

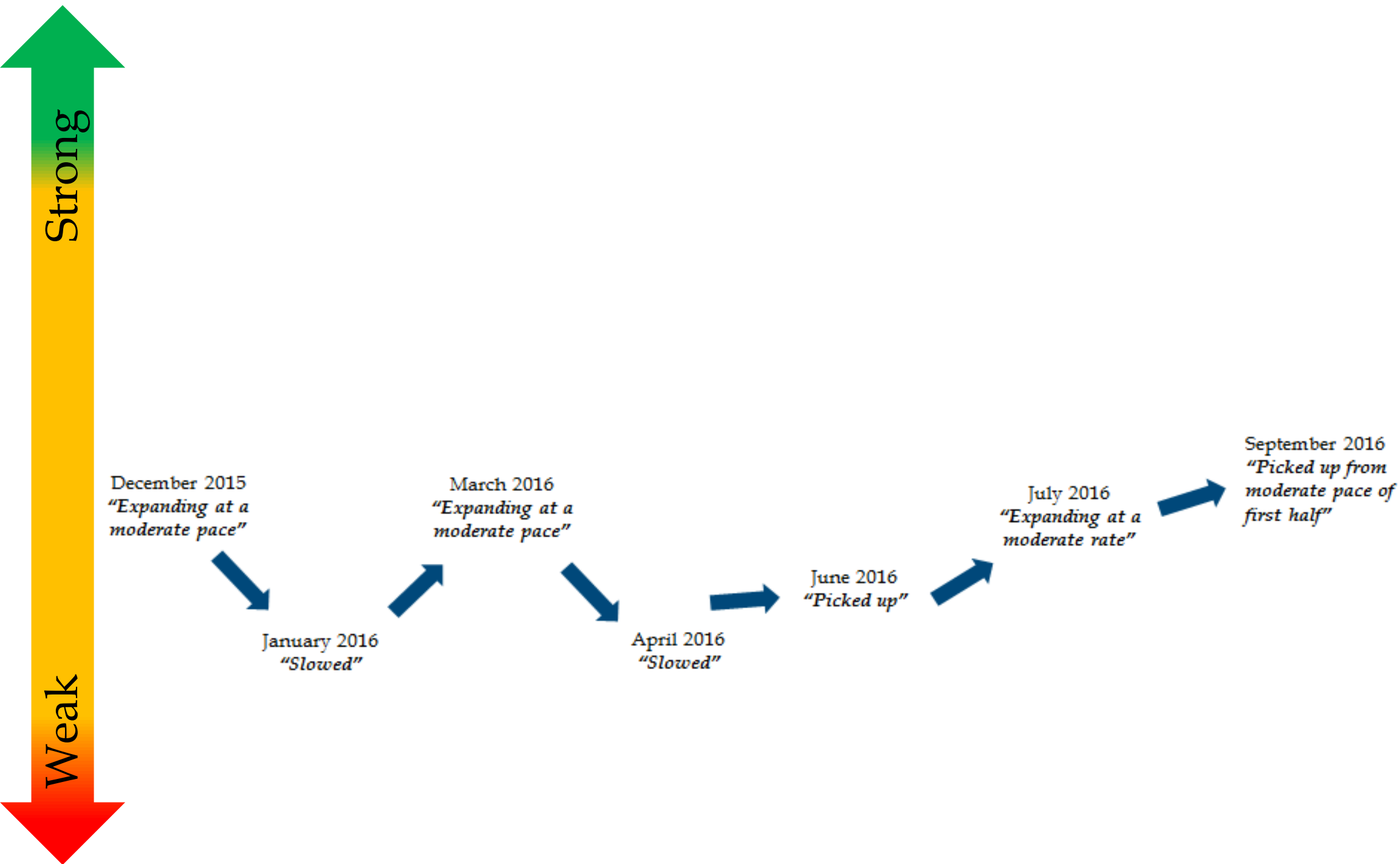
Economic Outlook: *The Case For A Rate Hike Has Strengthened*

October 2016

Lindsey M. Piegza
Chief Economist



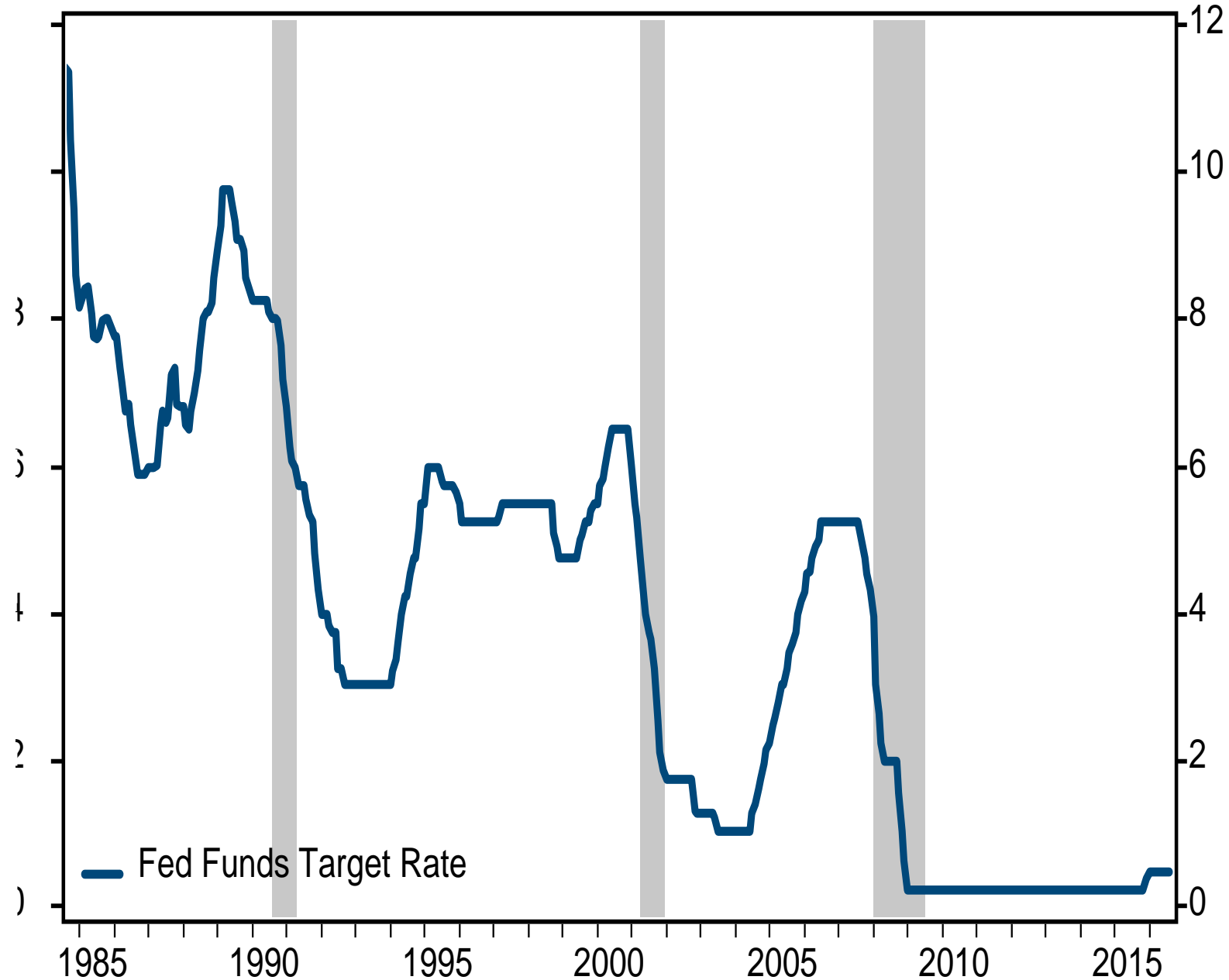
Between “Slow” and “Moderate” Growth



No Rate Hike in September, Although the Case has "*Strengthened*"

Fed Holds Rates Steady in September

Fed bypasses
September meeting, the
sixth meeting of
unchanged policy since
liftoff in December



Source: Federal Reserve Board /Haver Analytics

“The Committee judges that the case for an increase in the federal funds rate has strengthened but decided, for the time being, to wait for further evidence of continued progress toward its objectives.”

-September 21st FOMC Statement

Labor Market: “Solid” job gains on average, although the unemployment rate has been “little” changed in recent months.

Spending: Household spending is “strong,” however, business investment remains “soft.”

Inflation: Inflation is below the Fed’s longer-term target, however, price pressures are expected (as they have been for years!) to mount as the impact of “transitory” energy and import price effects dissipate.

Risks: Appear “roughly balanced.”

"Asymmetry in the conventional policy toolkit would lead me to expect policy to be tilted somewhat in favor of guarding against downside risks relative to preemptively raising rates to guard against upside risks."

- Fed Governor Lael Brainard to The Chicago Council on Global Affairs, September 12, 2016

I would "like to raise rates sooner rather than later. I am somewhat concerned about falling behind the curve."

- Philly Fed President Patrick Harker to *Bloomberg Television*, September 29, 2016

The economic data warrants a *"serious discussion"* about the speed and path of future hikes.

- Atlanta Fed President Dennis Lockhart to National Association for Business Economics, September 12, 2016

The most dissents since
the December 17, 2014
meeting

*"Keeping rates too low
can create risks"*
-Esther George

*"Voting against the action were: Esther L. George,
Loretta J. Mester, and Eric Rosengren, each of whom
preferred at this meeting to raise the target range for
the federal funds rate to 1/2 to 3/4 percent...."*

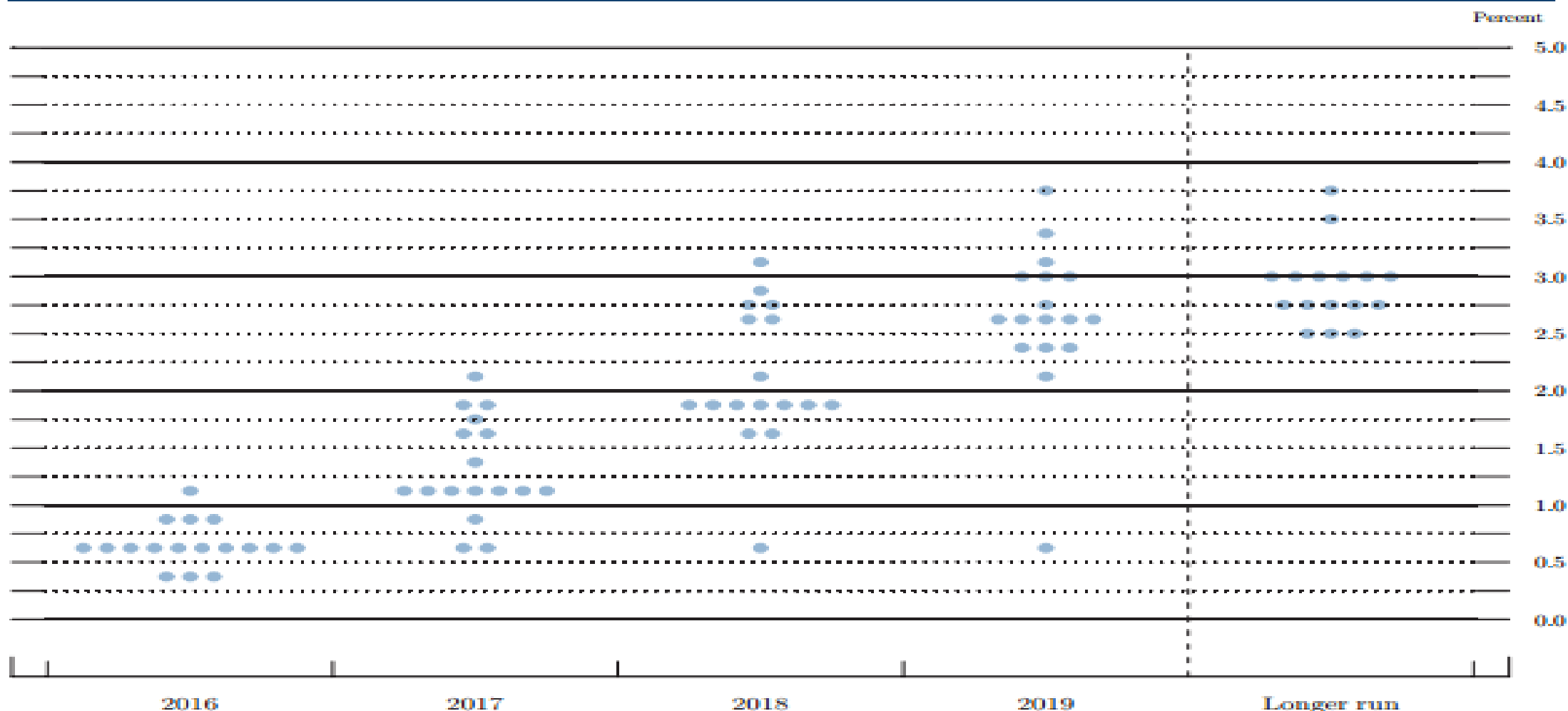
-September 21st FOMC Statement

Percent

Variable	Median ¹					Central tendency ²					Range ³				
	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run
Change in real GDP	1.8	2.0	2.0	1.8	1.8	1.7-1.9	1.9-2.2	1.8-2.1	1.7-2.0	1.7-2.0	1.7-2.0	1.6-2.5	1.5-2.3	1.6-2.2	1.6-2.2
June projection	2.0	2.0	2.0	n.a.	2.0	1.9-2.0	1.9-2.2	1.8-2.1	n.a.	1.8-2.0	1.8-2.2	1.6-2.4	1.5-2.2	n.a.	1.6-2.4
Unemployment rate	4.8	4.6	4.5	4.6	4.8	4.7-4.9	4.5-4.7	4.4-4.7	4.4-4.8	4.7-5.0	4.7-4.9	4.4-4.8	4.3-4.9	4.2-5.0	4.5-5.0
June projection	4.7	4.6	4.6	n.a.	4.8	4.6-4.8	4.5-4.7	4.4-4.8	n.a.	4.7-5.0	4.5-4.9	4.3-4.8	4.3-5.0	n.a.	4.6-5.0
PCE inflation	1.3	1.9	2.0	2.0	2.0	1.2-1.4	1.7-1.9	1.8-2.0	1.9-2.0	2.0	1.1-1.7	1.5-2.0	1.8-2.0	1.8-2.1	2.0
June projection	1.4	1.9	2.0	n.a.	2.0	1.3-1.7	1.7-2.0	1.9-2.0	n.a.	2.0	1.3-2.0	1.6-2.0	1.8-2.1	n.a.	2.0
Core PCE inflation ⁴	1.7	1.8	2.0	2.0		1.6-1.8	1.7-1.9	1.9-2.0	2.0		1.5-2.0	1.6-2.0	1.8-2.0	1.8-2.1	
June projection	1.7	1.9	2.0	n.a.		1.6-1.8	1.7-2.0	1.9-2.0	n.a.		1.3-2.0	1.6-2.0	1.8-2.1	n.a.	
Memo: Projected appropriate policy path															
Federal funds rate	0.6	1.1	1.9	2.6	2.9	0.6-0.9	1.1-1.8	1.9-2.8	2.4-3.0	2.8-3.0	0.4-1.1	0.6-2.1	0.6-3.1	0.6-3.8	2.5-3.8
June projection	0.9	1.6	2.4	n.a.	3.0	0.6-0.9	1.4-1.9	2.1-2.9	n.a.	3.0-3.3	0.6-1.4	0.6-2.4	0.6-3.4	n.a.	2.8-3.8

- 2016 growth forecast lowered to 1.8%
- Inflation target not met until 2018 or beyond
- Reduced outlook for 2016 rate increases
- Terminal rate reduced to 2.9%

Dot Plot Highlights Lack of Consensus



- Median 2016 rate forecast lowered from 0.875% to 0.625%
- 3 members forecast 50bps/3 unchanged
- 2017/2018 forecast lowered to 1.125% and 1.875%
- Longer-run forecast remains near 3.0% but with an increased number of forecasts below 3%

“Uncertainties”

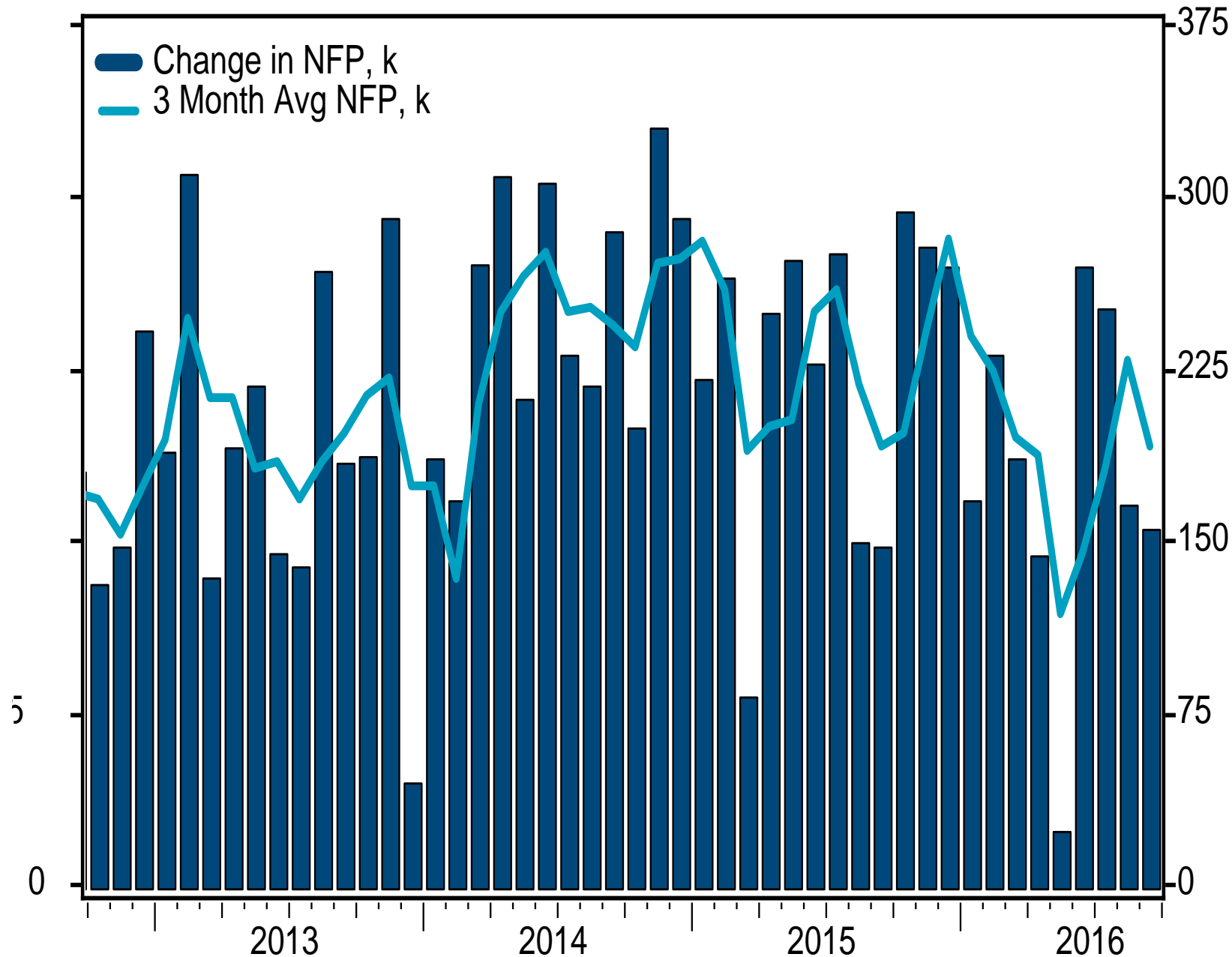
Nonfarm Payrolls Strong-ish

“Although the unemployment rate is little changed in recent months, job gains have been solid, on average.”
-September 21, 2016
FOMC Statement

72 consecutive months of positive payroll growth

Payrolls rose **156k** in September

Payrolls rose **167k** in August, revised up from 151k; however, July payrolls were revised down from 275k to 252k



