Brown Sugar:
Deriving Satisfaction through Data Analysis

By: Anirban Basu

Sage Policy Group, Inc.

April 19th, 2018

On Behalf of

ABC Rocky Mountain Chapter Economic Forecast with Anirban Basu

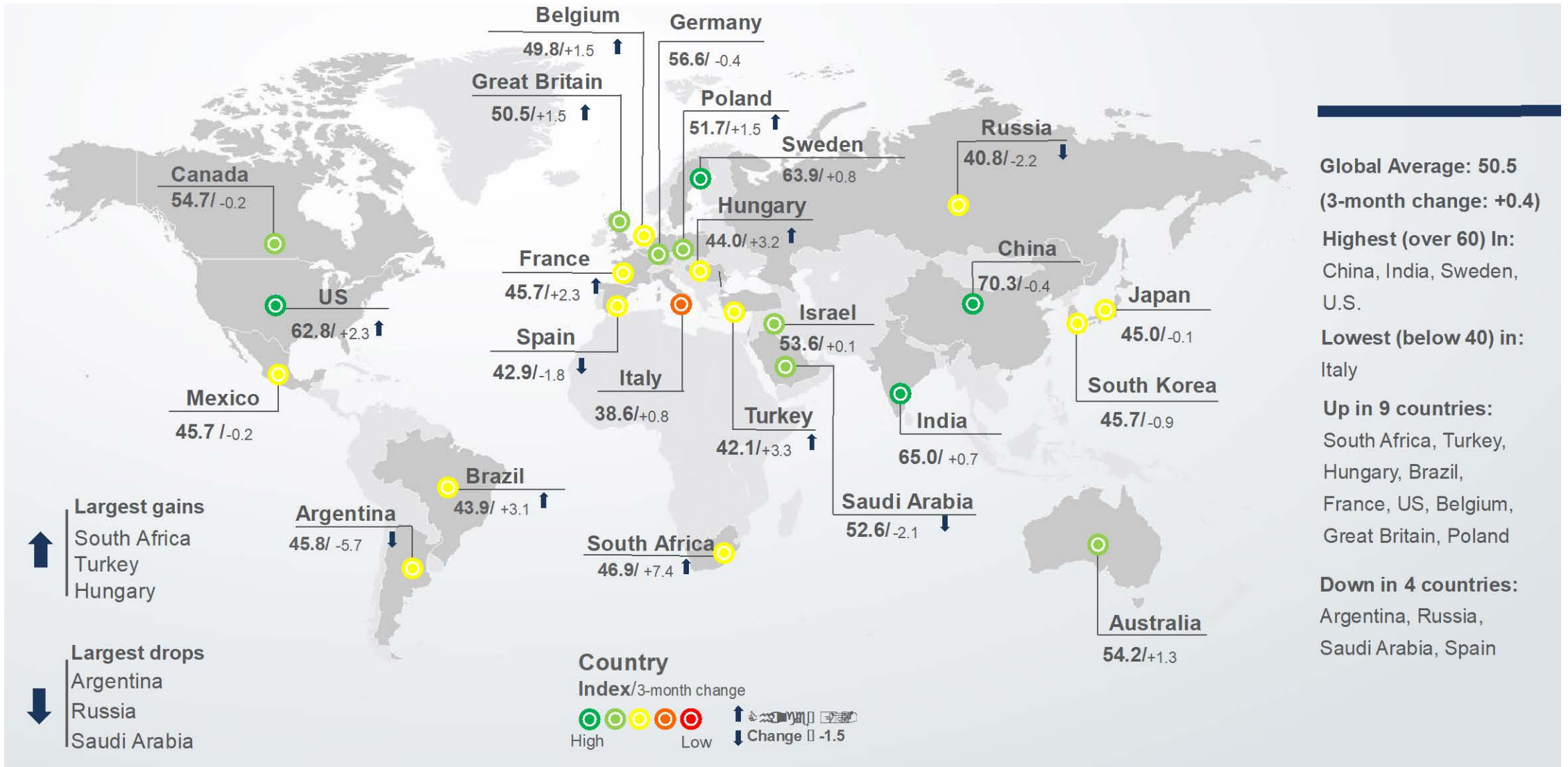*Disclaimer: Any resemblance between the presentation's title and the speaker is purely coincidental.*

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Get off of My Cloud

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IPSOS Global Confidence Index, March 2018

Belgium
49.8/ +1.5 ↑

Germany
56.6/ -0.4

Great Britain
50.5/ +1.5 ↑

Poland
51.7/ +1.5 ↑

Sweden
63.9/ +0.8

Russia
40.8/ -2.2 ↓

Canada
54.7/ -0.2

Hungary
44.0/ +3.2 ↑

China
70.3/ -0.4

France
45.7/ +2.3 ↑

US
62.8/ +2.3 ↑

Japan
45.0/ -0.1

Spain
42.9/ -1.8 ↓

Israel
53.6/ +0.1

South Korea
45.7/ -0.9

Mexico
45.7 /-0.2

Italy
38.6/ +0.8

Turkey
42.1/ +3.3 ↑

India
65.0/ +0.7

Brazil
43.9/ +3.1 ↑

Argentina
45.8/ -5.7 ↓

Saudi Arabia
52.6/ -2.1 ↓

South Africa
46.9/ +7.4 ↑

Australia
54.2/+1.3

Largest gains
↑
South Africa
Turkey
Hungary

Largest drops
↓
Argentina
Russia
Saudi Arabia

Country
Index/3-month change

🟢🟢🟡🟠🔴
High   Low

↑ [increase]
↓ Change ⏐ -1.5

Global Average: 50.5
(3-month change: +0.4)

Highest (over 60) In:
China, India, Sweden,
U.S.

Lowest (below 40) in:
Italy

Up in 9 countries:
South Africa, Turkey,
Hungary, Brazil,
France, US, Belgium,
Great Britain, Poland

Down in 4 countries:
Argentina, Russia,
Saudi Arabia, Spain

Source: IPSOS

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OECD Business Confidence Index –Select Regions/Countries
March 2000 - March 2018


Legend: OECD - Total | Euro area (19 countries) | United States | China
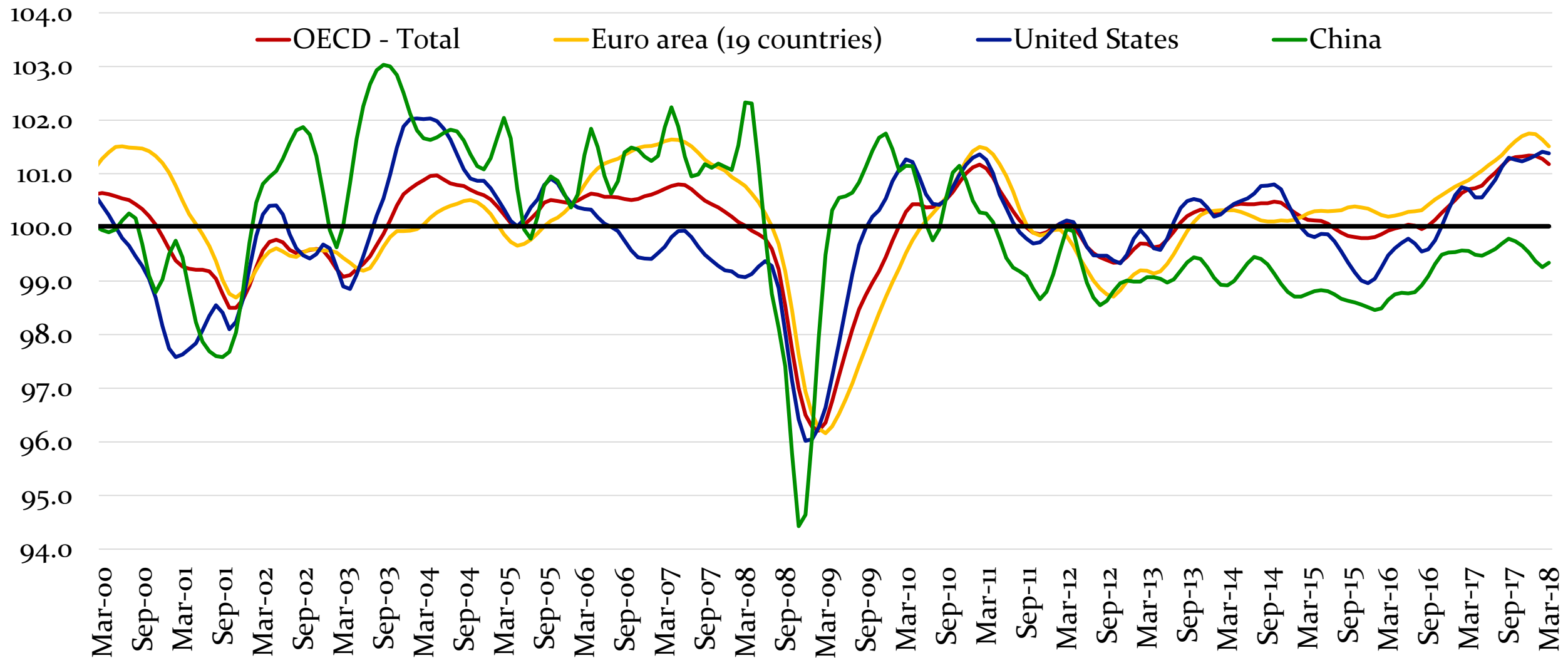
The business confidence index (BCI) is based on enterprises' assessment of production, orders and stocks, as well as its current position and expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions. Source: OECD

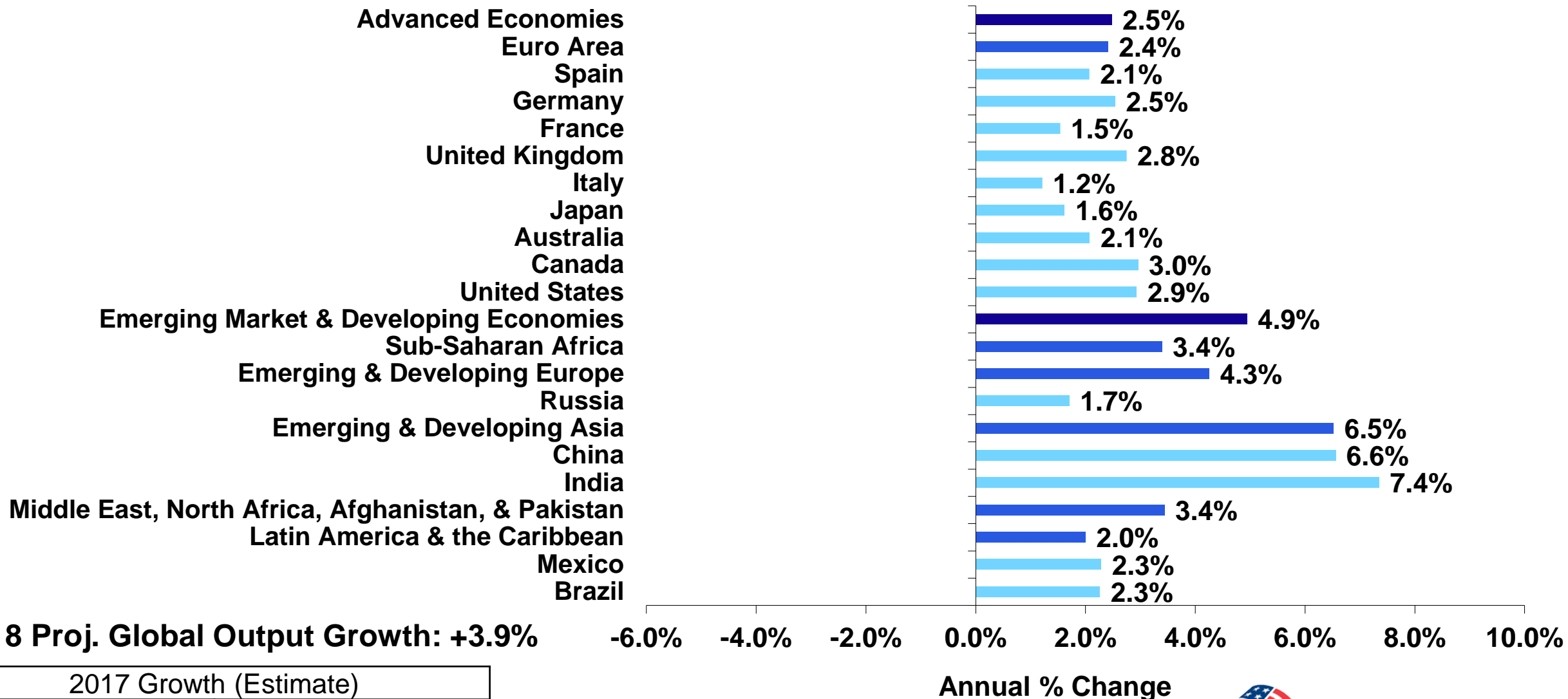# Global Monetary Policy Tightening/Easing
As of March 2018
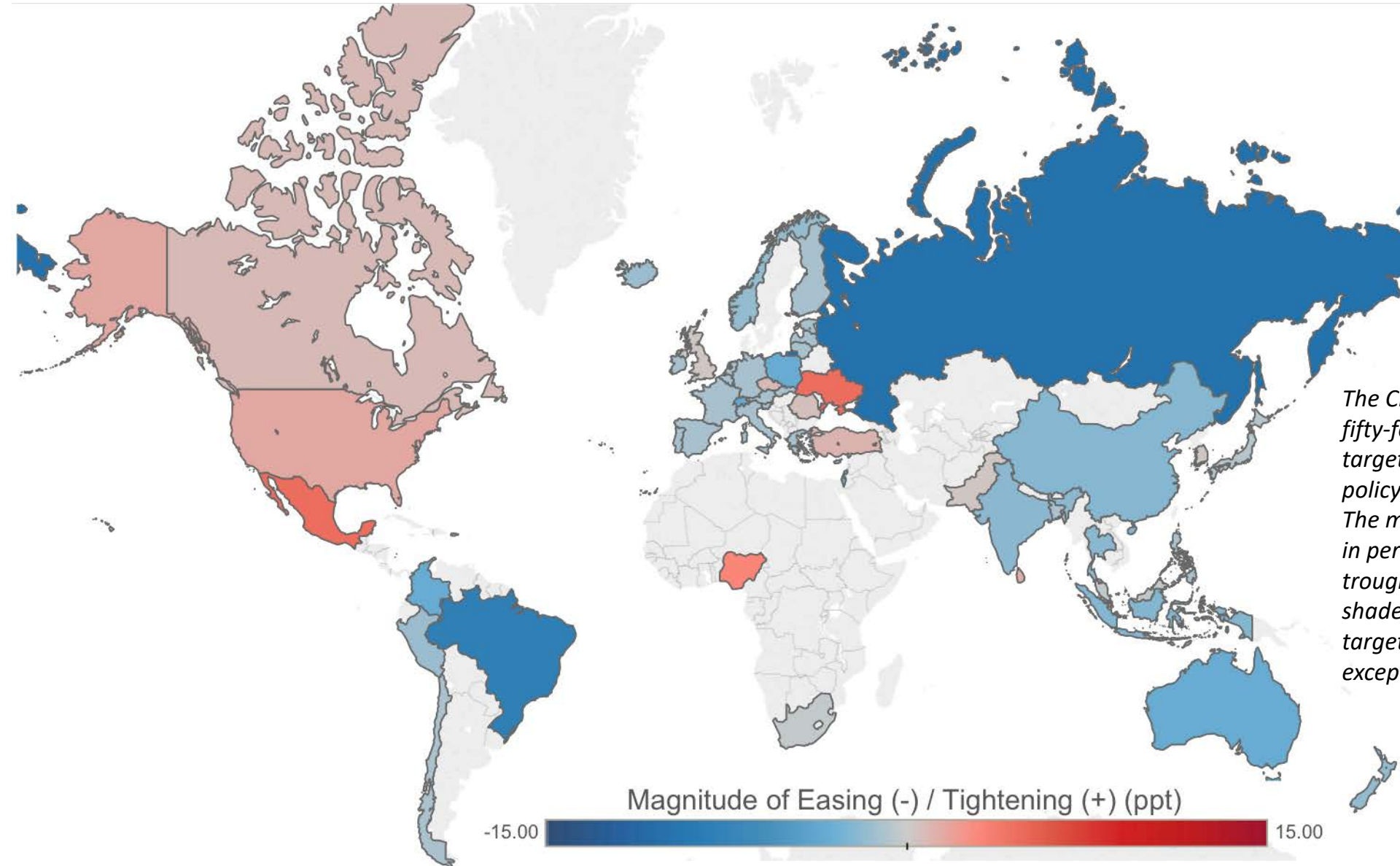
The CFR Global Monetary Policy Tracker covers fifty-four large countries—mainly those that target inflation in some manner. Tightening policy is indicated in red, loosening in blue. The more a country has raised (lowered) rates, in percentage points, from the most recent trough (peak) in its policy rate, the darker the shade of red (blue). Generally, the policy rate target is the overnight interbank rate, with exceptions indicated.

