

Markets, He Wrote

On Behalf of

*The Wisconsin Asphalt Pavement Association
Annual Conference and Business Meeting*

***By: Anirban Basu
Sage Policy Group, Inc.***

November 28th, 2017

Macro P.I.

(Just How Hairy is the
Global Situation?)

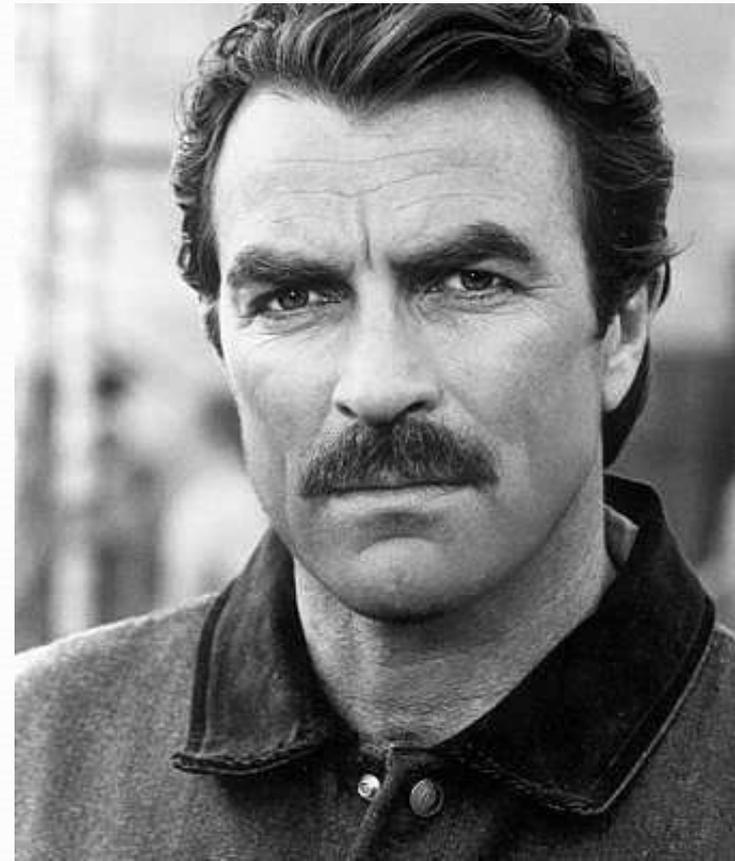


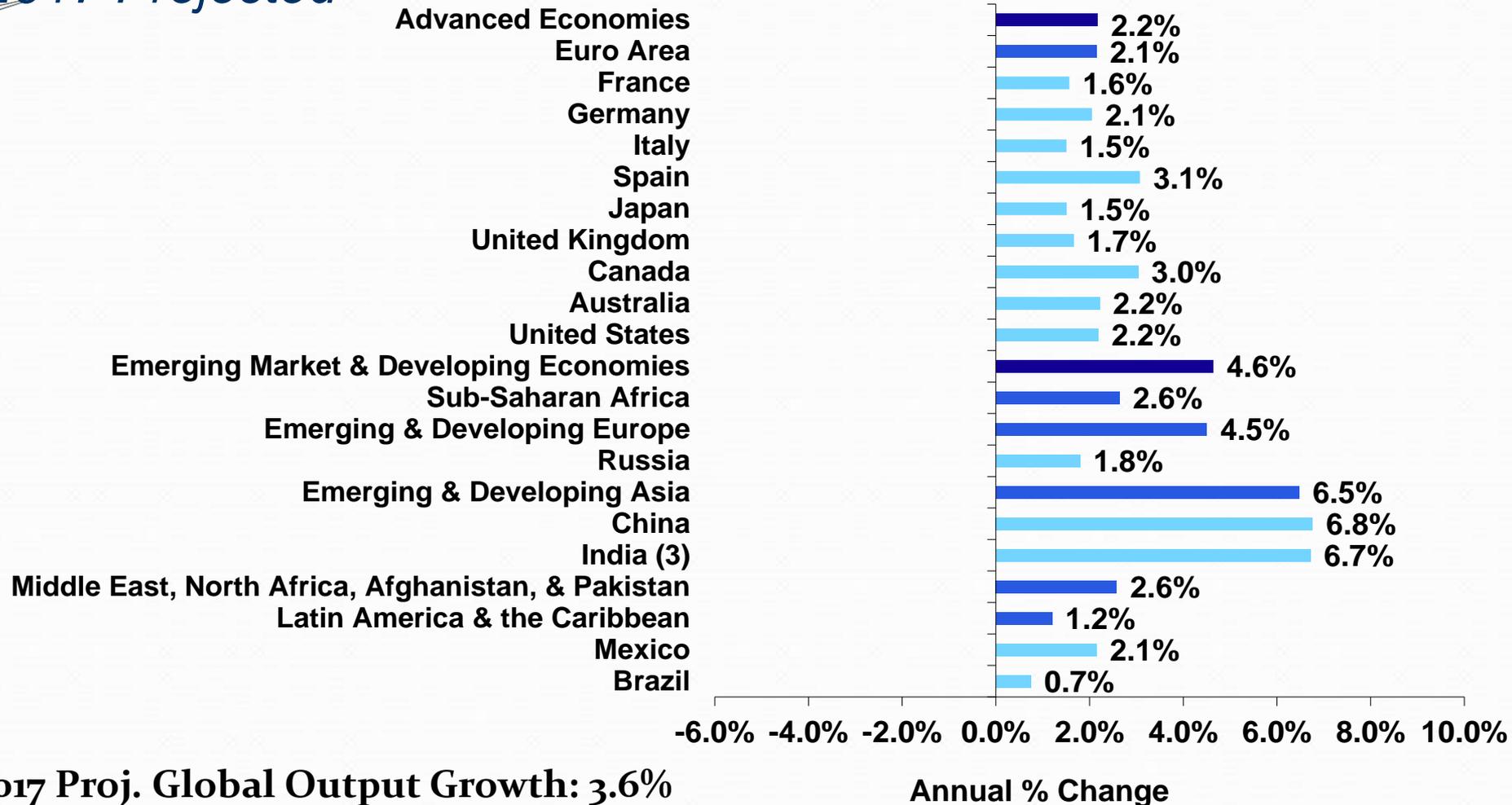
Photo: Flixter.com



Sage Policy
Group, Inc.

Estimated Growth in Output by Select Global Areas

2017 Projected



Source: International Monetary Fund: World Economic Outlook Database, October 2017

2016 Growth (Estimate)

World: 3.2%

Euro Area: 1.8%

United States: 1.5%

Japan: 1.0%

International Population Dynamics, 16 Largest Nations

Nation	Population (Millions)			% Change
	2017	2050	Net Change	
Nigeria	190.9	410.6	219.8	115.1%
Ethiopia	105.0	190.9	85.9	81.9%
Egypt	97.6	153.4	55.9	57.3%
Pakistan	197.0	306.9	109.9	55.8%
Philippines	104.9	151.3	46.4	44.2%
Mexico	129.2	164.3	35.1	27.2%
India	1,339.2	1,659.0	319.8	23.9%
Bangladesh	164.7	201.9	37.3	22.6%
Indonesia	264.0	321.6	57.6	21.8%
United States	324.5	389.6	65.1	20.1%
Vietnam	95.5	114.6	19.1	20.0%
Brazil	209.3	232.7	23.4	11.2%
China	1,409.5	1,364.5	-45.1	-3.2%
Germany	82.1	79.2	-2.9	-3.5%
Russian Federation	144.0	132.7	-11.3	-7.8%
Japan	127.5	108.8	-18.7	-14.7%
World	7.6 billion	9.8 billion	2.2 billion	29.4%

Source: United Nations, Department of Economic and Social Affairs (DESA)/Population Division. World Population Prospects: The 2017 Revision.

*For statistical purposes, the data for China do not include Hong Kong and Macao, Special Administrative Regions (SAR) of China, and Taiwan Province of China.

Niamey Vice

(Fertility Rates by Country, 2015)

Top 15		
Rank*	Country	Fertility Rate
1	Niger	7.29
2	Somalia	6.37
3	Dem. Rep. of the Congo	6.20
4	Mali	6.15
5	Chad	6.05
6	Burundi	5.78
7	Angola	5.77
8	Uganda	5.68
9	Timor-Leste	5.62
10	Nigeria	5.59
11	Gambia, The	5.49
12	Burkina Faso	5.44
13	Mozambique	5.31
14	Tanzania	5.08
15	Benin	5.05

Bottom 15		
Rank*	Country	Fertility Rate
187	Malta	1.42
188	Italy	1.37
188	Slovak Republic	1.37
190	Mauritius	1.36
191	Cyprus	1.35
192	Bosnia and Herzegovina	1.35
193	Poland	1.32
193	Spain	1.32
195	Greece	1.30
196	Macao SAR, China	1.28
197	Moldova	1.25
198	Singapore	1.24
199	Korea, Rep.	1.24
200	Portugal	1.23
201	Hong Kong SAR, China	1.20

Source: World Bank, World Development Indicators

*Rank among 201 countries for which data are available for the most recent year (2015)

**Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with age-specific fertility rates of the specified year.

Global Debt to Exacerbate Slow Growth?

- According to the IMF, global debt reached an **all-time high** in 2015;
- At **\$152 trillion**, global gross debt of the nonfinancial sector now represents **225% of global GDP**;
- About **2/3** of this debt is in the **private sector**;
- Current low nominal-growth environment is making adjustment difficult, setting the stage for a “**vicious feedback loop**” in which lower growth hampers deleveraging and the debt overhang exacerbates the slowdown.²

Sources: 1. International Monetary Fund. October 2016. “World Economic Outlook: Subdued Demand: Symptoms and Remedies.”

2. International Monetary Fund (IMF). October 2016. “Fiscal Monitor: Debt—Use It Wisely.”

Note: The nonfinancial sector comprises the general government, nonfinancial firms, and households. Gross debt represents the unconsolidated liabilities of the three.

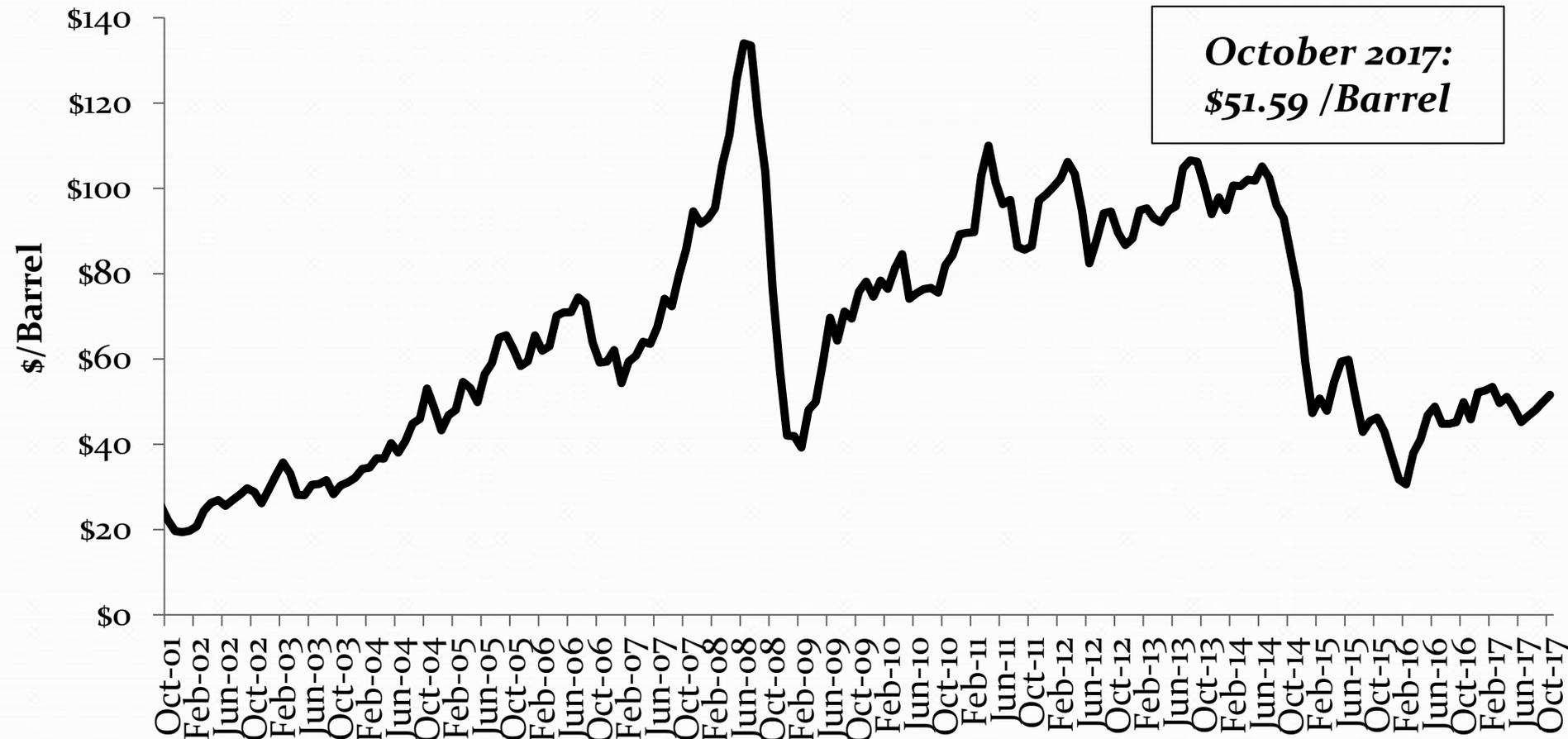
Global Debt Reaches All Time Highs (IIF)

