

Markets, He Wrote

*On Behalf of
The 2017 FAMA Spring Meeting*

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

March 21st, 2017



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Macro P.I.

(Just How Hairy is the
Global Situation?)

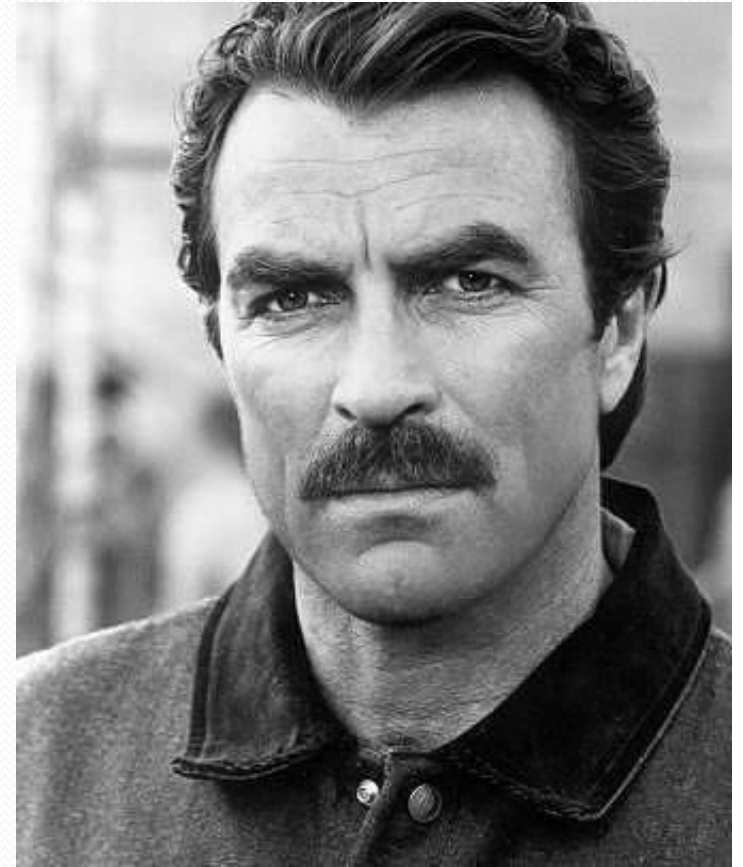
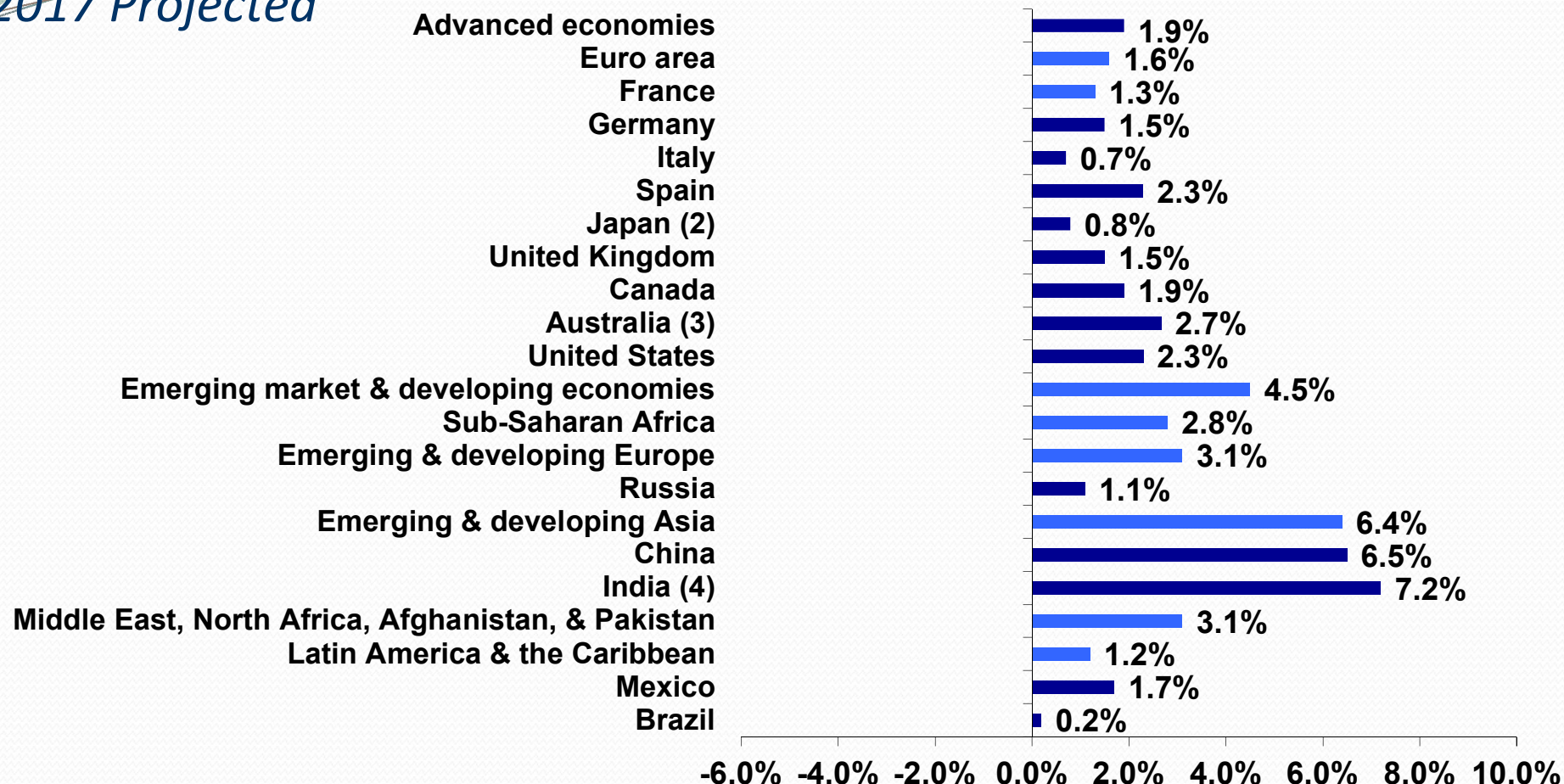


Photo: Flixter.com

Estimated Growth in Output by Select Global Areas

2017 Projected



2017 Proj. Global Output Growth: 3.4%

Annual % Change

Source: International Monetary Fund: World Economic Outlook Update, January 2017; World Economic Outlook Database, October 2016.

Notes: 1. Real effective exchange rates are assumed to remain constant at the levels prevailing during November 4-December 2, 2016. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted. 2. Japan's historical national accounts figures reflect a comprehensive revision by the national authorities, released in December 2016. The main revisions are the switch from the System of National Accounts 1993 to the System of National Accounts 2008 and the updating of the benchmark year from 2005 to 2011. 3. Australia's projected output growth is from the IMF's October 2016 WEO Database. 4. For India, data and forecasts are presented on a fiscal year basis and GDP from 2011 onward is based on GDP at market prices with FY2011/12 as a base year.



International Population Dynamics, 16 Largest Nations

Nation	Population (Millions)			% Change
	2015	2050	Net Change	
Nigeria	182.2	398.5	216.3	118.7%
Ethiopia	99.4	188.5	89.1	89.6%
Egypt	91.5	151.1	59.6	65.1%
Pakistan	188.9	309.6	120.7	63.9%
Philippines	100.7	148.3	47.6	47.2%
India	1,311.1	1,705.3	394.3	30.1%
Mexico	127.0	163.8	36.7	28.9%
Bangladesh	161.0	202.2	41.2	25.6%
Indonesia	257.6	322.2	64.7	25.1%
United States	321.8	388.9	67.1	20.9%
Vietnam	93.4	112.8	19.3	20.7%
Brazil	207.8	238.3	30.4	14.6%
China	1,376.0	1,348.1	-28.0	-2.0%
Germany	80.7	74.5	-6.2	-7.7%
Russian Federation	143.5	128.6	-14.9	-10.4%
Japan	126.6	107.4	-19.2	-15.1%
World	7.3 billion	9.7 billion	2.4 billion	32.3%

Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 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, 2014)

Top 15			Bottom 15		
Rank*	Country	Fertility Rate	Rank*	Country	Fertility Rate
1	Niger	7.60	186	Germany	1.39
2	Somalia	6.46	186	Italy	1.39
3	Mali	6.23	188	Malta	1.38
4	Chad	6.16	189	Hungary	1.35
5	Angola	6.08	190	Slovak Republic	1.34
6	Congo, Dem. Rep.	6.01	191	Greece	1.30
7	Burundi	5.95	192	Poland	1.29
8	Uganda	5.78	193	Spain	1.27
9	Gambia, The	5.72	194	Bosnia and Herzegovina	1.26
10	Nigeria	5.65	194	Moldova	1.26
11	Burkina Faso	5.52	196	Singapore	1.25
12	Mozambique	5.36	197	Macao SAR, China	1.24
13	Zambia	5.35	198	Hong Kong SAR, China	1.23
14	Tanzania	5.15	200	Portugal	1.21
15	Malawi	5.13	200	Korea, Rep.	1.21

Source: World Bank, World Development Indicators

*Rank among 200 countries for which data are available for the most recent year (2014)

**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?

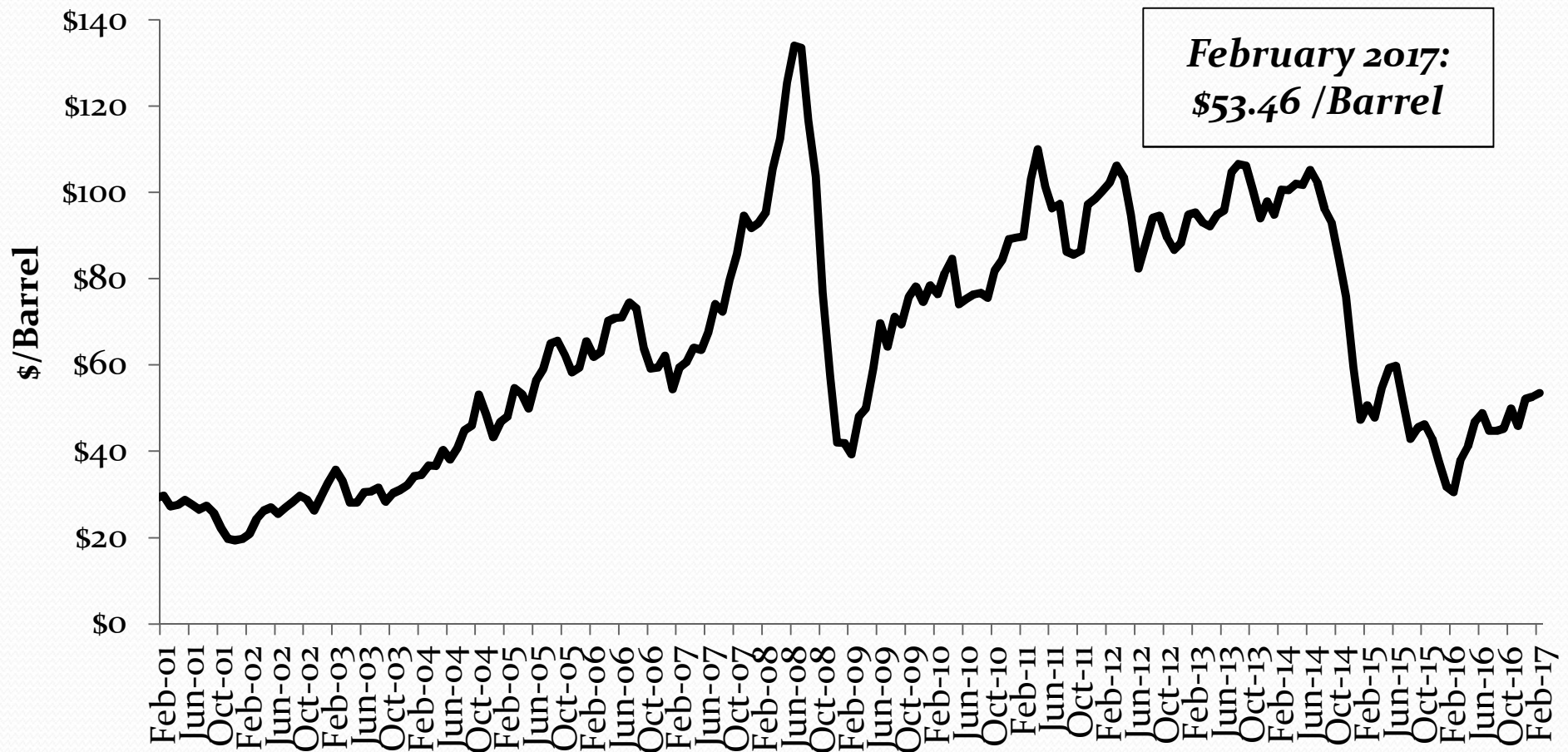
- “ According to the IMF, global debt reached an **all-time high** in 2015;
- “ At **\$152 trillion**, global gross debt of the nonfinancial sector now represents **225% of global GDP**;
- “ About **2/3** of this debt is in the **private sector**;
- “ Current low nominal-growth environment is making 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.