Magnitude of Easing (-) / Tightening (+) (ppt)

-15.00   15.00

Estimated Growth in Output by Select Global Areas
2018 Projected

Area	Annual % Change
Advanced Economies	2.5%
Euro Area	2.4%
Spain	2.1%
Germany	2.5%
France	1.5%
United Kingdom	2.8%
Italy	1.2%
Japan	1.6%
Australia	2.1%
Canada	3.0%
United States	2.9%
Emerging Market & Developing Economies	4.9%
Sub-Saharan Africa	3.4%
Emerging & Developing Europe	4.3%
Russia	1.7%
Emerging & Developing Asia	6.5%
China	6.6%
India	7.4%
Middle East, North Africa, Afghanistan, & Pakistan	3.4%
Latin America & the Caribbean	2.0%
Mexico	2.3%
Brazil	2.3%

2018 Proj. Global Output Growth: +3.9%

Annual % Change

2017 Growth (Estimate)	
World: 3.8%	Euro Area: 2.3%
United States: 2.3%	Japan: 1.7%

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Source: International Monetary Fund: World Economic Outlook Database, April 2018

Start Me Up

Conference Board Consumer Confidence Index
2005 – March 2018

March 2018 = 127.7
where 1985 = 100

Source: Conference Board
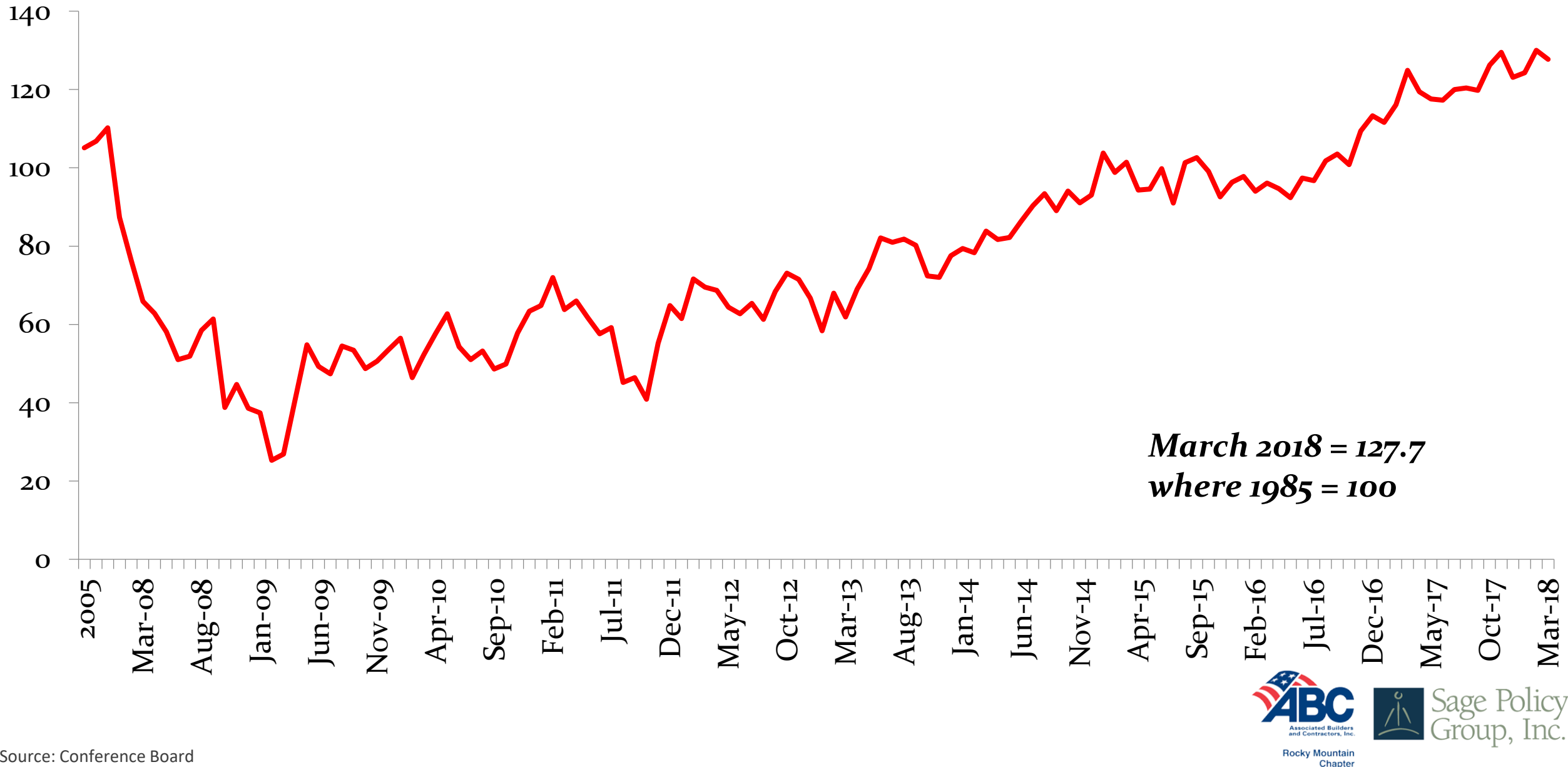
NFIB Index of Small Business Optimism, 1986-2018
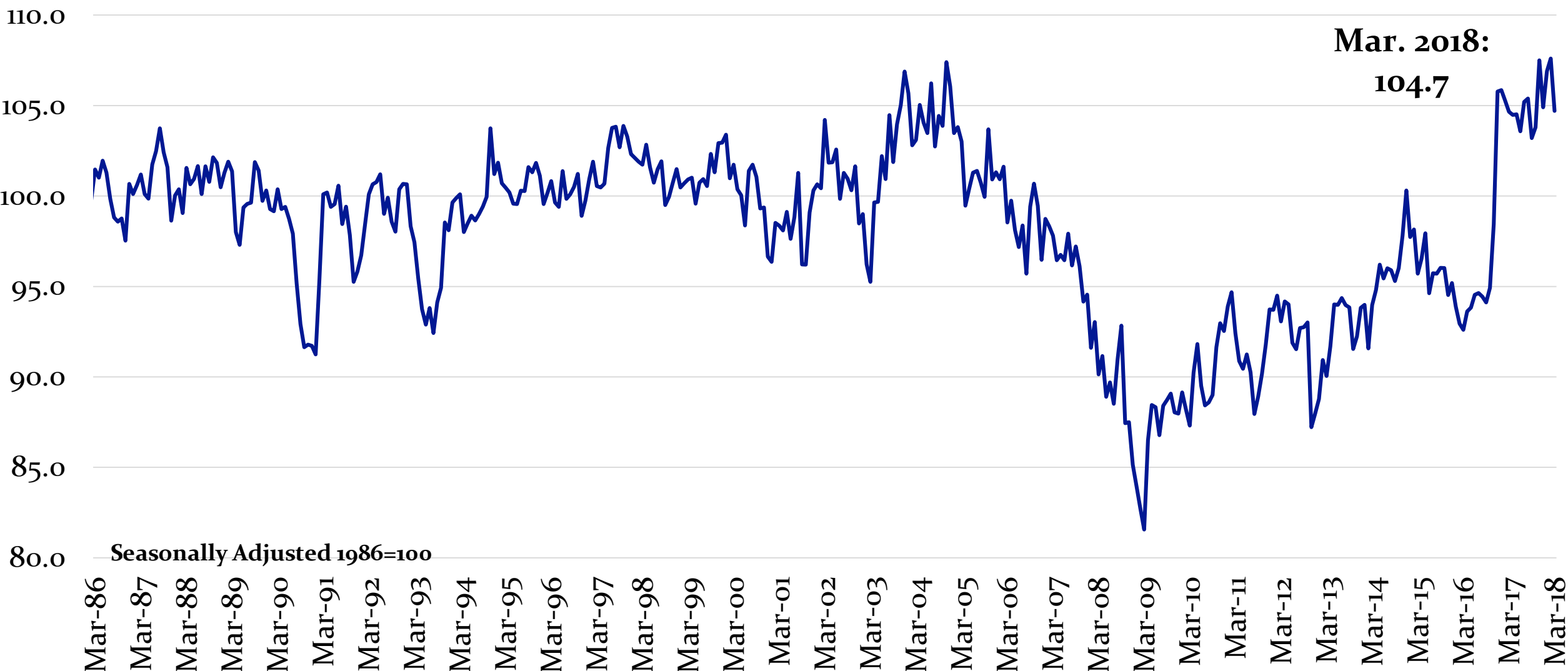
Mar. 2018: 104.7

Seasonally Adjusted 1986=100

Paint It Black – Corporate Profits
U.S. Corporate Profits After Tax*
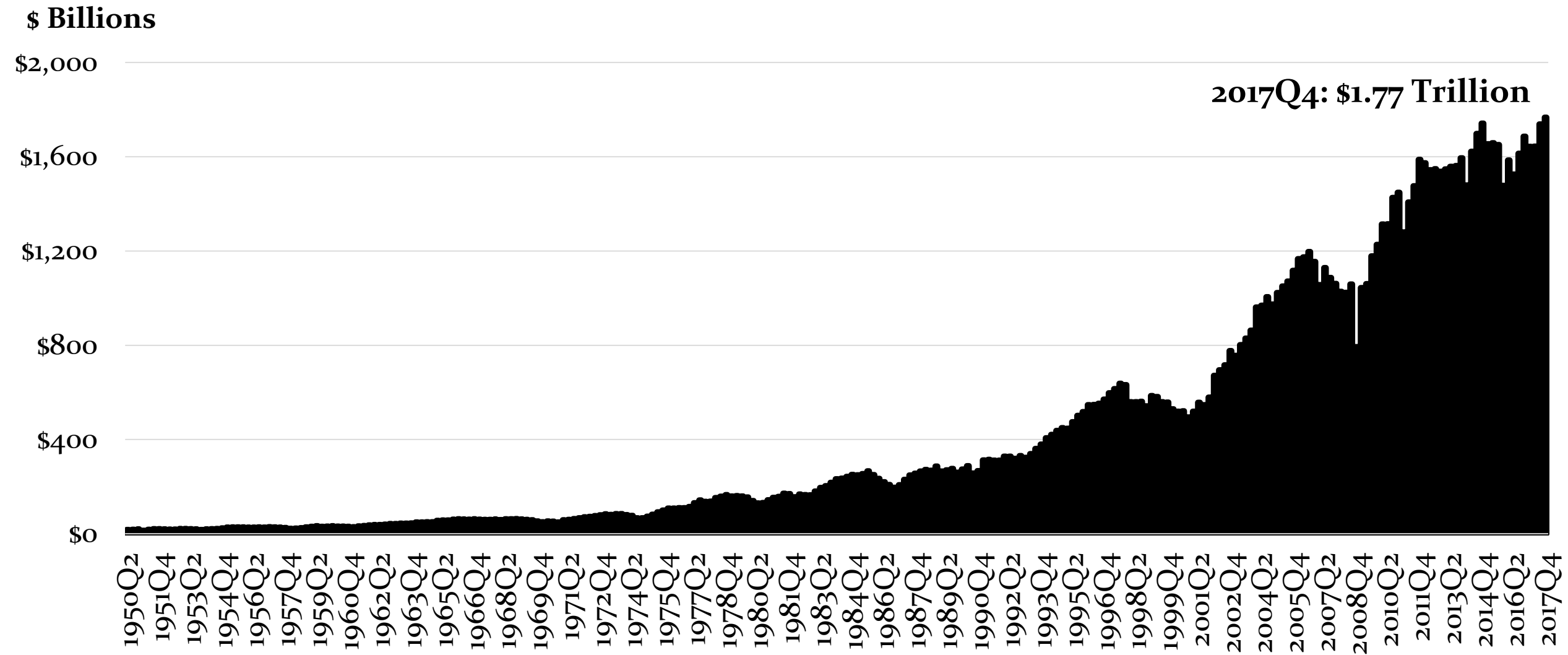
$ Billions

2017Q4: $1.77 Trillion

U.S. Job Openings
February 2001 through February 2018

Feb. 2018:
6.05M Openings

Job Openings (Millions)

7.0

6.0

5.0

4.0

3.0

2.0

Feb-01, Aug-01, Feb-02, Aug-02, Feb-03, Aug-03, Feb-04, Aug-04, Feb-05, Aug-05, Feb-06, Aug-06, Feb-07, Aug-07, Feb-08, Aug-08, Feb-09, Aug-09, Feb-10, Aug-10, Feb-11, Aug-11, Feb-12, Aug-12, Feb-13, Aug-13, Feb-14, Aug-14, Feb-15, Aug-15, Feb-16, Aug-16, Feb-17, Aug-17, Feb-18