- 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”*

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

NYMEX Crude Oil Future Prices in U.S. Dollars

October 2001 through October 2017



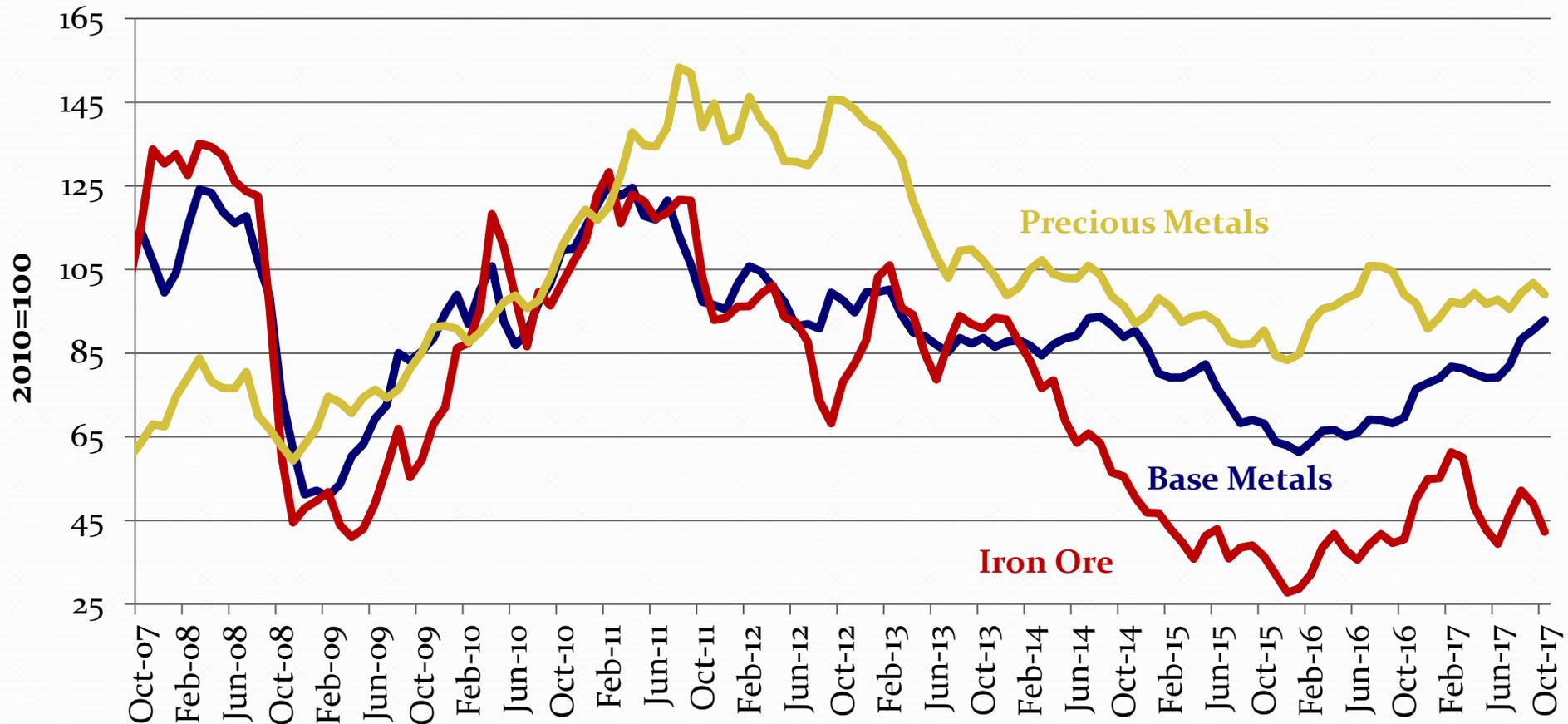
October 2017:
\$51.59 /Barrel

Source: U.S. Energy Information Administration

*Month of October = average of daily prices from 10/2-10/31

Metal Price Indices

October 2007 through October 2017



Source: The World Bank

US\$ Nominal

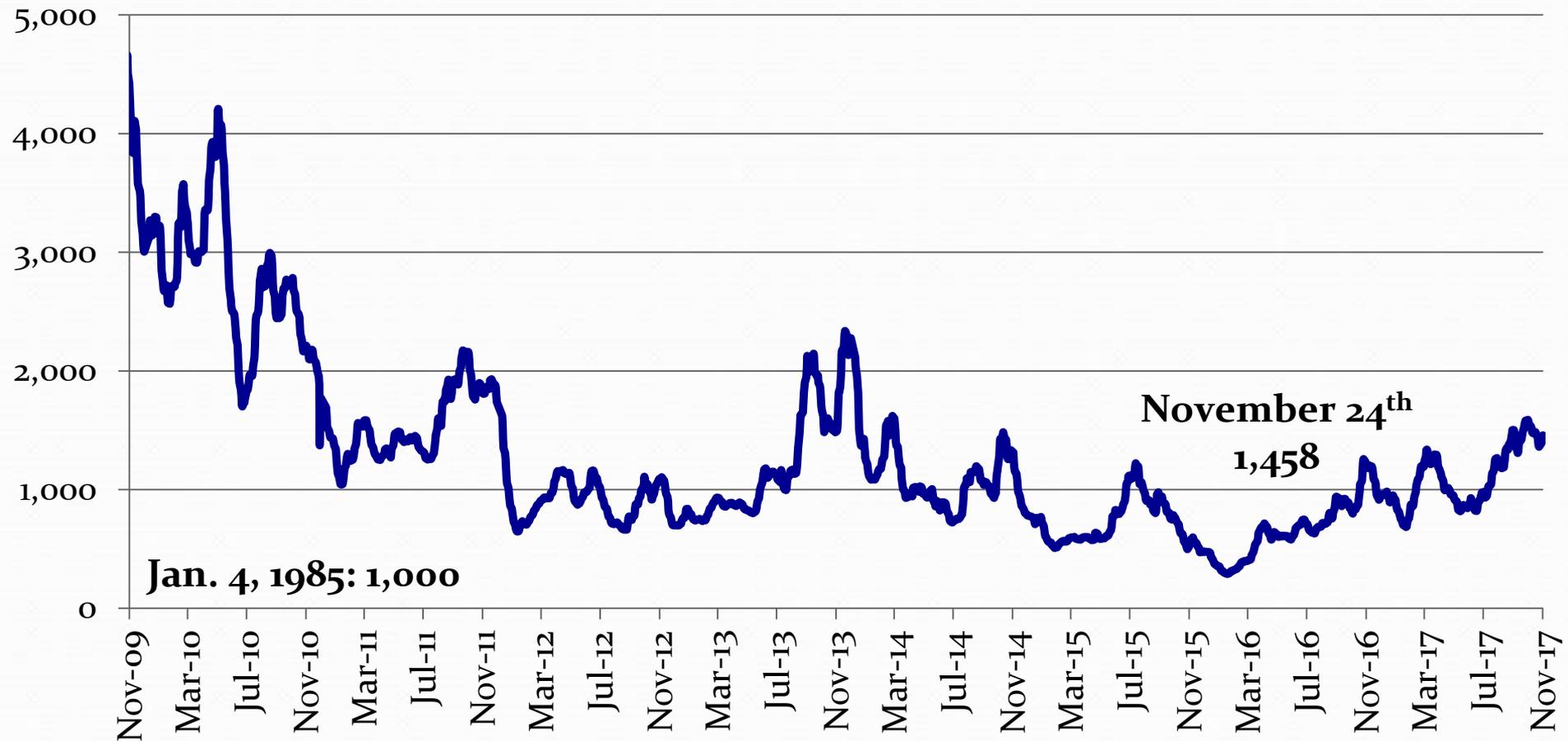
Base metals include aluminum, copper, lead, nickel, tin and zinc.

Precious metals include gold, platinum, and silver.



Baltic Dry Index

November 2009 through November 2017



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.



USA CSI

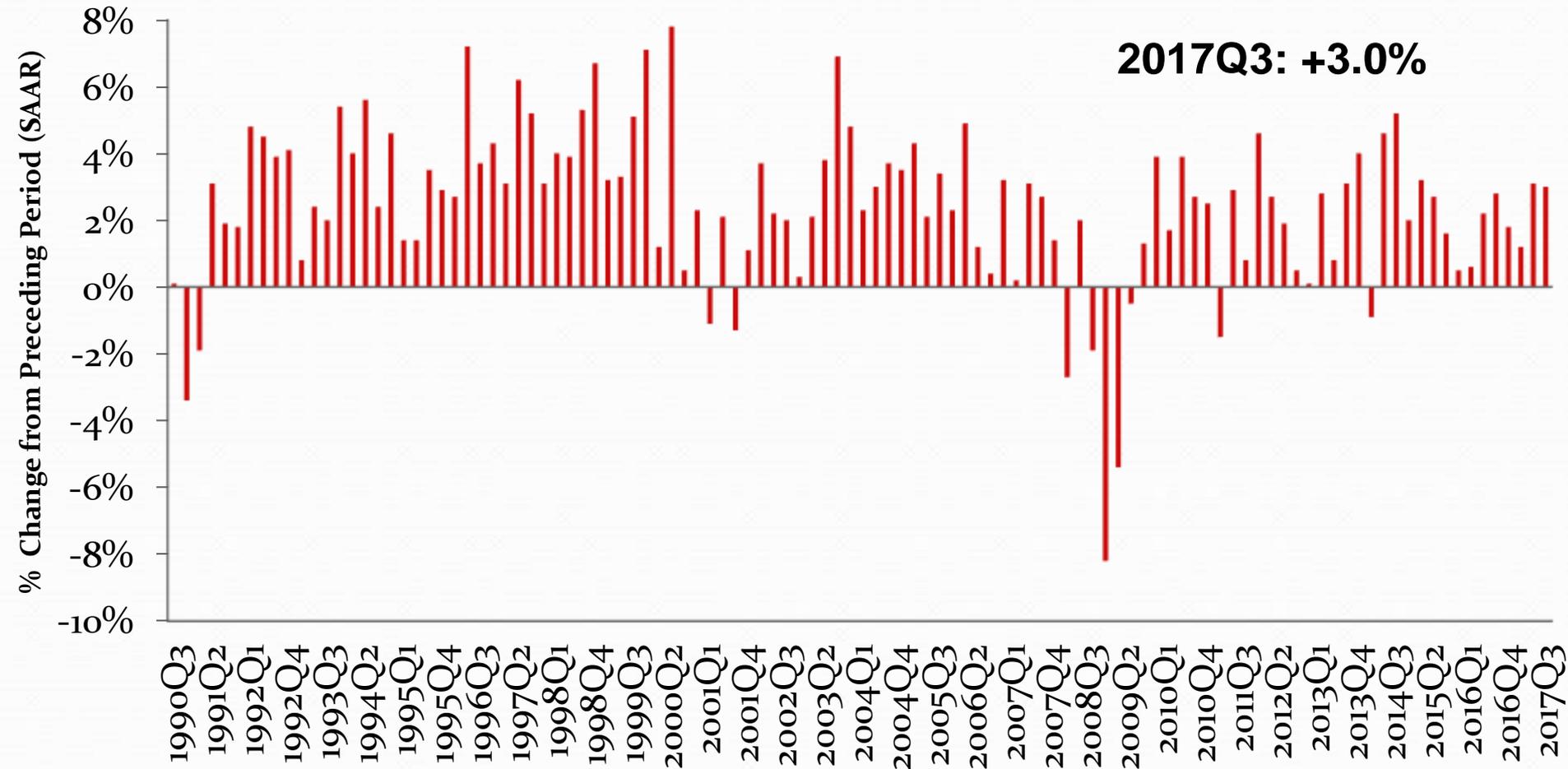


(Commercial Situation Investigation)

