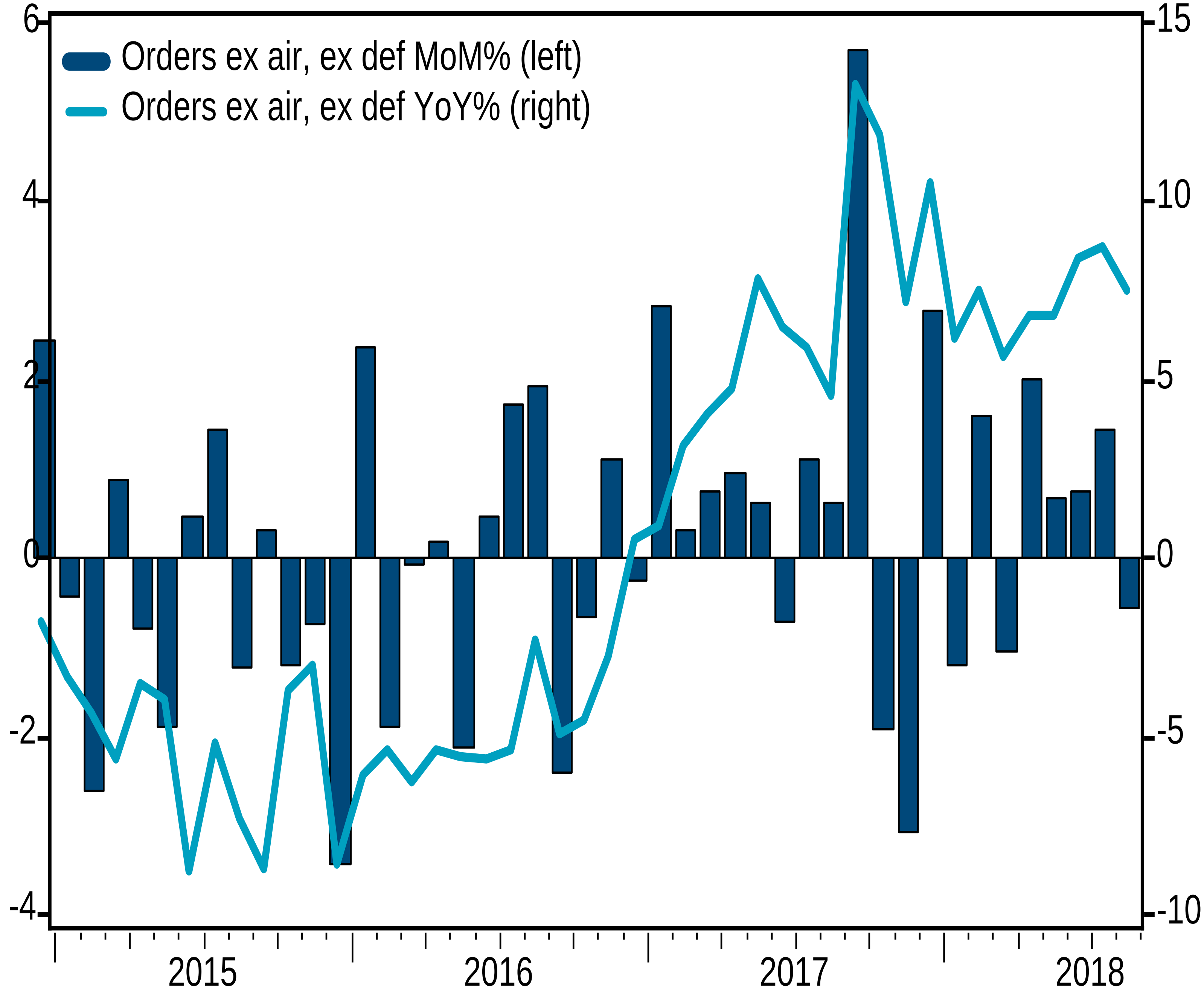
Capital goods excluding aircraft *and* defense – a proxy for business investment – fell **0.5%** in August following a 1.5% rise the month prior

Year-over-year, business investment increased **7.5%**, a three-month low and down from a recent peak of 13.3% in September 2017



