To All The Economists I've Loved Before

By: Anirban Basu

Sage Policy Group, Inc.

On Behalf of

Eastern Lenders Association
2019 Conference

March 12th, 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

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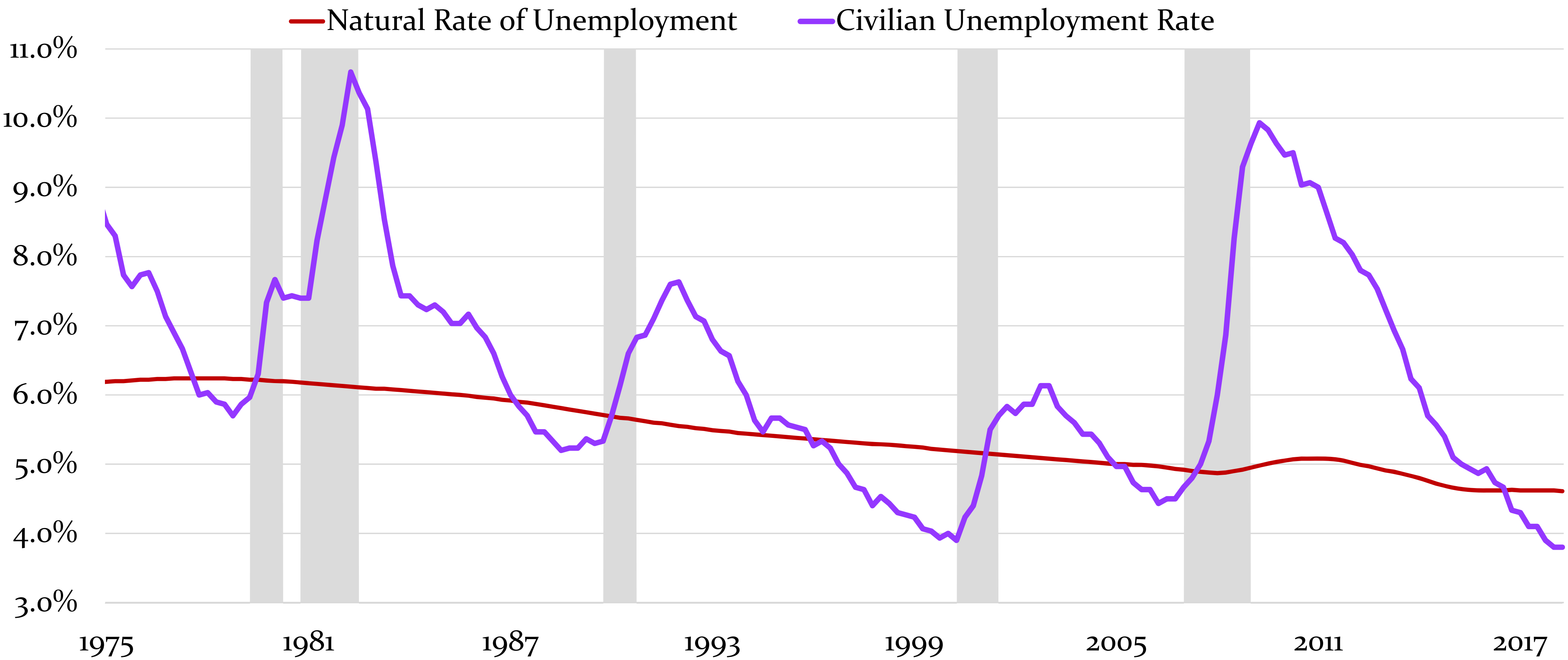
U.S. Unemployment & Natural Rate of Unemployment



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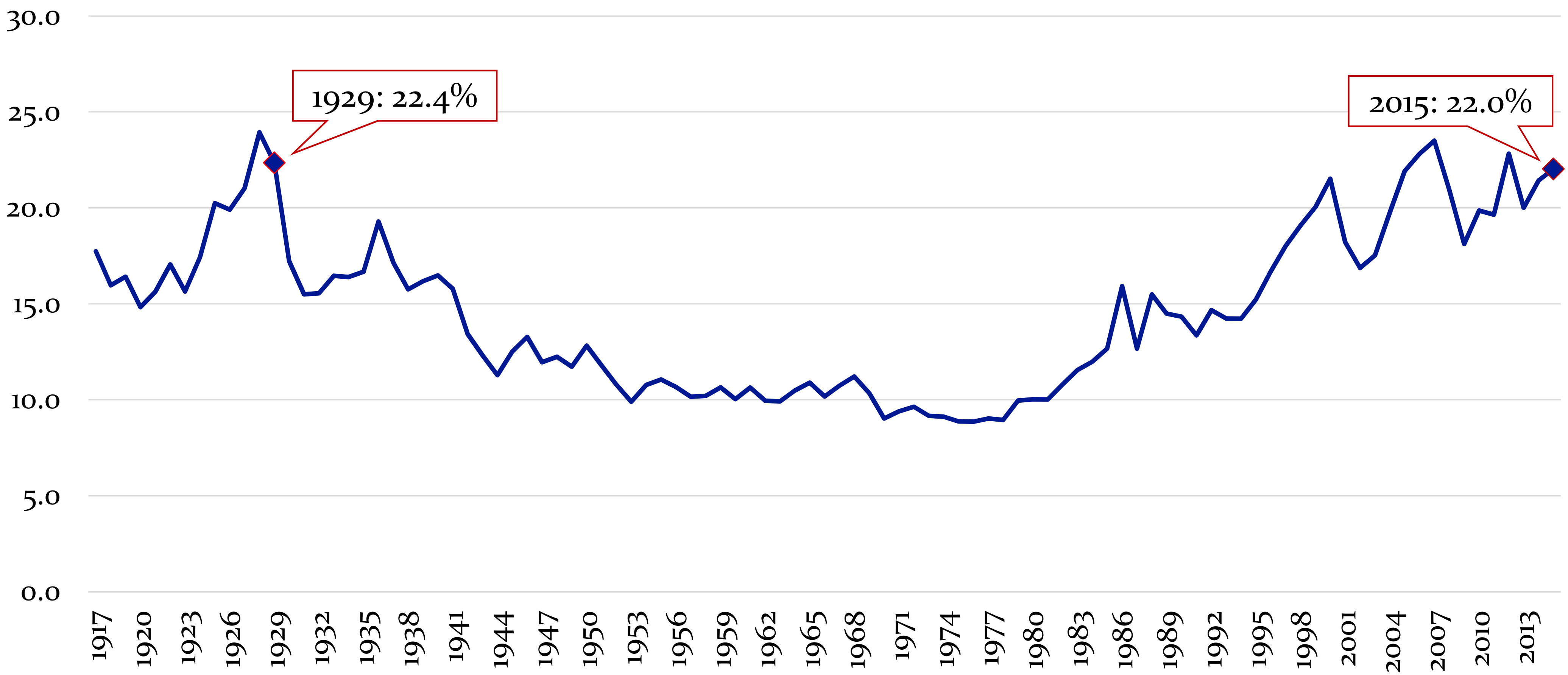
Share of all Income Held by the Top 1% in the U.S., 1917-2015



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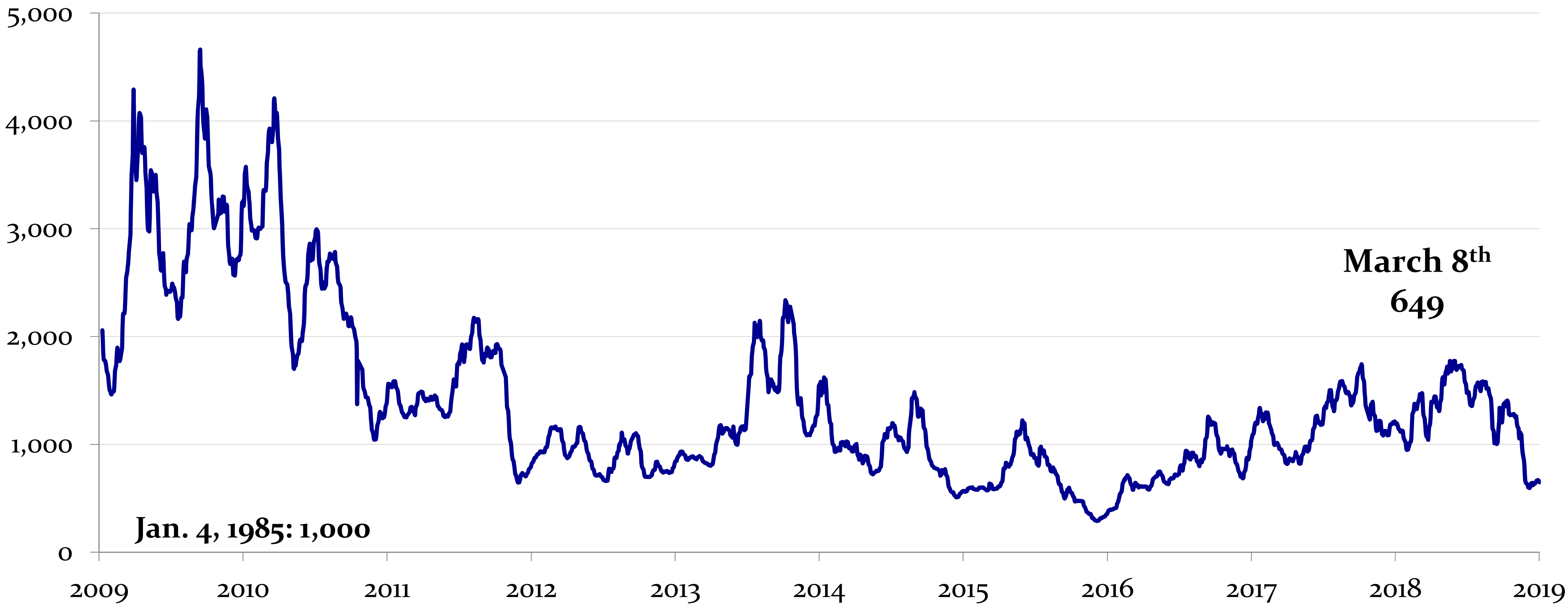
Source: Economic Policy Institute, Authors' analysis of state-level tax data from Sommeiller (2006) extended to 2015 using state-level data from the Internal Revenue Service SOI Tax Stats (various years), and Piketty and Saez (2012). Note: Data are for tax units.

Baltic Dry Index

2009 through 2019



Source: Quandl.com

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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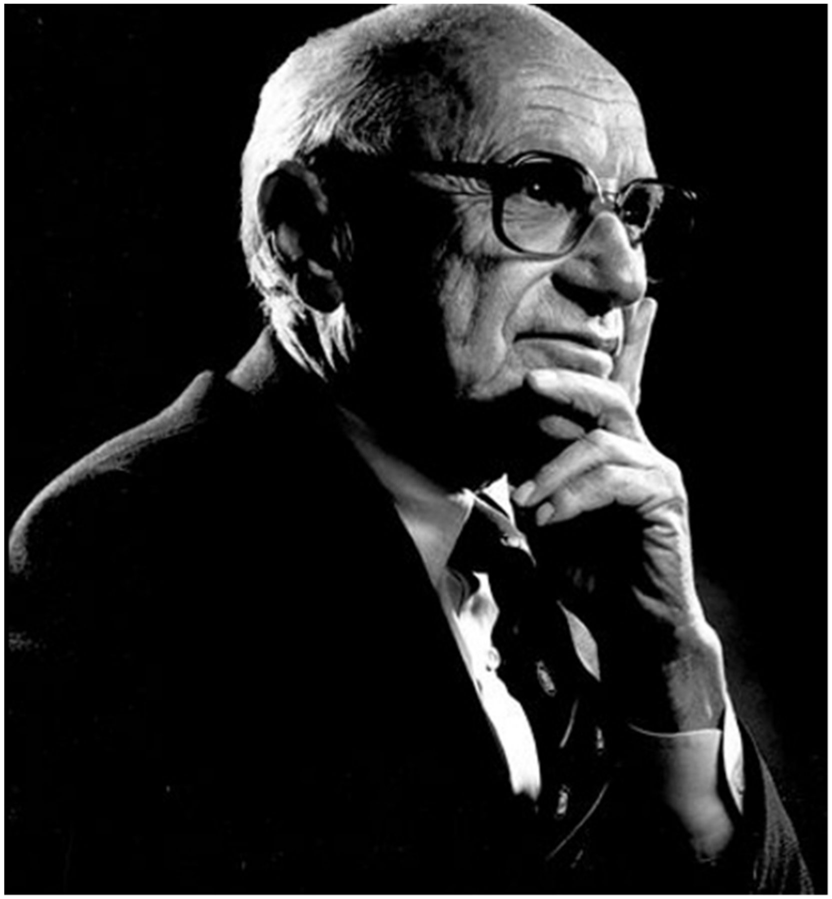

“Inflation is the one form of taxation that can be imposed without legislation.”
–Milton Friedman

