To All The Economists I've Loved Before

By: Anirban Basu

Sage Policy Group, Inc.

On Behalf of

The 2019 Department of Energy Project Management Workshop
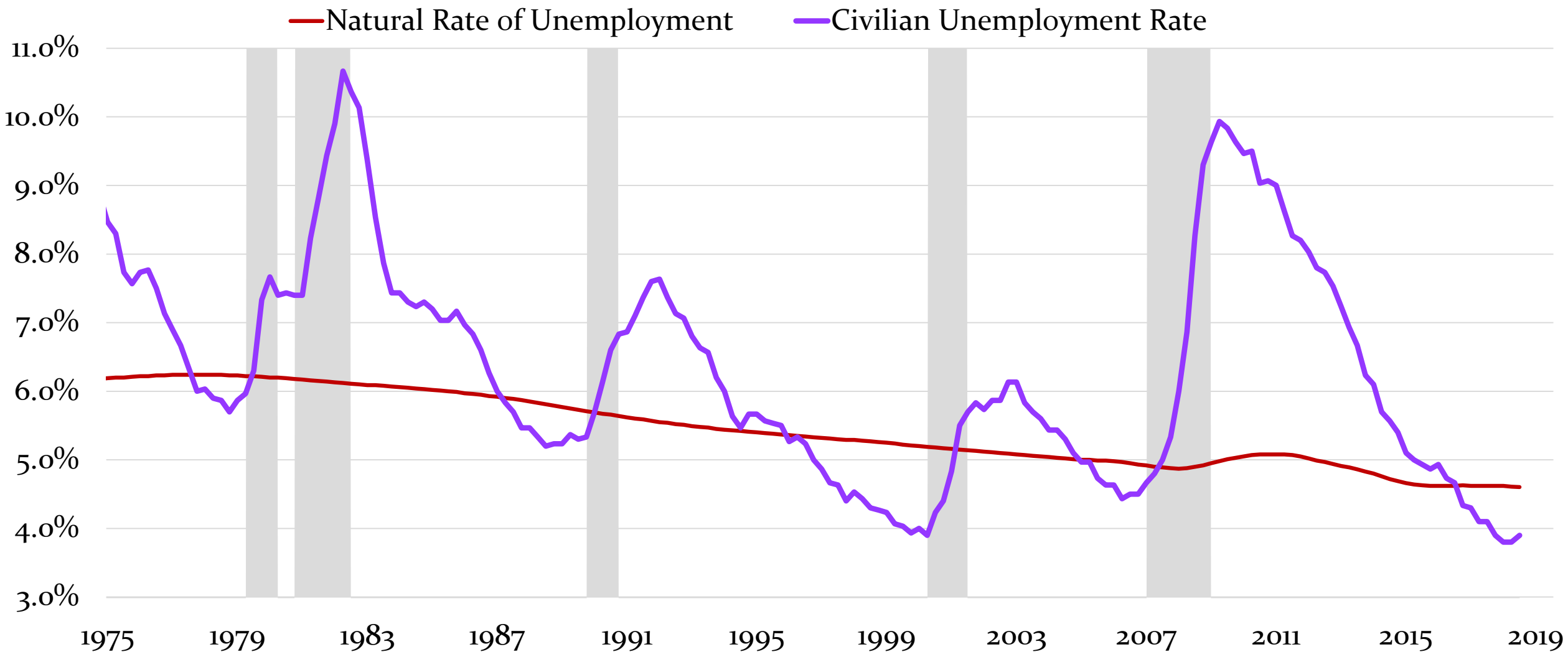
April 24th, 2019

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"There is always some chance of recession in any year. But the evidence suggests that expansions don't die of old age."

–Janet Yellen

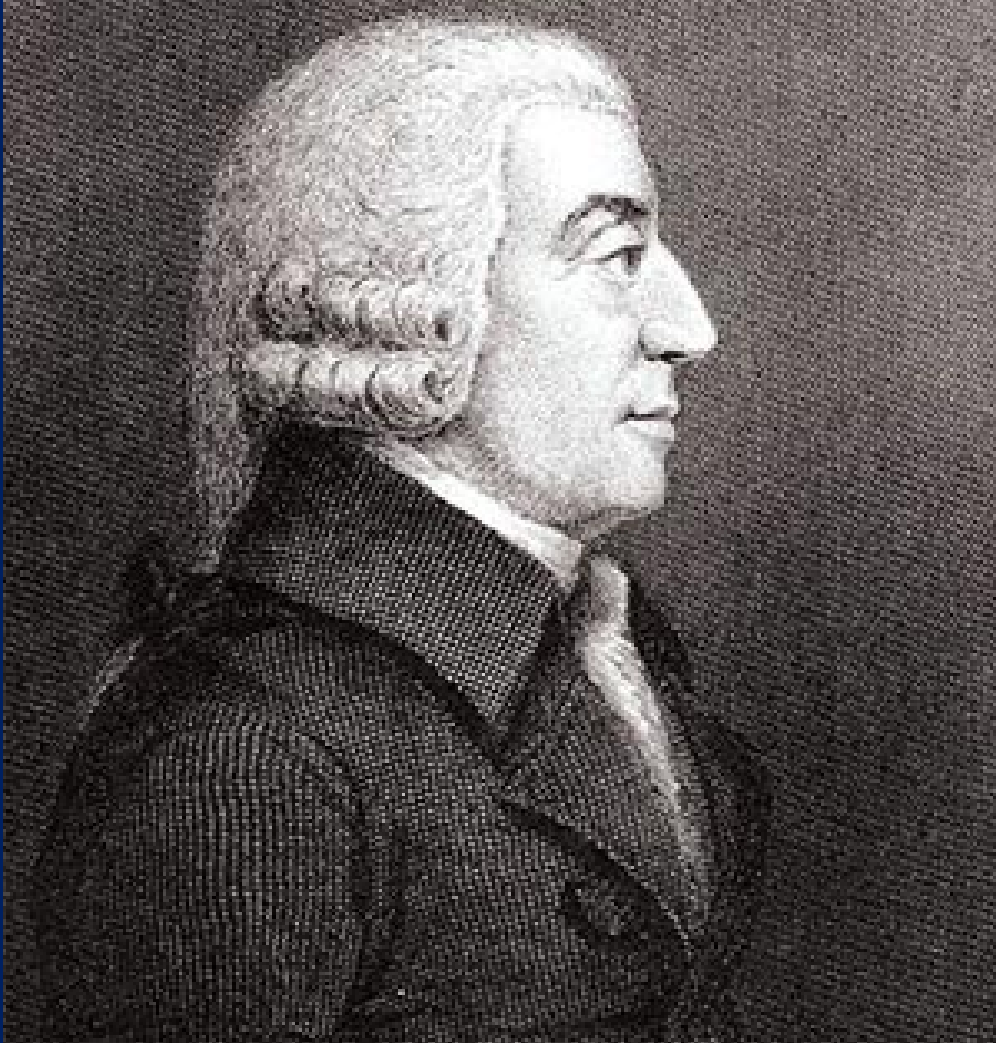# U.S. Unemployment & Natural Rate of Unemployment

Shaded areas indicate U.S. Recessions

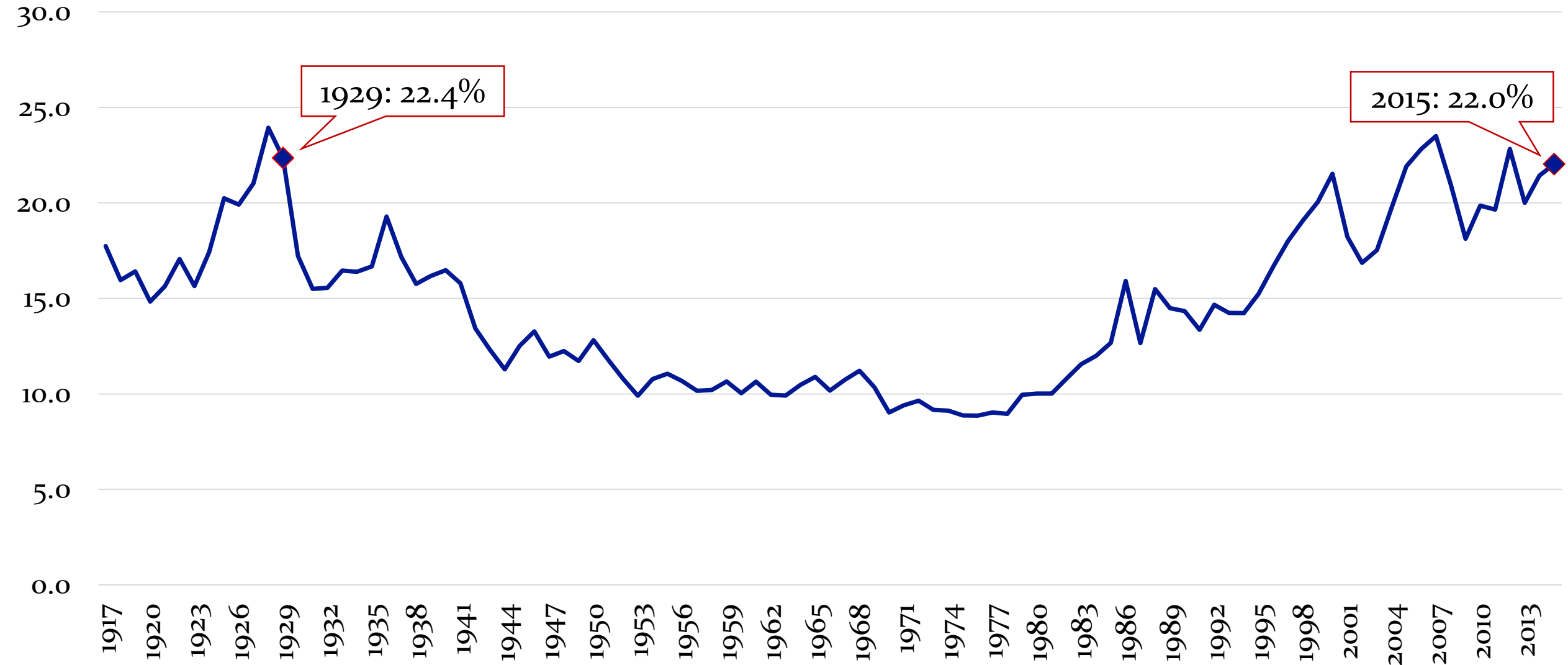Sources: FRED; Congressional Budget Office, U.S. Bureau of Labor Statistics

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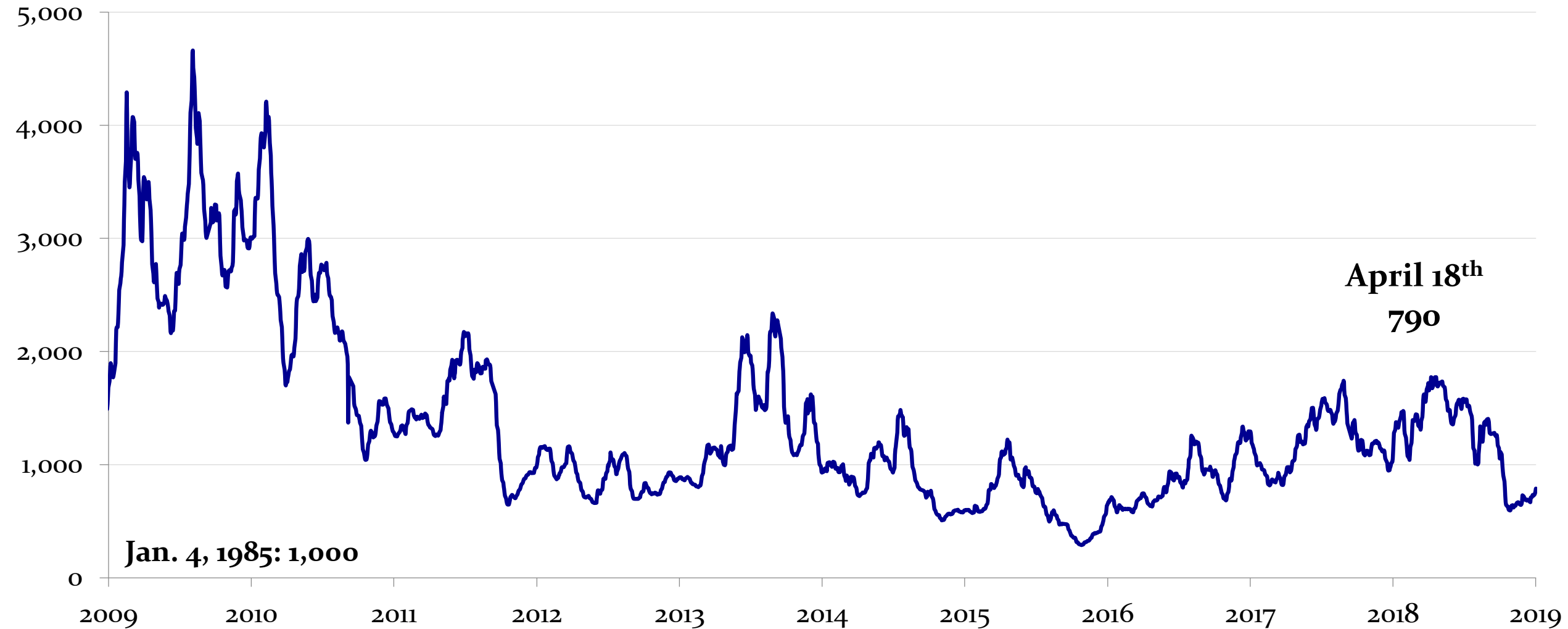"No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable."