Photo: AMCNetworks.com

Gross Domestic Product

1990Q3 through 2017Q3*

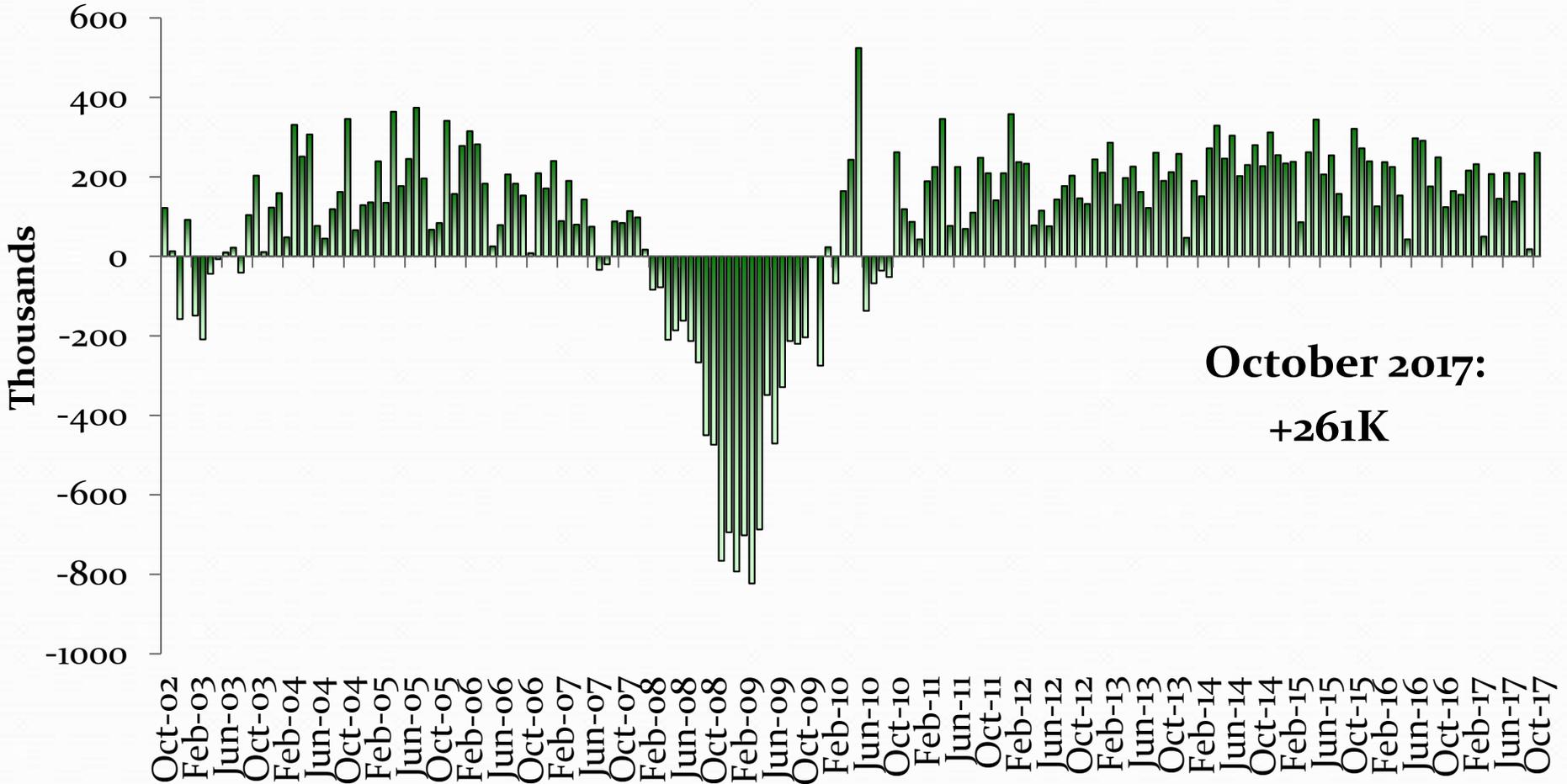


Source: Bureau of Economic Analysis

*1st(advance) Estimate

Net Change in U.S. Jobs, BLS

October 2002 through October 2017

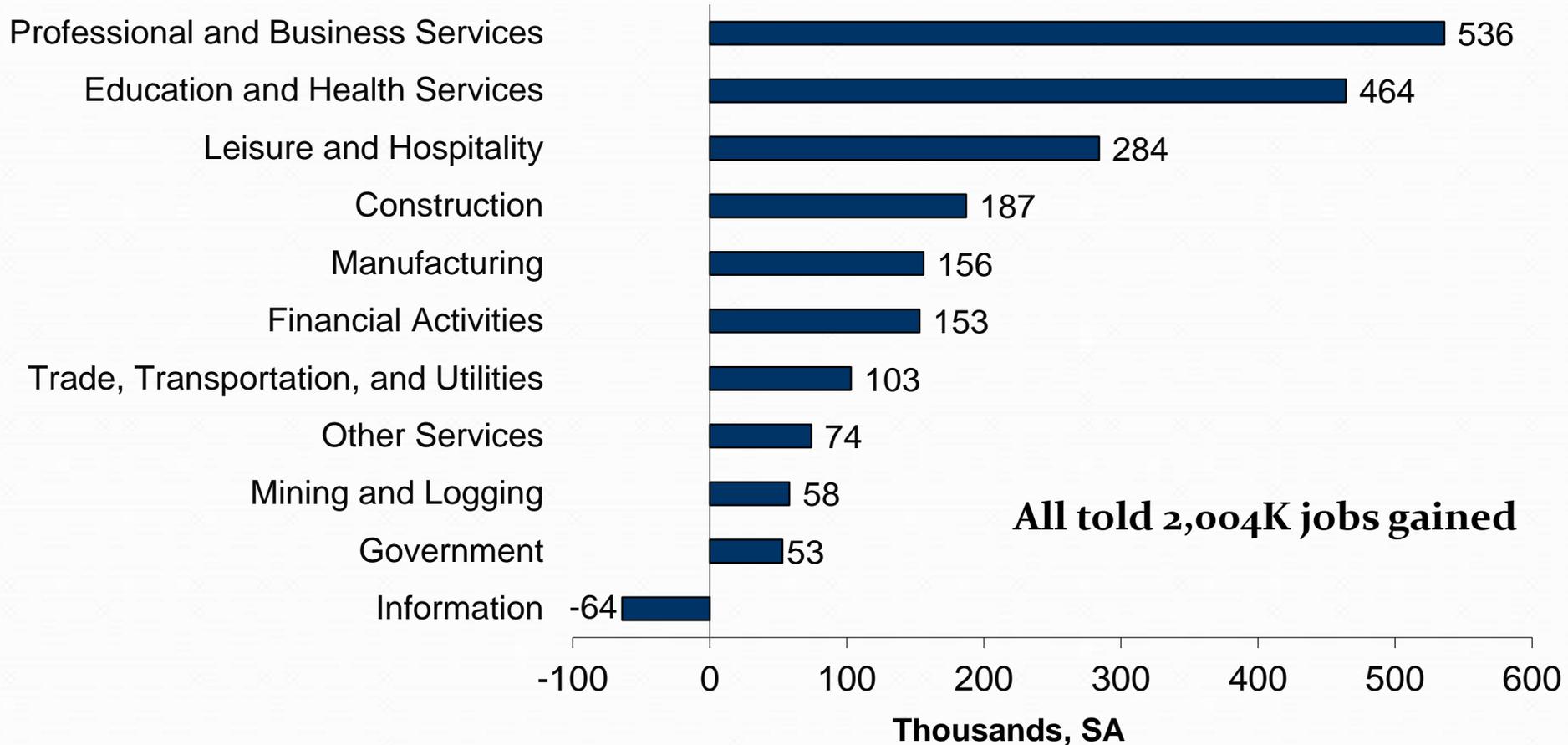


Source: U.S. Bureau of Labor Statistics

National Nonfarm Employment

by Industry Sector

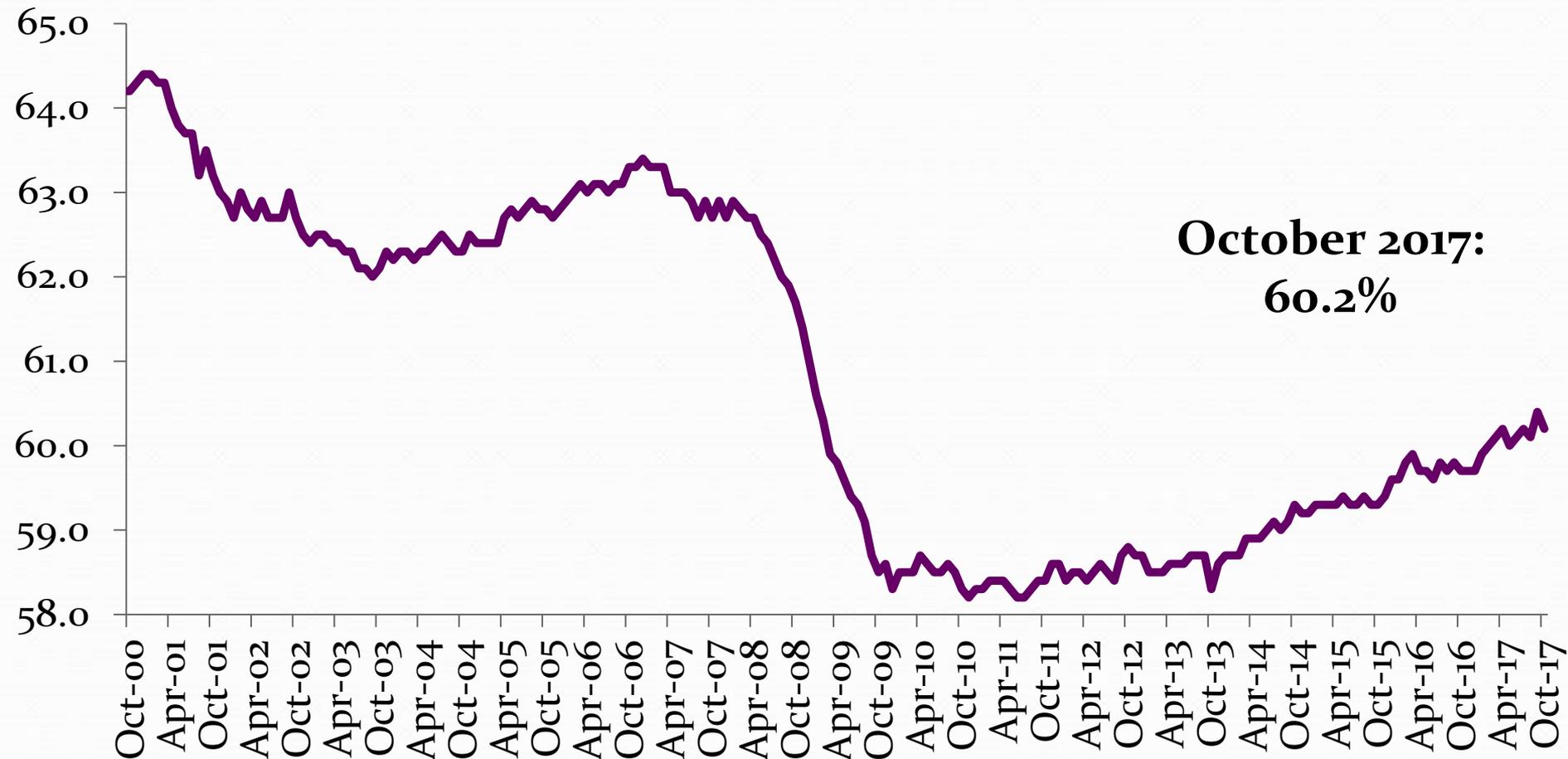
October 2016 v. October 2017



Source: U.S. Bureau of Labor Statistics

U.S. Employment to Population Ratio

October 2000 – October 2017



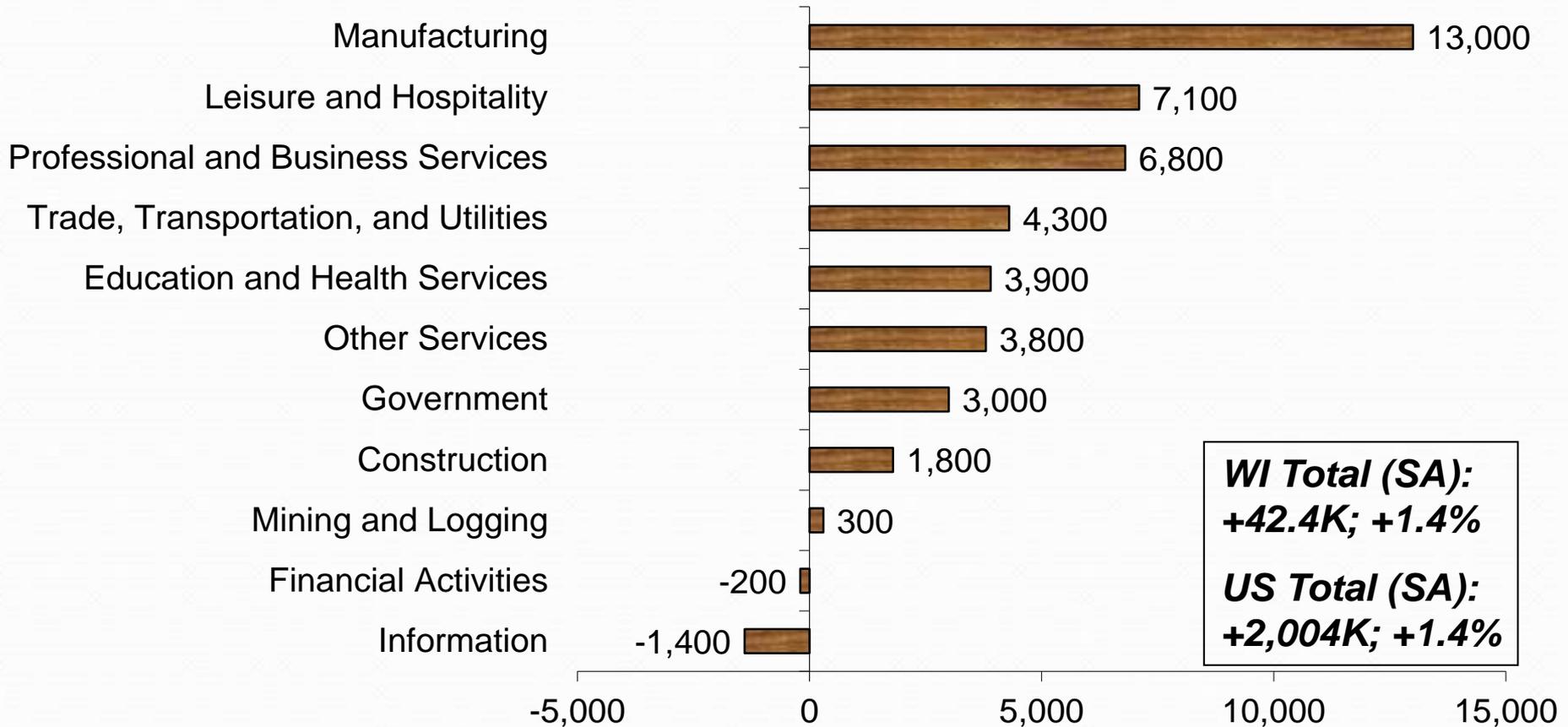
Source: U.S. Bureau of Labor Statistics

Note: Civilian employment-population ratio, population 16 years and over, seasonally adjusted (SA).

Wisconsin Employment

by Industry Sector Groups (SA)

October 2016 v. October 2017 Absolute Change



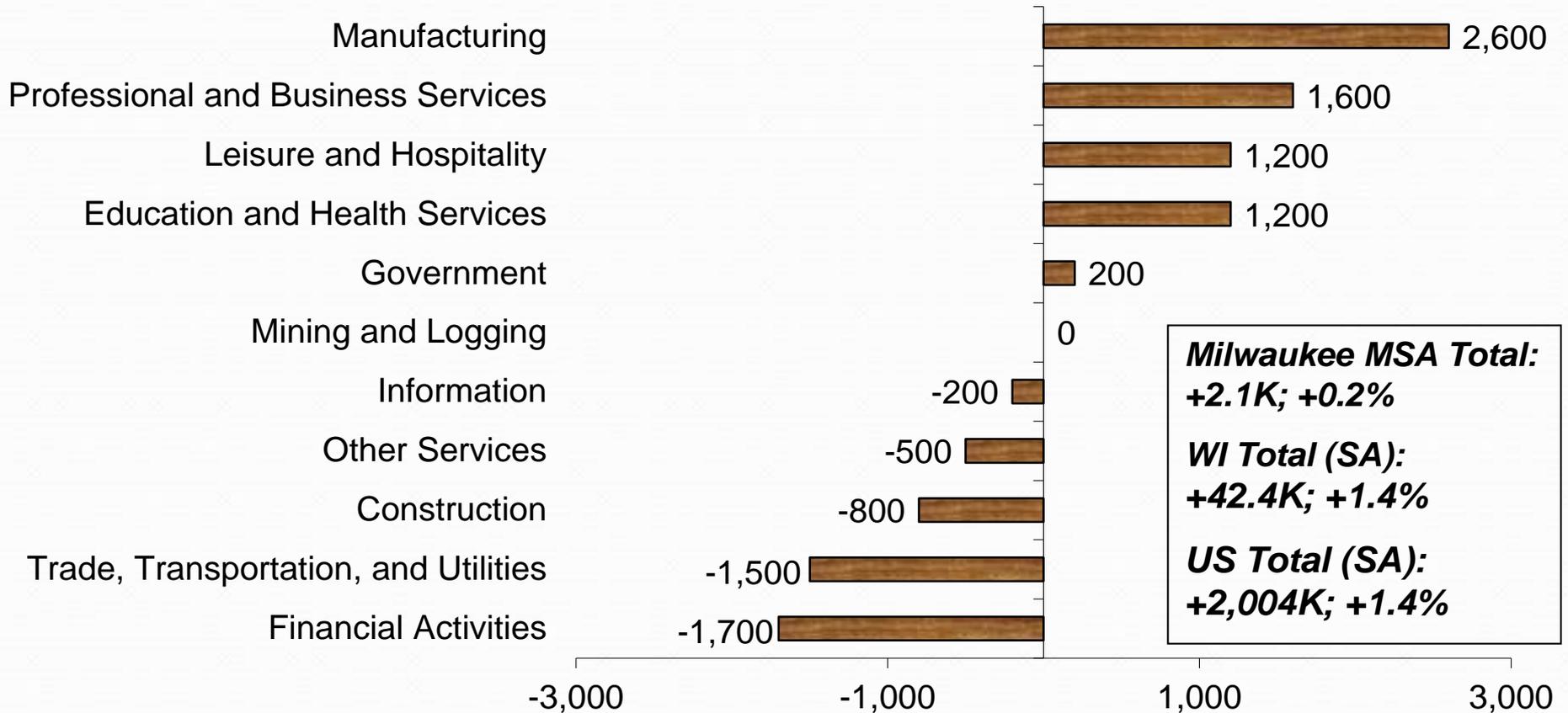
Source: U.S. Bureau of Labor Statistics

*According to the Local Area Unemployment Statistics (LAUS) series WI gained 65,393 jobs between October 2016 and October 2017.