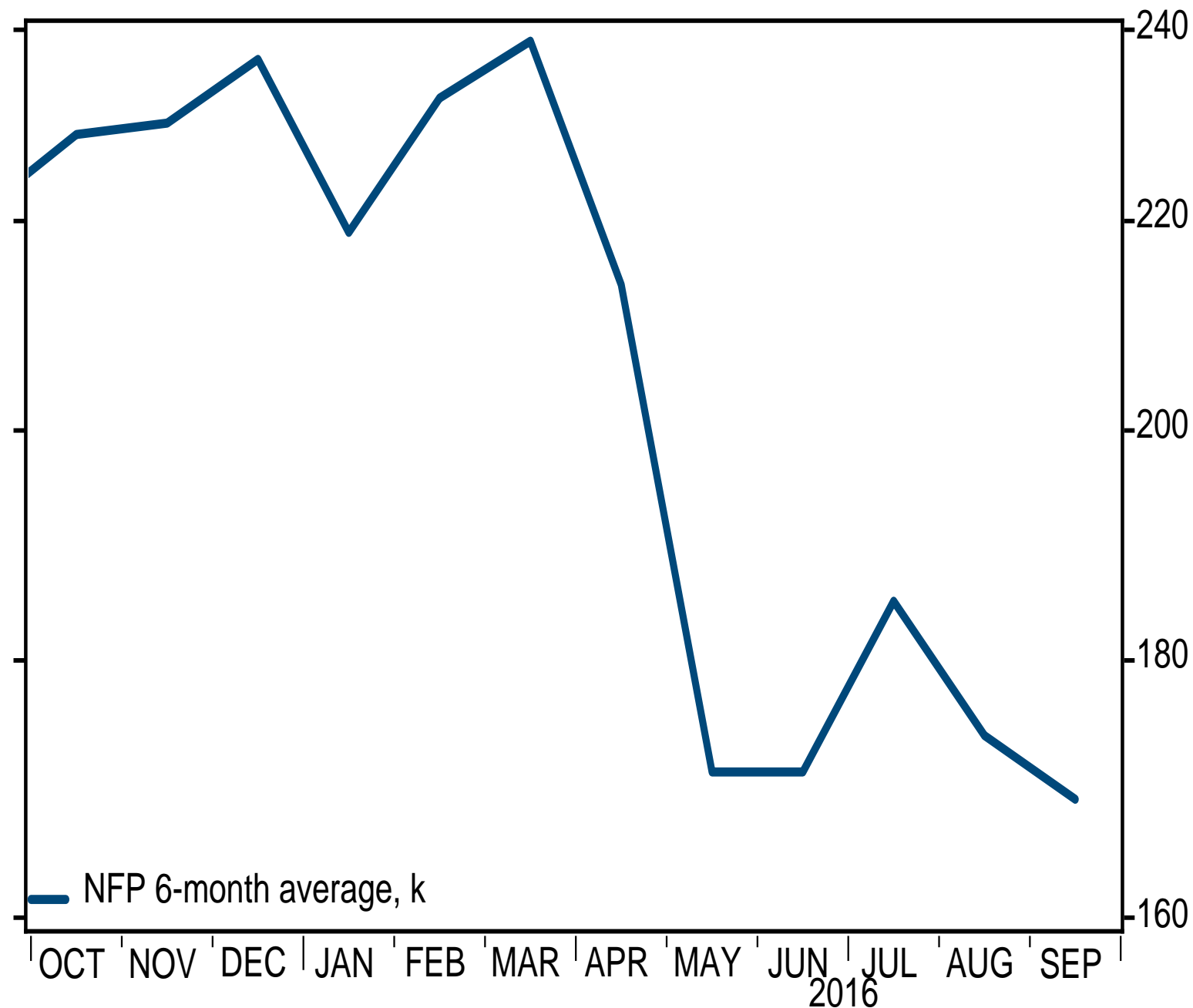
Source: Bureau of Labor Statistics /Haver Analytics

Trend Pace of Hiring on the Decline

The May headline was unexpected; the slowdown in the trend, however, was well-established

The pace of hiring has slowed from near-250k at the start of the year

169k average in September (decreased from 174k in August), the weakest since November 2012

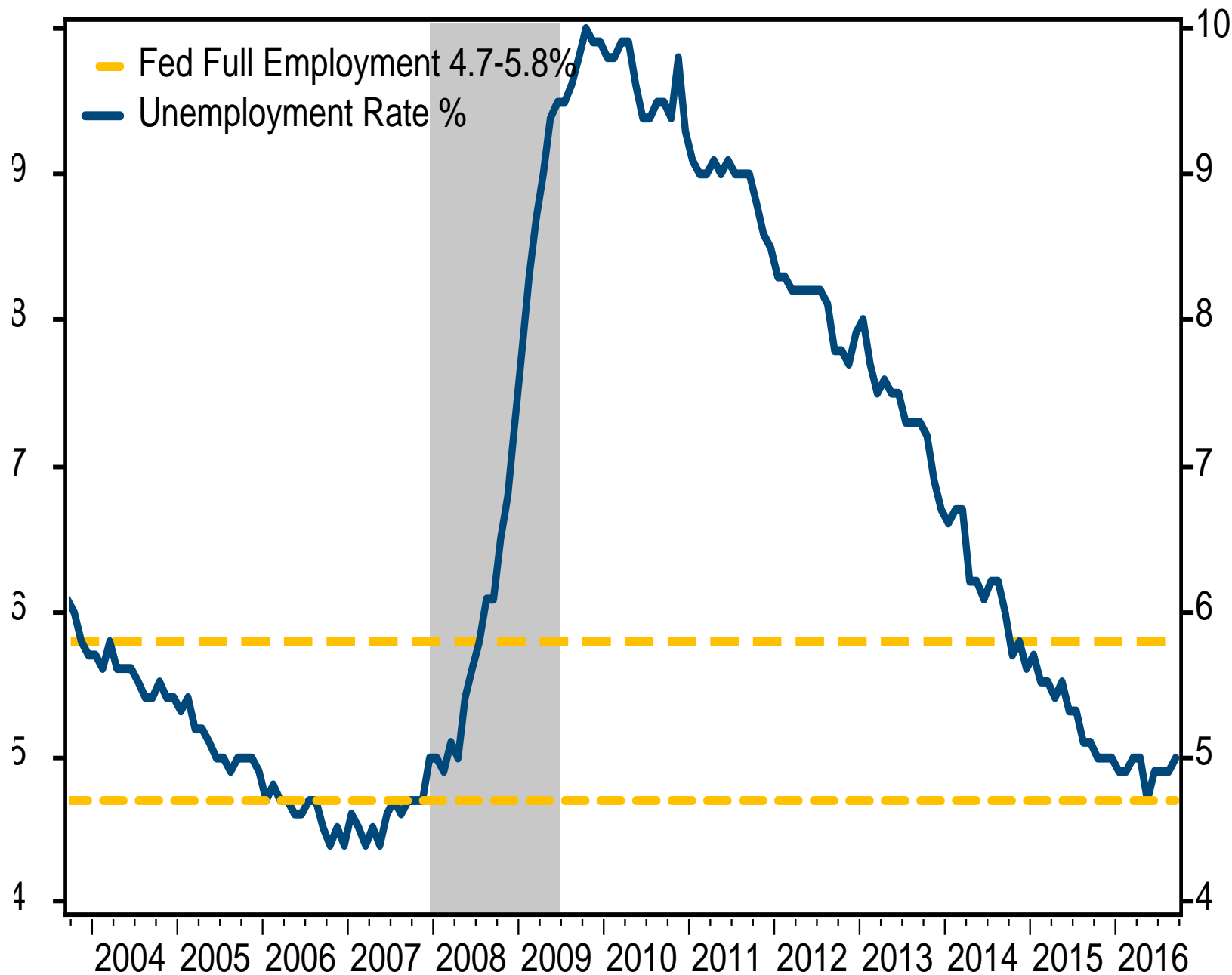


Source: Bureau of Labor Statistics /Haver Analytics

Unemployment at 5%

Unemployment rose to 5% in September, (**near**) the lowest since 2007

The unemployment rate has been in the Fed's full employment range since October 2014

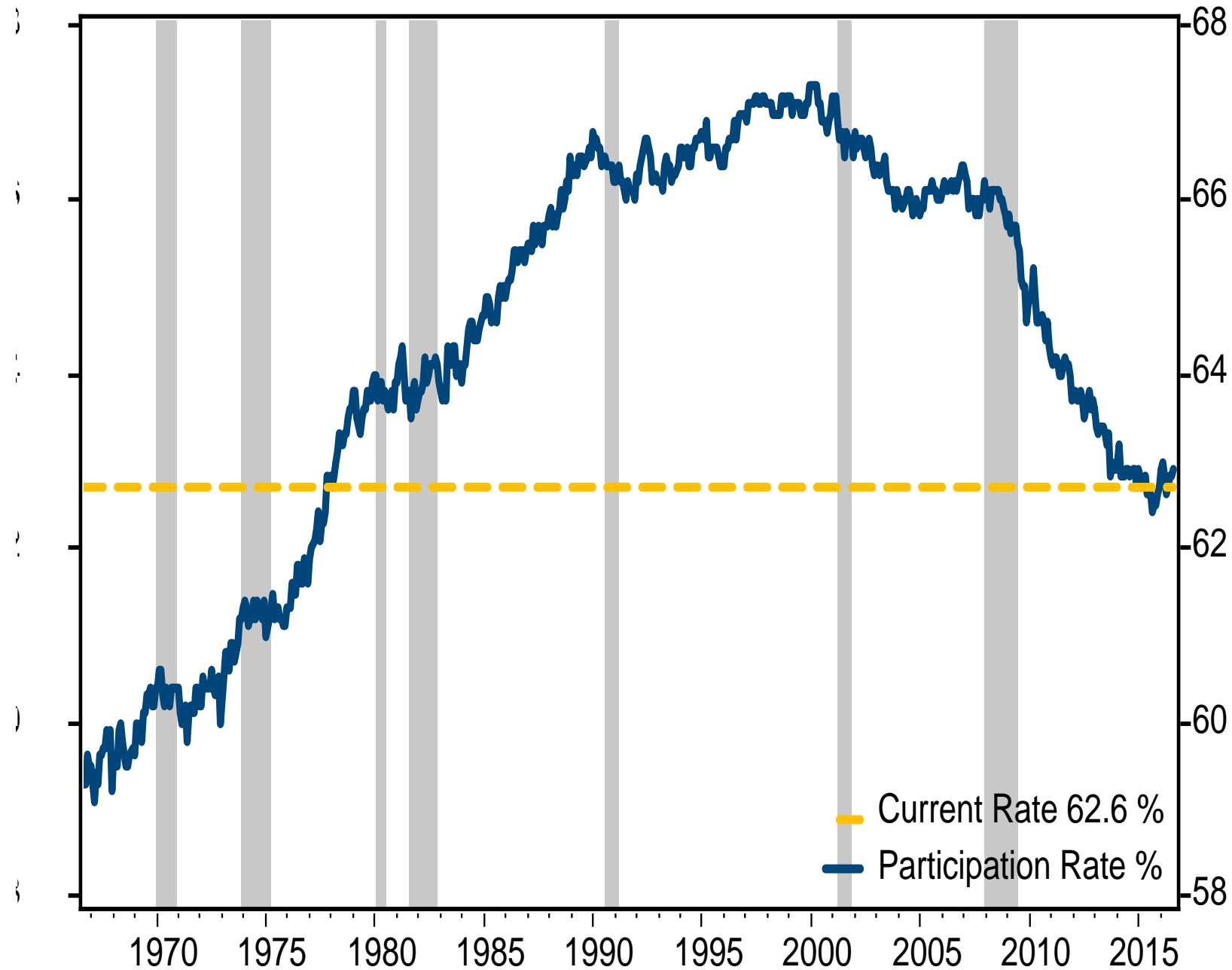


Source: Bureau of Labor Statistics /Haver Analytics

Participation Rate Still Declining

Participation rate at a multi-decade low, **62.9%** in September

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



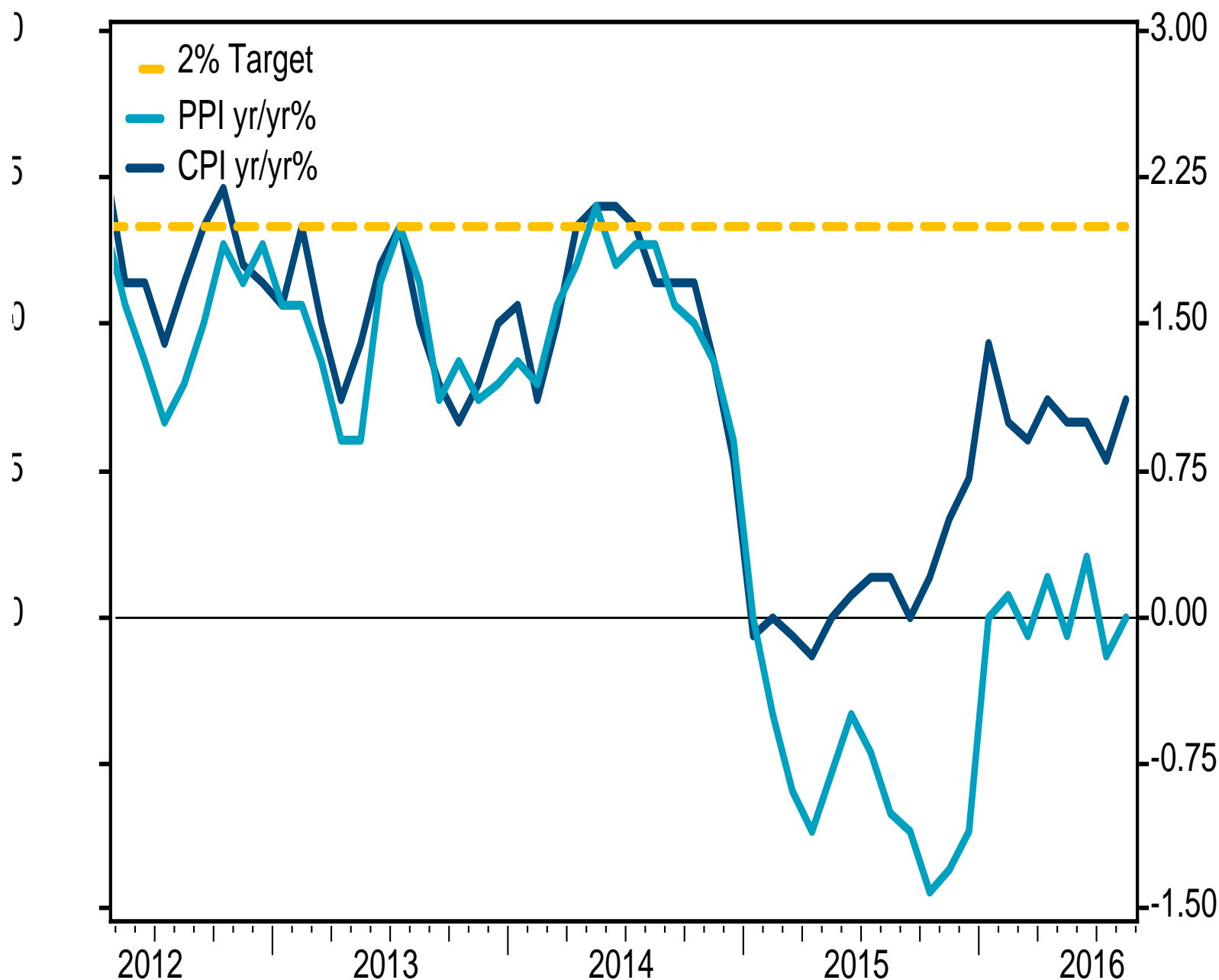
Source: Bureau of Labor Statistics /Haver Analytics

Inflation Improves from 2015 Lows

Consumer prices rose
0.2% in August and are
up **1.1%** Y/Y

Producer prices were flat
in August and were
flat Y/Y

*“Inflation is expected
...to rise to 2 percent over
the medium term as the
transitory effects of past
declines in energy and
import prices dissipate
and the labor market
strengthens further.”*
-September 21, 2016
FOMC Statement



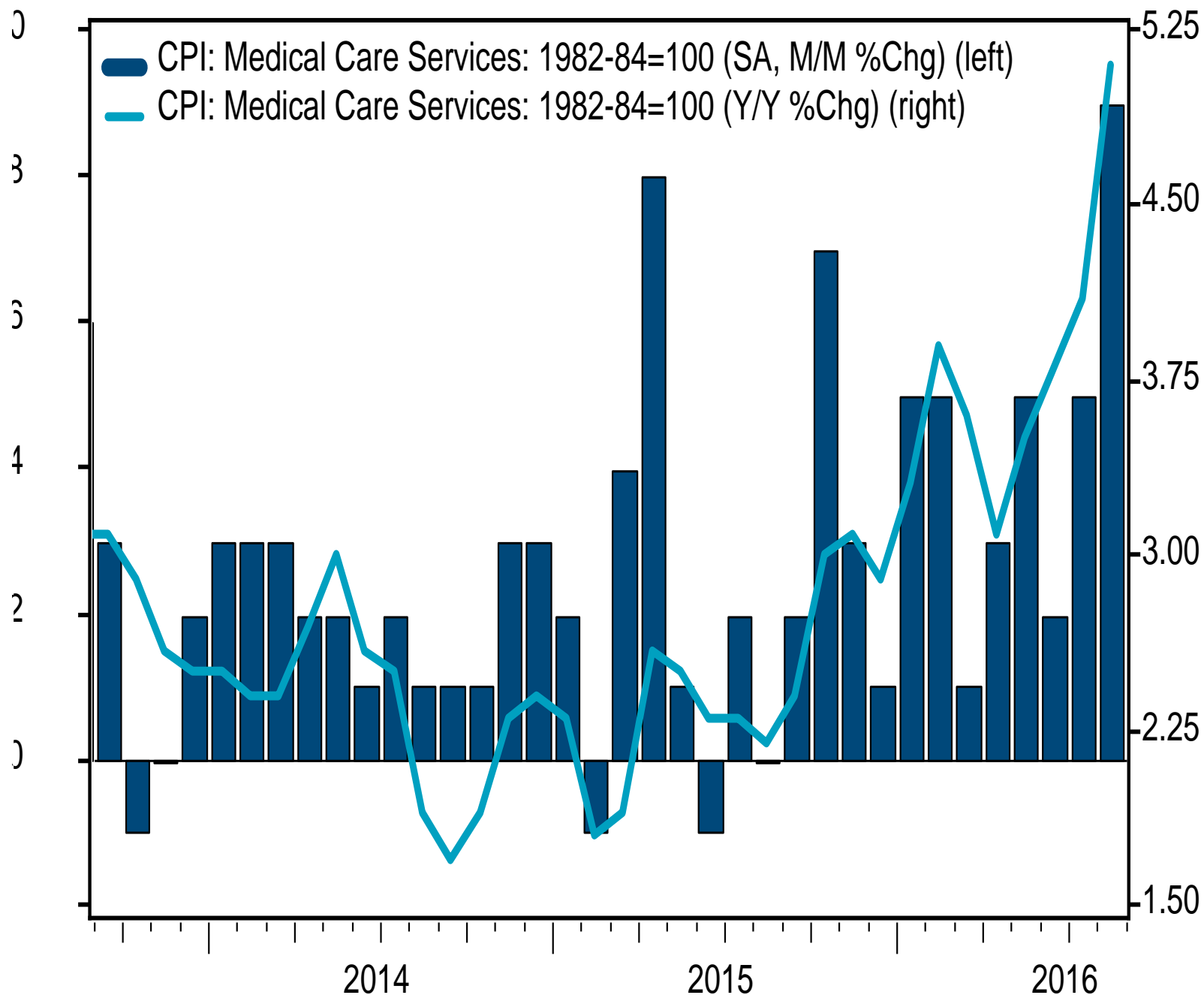
Source: Bureau of Labor Statistics /Haver Analytics

Core consumer prices rose **0.3%** in August and are up **2.3%** Y/Y

Core producer prices rose **0.3%** in August and are up **1.0%** Y/Y

Medical care costs rose **1.0%** in August, the largest increase since November 1990