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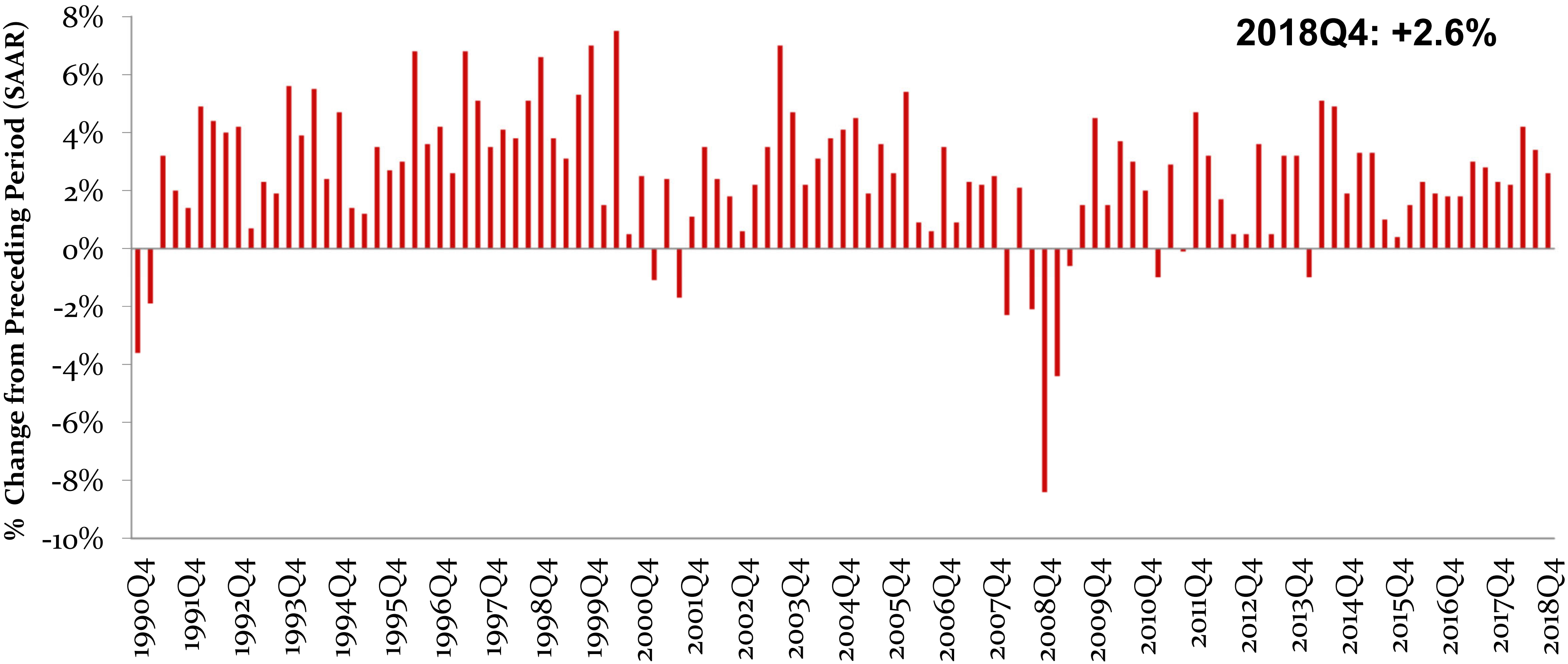
Gross Domestic Product

*1990Q4 through 2018Q4**



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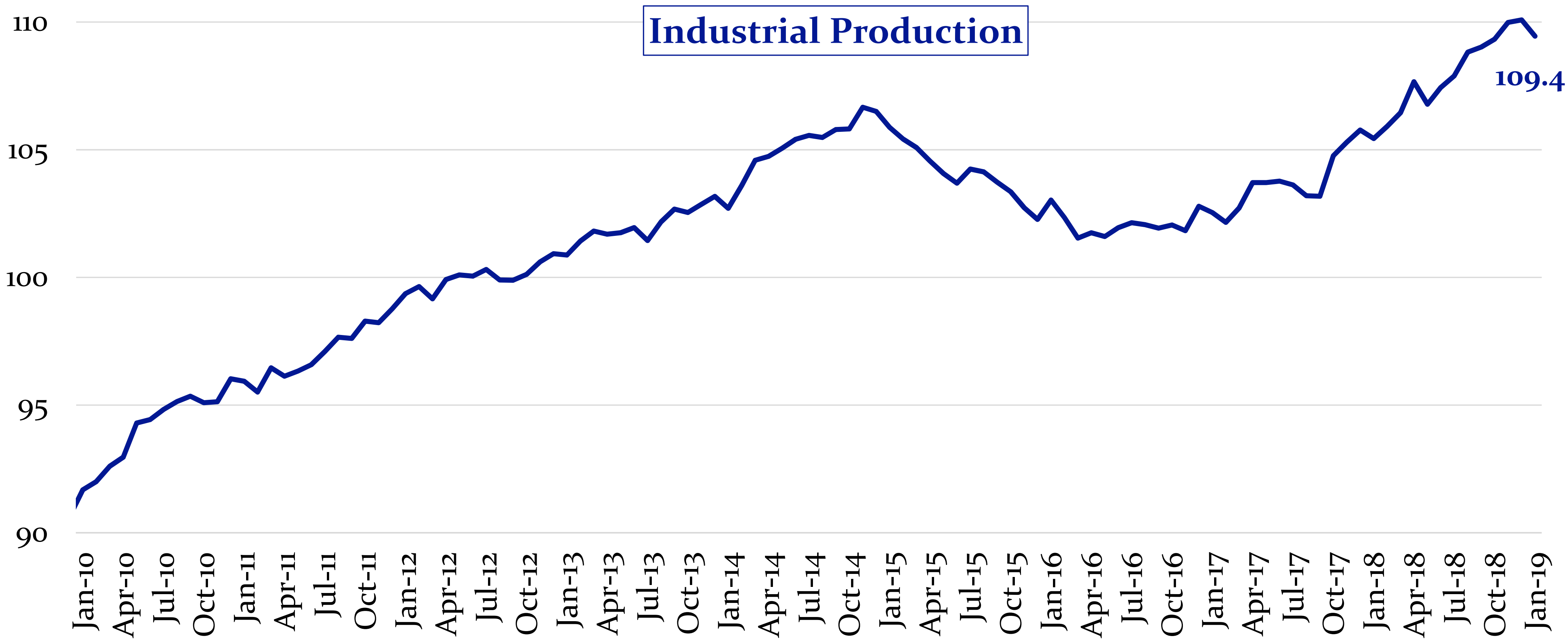
Source: U.S. Bureau of Economic Analysis *1st (Advance) Estimate

U.S. Industrial Production Index

January 2010 – January 2019



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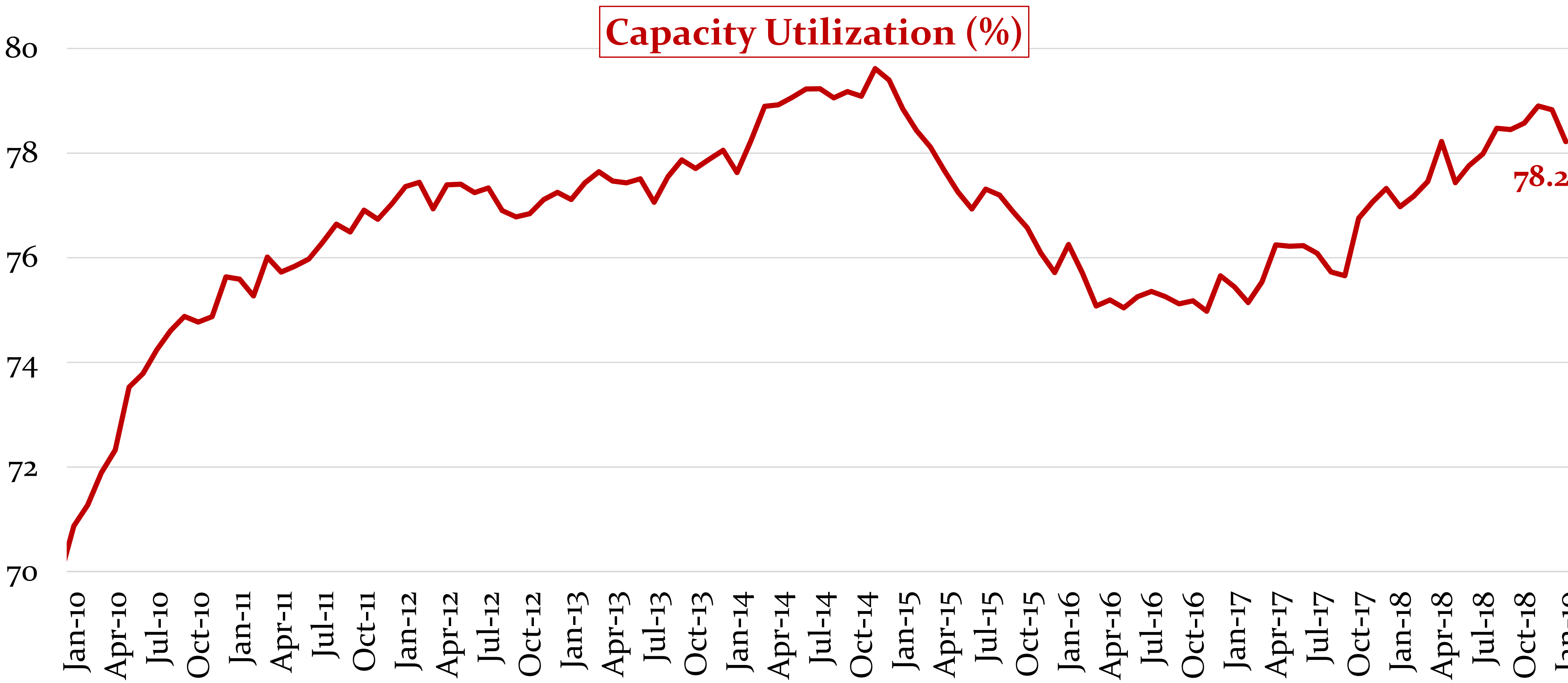
Source: Federal Reserve, G.17 Industrial Production & Capacity Utilization

U.S. Capacity Utilization Index

January 2010 – January 2019



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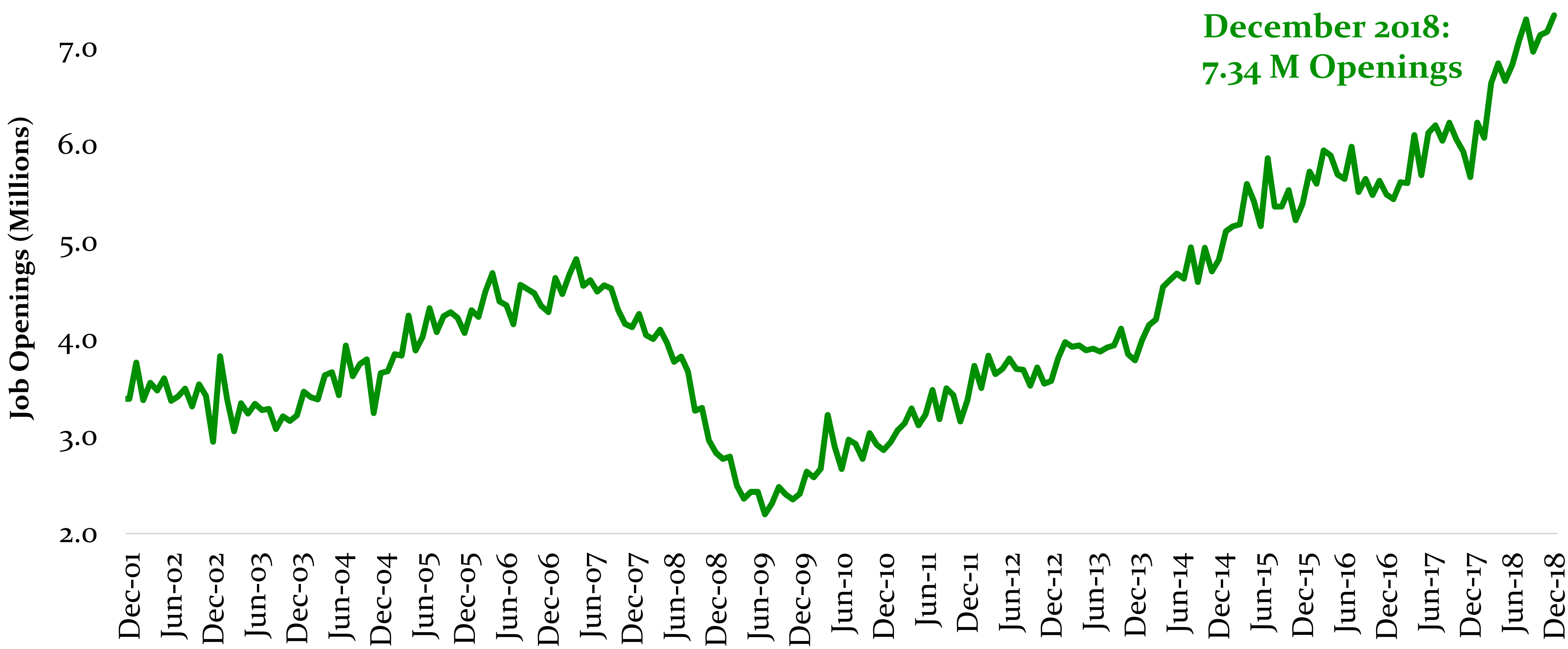
Source: Federal Reserve, G.17 Industrial Production & Capacity Utilization