Milwaukee-Waukesha-West Allis MSA Employment

by Industry Sector Groups (NSA)

October 2016 v. October 2017 Absolute Change

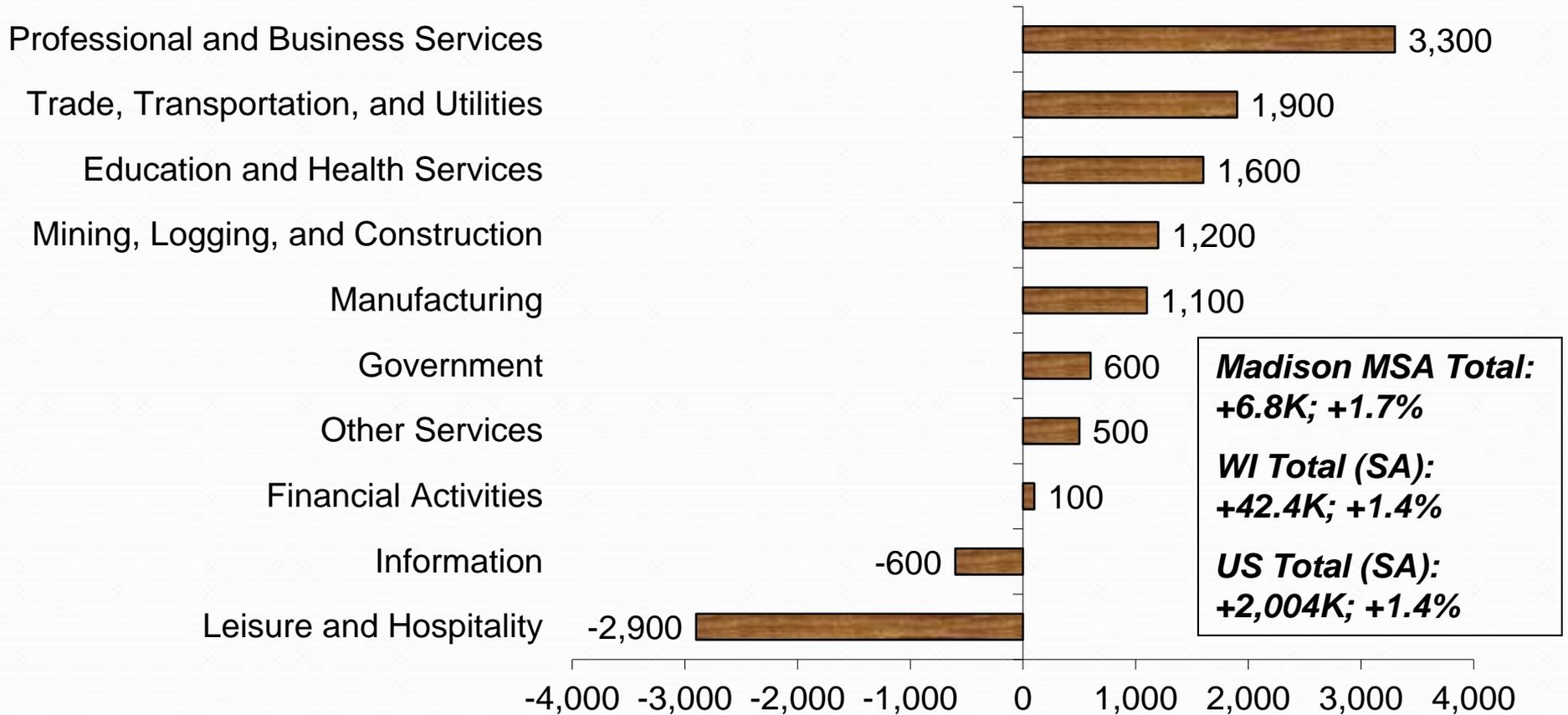


Source: U.S. Bureau of Labor Statistics

Madison MSA Employment

by Industry Sector Groups (NSA)

October 2016 v. October 2017 Absolute Change



Source: U.S. Bureau of Labor Statistics

Employment Growth, U.S. States (SA)

October 2016 v. October 2017 Percent Change

RANK	STATE	%	RANK	STATE	%	RANK	STATE	%
1	NEVADA	2.8	15	MINNESOTA	1.5	33	IOWA	0.9
2	UTAH	2.7	19	WISCONSIN	1.4	33	NEW HAMPSHIRE	0.9
3	TEXAS	2.6	19	COLORADO	1.4	33	RHODE ISLAND	0.9
4	OREGON	2.5	21	ARIZONA	1.2	33	VIRGINIA	0.9
5	IDAHO	2.4	21	MONTANA	1.2	39	MAINE	0.8
6	FLORIDA	2.3	21	OKLAHOMA	1.2	40	DELAWARE	0.7
7	SOUTH CAROLINA	2.1	21	TENNESSEE	1.2	40	NEW JERSEY	0.7
7	WASHINGTON	2.1	25	HAWAII	1.1	42	MISSISSIPPI	0.6
9	MARYLAND	2.0	25	MISSOURI	1.1	42	NORTH DAKOTA	0.6
9	GEORGIA	2.0	25	NEW YORK	1.1	44	LOUISIANA	0.4
11	ARKANSAS	1.9	25	OHIO	1.1	44	WEST VIRGINIA	0.4
11	MASSACHUSETTS	1.9	25	PENNSYLVANIA	1.1	46	ILLINOIS	0.3
13	NORTH CAROLINA	1.7	30	MICHIGAN	1.0	47	ALASKA	0.1
14	NEW MEXICO	1.6	30	NEBRASKA	1.0	47	CONNECTICUT	0.1
15	ALABAMA	1.5	30	VERMONT	1.0	47	SOUTH DAKOTA	0.1
15	CALIFORNIA	1.5	33	DISTRICT OF COLUMBIA	0.9	50	KANSAS	-0.4
15	KENTUCKY	1.5	33	INDIANA	0.9	51	WYOMING	-0.5

Source: U.S. Bureau of Labor Statistics

U.S. Year-over-year Percent Change: +1.4%

Unemployment Rates, 24 Largest Metros (NSA)

September 2017

Rank	MSA	UR	Rank	MSA	UR
1	Denver-Aurora-Lakewood, CO MSA	2.2	13	Atlanta-Sandy Springs-Roswell, GA MSA	4.0
2	Minneapolis-St. Paul-Bloomington, MN-WI MSA	2.9	13	Phoenix-Mesa-Scottsdale, AZ MSA	4.0
3	Orlando-Kissimmee-Sanford, FL MSA	3.2	13	Portland-Vancouver-Hillsboro, OR-WA MSA	4.0
4	Boston-Cambridge-Nashua, MA-NH Metro NECTA	3.3	16	San Diego-Carlsbad, CA MSA	4.1
4	San Francisco-Oakland-Hayward, CA MSA	3.3	17	Seattle-Tacoma-Bellevue, WA MSA	4.2
4	Tampa-St. Petersburg-Clearwater, FL MSA	3.3	18	Detroit-Warren-Dearborn, MI MSA	4.4
7	Dallas-Fort Worth-Arlington, TX MSA	3.4	19	Los Angeles-Long Beach-Anaheim, CA MSA	4.5
8	St. Louis, MO-IL MSA (1)	3.5	20	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	4.6
9	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	3.6	21	Chicago-Naperville-Elgin, IL-IN-WI MSA	4.7
10	Baltimore-Columbia-Towson, MD MSA	3.7	21	New York-Newark-Jersey City, NY-NJ-PA MSA	4.7
11	Charlotte-Concord-Gastonia, NC-SC MSA	3.8	23	Houston-The Woodlands-Sugar Land, TX MSA	4.8
12	Miami-Fort Lauderdale-West Palm Beach, FL MSA	3.9	24	Riverside-San Bernardino-Ontario, CA MSA	5.4

Source: U.S. Bureau of Labor Statistics

1. Area boundaries do not reflect official OMB definitions.

U.S. Unemployment Rate
 Sept.: 4.2% Oct.: 4.1%



21 Jump Street

(And Other Addresses of Interest)

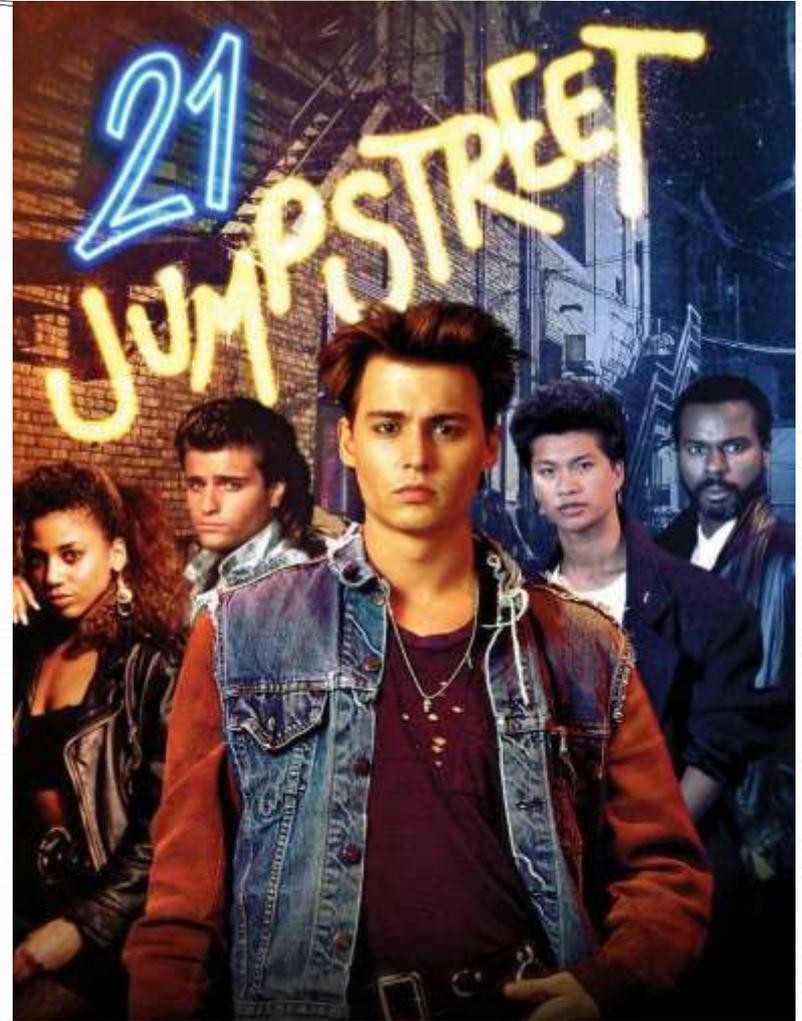
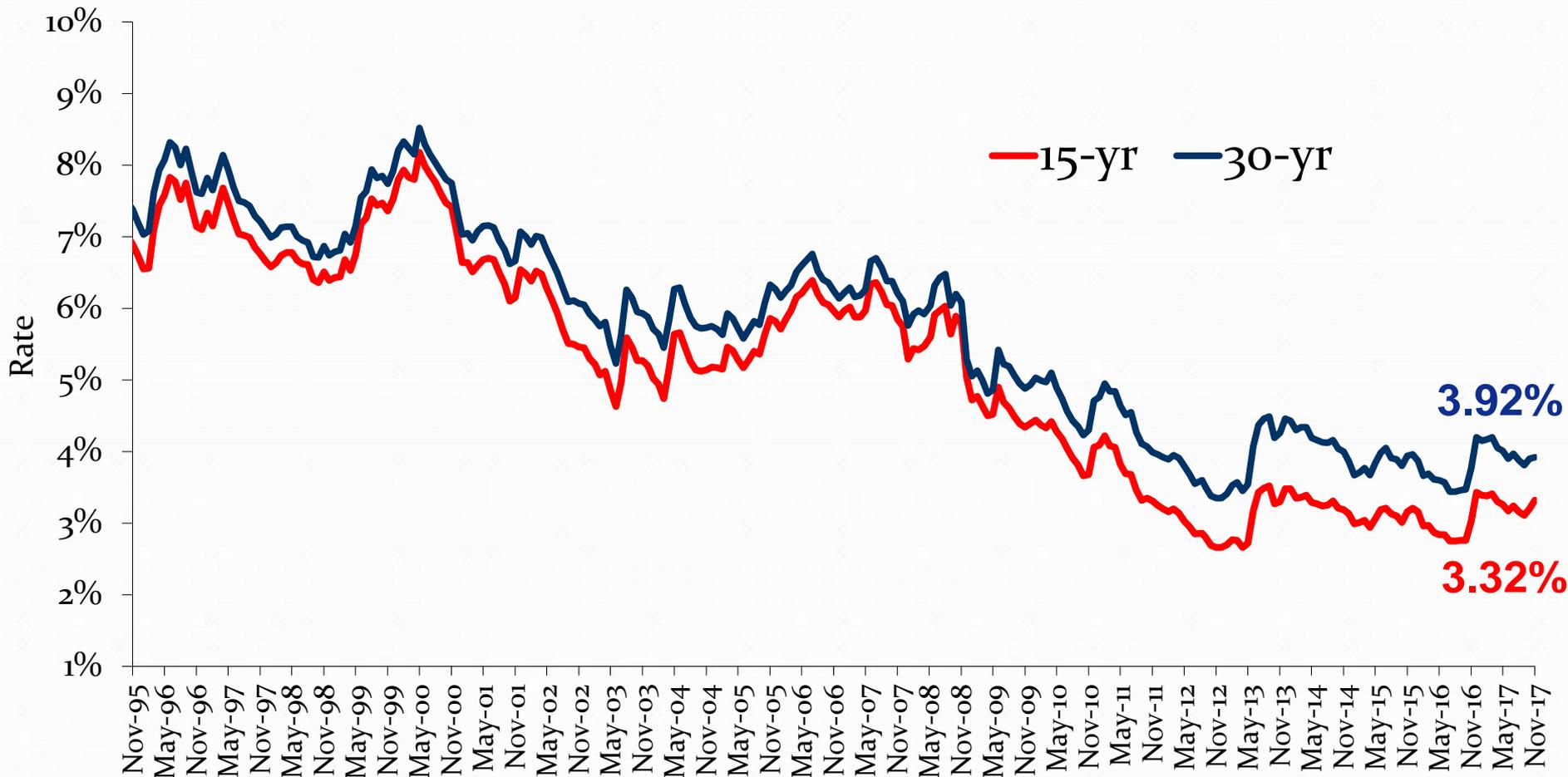


Photo: TheMoveDatabase.org

15-Year & 30-Year Fixed Mortgage Rates

November 1995 through November 2017*

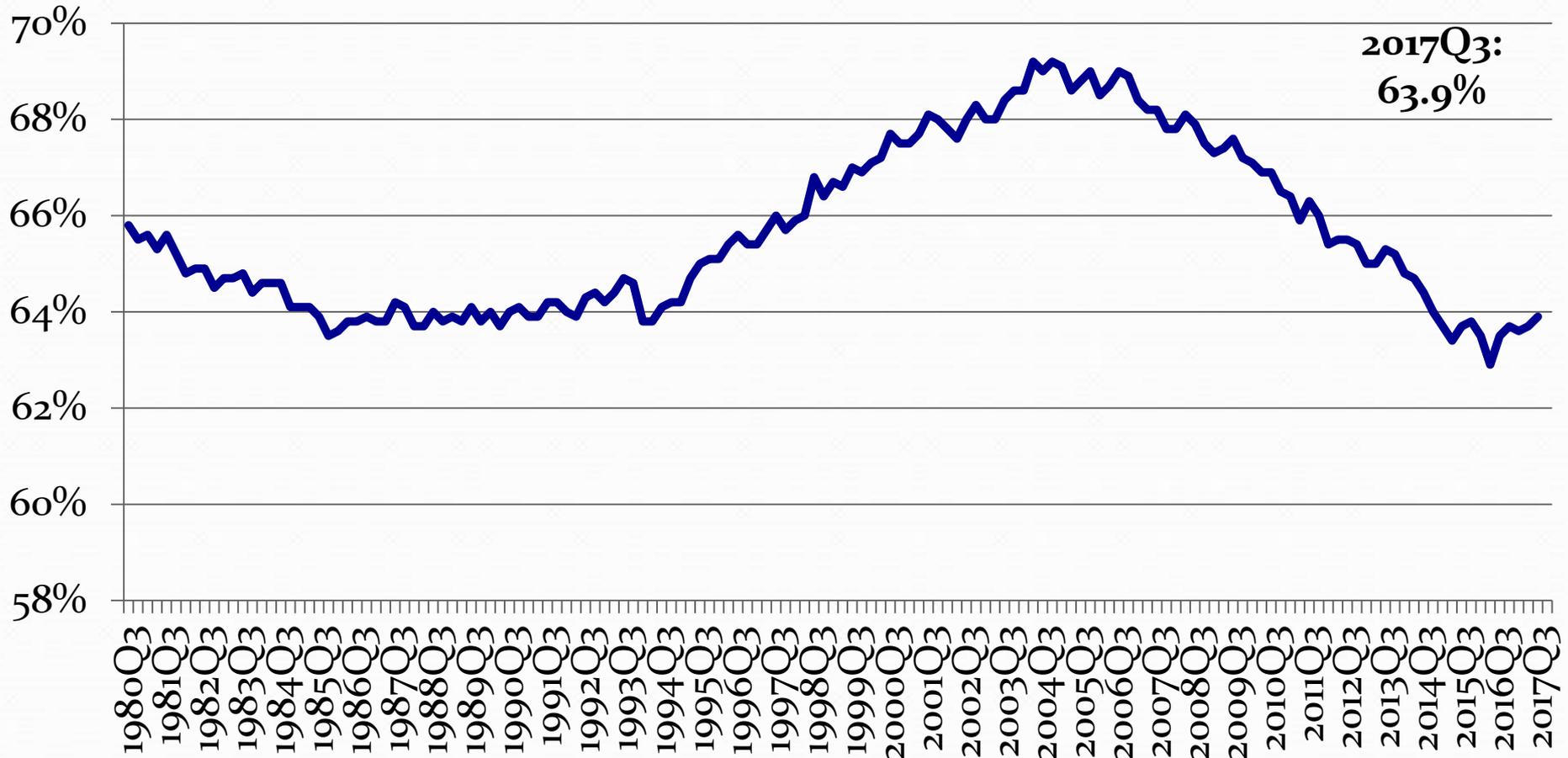


Source: Freddie Mac

*Week ending 11/22/2017

U.S. Homeownership (NSA)