NYMEX Crude Oil Future Prices in U.S. Dollars

February 2001 through February 2017

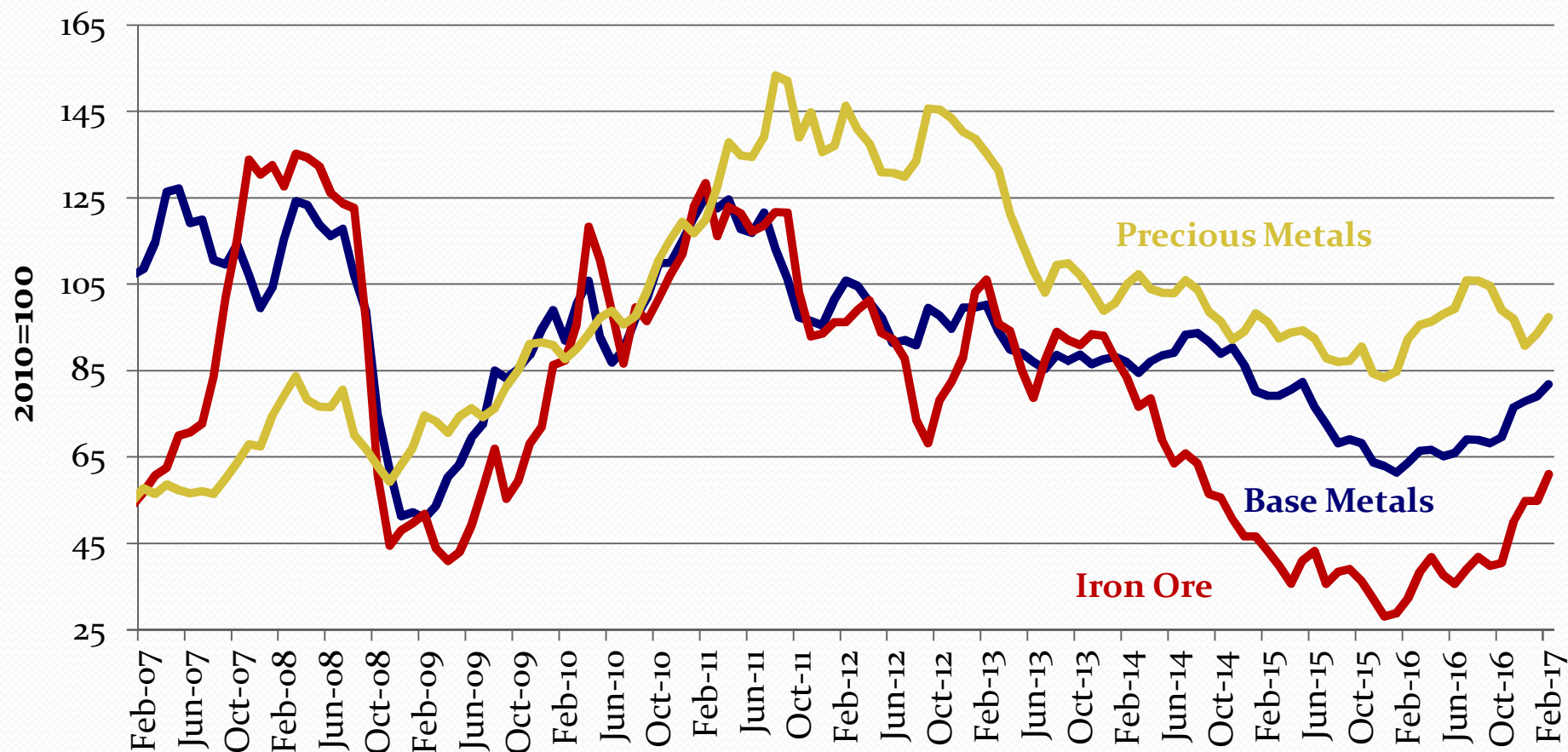


Source: U.S. Energy Information Administration

*Month of February = average of daily prices from 2/1-2/28

Metal Price Indices

February 2007 through February 2017



Source: The World Bank

US\$ Nominal

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

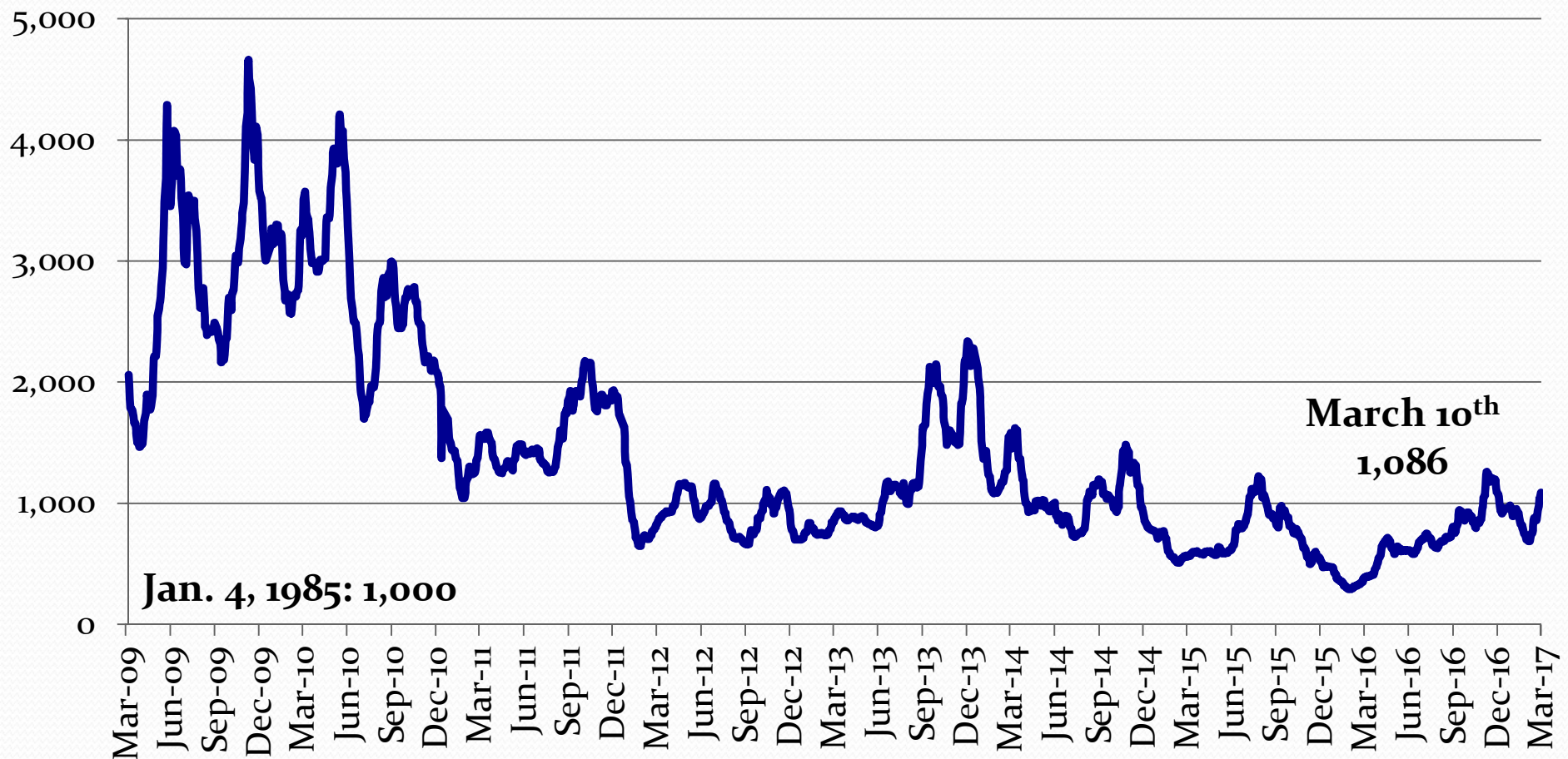
Precious metals include gold, platinum, and silver.



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Baltic Dry Index

March 2009 through March 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.



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USA CSI

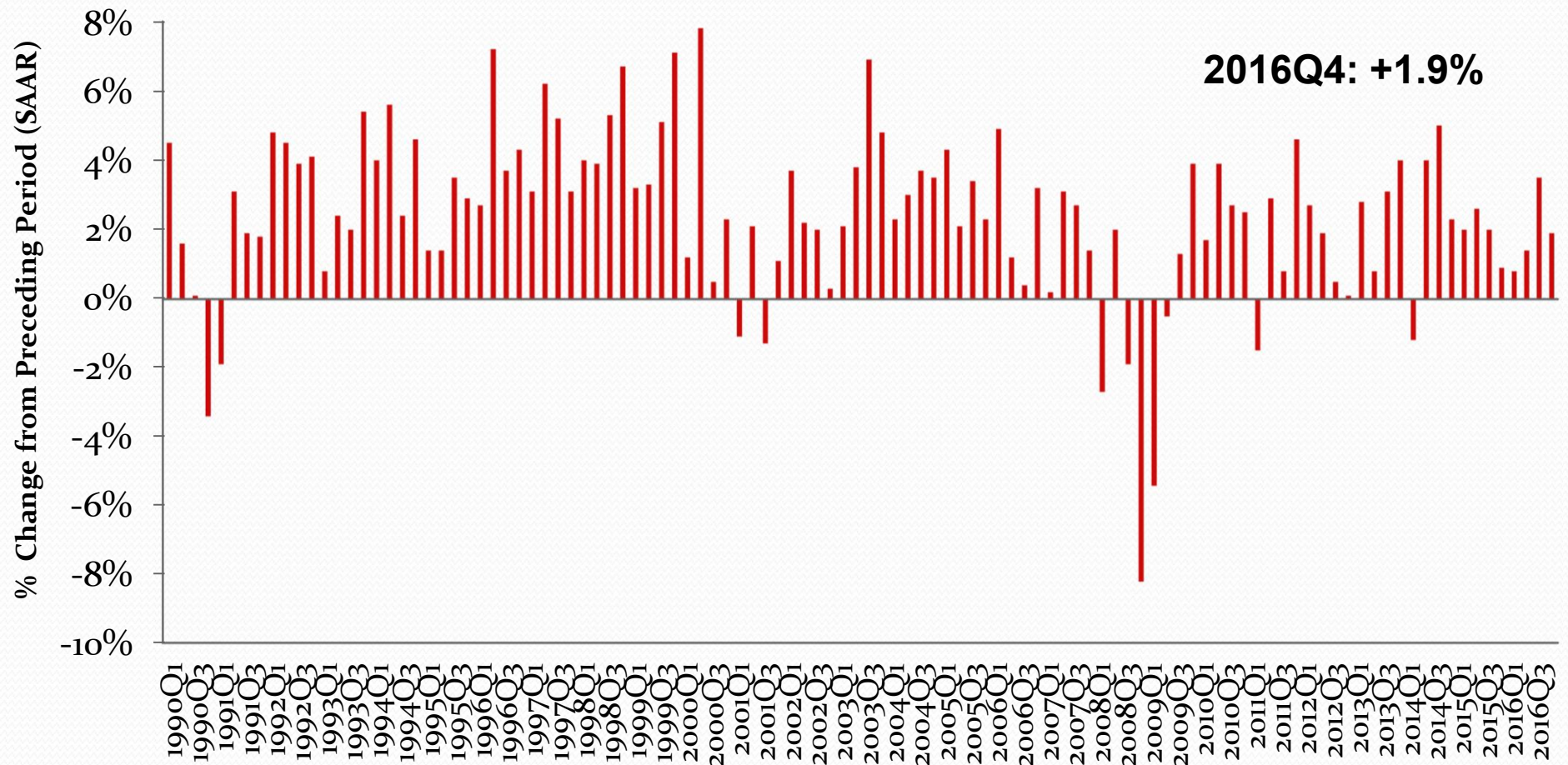


(Commercial Situation Investigation)