–Adam Smith

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Share of all Income Held by the Top 1% in the U.S., 1917-2015

1929: 22.4%

2015: 22.0%

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Baltic Dry Index

2009 through 2019

**April 18th
790**

Jan. 4, 1985: 1,000

Source: Bloomberg
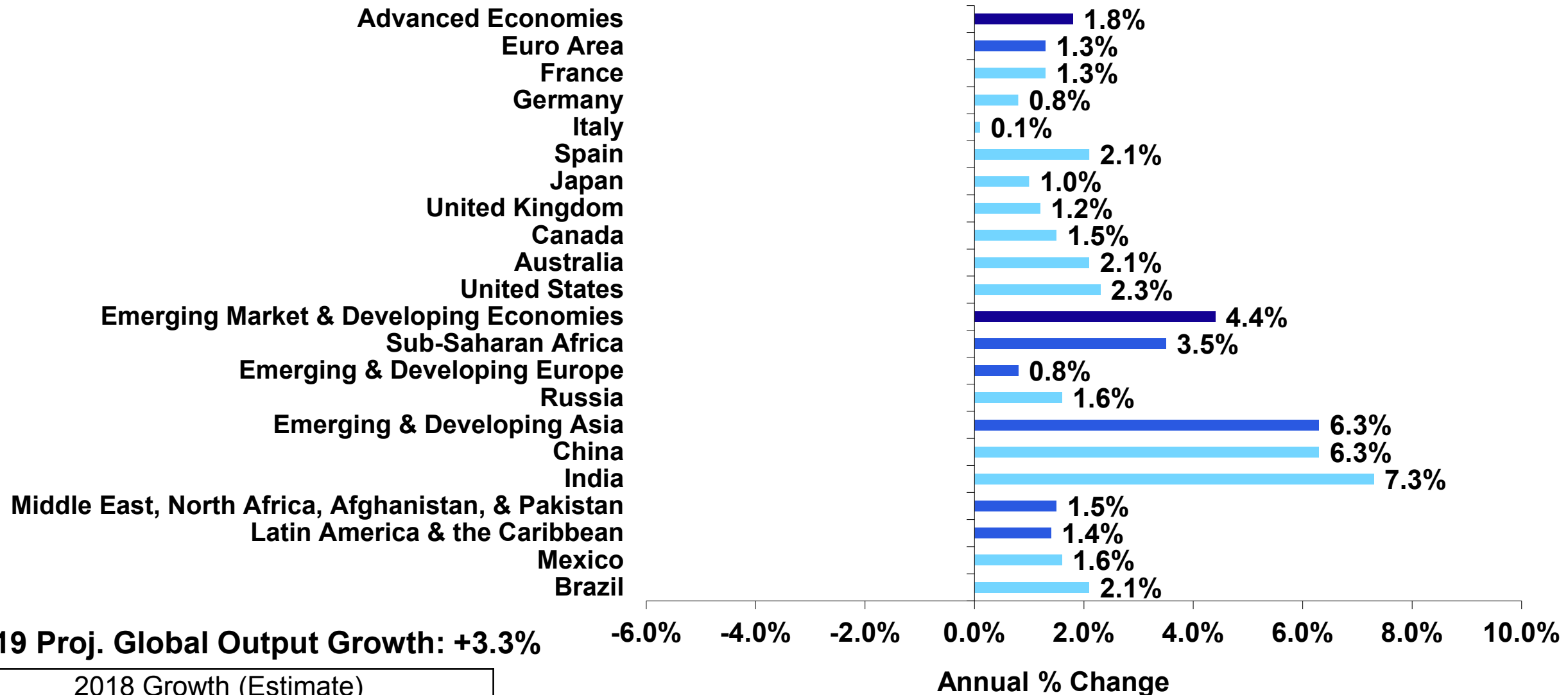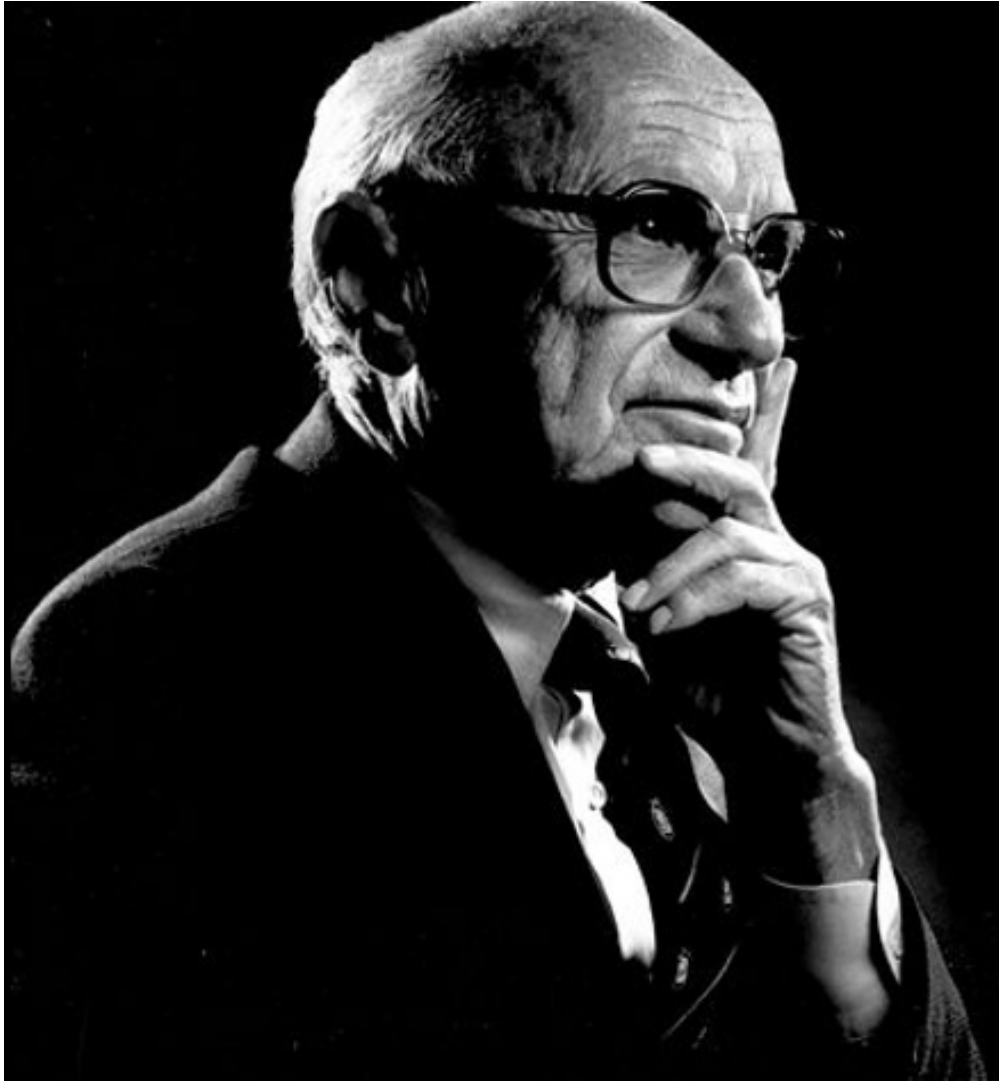
The Baltic Dry Index (BDI) is a measure of the price of shipping major raw materials such as metals, grains, and fossil fuels by sea. The BDI is a composite of 3 sub-indices, each covering a different carrier size: Capesize, Panamax, and Supramax.

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Estimated Growth in Output by Select Global Areas

2019 Projected

Region	Annual % Change
Advanced Economies	1.8%
Euro Area	1.3%
France	1.3%
Germany	0.8%
Italy	0.1%
Spain	2.1%
Japan	1.0%
United Kingdom	1.2%
Canada	1.5%
Australia	2.1%
United States	2.3%
Emerging Market & Developing Economies	4.4%
Sub-Saharan Africa	3.5%
Emerging & Developing Europe	0.8%
Russia	1.6%
Emerging & Developing Asia	6.3%
China	6.3%
India	7.3%
Middle East, North Africa, Afghanistan, & Pakistan	1.5%
Latin America & the Caribbean	1.4%
Mexico	1.6%
Brazil	2.1%

Annual % Change

2019 Proj. Global Output Growth: +3.3%

2018 Growth (Estimate)	
World: 3.6%	Euro Area: 1.8%
United States: 2.9%	Japan: 0.8%

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"Inflation is the one form of taxation that can be imposed without legislation."

—Milton Friedman

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Gross Domestic Product
1990Q4 through 2018Q4*

2018Q4: +2.2%

% Change from Preceding Period (SAAR)

Source: U.S. Bureau of Economic Analysis   *3rd Estimate

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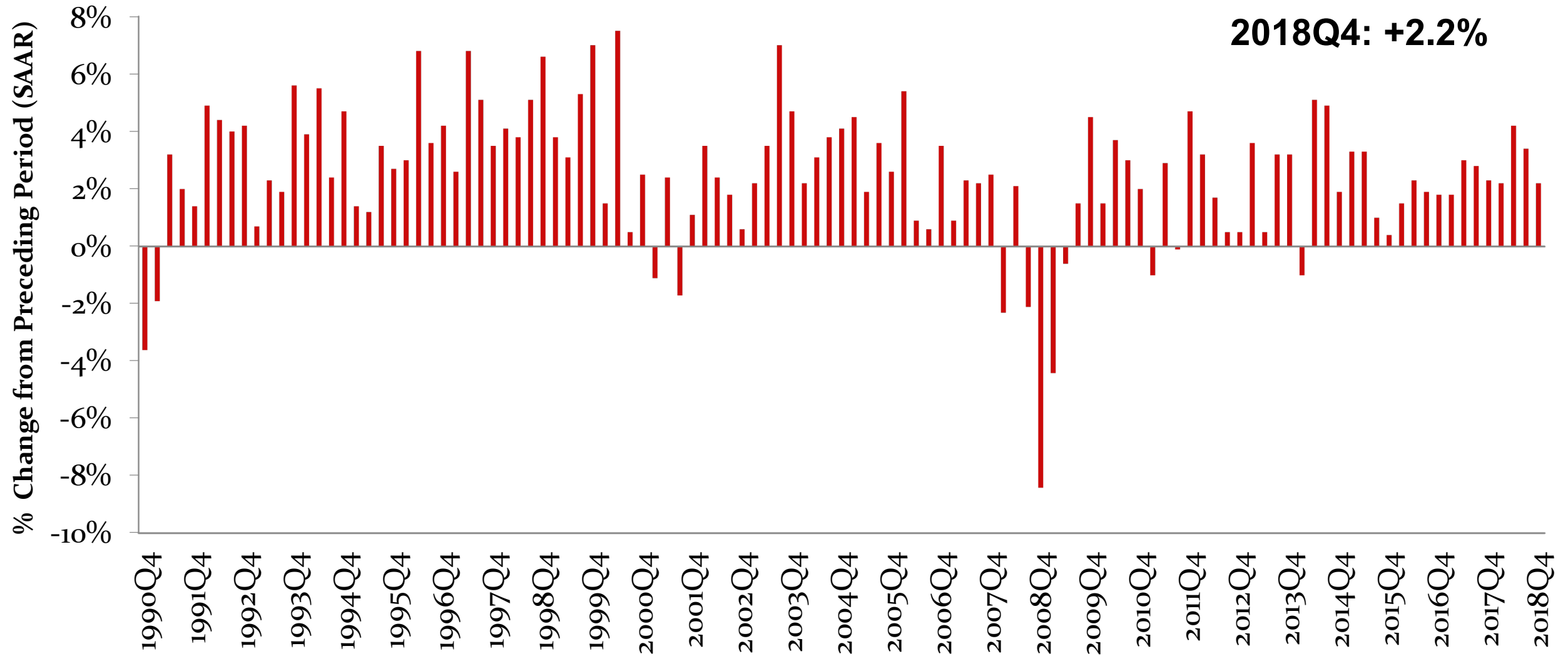
U.S. Industrial Production Index

March 2010 – March 2019

Industrial Production

110.2

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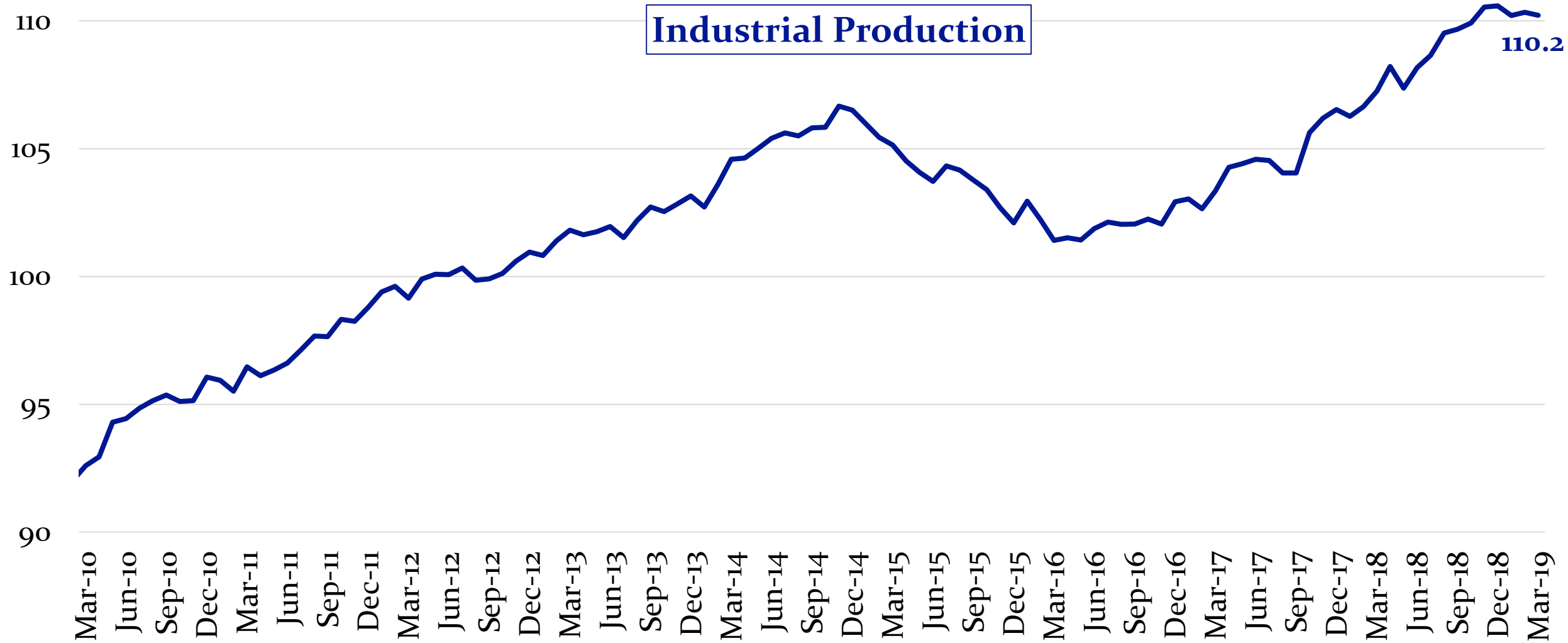
U.S. Capacity Utilization Index
March 2010 – March 2019

Capacity Utilization (%)