1980Q3-2017Q3



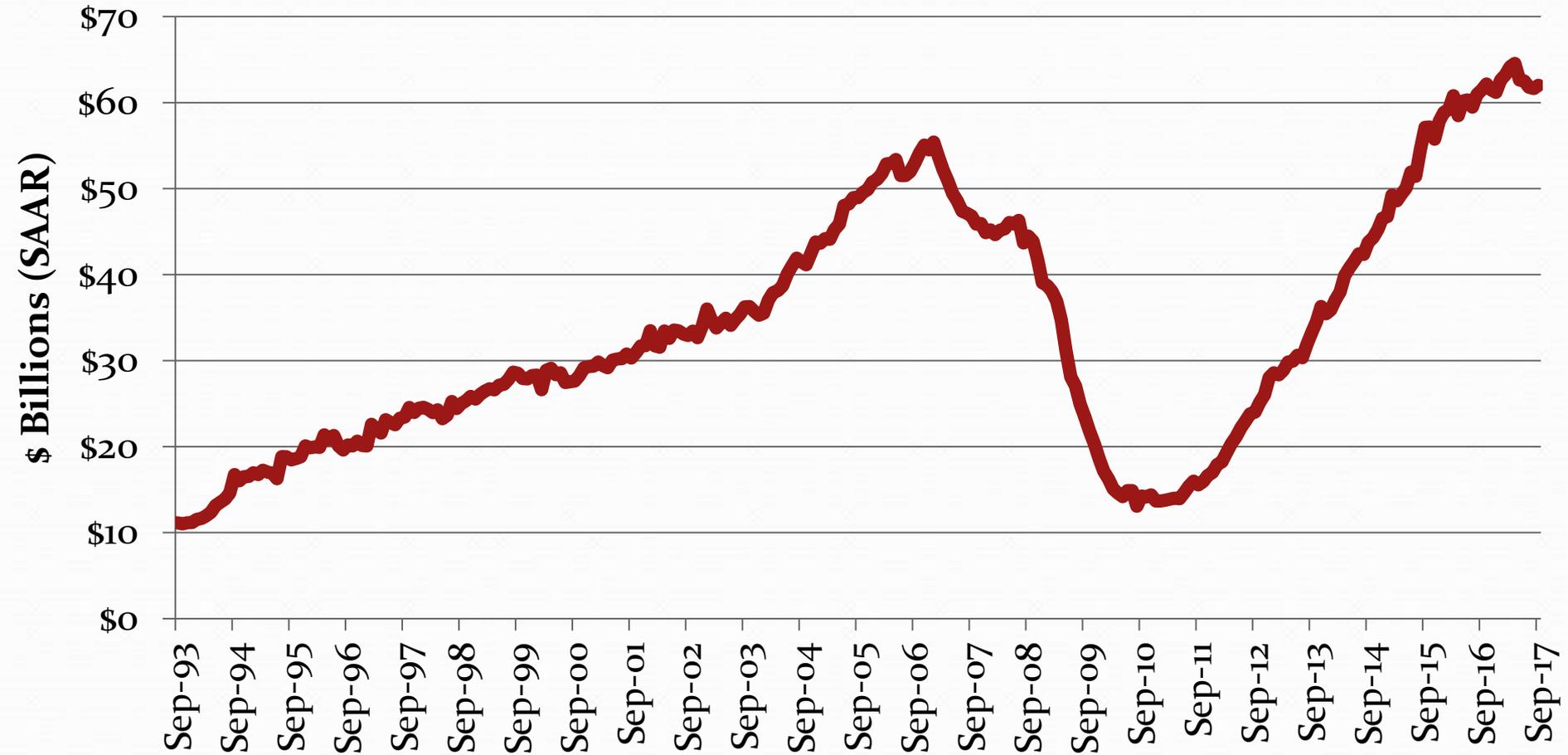
2017Q3:
63.9%

Source: U.S. Census Bureau

*NSA: not seasonally adjusted

U.S. Private New Multifamily Construction

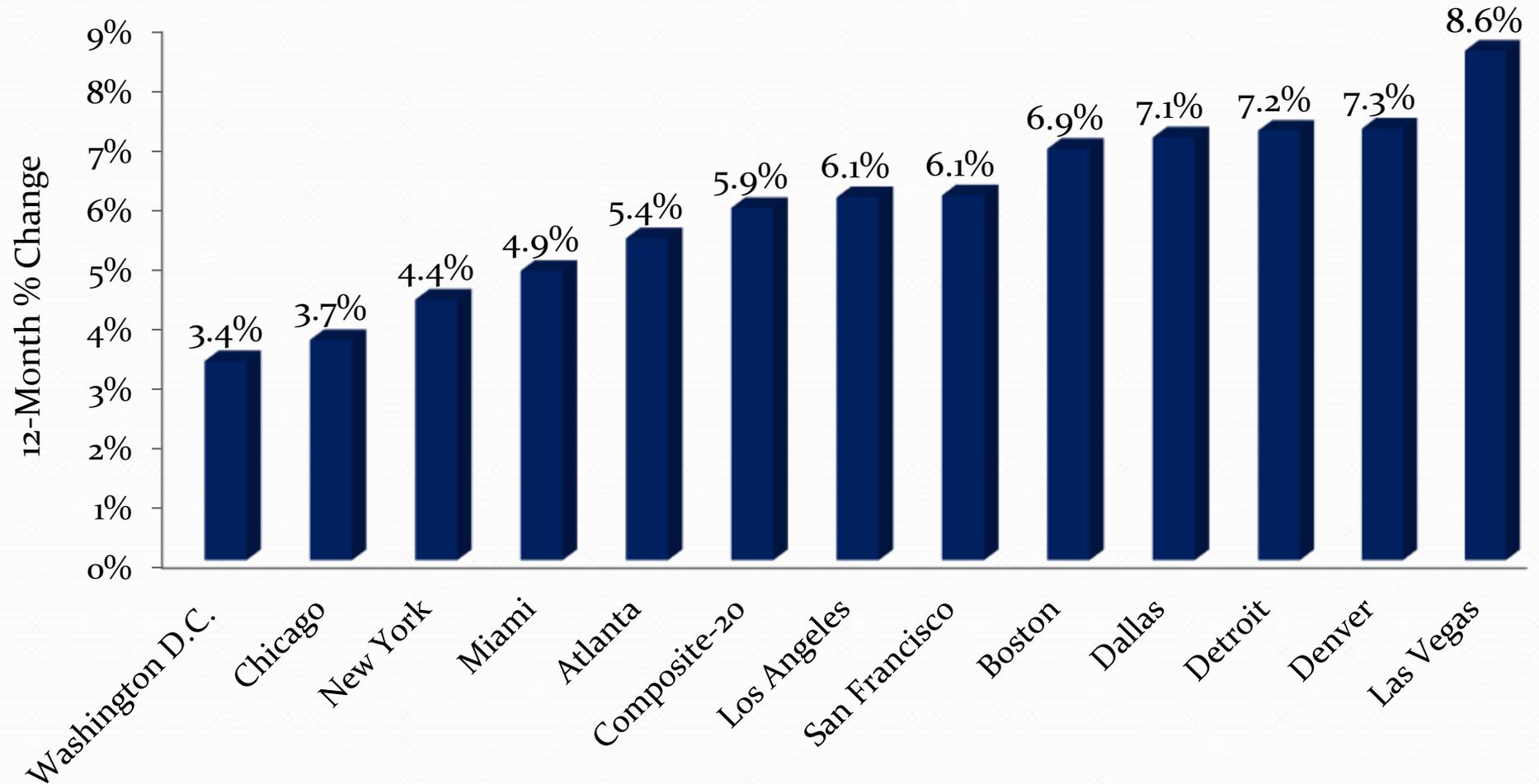
September 1993 through September 2017



Source: U.S. Census Bureau

S&P/Case-Shiller Home Price Indices for Select Metros

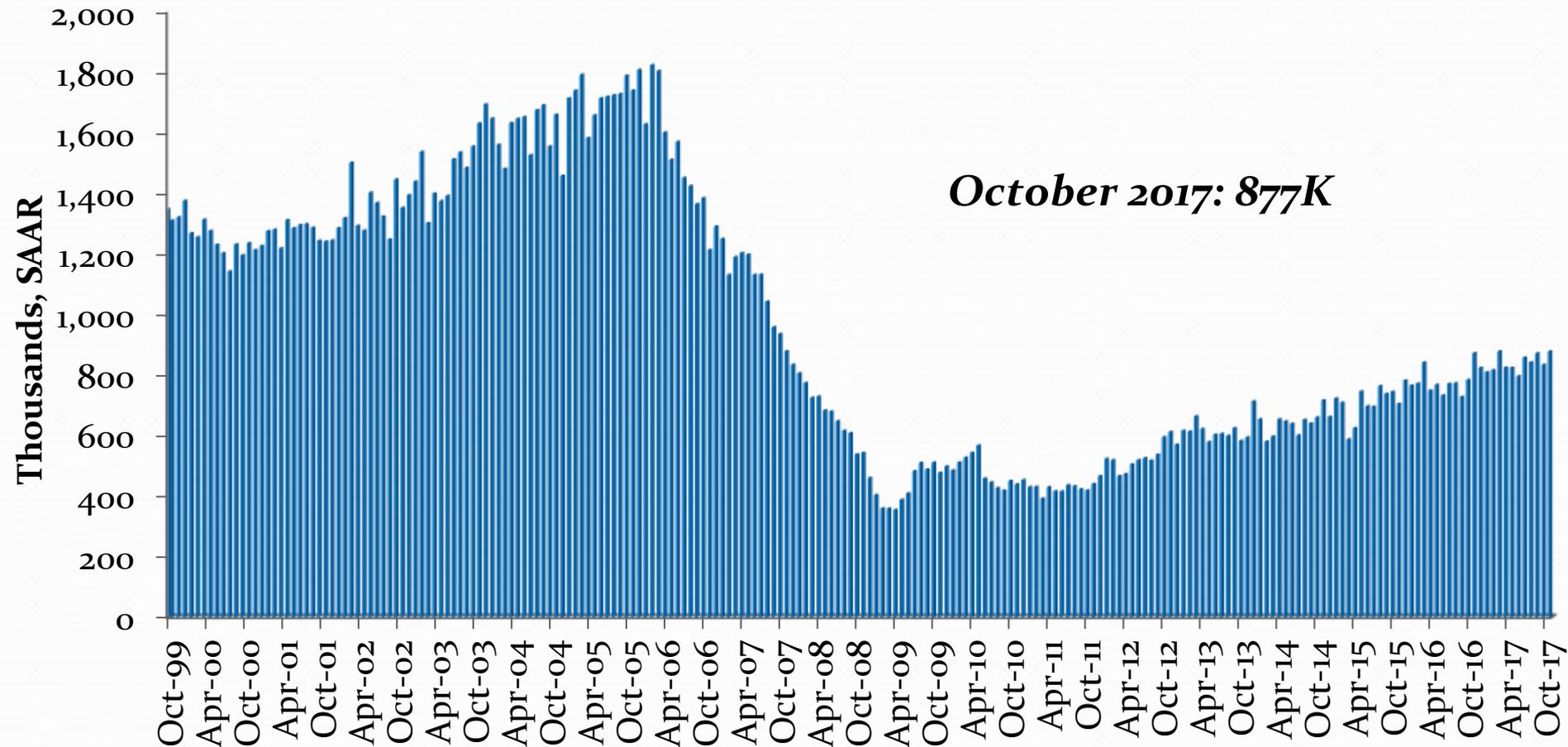
August 2017, 12-Month Percentage Change



Source: Standard & Poor's

U.S. Single-Family Housing Starts

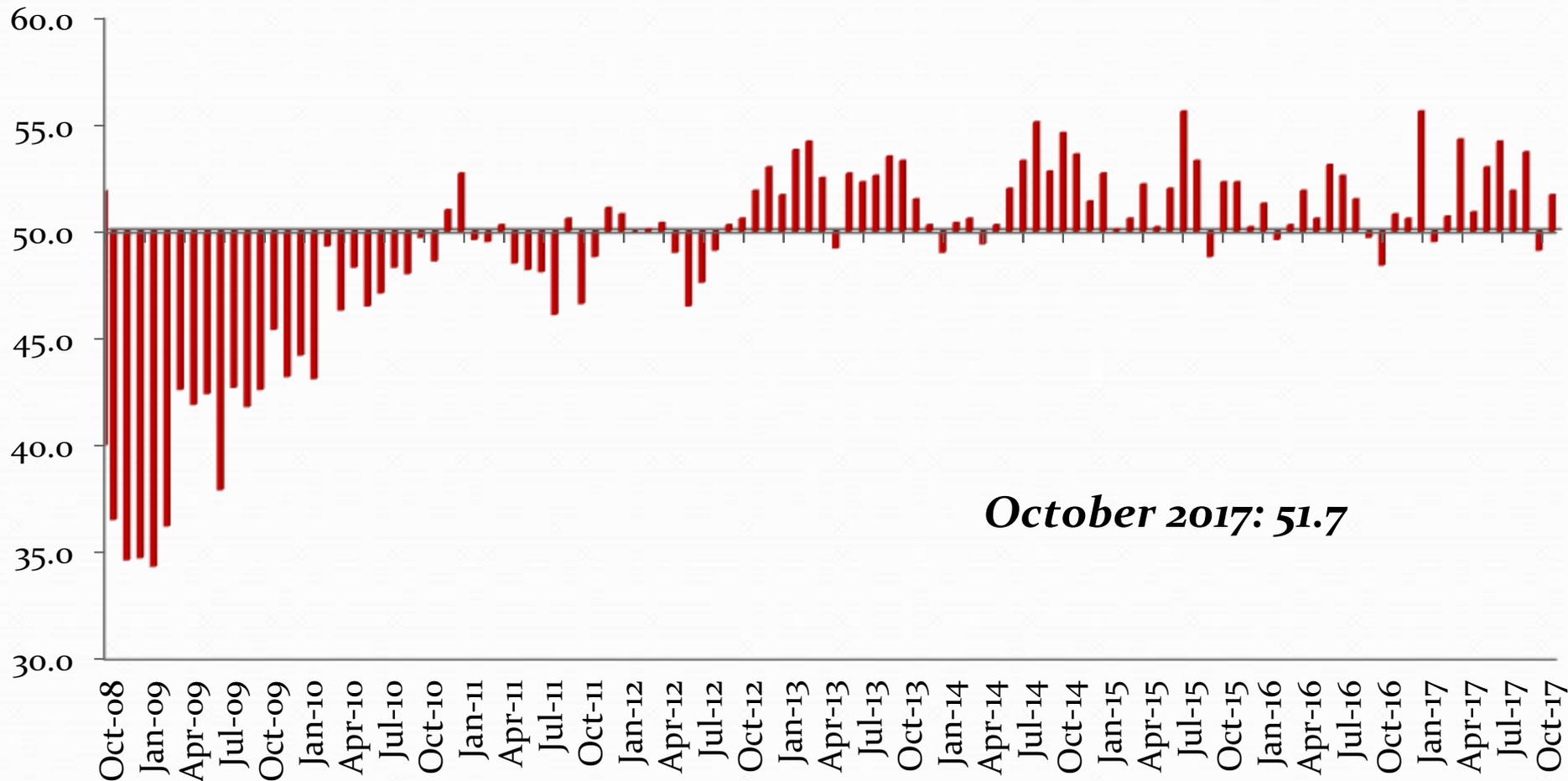
October 1999 through October 2017



Source: U.S. Census Bureau

Architecture Billings Index

October 2008 through October 2017