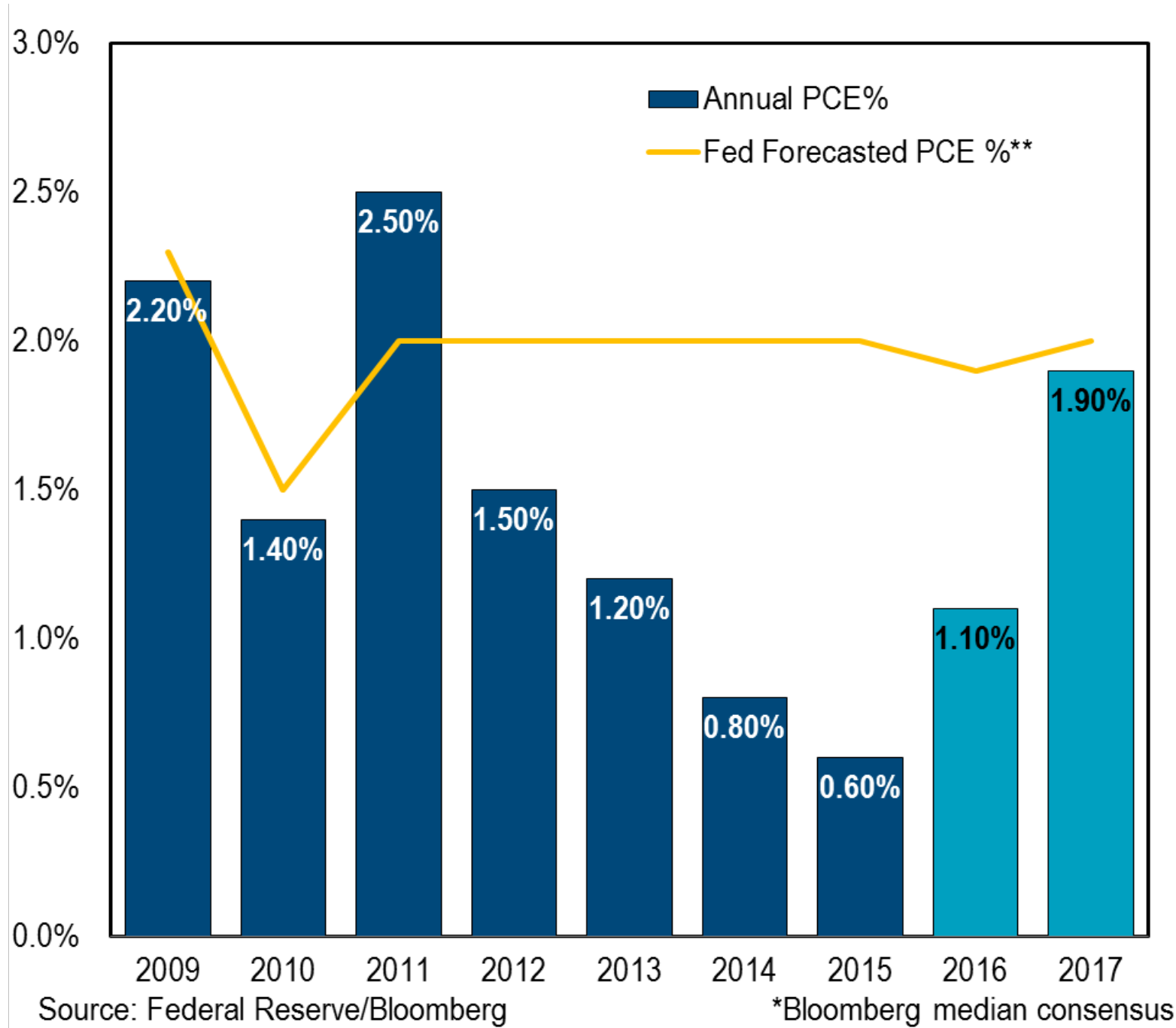
The Affordable Care Act was signed into law on March 23, 2010



Source: Bureau of Labor Statistics /Haver Analytics

Inflation Fails to Meet 2% Target

Fed forecast
consistently inaccurate
100-200bps above
reality



“The Committee continues to closely monitor inflation indicators and global economic and financial developments.”

-September 21, 2016 FOMC Statement

A possible Brexit was discussed and was *“one of the factors that impacted today’s decision.”* A Brexit could have *“large consequences for global economic and financial market conditions”* and, thus, such an event *“could impact the outlook for the U.S.”* A Brexit is seen as a large *“uncertainty impacting today’s decision.”*

-Chair Yellen, June 15, 2016 Press Conference

“We are very focused on evaluating, given the way the economy is operating, what is the right policy to foster our goals, and I’m not going to get into politics.”

-Chair Yellen, September 21, 2016 Press Conference

- Nervous investors flee from the region
- Run on the pound, more than three-decade low, -17%
- Pressure on finance sector, not seen as a “*priority*”
- Business disruptions via reduced investment or staff relocation - hundreds of thousands of jobs lost, reduced property values
- BOE lowers rates for the first time in seven years to record-low of 0.25% with £170 bn in stimulus
- Tip U.K. into recession with difficult and messy departure
- Article 50 to be invoked by March 2017
- Manufacturing activity at two-year high

- International “*fairness*” and protectionist policies - Chinese currency manipulation, cost-sharing plans on international action
- Simplified tax plan with reduced brackets and rates, and a reduced corporate tax rate
- Reform immigration system

vs.

- Social “*fairness*” – minimizing income gap
- Raising wages for working Americans
- Raise taxes on the wealthiest Americans and businesses
- Expand access to college/education

Nonpartisan tax research group Tax Foundation

- Cut taxes by nearly \$12 trillion over the next decade and reduce government receipts by over \$10 trillion.
- 11% higher GDP over the long-term, 6.5% higher wages and 5.3 million new jobs.
- Raise debt/GDP to over 100% (as opposed to the estimated 86%)

vs.

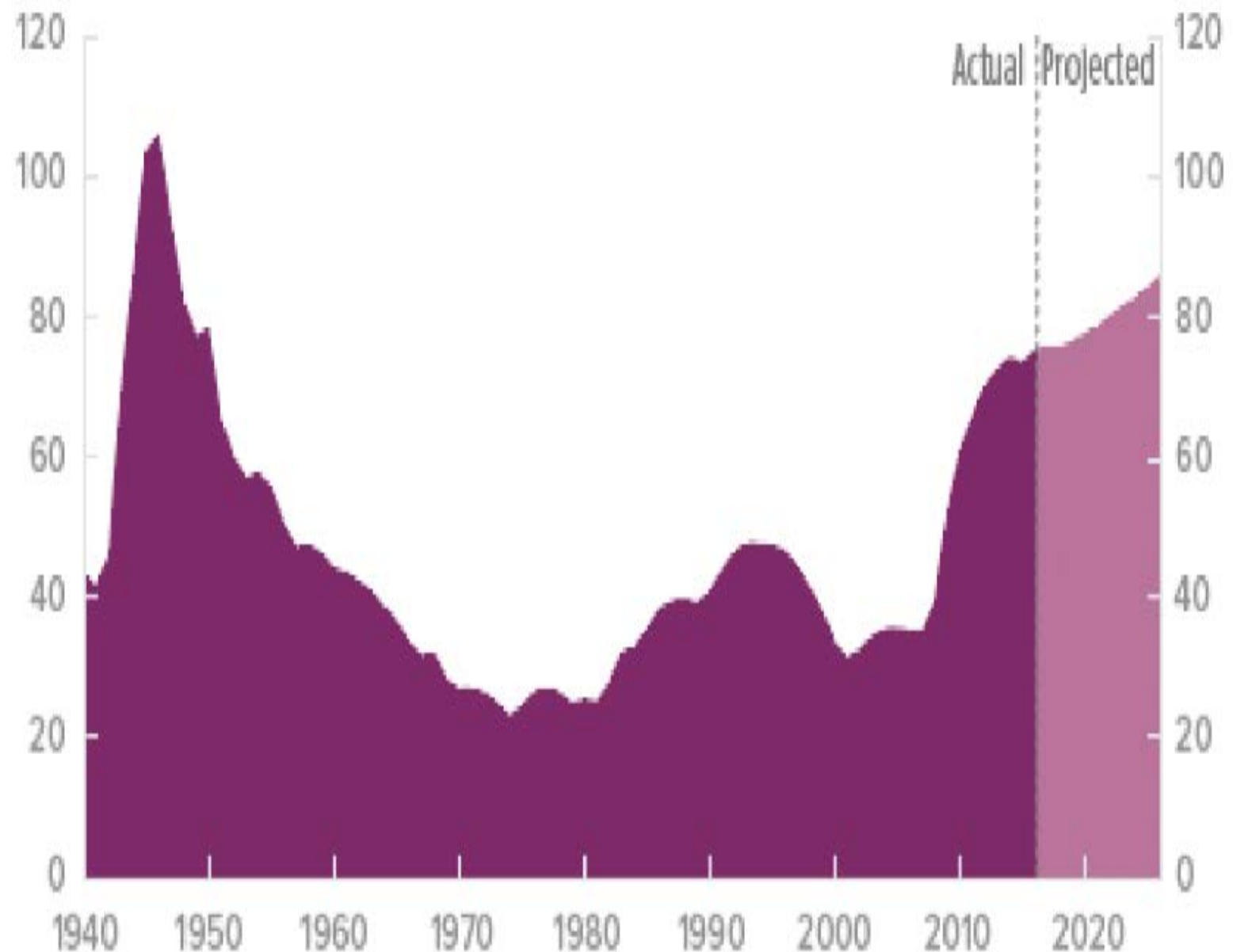
- \$1.4 trillion in additional government expenditures paid for by \$1.2 trillion in tax increases
- 1% lower GDP, 311k fewer jobs and a reduction in the federal debt by over \$1.2 trillion.

75% 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

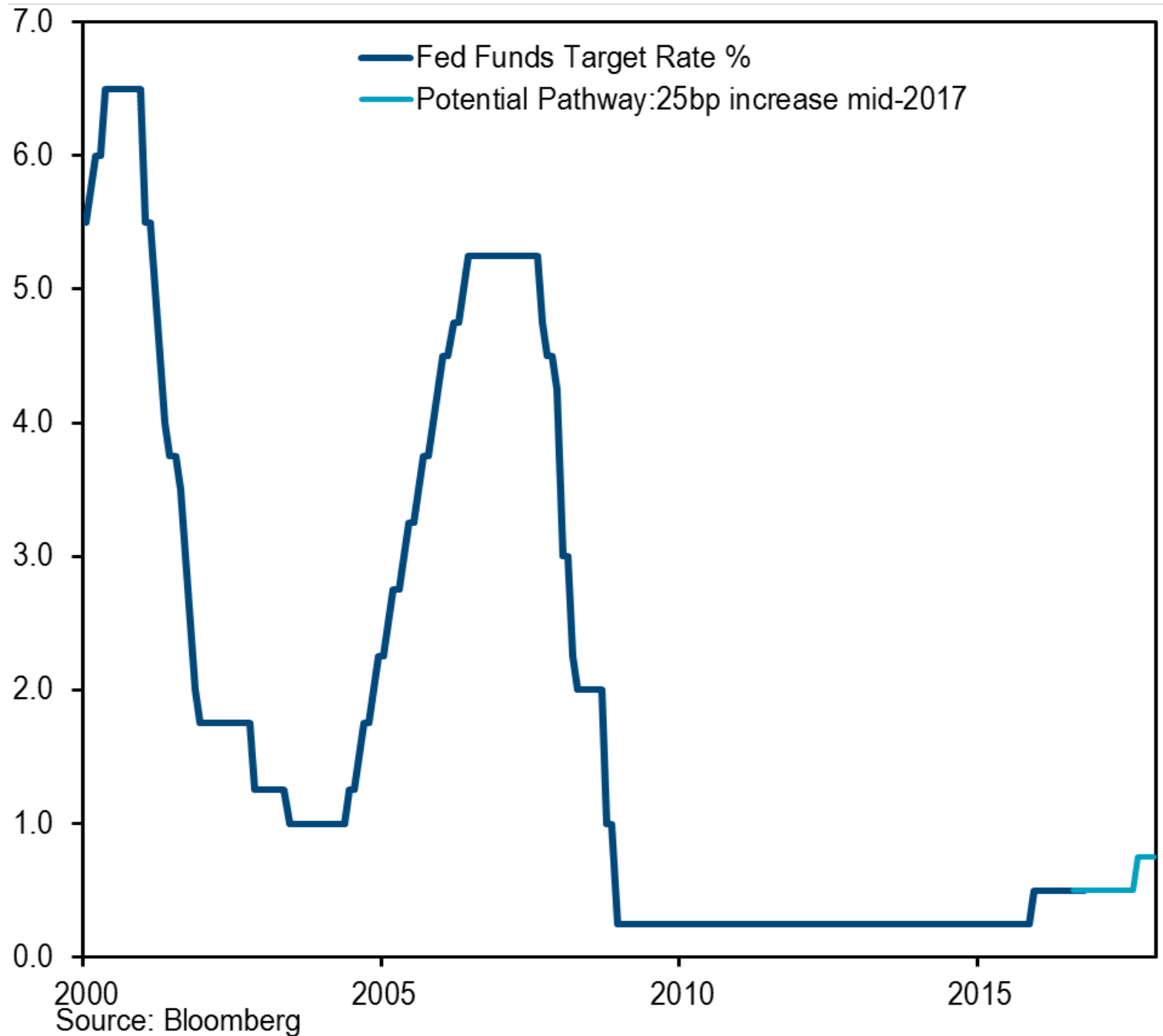
U.S. Federal Debt as % of GDP



Fed Agrees to “Gradual” Rate Pathway

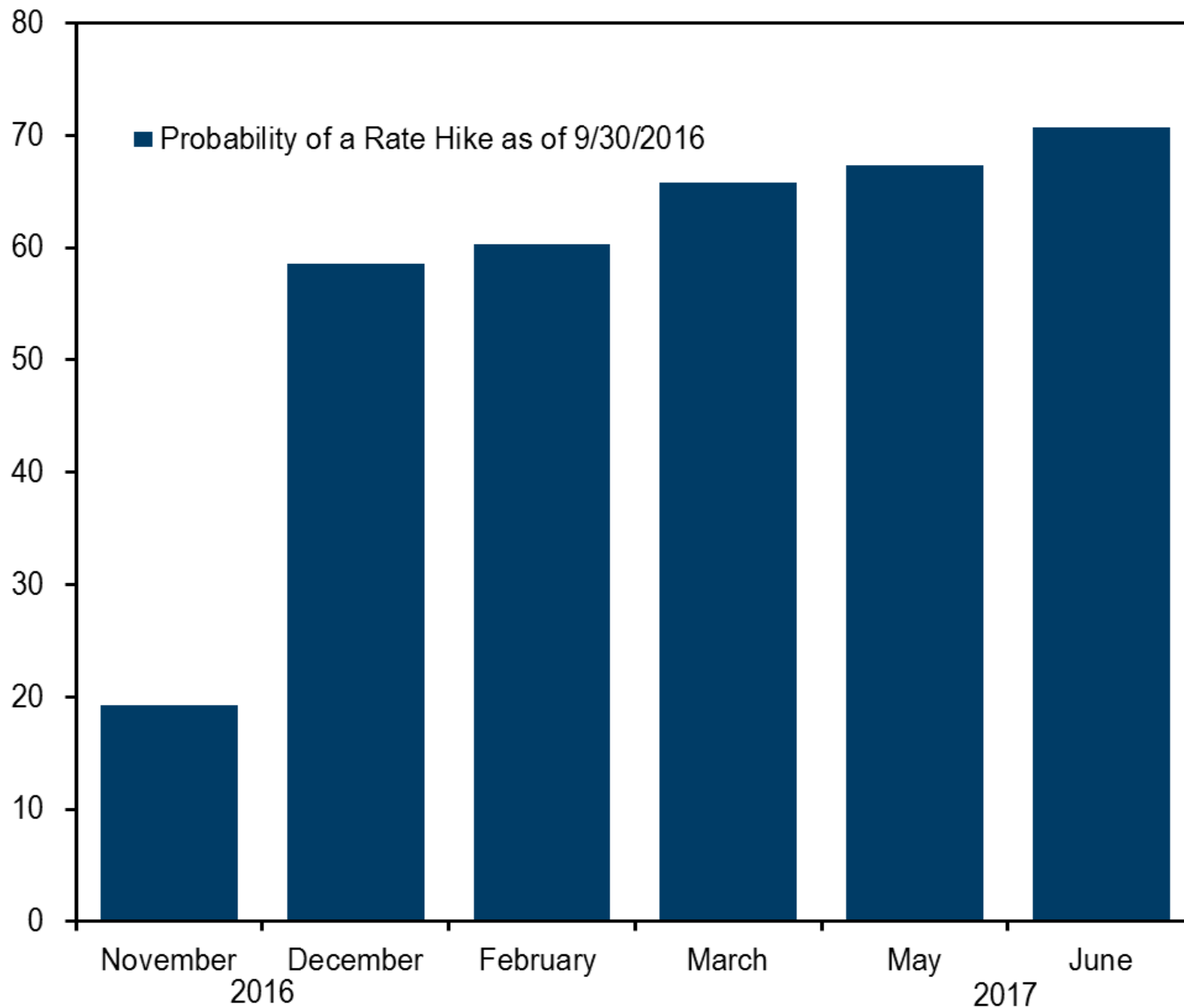
The word gradual is the key word for 2016 for monetary policy

Lingering “uncertainties” could push second rate hike into 2017 or beyond



The market is discounting a rate hike until 2017

Modest probability for 2016 hike

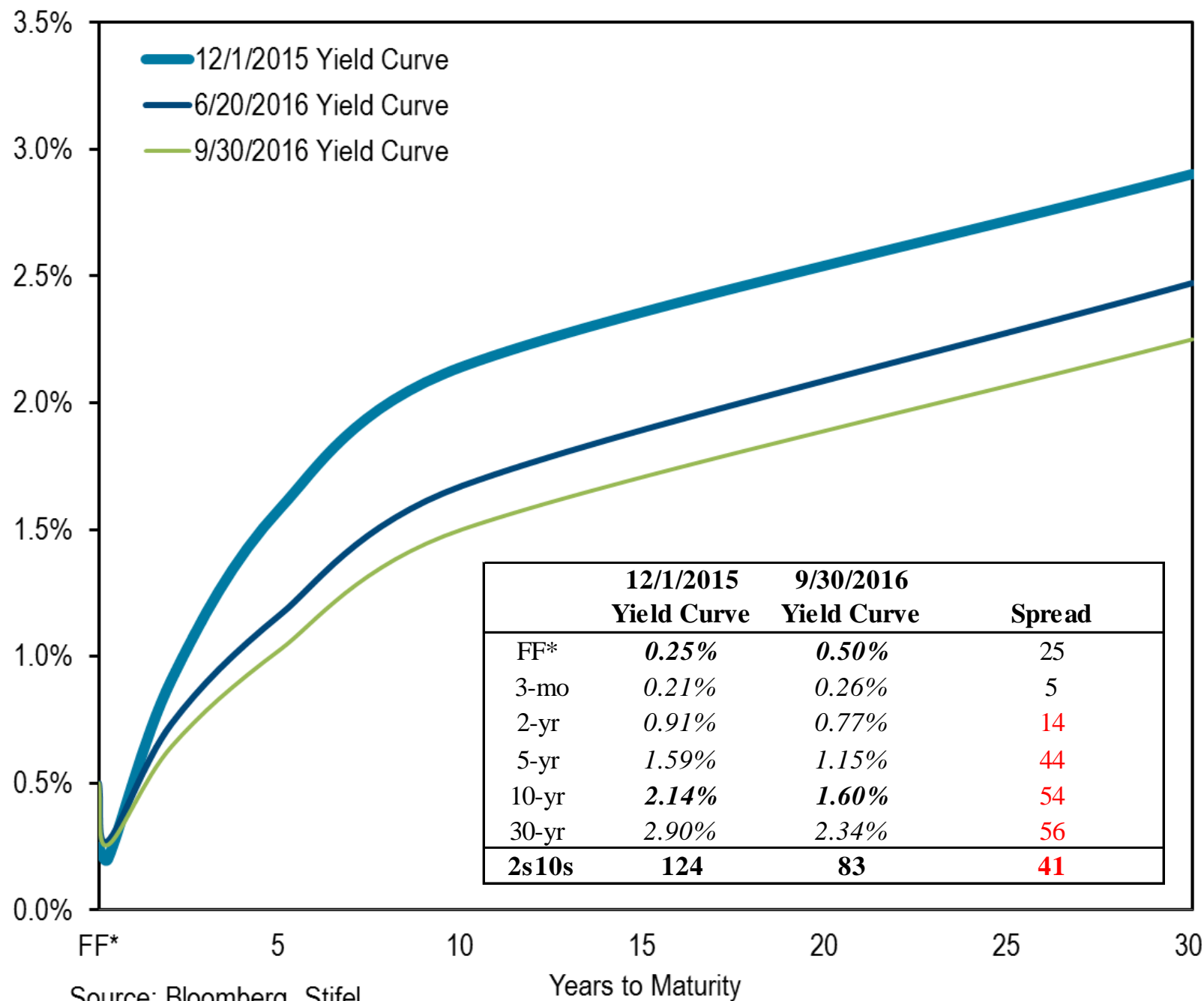


Source: Haver Analytics

Yield Curve To Flatten Further

2-10s spread of **124bps** prior to liftoff and down to **83bps** following the September FOMC