78.8

Source: Federal Reserve, G.17 Industrial Production & Capacity Utilization

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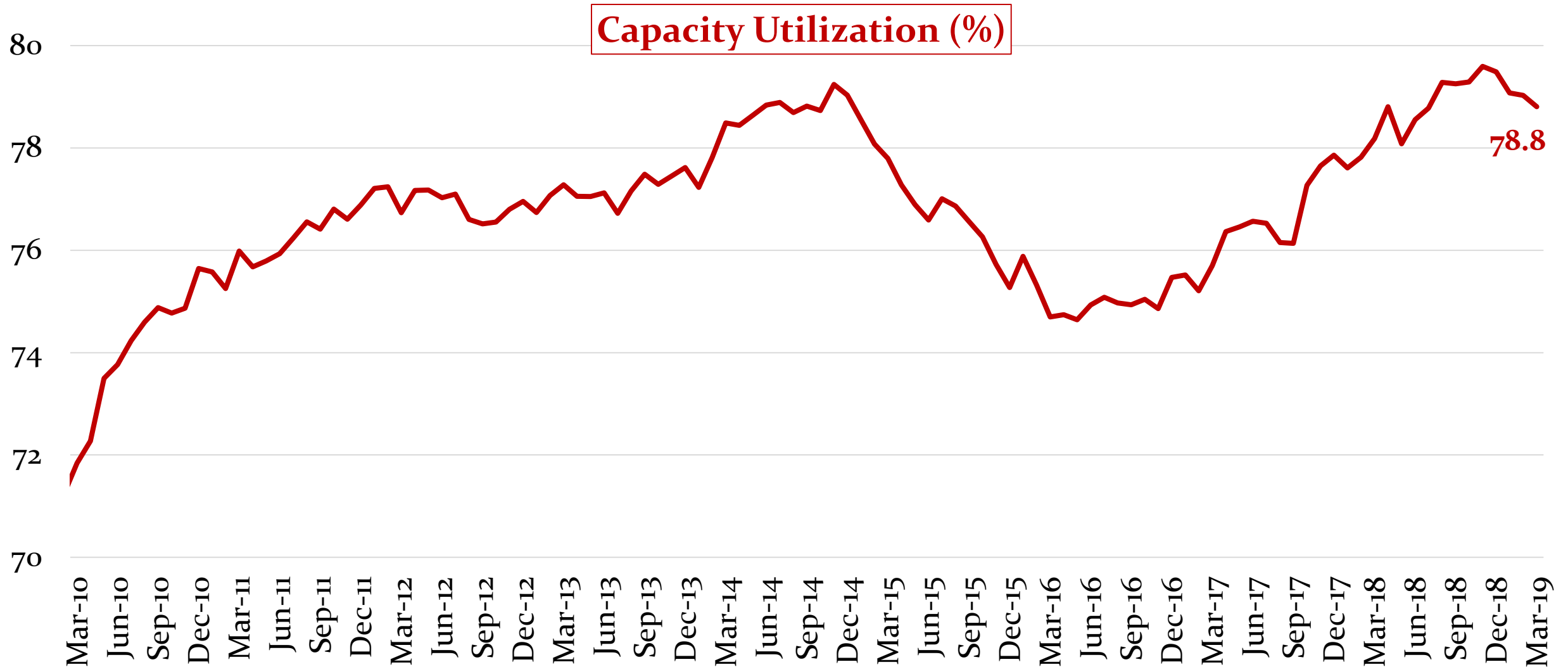
U.S. Job Openings
February 2001 through February 2019
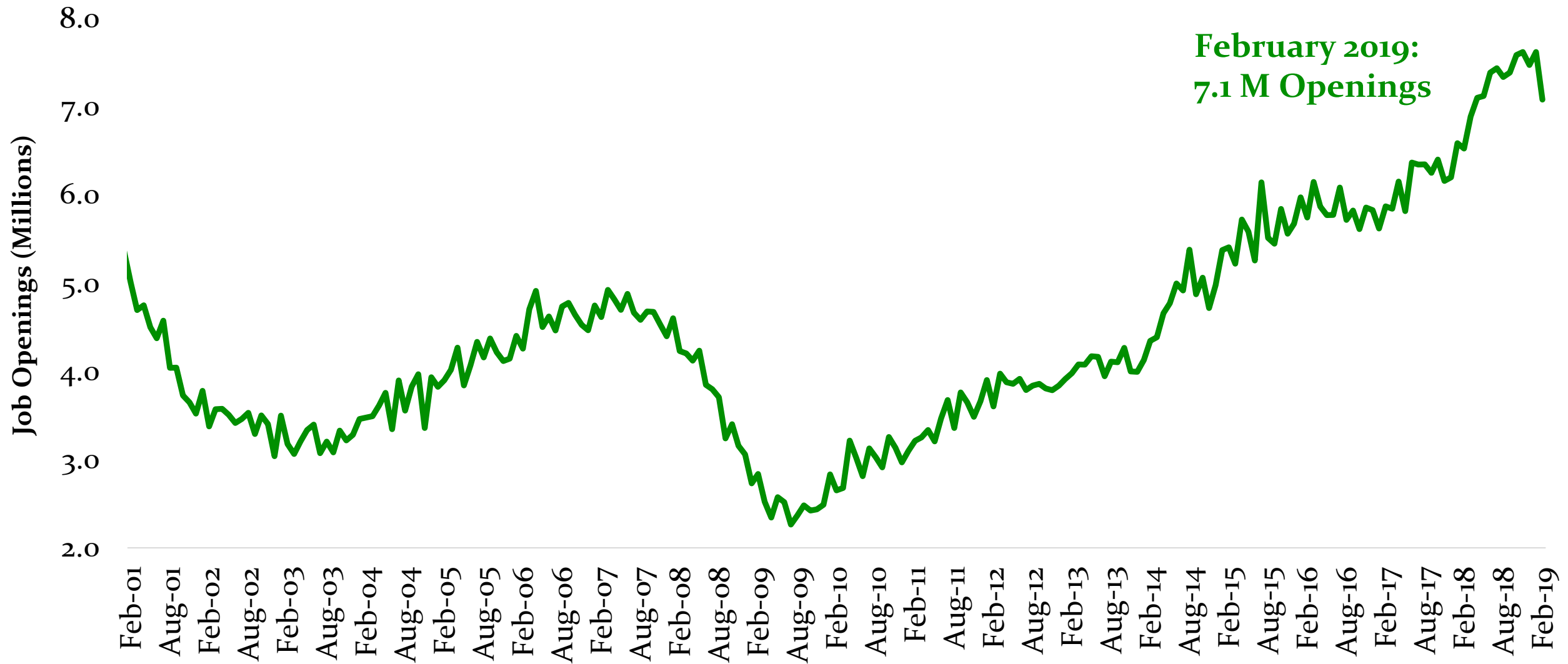
February 2019: 7.1 M Openings

Job Openings (Millions)

8.0
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, Aug-18, Feb-19

Source: U.S. Bureau of Labor Statistics

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Net Change in U.S. Jobs
March 2002 through March 2019

**March 2019:
+196K**

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Source: U.S. Bureau of Labor Statistics
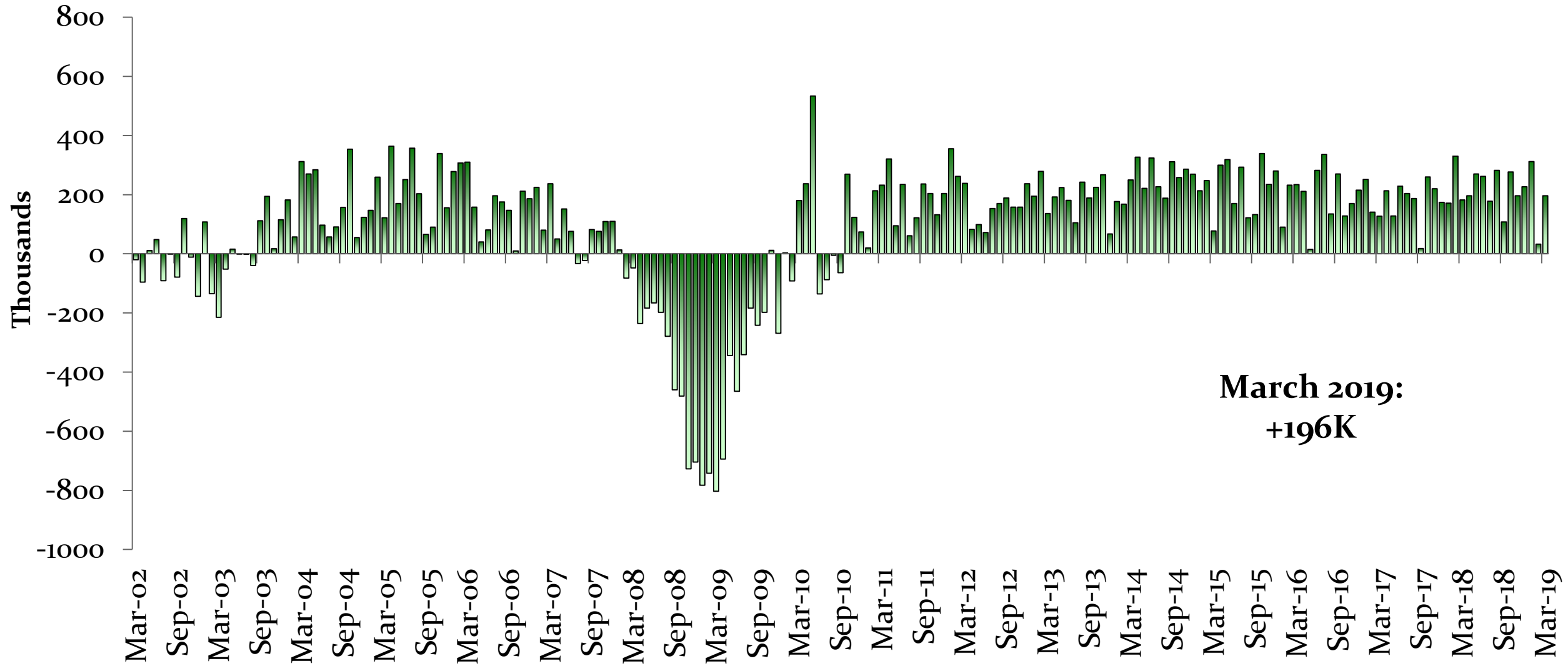
National Nonfarm Employment

by Industry Sector, March 2018 v. March 2019

Industry Sector	Thousands, SA
Education and Health Services	545
Professional and Business Services	534
Leisure and Hospitality	435
Construction	246
Trade, Transportation, and Utilities	225
Manufacturing	209
Government	110
Financial Activities	101
Other Services	92
Mining and Logging	43
Information	-3

All told 2,537K jobs gained

Thousands, SA

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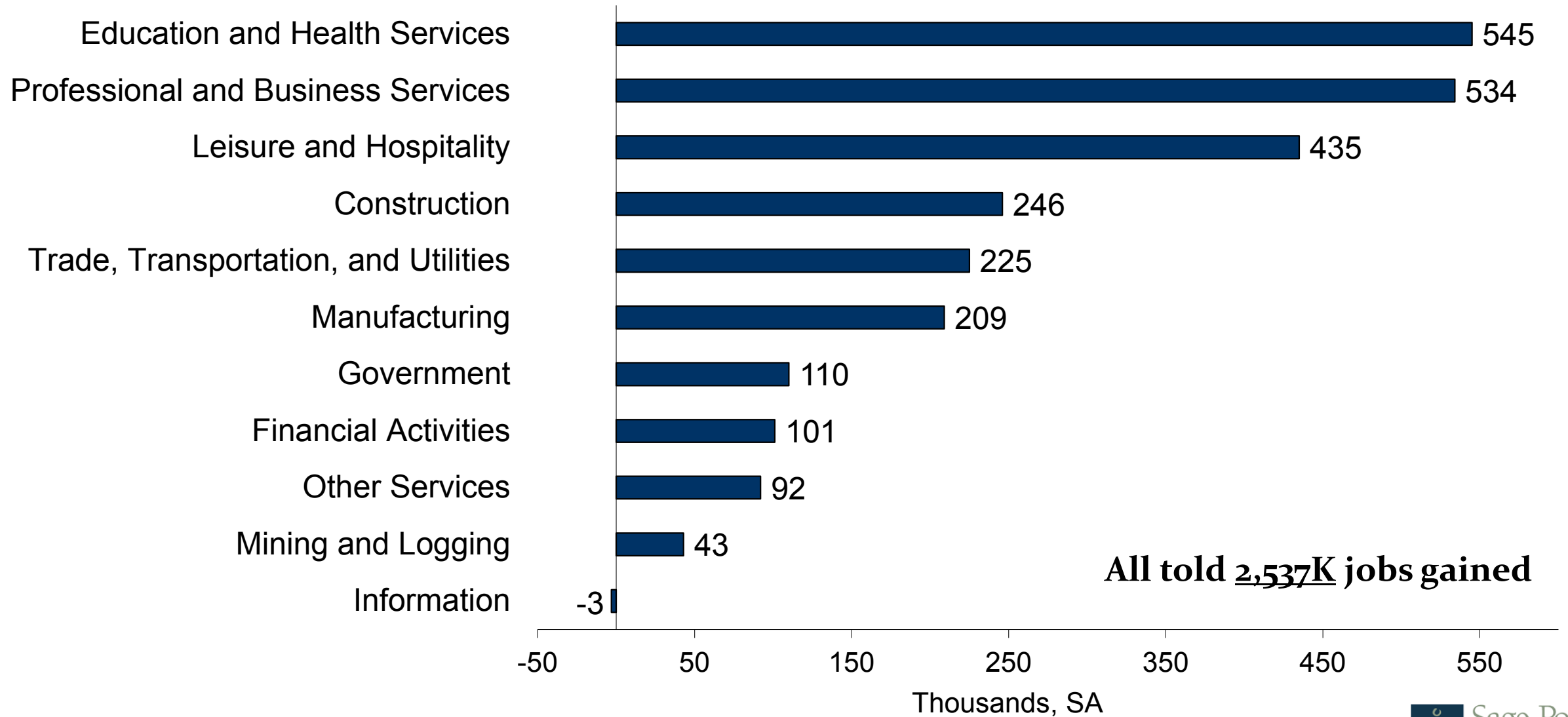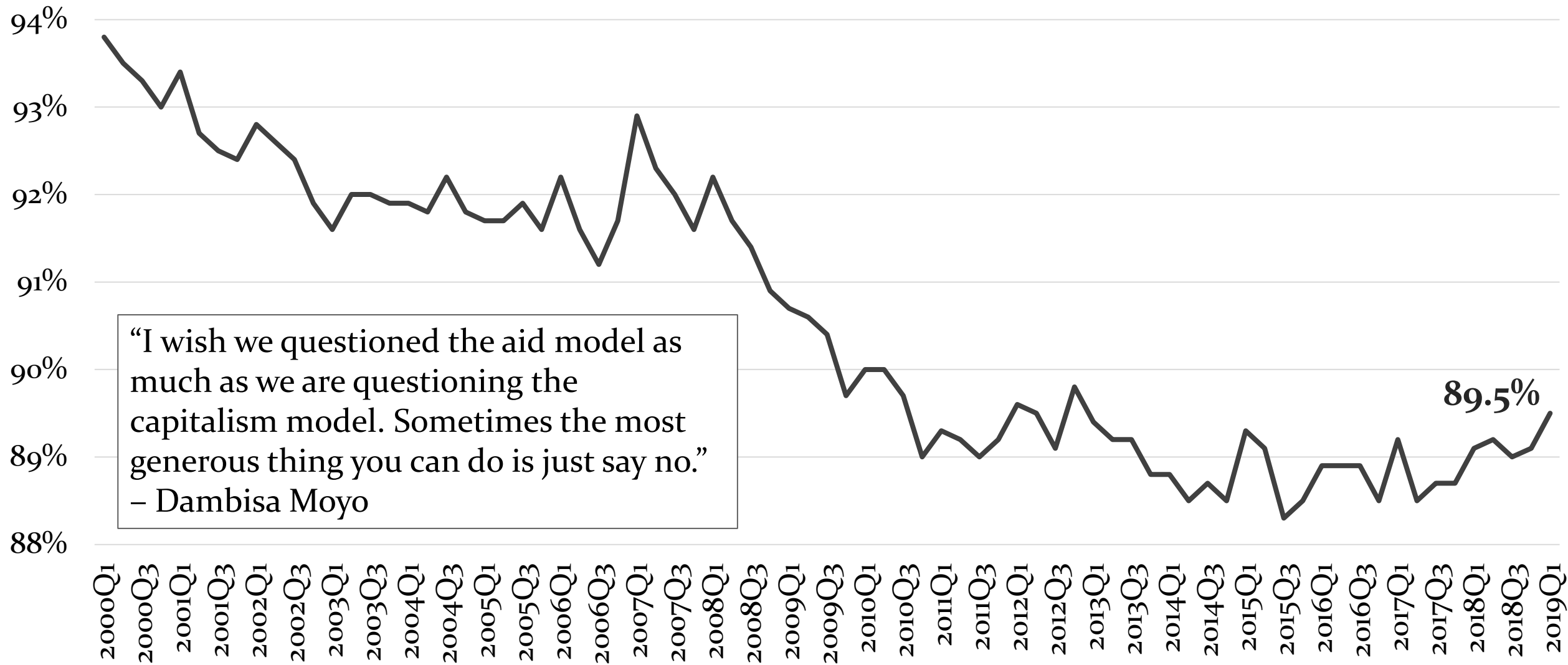
"I wish we questioned the aid model as much as we are questioning the capitalism model. Sometimes the most generous thing you can do is just say no."
– Dambisa Moyo