U.S. Job Openings

December 2001 through December 2018



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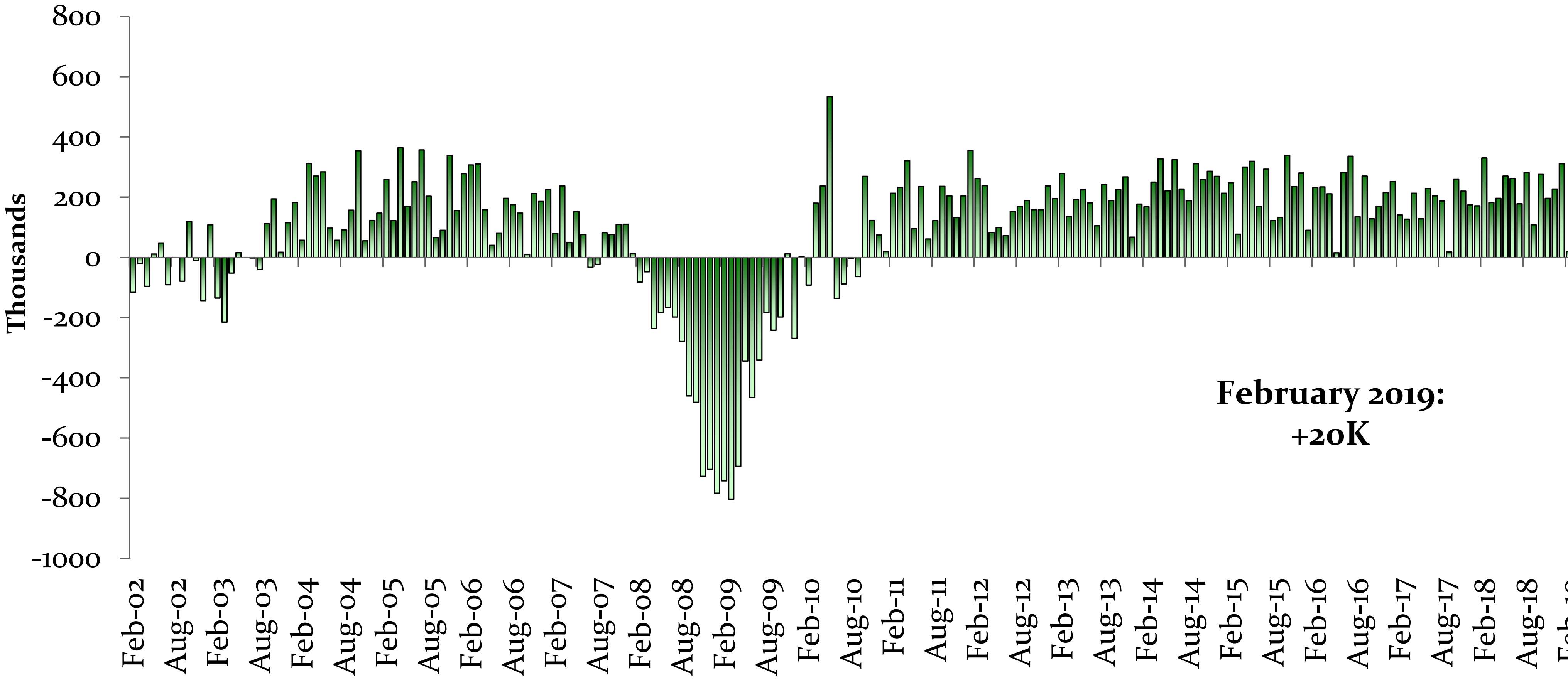
Source: U.S. Bureau of Labor Statistics

Net Change in U.S. Jobs

February 2002 through February 2019



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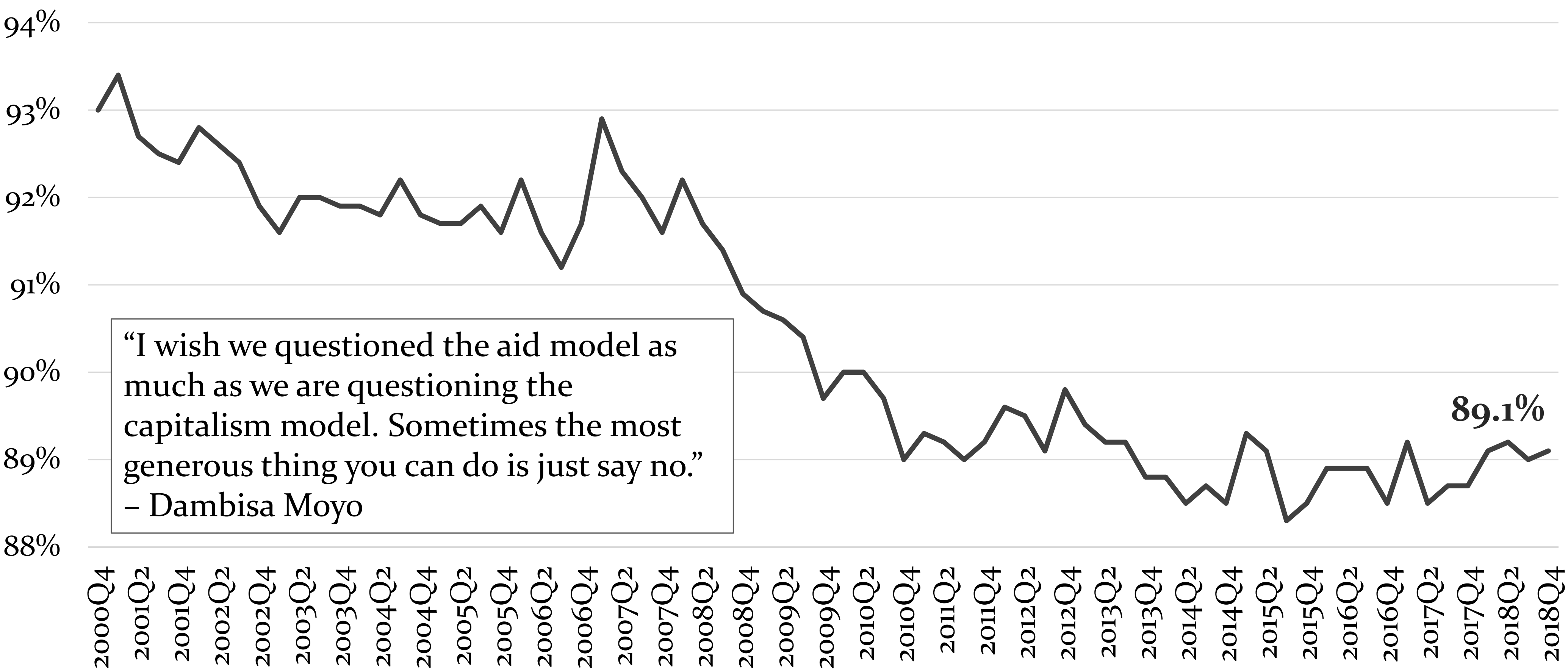
Source: U.S. Bureau of Labor Statistics

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

2000 – 2018



"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

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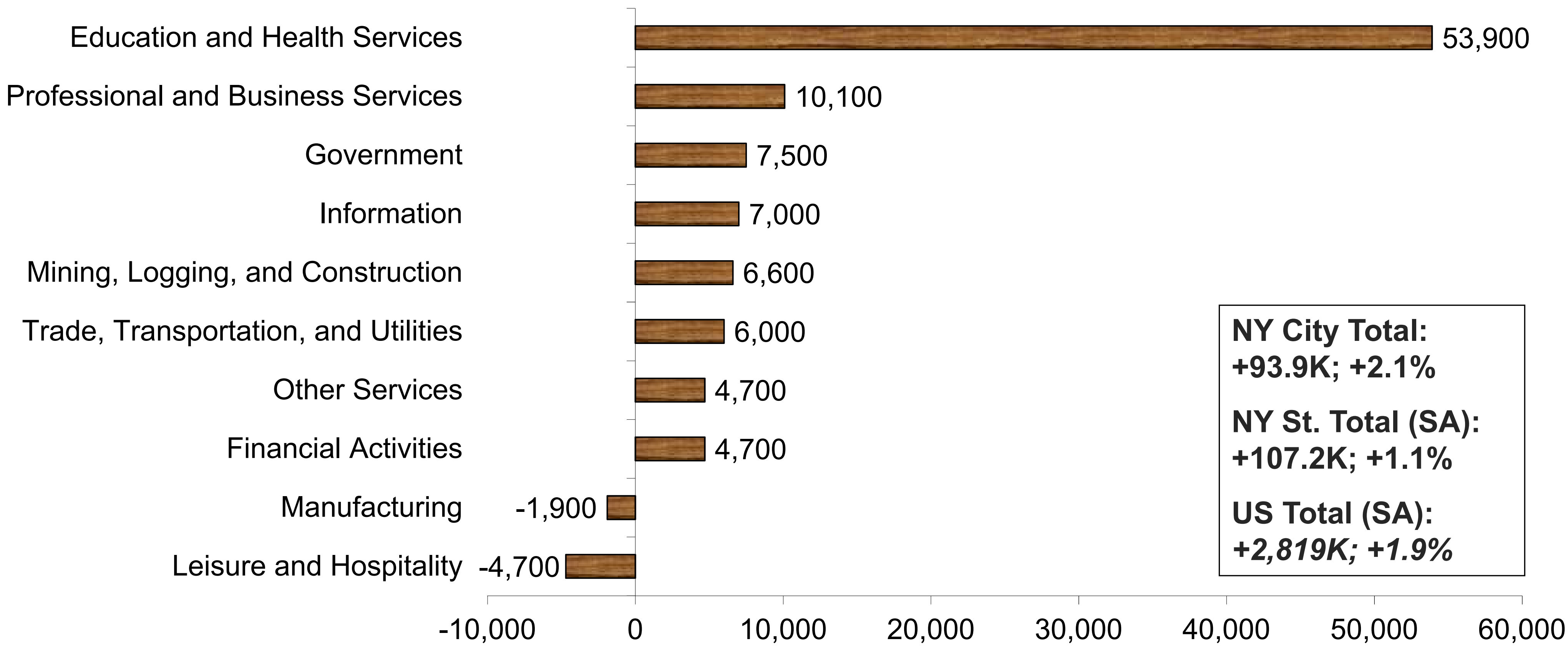
Source: U.S. Bureau of Labor Statistics, Current Population Survey

New York City Nonfarm Employment

by Industry Sector Groups (NSA)

January 2018 v. January 2019 Absolute Change



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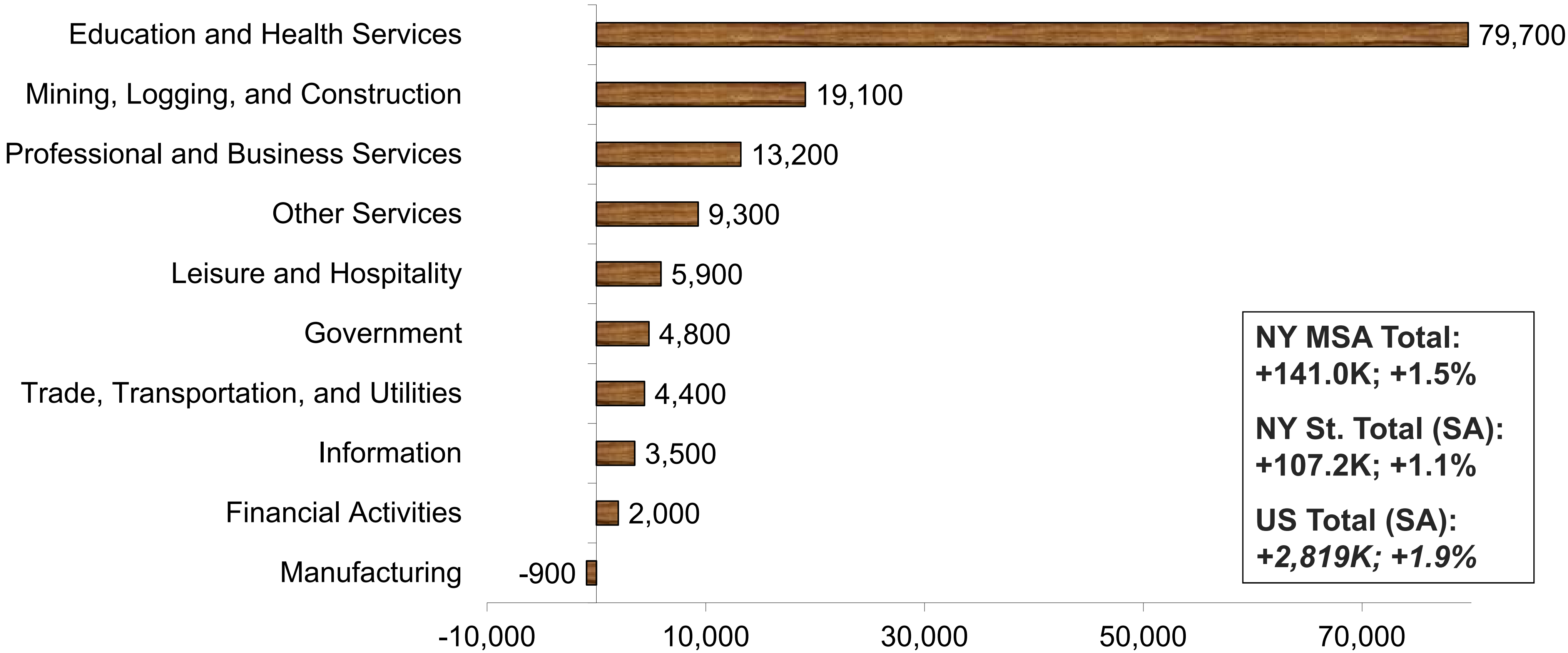
Source: U.S. Bureau of Labor Statistics