Project to flatten further with additional hikes



Growth Slows

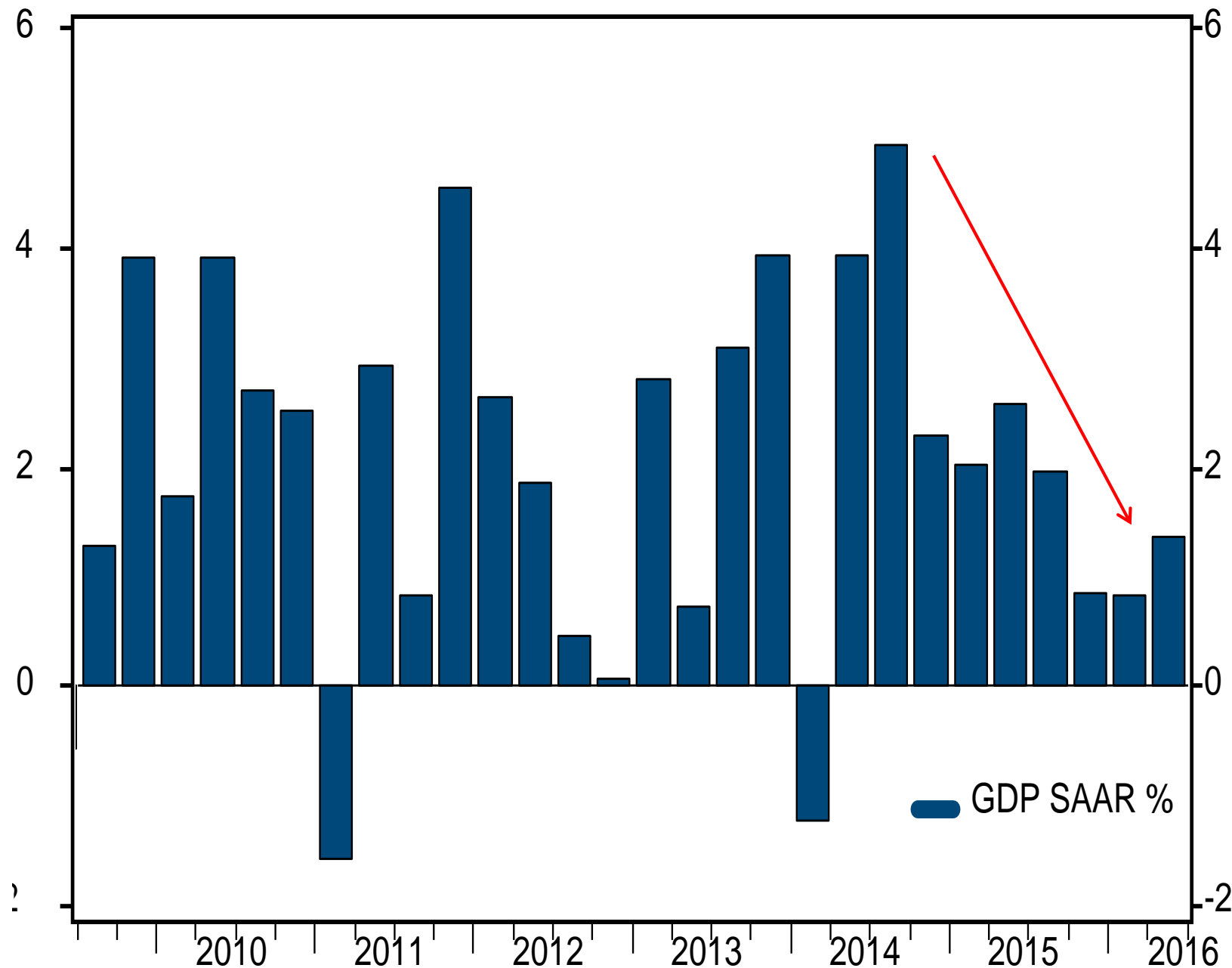
Slowdown in Growth – No Q2 Rebound

Q2 GDP rose **1.4%**, following two quarters of sub-1% growth and averaging **1.1%** across first six months of the year, the weakest first-half since 2011

Average growth since Recession: **2.1%**

2014: **2.4%**

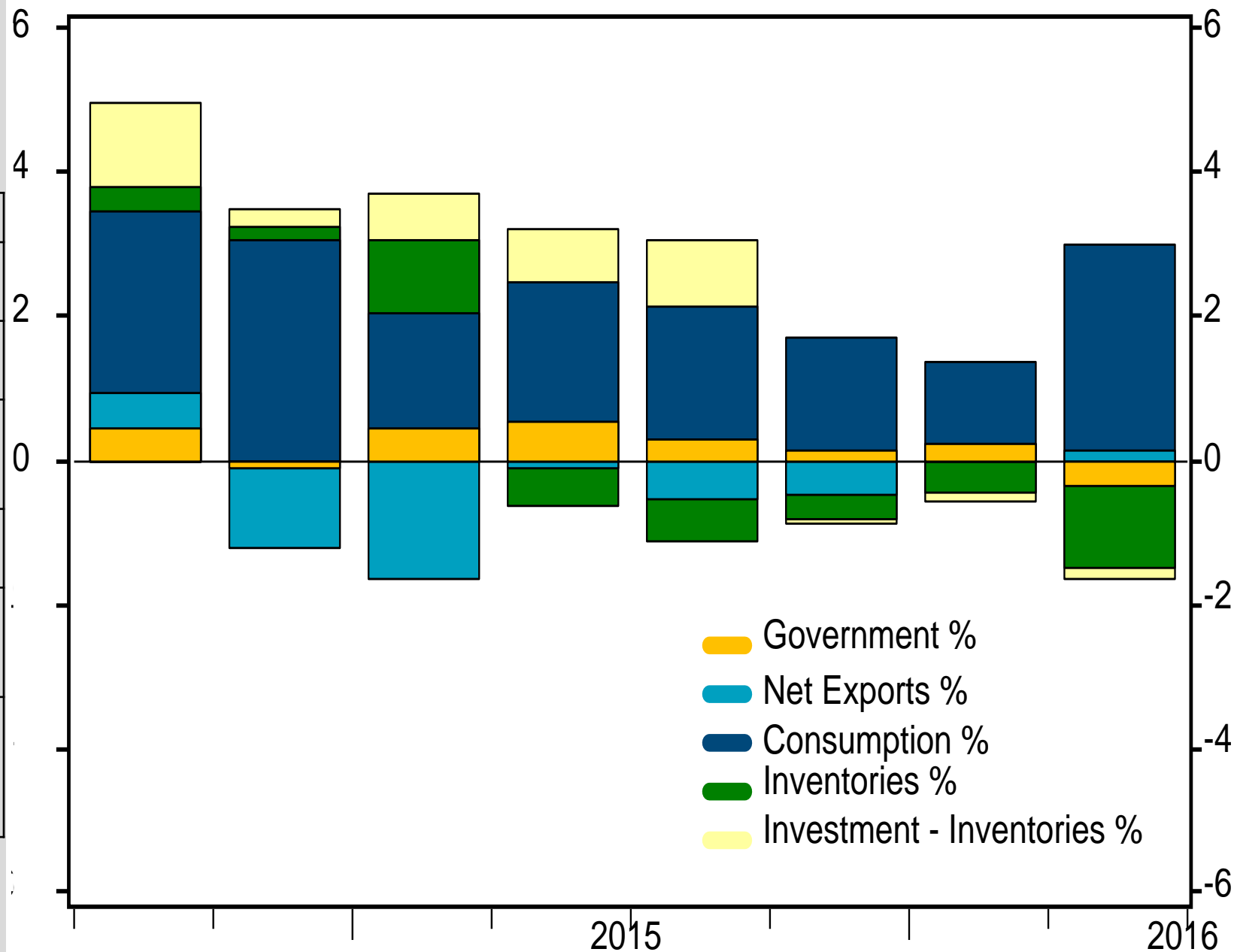
2015: **2.6%**



Source: Bureau of Economic Analysis /Haver Analytics

Contributions to GDP

Contr.	Q2	Q1
Total	1.4%	0.8%
G	-0.3%	0.3%
NX	0.2%	0.0%
C	2.9%	1.1%
Inventories	-1.2%	-0.4%
Investment- Inventories	-0.2%	-0.2%



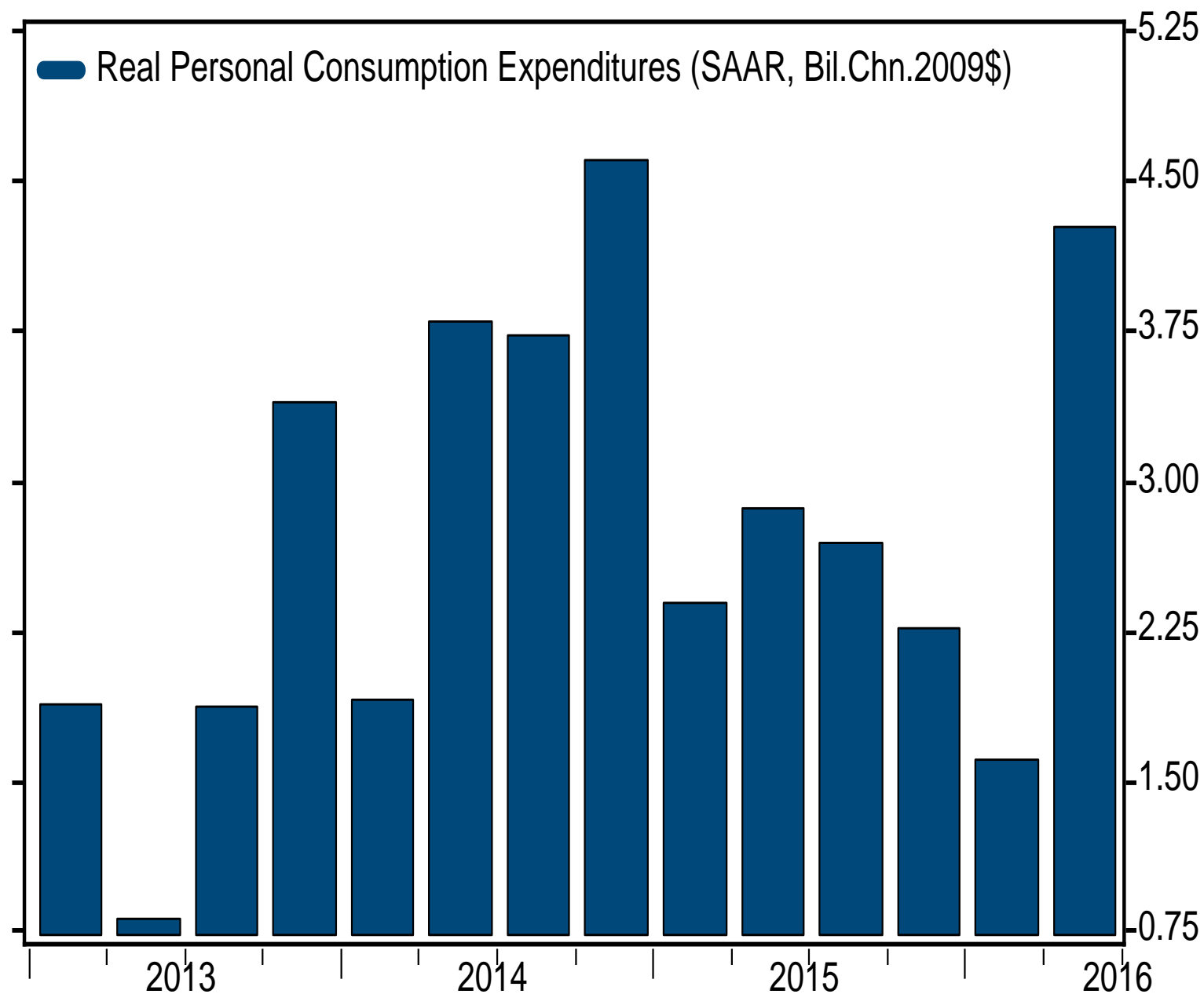
Source: Bureau of Economic Analysis /Haver Analytics

Consumption Solid but Consumers Under Pressure

Consumers Doing the Heavy Lifting

Q2 2016 consumption rose 4.3%, the strongest since Q4 2014 and following a 1.6% increase in Q1

Consumption averaged 2.2% over previous 12 months



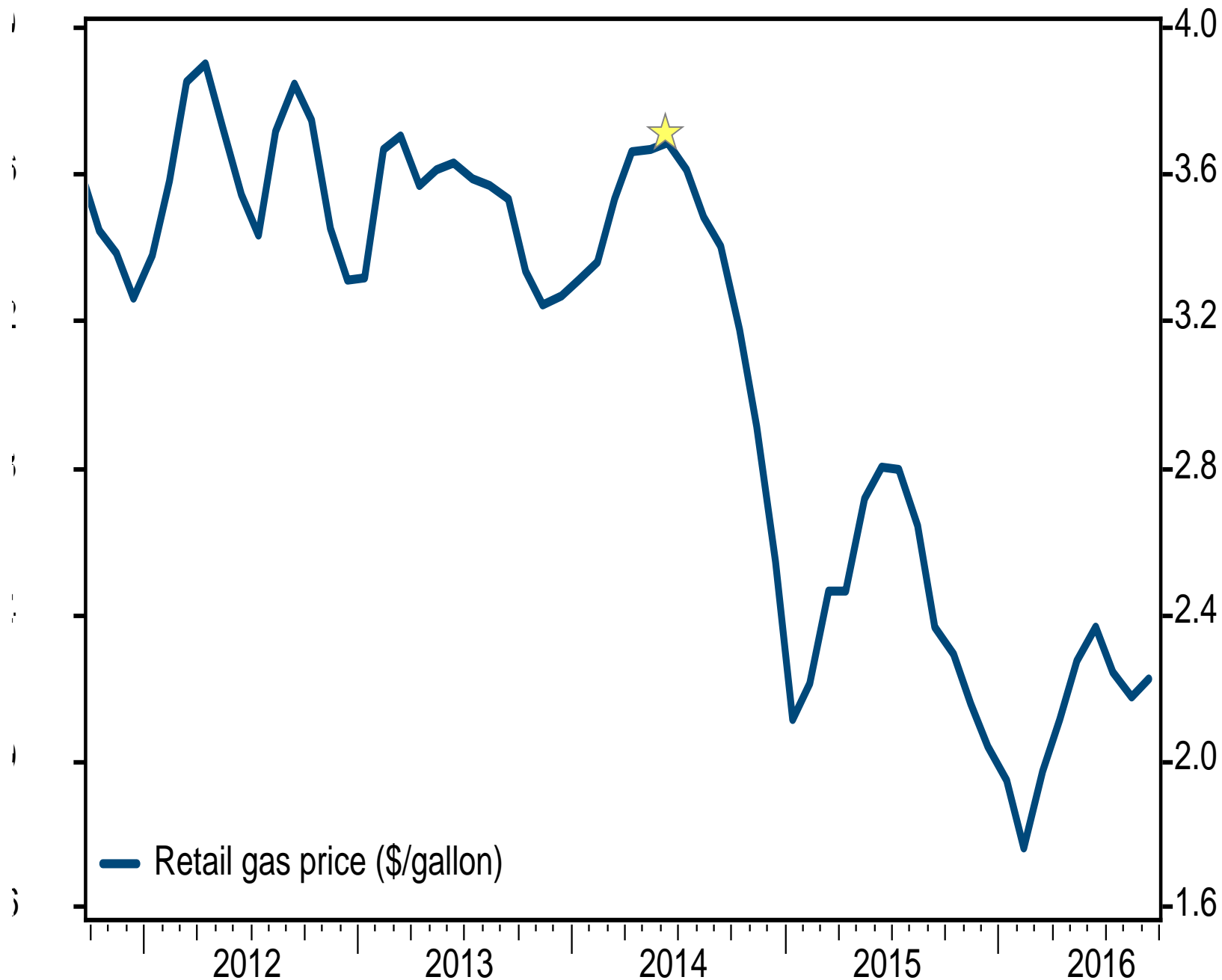
Source: Bureau of Economic Analysis /Haver Analytics

Gas Prices Give Muted Boost

Current September price of **\$2.22** near 2009 low

\$2.2 six-month average vs. **\$3.55** long-term average

Down **\$1.47** and **40%** from a peak monthly average of **\$3.69** in June 2014 (star)



Source: Haver Analytics

Retail Sales Still Weak

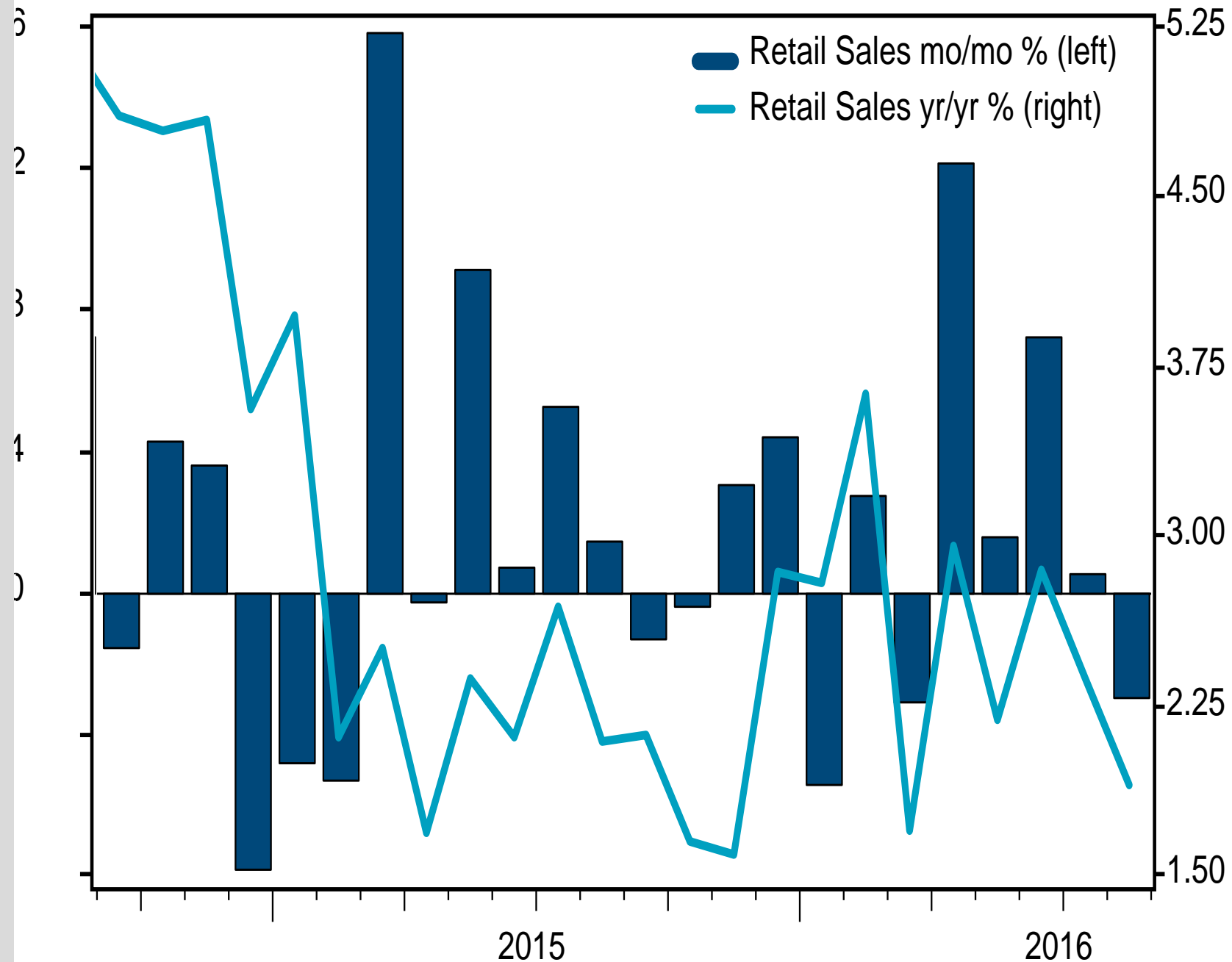
August sales fell **0.3%**
Y/Y sales are up **1.9%**
vs. **2.3%** in July and
5.0% at the end of
2014