Photo: AMCNetworks.com

US Gross Domestic Product

1990Q1 through 2016Q4*



Source: Bureau of Economic Analysis

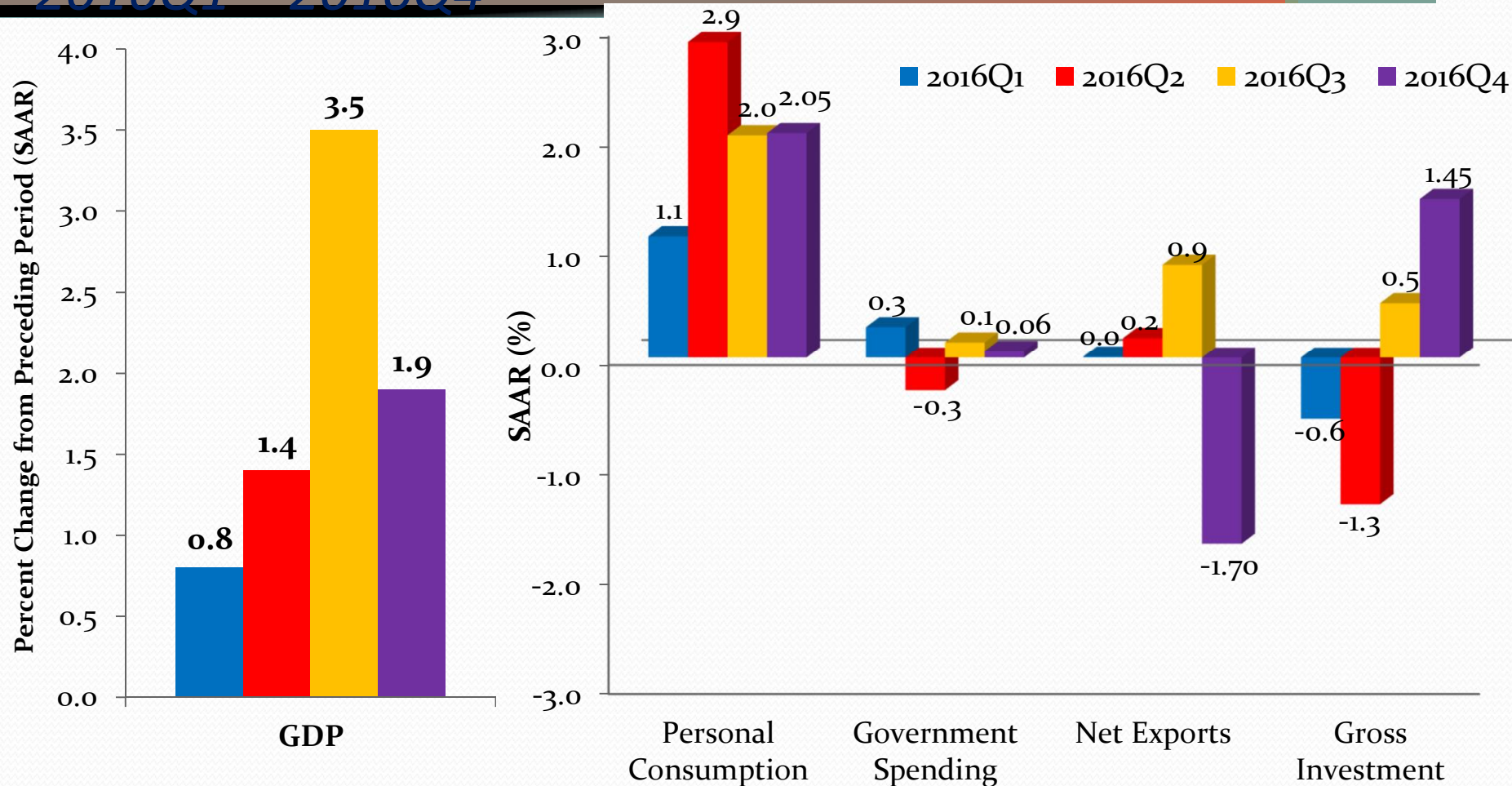
*2nd Estimate



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Contributions to GDP Growth by Component

2016Q1 – 2016Q4*



Source: Bureau of Economic Analysis

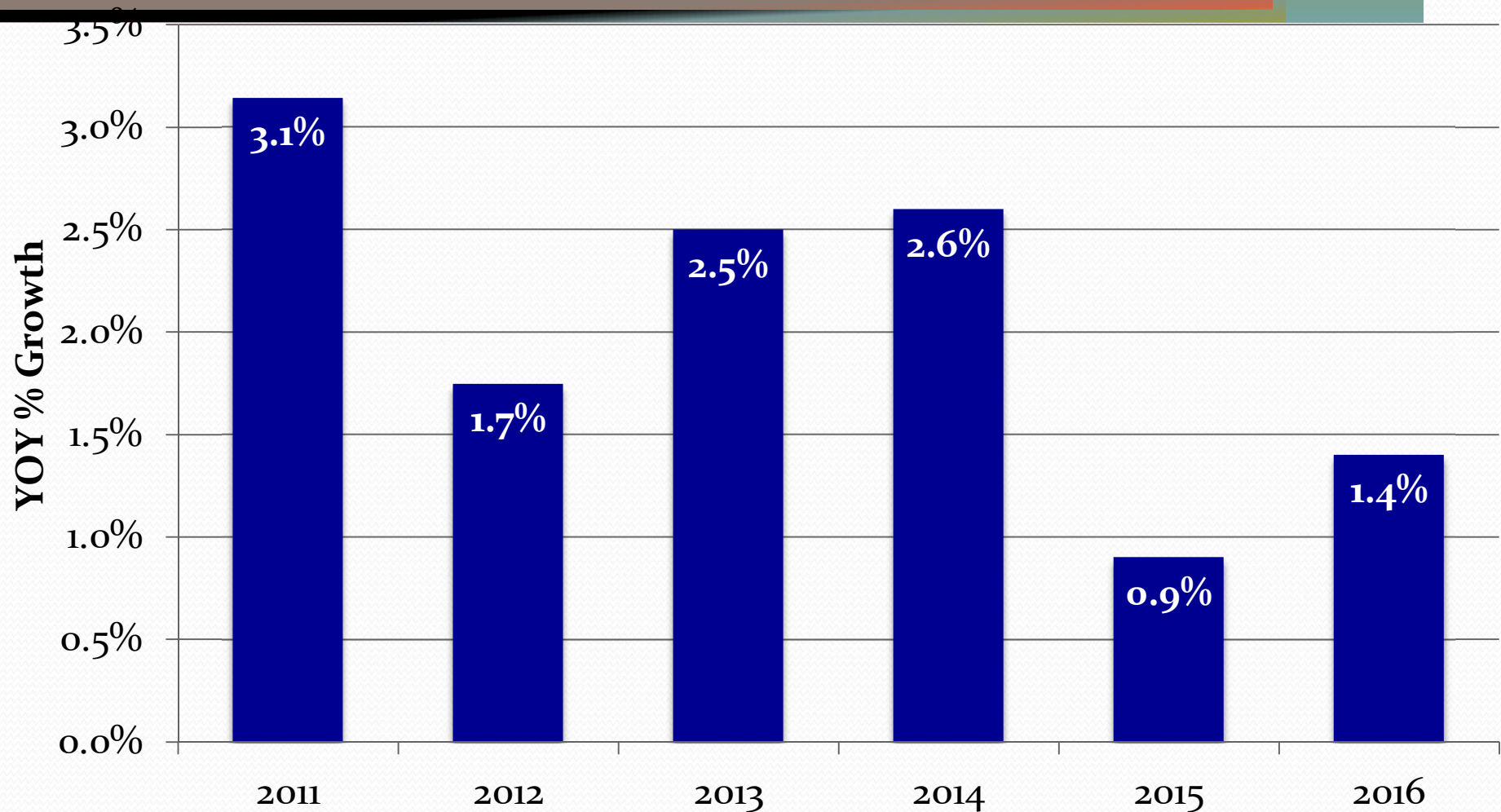
*2nd Estimate

2016Q4: +1.9%



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Canada Real GDP Growth, 2011-2016



Source: Statistics Canada, CANSIM, table 384-0038, table 380-0064

*Real gross domestic product, expenditure-based

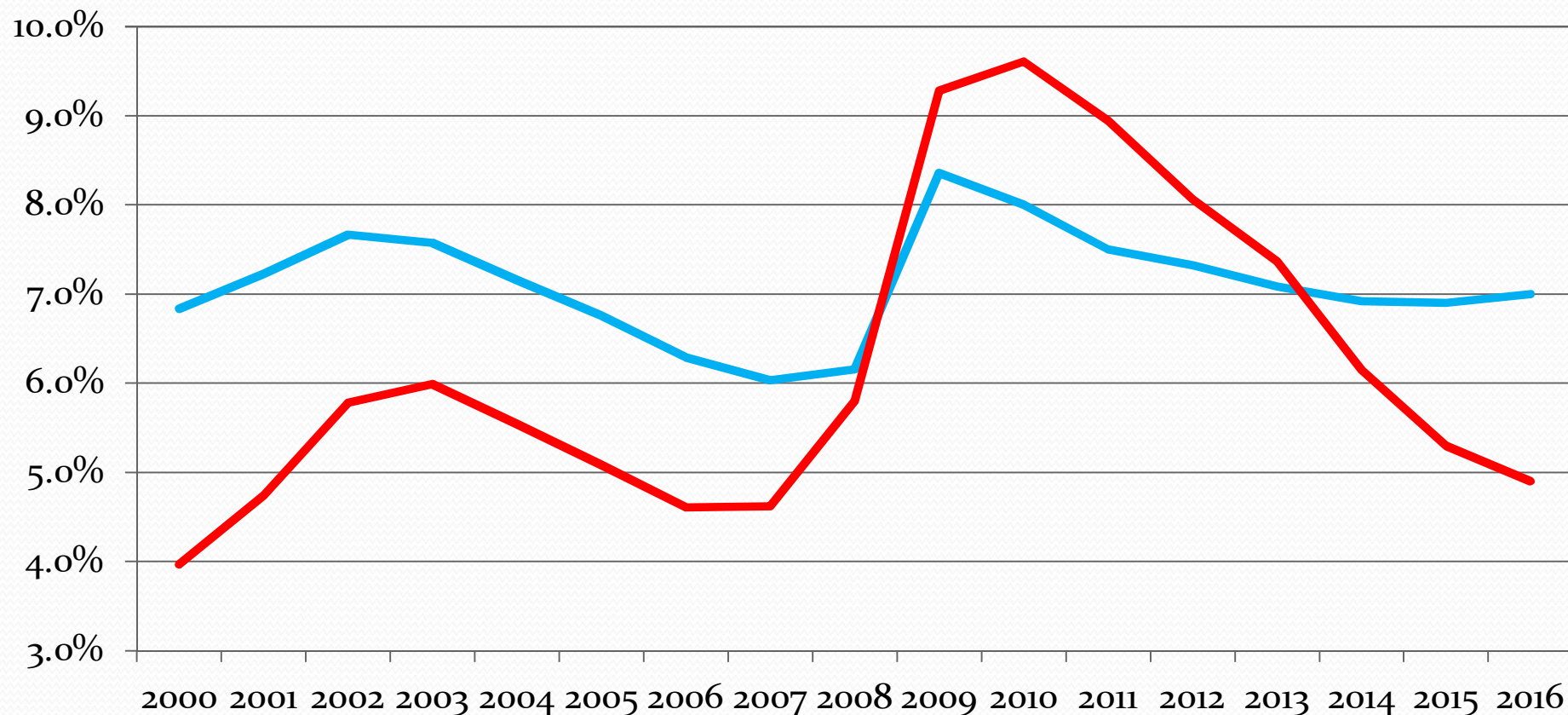


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Unemployment Rate, United States & Canada