Source: Census Bureau /Haver Analytics

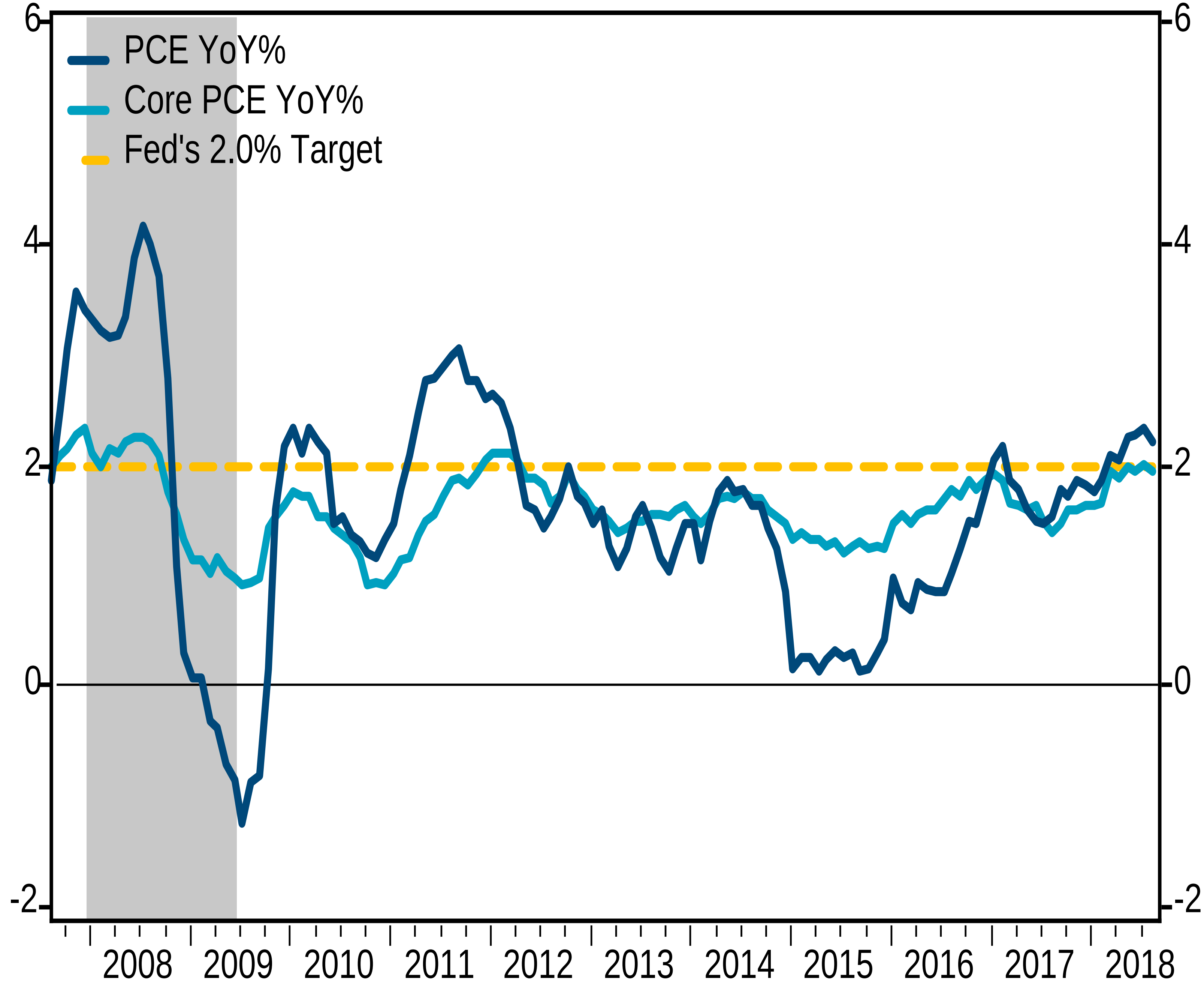
Inflation *"Near"* 2% Target

Inflation Momentum: PCE

The PCE rose **0.1%** in August and rose **2.2%** year-over-year, a four-month low

The core PCE was flat in August and rose **2.0%** year-over-year

Core inflation had been trending below 2% since April 2012



Source: Bureau of Economic Analysis /Haver Analytics

"On a 12-month basis, both overall inflation and inflation for items other than food and energy ***remain near*** *2 percent,"… and is furthermore expected to* ***run near*** *the Committee's "****symmetric*** *2 percent objective over the medium term…"*