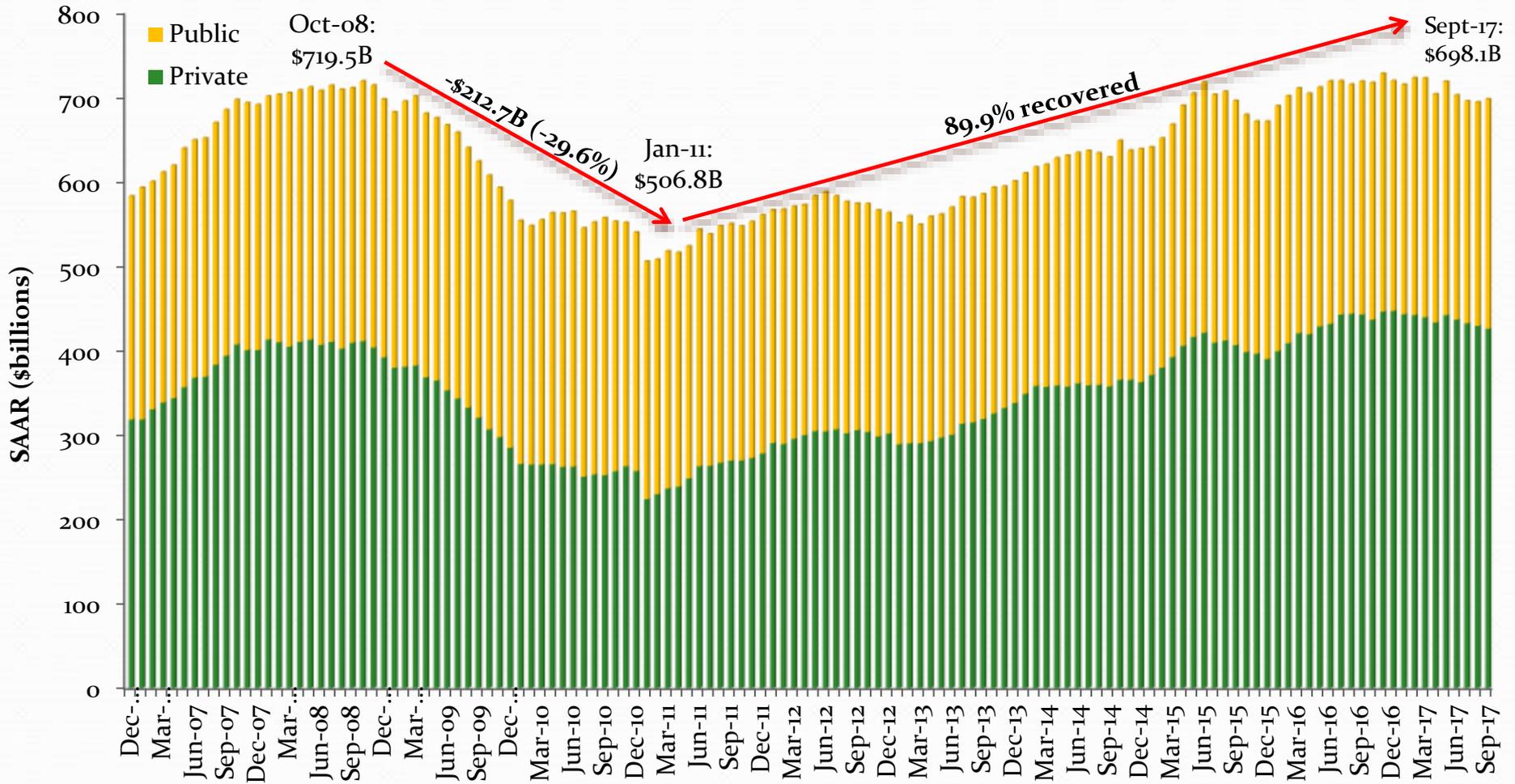


October 2017: 51.7

Source: The American Institute of Architects

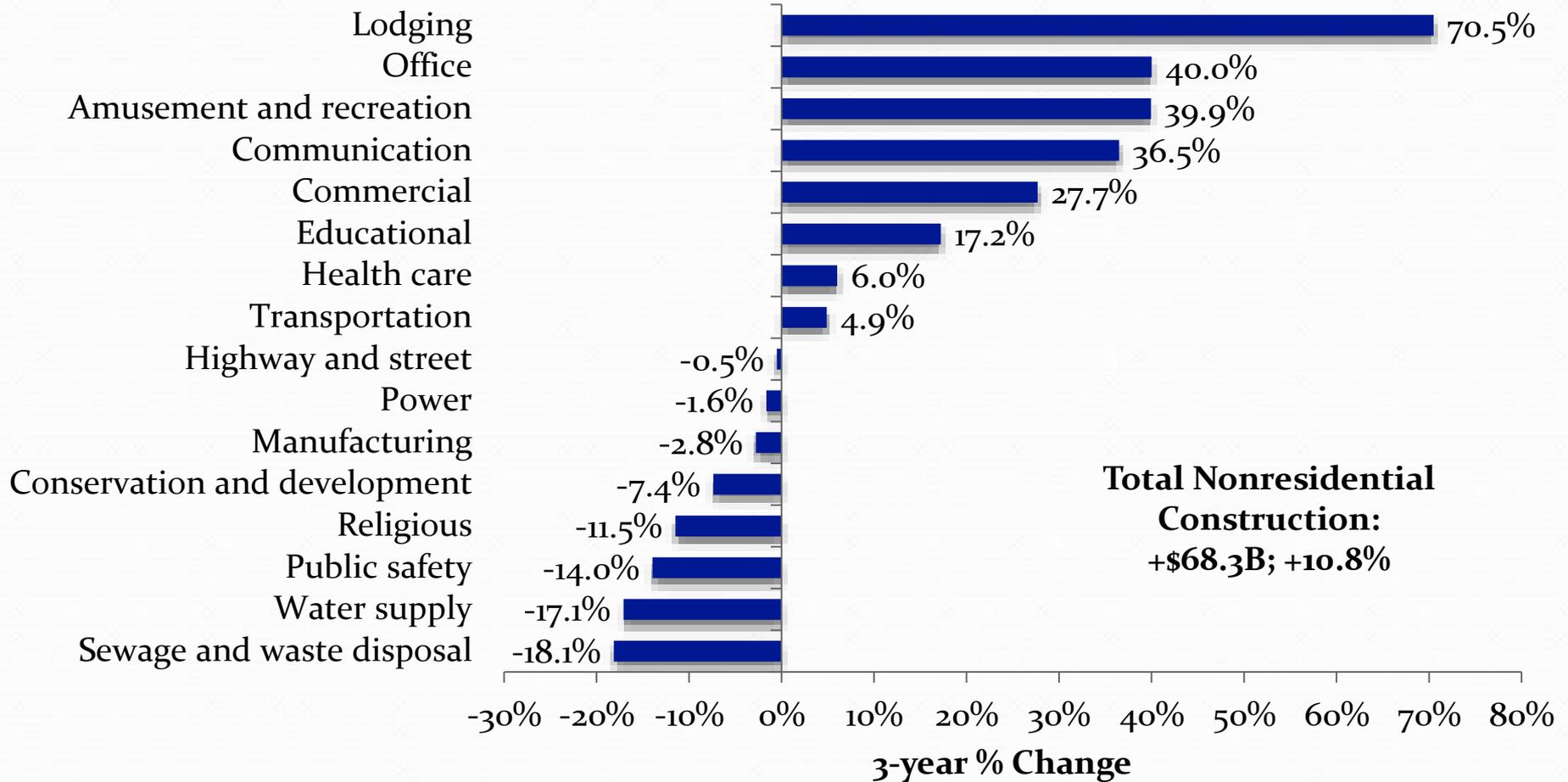
Nonresidential Construction Put-in-Place

December 2006 through September 2017



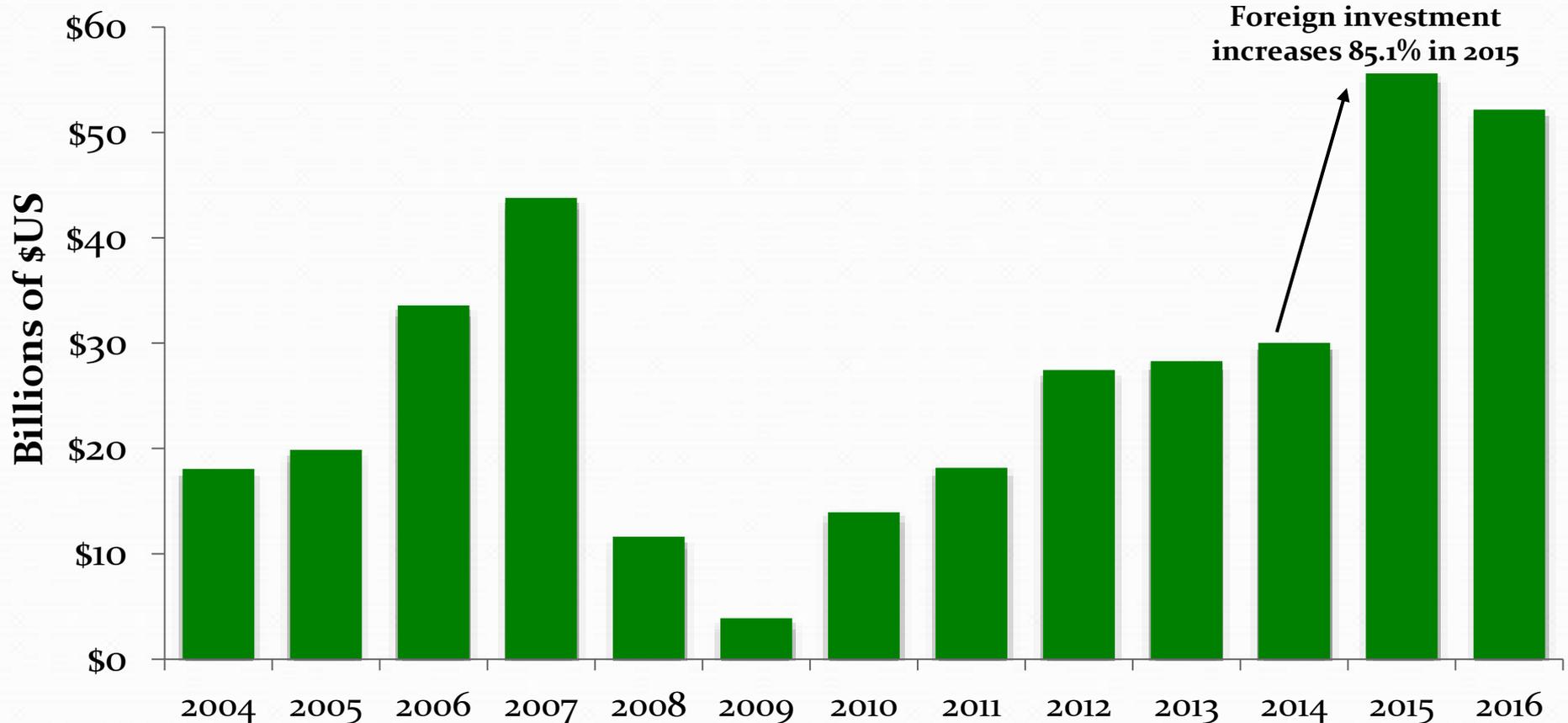
Source: U.S. Census Bureau

National Nonresidential Construction Spending by Subsector September 2014 v. September 2017



Source: U.S. Census Bureau

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



Source: Jones Lang LaSalle; Real Capital Analytics

Note: Among transactions larger than \$5.0 million

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.