Source: U.S. Bureau of Labor Statistics

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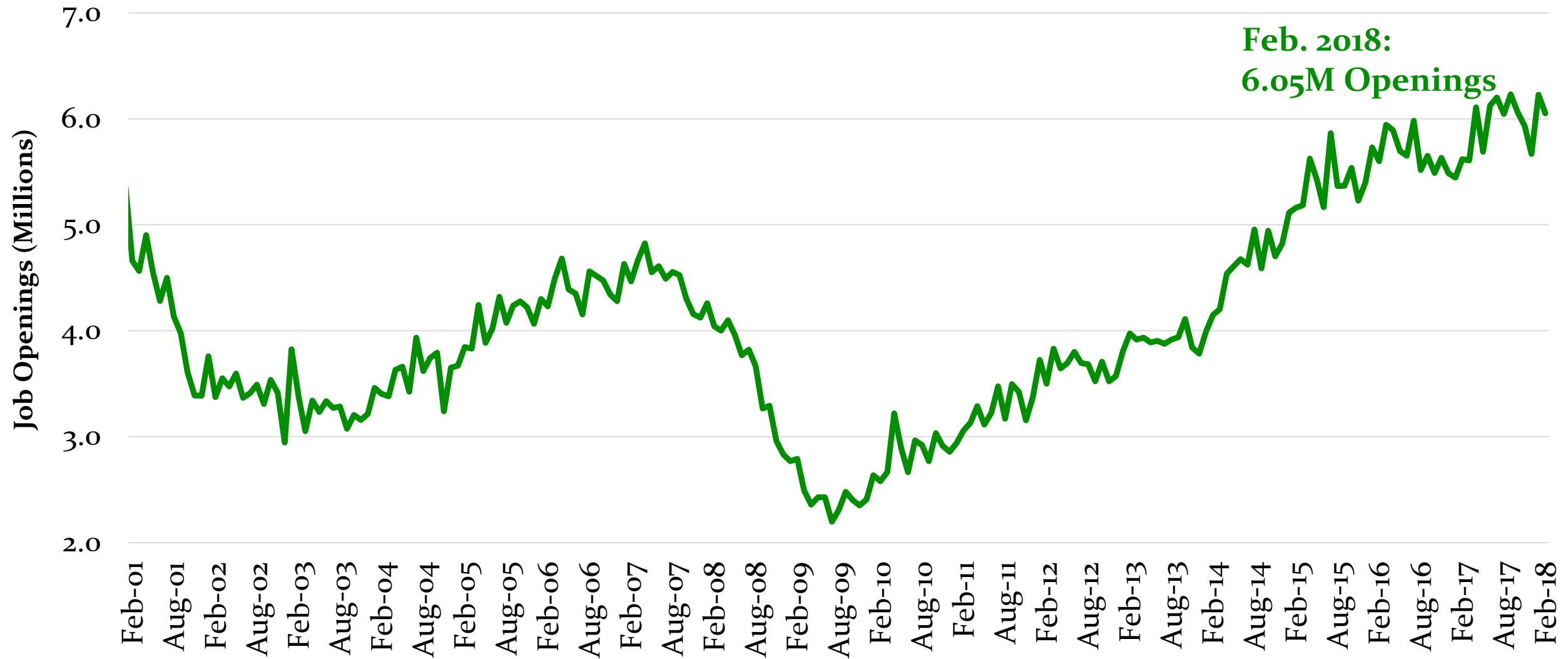
Net Change in U.S. Jobs
March 2002 through March 2018

March 2018: +103K

Source: U.S. Bureau of Labor Statistics
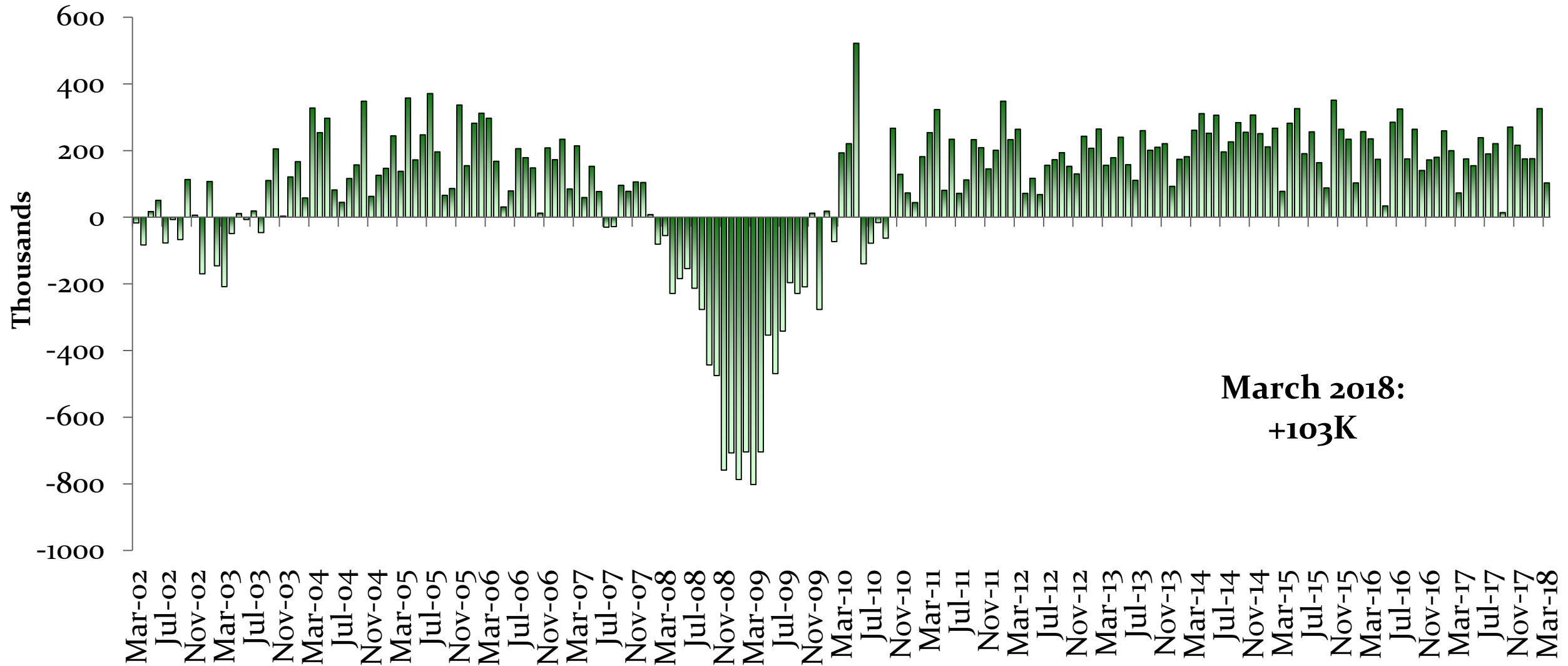
National Nonfarm Employment
by Industry Sector, March 2017 v. March 2018

Industry Sector	Thousands, SA
Professional and Business Services	502
Education and Health Services	443
Leisure and Hospitality	312
Trade, Transportation, and Utilities	295
Manufacturing	232
Construction	228
Financial Activities	136
Other Services	88
Mining and Logging	62
Government	12
Information	-49

All told 2,261K jobs gained

Thousands, SA

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Source: U.S. Bureau of Labor Statistics

U.S. Labor Force Participation: Men Ages 25-34
2000 – 2018

89.1%

Source: U.S. Bureau of Labor Statistics, Current Population Survey
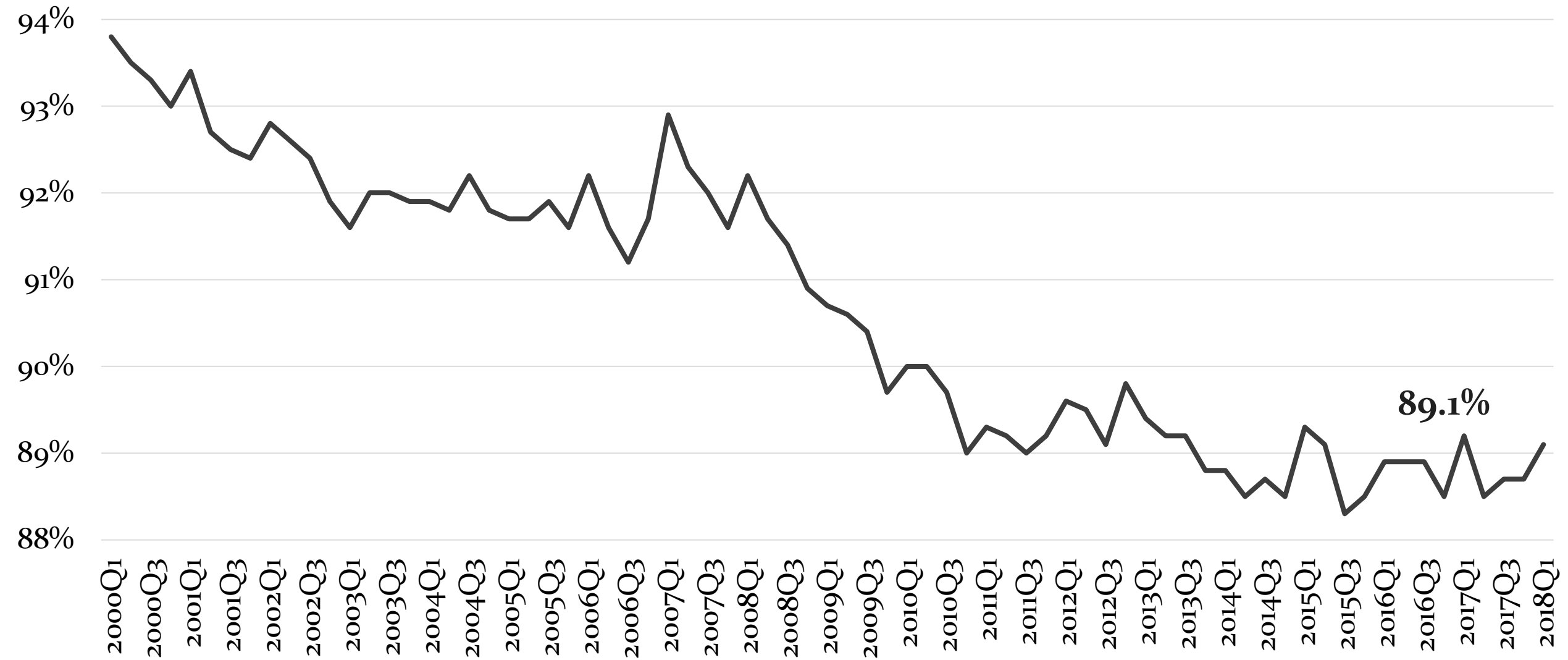
National Construction Employment
Monthly Net Change March 2000 through March 2018

Industry Sector	Mar-18	Feb-18	Mar-17	1-net	12-net	12-%
Construction	7,150.0	7,165.0	6,922.0	-15.0	228.0	3.3%
Residential Building	782.4	780.0	749.0	2.4	33.4	4.5%
Nonresidential Building	803.7	801.5	781.7	2.2	22.0	2.8%
Heavy & Civil Engineering	1,005.7	1,009.3	991.4	-3.6	14.3	1.4%
Specialty Trade Contractors	4,558.3	4,574.5	4,399.6	-16.2	158.7	3.6%

March 2018:
-15K

Source: U.S. Bureau of Labor Statistics
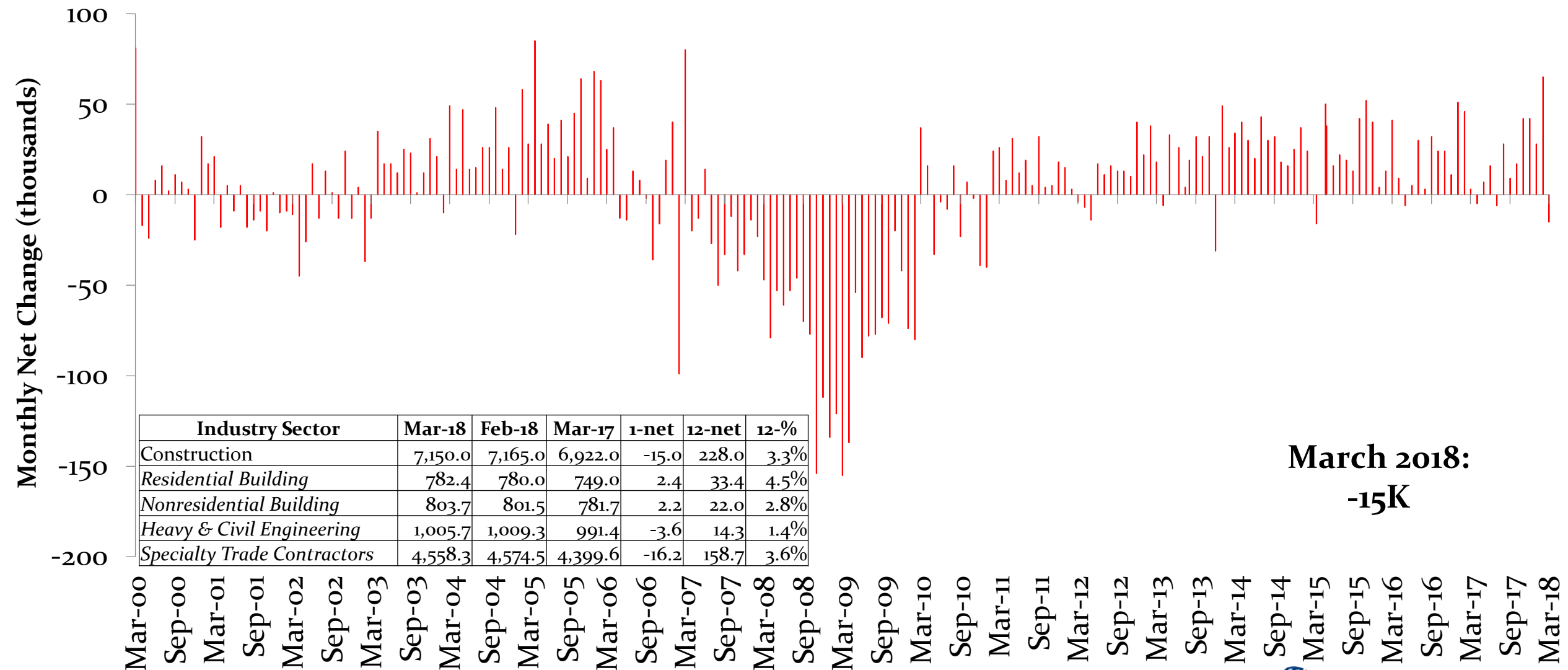
State-by-state Growth in Construction Jobs
February 2017 v. February 2018