–September 26th FOMC Statement

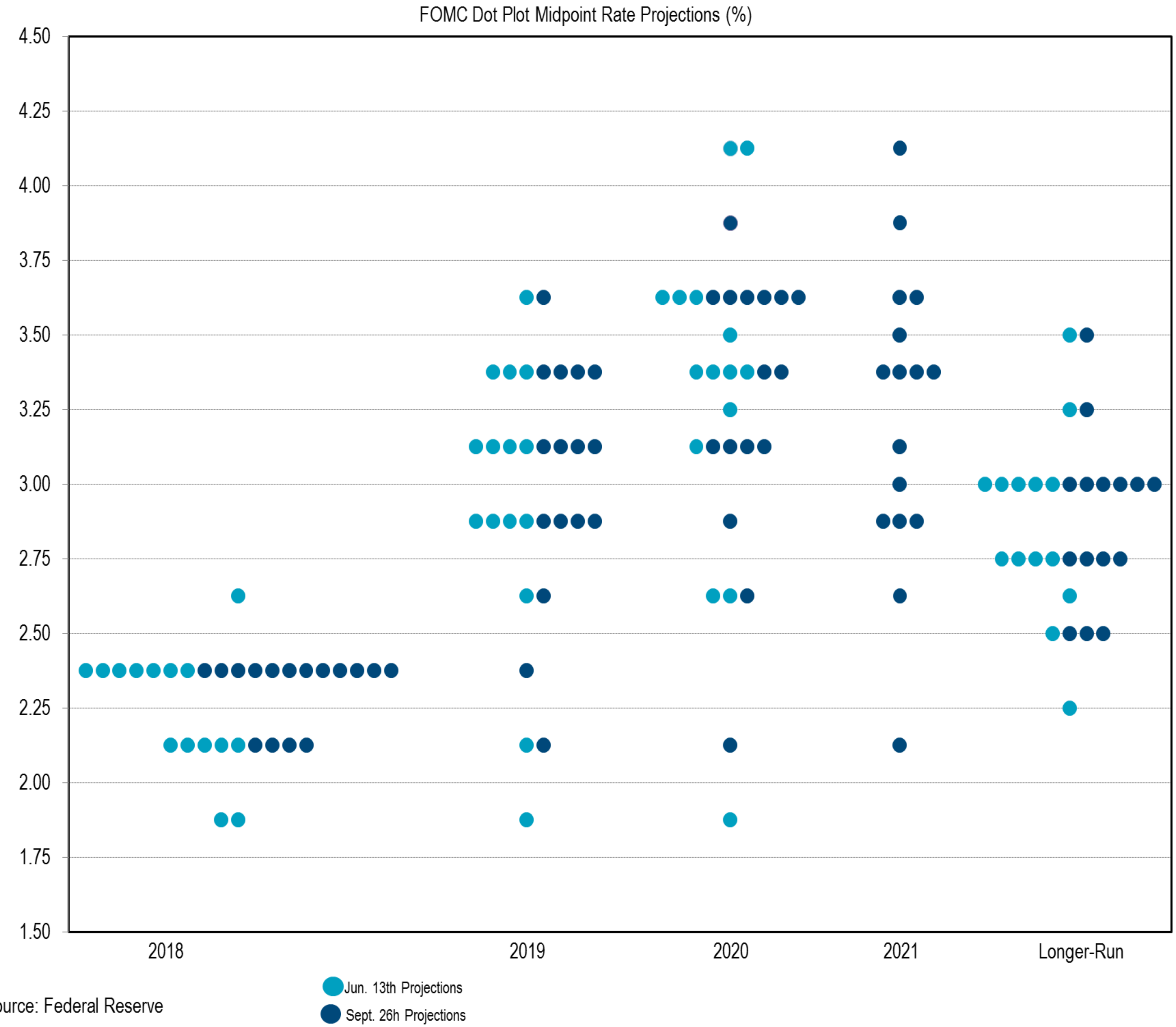
Forward Guidance

Fed Dot Plot Shows Four Hikes in 2018

The Fed forecasts four (one additional hike after September 26th move) in 2018 and three hikes in 2019

Median Consensus:

	June	September
2018:	2.4%	2.4%
2019:	3.1%	3.1%
2020:	3.4%	3.4%
2021:	--	3.4%
Longer-Run:	2.9%	3.0%



Source: Federal Reserve

“Accommodative” Removed

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“If we move too quickly we can snuff out a recovery unnecessarily and inflation falls short of its 2% target. Or if we move too slowly we have an economy that can overheat… We are always trying to navigate between those two.”

–Fed Chairman Jerome Powell, September 26th Press Conference

Market Optimism

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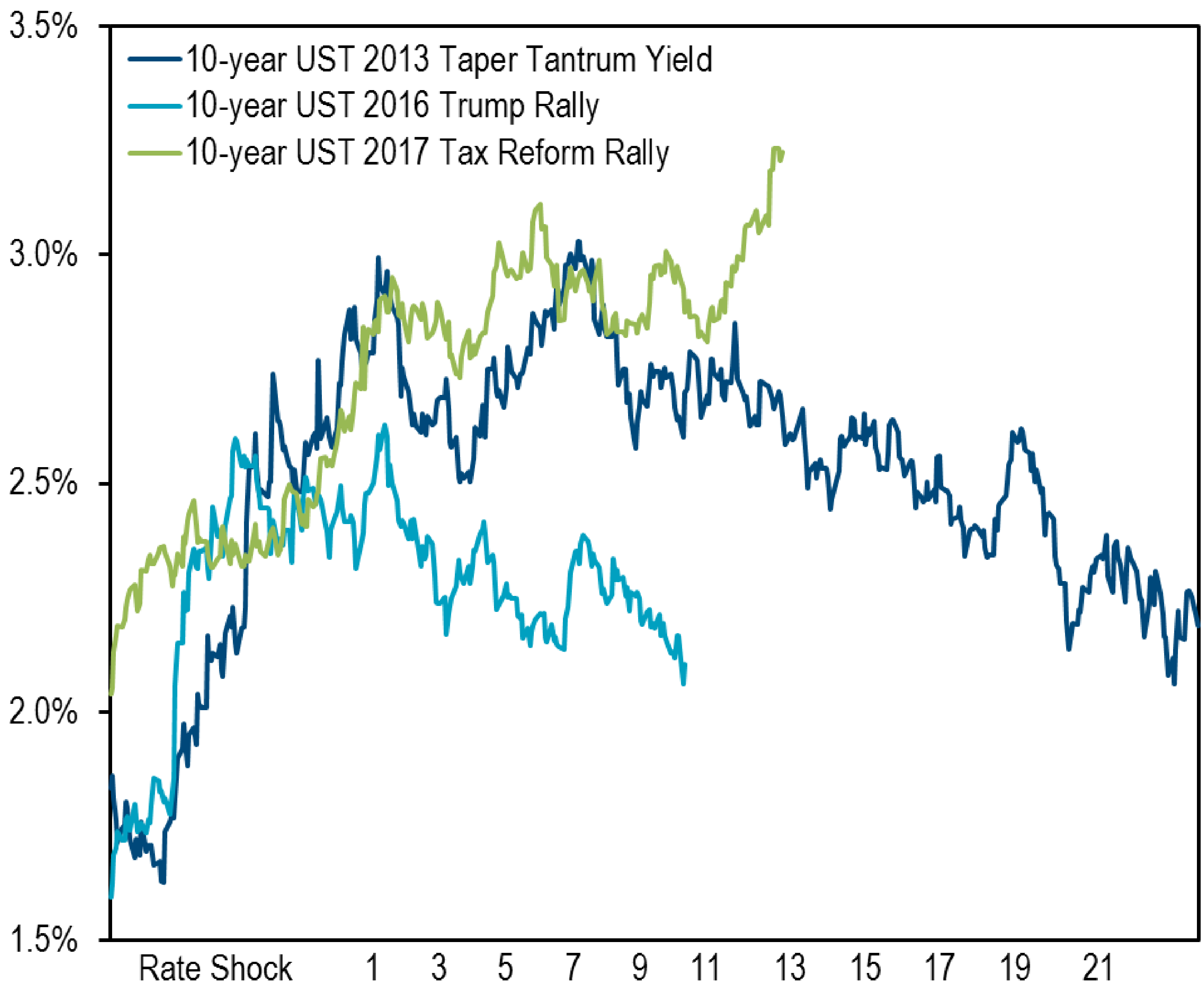
During the Taper Tantrum of 2013 yields rose more than 100bps January to December before recapturing 79bps 35 months later

10-yr yield rose 80bps from November 1, 2016 to 2.63% on March 13, 2017, the highest since July 2014

10-yr rose 119bps from September 7, 2017 to **3.23%** on October 5th, the highest since July 2011