Foreign Office Investment Activity, as of 2016Q3



Source: Jones Lang LaSalle; Real Capital Analytics

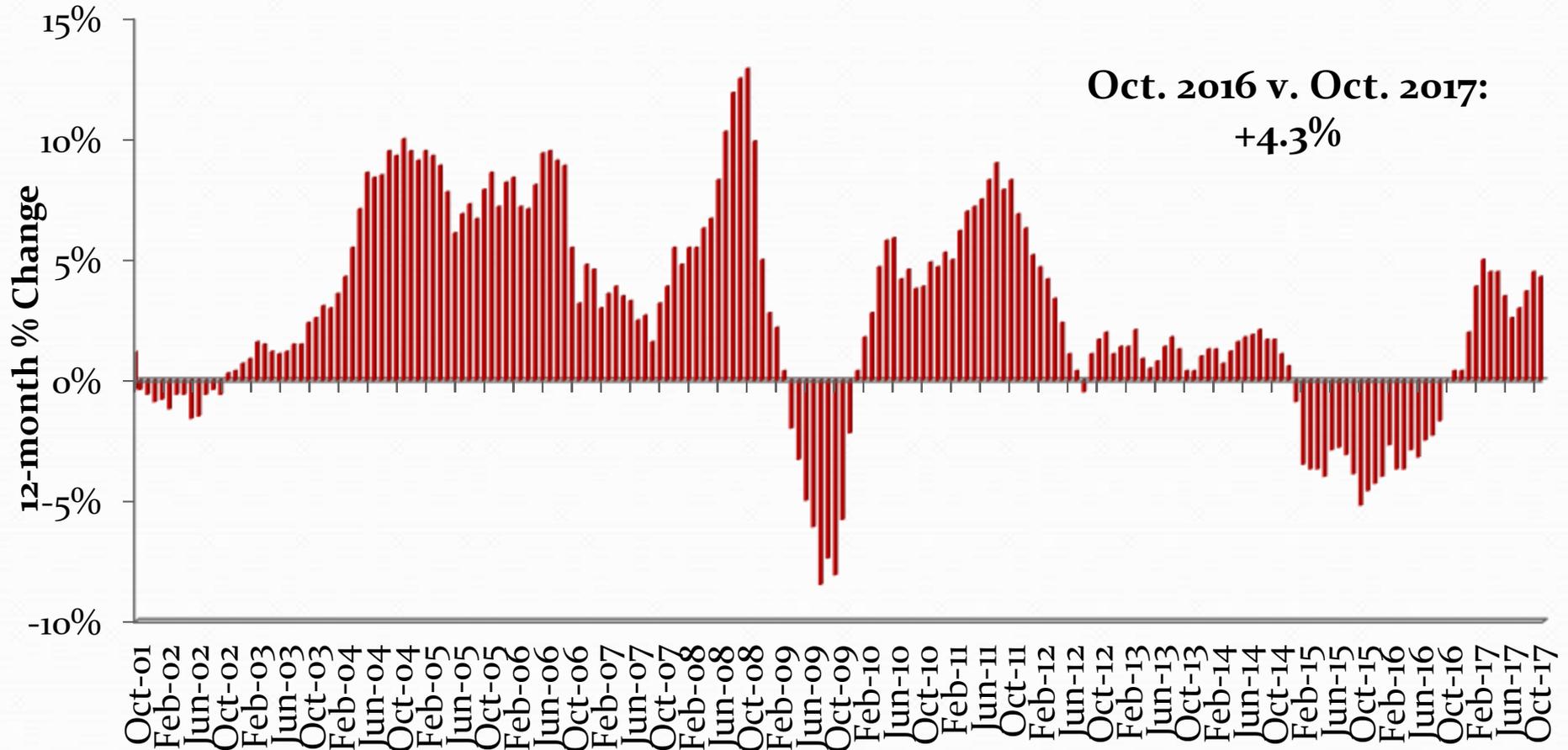
Note: Among transactions larger than \$5.0 million; includes all office markets which received > 1.0% of offshore capital.

Primary markets continue to capture the lion's share of inbound capital, receiving 78.2% of this capital YTD.



Inputs to Construction PPI (NSA)

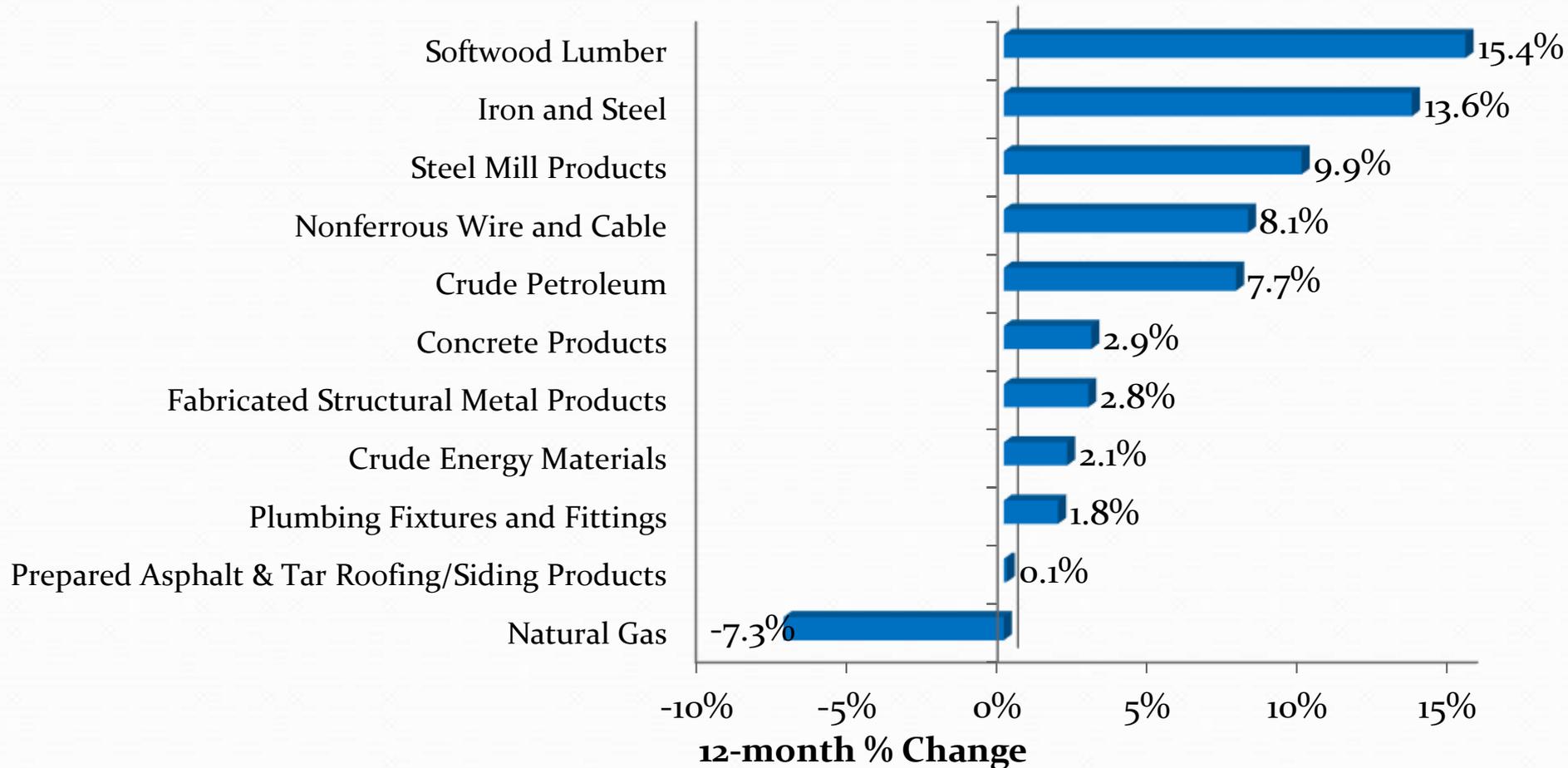
October 2001 – October 2017



Source: U.S. Bureau of Labor Statistics

Construction Materials PPI (NSA)

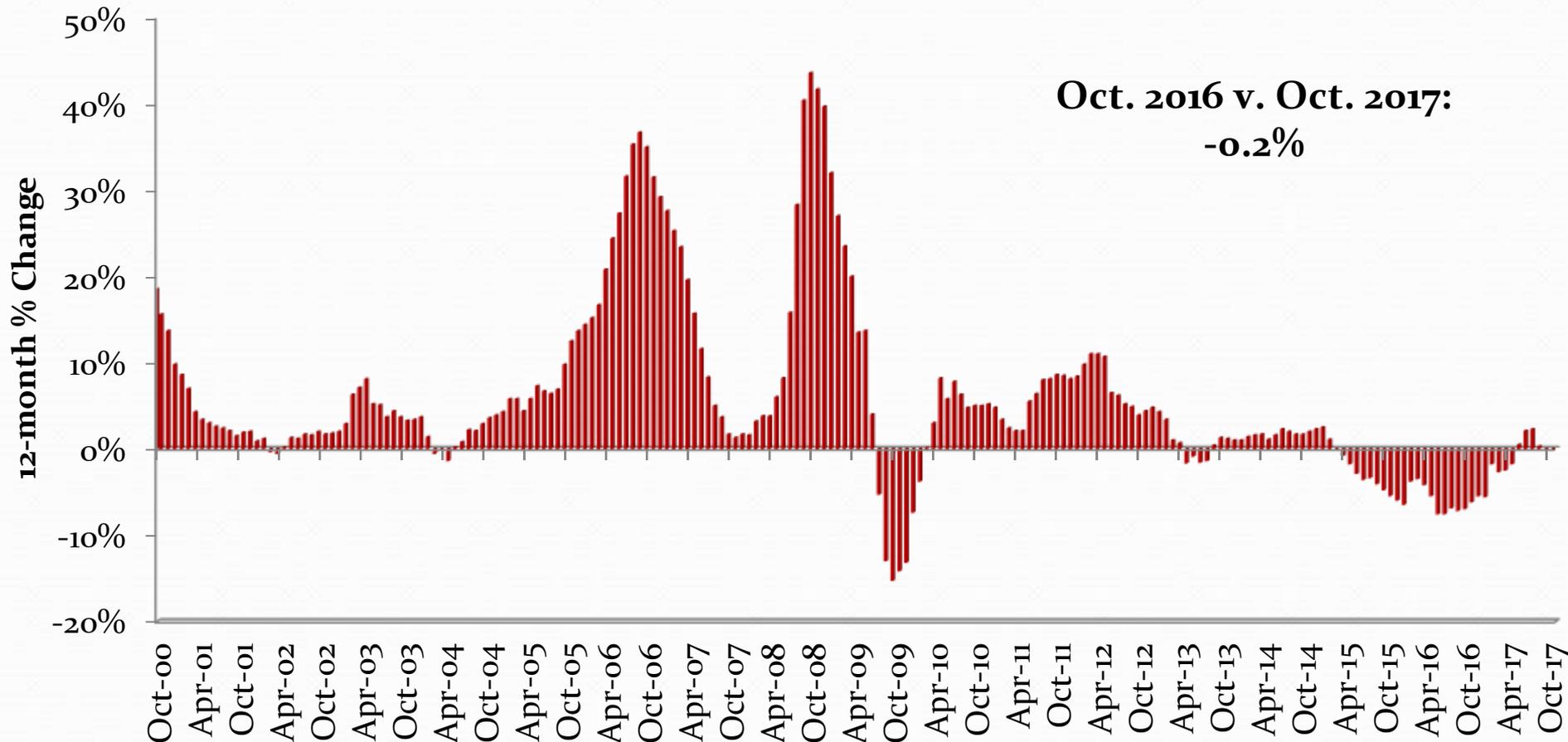
12-month % Change as of October 2017



Source: U.S. Bureau of Labor Statistics

Asphalt Paving Mixtures & Blocks Products* PPI

October 2000 – October 2017



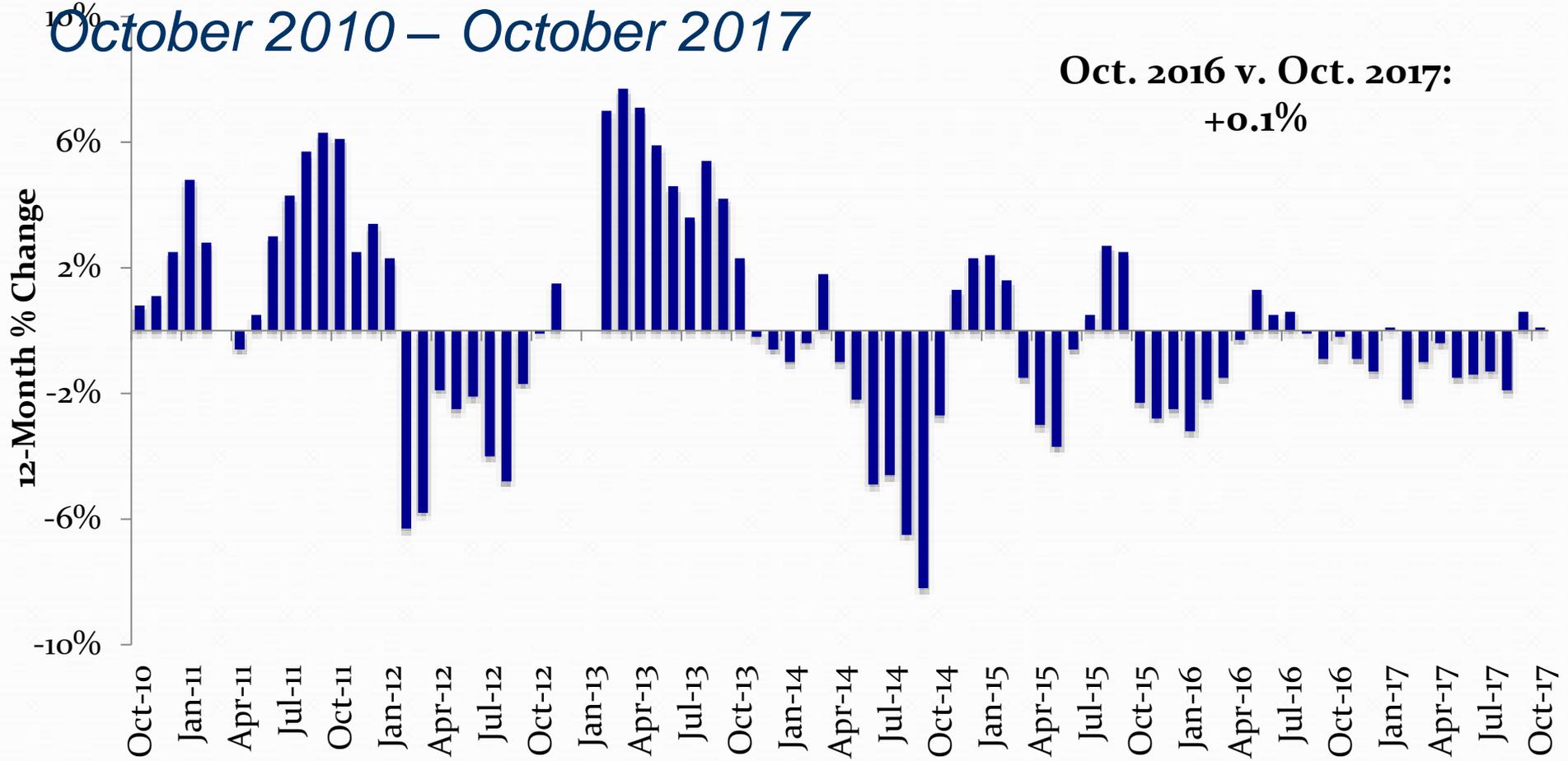
Source: U.S. Bureau of Labor Statistics

*Industry: Asphalt paving mixture & block manufacturing
 Product: Asphalt paving mixtures & blocks



Prepared Asphalt and Tar Roofing & Siding Products* PPI

October 2010 – October 2017



Source: U.S. Bureau of Labor Statistics

*PPI-Commodities. Group: Nonmetallic mineral products.