State	YOY Change ('000)	State	YOY Change ('000)	State	YOY Change ('000)
CALIFORNIA	74.0	WEST VIRGINIA	4.3	HAWAII*	0.2
TEXAS	33.9	NORTH CAROLINA	4.2	ALABAMA	0.1
FLORIDA	31.7	IDAHO	4.1	VERMONT	0.0
ARIZONA	13.0	NEW MEXICO	4.0	CONNECTICUT	-0.1
WASHINGTON	12.6	MINNESOTA	3.3	ALASKA	-0.2
COLORADO	**11.4**	OKLAHOMA	2.7	ARKANSAS	-0.2
MICHIGAN	11.0	ILLINOIS	2.6	MAINE	-0.2
NEW YORK	11.0	WISCONSIN	2.6	MONTANA	-0.3
PENNSYLVANIA	10.8	TENNESSEE*	1.9	WYOMING	-0.3
MASSACHUSETTS	10.7	SOUTH CAROLINA	1.5	LOUISIANA	-1.2
GEORGIA	10.2	MISSISSIPPI	1.4	NEW JERSEY	-1.2
NEVADA	8.9	NEW HAMPSHIRE	1.1	NEBRASKA*	-2.2
VIRGINIA	7.7	DELAWARE*	1.1	KENTUCKY	-2.3
UTAH	7.5	DISTRICT OF COLUMBIA*	0.6	KANSAS	-3.3
OREGON	7.4	RHODE ISLAND	0.4	MISSOURI	-4.0
INDIANA	7.0	MARYLAND*	0.4	NORTH DAKOTA	-4.8
OHIO	6.1	SOUTH DAKOTA*	0.4	IOWA	-6.7

U.S. Year-over-year Net Change
Feb: +246K   Mar: +228K

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Colorado Nonfarm Employment
by Industry Sector Groups (SA)
February 2017 v. February 2018 Absolute Change

Industry Sector	Absolute Change
Construction	11,400
Leisure & Hospitality	10,900
Professional & Business Services	9,800
Trade, Transportation & Utilities	8,800
Education & Health Services	7,000
Government	4,400
Mining and Logging	4,000
Information	2,900
Manufacturing	2,500
Financial Activities	2,200
Other Services	-500

CO Total (SA): +63.4K; +2.4%

US Total (SA): +2,231K; +1.5%
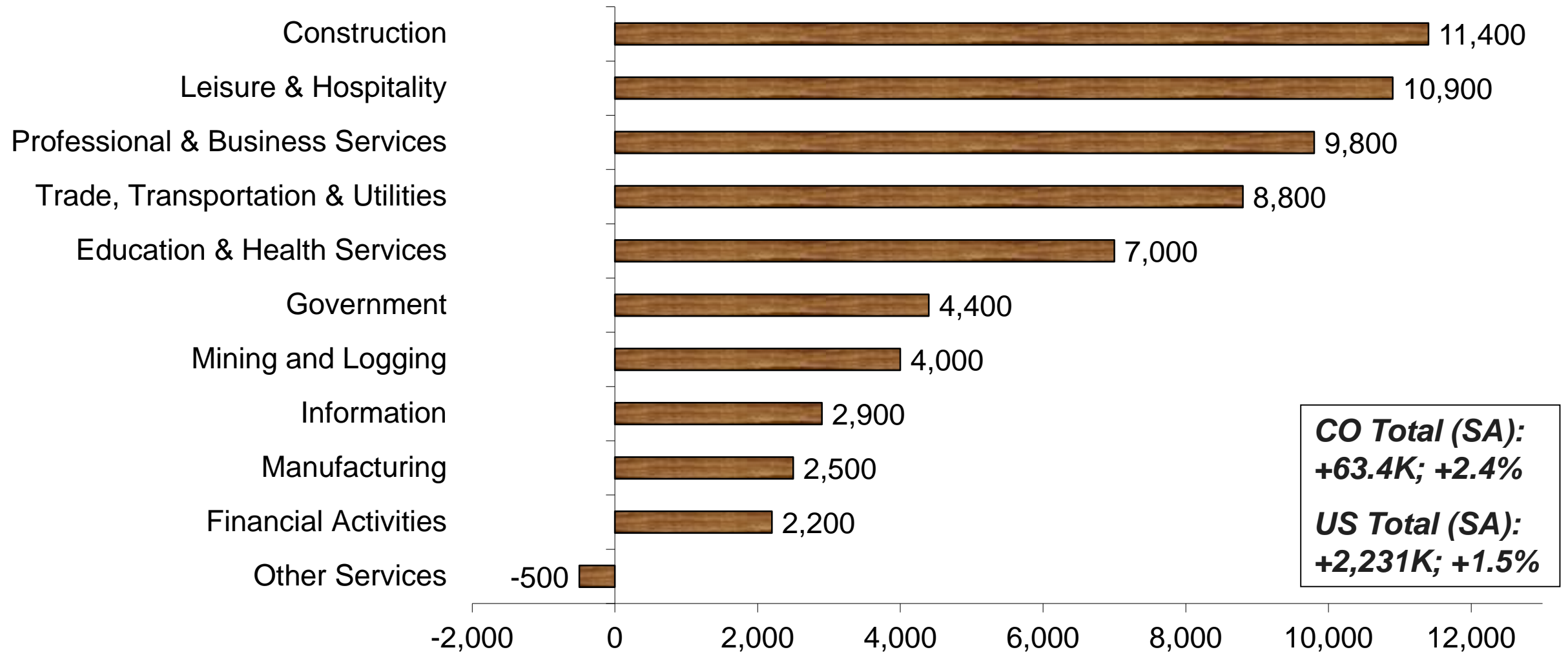
*According to the Local Area Unemployment Statistics (LAUS) series
CO added 83,776 jobs between February 2017 and February 2018.

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Source: U.S. Bureau of Labor Statistics

Denver-Aurora-Lakewood, CO Nonfarm Employment
by Industry Sector Groups (SA)
February 2017 v. February 2018 Absolute Change

Industry Sector	Change
Leisure & Hospitality	6,600
Trade, Transportation & Utilities	6,600
Mining and Logging	6,600
Professional & Business Services	6,400
Education & Health Services	6,300
Information	3,300
Manufacturing	1,800
Financial Activities	1,700
Other Services	-300
Government	-2,100

Denver MSA Total:
+36.9K; +2.6%

CO Total (SA):
+63.4K; +2.4%

US Total (SA):
+2,231K; +1.5%

-3,000 -1,000 1,000 3,000 5,000 7,000

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Source: U.S. Bureau of Labor Statistics

Colorado Springs, CO Nonfarm Employment
by Industry Sector Groups (SA)
February 2017 v. February 2018 Absolute Change

Industry Sector	Change
Leisure & Hospitality	1,900
Trade, Transportation & Utilities	1,300
Government	1,200
Mining and Logging	1,000
Education & Health Services	700
Financial Activities	600
Other Services	300
Manufacturing	300
Professional & Business Services	200
Information	-100

Co. Springs Total:
+7.4K; +2.6%

CO Total (SA):
+63.4K; +2.4%

US Total (SA):
+2,231K; +1.5%

Source: U.S. Bureau of Labor Statistics

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Employment Growth, U.S. States (SA)
February 2017 v. February 2018 Percent Change

RANK	STATE	%	RANK	STATE	%	RANK	STATE	%
1	IDAHO	3.4	18	HAWAII	1.4	34	ILLINOIS	0.8
2	NEVADA	3.2	18	NEW HAMPSHIRE	1.4	34	OHIO	0.8
2	UTAH	3.2	18	NEW MEXICO	1.4	37	MINNESOTA	0.7
4	WASHINGTON	2.9	18	PENNSYLVANIA	1.4	37	WISCONSIN	0.7
5	**COLORADO**	**2.4**	18	SOUTH DAKOTA	1.4	39	IOWA	0.6
6	ARIZONA	2.3	23	RHODE ISLAND	1.3	39	MAINE	0.6
6	CALIFORNIA	2.3	24	MICHIGAN	1.2	41	CONNECTICUT	0.5
6	OREGON	2.3	24	MISSISSIPPI	1.2	41	KANSAS	0.5
6	TEXAS	2.3	24	NEW YORK	1.2	43	KENTUCKY	0.4
10	FLORIDA	2.0	27	MASSACHUSETTS	1.1	44	ARKANSAS	0.2
10	GEORGIA	2.0	27	MONTANA	1.1	44	NEBRASKA	0.2
12	OKLAHOMA	1.9	29	INDIANA	1.0	46	MARYLAND	0.1
13	WYOMING	1.7	29	MISSOURI	1.0	46	VERMONT	0.1
14	NORTH CAROLINA	1.6	29	WEST VIRGINIA	1.0	48	LOUISIANA	0.0
14	SOUTH CAROLINA	1.6	32	DISTRICT OF COLUMBIA	0.9	49	DELAWARE	-0.1
16	NEW JERSEY	1.5	32	VIRGINIA	0.9	50	ALASKA	-0.4
16	TENNESSEE	1.5	34	ALABAMA	0.8	51	NORTH DAKOTA	-1.6

U.S. Year-over-year Percent Change: +1.5%

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Source: U.S. Bureau of Labor Statistics

Unemployment Rates, 25 Largest Metros (NSA)
February 2018

Rank	MSA	UR	Rank	MSA	UR
1	San Francisco-Oakland-Hayward, CA MSA	2.9	14	Los Angeles-Long Beach-Anaheim, CA MSA	4.2
2	**Denver-Aurora-Lakewood, CO MSA**	**3.1**	15	Atlanta-Sandy Springs-Roswell, GA MSA	4.3
3	Minneapolis-St. Paul-Bloomington, MN-WI MSA	3.3	15	Charlotte-Concord-Gastonia, NC-SC MSA	4.3
4	Orlando-Kissimmee-Sanford, FL MSA	3.4	15	Seattle-Tacoma-Bellevue, WA MSA	4.3
4	San Antonio-New Braunfels, TX MSA	3.4	18	Phoenix-Mesa-Scottsdale, AZ MSA	4.4
6	Boston-Cambridge-Nashua, MA-NH Metro NECTA	3.5	18	Riverside-San Bernardino-Ontario, CA MSA	4.4
6	San Diego-Carlsbad, CA MSA	3.5	20	Baltimore-Columbia-Towson, MD MSA	4.6
8	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	3.6	20	Detroit-Warren-Dearborn, MI MSA	4.6
8	Tampa-St. Petersburg-Clearwater, FL MSA	3.6	20	New York-Newark-Jersey City, NY-NJ-PA MSA	4.6
10	Dallas-Fort Worth-Arlington, TX MSA	3.7	23	Houston-The Woodlands-Sugar Land, TX MSA	4.7
11	St. Louis, MO-IL MSA (1)	3.8	24	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	4.9
12	Portland-Vancouver-Hillsboro, OR-WA MSA	4.0			
13	Miami-Fort Lauderdale-West Palm Beach, FL MSA	4.1	25	Chicago-Naperville-Elgin, IL-IN-WI MSA	5.2