Source: Bloomberg

Yield Curve To Flatten Further

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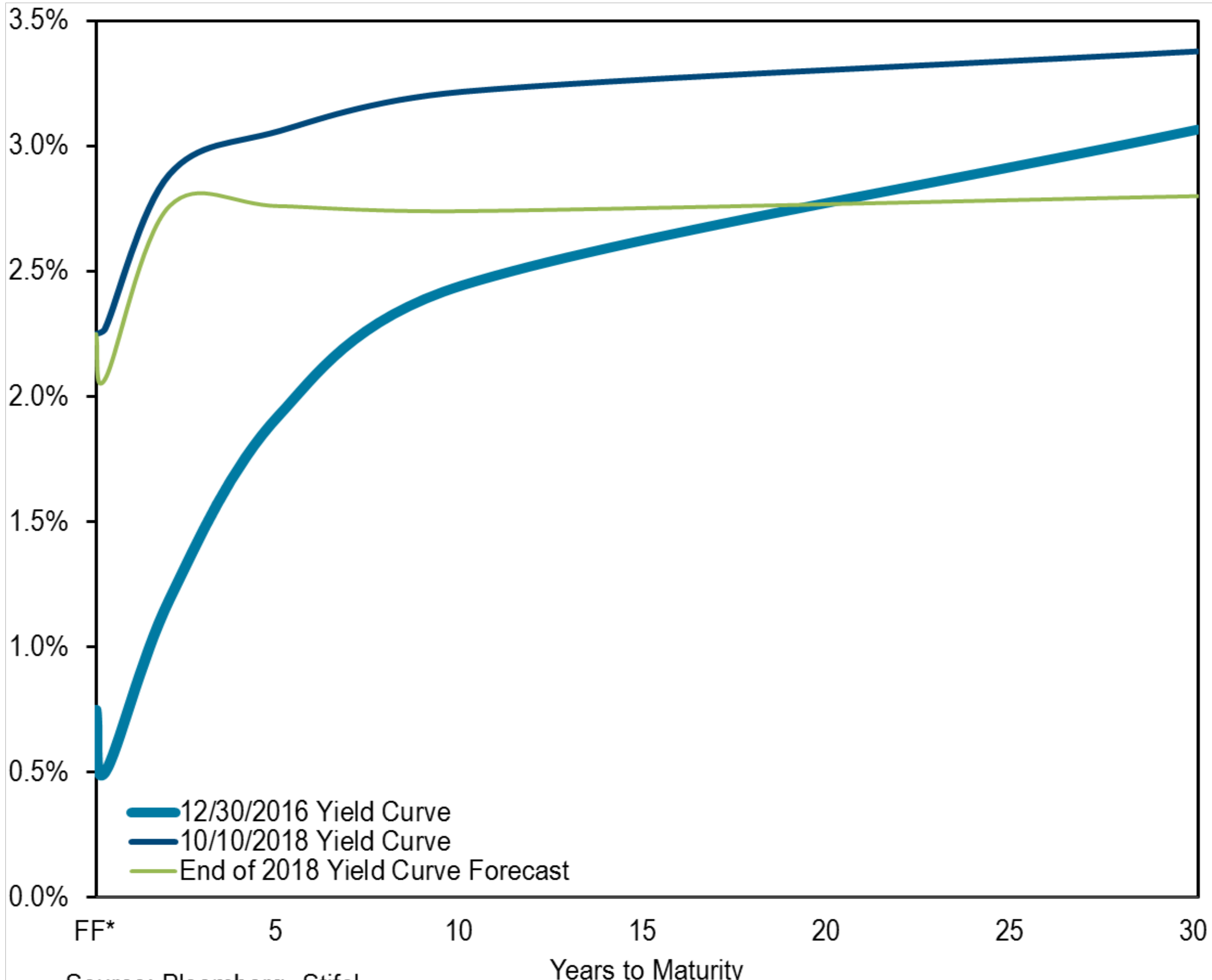
2s10s spread of **124bps** prior to liftoff and down to **33bps** following the September 2018 FOMC meeting

With the 2-year up 169bps since the start of 2017 and the 10-year up 81bps, the spread of 33bps is near an eleven-year low