New York-Newark-Jersey City, NY-NJ-PA MSA Nonfarm Employment

by Industry Sector Groups (NSA)

January 2018 v. January 2019 Absolute Change



NY MSA Total:
+141.0K; +1.5%

NY St. Total (SA):
+107.2K; +1.1%

US Total (SA):
+2,819K; +1.9%

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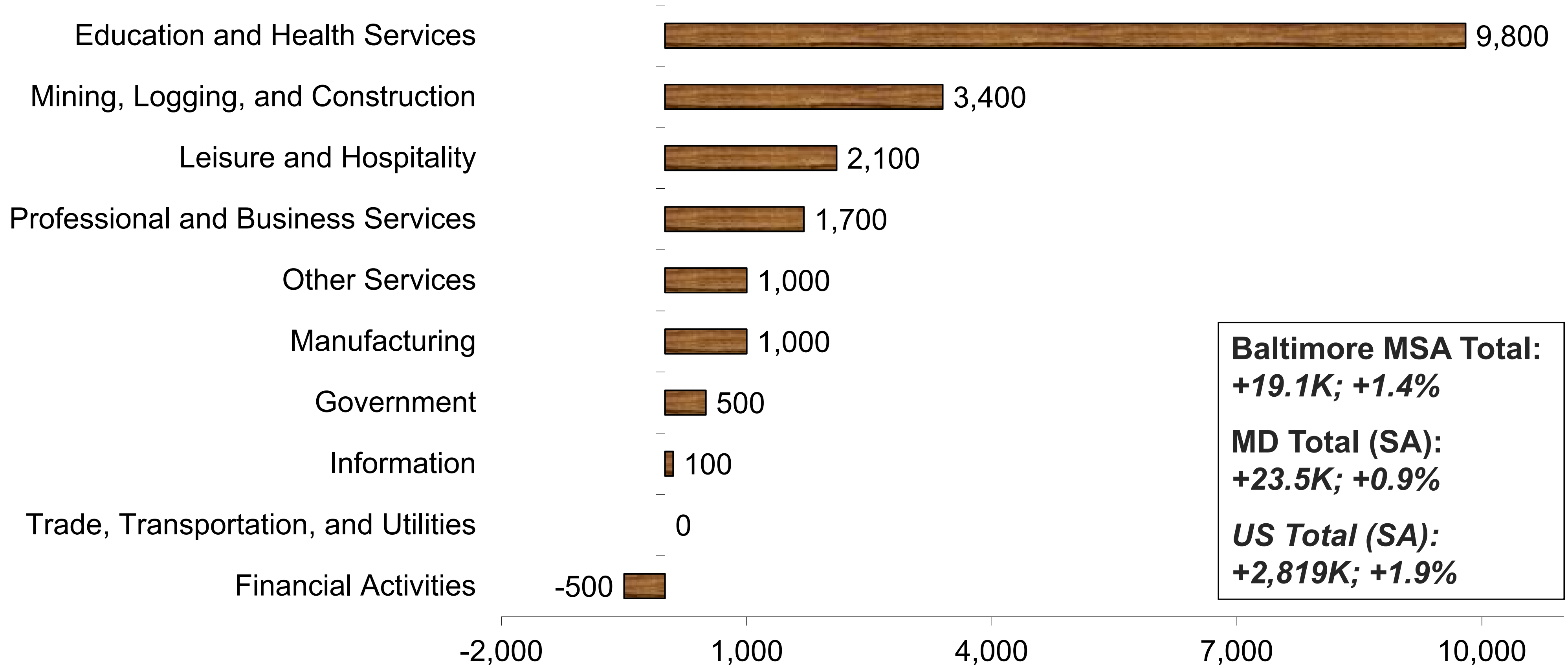
Source: U.S. Bureau of Labor Statistics

Baltimore-Columbia-Towson MSA Nonfarm Employment

by Industry Sector Groups (NSA)

January 2018 v. January 2019 Absolute Change



Baltimore MSA Total:
+19.1K; +1.4%

MD Total (SA):
+23.5K; +0.9%

US Total (SA):
+2,819K; +1.9%

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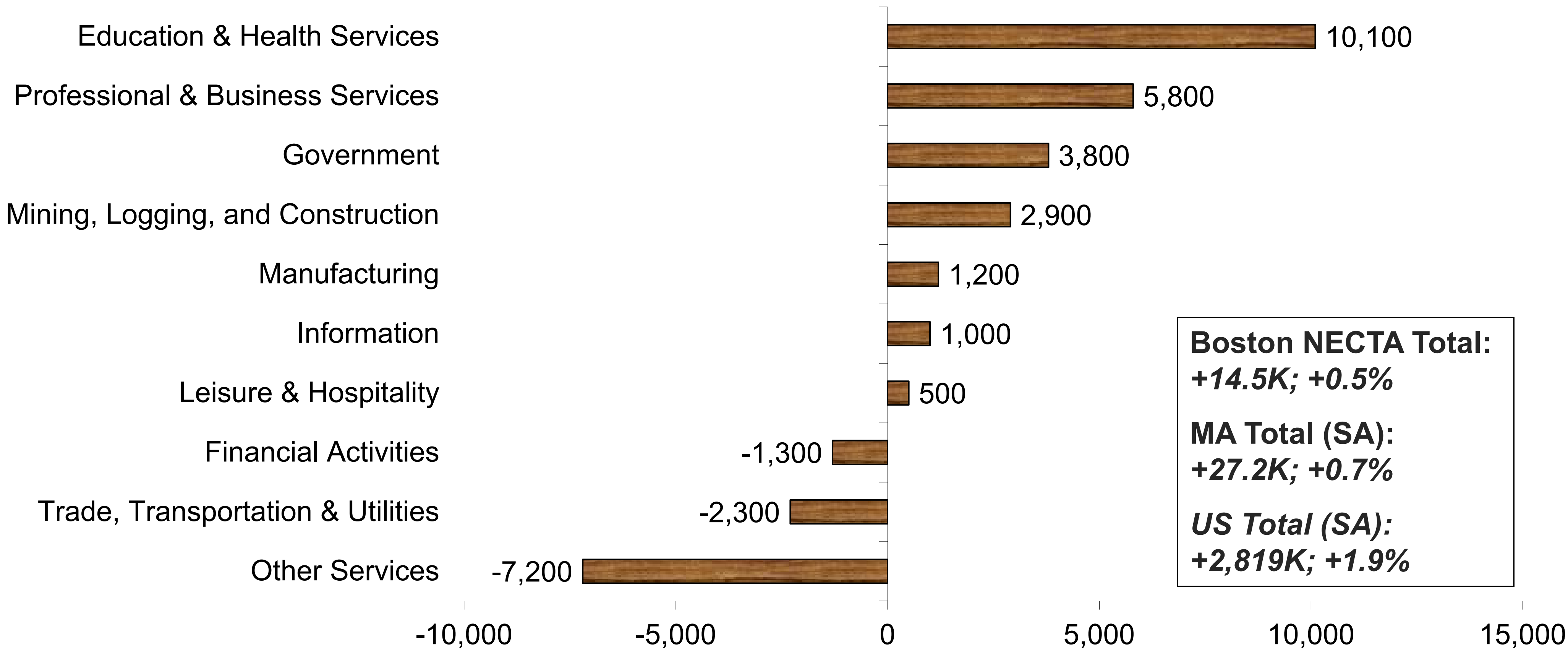
Source: U.S. Bureau of Labor Statistics

Boston-Cambridge-Nashua MA-NH NECTA Nonfarm Employment

by Industry Sector Groups (NSA)

January 2018 v. January 2019 Absolute Change



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Source: U.S. Bureau of Labor Statistics

Employment Growth, U.S. States (SA)

January 2018 v. January 2019 Percent Change

Rank	State	%	Rank	State	%	Rank	State	%
1	NEVADA	3.9	17	CALIFORNIA	1.4	32	NORTH DAKOTA	0.9
2	UTAH	3.4	17	NEW JERSEY	1.4	36	MISSOURI	0.8
3	ARIZONA	2.8	17	WYOMING	1.4	36	NEW HAMPSHIRE	0.8
4	WEST VIRGINIA	2.7	21	ILLINOIS	1.3	36	OKLAHOMA	0.8
5	SOUTH DAKOTA	2.5	21	NEW MEXICO	1.3	36	PENNSYLVANIA	0.8
5	WASHINGTON	2.5	23	KENTUCKY	1.2	40	CONNECTICUT	0.7
7	FLORIDA	2.4	24	INDIANA	1.1	**40**	**MASSACHUSETTS**	**0.7**
7	IDAHO	2.4	24	MICHIGAN	1.1	40	WISCONSIN	0.7
7	TEXAS	2.4	24	MONTANA	1.1	43	MAINE	0.6
10	GEORGIA	2.1	**24**	**NEW YORK**	**1.1**	43	VERMONT	0.6
11	TENNESSEE	2.0	24	VIRGINIA	1.1	45	LOUISIANA	0.5
12	COLORADO	1.8	29	ARKANSAS	1.0	45	NEBRASKA	0.5
13	NORTH CAROLINA	1.7	29	KANSAS	1.0	45	RHODE ISLAND	0.5
14	DELAWARE	1.6	29	OHIO	1.0	48	HAWAII	0.4
14	SOUTH CAROLINA	1.6	32	IOWA	0.9	48	MINNESOTA	0.4
16	OREGON	1.5	**32**	**MARYLAND**	**0.9**	50	DISTRICT OF COLUMBIA	0.3
17	ALABAMA	1.4	32	MISSISSIPPI	0.9	51	ALASKA	0.1

U.S. Year-over-year Percent Change

Jan: +1.9%   Feb: +1.7%

Source: U.S. Bureau of Labor Statistics

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Employment Growth, 25 Largest Metros (NSA)

January 2018 v. January 2019 Percent Change

Rank	MSA	%	Rank	MSA	%
1	Orlando-Kissimmee-Sanford, FL	3.9	14	Chicago-Naperville-Elgin, IL-IN-WI	1.6
2	Phoenix-Mesa-Scottsdale, AZ	3.1	**15**	**New York-Newark-Jersey City, NY-NJ-PA**	**1.5**
3	Dallas-Fort Worth-Arlington, TX	2.8	15	San Diego-Carlsbad, CA	1.5
3	Houston-The Woodlands-Sugar Land, TX	2.8	**17**	**Baltimore-Columbia-Towson, MD**	**1.4**
5	Charlotte-Concord-Gastonia, NC-SC	2.6	17	St. Louis, MO-IL	1.4
5	San Francisco-Oakland-Hayward, CA	2.6	17	Tampa-St. Petersburg-Clearwater, FL	1.4
7	San Antonio-New Braunfels, TX	2.5	20	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.1
7	Seattle-Tacoma-Bellevue, WA	2.5	21	Detroit-Warren-Dearborn, MI	1.0
9	Miami-Fort Lauderdale-West Palm Beach, FL	2.2	21	Washington-Arlington-Alexandria, DC-VA-MD-WV	1.0
9	Portland-Vancouver-Hillsboro, OR-WA	2.2			
11	Atlanta-Sandy Springs-Roswell, GA	2.1	23	Los Angeles-Long Beach-Anaheim, CA	0.8
12	Denver-Aurora-Lakewood, CO	1.8	**24**	**Boston-Cambridge-Nashua, MA-NH**	**0.5**
12	Riverside-San Bernardino-Ontario, CA	1.8	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)

December 2018

Rank	MSA	UR	Rank	MSA	UR
1	**Boston-Cambridge-Nashua, MA-NH**	**2.4**	**13**	**Baltimore-Columbia-Towson, MD**	**3.5**
2	San Francisco-Oakland-Hayward, CA	2.5	14	Atlanta-Sandy Springs-Roswell, GA	3.6
3	Minneapolis-St. Paul-Bloomington, MN-WI	2.8	**14**	**New York-Newark-Jersey City, NY-NJ-PA**	**3.6**
4	Washington-Arlington-Alexandria, DC-VA-MD-WV	2.9	16	Philadelphia-Camden-Wilm., PA-NJ-DE-MD	3.7
			16	Denver-Aurora-Lakewood, CO	3.7
5	Orlando-Kissimmee-Sanford, FL	3.0	18	Portland-Vancouver-Hillsboro, OR-WA	3.8
6	San Antonio-New Braunfels, TX	3.2	18	Seattle-Tacoma-Bellevue, WA	3.8
6	San Diego-Carlsbad, CA	3.2	20	Houston-The Woodlands-Sugar Land, TX	3.9
6	Tampa-St. Petersburg-Clearwater, FL	3.2	21	Chicago-Naperville-Elgin, IL-IN-WI	4.0
9	Dallas-Fort Worth-Arlington, TX	3.3	21	Riverside-San Bernardino-Ontario, CA	4.0
9	Miami-Fort Lauderdale-West Palm Beach, FL	3.3	23	Detroit-Warren-Dearborn, MI	4.2
11	Charlotte-Concord-Gastonia, NC-SC	3.4	23	Los Angeles-Long Beach-Anaheim, CA	4.2
11	St. Louis, MO-IL (1)	3.4	25	Phoenix-Mesa-Scottsdale, AZ	4.5

Source: U.S. Bureau of Labor Statistics, Current Employment Statistics (CES) Survey.
Note: 1. Area boundaries do not reflect official OMB definitions.