2000 through 2016*

— Canada — United States



Source: International Monetary Fund, U.S Bureau of Labor Statistics

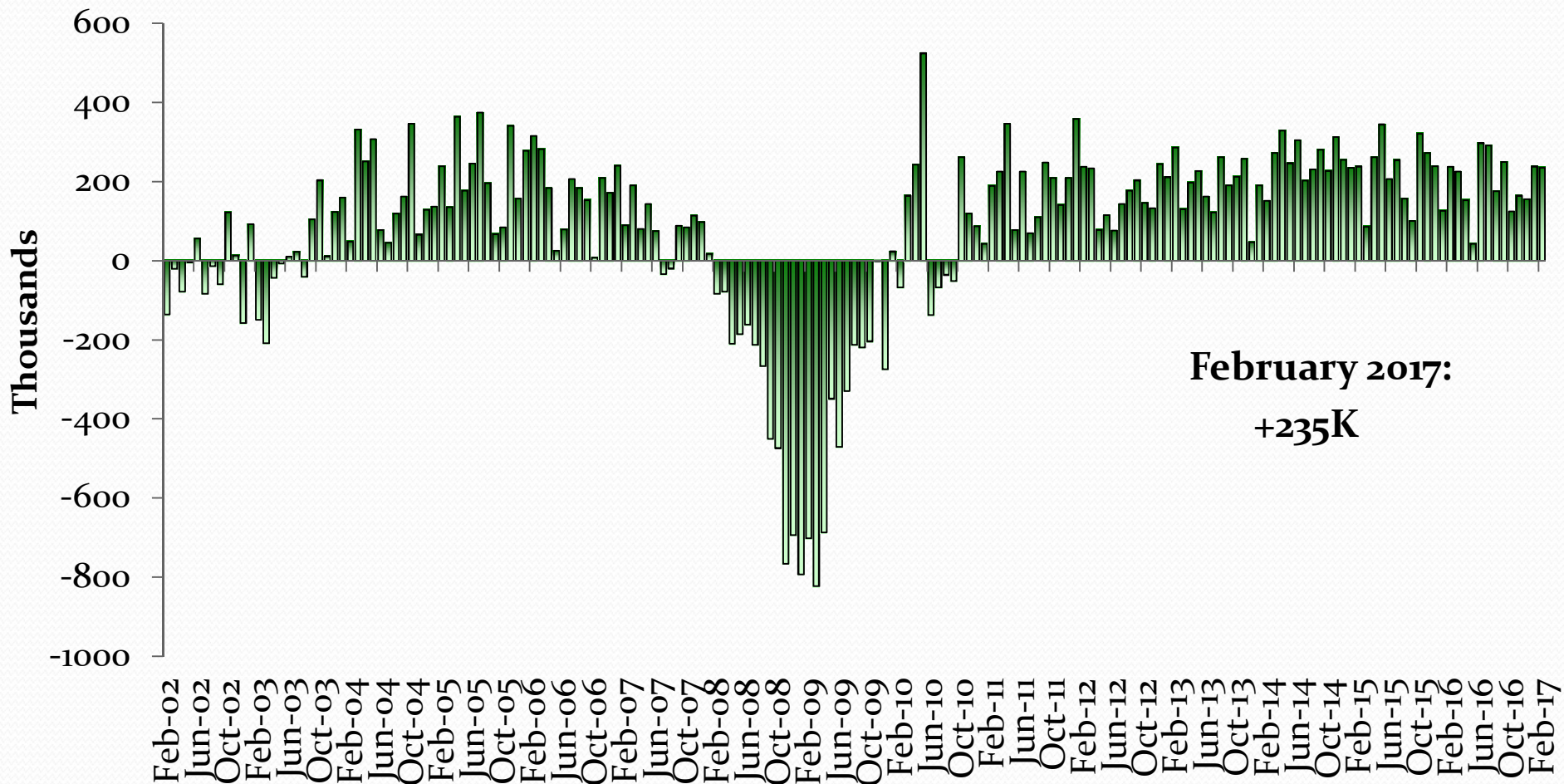
*2016 figure for Canada is a projection



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Net Change in U.S. Jobs, BLS

February 2002 through February 2017



Source: U.S. Bureau of Labor Statistics

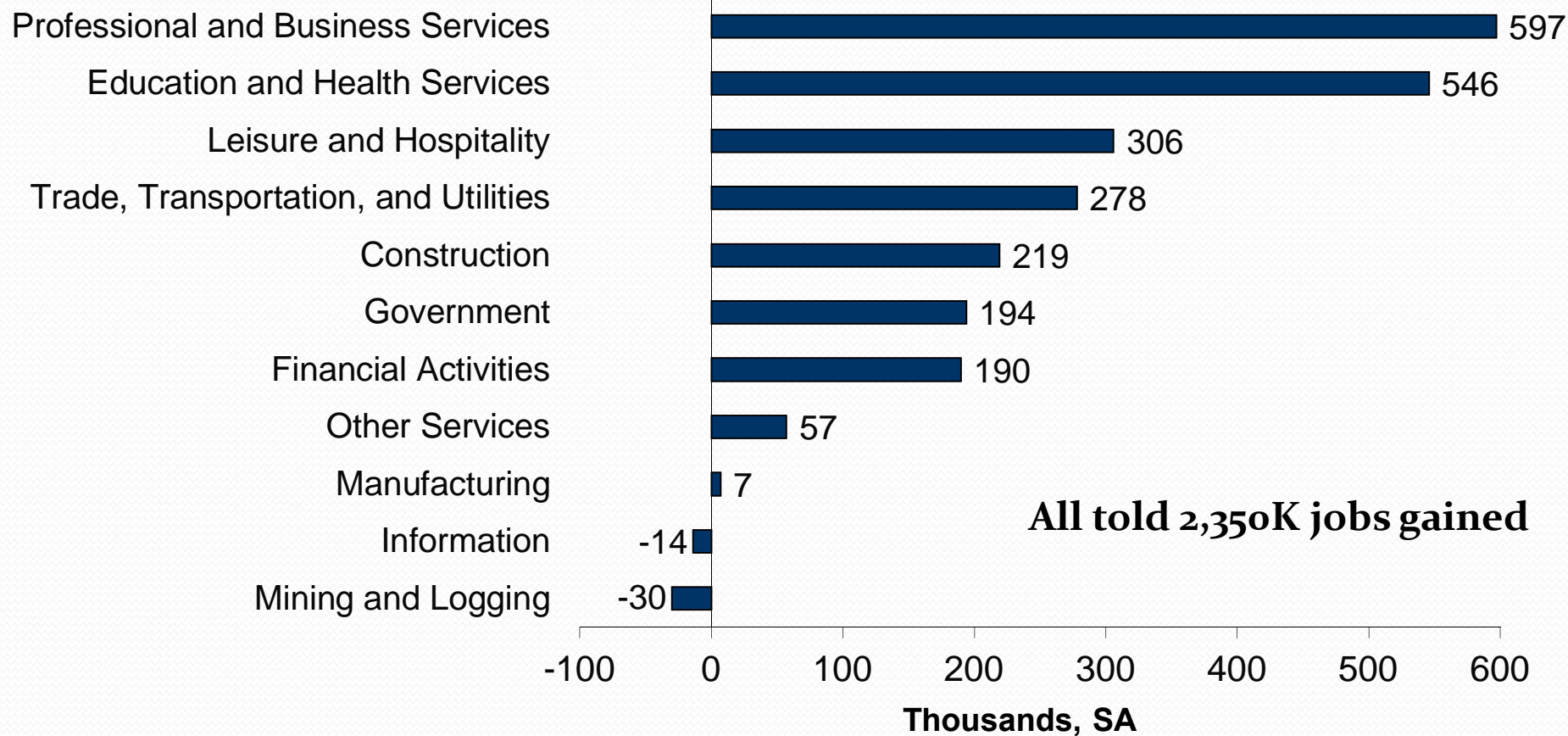


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US National Nonfarm Employment

by Industry Sector

February 2016 v. February 2017



Source: U.S. Bureau of Labor Statistics



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Employment Growth, U.S. States (SA)

January 2016 v. January 2017 Percent Change

RANK	STATE	%	RANK	STATE	%	RANK	STATE	%
1	IDAHO	4.0	18	MASSACHUSETTS	1.8	34	IOWA	0.9
2	NEVADA	3.5	18	NORTH CAROLINA	1.8	34	NEBRASKA	0.9
3	FLORIDA	3.4	20	NEW JERSEY	1.7	34	RHODE ISLAND	0.9
4	UTAH	3.3	21	KENTUCKY	1.6	34	VERMONT	0.9
5	WASHINGTON	2.8	22	MARYLAND	1.5	39	NEW MEXICO	0.6
6	GEORGIA	2.7	22	NEW YORK	1.5	39	OHIO	0.6
7	NEW HAMPSHIRE	2.5	24	ALABAMA	1.4	39	WISCONSIN	0.6
8	OREGON	2.4	24	VIRGINIA	1.4	42	CONNECTICUT	0.3
9	MICHIGAN	2.2	26	DISTRICT OF COLUMBIA	1.3	42	ILLINOIS	0.3
10	ARIZONA	2.0	27	DELAWARE	1.2	44	MISSISSIPPI	0.0
10	CALIFORNIA	2.0	27	INDIANA	1.2	45	KANSAS	-0.2
10	SOUTH CAROLINA	2.0	27	PENNSYLVANIA	1.2	46	LOUISIANA	-0.4
10	TENNESSEE	2.0	30	HAWAII	1.1	47	OKLAHOMA	-0.6
14	COLORADO	1.9	30	MINNESOTA	1.1	47	WEST VIRGINIA	-0.6
14	MISSOURI	1.9	30	SOUTH DAKOTA	1.1	49	NORTH DAKOTA	-0.7
14	MONTANA	1.9	33	MAINE	1.0	50	ALASKA	-2.7
14	TEXAS	1.9	34	ARKANSAS	0.9	51	WYOMING	-3.2

Source: U.S. Bureau of Labor Statistics

U.S. Year-over-year Percent Change: +1.6%



Canada Real GDP Growth, by Province and Territory, 2015

	GDP Growth (%)
British Columbia	+3.3%
Ontario	+2.5%
New Brunswick	+2.3%
Manitoba	+2.2%
Northwest Territories	+1.3%
Prince Edward Island	+1.3%
Nunavut	+1.3%
Quebec	+1.2%
Nova Scotia	+1.0%
Saskatchewan	-1.3%
Newfoundland and Labrador	-2.0%
Outside Canada	-2.3%
Alberta	-3.6%
Yukon	-6.0%
Canada	+0.9%

Source: Statistics Canada, CANSIM, table 384-0038.