89.5%

Source: U.S. Bureau of Labor Statistics, Current Population Survey

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Employment Growth, U.S. States (SA)

March 2018 v. March 2019 Percent Change

Rank	State	%	Rank	State	%	Rank	State	%
1	NEVADA	3.4	16	SOUTH CAROLINA	1.4	35	MARYLAND	0.6
2	UTAH	3.0	19	INDIANA	1.3	35	MICHIGAN	0.6
3	IDAHO	2.7	20	NEW MEXICO	1.2	37	DISTRICT OF COLUMBIA	0.5
3	WEST VIRGINIA	2.7	21	NEW HAMPSHIRE	1.1	37	MAINE	0.5
5	FLORIDA	2.4	21	NEW JERSEY	1.1	37	OKLAHOMA	0.5
5	WASHINGTON	2.4	21	NEW YORK	1.1	40	CONNECTICUT	0.4
7	ARIZONA	2.3	24	DELAWARE	1.0	40	KANSAS	0.4
8	TEXAS	2.2	25	ALASKA	0.9	40	MISSOURI	0.4
9	SOUTH DAKOTA	2.0	25	ARKANSAS	0.9	43	MINNESOTA	0.3
10	GEORGIA	1.9	25	KENTUCKY	0.9	43	VERMONT	0.3
11	COLORADO	1.7	25	MONTANA	0.9	43	WISCONSIN	0.3
11	OREGON	1.7	25	VIRGINIA	0.9	46	HAWAII	0.2
11	WYOMING	1.7	30	ILLINOIS	0.8	46	IOWA	0.2
14	ALABAMA	1.6	30	MASSACHUSETTS	0.8	46	NORTH DAKOTA	0.2
14	TENNESSEE	1.6	30	PENNSYLVANIA	0.8	49	LOUISIANA	0.0
16	CALIFORNIA	1.4	33	MISSISSIPPI	0.7	49	NEBRASKA	0.0
16	NORTH CAROLINA	1.4	33	OHIO	0.7	51	RHODE ISLAND	-0.2

U.S. Year-over-year Percent Change: +1.7%

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Employment Growth, 25 Largest Metros (NSA)

March 2018 v. March 2019 Percent Change

Rank	MSA	%	Rank	MSA	%
1	Orlando-Kissimmee-Sanford, FL	3.7	14	Riverside-San Bernardino-Ontario, CA	1.4
2	Dallas-Fort Worth-Arlington, TX	3.0	14	San Diego-Carlsbad, CA	1.4
3	Phoenix-Mesa-Scottsdale, AZ	2.8	16	Baltimore-Columbia-Towson, MD	1.3
4	San Francisco-Oakland-Hayward, CA	2.6	16	New York-Newark-Jersey City, NY-NJ-PA	1.3
4	Seattle-Tacoma-Bellevue, WA	2.6	16	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.3
6	Charlotte-Concord-Gastonia, NC-SC	2.4	19	Chicago-Naperville-Elgin, IL-IN-WI	0.9
7	Atlanta-Sandy Springs-Roswell, GA	2.2	19	St. Louis, MO-IL	0.9
7	Houston-The Woodlands-Sugar Land, TX	2.2	19	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.9
7	Tampa-St. Petersburg-Clearwater, FL	2.2			
10	Miami-Fort Lauderdale-West Palm Beach, FL	2.1	22	Los Angeles-Long Beach-Anaheim, CA	0.8
10	San Antonio-New Braunfels, TX	2.1	23	Detroit-Warren-Dearborn, MI	0.6
12	Portland-Vancouver-Hillsboro, OR-WA	1.8	24	Boston-Cambridge-Nashua, MA-NH	0.5
13	Denver-Aurora-Lakewood, CO	1.6	25	Minneapolis-St. Paul-Bloomington, MN-WI	0.0

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Source: U.S. Bureau of Labor Statistics, Current Employment Statistics (CES) Survey

Unemployment Rates, 25 Largest Metros (NSA)

February 2019

Rank	MSA	UR	Rank	MSA	UR
1	Boston-Cambridge-Nashua, MA-NH	2.8	12	Charlotte-Concord-Gastonia, NC-SC	3.8
1	San Francisco-Oakland-Hayward, CA	2.8	12	St. Louis, MO-IL (1)	3.8
3	Orlando-Kissimmee-Sanford, FL	3.2	15	Los Angeles-Long Beach-Anaheim, CA	3.9
4	Denver-Aurora-Lakewood, CO	3.3	16	Detroit-Warren-Dearborn, MI	4.0
4	Miami-Fort Lauderdale-West Palm Beach, FL	3.3	16	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4.0
6	Minneapolis-St. Paul-Bloomington, MN-WI	3.4	18	Baltimore-Columbia-Towson, MD	4.1
6	San Antonio-New Braunfels, TX	3.4	18	Portland-Vancouver-Hillsboro, OR-WA	4.1
6	Tampa-St. Petersburg-Clearwater, FL	3.4	18	Seattle-Tacoma-Bellevue, WA	4.1
9	San Diego-Carlsbad, CA	3.5	21	Houston-The Woodlands-Sugar Land, TX	4.2
9	Washington-Arlington-Alexandria, DC-VA-MD-WV	3.5	21	Phoenix-Mesa-Scottsdale, AZ	4.2
			23	Chicago-Naperville-Elgin, IL-IN-WI	4.3
11	Dallas-Fort Worth-Arlington, TX	3.6	23	New York-Newark-Jersey City, NY-NJ-PA	4.3
12	Atlanta-Sandy Springs-Roswell, GA	3.8	23	Riverside-San Bernardino-Ontario, CA	4.3

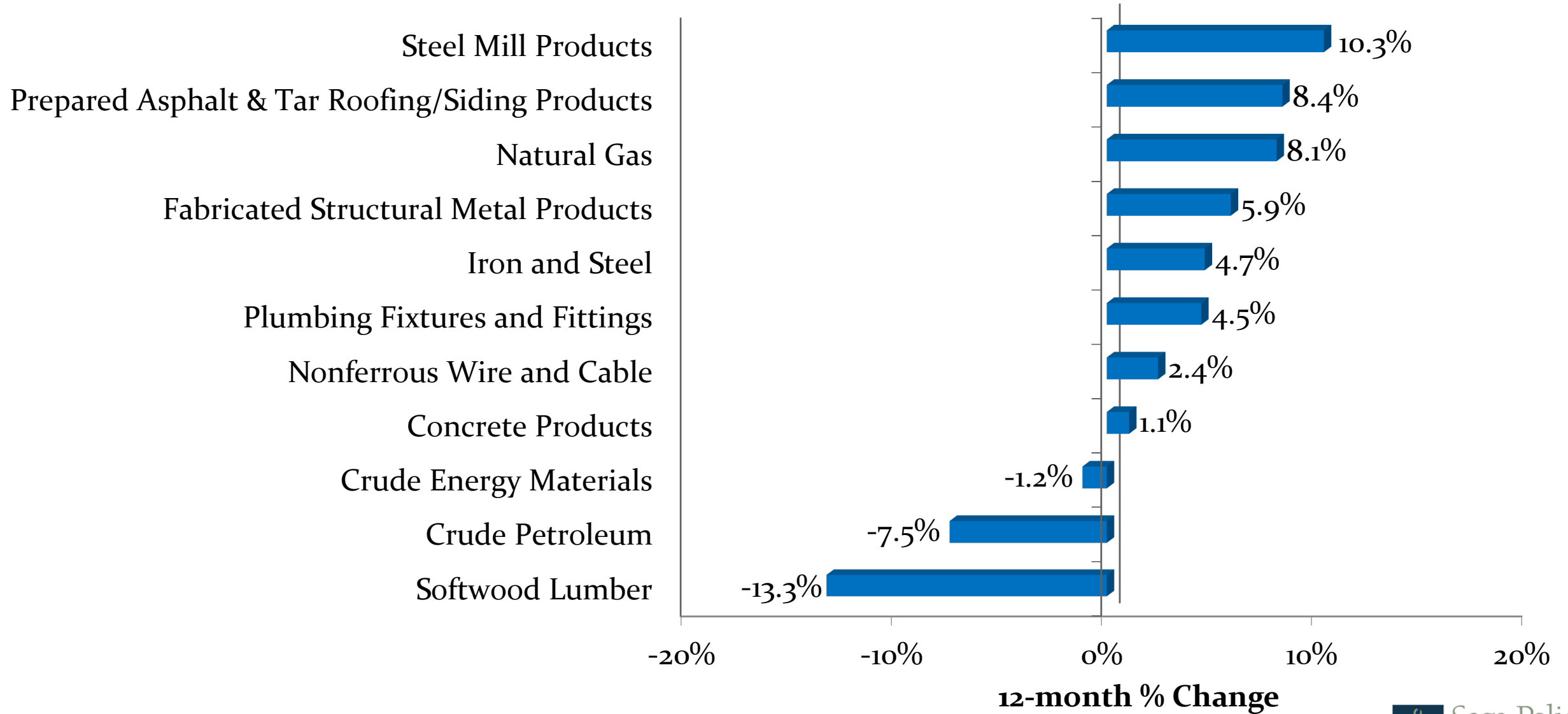*U.S. Unemployment Rate: 3.8%*

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Growth in Wages & Salaries

Employment Cost Index (ECI), 2002Q4-2018Q4

ECI for Wages & Salaries
12-Month % Change

2018Q4:
+3.0% YOY

Source: U.S. Bureau of Labor Statistics *All Civilian Workers

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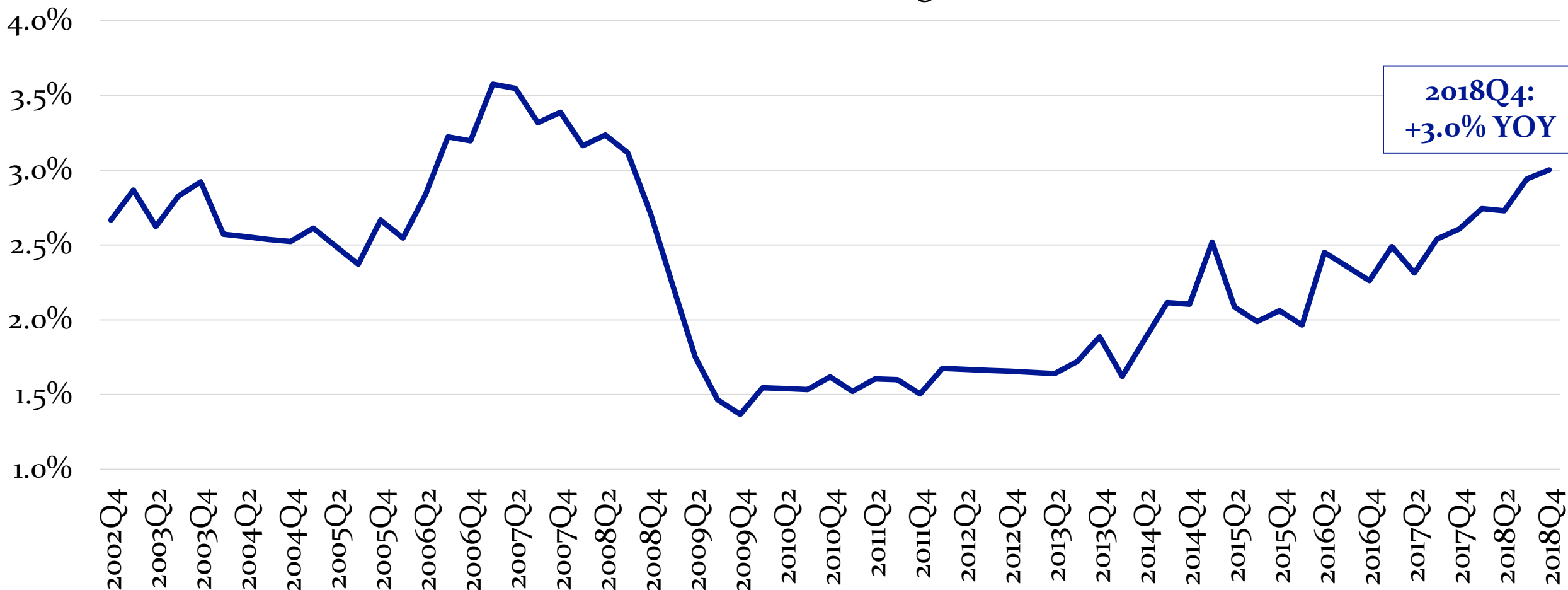
Construction Materials PPI (NSA)

12-month % Change as of March 2019

Material	12-month % Change
Steel Mill Products	10.3%
Prepared Asphalt & Tar Roofing/Siding Products	8.4%
Natural Gas	8.1%
Fabricated Structural Metal Products	5.9%
Iron and Steel	4.7%
Plumbing Fixtures and Fittings	4.5%
Nonferrous Wire and Cable	2.4%
Concrete Products	1.1%
Crude Energy Materials	-1.2%
Crude Petroleum	-7.5%
Softwood Lumber	-13.3%

12-month % Change

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Consumer Price Index: All Items Less Food & Energy