Down to “The Wire”

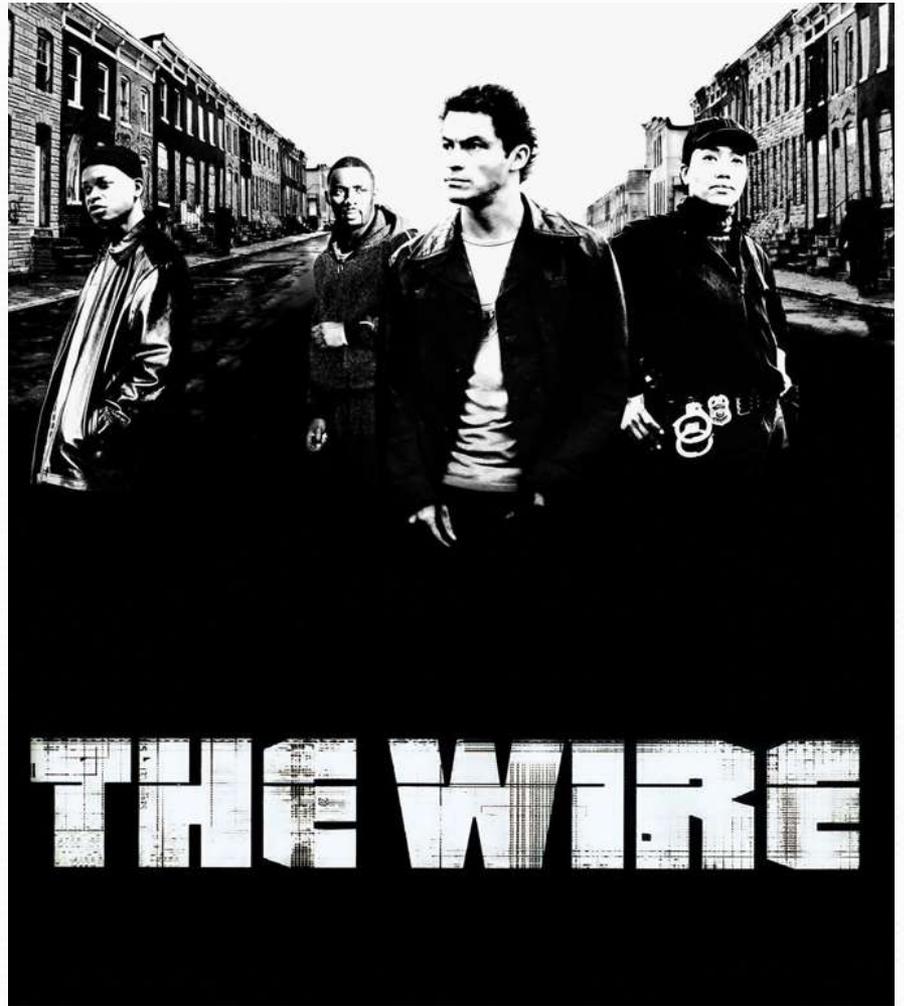


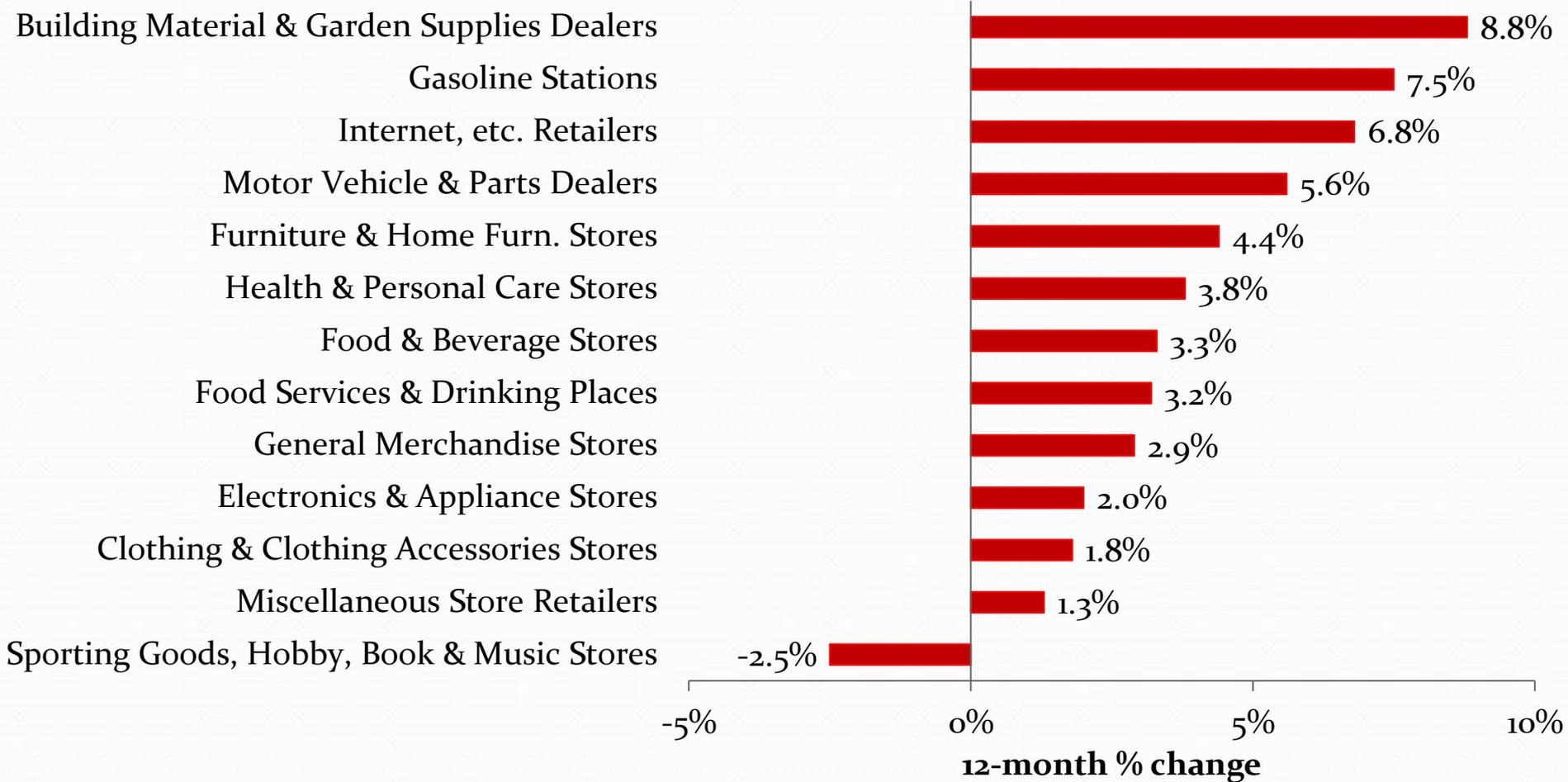
Photo: RecapGuide.com



Sage Policy
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Sales Growth by Type of Business

October 2016 v. October 2017*



Source: U.S. Census Bureau

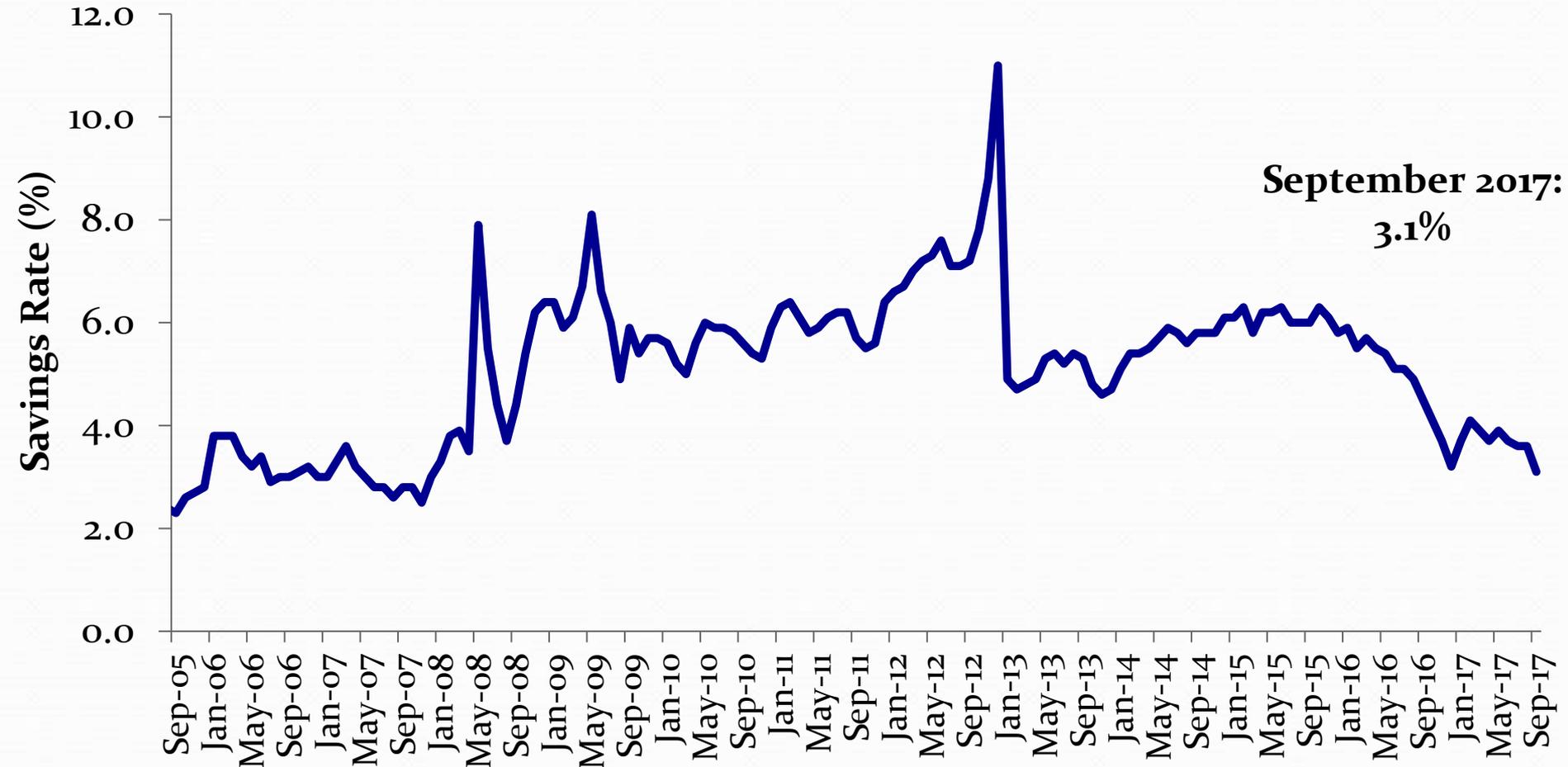
*October 2017 advanced estimate

Total Retail Sales: +4.6% YOY



U.S. Saving Rate, September 2005 – September 2017

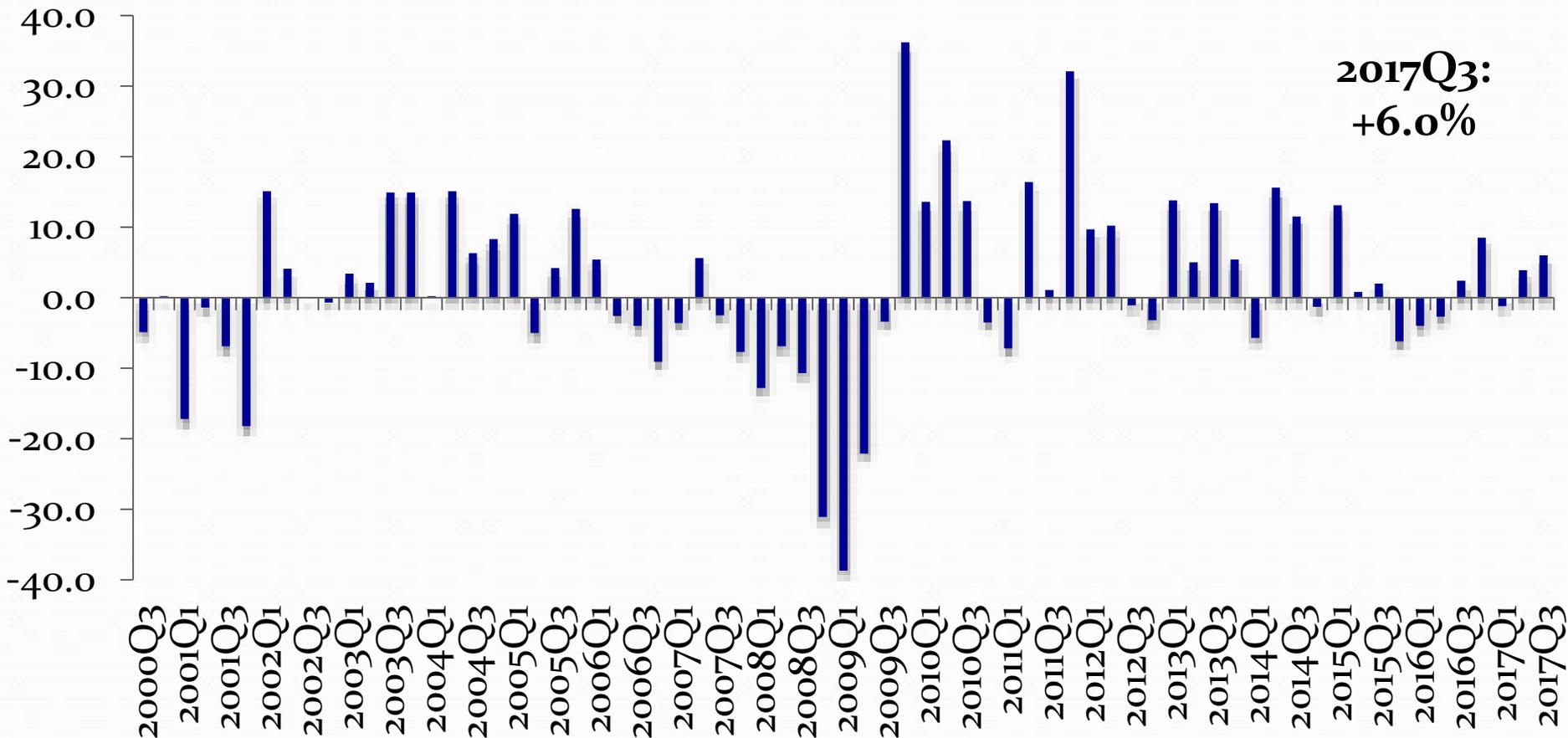
(Savings as Percentage of Personal Disposable Income)



Source: Bureau of Economic Analysis

U.S. Gross Private Domestic Investment (SAAR)

% Change from Previous Quarter, 2000Q3 – 2017Q3*



2017Q3:
+6.0%

Source: Bureau of Economic Analysis

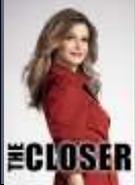
*1st(advance) Estimate

The Closer

- Global economy remains weak, and correspondingly . . . ;
- Global money has continued to pour into America in search of yield and safety, including into commercial real estate – that was particularly true in 2015, only a bit less true in 2016;
- Inflationary pressures are on the rise – so, too, are interest rates – eventually -- that could begin to squeeze asset prices in 2018, triggering negative wealth effects and sentiment in the process;
- There are indications of mini-bubbles forming in commercial real estate, particularly in office, lodging and multifamily segments;
- There are also longer-term structural considerations, including the national debt and pending insolvencies of Medicare and Social Security – the longer-term outlook may be deteriorating even as the short-run improves;
- Momentum should see us through 2017/18 from an economic perspective, but tighter monetary policy combined with a heavy dose of political intrigue could render 2018 different from an asset price perspective. By this time in 2019/20, the economy could be in a far different place and likely will be.

Photo: Google

*Kyra Sedgwick as Brenda Leigh Johnson



Thank You

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- Please contact us when you require economic research & policy analysis.