*Real gross domestic product, expenditure-based

2016 Canada GDP Growth: +1.4%



Employment Growth, 24 Largest Metros (NSA)

January 2016 v. January 2017 Percent Change

Rank	MSA	%	Rank	MSA	%
1	Orlando-Kissimmee-Sanford, FL MSA	4.6	13	Boston-Cambridge-Nashua, MA-NH Metro NECTA	2.2
2	Dallas-Fort Worth-Arlington, TX MSA	4.0	14	Denver-Aurora-Lakewood, CO MSA	2.0
3	Atlanta-Sandy Springs-Roswell, GA MSA	3.7	15	Detroit-Warren-Dearborn, MI MSA	1.8
4	Charlotte-Concord-Gastonia, NC-SC MSA	3.2	15	Portland-Vancouver-Hillsboro, OR-WA MSA	1.8
4	Riverside-San Bernardino-Ontario, CA MSA	3.2	17	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	1.7
4	Seattle-Tacoma-Bellevue, WA MSA	3.2	17	New York-Newark-Jersey City, NY-NJ-PA MSA	1.7
7	Tampa-St. Petersburg-Clearwater, FL MSA	3.0	19	Minneapolis-St. Paul-Bloomington, MN-WI MSA	1.5
8	Miami-Fort Lauderdale-West Palm Beach, FL MSA	2.8	20	Los Angeles-Long Beach-Anaheim, CA MSA	1.4
9	San Francisco-Oakland-Hayward, CA MSA	2.5	20	St. Louis, MO-IL MSA	1.4
10	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	2.4	22	Baltimore-Columbia-Towson, MD MSA	1.1
10	Phoenix-Mesa-Scottsdale, AZ MSA	2.4	23	Chicago-Naperville-Elgin, IL-IN-WI MSA	0.5
12	San Diego-Carlsbad, CA MSA	2.3	24	Houston-The Woodlands-Sugar Land, TX MSA	0.3

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

Unemployment Rates, 24 Largest Metros (NSA)

January 2017

Rank	MSA	UR	Rank	MSA	UR
1	Denver-Aurora-Lakewood, CO MSA	3.1	11	St. Louis, MO-IL MSA (1)	4.6
2	Boston-Cambridge-Nashua, MA-NH Metro NECTA	3.5	14	Los Angeles-Long Beach-Anaheim, CA MSA	4.8
3	San Francisco-Oakland-Hayward, CA MSA	3.7	14	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	4.8
4	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	3.9	16	Orlando-Kissimmee-Sanford, FL MSA	4.9
5	Dallas-Fort Worth-Arlington, TX MSA	4.0	17	Charlotte-Concord-Gastonia, NC-SC MSA	5.1
6	Minneapolis-St. Paul-Bloomington, MN-WI MSA	4.2	17	Miami-Fort Lauderdale-West Palm Beach, FL MSA	5.1
6	Portland-Vancouver-Hillsboro, OR-WA MSA	4.2	17	Tampa-St. Petersburg-Clearwater, FL MSA	5.1
8	Seattle-Tacoma-Bellevue, WA MSA	4.4	20	Atlanta-Sandy Springs-Roswell, GA MSA	5.3
9	Phoenix-Mesa-Scottsdale, AZ MSA	4.5	21	Riverside-San Bernardino-Ontario, CA MSA	5.6
9	San Diego-Carlsbad, CA MSA	4.5	22	Houston-The Woodlands-Sugar Land, TX MSA	5.8
11	Baltimore-Columbia-Towson, MD MSA	4.6	23	Chicago-Naperville-Elgin, IL-IN-WI MSA	6.0
11	New York-Newark-Jersey City, NY-NJ-PA MSA	4.6	24	Detroit-Warren-Dearborn, MI MSA	6.2

Source: U.S. Bureau of Labor Statistics

1. Area boundaries do not reflect official OMB definitions.

U.S. Unemployment Rate

January 2017: 4.8%

February 2017: 4.7%



21 Jump Street

(And Other Addresses of Interest)

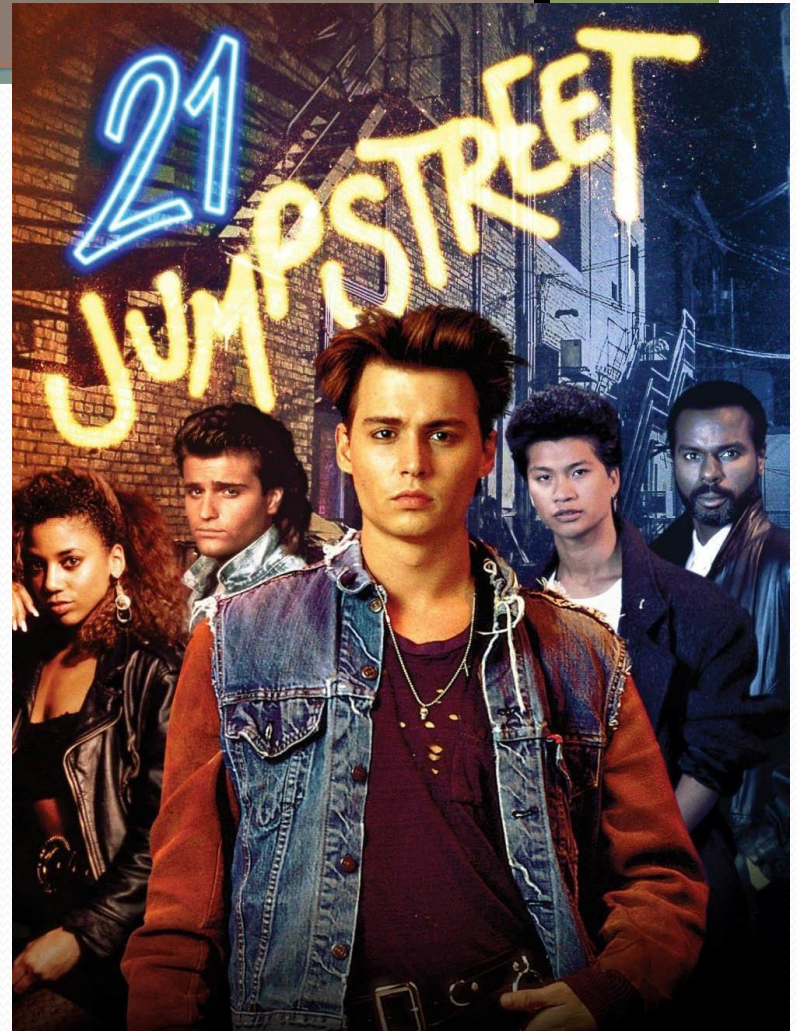


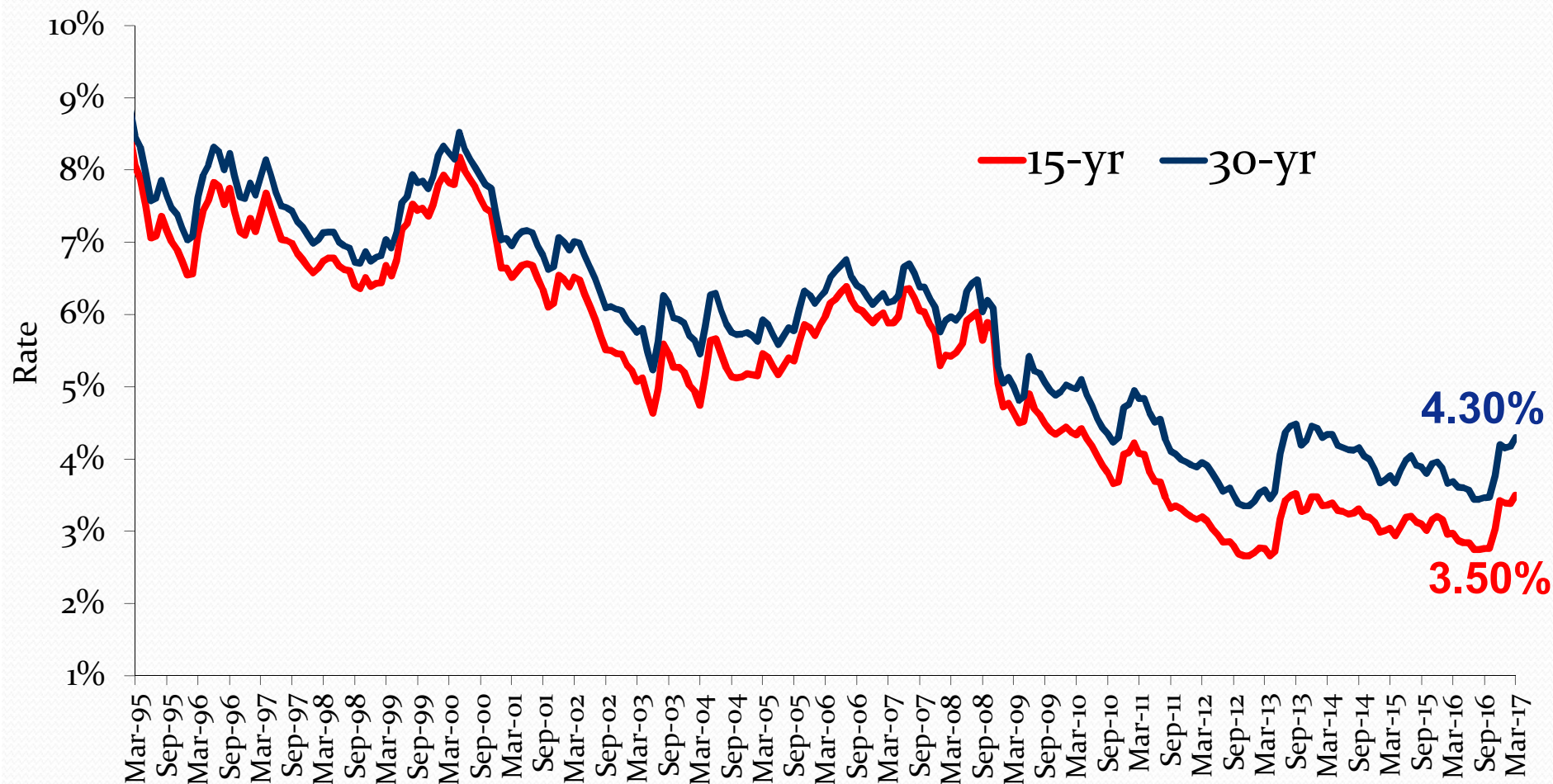
Photo: TheMoveDatabase.org



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15-Year & 30-Year Fixed Mortgage Rates