March 2000 – March 2019

Core CPI (All Items Less Food & Energy)
12-Month % Change
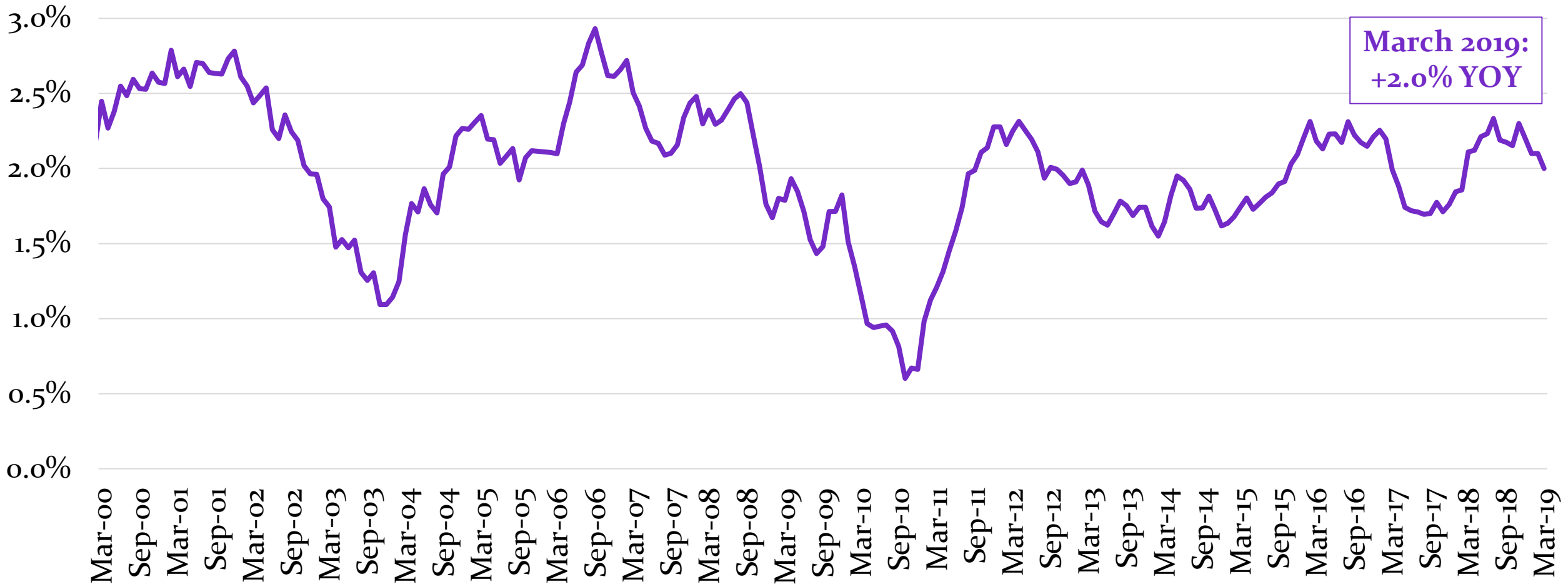
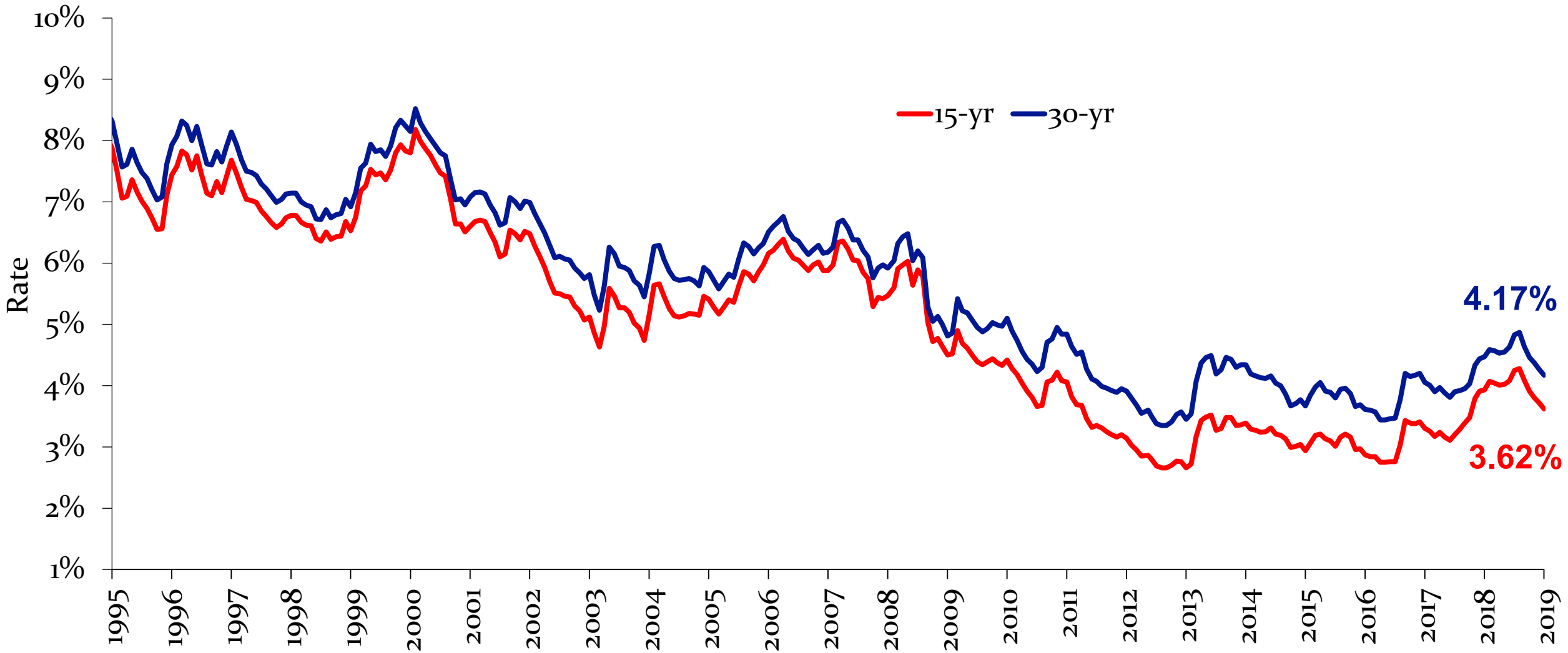**March 2019: +2.0% YOY**

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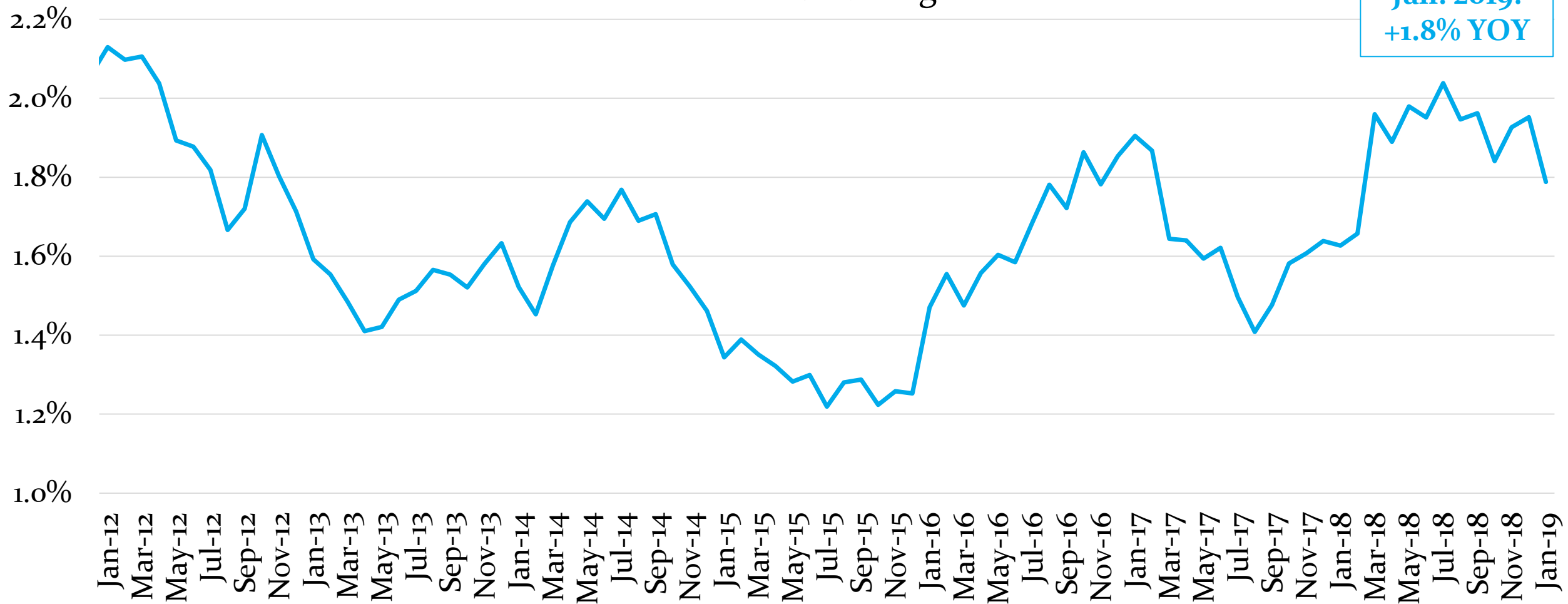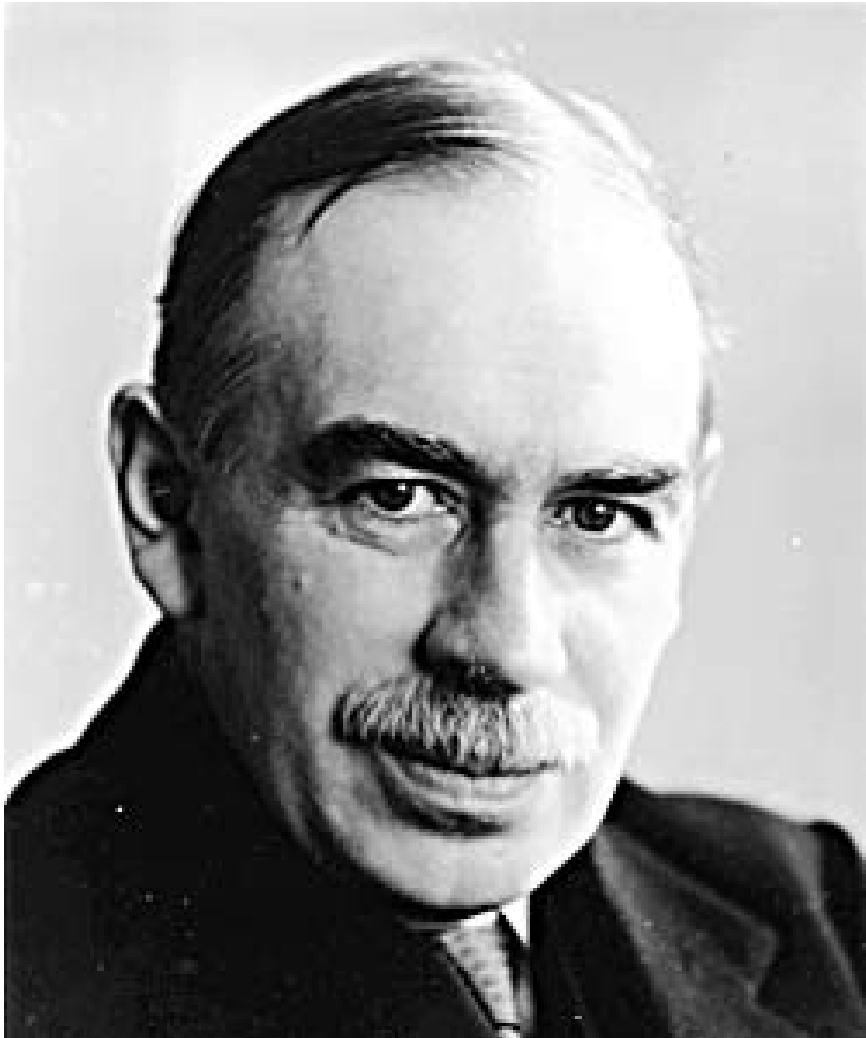
"Most men love money and security more, and creation and construction less, as they get older."

–John Maynard Keynes

# 15-Year & 30-Year Fixed Mortgage Rates

April 1995 through April 2019*

Legend: 15-yr (red), 30-yr (blue)

4.17%

3.62%

*Week ending 4/18/2019

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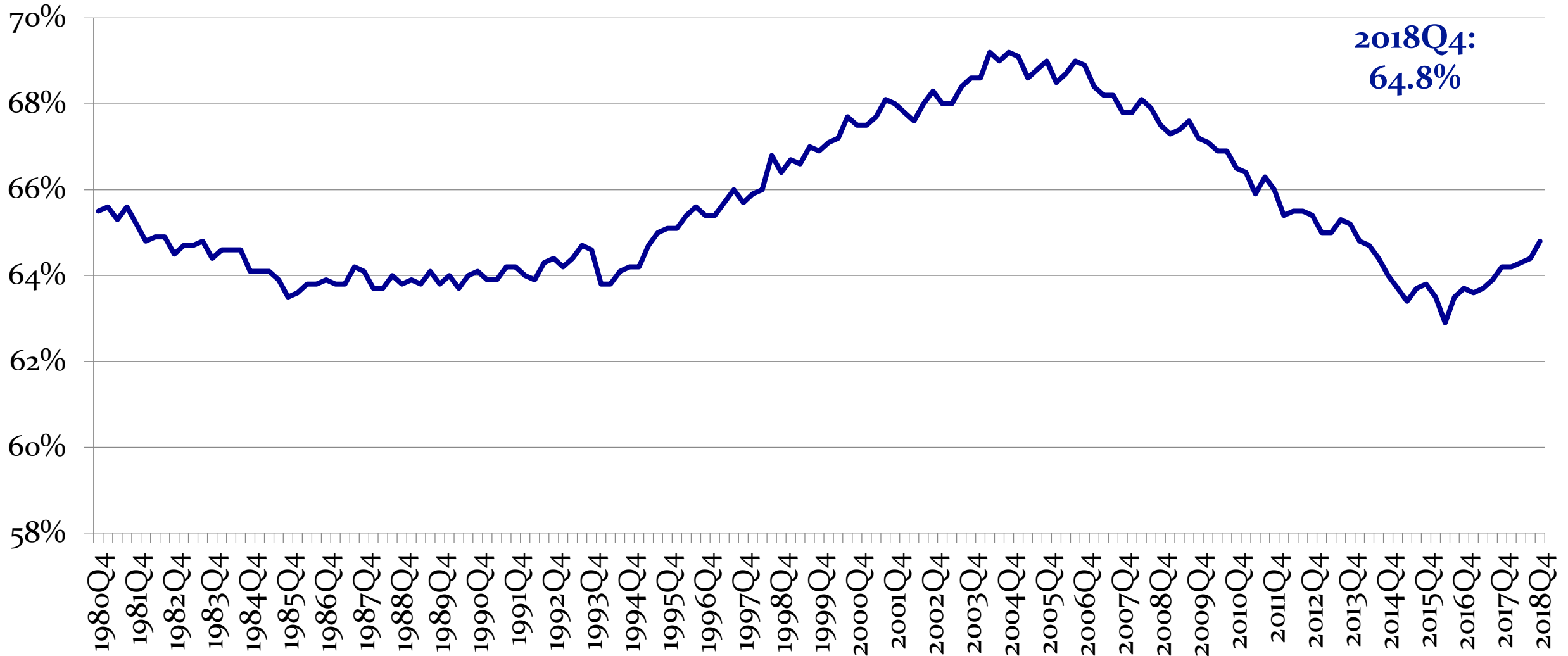
Source: Freddie Mac