U.S. Unemployment Rate: 4.1%

Gimme Shelter

The Rolling Stones
GIMME SHELTER
Directed by David Maysles, Albert Maysles, Charlotte Zwerin · A Maysles Films, Inc. Production
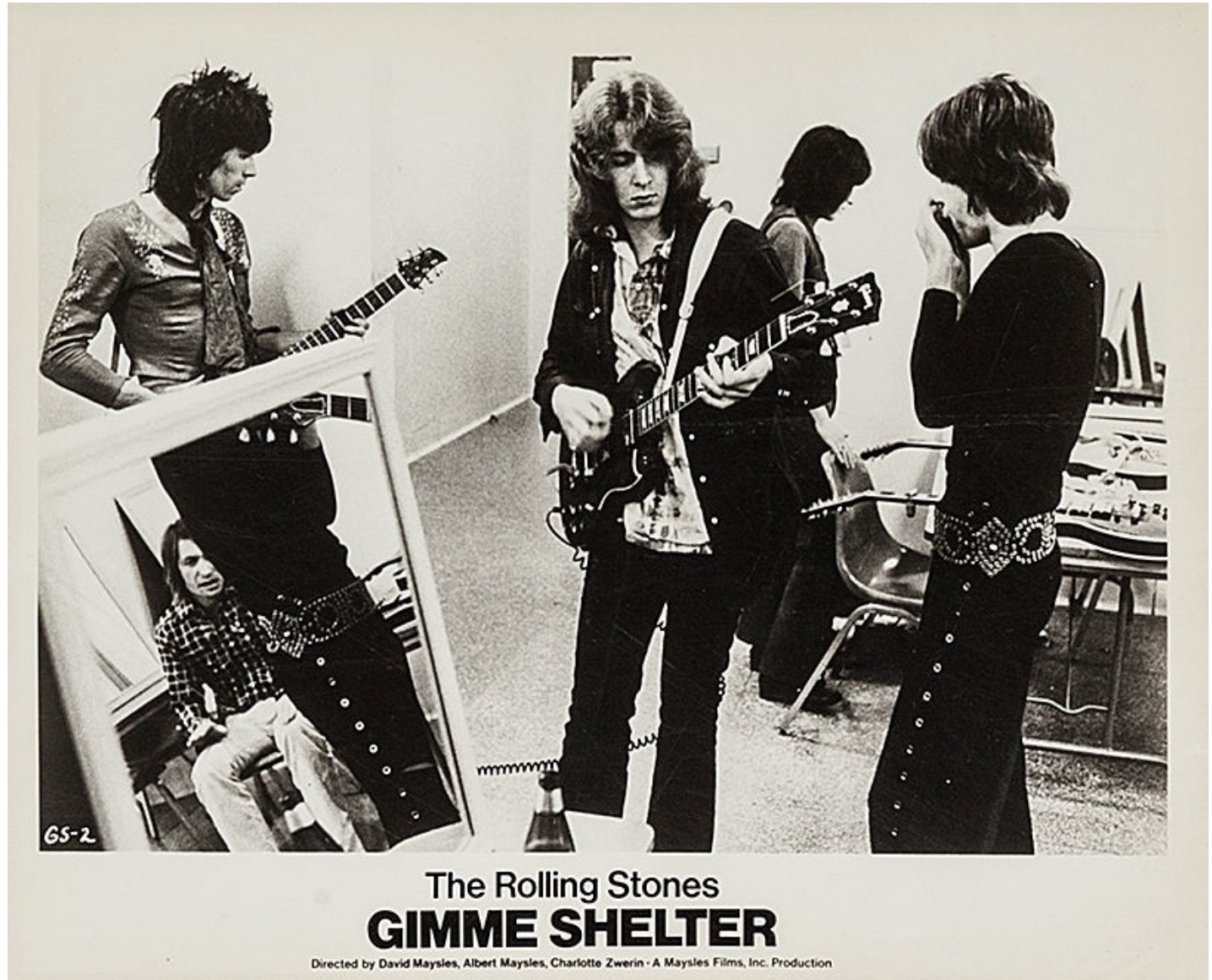
15-Year & 30-Year Fixed Mortgage Rates
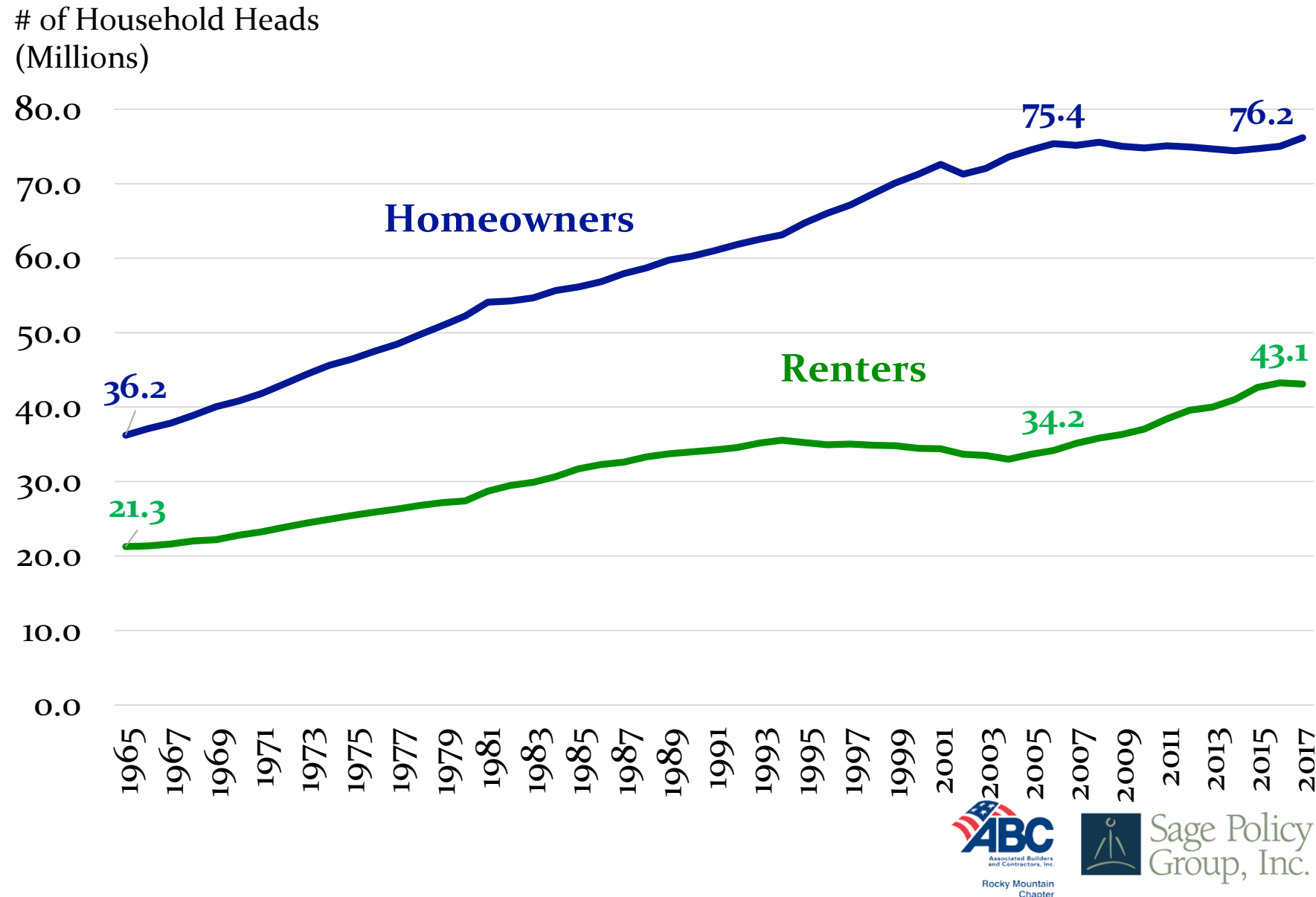## April 1995 through April 2018*
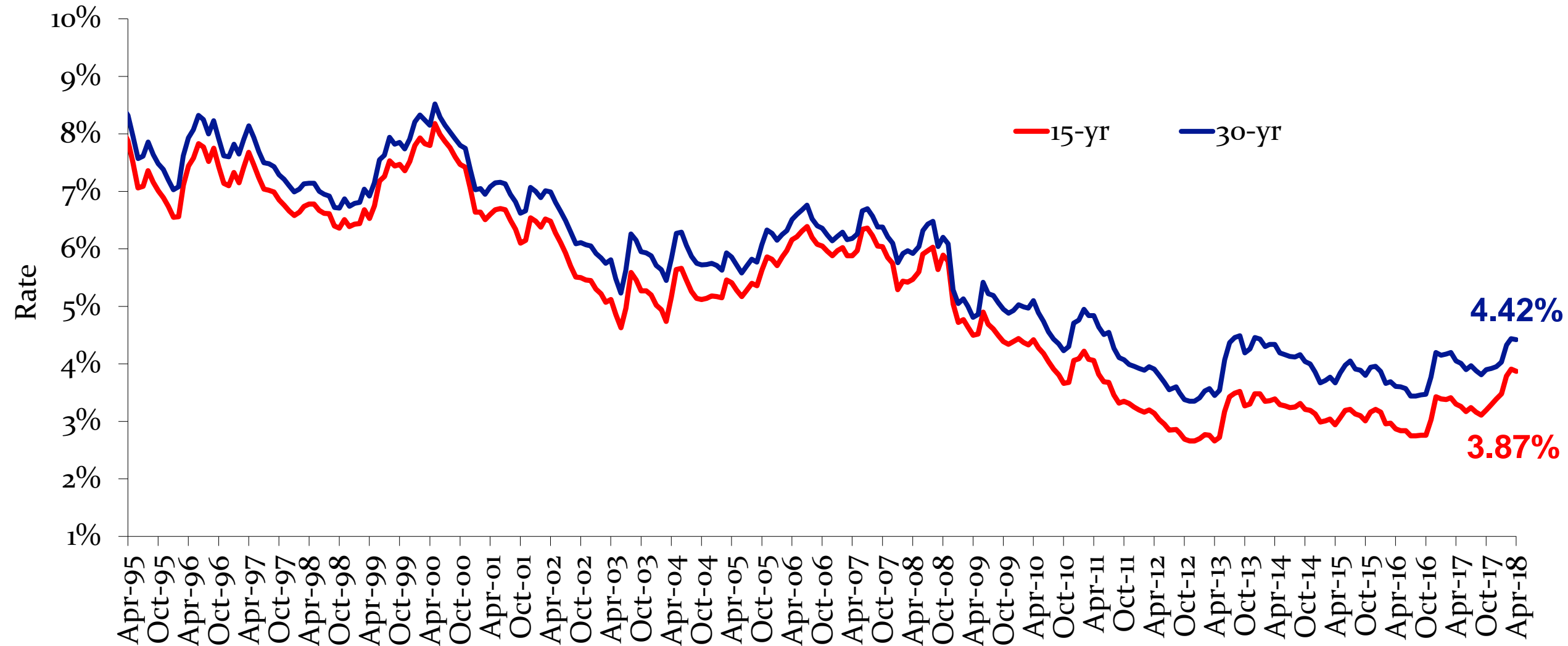
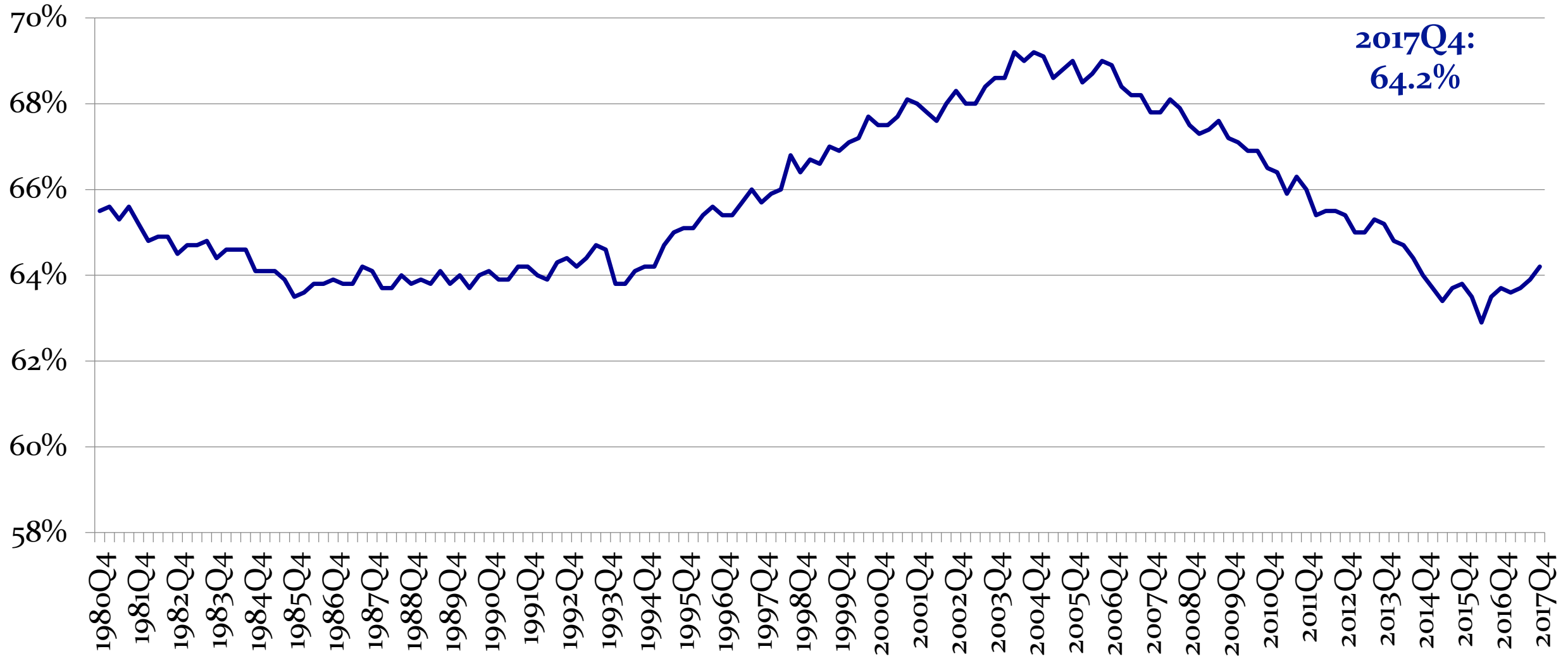*Week ending 4/12/2018*

Source: Freddie Mac

U.S. Households: Owner v. Renter Occupied, 1965-2017

- From 2006-2017 the number of households headed by owners remained relatively flat.

- At the same time, the number of households renting their home increased significantly (+26%).

- The share of renter households also increased—from 31.2% of households in 2006 to 36.1% in 2017.

# of Household Heads
(Millions)

Homeowners

Renters

36.2

21.3

75.4

76.2

43.1

34.2

Source: U.S. Census Bureau; Pew Research Center

U.S. Homeownership (NSA)
1980Q4-2017Q4

2017Q4: 64.2%

Source: U.S. Census Bureau   *NSA: not seasonally adjusted

U.S. Private New Multifamily Construction
February 1993 through February 2018

$ Billions (SAAR)

$70
$60
$50
$40
$30
$20
$10
$0

Feb-93, Feb-94, Feb-95, Feb-96, Feb-97, Feb-98, Feb-99, Feb-00, Feb-01, Feb-02, Feb-03, Feb-04, Feb-05, Feb-06, Feb-07, Feb-08, Feb-09, Feb-10, Feb-11, Feb-12, Feb-13, Feb-14, Feb-15, Feb-16, Feb-17, Feb-18

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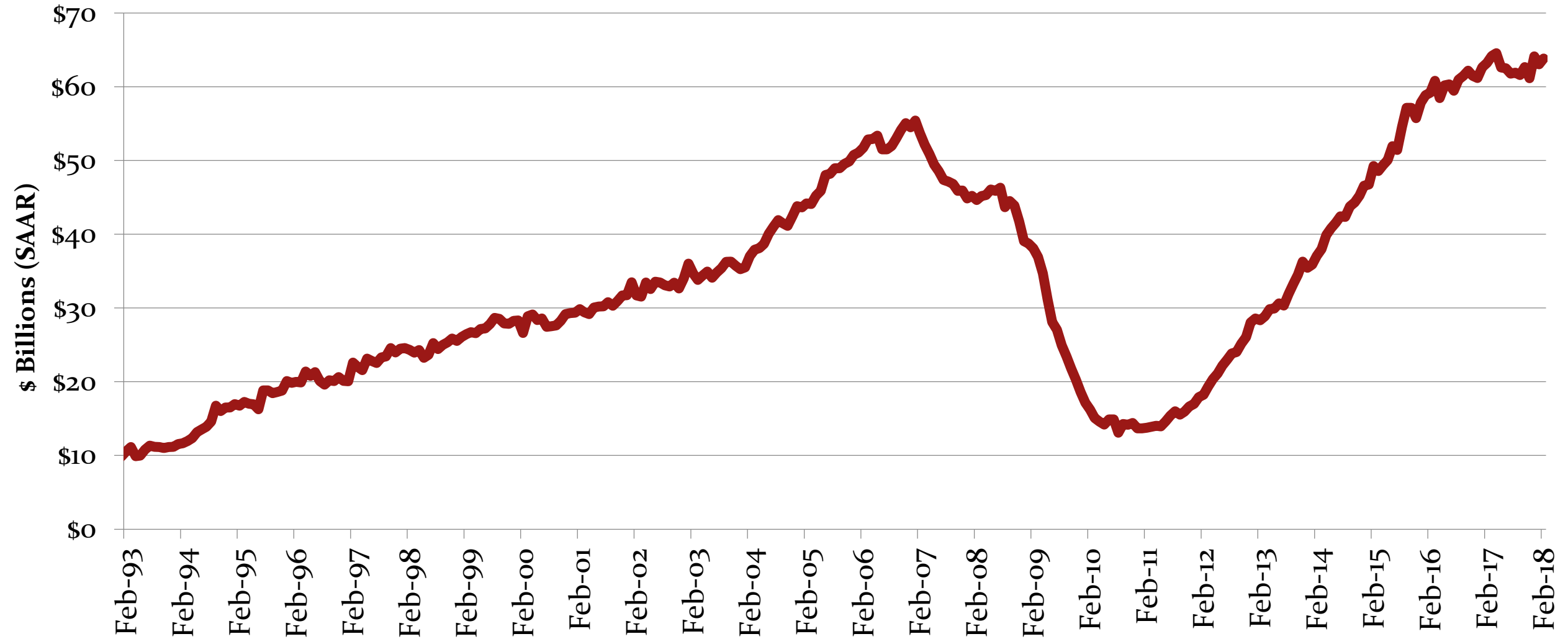
S&P/Case-Shiller Home Price Indices for Select Metros
January 2018, 12-Month Percentage Change