12-month avg: **0.2%**
Q1 avg: **-0.3%**
Q2 avg: **0.7%**

Ex-autos

August sales fell **0.1%**
Y/Y up **2.0%** vs. **2.2%**
in July

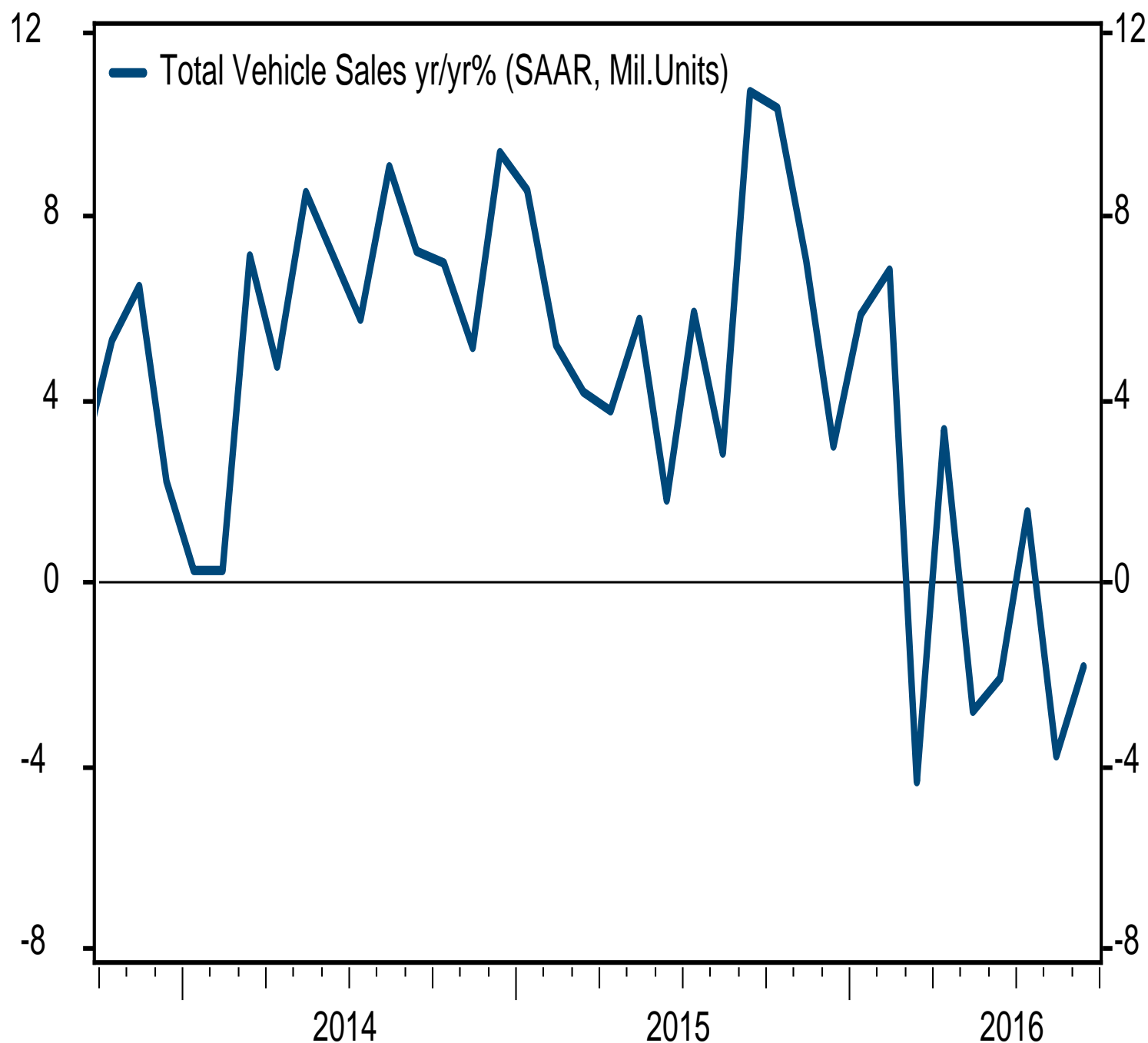
12-month avg: **0.3%**
Q1 avg: **0.4%**
Q2 avg: **0.8%**



Source: Census Bureau/Haver Analytics

Car sales slumped to **17.65m** in September, down 0.39m or 2.2% from a peak of 18.04m in October 2015

Car sales are down **1.8% Y/Y** vs a 10.7% pace in September 2015

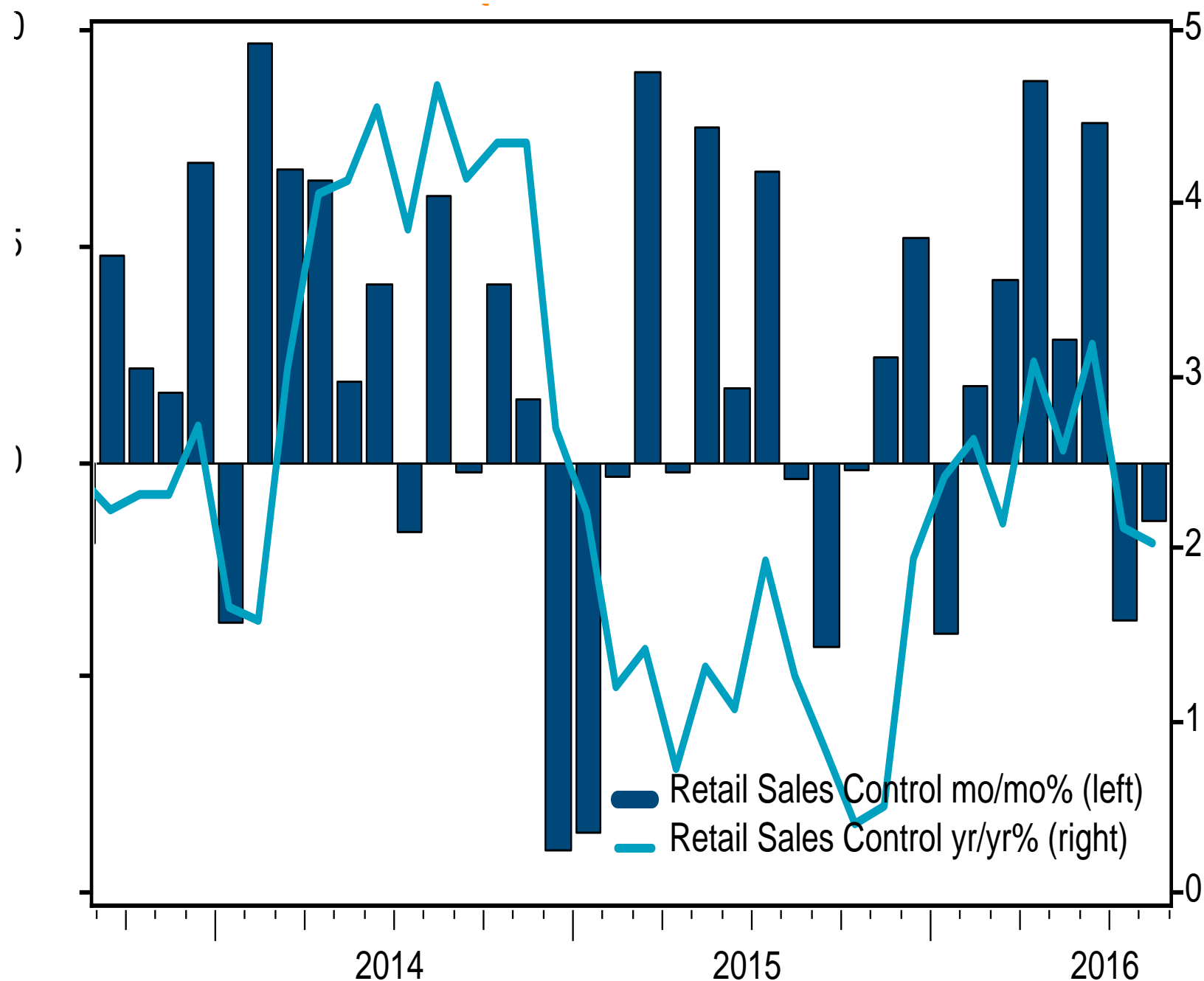


Source: Bureau of Economic Analysis/Haver Analytics

Retail sales control excludes: food, auto, building materials, & gas stations

Control group sales have fallen for two consecutive months, the first time since mid-2010

August control is down **0.1%**, following a 0.4% decrease the month prior, and up **2.0% Y/Y**



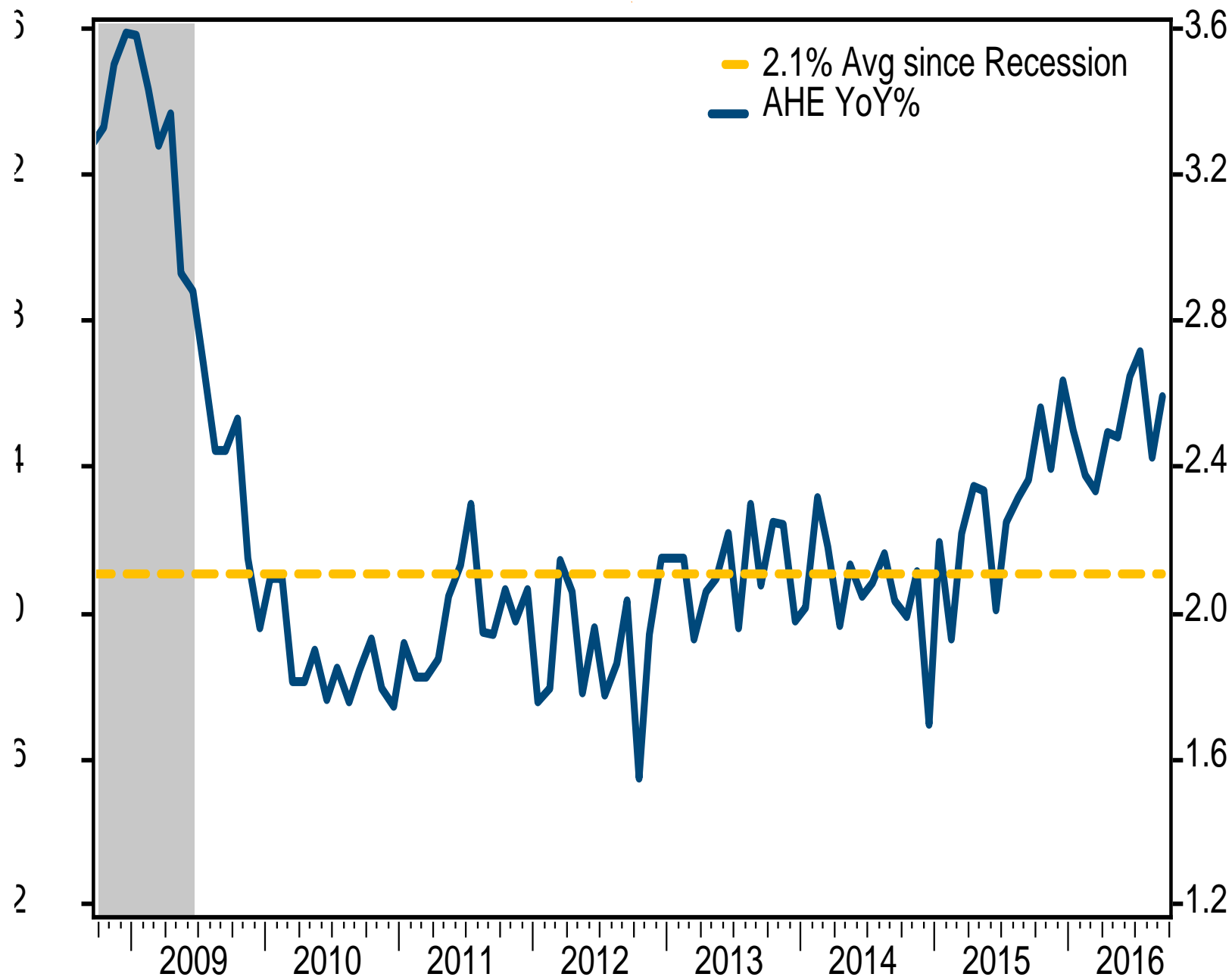
Source: Census Bureau /Haver Analytics

Avg. Hourly Earnings Edging Higher

Wages rose **0.2%** in September, following a 0.1% rise the month prior

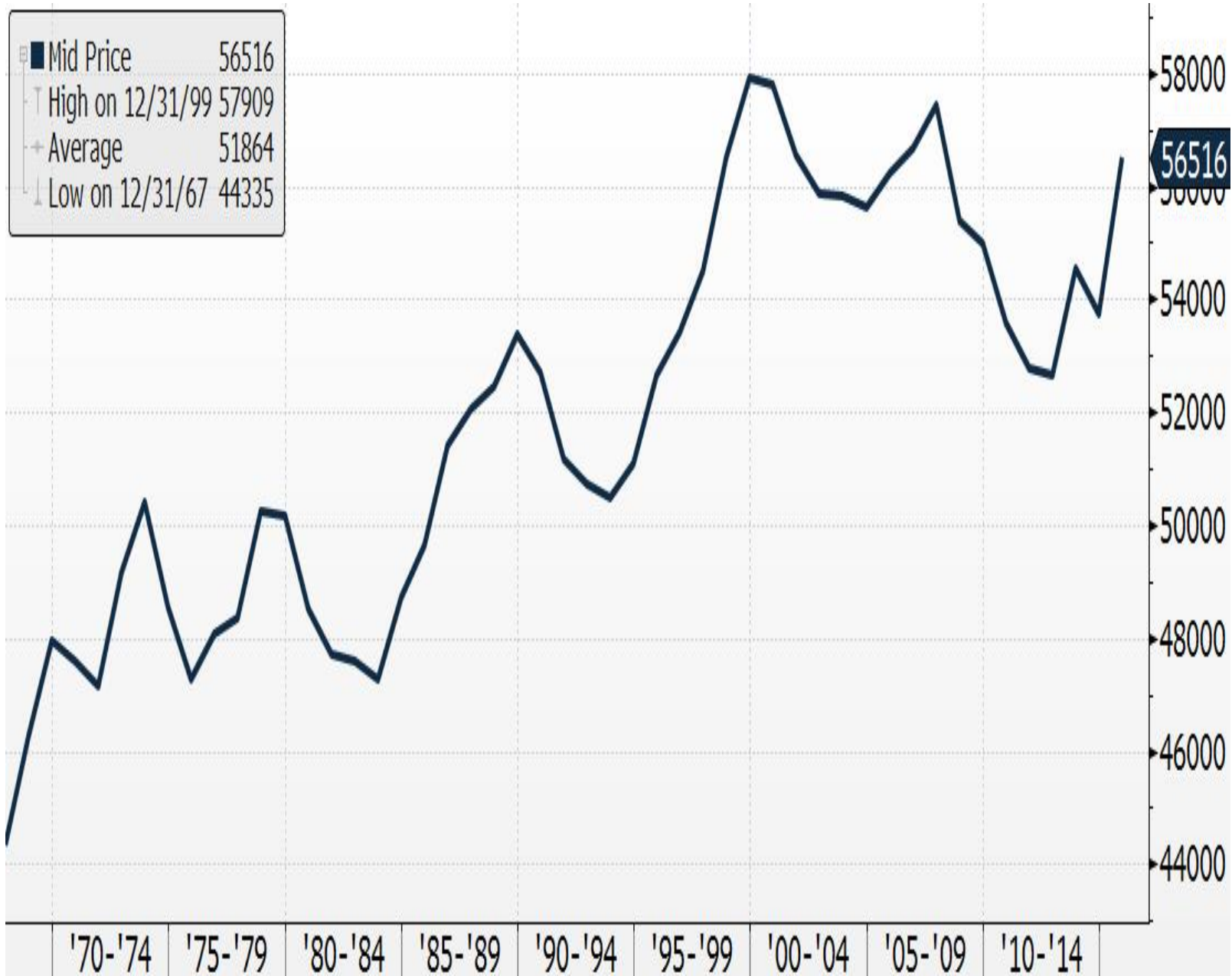
Up **2.6%** Y/Y as of September, on par with December peak

2.1% average since Recession



Source: Bureau of Labor Statistics /Haver Analytics

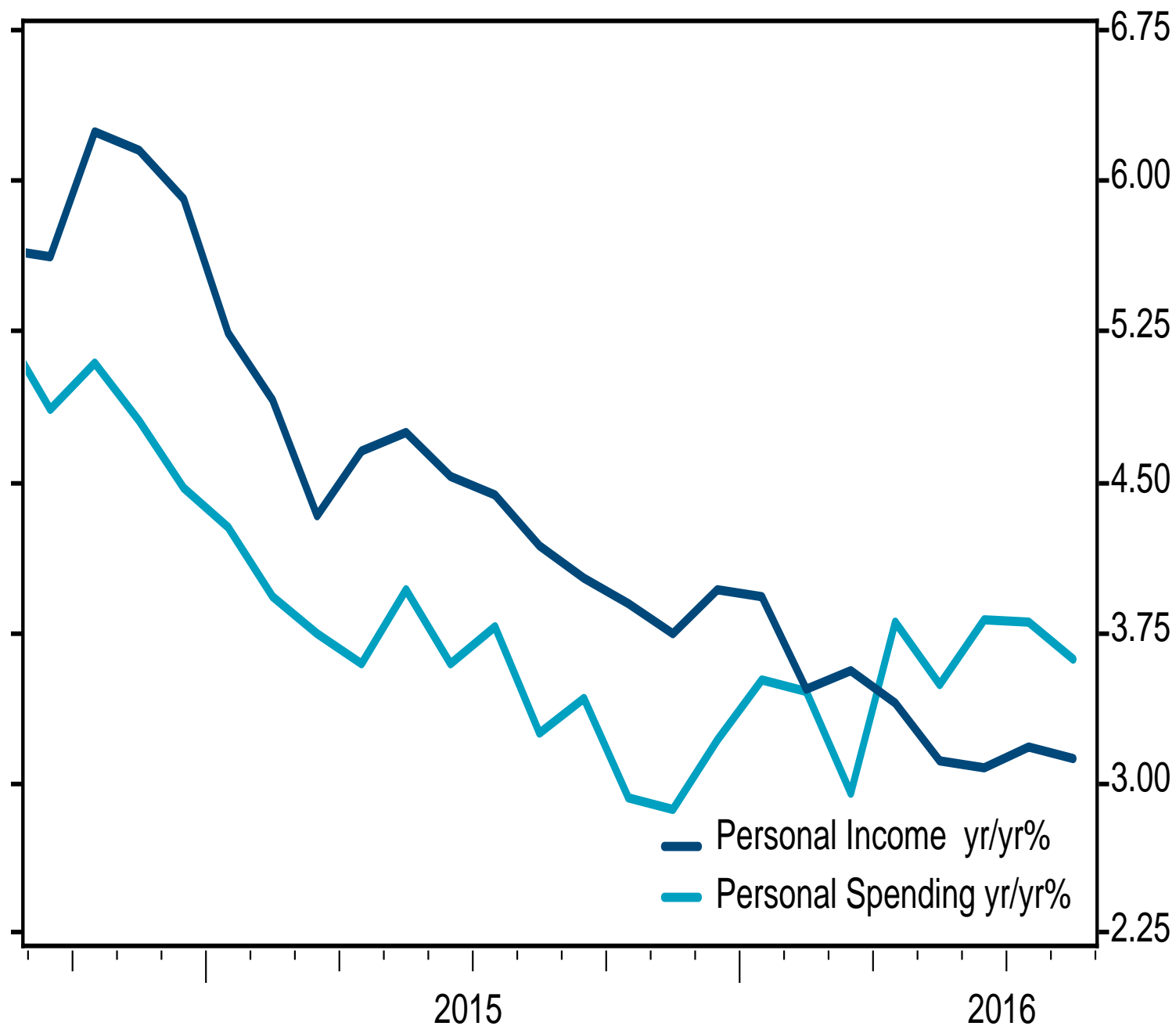
U.S. Household Median Income Real Chained 2015 Dollars



The median household income for 2015 was **\$56.52k**, up from \$53.66k in 2014

Personal income rose 0.2% in August, the smallest monthly gain since February and 3.1% YoY, down from 4% at the start of the year