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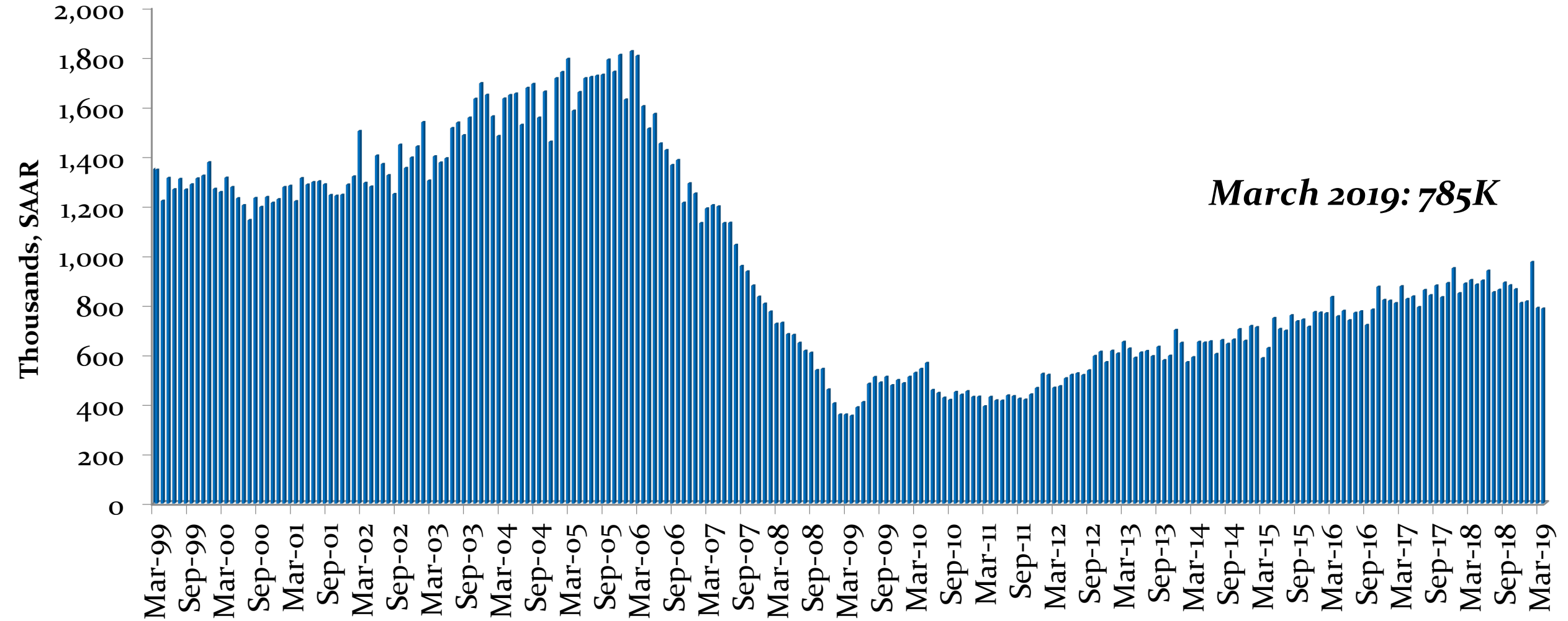- The share of renter households also increased—from 31.2% of households in 2006 to 36.1% in 2017.

# of Household Heads (Millions)

Homeowners

Renters

36.2   75.4   76.2
21.3   34.2   43.1
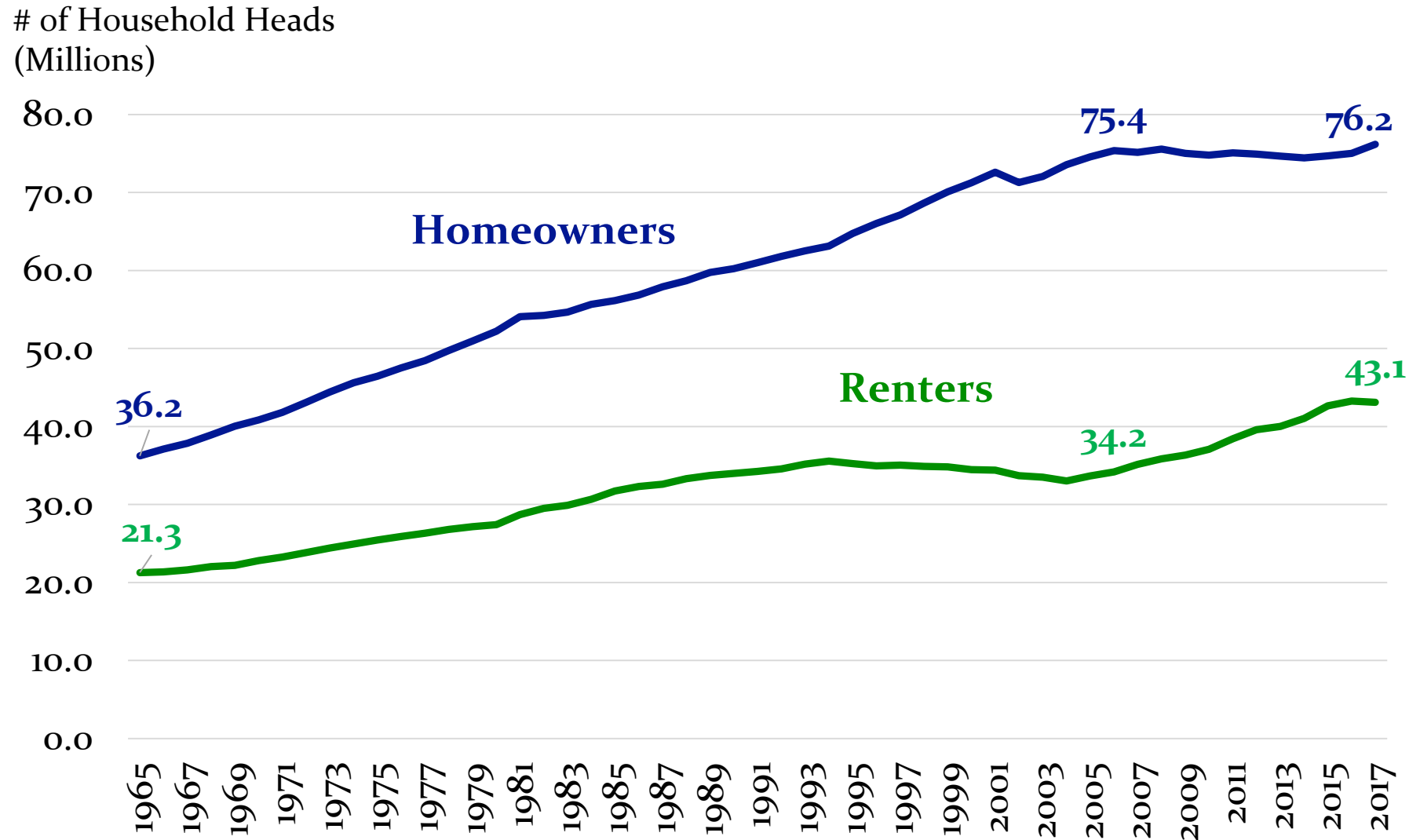
U.S. Homeownership (NSA)
1980Q4-2018Q4

2018Q4: 64.8%

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

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U.S. Single-Family Housing Starts

March 1999 through March 2019

March 2019: 785K

Thousands, SAAR

Source: U.S. Census Bureau

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Architecture Billings Index
March 2008 through March 2019

March 2019: 47.8

Source: The American Institute of Architects

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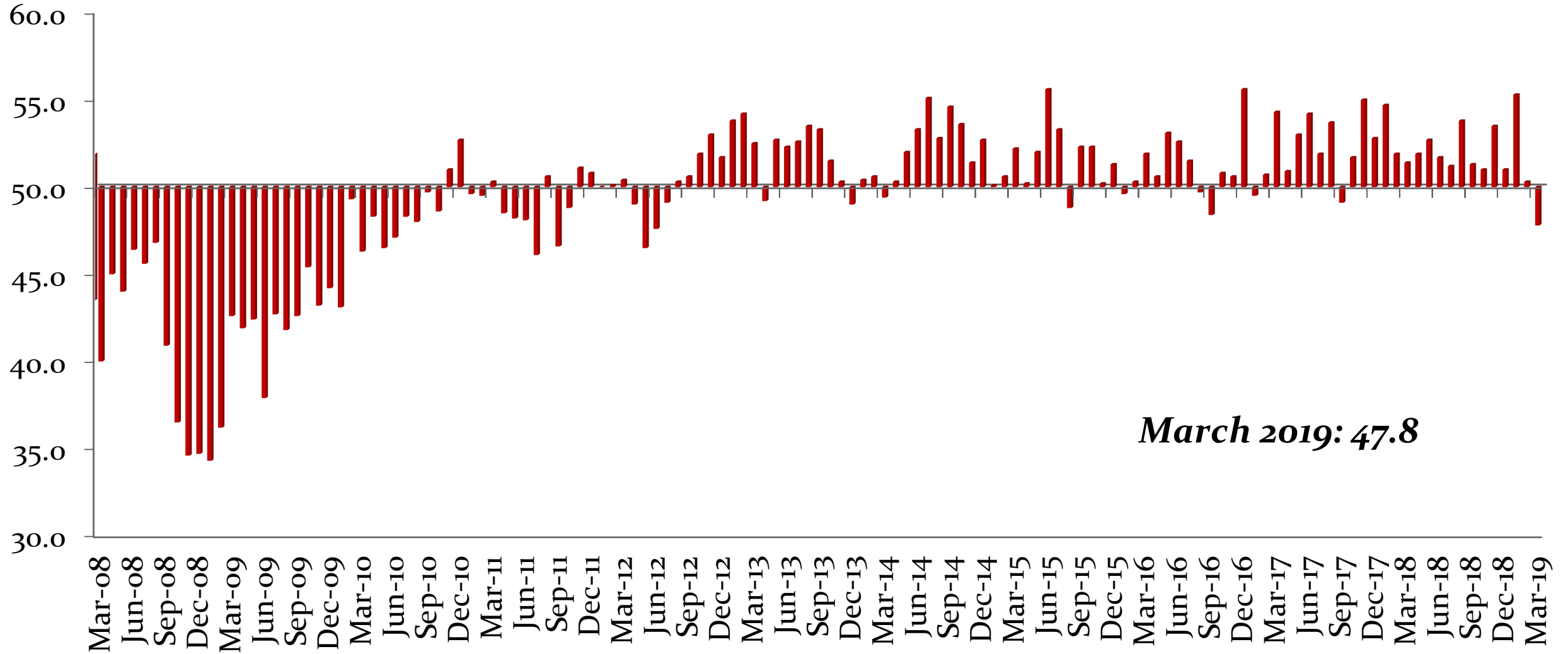
National Nonresidential Construction Spending by Subsector

February 2016 v. February 2019

Subsector	3-year % Change
Lodging	41.9%
Amusement and Recreation	28.2%
Transportation	22.5%
Office	20.9%
Commercial	18.2%
Highway and Street	17.1%
Public Safety	13.6%
Conservation and Development	13.0%
Communication	8.1%
Water Supply	8.1%
Educational	7.8%
Health Care	6.8%
Power	4.2%
Sewage and Waste Disposal	-11.5%
Religious	-11.9%
Manufacturing	-13.2%

Total Nonresidential Construction: +10.5%

3-year % Change

Source: U.S. Census Bureau

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Foreign Investment in U.S. Commercial Real Estate

Top Destination Markets, 2018

2018 Deals ($Billions)

Market	$Billions
New York	$16.6
Los Angeles Basin	$7.9
Washington	$5.2
San Francisco Bay	$4.4
Chicago	$4.3
Seattle	$2.1
Miami/South Florida	$1.9
San Diego	$1.7
Philadelphia	$1.6
Phoenix	$1.5

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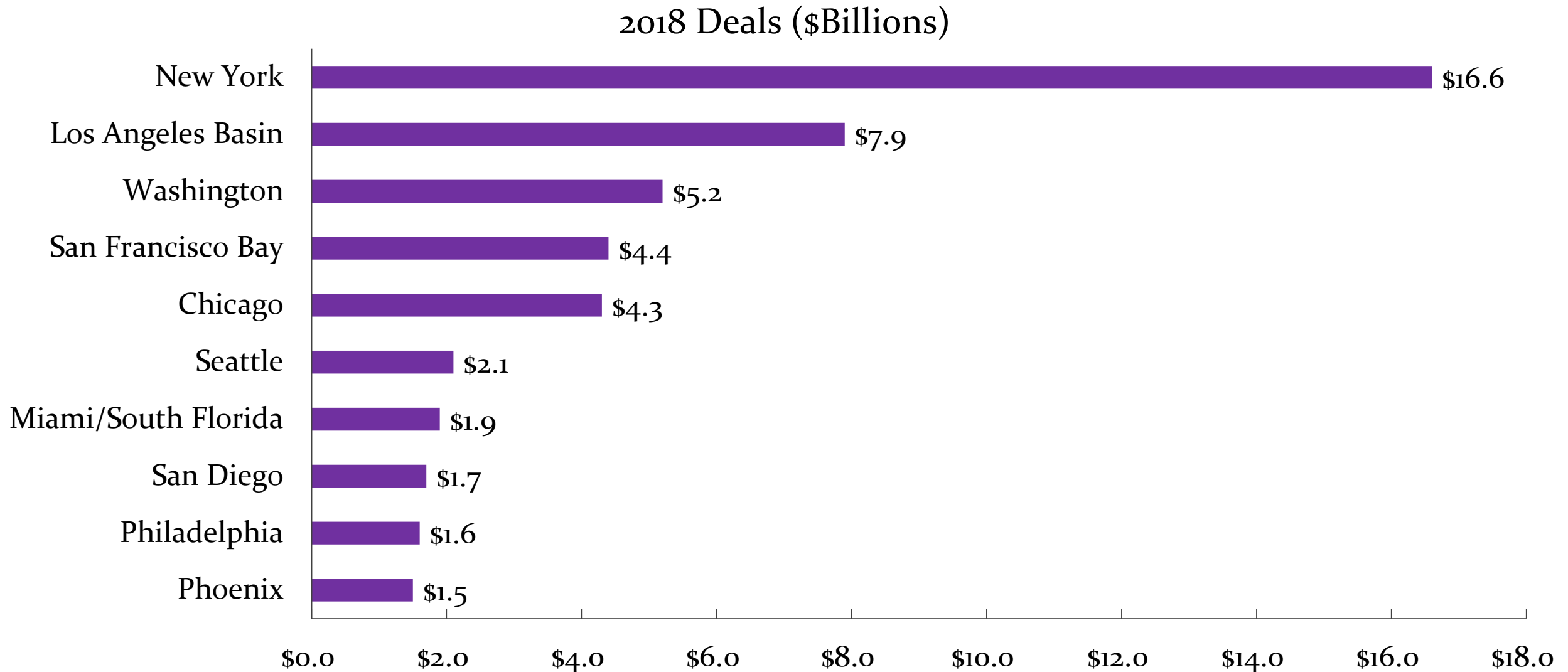
Foreign Investment in U.S. Commercial Real Estate Per 100,000 Residents