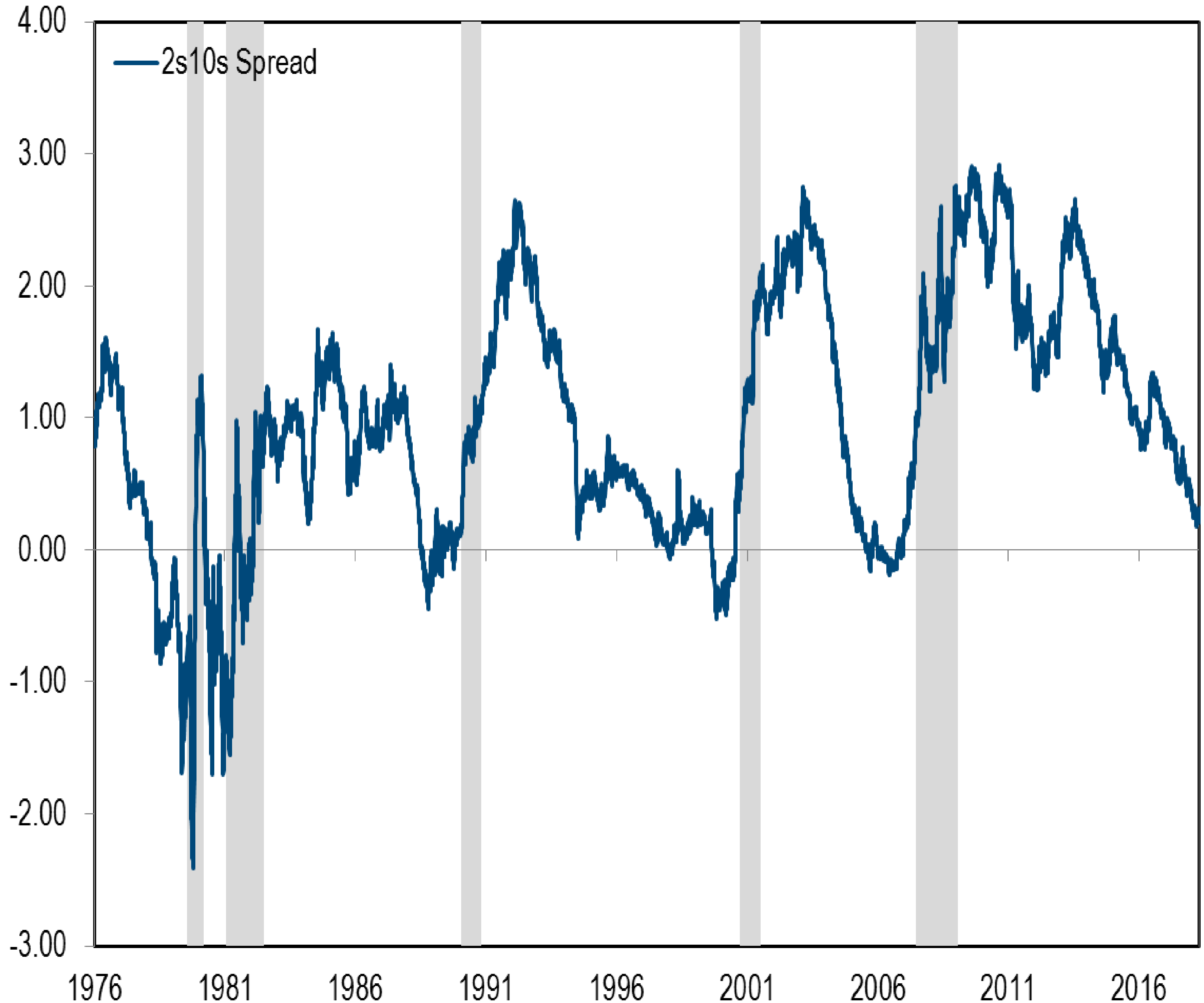
Projected to flatten to **-2bps** by end of 2018



Source: Bloomberg, Stifel

U.S. 2-10 Year Yield Spread

An inverted curve has historically preceded every economic recession, a phenomenon that has not been lost on the Fed



Source: Federal Reserve Bank of St. Louis

"We're in pretty good shape and I think what we could do is take signals from financial markets that are telling us that we're about where we need to be right now…Yield curve, for instance, is very flat. I'd rather not see an inverted yield curve in the U.S. That's usually a harbinger of a slowdown ahead."

–St. Louis Federal Reserve President James Bullard, Fox Business Interview, September 4, 2018

"We're on a good path of gradually raising rates…We don't feel the need to raise interest rates more quickly than otherwise…It's kind of obvious what the yield curve is telling you."

-New York Federal Reserve President John Williams, University of Buffalo, September 6, 2018

Wild Cards

International Trade/Relations

U.S. imposes tariffs on steel and aluminum, totaling 25% and 10%, respectively

China imposes temporary anti-dumping duties of 178.6% on U.S. sorghum imports

U.S. imposes 25% tariffs on $34B worth of goods from China

China retaliates with 25% tariffs on $34B worth of U.S. products

U.S. proposes as much as a 25% tariff on imported autos, up from the current 2.5% tariff on cars but in line with the current 25% tariff on light trucks

U.S. imposes 25% tariffs on $16B worth of Chinese goods

China retaliates with 25% tariffs on $16B of U.S. goods

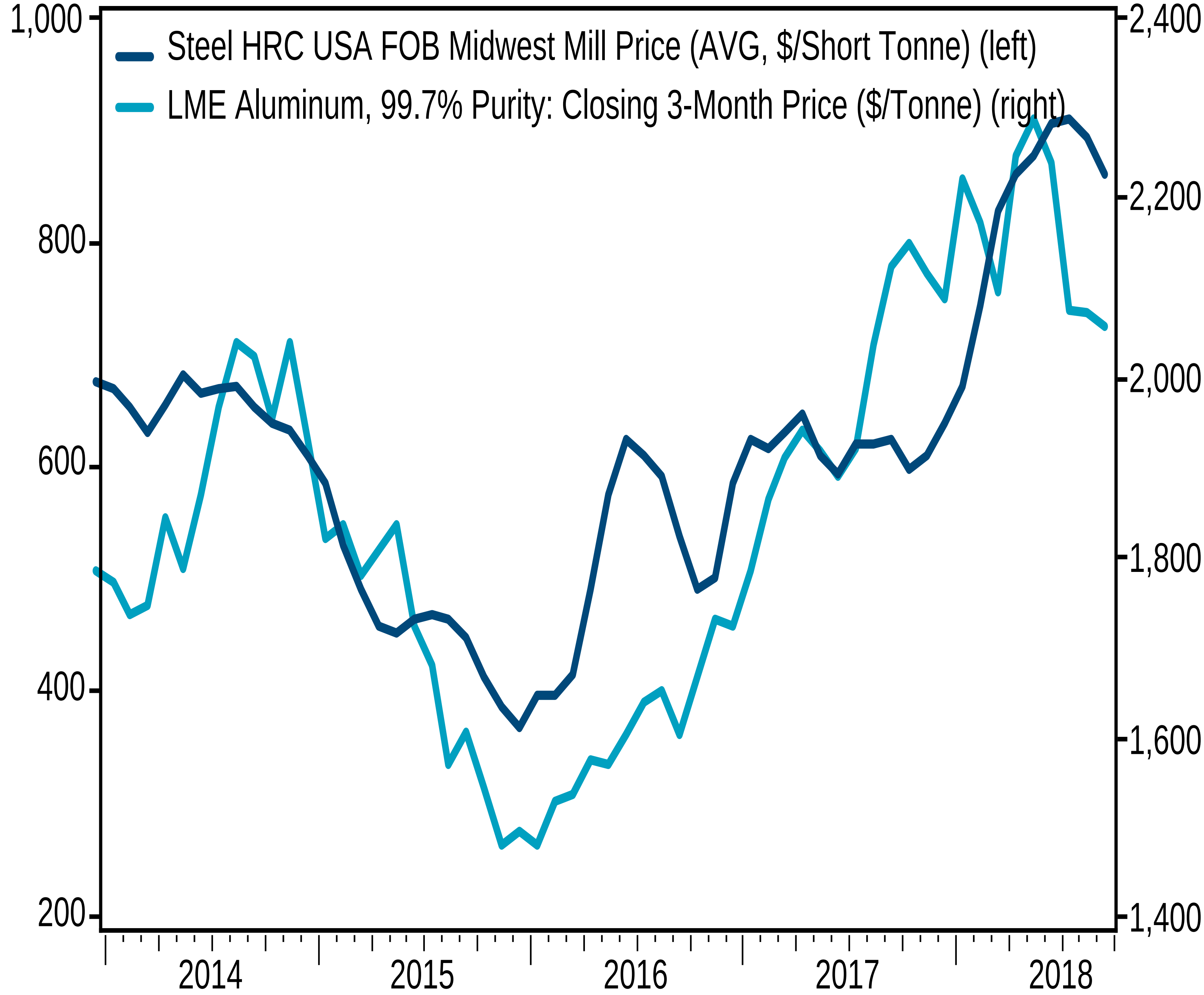
U.S. proposes $267B in tariffs on Chinese goods in addition to the $200B already proposed