Source: Standard & Poor's
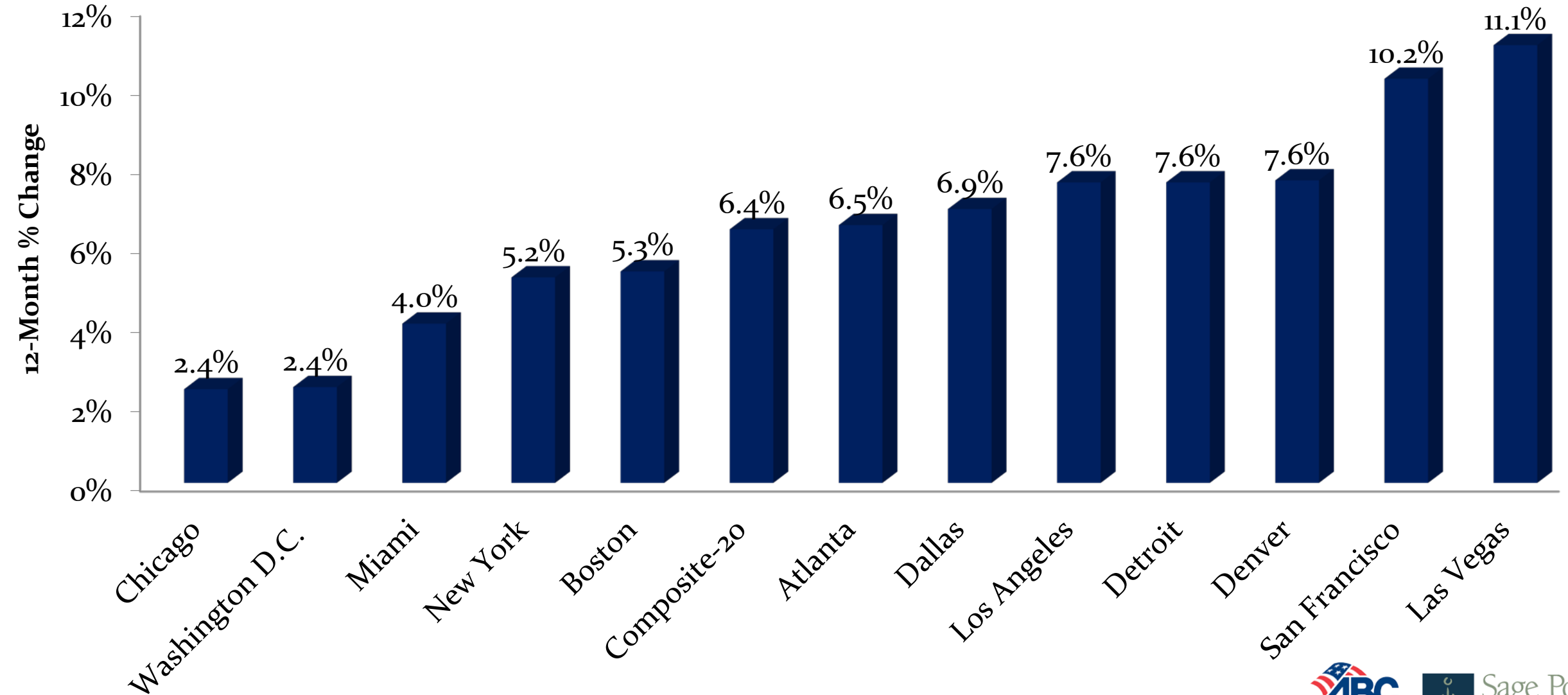
U.S. Single-Family Housing Starts
March 1999 through March 2018

March 2018: 867K

Source: U.S. Census Bureau
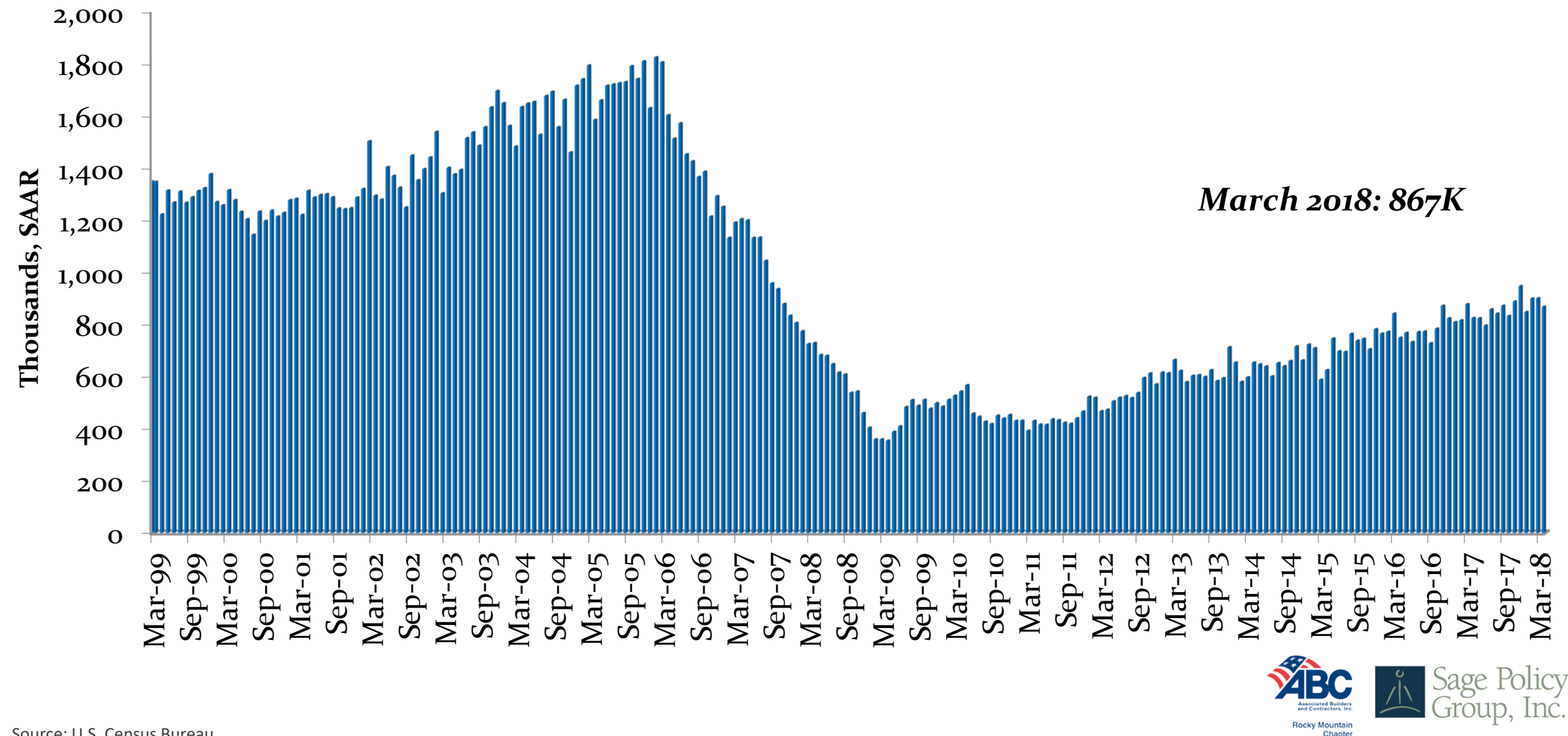
National Nonresidential Construction Spending by Subsector
February 2015 v. February 2018

Subsector	3-year % Change
Lodging	62.5%
Commercial	45.7%
Office	43.7%
Amusement and Recreation	27.2%
Communication	23.9%
Educational	22.7%
Transportation	11.1%
Public Safety	6.7%
Health Care	5.0%
Highway and Street	4.3%
Power	-3.9%
Water Supply	-3.9%
Religious	-13.3%
Manufacturing	-14.3%
Conservation and Development	-14.7%
Sewage and Waste Disposal	-15.7%

Total Nonresidential Construction: +80.9B; +12.4%

3-year % Change

Source: U.S. Census Bureau

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Commercial/Multifamily Offshore Investment Sales Volumes Reach New Heights in 2015/16

Foreign investment increases 85.1% in 2015

Billions of $US

$60	
$50	
$40	
$30	
$20	
$10	
$0	

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
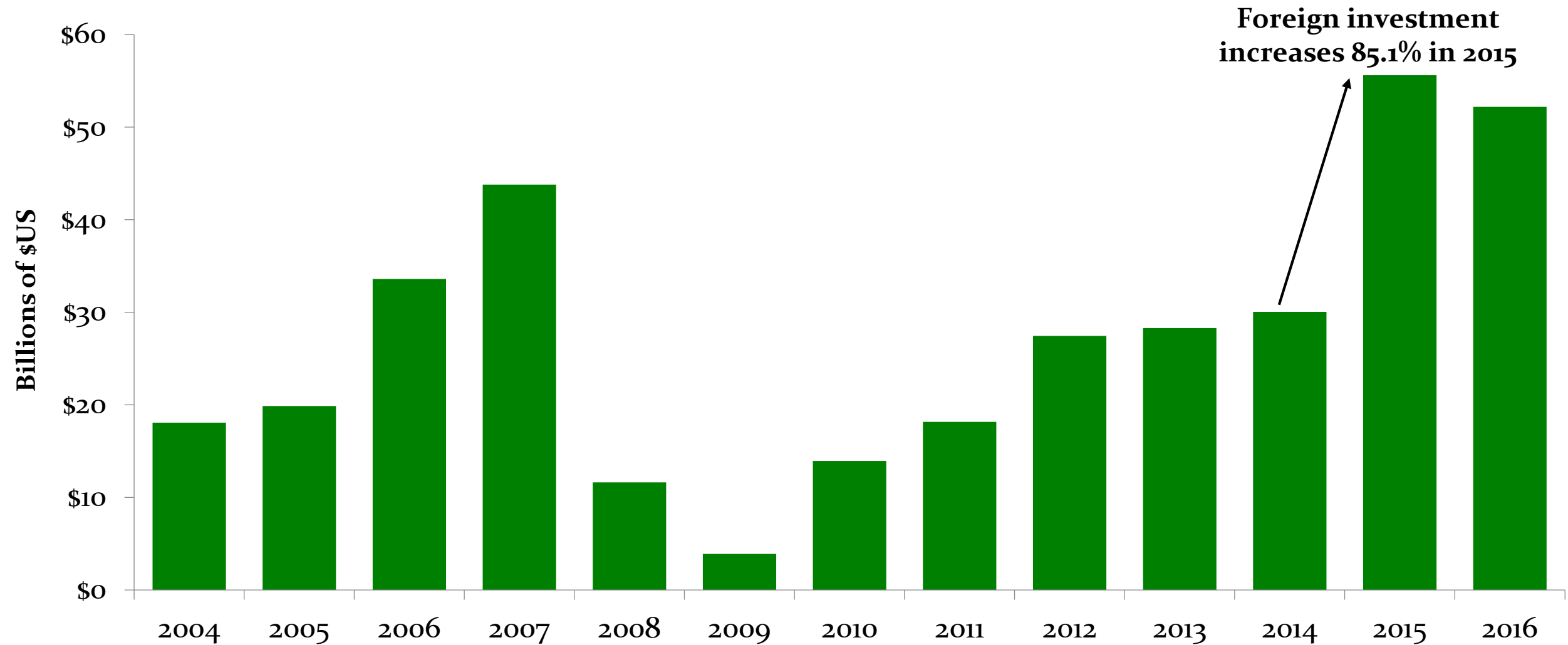
Cross-border investment remained elevated in 2016:
Although down relative to a record 2015, offshore investment levels still exceeded the pre-2015 high in 2007.

Source: Jones Lang LaSalle; Real Capital Analytics   Note: Among transactions larger than $5.0 million

Foreign Investment in U.S. Commercial Real Estate
Top Destination Markets, 2017H1

Foreign Investment by Destination Market (as a % of Total)

Market	%
New York	17.4%
Washington, D.C.	9.7%
Boston	7.6%
Los Angeles	6.9%
San Francisco	4.2%
Chicago	3.4%
Dallas-Ft. Worth	3.0%
Seattle-Bellevue	2.6%
Houston	2.3%
Austin	2.2%

Source: Jones Lang LaSalle; Real Capital Analytics   Note: Among transactions larger than $5.0 million; includes portfolio, entity-level transactions
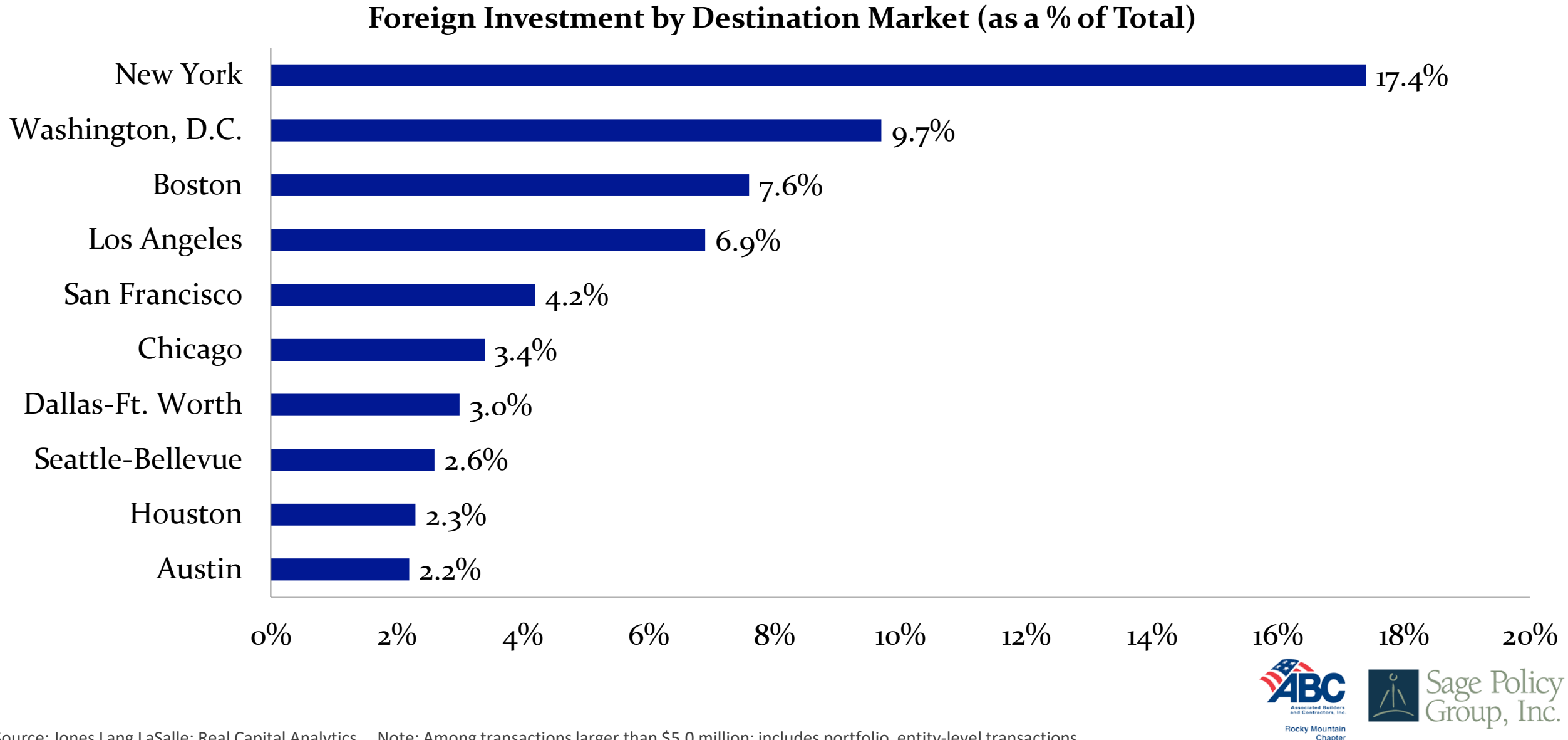
Inputs to Construction PPI (NSA)
March 2001 – March 2018