March 1995 through March 2017*



Source: Freddie Mac

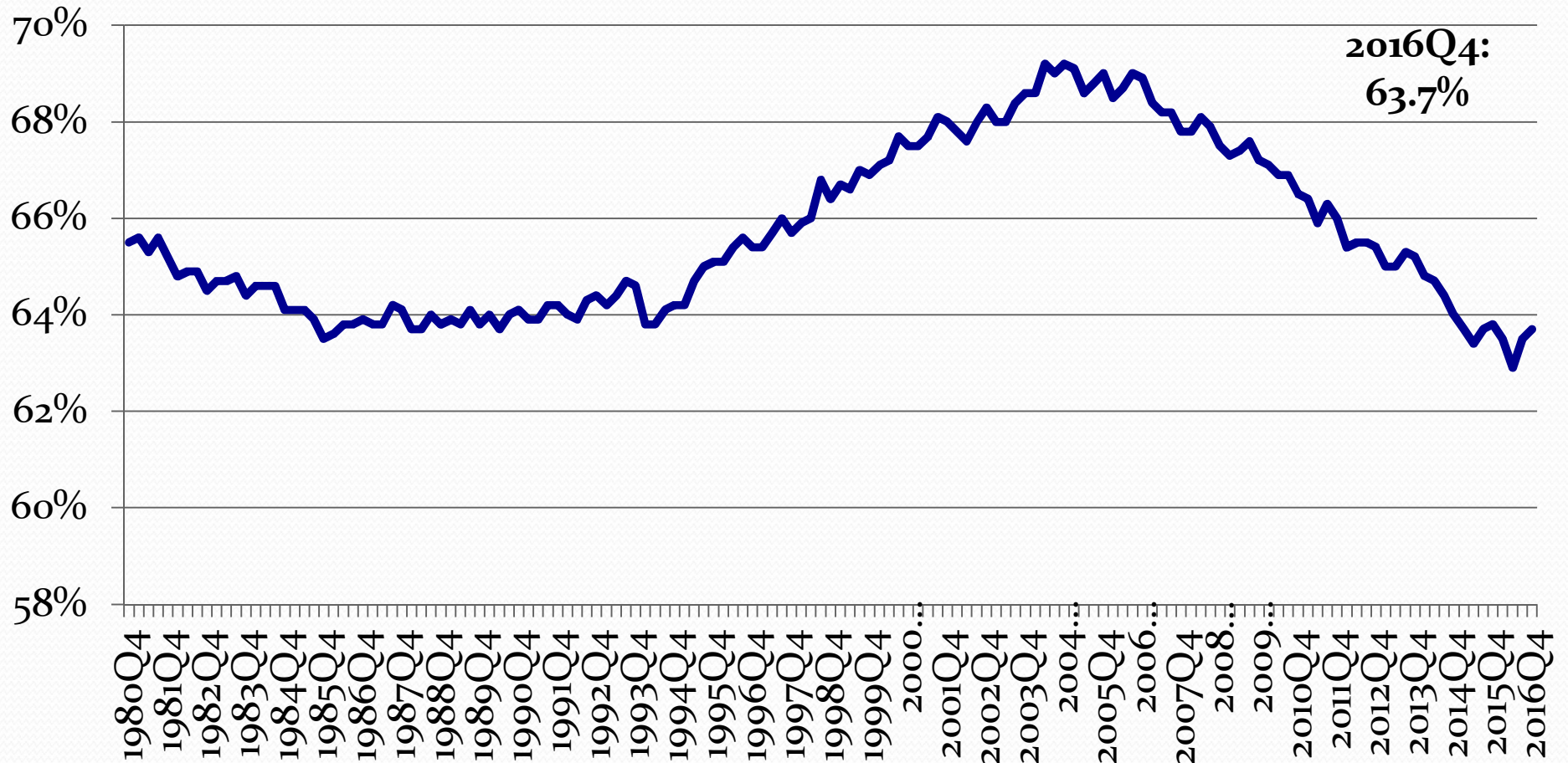
*Week ending 3/16/2017



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U.S. Homeownership (NSA)