U.S. imposes 10% tariffs on $200B worth of goods from China

China retaliates with tariffs of 5-10% on $60B of U.S. goods

Steel prices up 44% on an annual basis in August vs. an 8% annual gain at the start of the year

Aluminum prices up 2% on an annual basis in August vs. a 24% annual gain at the start of the year



Sources: Chicago Mercantile Exchange, Financial Times /Haver Analytics

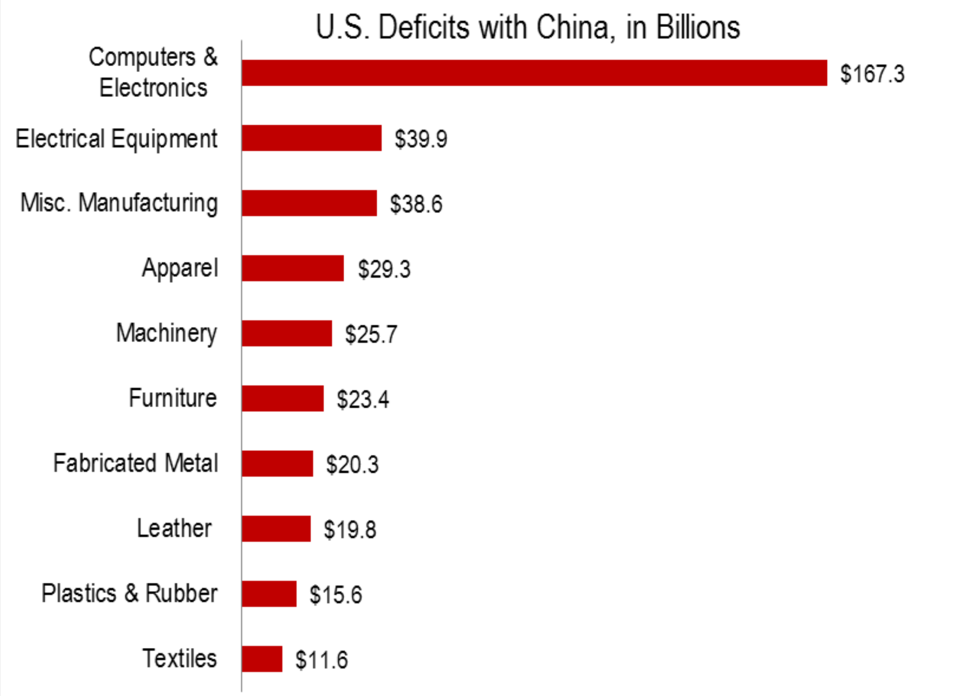
International Trade/Relations

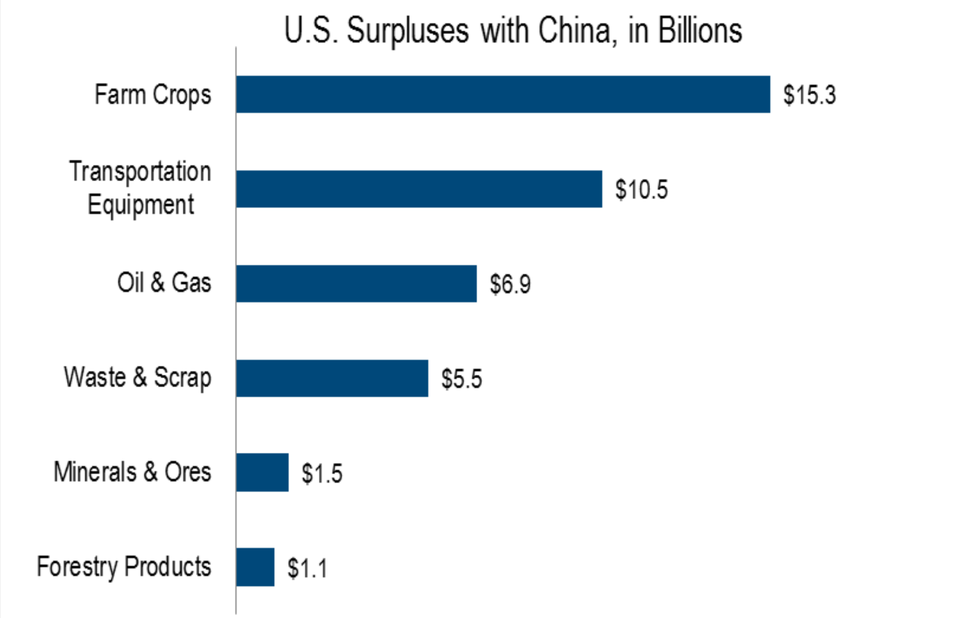
The U.S. currently imposes a number of tariffs on China and other countries, and vice-versa