Mar. 2017 v. Mar. 2018:
+5.8%

Source: U.S. Bureau of Labor Statistics
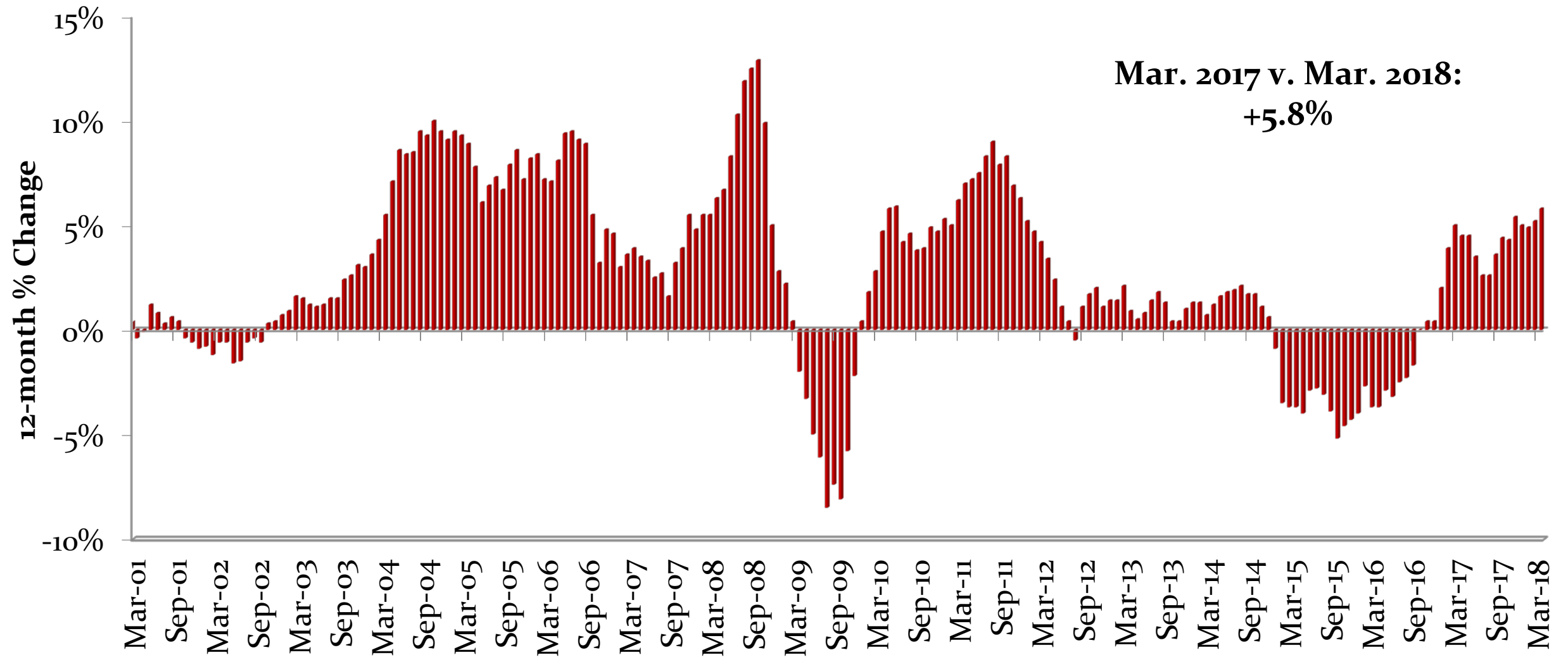
Construction Materials PPI (NSA)
12-month % Change as of March 2018

Material	12-month % Change
Crude Petroleum	34.0%
Softwood Lumber	16.3%
Crude Energy Materials	8.4%
Iron and Steel	6.5%
Nonferrous Wire and Cable	5.6%
Concrete Products	4.9%
Steel Mill Products	4.9%
Fabricated Structural Metal Products	4.1%
Plumbing Fixtures and Fittings	3.8%
Prepared Asphalt & Tar Roofing/Siding Products	0.2%
Natural Gas	-12.8%

12-month % Change

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Source: U.S. Bureau of Labor Statistics
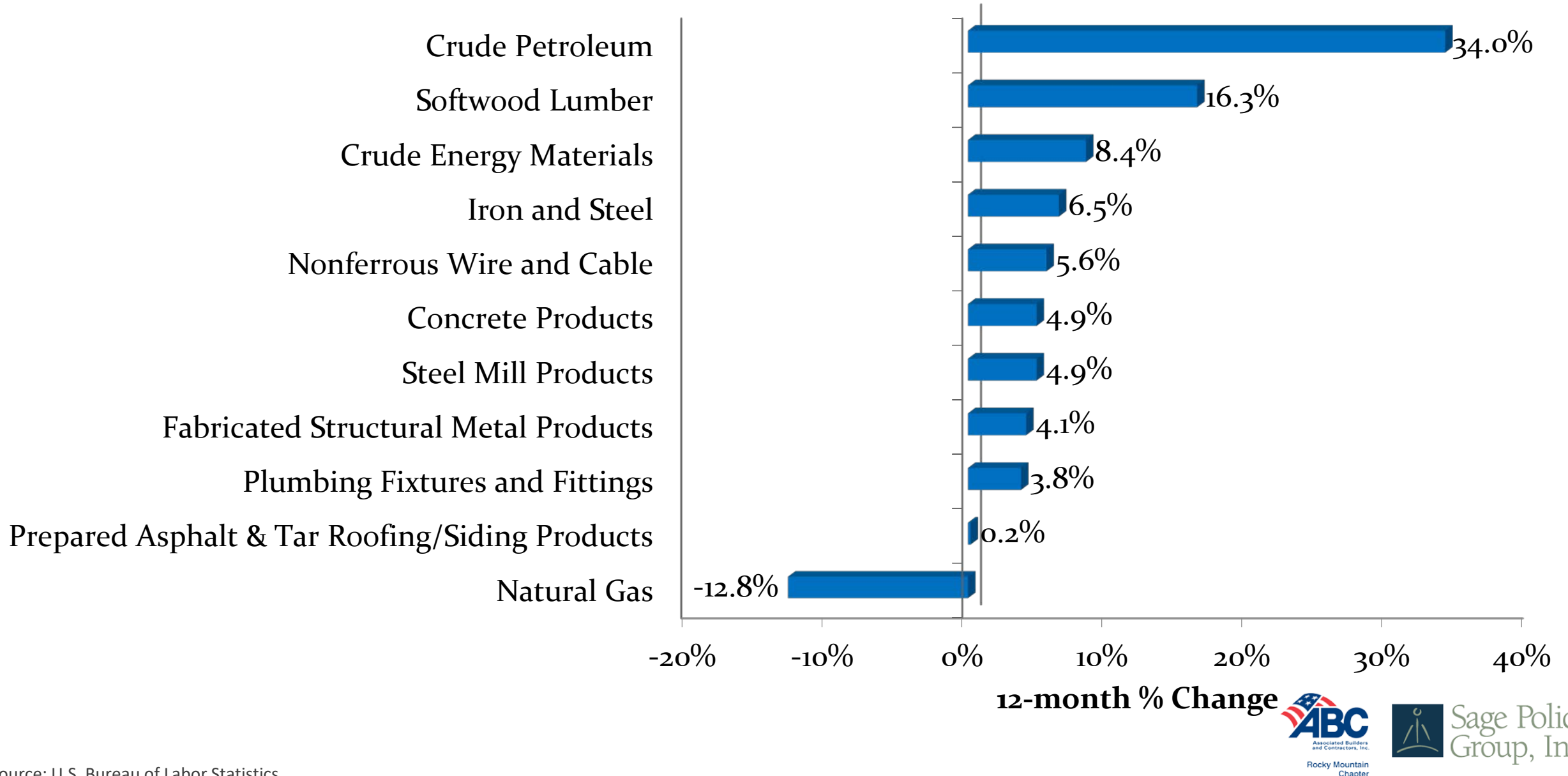
19th Nervous Breakdown
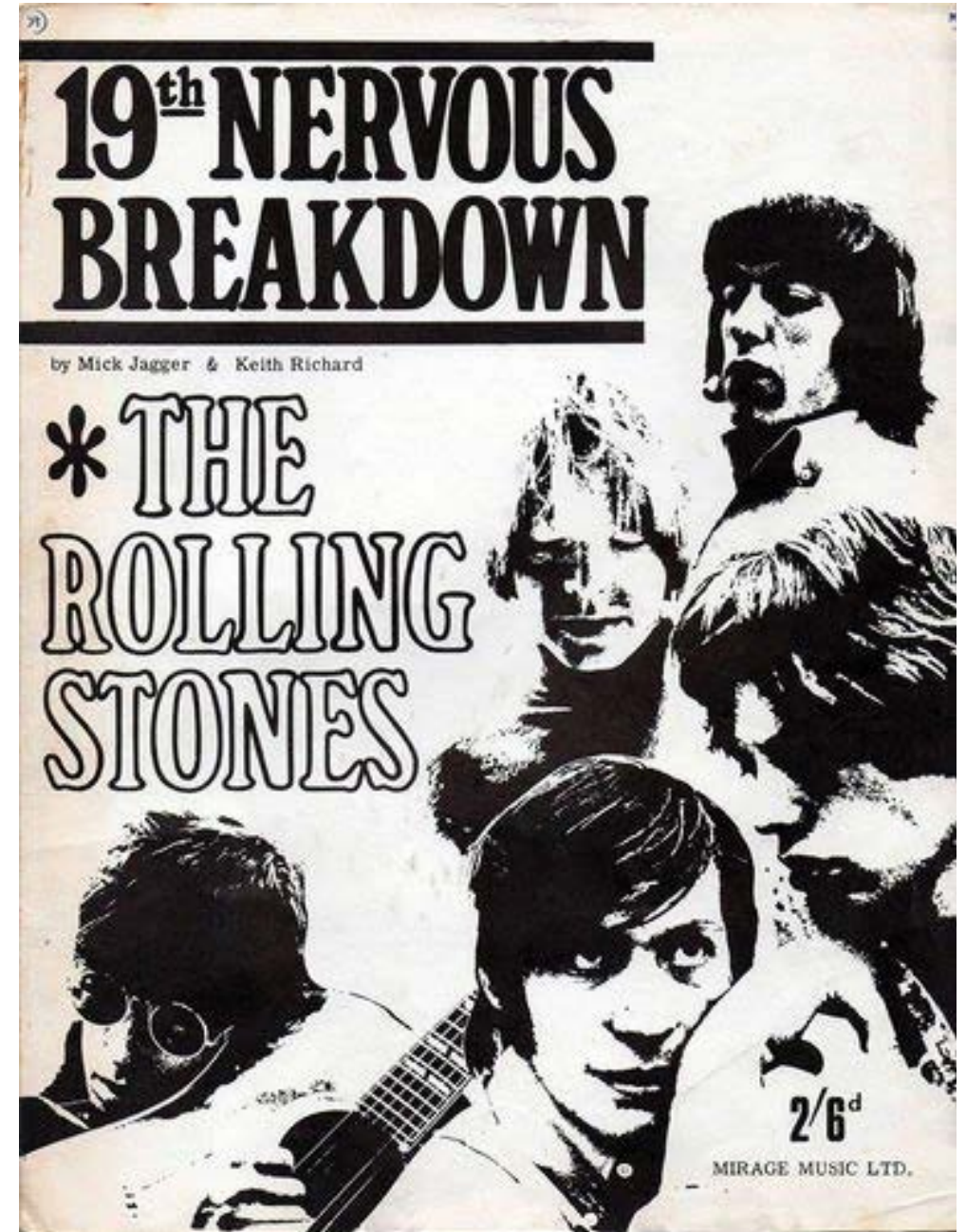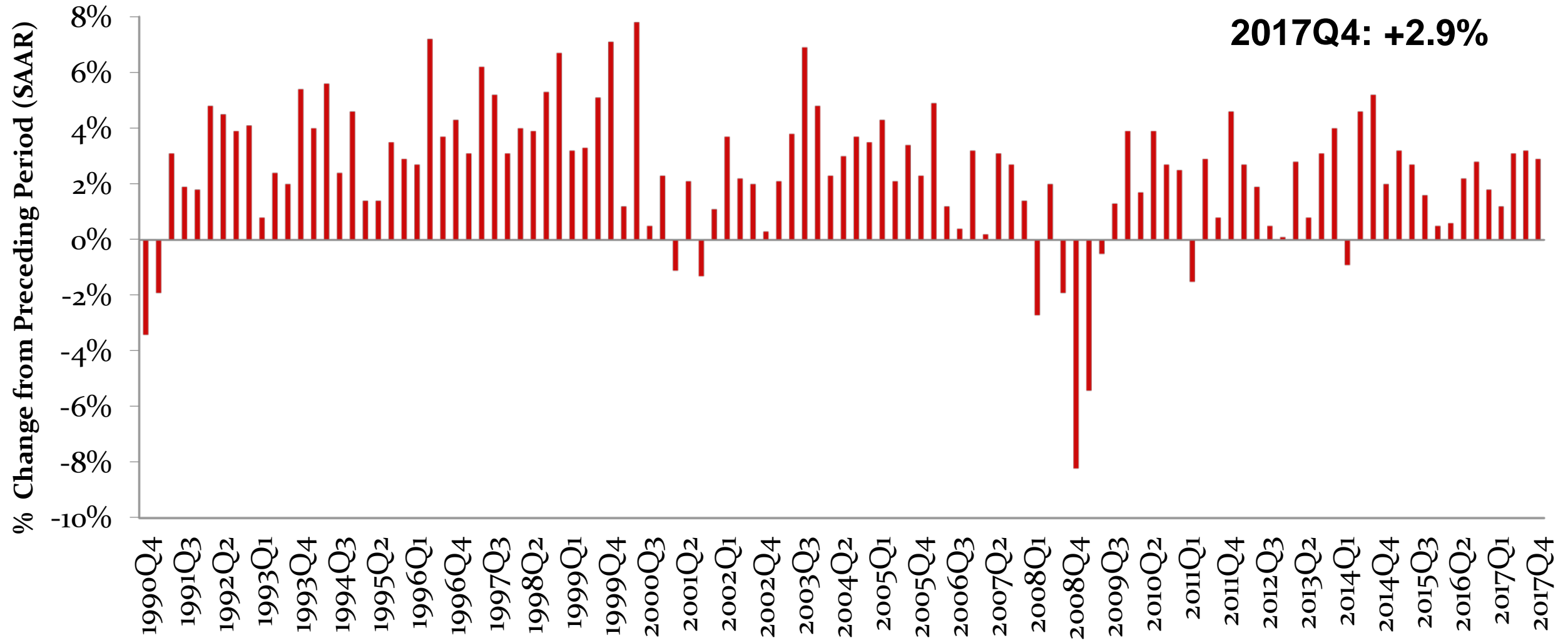
Conference Board Leading Economic Indicators Index
August 2007 through February 2018
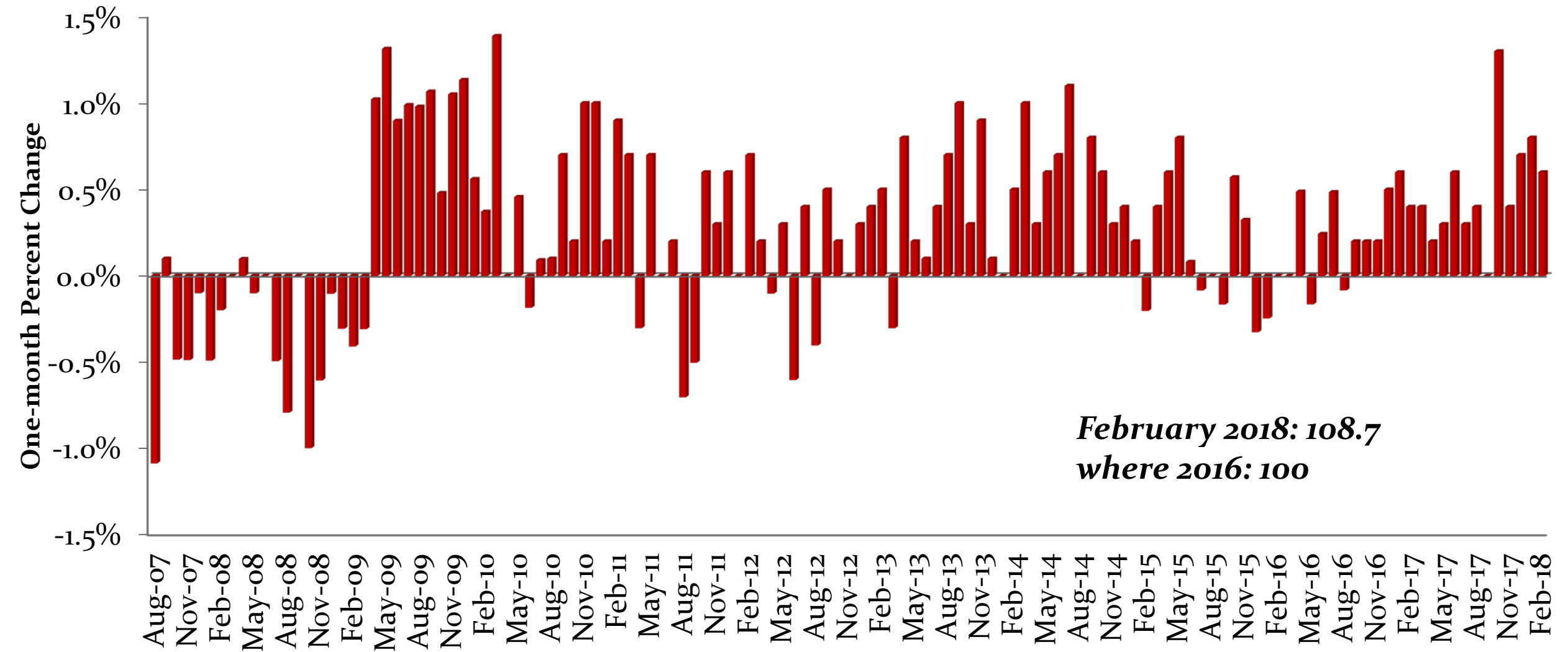
February 2018: 108.7
where 2016: 100