Consumption was flat in August and rose 3.6% YoY



Source: Bureau of Economic Analysis /Haver Analytics

Business Investment Sluggish

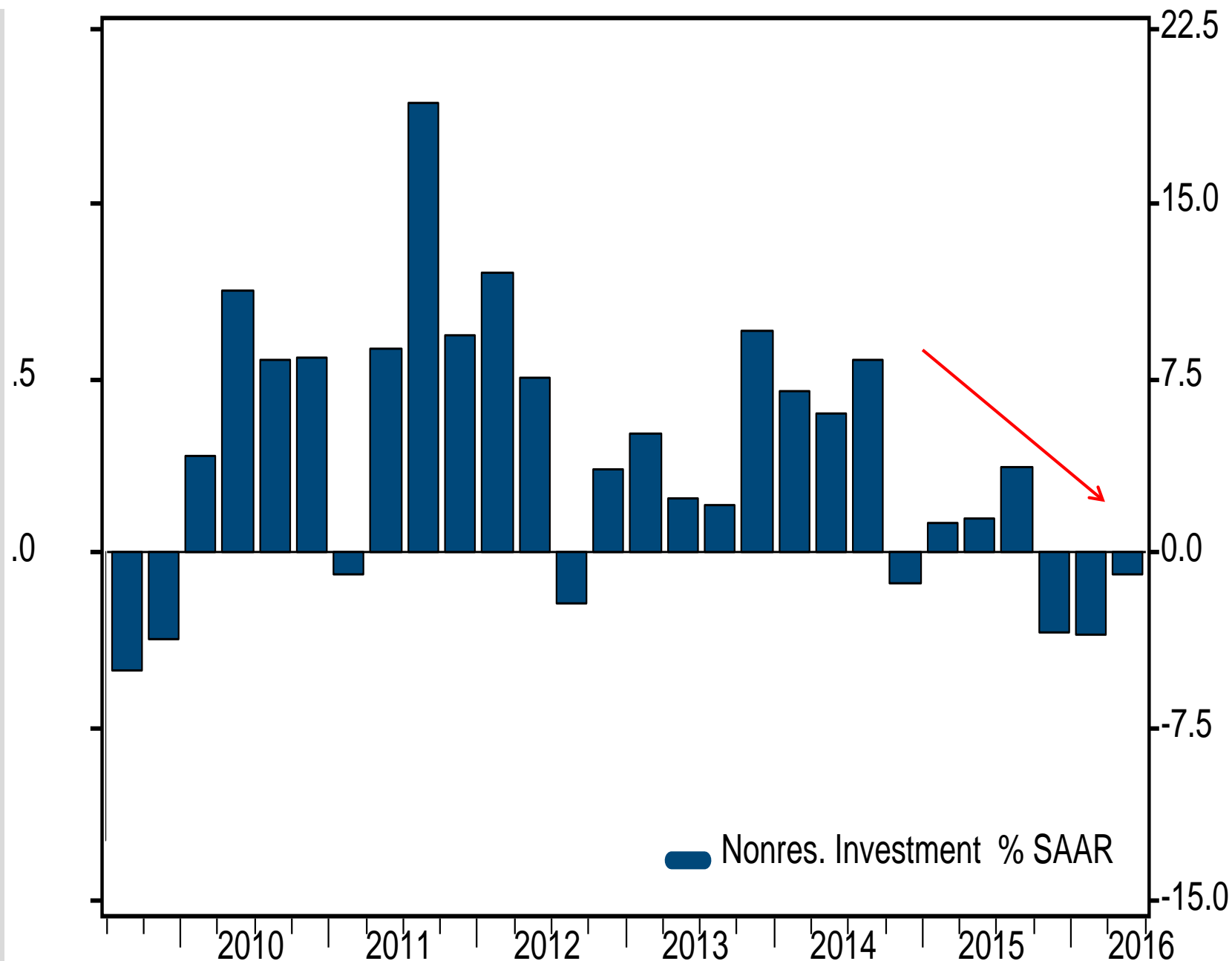
Waning Investment Momentum

Nonresidential fixed investment fell **3.3%** at end of 2015, the first quarterly decline since Q4 2009

Investment fell 3.4% in Q1 2016

Investment fell **0.9%** in Q2 2016

Up **1.5%** in 2015 vs. **6.2%** in 2014



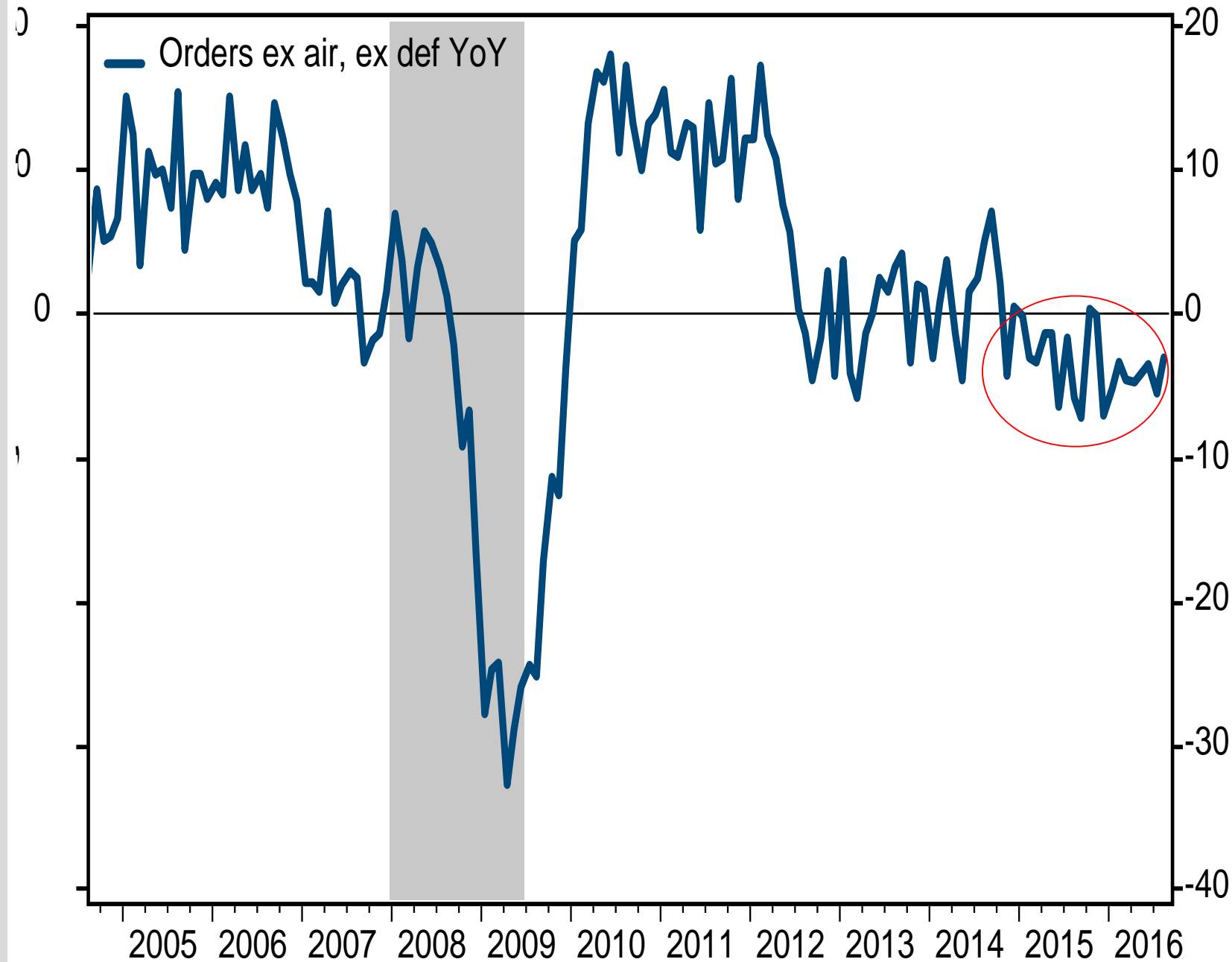
Source: Bureau of Economic Analysis /Haver Analytics

Business Investment Declining

Orders ex-air, ex-def rose 0.6% in August, **down 1.3% Y/Y**, the 20th month of negative growth

Durable goods were flat in August and are up **2.2% Y/Y**

Ex transportation, orders fell 0.4% and are up **1.7% Y/Y**



Source: Census Bureau /Haver Analytics

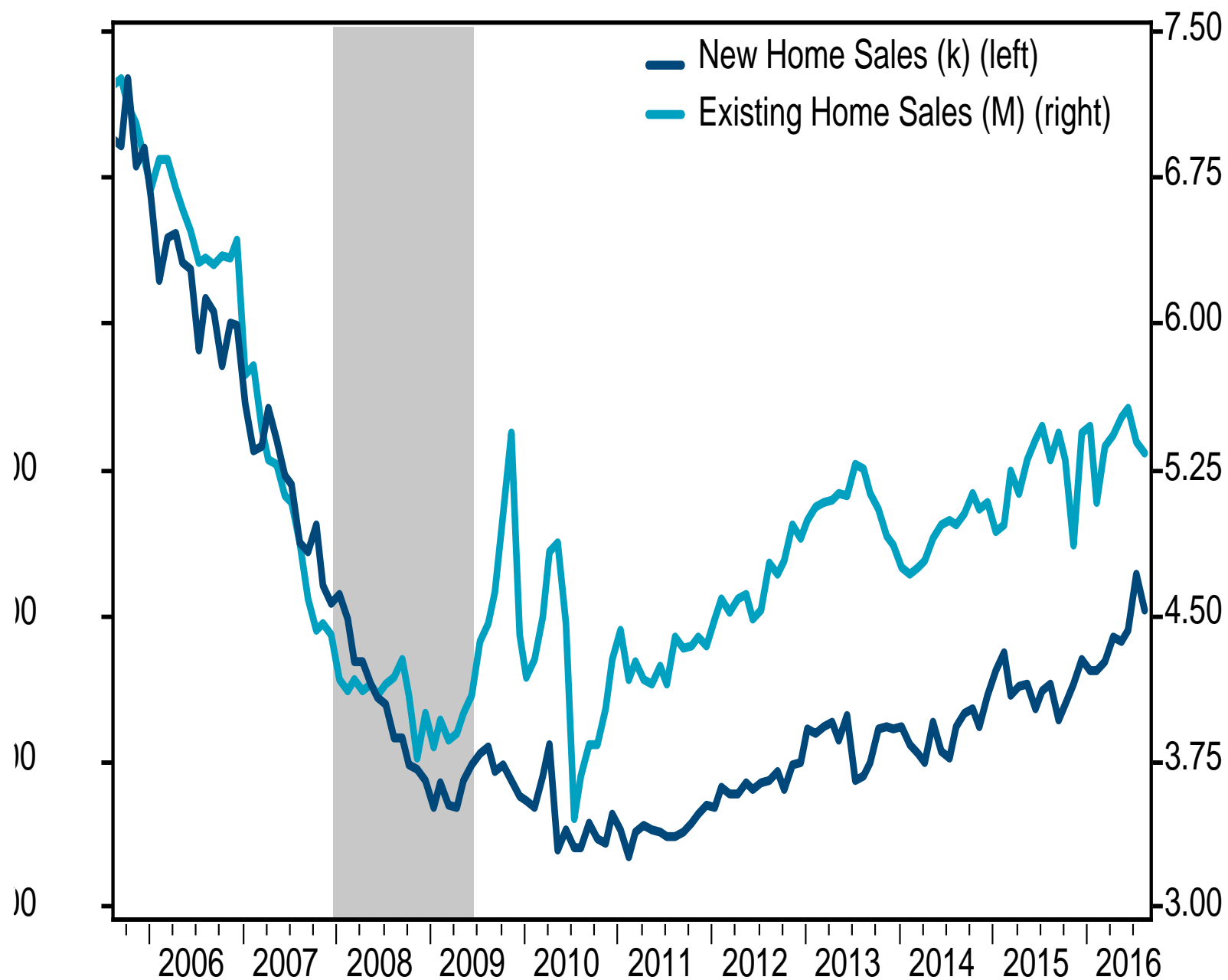
Silver Linings

Existing Home Sales

- Current: **5.33M**
- Low: **3.5M**
- Spread: **1.83M**
- Up **52%**

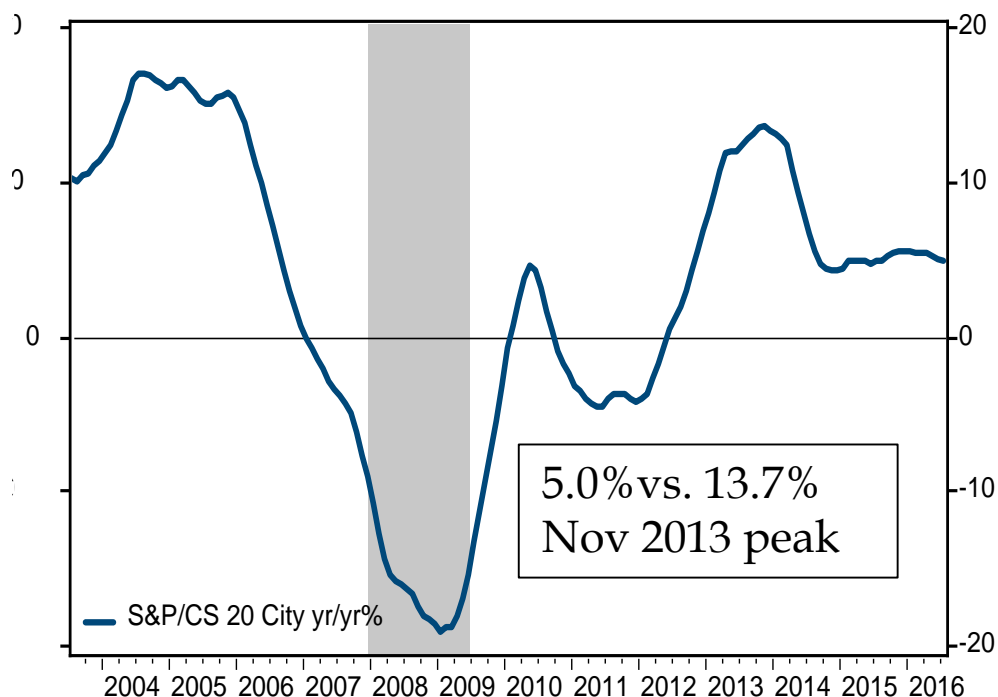
New Home Sales

- Current: **609k**
- Low: **270k**
- Spread: **339k**
- Up **126%**

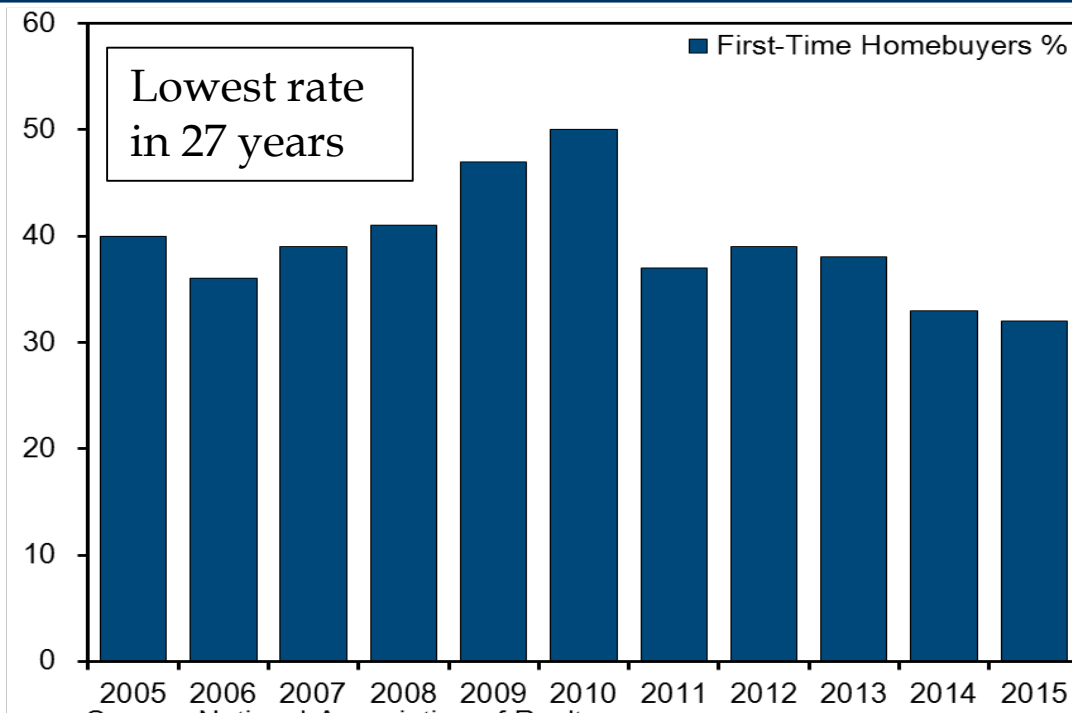


Sources: Census Bureau, National Association of Realtors /Haver Analytics

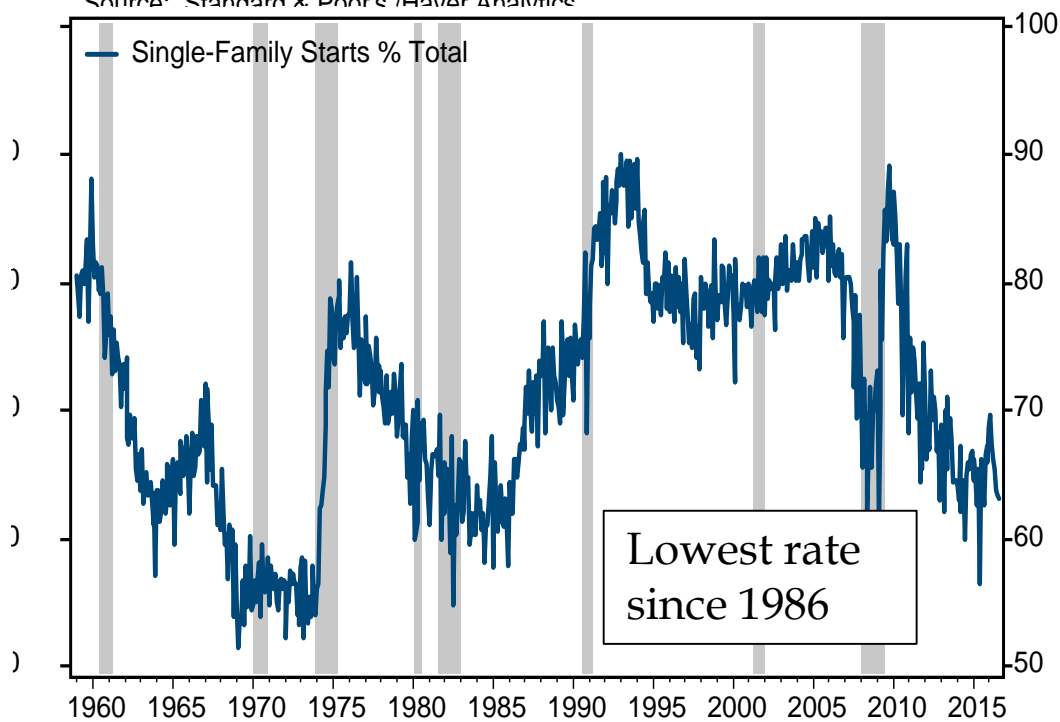
Housing Showing Signs of Weakness? Inability to Finance/Change in Preferences



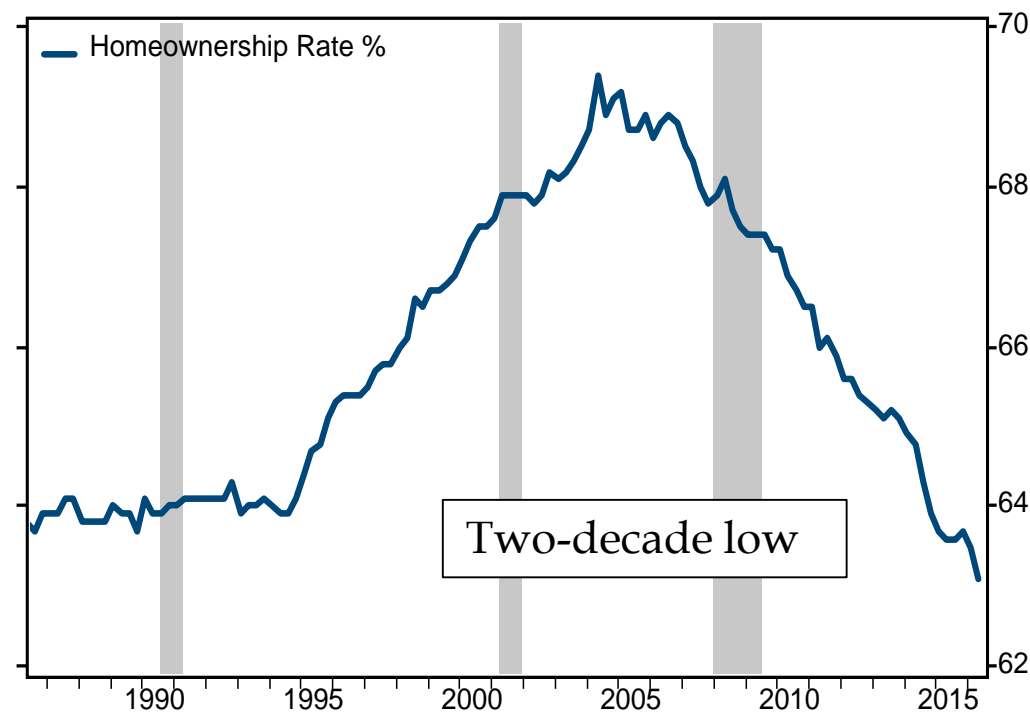
Source: Standard & Poor's /Haver Analytics