For example, the U.S. imposes a 2.5% tariff on imported cars and a 25% tariff on imported light trucks. The EU imposes a 10% tariff on imported U.S. cars, while China has a 15% tariff on imported cars

According to the U.S. Census Bureau:
U.S. imports of goods from China in 2017 totaled: $505.5B
U.S. exports of goods to China in 2017 totaled: $129.9B

According to the World Bank:
U.S. GDP in 2017: $19.39T
China's GDP in 2017: $12.24T





Source: U.S. Census Bureau

*2017 figures represented

Trump's Key Agenda Points

- A four pillar framework for immigration including a path to citizenship for Dreamers, building a *"wall,"* ending the visa lottery program and moving towards a merit-based immigration system.

- Repeal & reform the Affordable Care Act. (Graham-Cassidy).

- Infrastructure spending bill proposes $200 billion in federal spending and $1.3 trillion at the state and local level, totaling $1.5 trillion to build roads, bridges, schools and airports *"second to none."*

- Tax Cuts and Jobs Act

Debt Appetite Diminished

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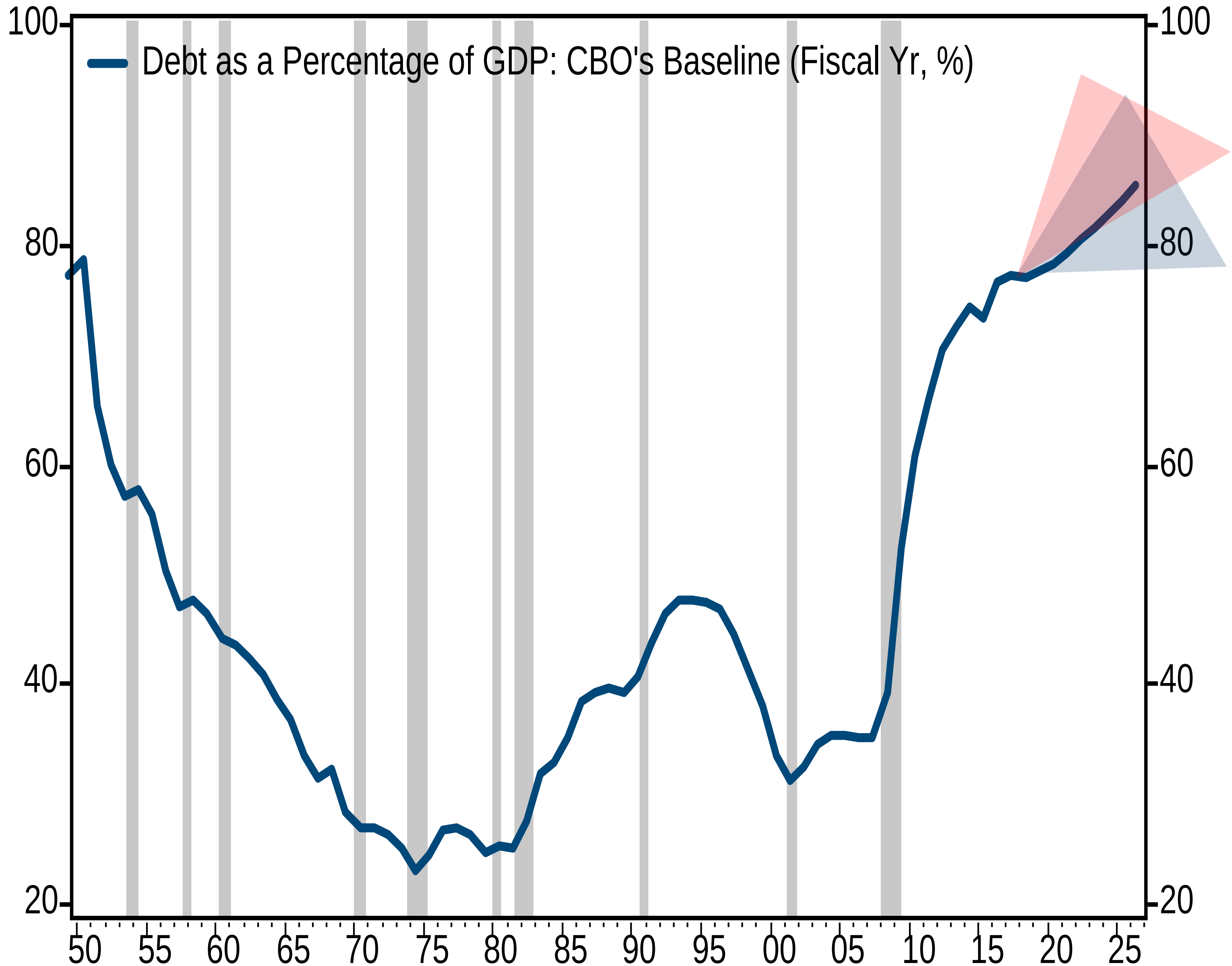
77% of GDP, the highest level relative to the size of the economy since 1950

1950s decade-long expansion posting over 4.5% GDP vs. stagnant 2%

According to the CBO, financing the debt coupled with rising interest rates would result in a four-fold increase

Federal interest outlays totaled more than **$330b**



Source: Congressional Budget Office /Haver Analytics

Positive Market Reaction

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After an initial fallout on election day, equities have since rebounded, pushing the Dow to a record high as of October 3rd