1980Q4-2016Q4

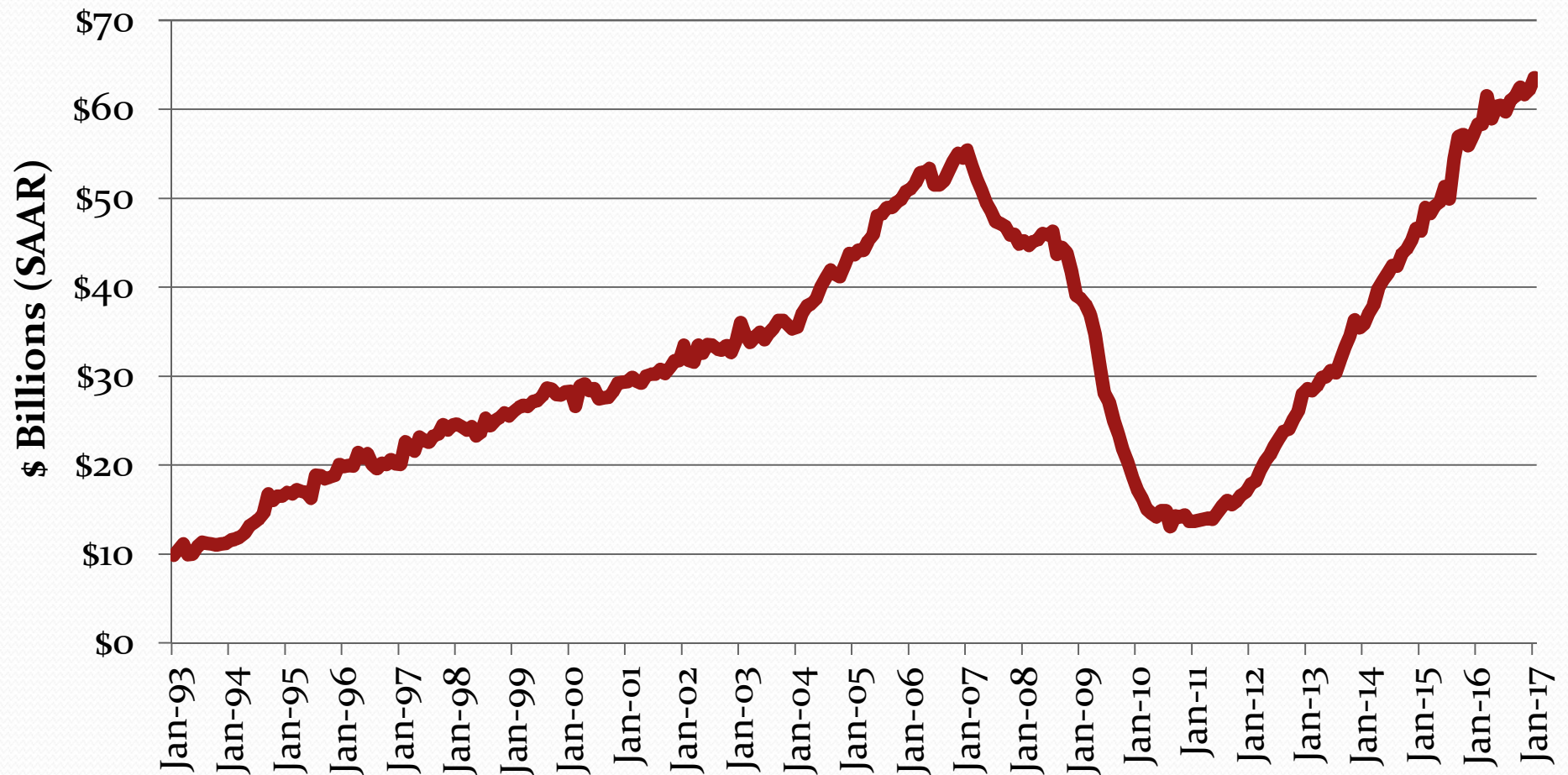


Source: U.S. Census Bureau

*NSA: not seasonally adjusted

U.S. Private New Multifamily Construction

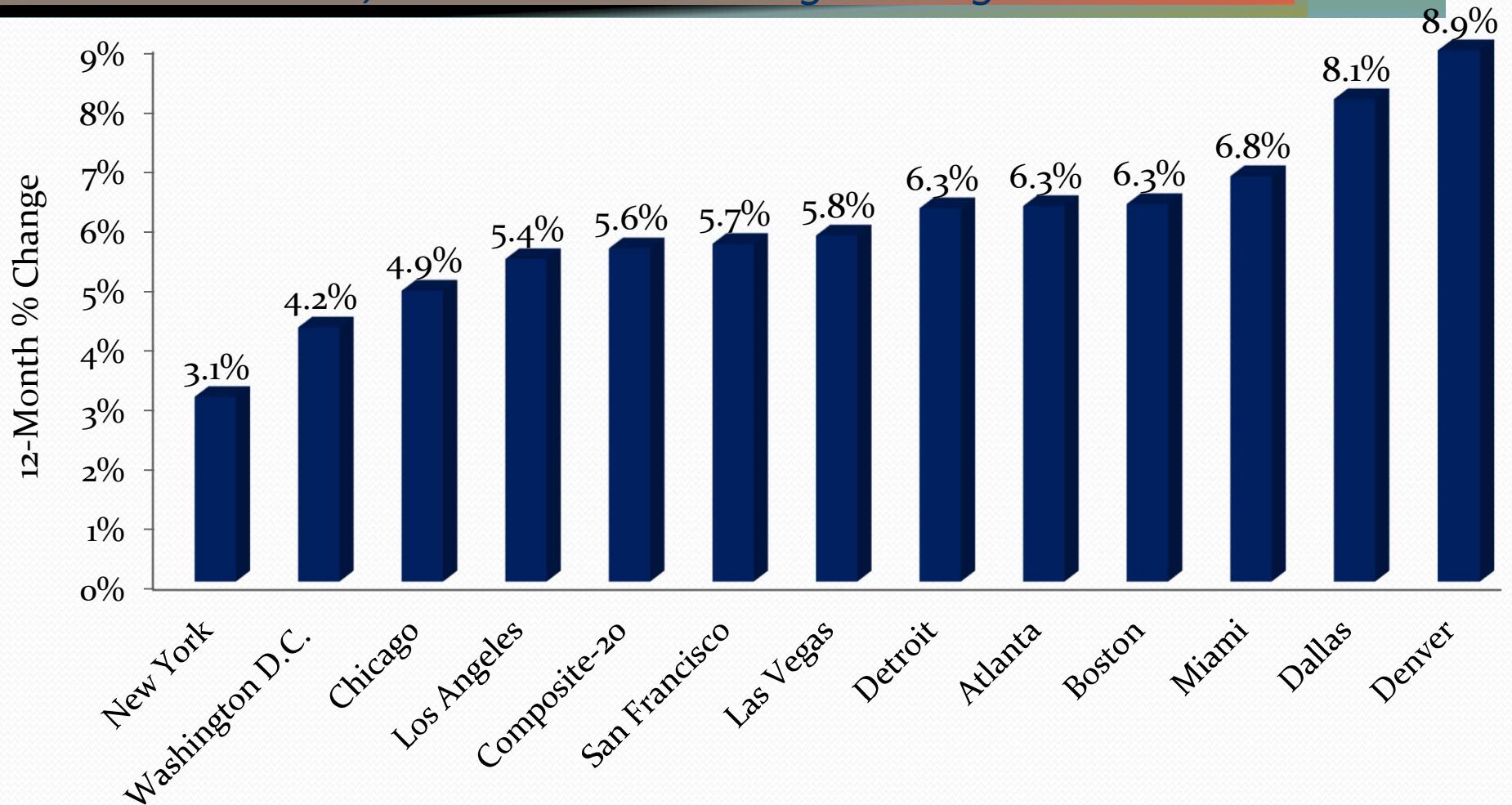
January 1993 through January 2017



Source: U.S. Census Bureau

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

December 2016, 12-Month Percentage Change



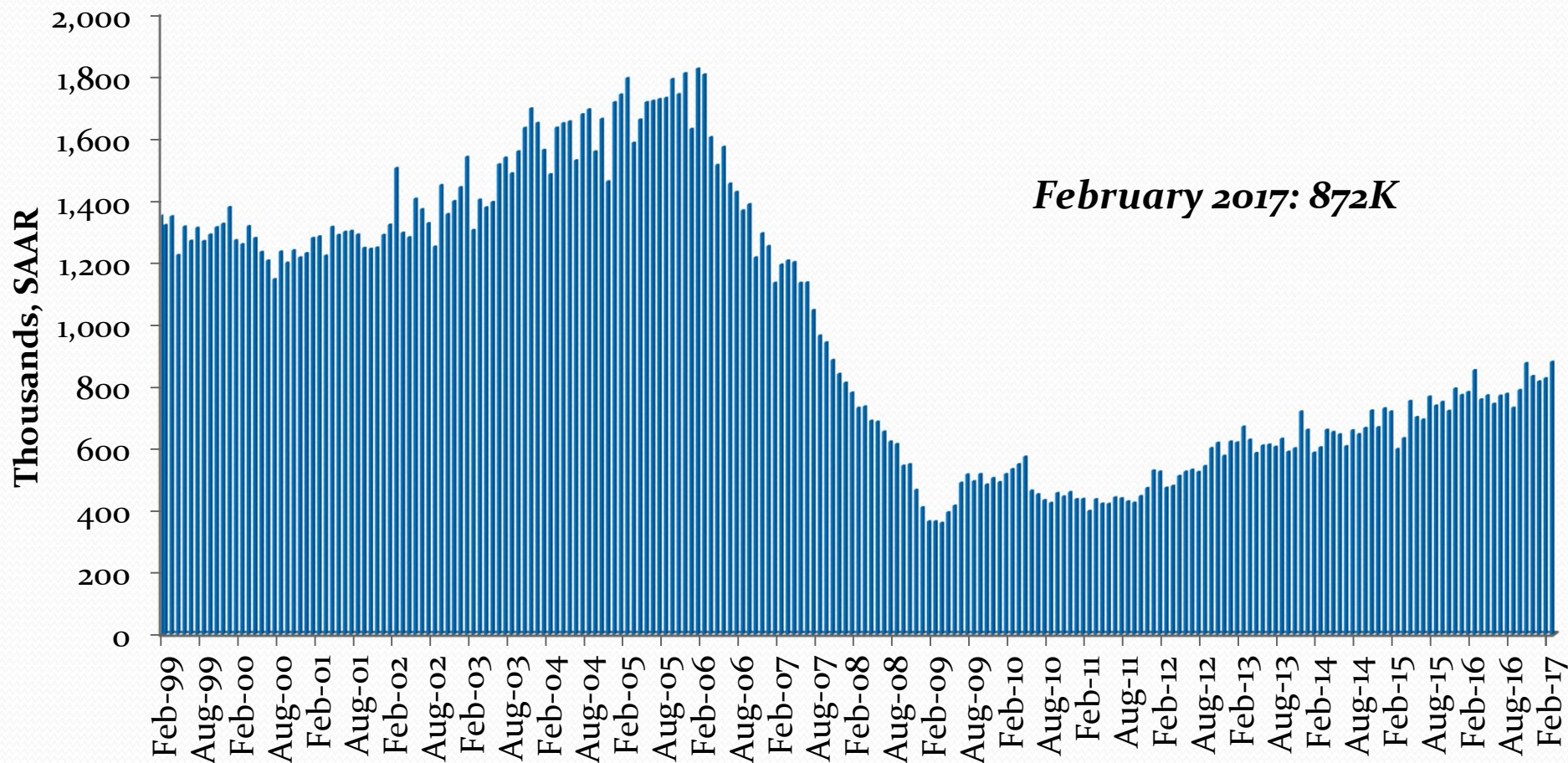
Source: Standard & Poor's



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U.S. Single-Family Housing Starts