U.S. Unemployment Rate

Dec: 3.9%   Feb: 3.8%

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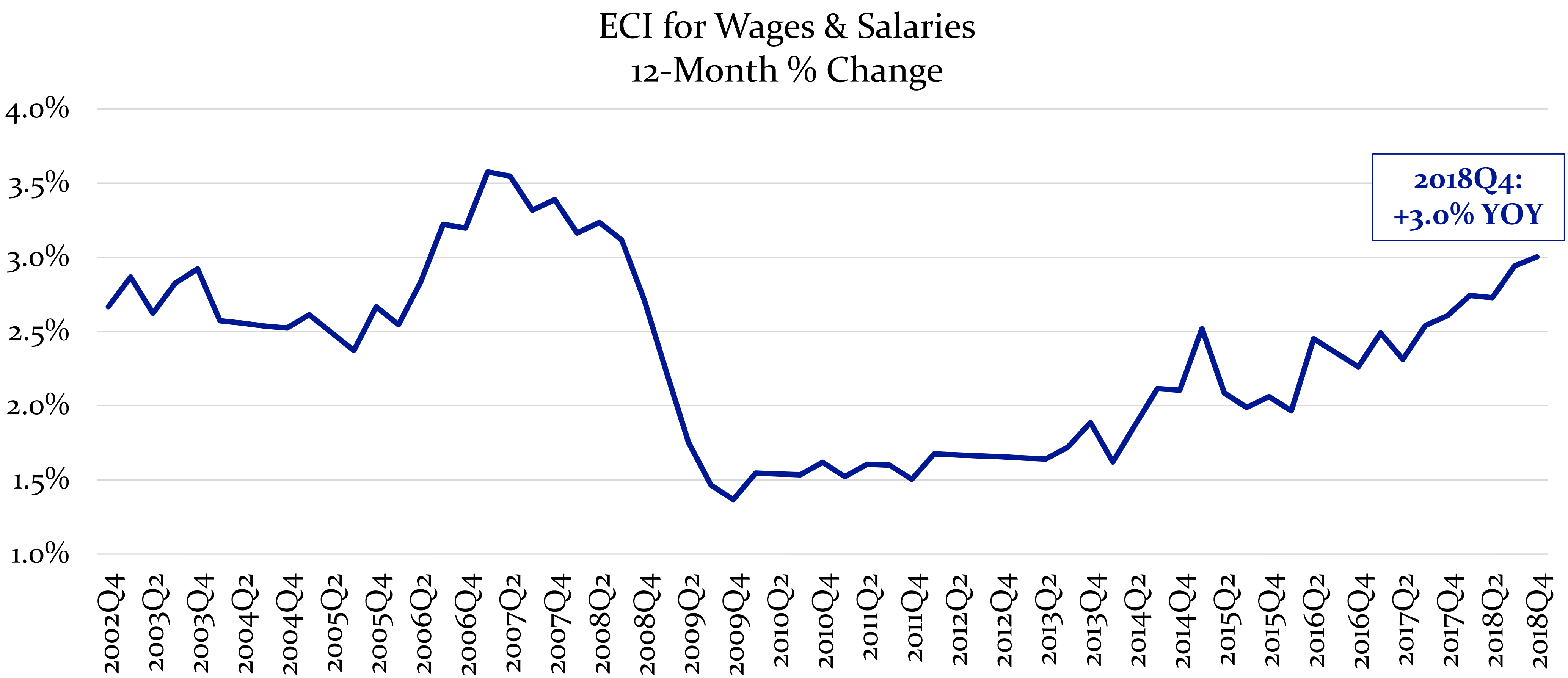
Growth in Wages & Salaries

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



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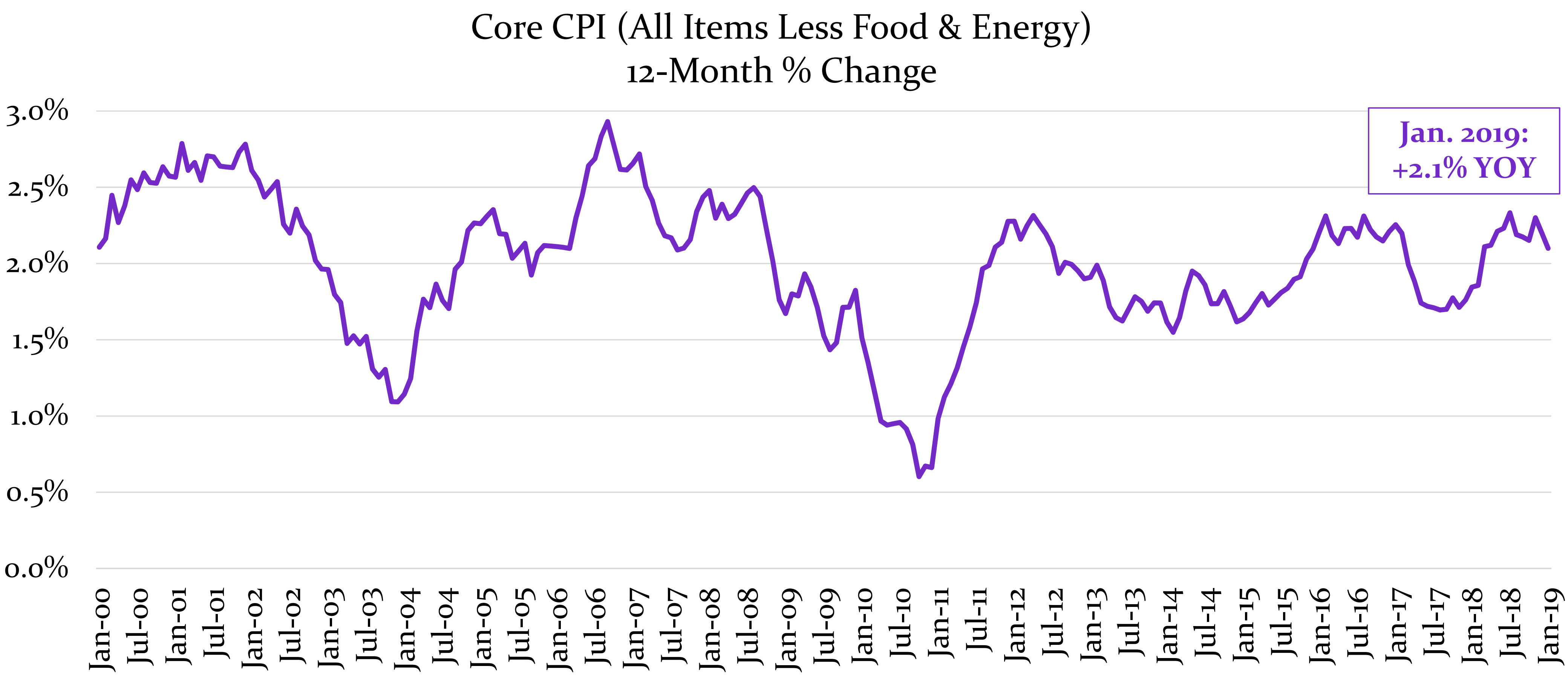
Source: U.S. Bureau of Labor Statistics *All Civilian Workers

Consumer Price Index: All Items Less Food & Energy

January 2000 – January 2019



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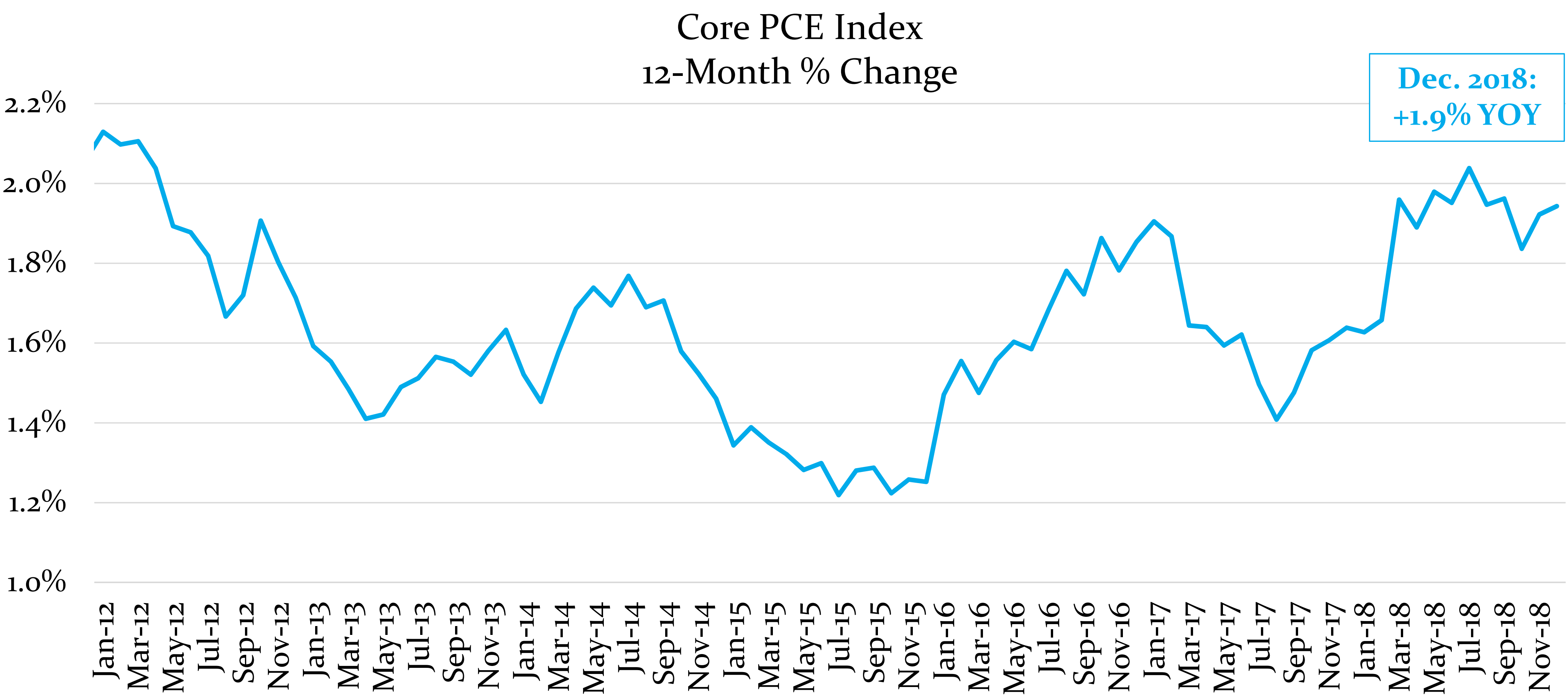
Source: U.S. Bureau of Labor Statistics

Core PCE Deflator

January 2012 through December 2018



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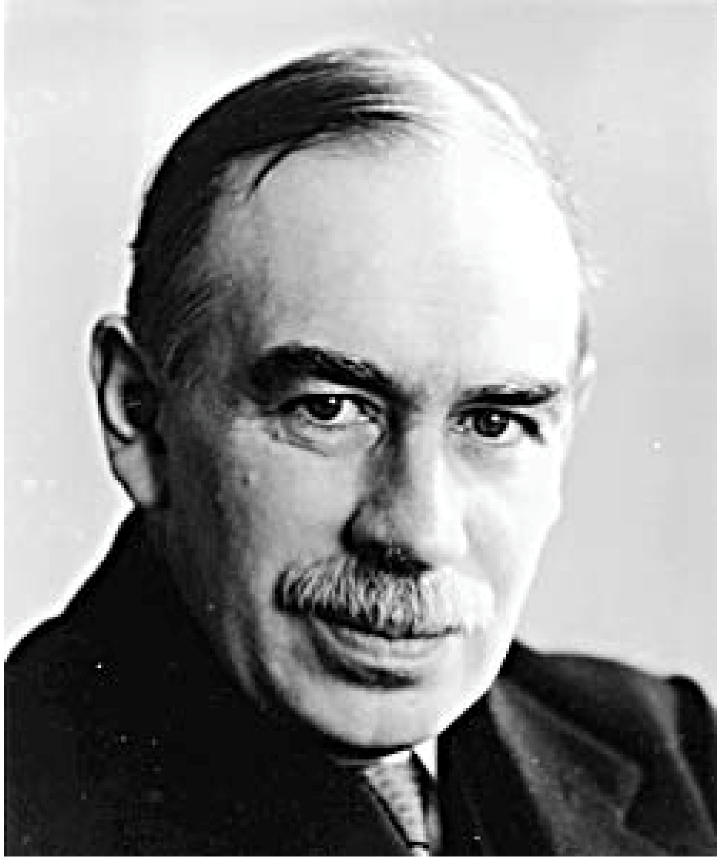
Source: Bureau of Economic Analysis (BEA) Core PCE: Personal Consumption Expenditures excluding food and energy (chain-type price index)