Source: National Association of Realtors



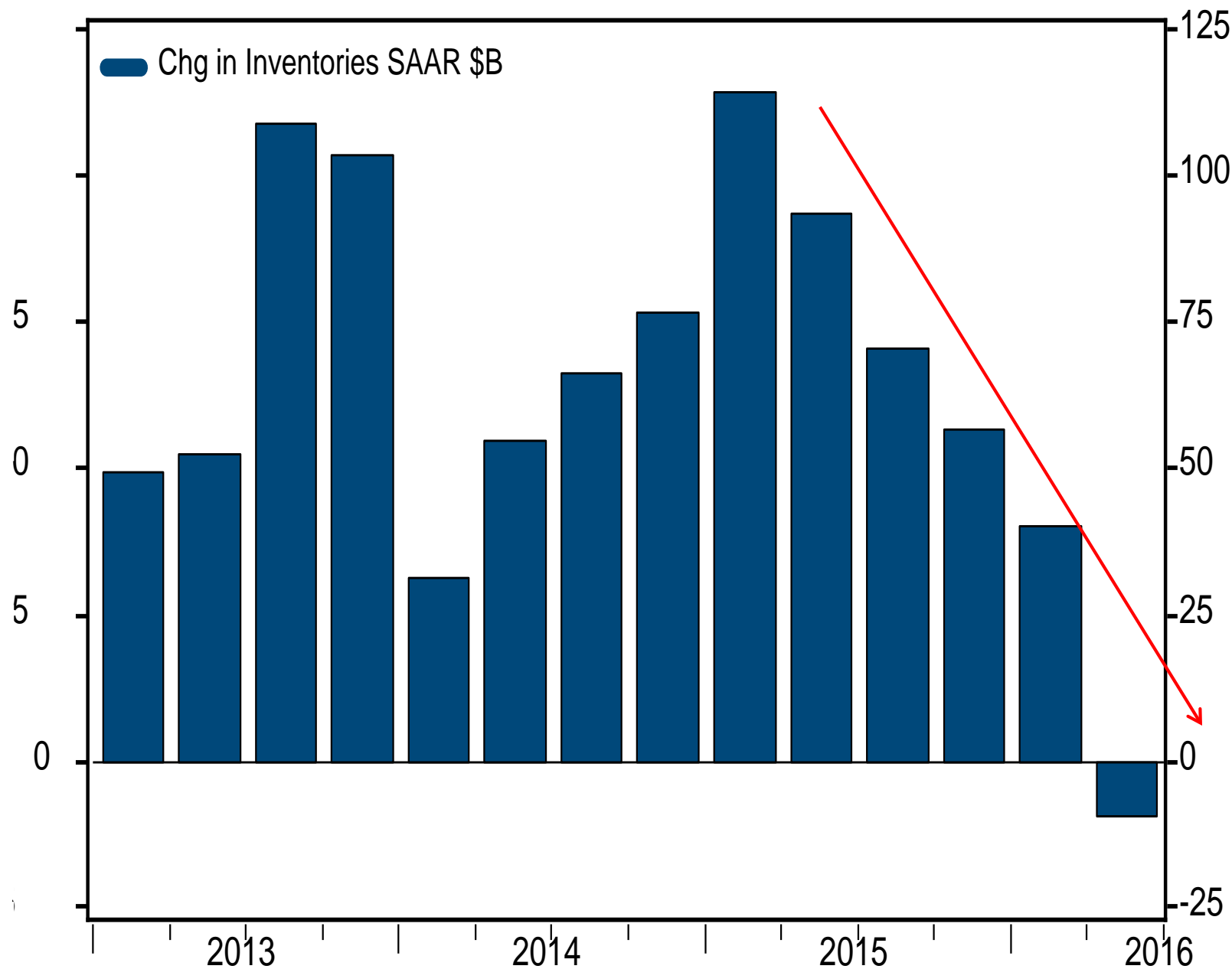
Source: Haver Analytics



Source: Census Bureau /Haver Analytics

Inventories fell **\$9.5bn** in Q2 vs **\$40.7bn** in Q1 2016, the fifth quarter of waning momentum from Q1 2015 (**\$114.4bn**)

Inventories shaved off **1.2%** from headline

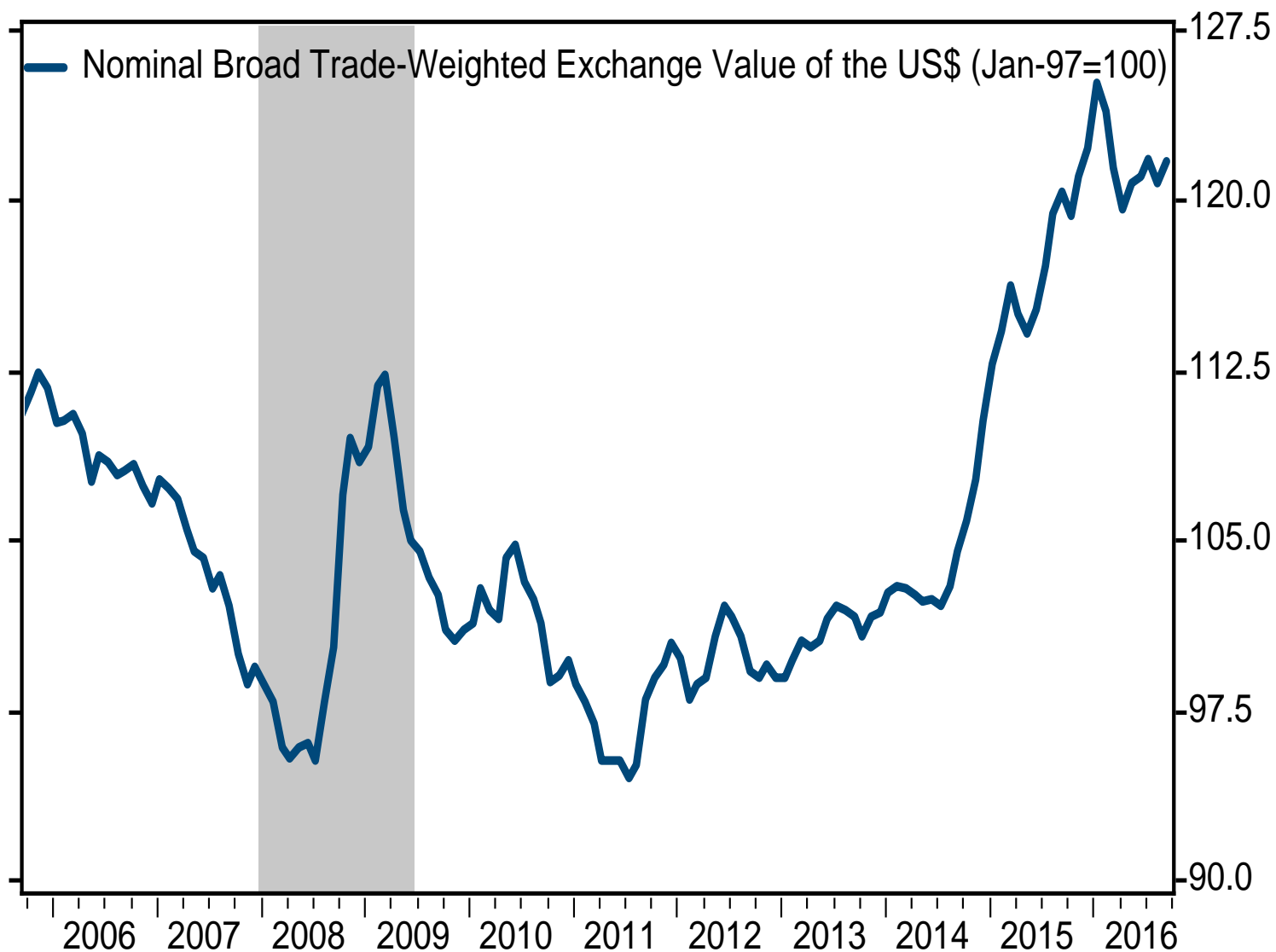


Source: Bureau of Economic Analysis /Haver Analytics

Down **2.7%** in
September since the
start of the year

Still, up **1.1%** Y/Y, up
18% since 2014

Up **28%** since a July
2011 low



Source: Federal Reserve Board /Haver Analytics

Crude Oil Prices Improving Modestly?

Monthly prices for September averaged **\$46.57**, following a **\$45.84** monthly average in August

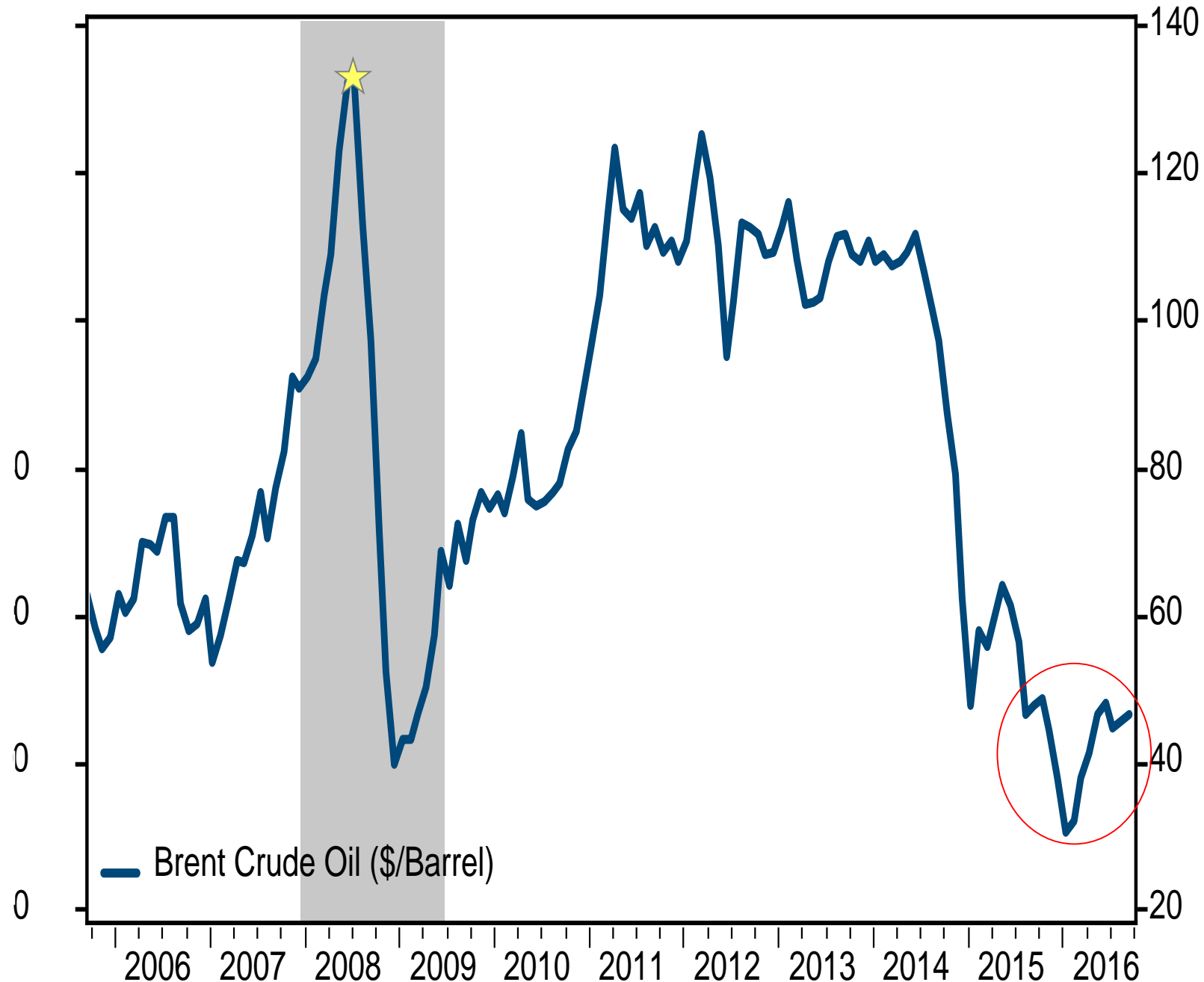
The price of oil is down **+60%** from 2008 high

Crude prices are down **2.20% YoY**

Oil prices up **52%** (**\$15.87 a barrel**) from a low in **January 2016**

OPEC production cut agreement for first time in **8 years**

U.S. inventories fall below 500m barrels for first time since January

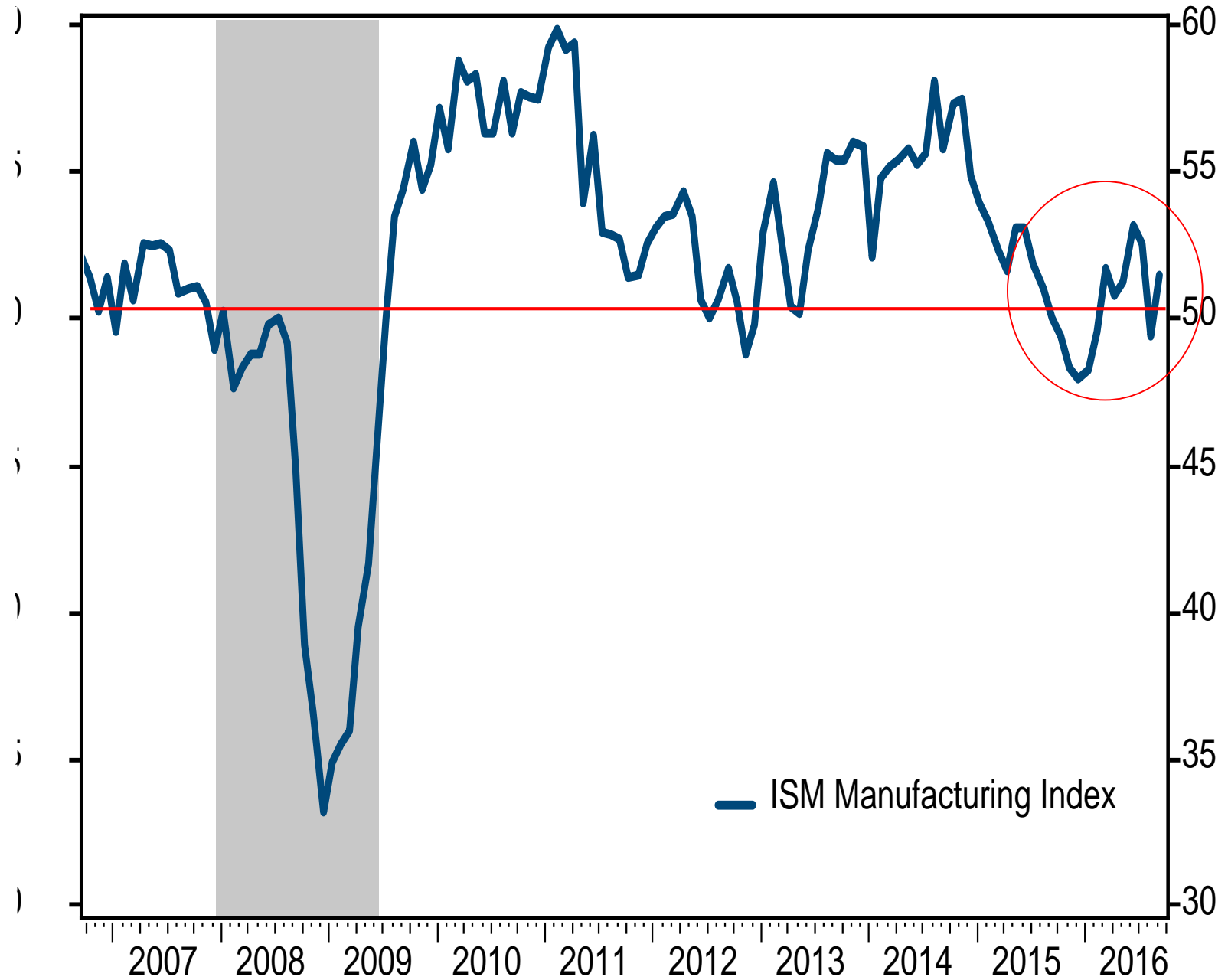


Source: EIA/WSJ/Haver

Production Improved But Loosing Steam

ISM expanded in September following a contraction in August, the first sub-50 reading since February 2016

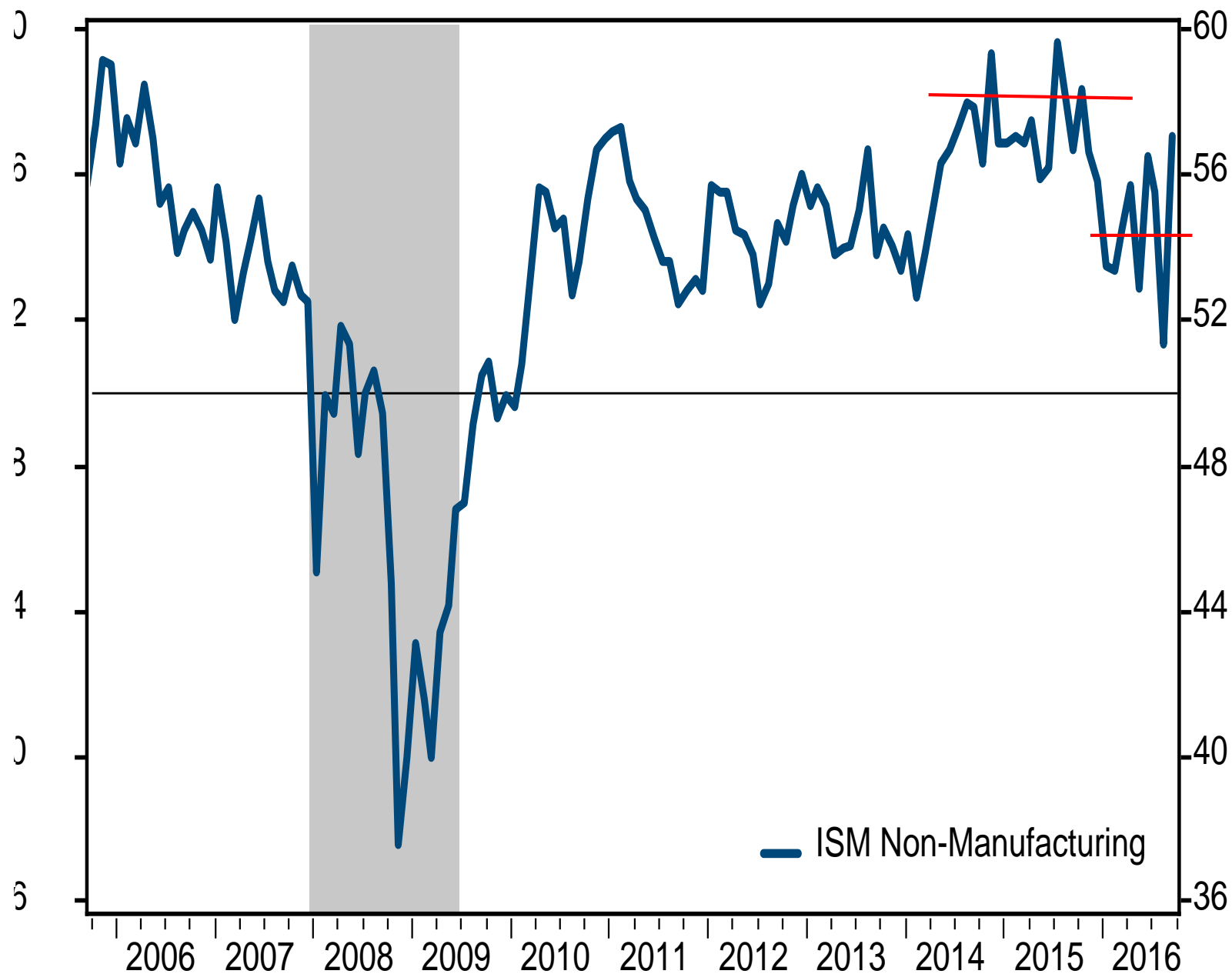
The ISM rose from 49.4 to **51.5** in September