Top Destination Markets, 2018

Investment ($M) Per 100,000 Residents

Market	Investment
Washington, D.C.	$83.6
New York	$81.7
San Francisco	$65.4
Seattle	$54.3
San Diego	$50.9
Chicago	$45.1
Los Angeles	$44.0
Phoenix	$31.7
Miami/South Florida	$30.9
Philadelphia	$26.2

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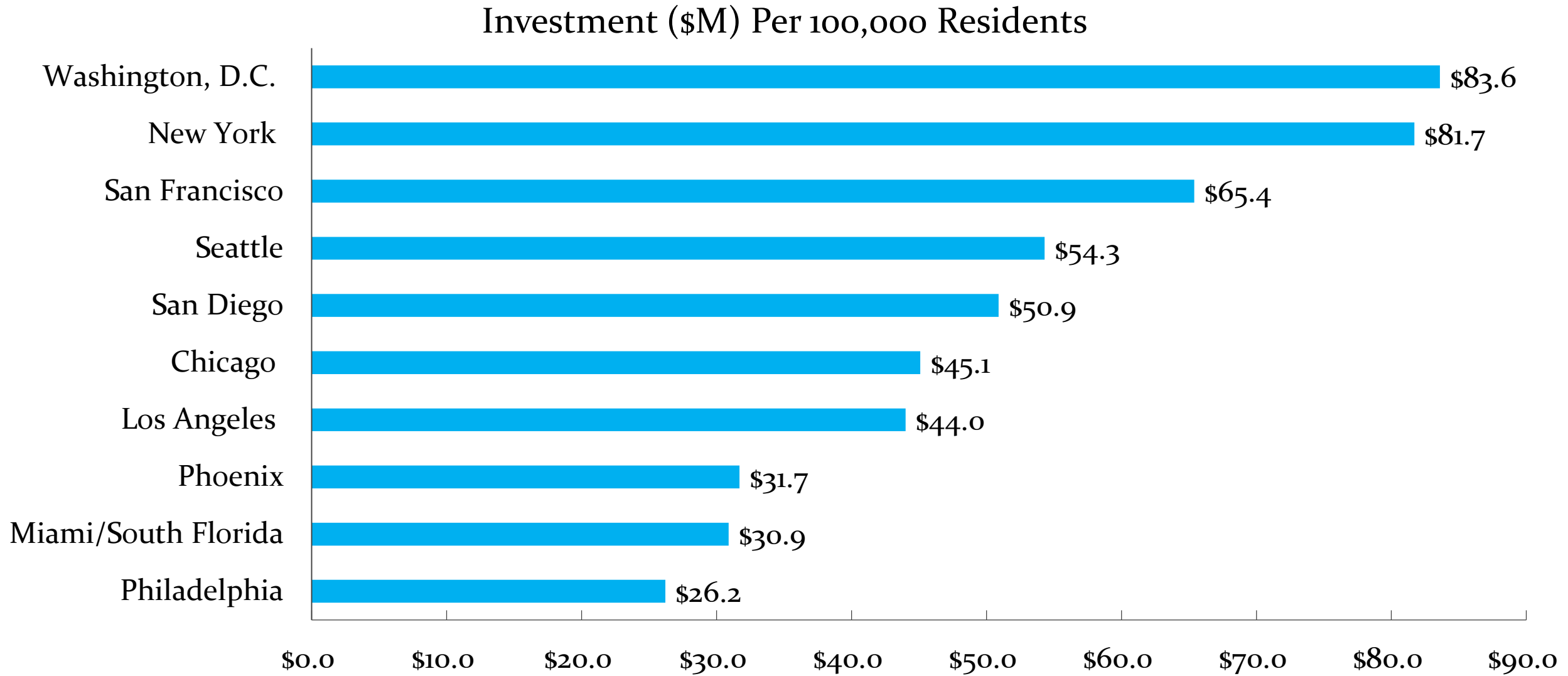
CoStar Commercial Repeat Sales Index

February 2000 through February 2019

CCRI: U.S. Composite
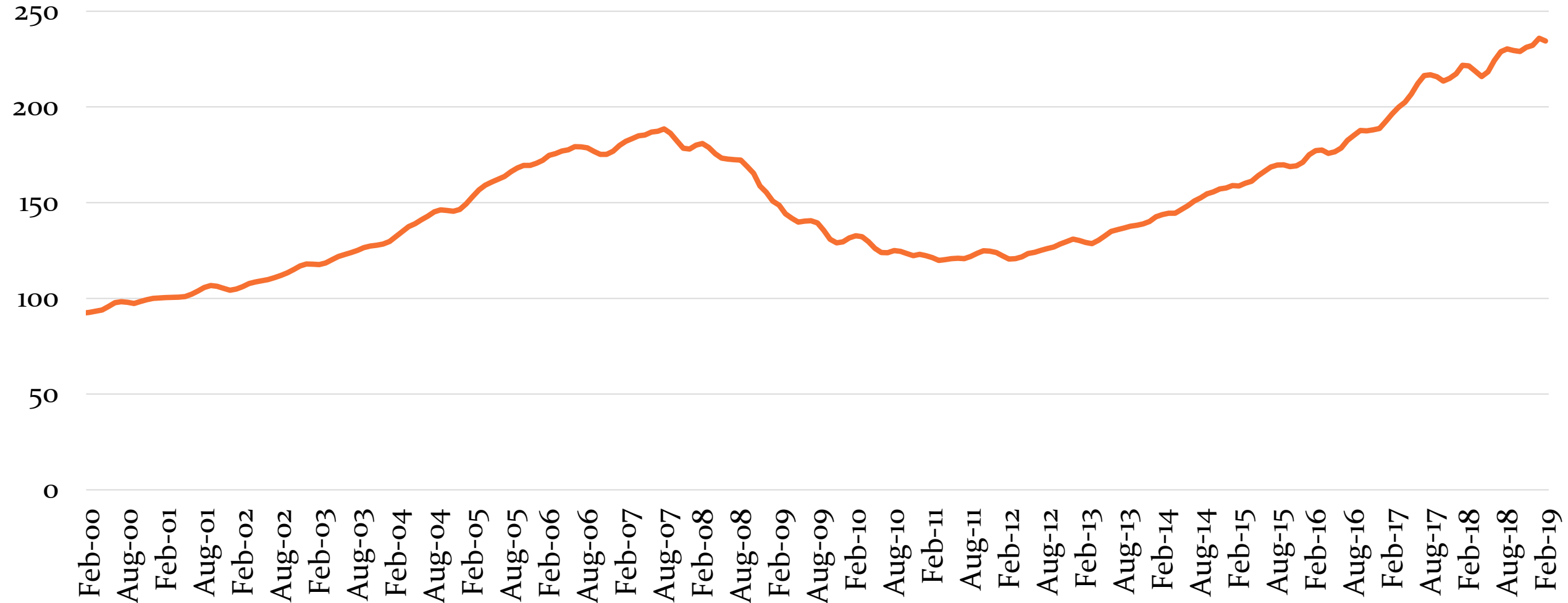
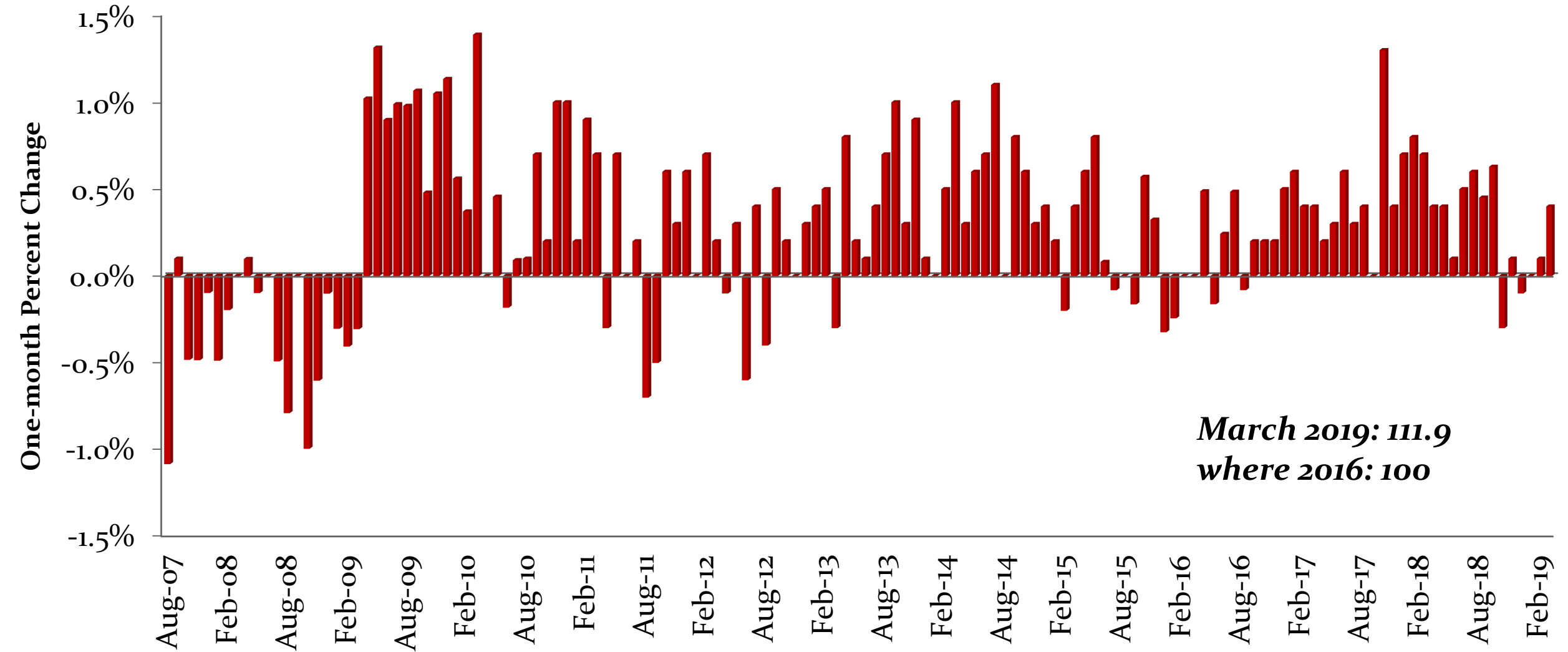*Based on 898 repeat sale pairs in the month of February 2019 and more than 206,000 repeat sales since 1996.

"An economist is an expert who will know tomorrow why the things he predicted yesterday didn't happen today."
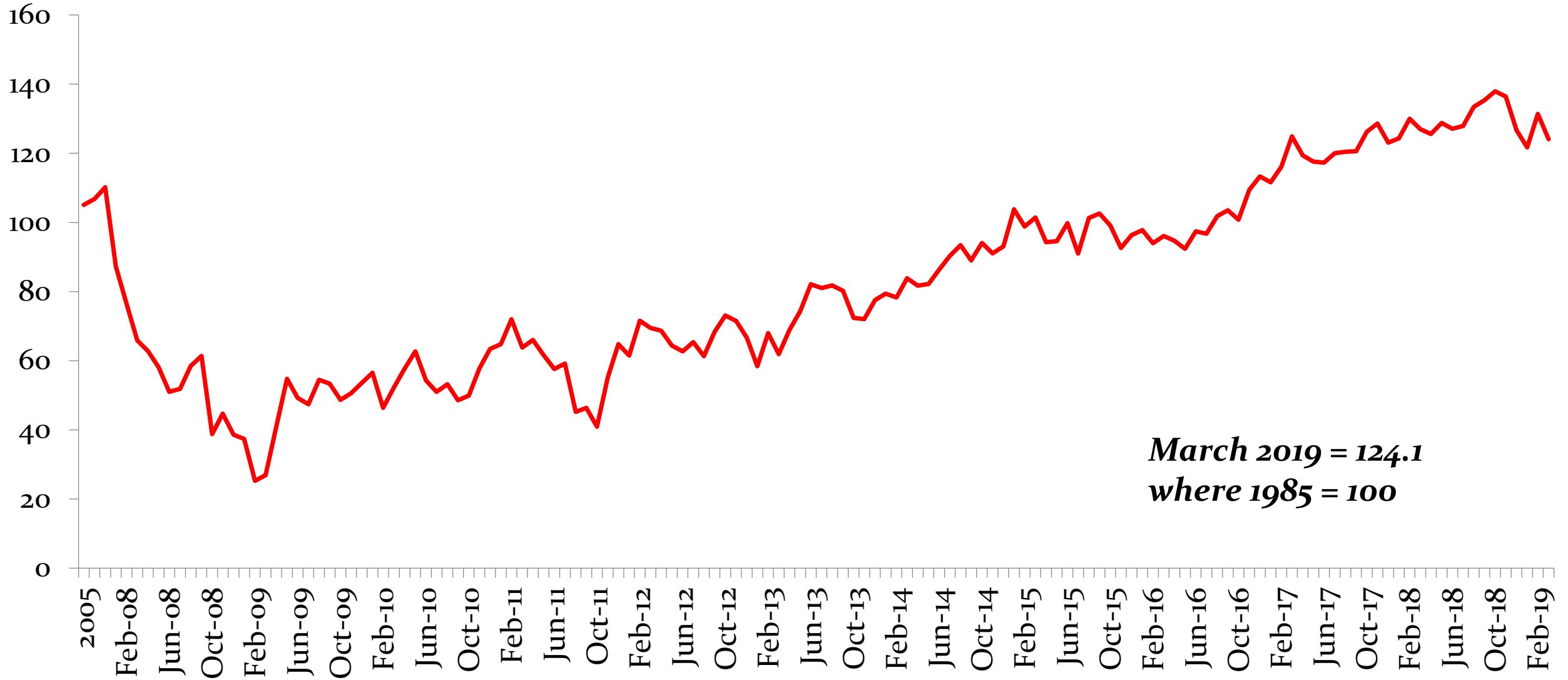
—Laurence J. Peter