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

–John Maynard Keynes

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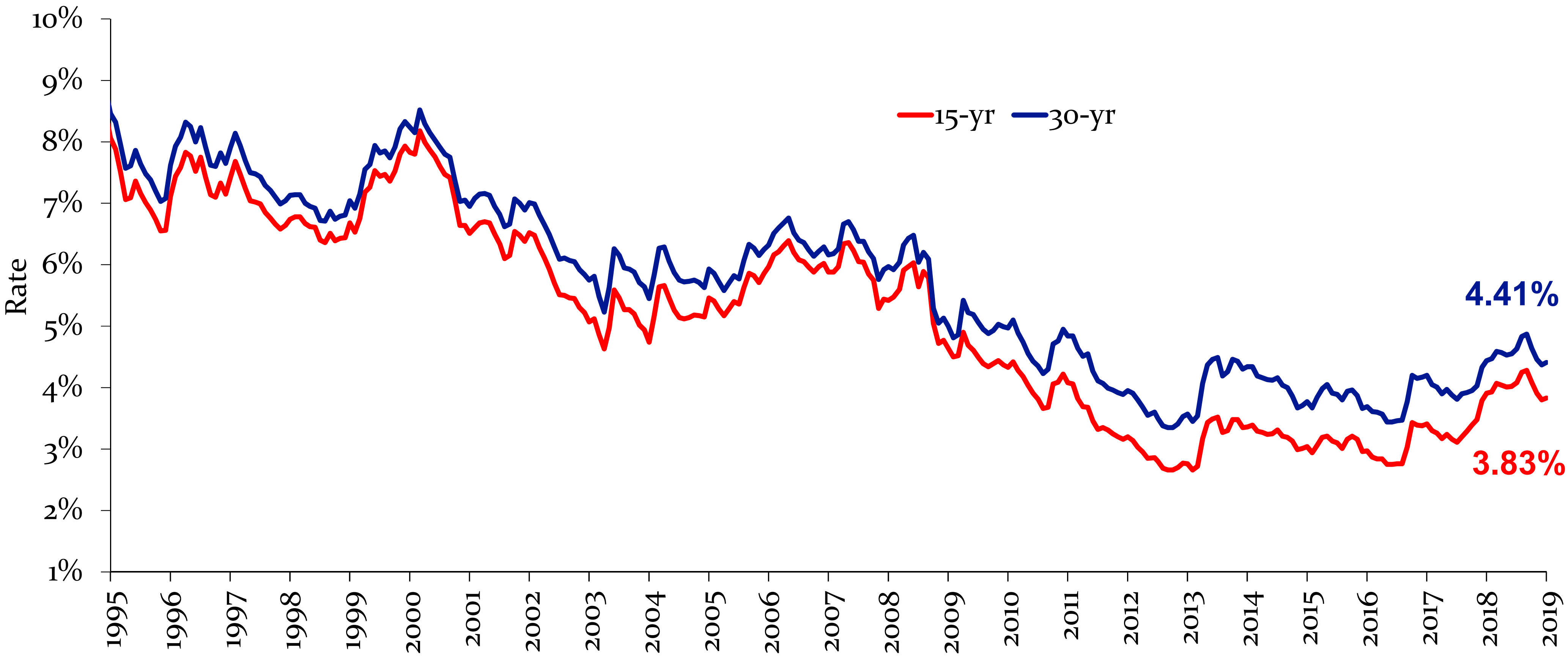
15-Year & 30-Year Fixed Mortgage Rates

*March 1995 through March 2019**



**Week ending 3/7/2019*

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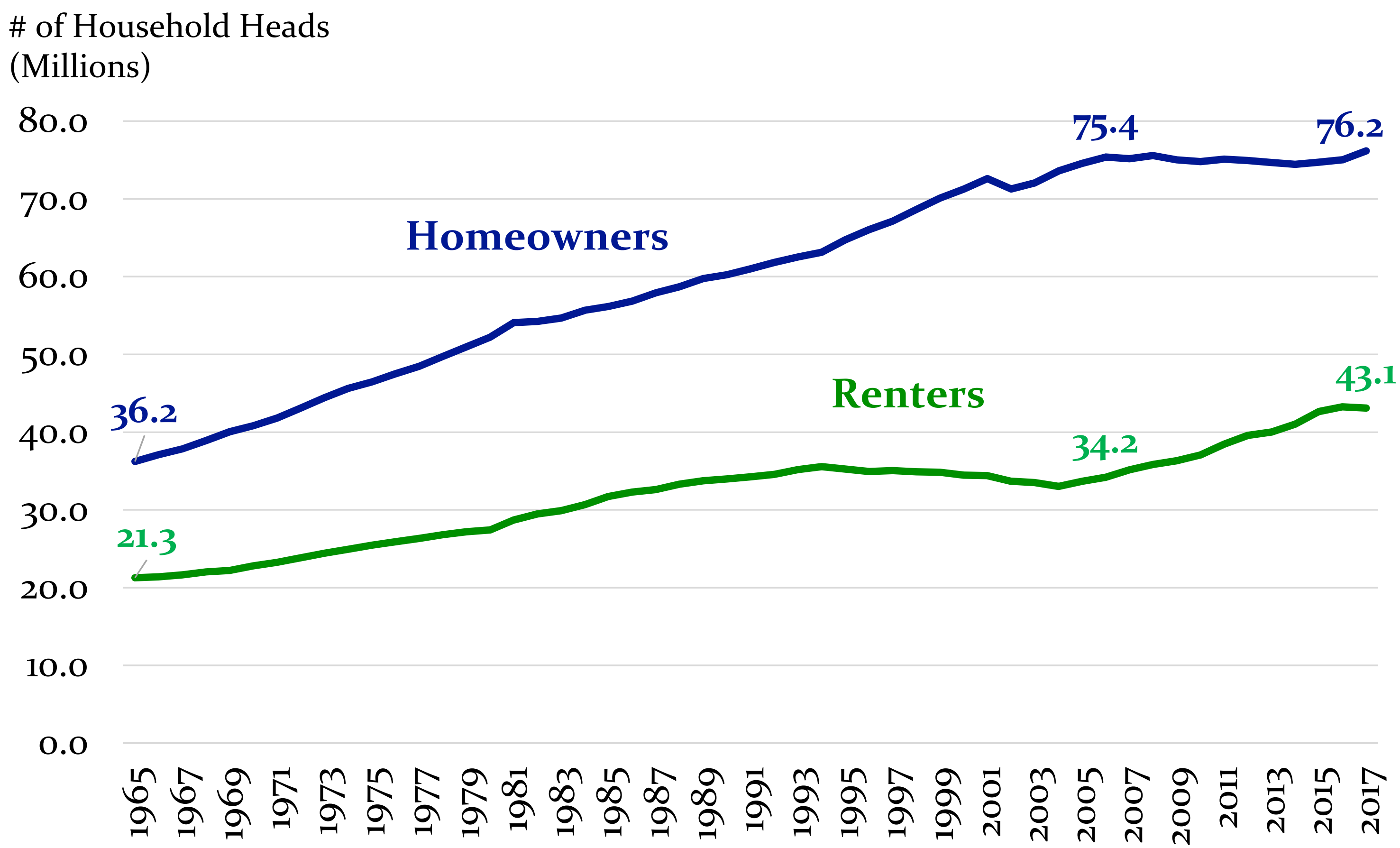
Source: Freddie Mac

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.



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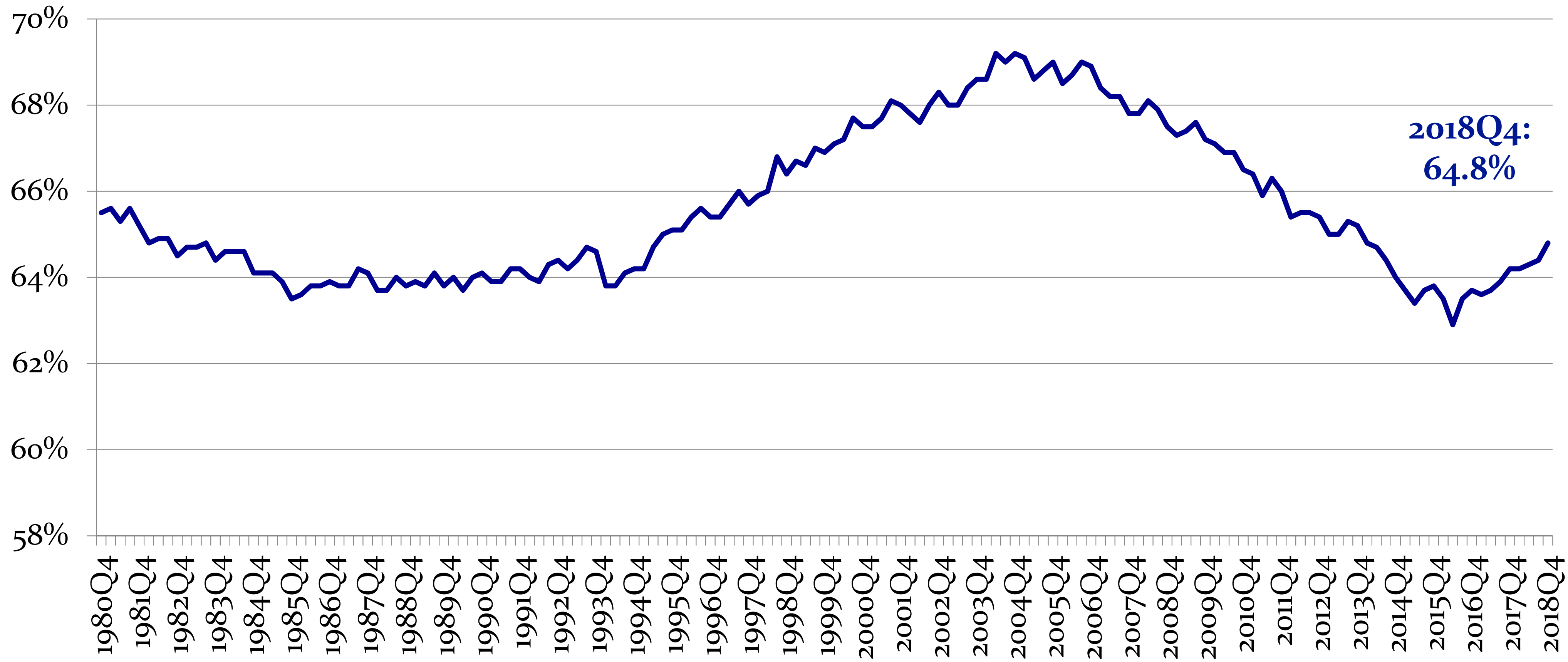
Source: U.S. Census Bureau; Pew Research Center

U.S. Homeownership (NSA)

1980Q4-2018Q4



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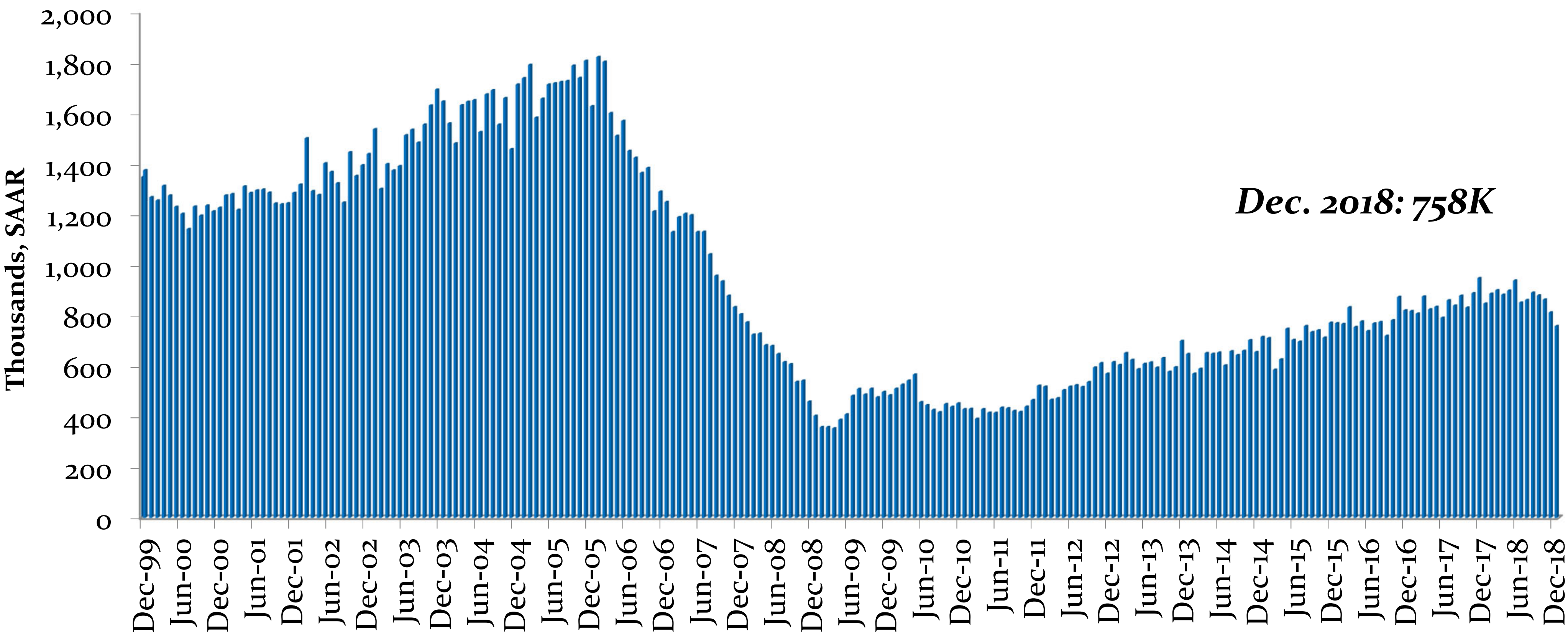
Source: U.S. Census Bureau *NSA: not seasonally adjusted