The Dow broke through 23,000 on an intraday basis for the first time on October 17th and closed above 23,000 on October 18th

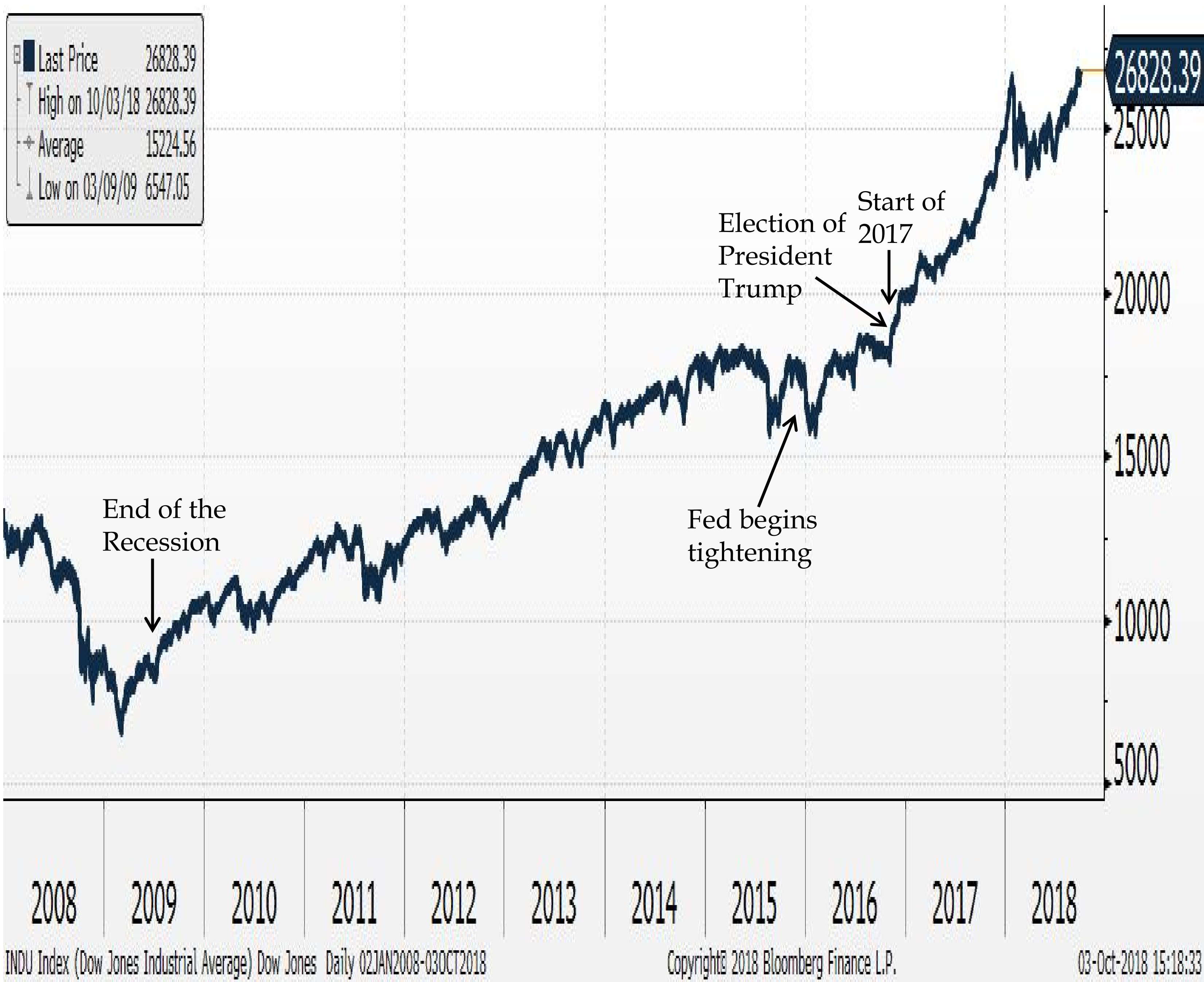
The Dow closed above 25,000 for the first time on January 4th

The Dow closed down 1,175.21 pts (4.6%) on February 5th, marking the largest one-day point decline on record and following a 665.75 pt drop the prior trading day (Feb 2nd)

Equities had a wild ride throughout the first quarter, breaking a ten-month winning streak with more than 50 days of triple digit swings, 27 of which ended in the red

Since the start of 2017, however, the Dow is up 35% and up 46% since election day

Dow Jones Industrial Average



Continued Moderation, Subdued Inflation, and a Flatter Curve

- Q2 GDP increased 4.2% after a 2.2% rise in the first quarter and a pace of 3.0% mid-2017.
- Consumption remains positive but restrained amid still-modest labor market conditions and a disappointing impact from tax reform. Consumption up 3.8% in Q2, a two-quarter high, but following a 0.5% rise in Q1.
- Positive business investment particularly in equipment as energy prices improve, and R&D with a growing reliance on technology which will reduce costs, as well as further displace labor.
- Business optimism has peaked as fiscal promises of a pro-growth agenda remain uncertain & have fallen short.
- Domestic manufacturing has lost momentum amid trade tensions, modest global demand and a stronger U.S. dollar.

Economic Summary

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- Failure to meet expectations in terms of advanced growth will weigh on the equity market and longer rates, already pricing in accelerated activity.

- Monetary policy to remain "*gradual*" with a slightly elevated pace relative to 2015/2016. Accelerated inflation will add ammunition for the hawks.

- Fed's focus remains diversified on rates and balance sheet normalization. The second layer of policy will continue until the Fed reaches terminal rate (2.5% vs Fed forecast 3%).

- Disappointing reality from a growth and inflation standpoint will restrain rates on the long-end as the Fed remains focused on their forecast and continues to rise on the short-end, resulting in a further flattening of the curve and likely inversion by year-end.

Questions?

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