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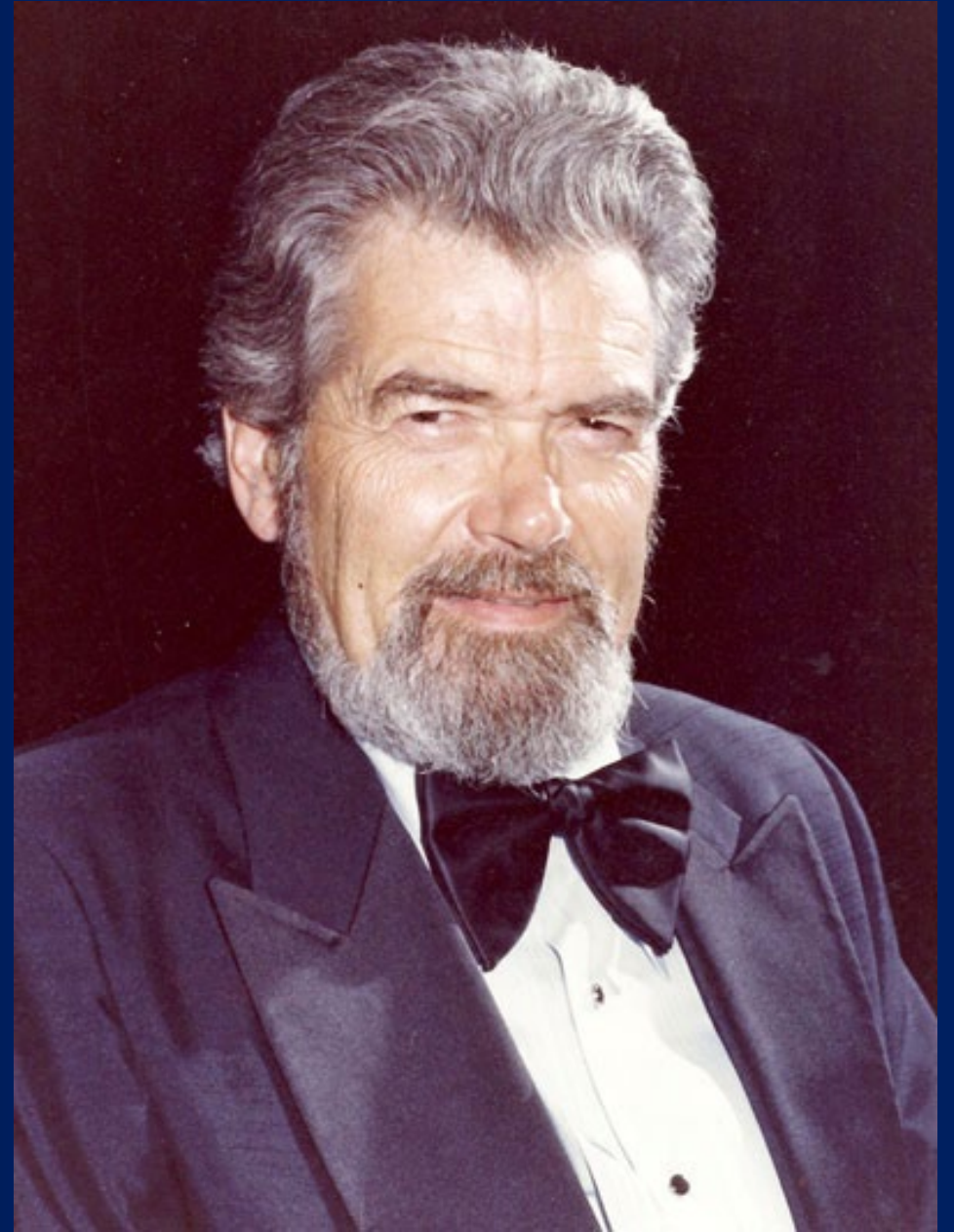
Conference Board Leading Economic Indicators Index
August 2007 through March 2019

One-month Percent Change

March 2019: 111.9
where 2016: 100

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Source: Conference Board

Conference Board Consumer Confidence Index

2005 – March 2019

March 2019 = 124.1
where 1985 = 100

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NFIB Index of Small Business Optimism: Good Time to Expand

1986-2019

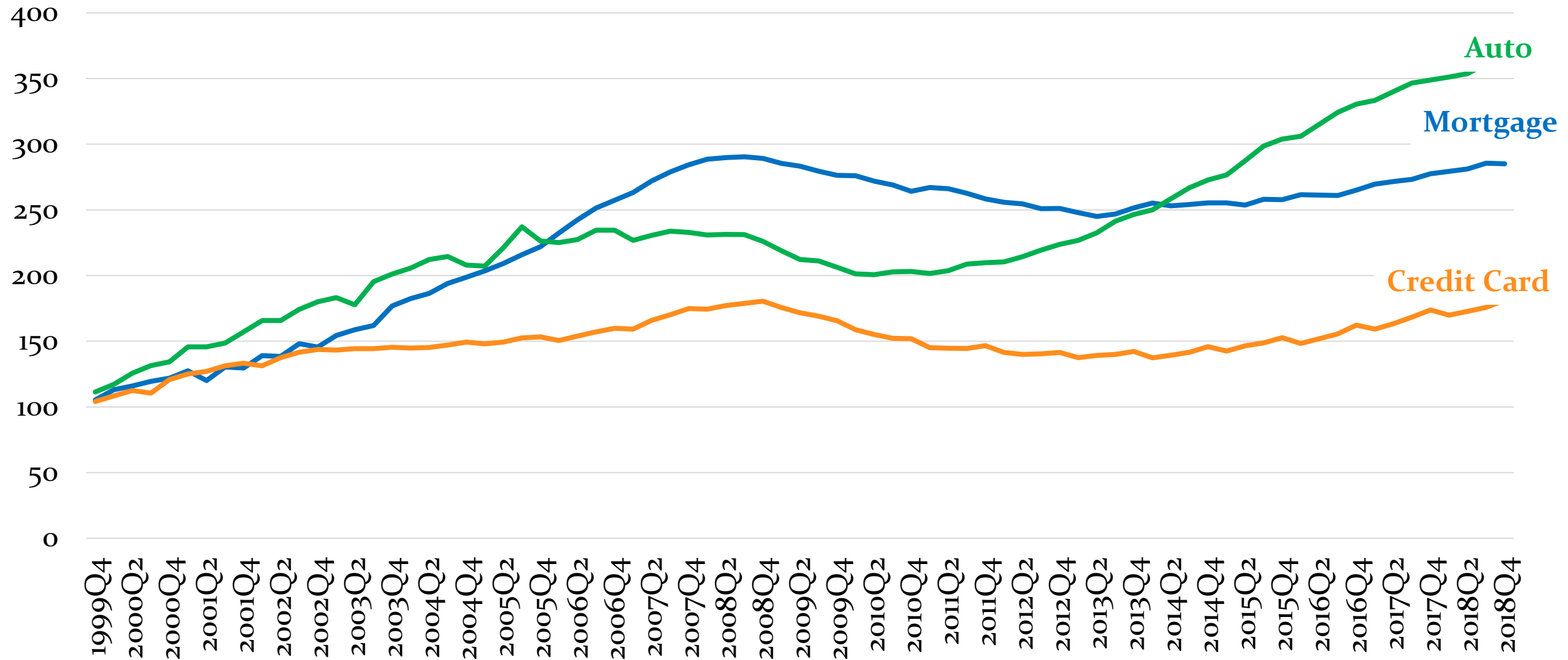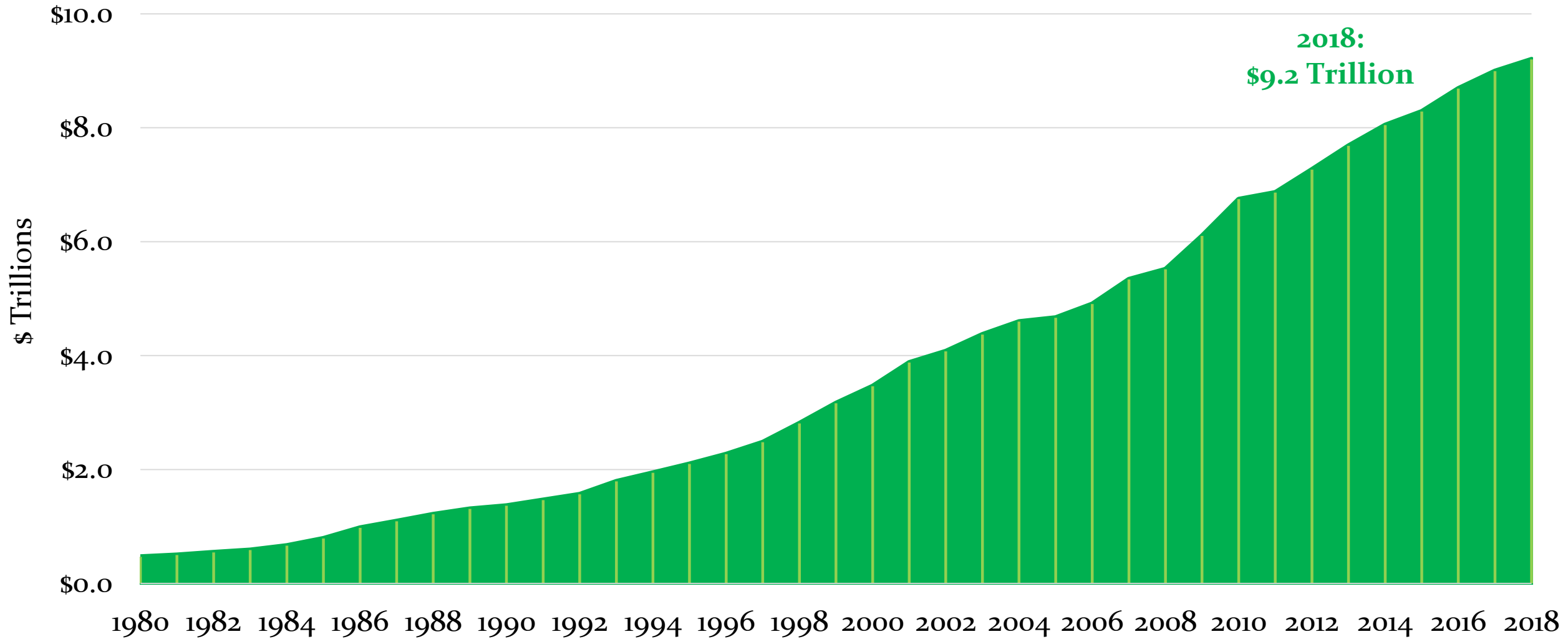## % of respondents who think the next 3 months will be a good time to for small business to expand

Mar. 2019: 23%

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Source: National Federation of Independent Business (NFIB)
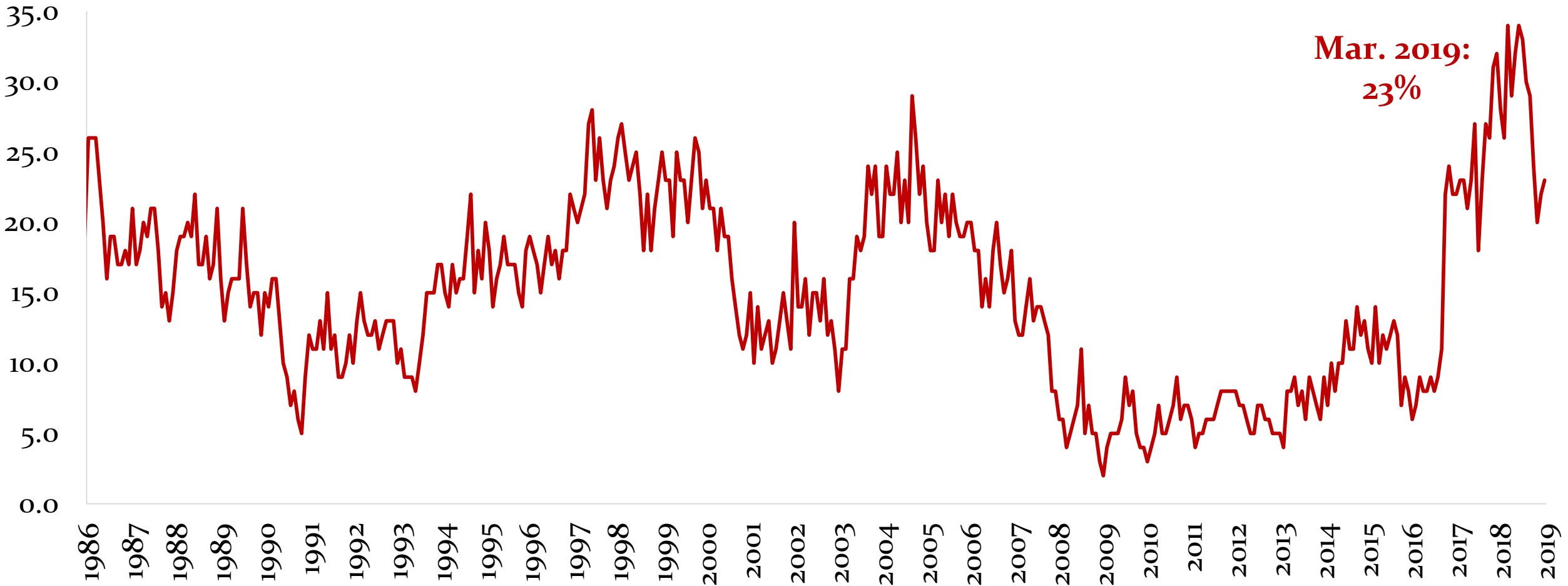
Total U.S. Debt Volume by Select Loan Types

Index 1999Q1=100

Source: New York Fed Consumer Credit Panel/Equifax

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U.S. Corporate Bond Debt Outstanding, 1980-2018

2018: $9.2 Trillion

$ Trillions

$10.0
$8.0
$6.0
$4.0
$2.0
$0.0

1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018

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- According to the International Institute of Finance (IIF), global debt reached an record high of $248 trillion in 2018Q1;

- At **$243.2 trillion** as of 2018Q4, global debt—including household, government, and corporate—now represents **317% of global GDP**;

- In 2016 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"*

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Economists do it with Models

- Much of the negativity reflected in forecasts and in financial market volatility relates to things people believe will happen;

- But important parts of the U.S. economy continue to perform well – e.g. consumer, corporate earnings, construction.

- What's more, there is significant upside risk. What if the following happens?
  - ☐ Trade deal with China;
  - ☐ Infrastructure spending plan with revenue sources identified;
  - ☐ Elimination of tariffs on steel, aluminum, etc. &
  - ☐ Fed stops tightening!!!!
  - Hypothesis - 2019 will be decent year for economy, especially the first half.

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Thank You

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Please contact us when you require economic

research & policy analysis.

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