U.S. Single-Family Housing Starts

December 1999 through December 2018



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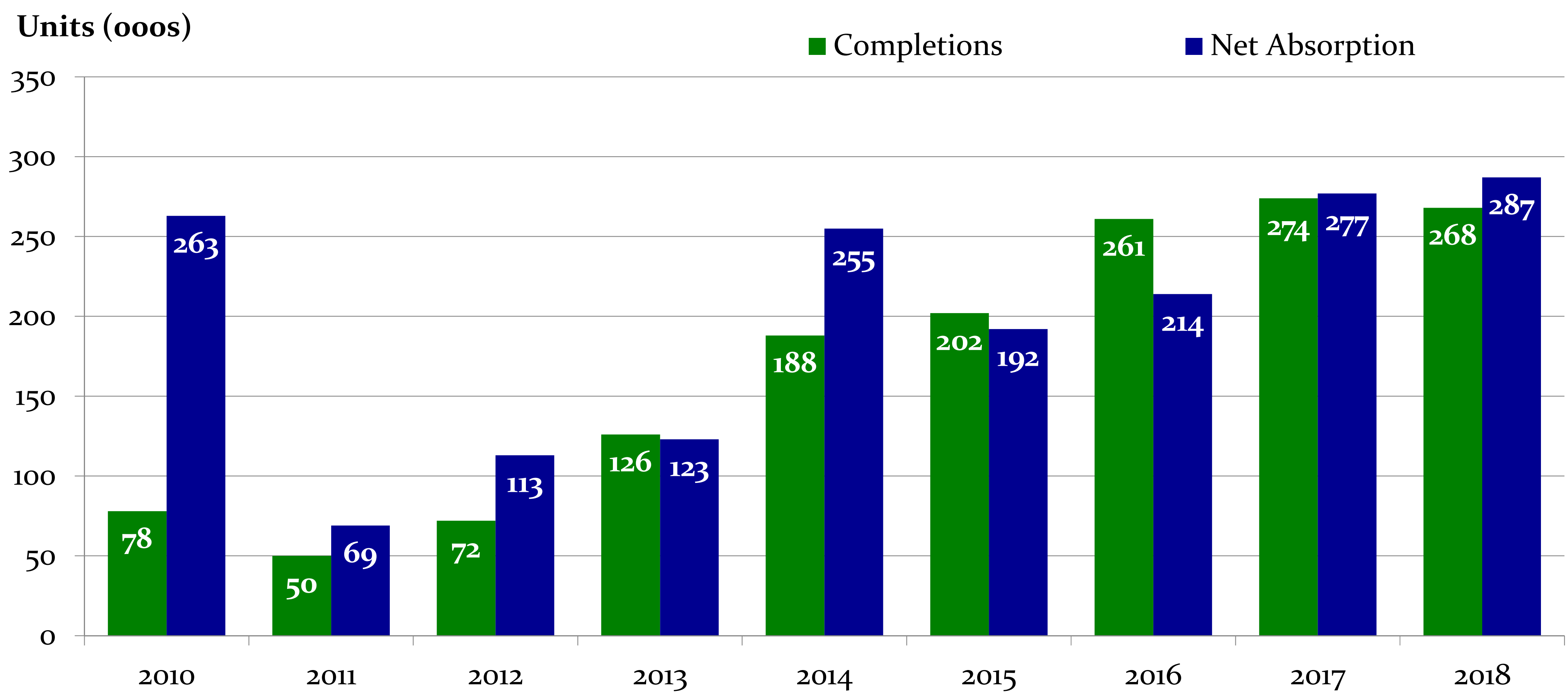
Source: U.S. Census Bureau

U.S. Multifamily Market

Annual Completions vs. Absorption, 2010-2018



Source: CBRE. Note: Figures based on the 66 markets tracked by CBRE EA. Completions and net absorption are counted in the quarter in which the new property reaches occupancy stabilization.

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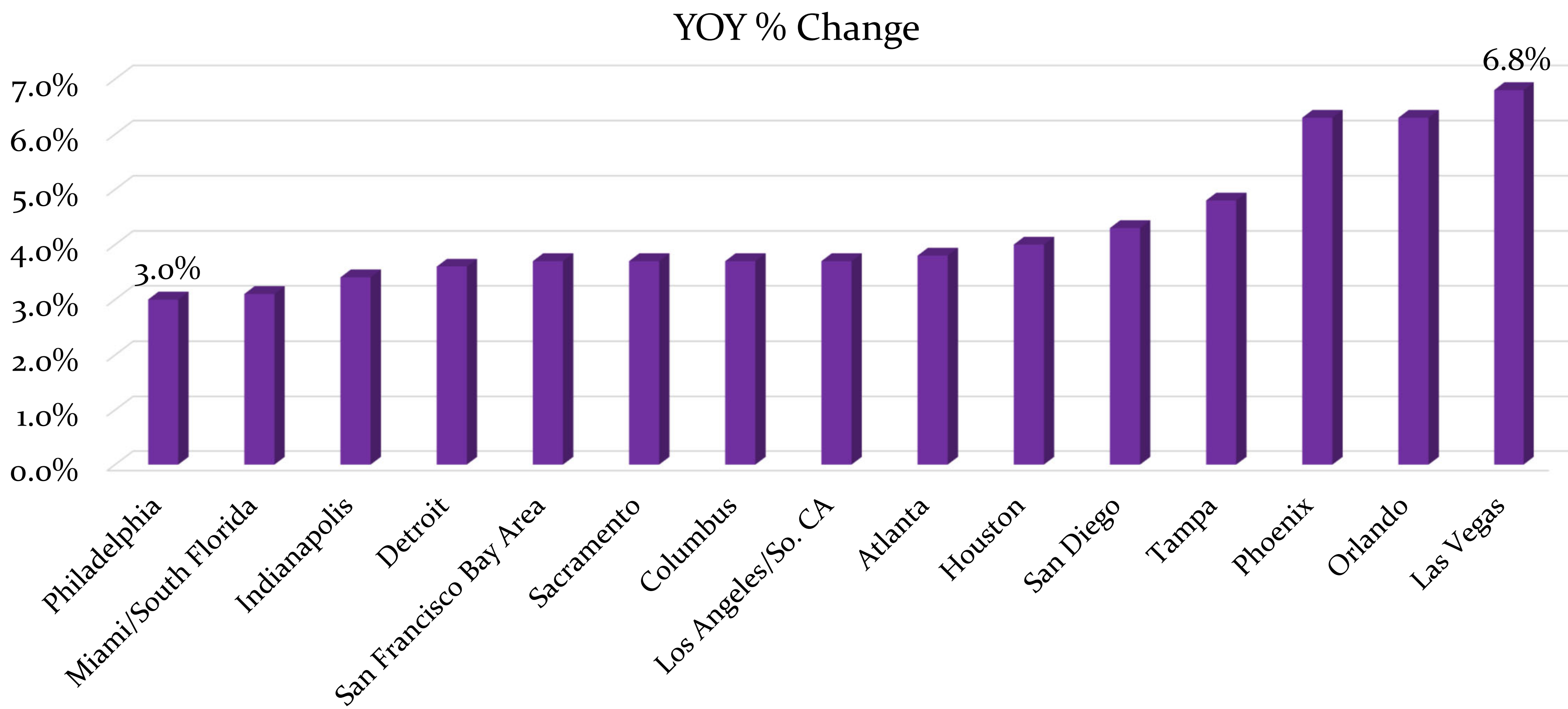
U.S. Multifamily Market: Rent Growth in Select Metros

2017Q3 v. 2018Q3 % Change



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Source: CBRE

New Multifamily Supply in 2018: Top 10 Metro Areas

Rank (New Supply)	Metro Market	New Supply	New Supply As % of Inventory
1	**New York Metro**	**32,300**	**1.5%**
2	Dallas/Ft. Worth	20,500	2.9%
3	Los Angeles/Southern California	20,000	1.3%
4	Seattle	14,400	3.8%
5	**Washington, D.C.**	**13,600**	**2.3%**
6	Denver	11,700	3.7%
7	**Boston**	**9,700**	**2.0%**
8	Miami/South Florida	9,500	1.6%
9	San Francisco Bay Area	9,300	1.6%
10	Chicago	8,900	1.2%

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Source: CBRE. Note: Ratios based on unrounded statistics.

Multifamily Absorption in 2018: Top 10 Metro Areas

Rank (Absorption)	Metro Market	Absorption	Absorption As % of Inventory	Absorption As % of New Supply
1	**New York Metro**	**37,800**	**1.7%**	**116.9%**
2	Los Angeles/Southern California	20,400	1.3%	102.1%
3	Dallas/Ft. Worth	19,800	2.8%	96.6%
4	**Washington, D.C.**	**15,200**	**2.6%**	**111.6%**
5	Seattle	13,500	3.6%	94.1%
6	Denver	11,500	3.7%	98.6%
7	**Boston**	**10,800**	**2.2%**	**112.0%**
8	Atlanta	10,300	2.4%	149.6%
9	San Francisco Bay Area	9,000	1.5%	96.4%
9	Phoenix	9,000	2.5%	139.9%

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Source: CBRE. Note: Ratios based on unrounded statistics.

Rental Vacancy Rates, 2018Q4

50 Largest Metropolitan Statistical Areas

Rank	Market	%	Rank	Market	%	Rank	Market	%
1	Portland, OR-WA	2.4	17	Richmond, VA	5.1	**35**	**Philadelphia, PA-NJ-DE-MD**	**7.1**
2	**Boston, MA-NH**	**2.9**	19	Pittsburgh, PA	5.3	36	Columbus, OH	7.3
3	Hartford, CT	3.1	20	Las Vegas, NV	5.4	37	San Antonio, TX	7.8
4	Los Angeles, CA	3.7	20	Riverside, CA	5.4	38	Oklahoma City, OK	8.0
4	Minneapolis, MN-WI	3.7	22	Phoenix, AZ	5.6	39	Houston, TX	8.1
6	Providence, RI-MA	3.9	23	Jacksonville, FL	5.7	39	Miami, FL	8.1
6	Raleigh, NC	3.9	23	Sacramento, CA	5.7	41	Dallas, TX	8.3
8	Denver, CO	4.0	25	Milwaukee, WI	6.0	42	Cleveland, OH	8.4
8	Orlando, FL	4.0	26	Chicago, IL-IN-WI	6.4	43	Virginia Beach, VA-NC	8.8
10	**New York, NY-NJ-PA**	**4.3**	26	Nashville, TN	6.4	44	Tampa, FL	9.0
11	San Diego, CA	4.4	28	St. Louis, MO-IL	6.6	45	Kansas City, MO-KS	9.6
12	San Jose, CA	4.6	29	Cincinnati, OH-KY-IN	6.7	**46**	**Baltimore, MD**	**10.2**
13	**Washington,DC-VA-MD-WV**	**4.8**	30	Austin, TX	6.8	47	Louisville, KY-IN	10.4
14	San Francisco, CA	4.9	30	Buffalo, NY	6.8	48	Birmingham, AL	10.7
15	Salt Lake City, UT	5.0	30	Charlotte, NC-SC	6.8	49	Indianapolis, IN	13.2
15	Seattle, WA	5.0	33	Atlanta, GA	6.9	50	Memphis, TN-AR-MS	16.5
17	Detroit, MI	5.1	33	New Orleans, LA	6.9	-	United States	6.6