Source: Institute for Supply Management /Haver Analytics

Service Activity Positive But Subdued

ISM Non-Manufacturing rebounded from 51.4, a six-year low, to **57.1** in September, the highest reading since October 2015

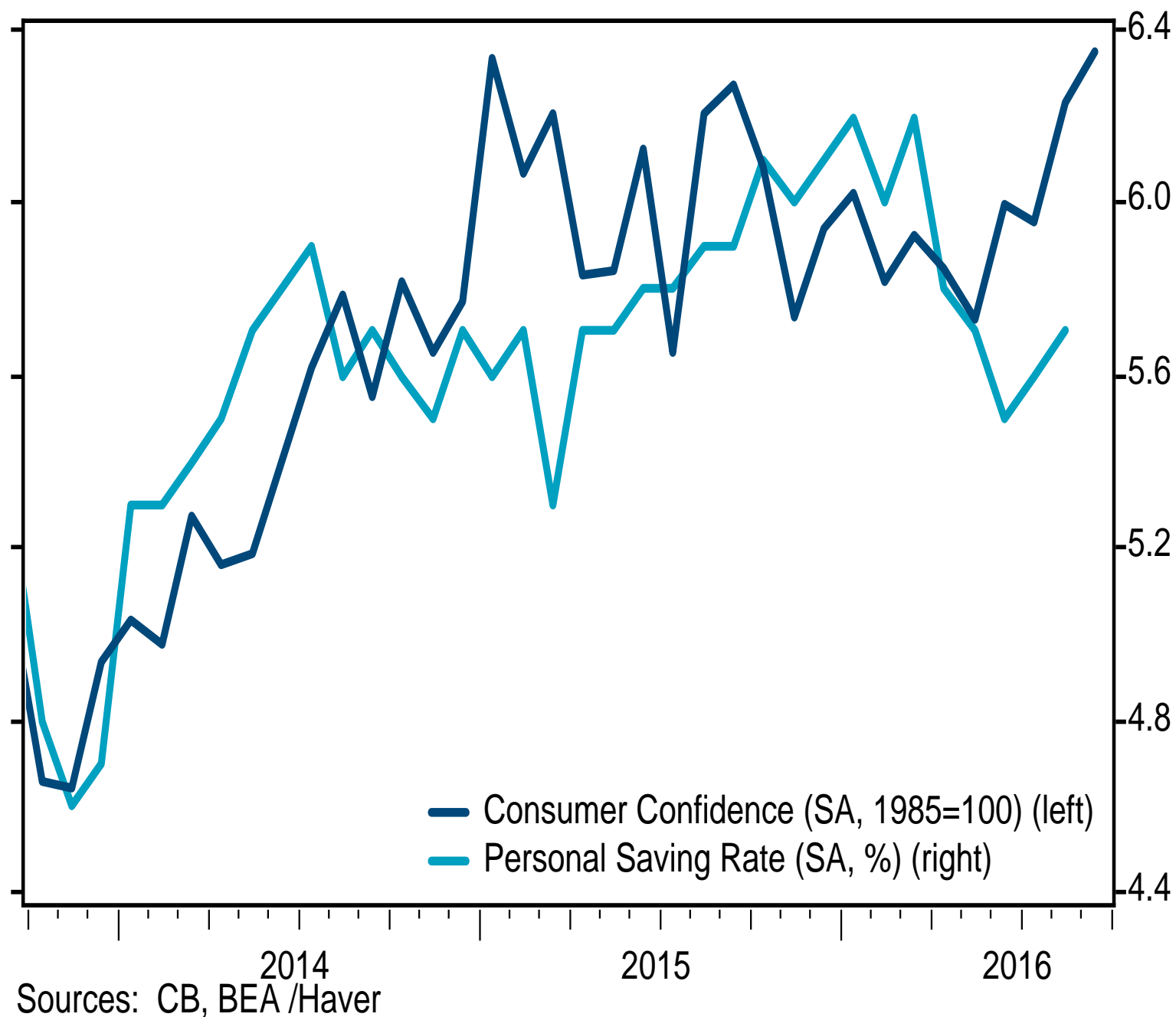


Source: Institute for Supply Management /Haver Analytics

Consumer Confidence & Savings Rate

The Consumer Confidence Index rose to **104.1** in September, following a reading of 101.8 the month prior

The personal savings rate rose to **5.7%** in August, the third consecutive month of increase

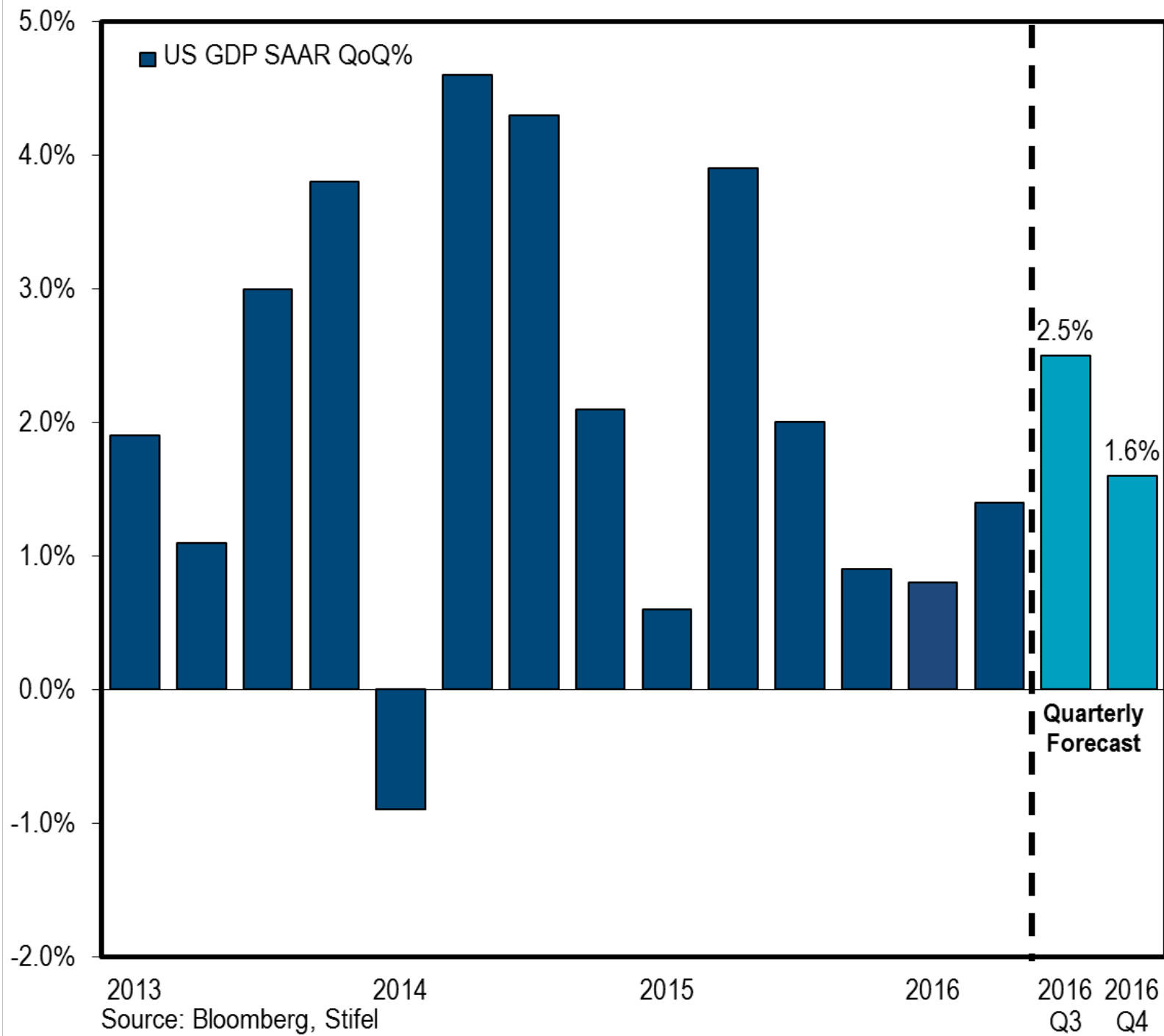


Big Picture: Growth

Forecasted Quarterly GDP Growth

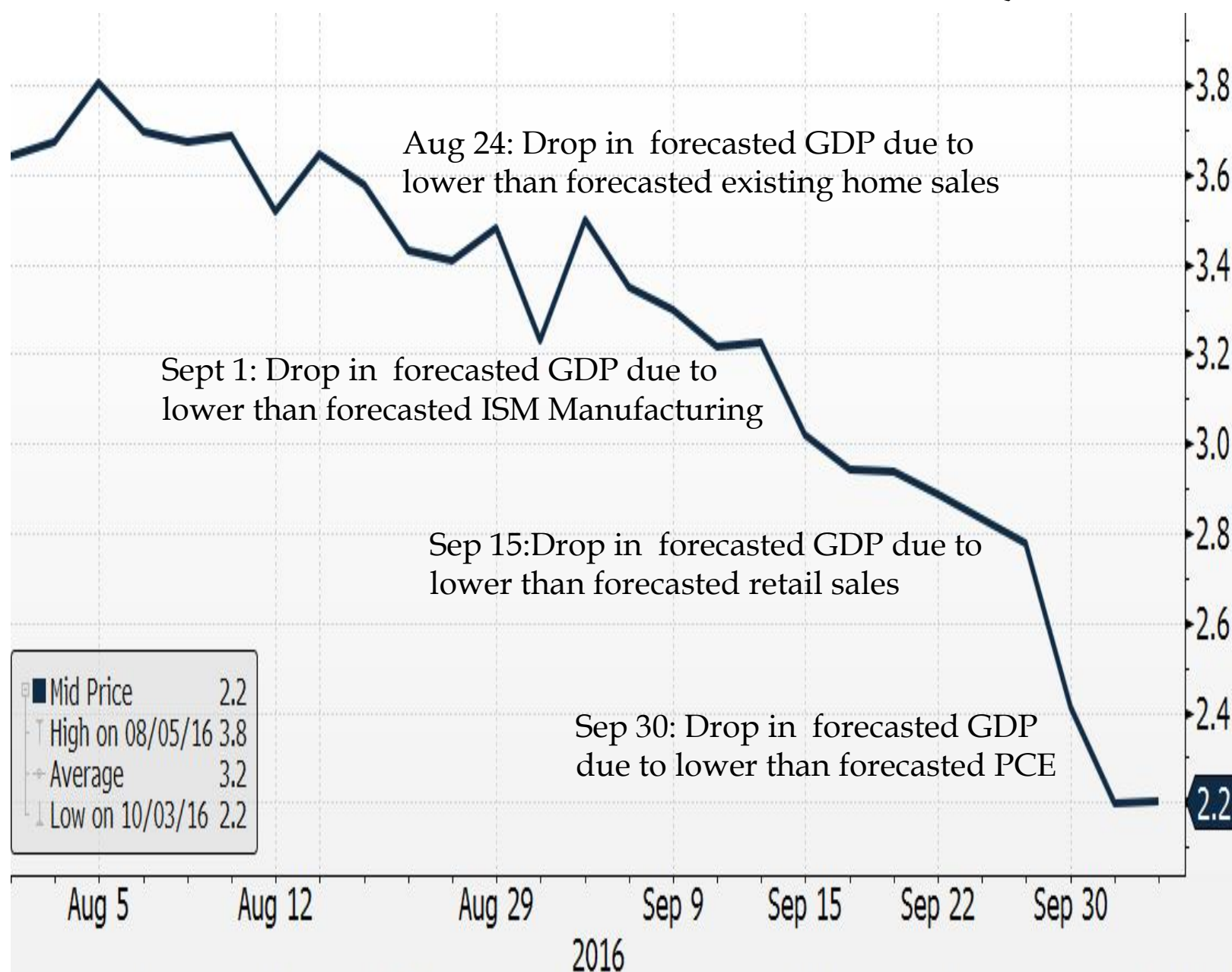
2016 Q3: 2.5%

2016 Q4: 1.6%



Atlanta Fed GDPNow GDP Forecast for 2016: Q3

In the latest revision to the Atlanta Fed forecast, the model shows GDP in Q3 as **2.2%**



Forecasted GDP Growth

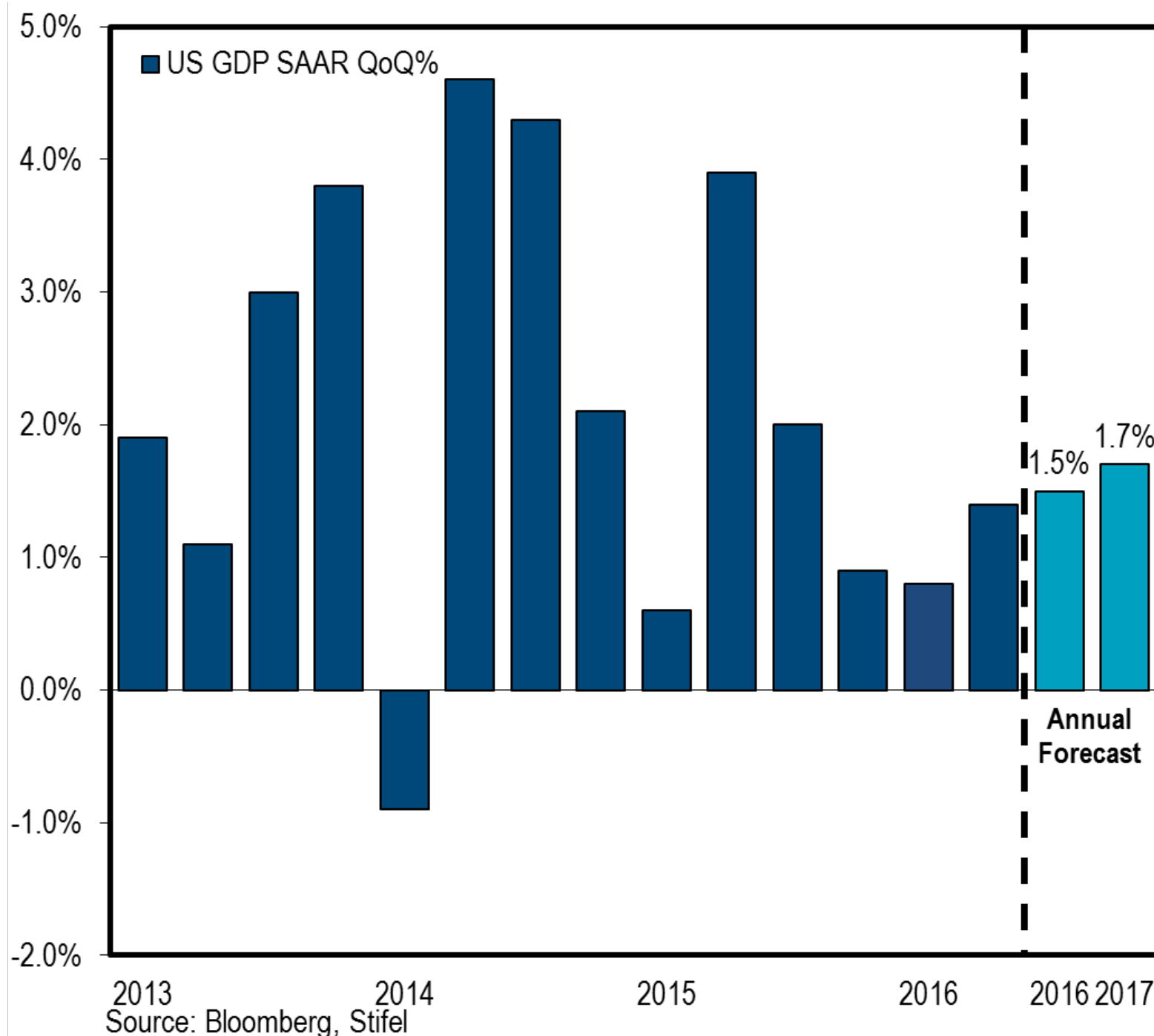
2014: **2.4%**

2015: **1.9%**

2016 forecast **1.5%**

Q1 2016 **0.8%**

Q2 2016 **1.4%**
(average **1.1%**)



- For the Fed, “*moderate*” was good enough for liftoff but still “*further evidence*” is needed before adjusting policy
- Dual mandate not yet met
 - Headline job creation remains modest and insufficient to spark wage pressures
 - Inflation improved but well below 2% target
- Despite lower gas prices, consumer losing momentum without income growth
 - *Shift between goods and services (healthcare)*
- Manufacturing and investment remain directionless
 - *Strong dollar, heightened inventory and still-modest demand*
 - *Regulation, healthcare, and tax and political uncertainty*
- Global economy tepid, volatility exacerbated by Brexit, central bank policies and election
- Housing contribution is limited
- Pathway for rates will be “*gradual*,” low for much longer

Interest Rate Forecast Grid

	End of Quarter Figures										Average Annual Figures			
	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	2015	2016	2017	2018
Growth indicators														
GDP, QoQ %	2.0%	0.9%	0.8%	1.4%	2.5%	1.6%	1.1%	2.5%	1.7%	1.5%	1.9%	1.6%	1.7%	1.2%
Fixed Investment, %	5.7%	-0.2%	-0.9%	-1.1%	3.5%	1.9%	0.8%	3.0%	1.5%	1.7%	3.5%	0.9%	1.8%	0.8%
Housing Starts, k	1,189	1,160	1,113	1,195	1,050	1,020	985	1,080	995	990	1,129	1,095	1,013	997
Car Sales, M	17.96	17.44	16.73	16.69	17.65	16.85	16.95	17.20	17.35	16.90	17.39	16.98	17.10	16.22
Unemployment Rate, %	5.1%	5.0%	4.9%	4.9%	4.9%	4.7%	4.7%	4.6%	4.6%	4.5%	5.2%	4.9%	4.6%	4.5%
Participation Rate, %	62.4%	62.6%	63.0%	62.7%	62.9%	62.3%	62.3%	62.4%	62.3%	62.2%	62.6%	62.7%	62.3%	62.1%
Savings Rate, %	5.9%	6.0%	6.1%	5.7%	5.1%	4.8%	4.9%	5.2%	5.4%	5.5%	5.8%	5.4%	5.3%	5.5%
Inflation indicators, YoY%														
CPI	0.0%	0.7%	0.9%	1.0%	1.3%	1.3%	1.1%	0.9%	0.9%	1.0%	0.2%	1.2%	1.0%	0.7%
PCE	0.2%	0.6%	0.8%	0.9%	1.2%	1.4%	1.3%	1.0%	1.2%	1.2%	0.4%	1.1%	1.2%	0.8%
Core PCE	1.4%	1.4%	1.6%	1.6%	1.3%	1.2%	1.3%	1.1%	1.2%	1.3%	1.4%	1.4%	1.2%	1.1%
Interest rate, %														
FF	0.25	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.75	0.75	0.31	0.50	0.63	0.75
3month UST bills	-0.02	0.17	0.20	0.26	0.28	0.18	0.22	0.30	0.35	0.23	0.05	0.23	0.28	0.25
2yr UST notes	0.63	1.05	0.72	0.58	0.76	0.55	0.58	0.60	0.75	0.70	0.72	0.65	0.66	0.55
5yr UST notes	1.36	1.76	1.21	1.00	1.15	1.23	1.18	1.28	1.25	1.15	1.54	1.15	1.22	1.10
10yr UST notes	2.04	2.27	1.77	1.47	1.60	1.15	1.20	1.25	1.30	1.20	2.15	1.50	1.24	1.05
30yr UST bonds	2.85	3.02	2.61	2.29	2.32	2.15	2.20	2.22	2.30	2.15	2.88	2.34	2.22	2.05
2s to 10s Spread bps	141	122	105	89	84	60	62	65	55	50	143	85	58	50

Lindsey Piegza - Chief Economist

Source: Bloomberg, Stifel

Red identifies actual figures

Forecasts are updated on a quarterly basis

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