One-month Percent Change

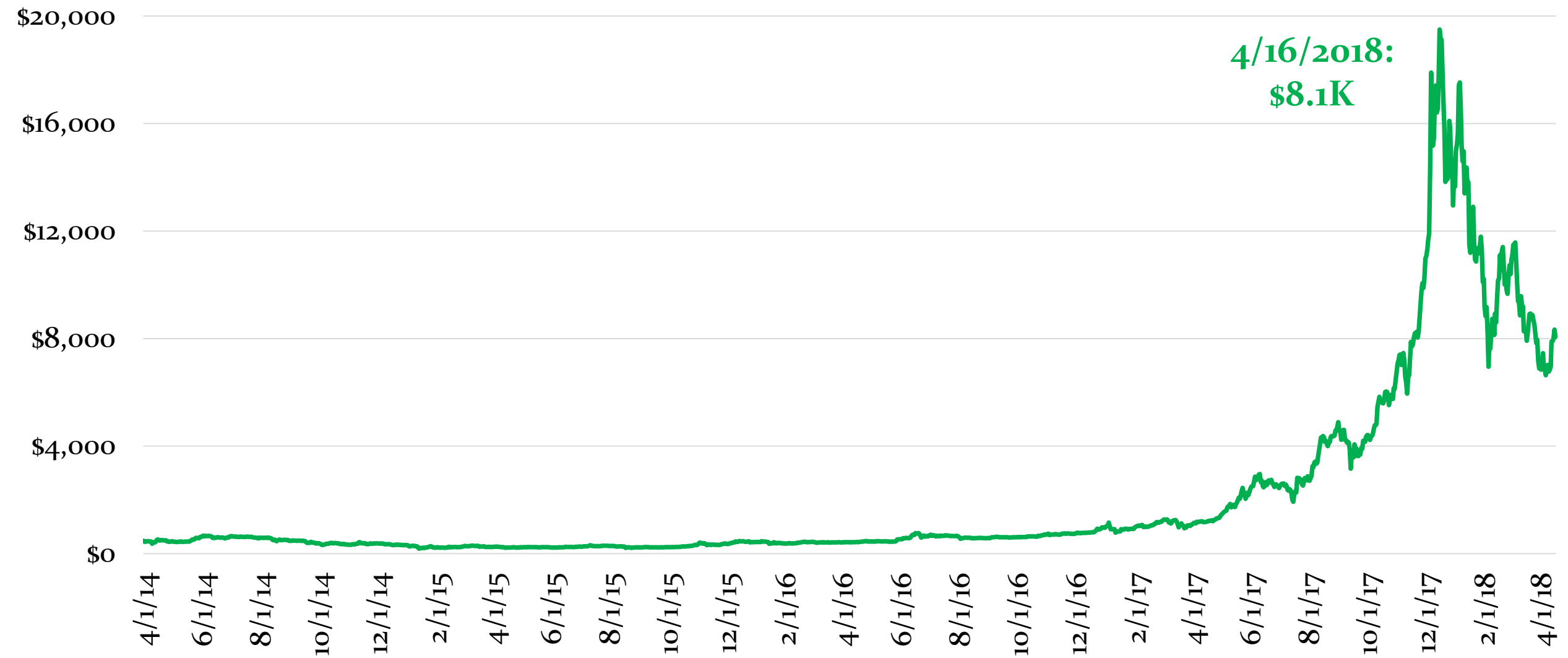Source: Conference Board
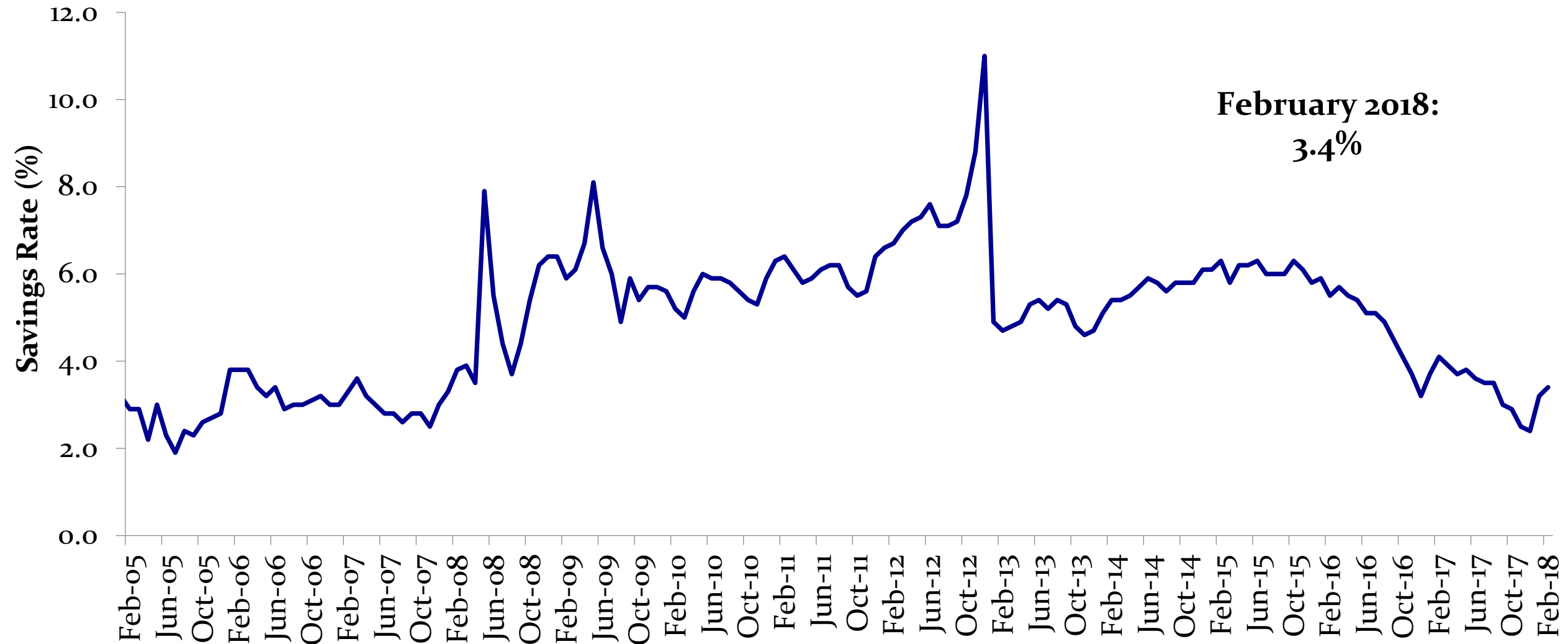
Global Debt Reaches All Time Highs (IIF)

- According to the International Institute of Finance (IIF), global debt has reached an all-time high in 2016;

- At **$215 trillion**, global debt—including household, government, and corporate—now represents **325% of global GDP**;

- Last year the IMF warned of risks to the global economy:
  - *"sheer size of debt could set the stage for an unprecedented private deleveraging process that could thwart the fragile economic recovery"*

Shiller Price-Earnings Ratio, 1980-2018

Mar. 2018: 32.77

Source: Robert J. Shiller Data used in his book, "Irrational Exuberance" Princeton University Press.
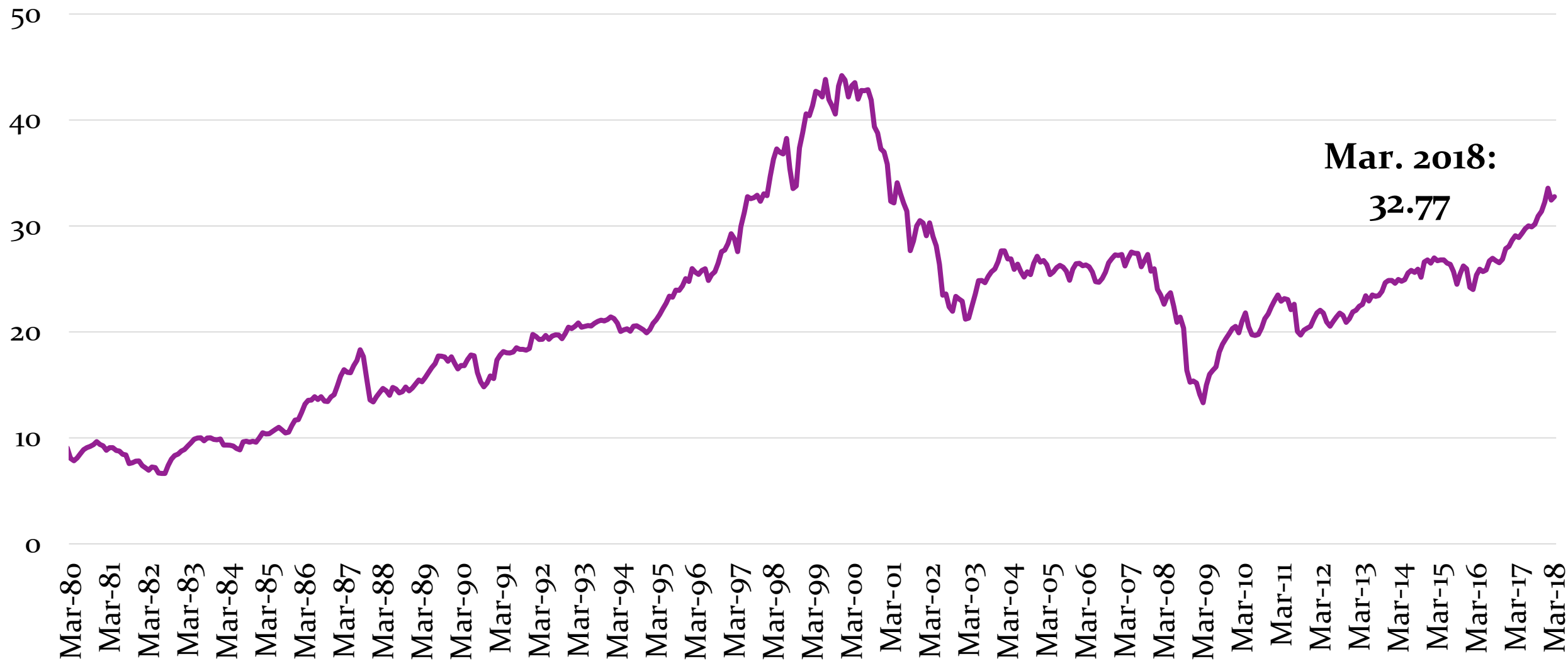
Shattered! --- Bitcoin Price, 2014-2018

4/16/2018: $8.1K

Source: CoinMarketCap.com

- U.S. setting up for best year since '05. . .;

- Global economy also picking up momentum, in large measure due to policymaking;

- Job opportunities are abundant;

- Corporate profitability elevated;

- Consumer and business confidence has been surging. . .;

- And now tax cuts, including major reductions in corporate taxes . . . What could go wrong?;

- A lot can go wrong – that's always true – first there are the Black Swan threats:

- "I'm forever blowing bubbles, pretty bubbles in the air, they fly so high, nearly reach the sky, and like my dreams, they fade and die";

- Where are all the pretty bubbles? Equity markets? U.S. bond market? Commercial real estate? Bitcoin?

- 2018 will be fine – better than fine – 2019 might be, too, but beyond that, potential deleveraging cycle prompted by a repricing of assets – Bad!!!!

Sage Policy Group, Inc.

ABC
Associated Builders and Contractors, Inc.
Rocky Mountain Chapter

Thank You

Please follow me on Twitter -- @sageanirban

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