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Source: U.S. Census Bureau

“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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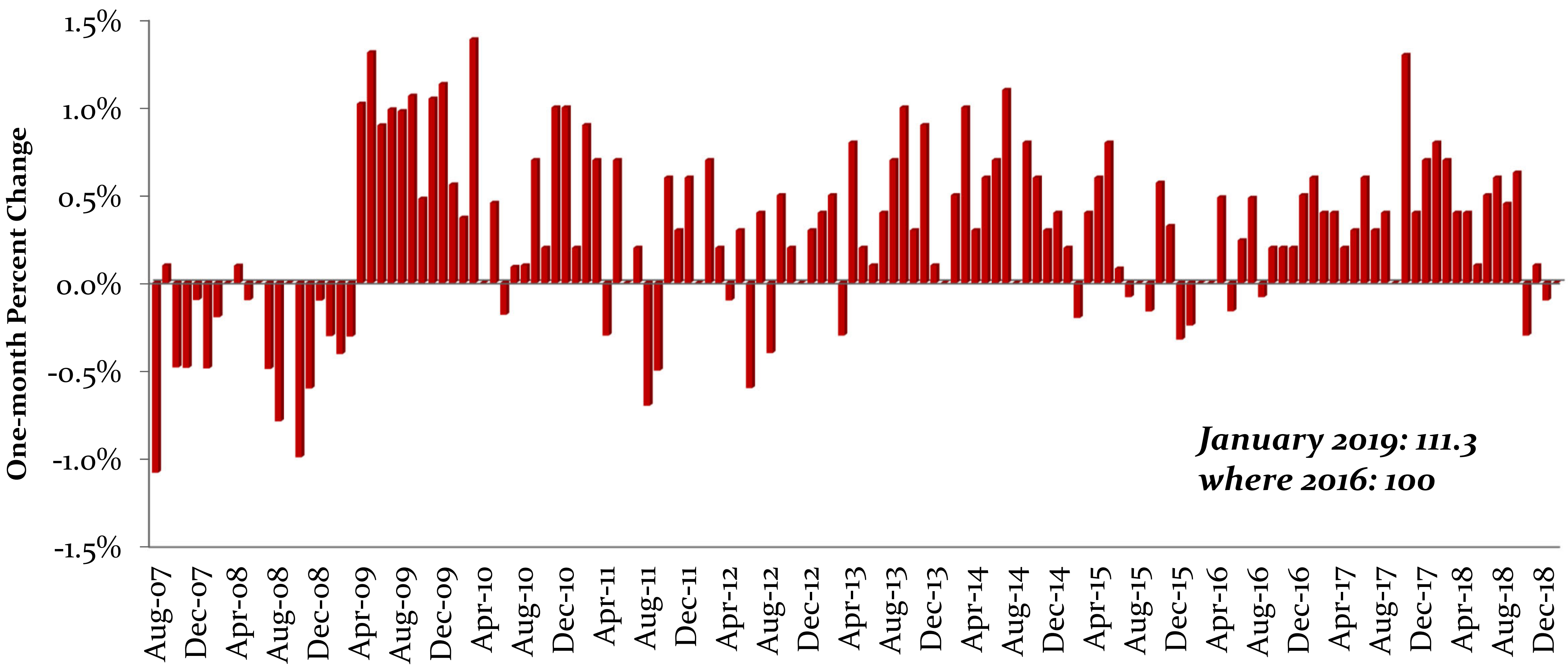
Conference Board Leading Economic Indicators Index

August 2007 through January 2019



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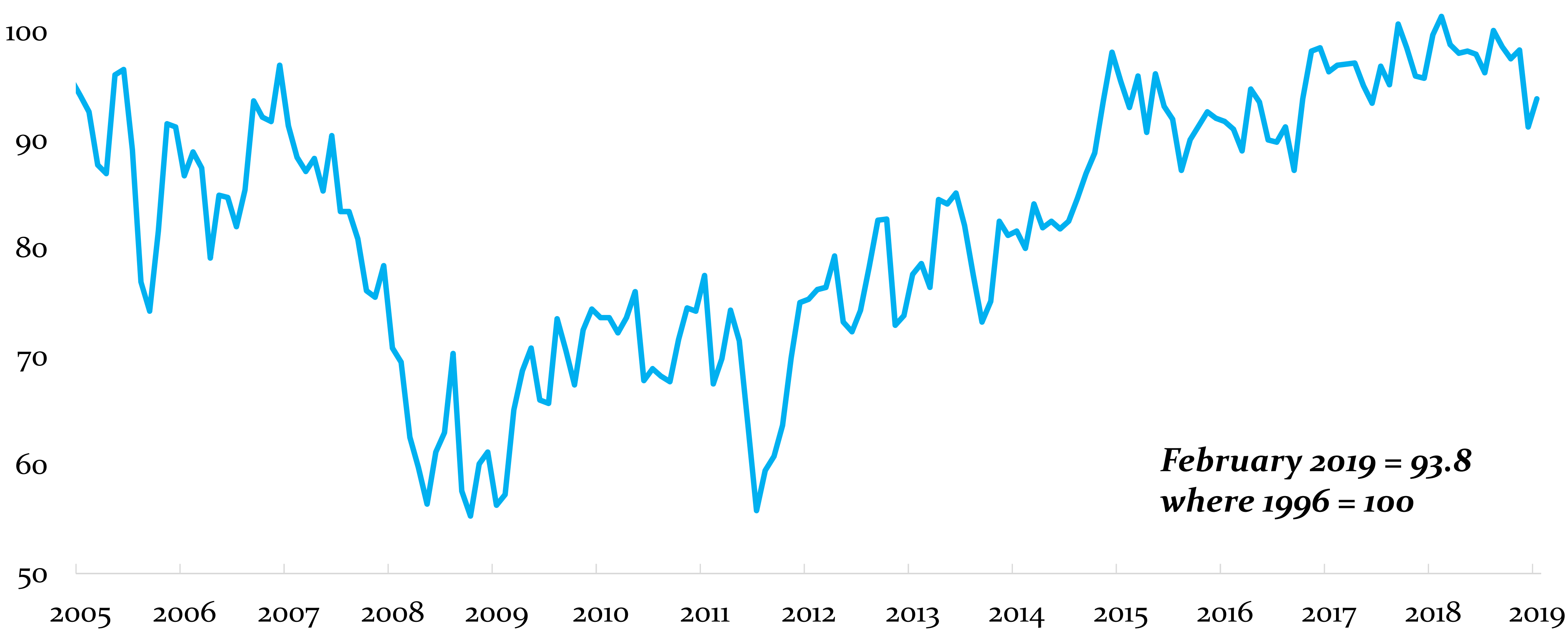
Source: Conference Board

University of Michigan Index of Consumer Sentiment

2005-2019



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Source: University of Michigan

NFIB Index of Small Business Optimism: Good Time to Expand

1986-2019

Source: National Federation of Independent Business (NFIB)

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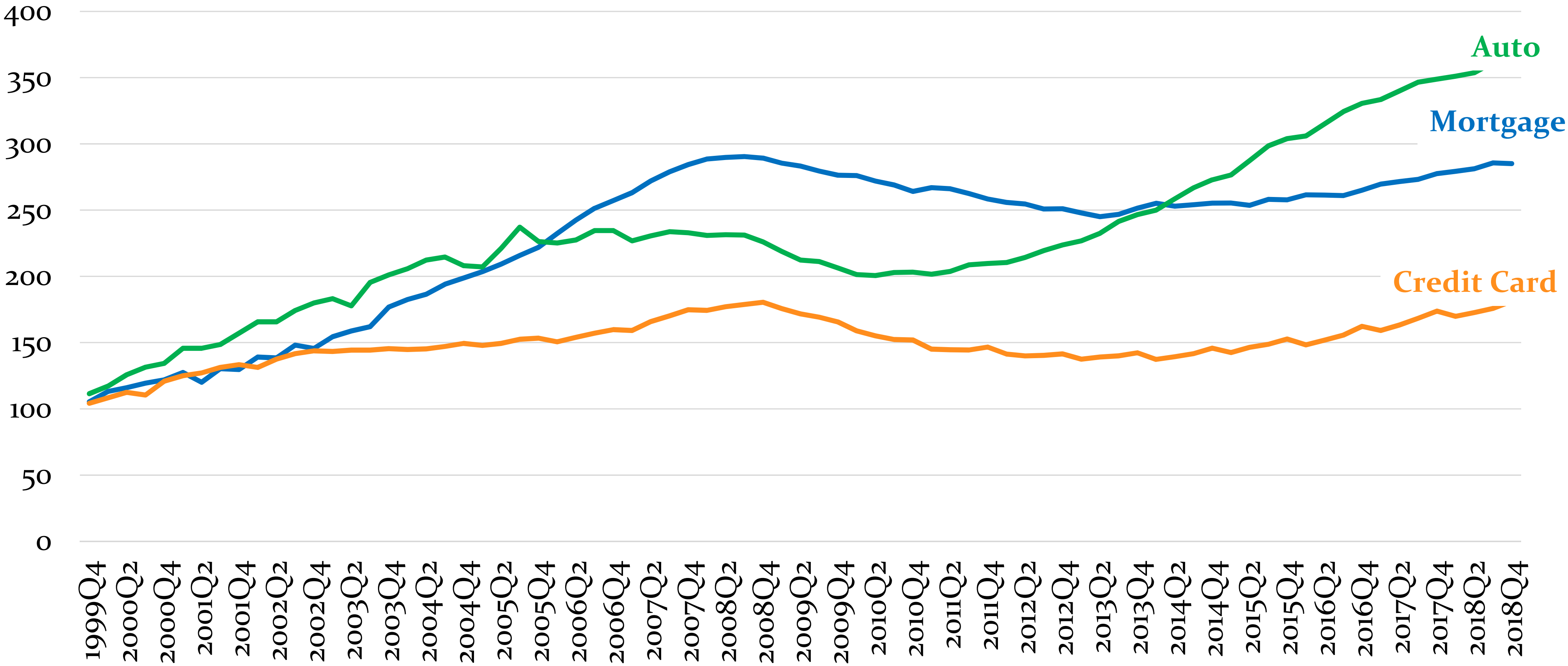
Total U.S. Debt Volume by Select Loan Types

Index 1999Q1=100



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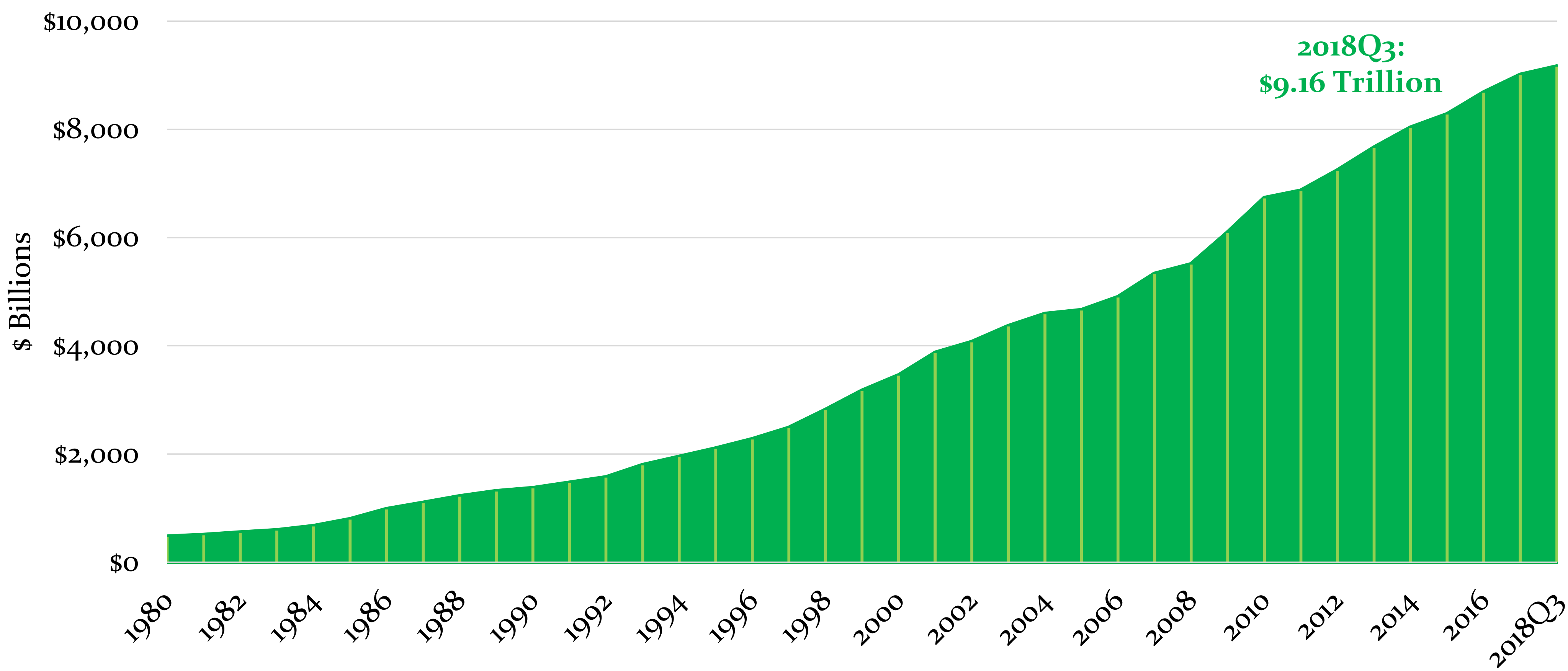
Source: New York Fed Consumer Credit Panel/Equifax

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



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Source: Securities Industry and Financial Markets Association (SIFMA); Federal Reserve

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 **$244.2 trillion** as of 2018Q3, global debt—including household, government, and corporate—now represents **318% 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"*

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Sources: 1. Institute of International Finance (IFF), Global Debt Monitor. 2. Business Insider. 3. The Telegraph. 4. Reuters.

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.

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- 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.

Thank You

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