February 1999 through February 2017



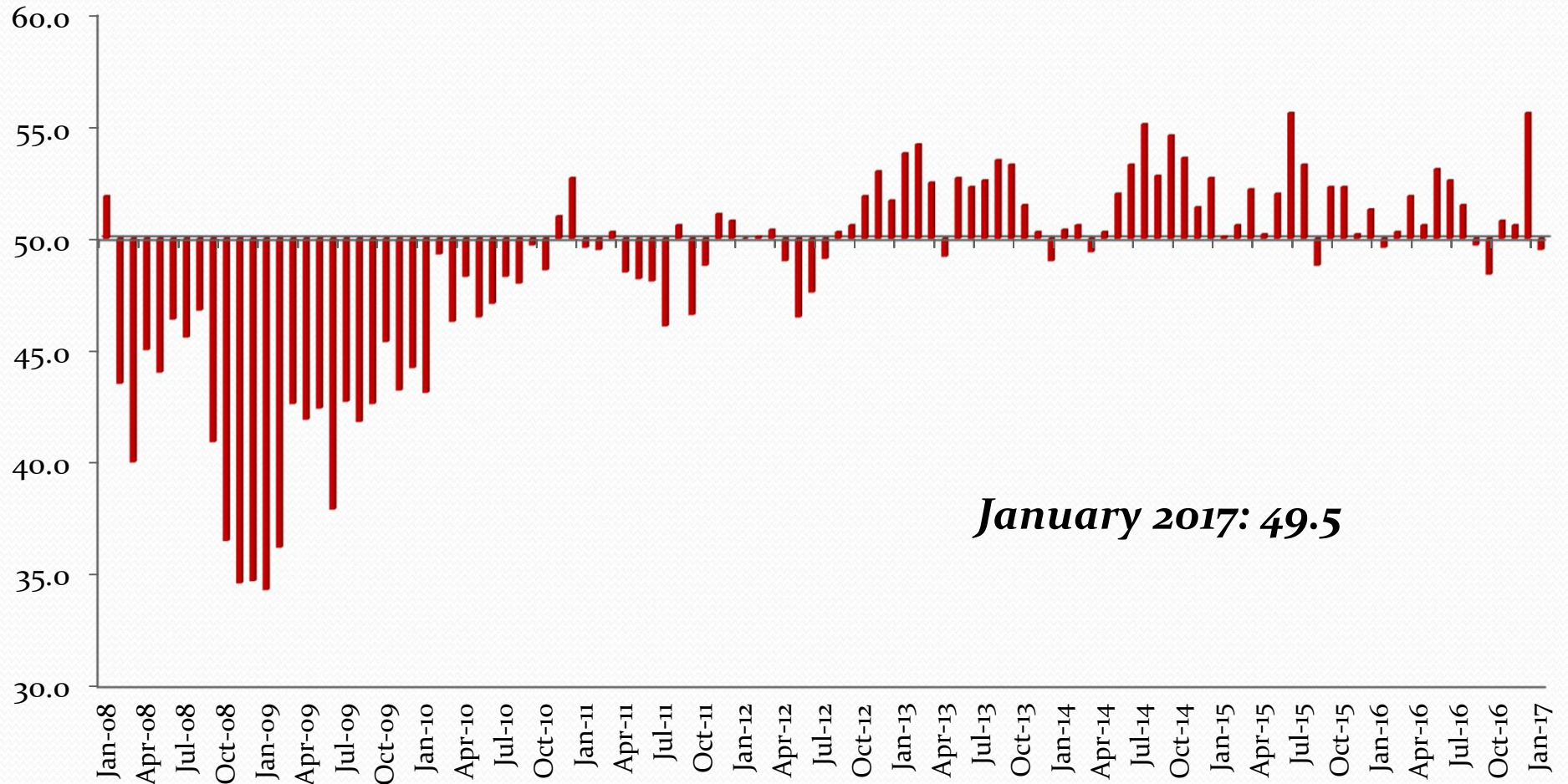
Source: U.S. Census Bureau



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Architecture Billings Index

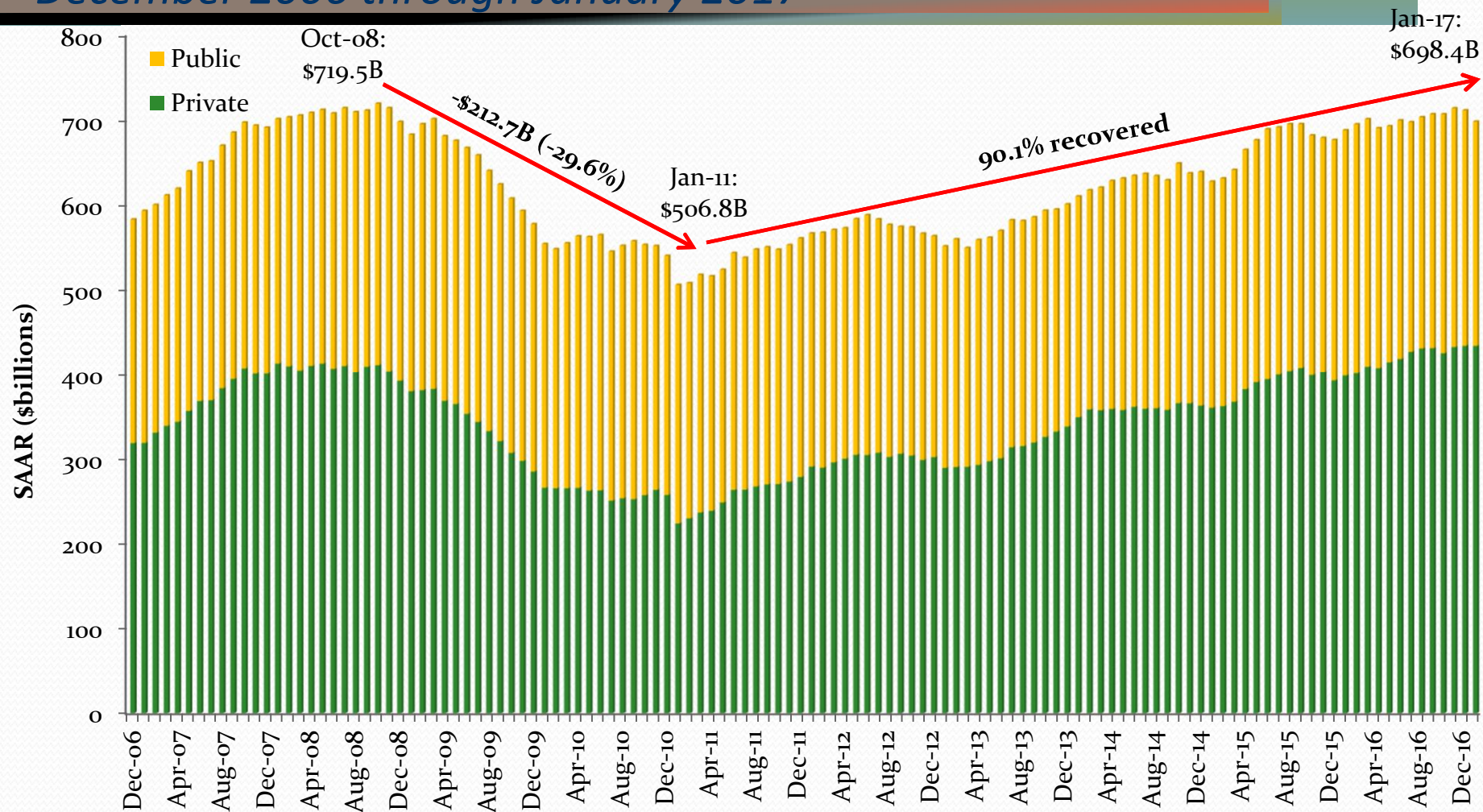
January 2008 through January 2017



Source: The American Institute of Architects

US Nonresidential Construction Put-in-Place

December 2006 through January 2017

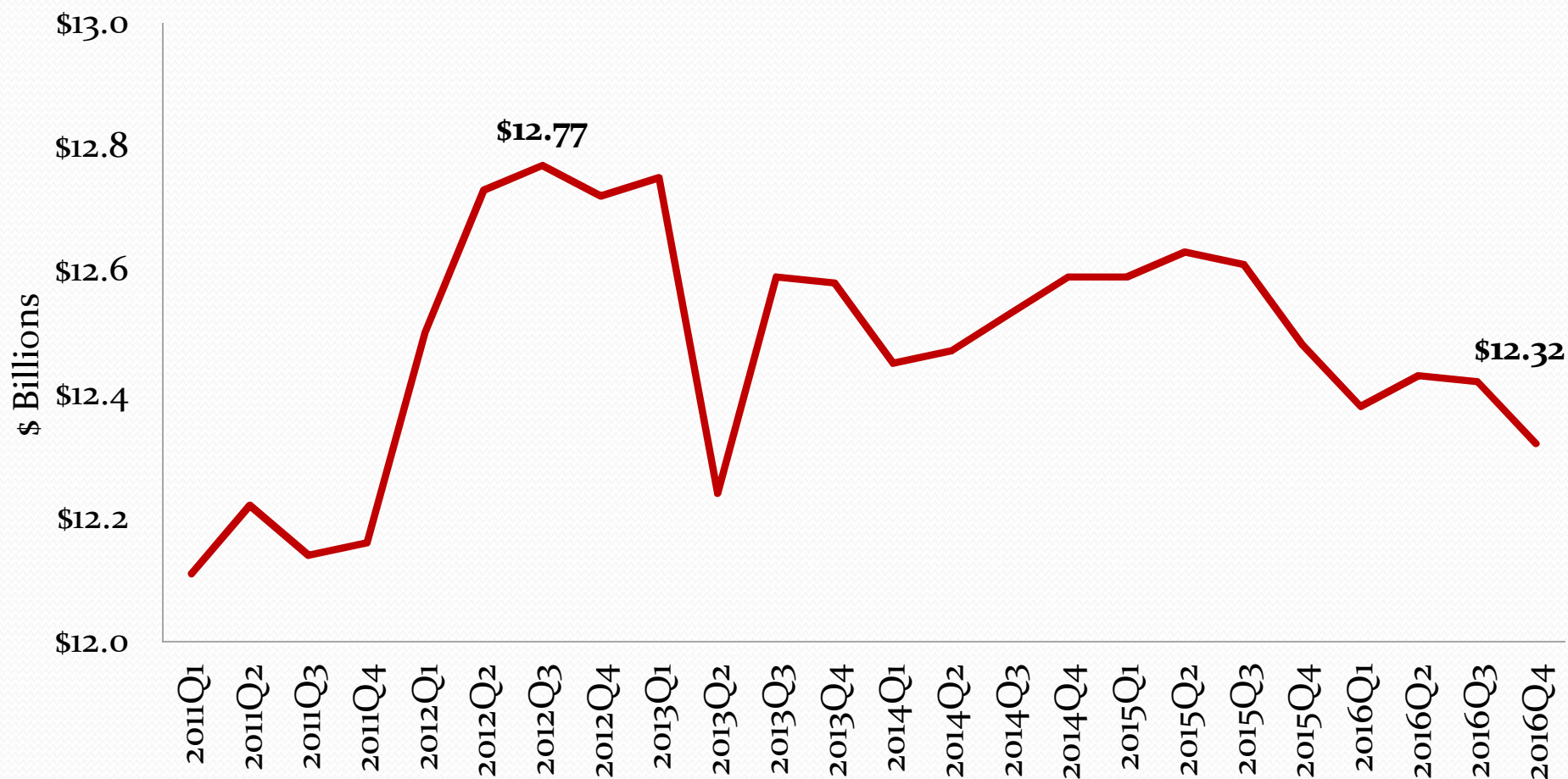


Source: U.S. Census Bureau



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Canada Nonresidential Building Construction Investment, 2011-2016



Source: Statistics Canada. The Daily. "Investment in non-residential building construction, fourth quarter 2016"; CANSIM, table 026-0016

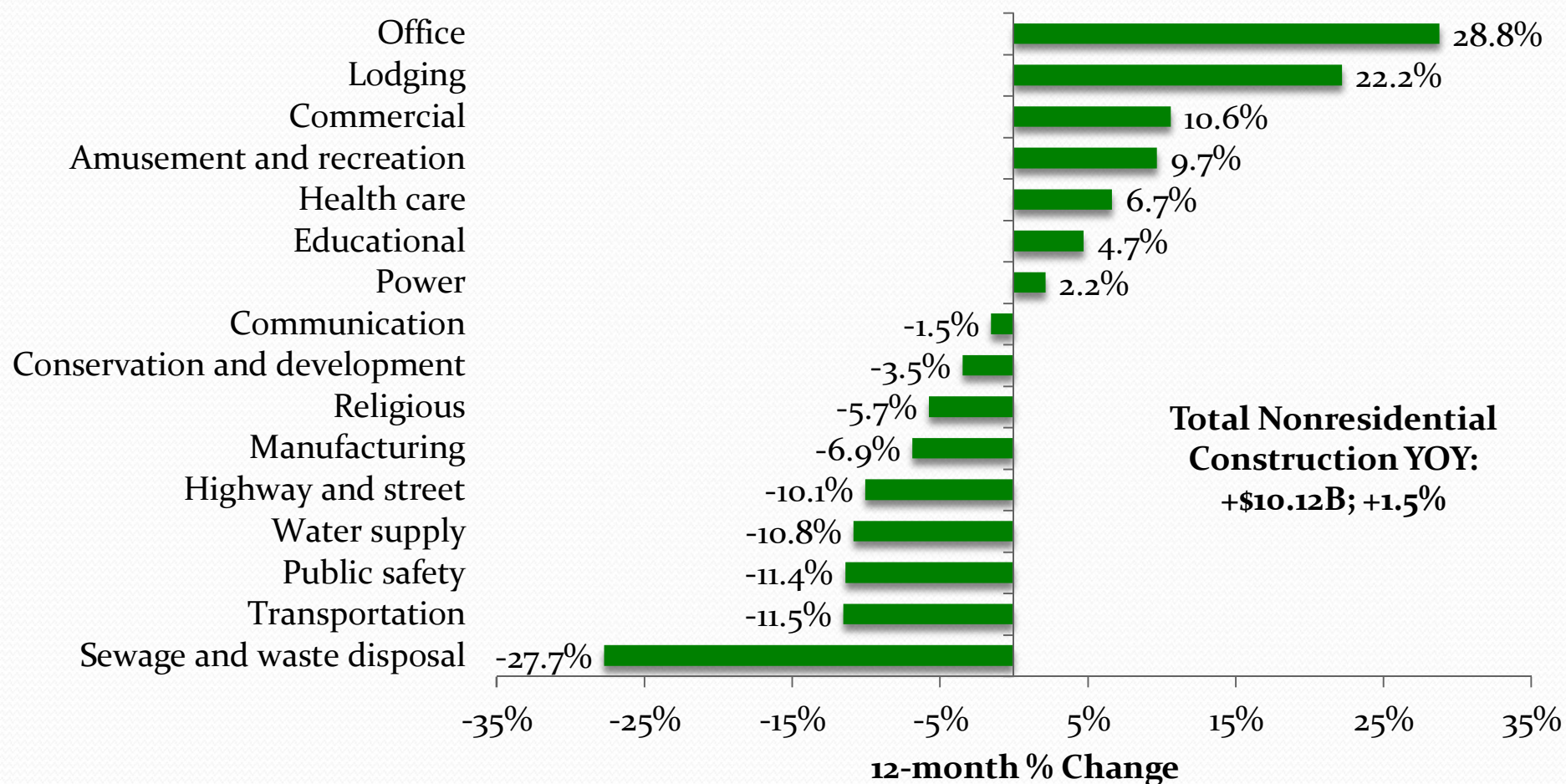
*Data are seasonally adjusted



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US Nonresidential Construction Spending by Subsector

January 2016 v. January 2017



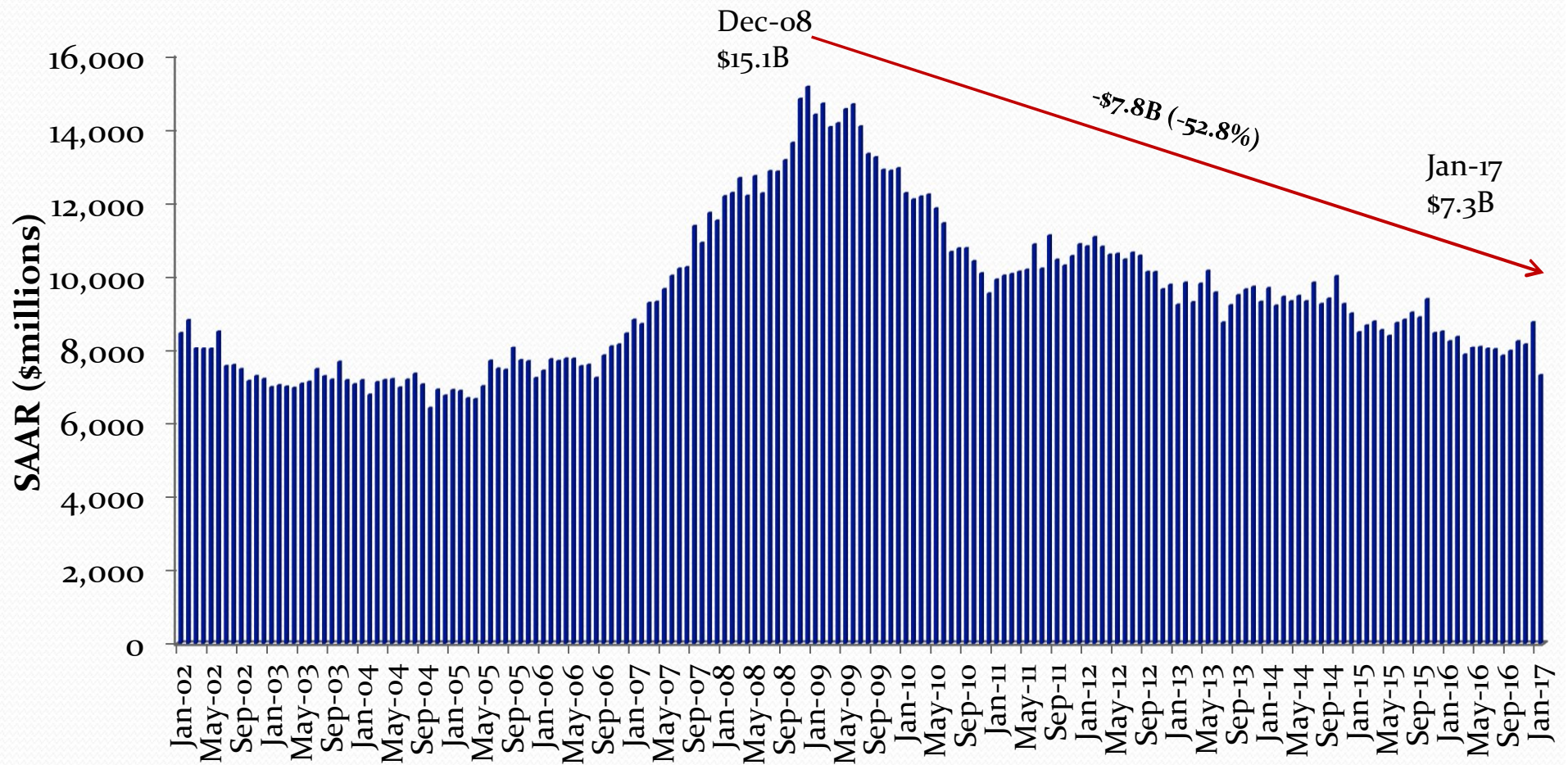
Source: U.S. Census Bureau



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US Construction Spending on Public Safety

January 2002 through January 2017



Source: United States Census Bureau



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Firefighters: Occupational Outlook

- “ Employment for firefighters is projected to grow 7% from 2012-2022, slower than the average for all occupations (11%) (WRONG, WRONG, WRONG);
- “ As population ages, demand for firefighters will increase
 - “ 2/3 of situations that firefighters respond to are medical
- “ Volunteer positions will be converted to paid positions in areas where population growth creates a need for a full-time workforce

Source: U.S. Bureau of Labor Statistics

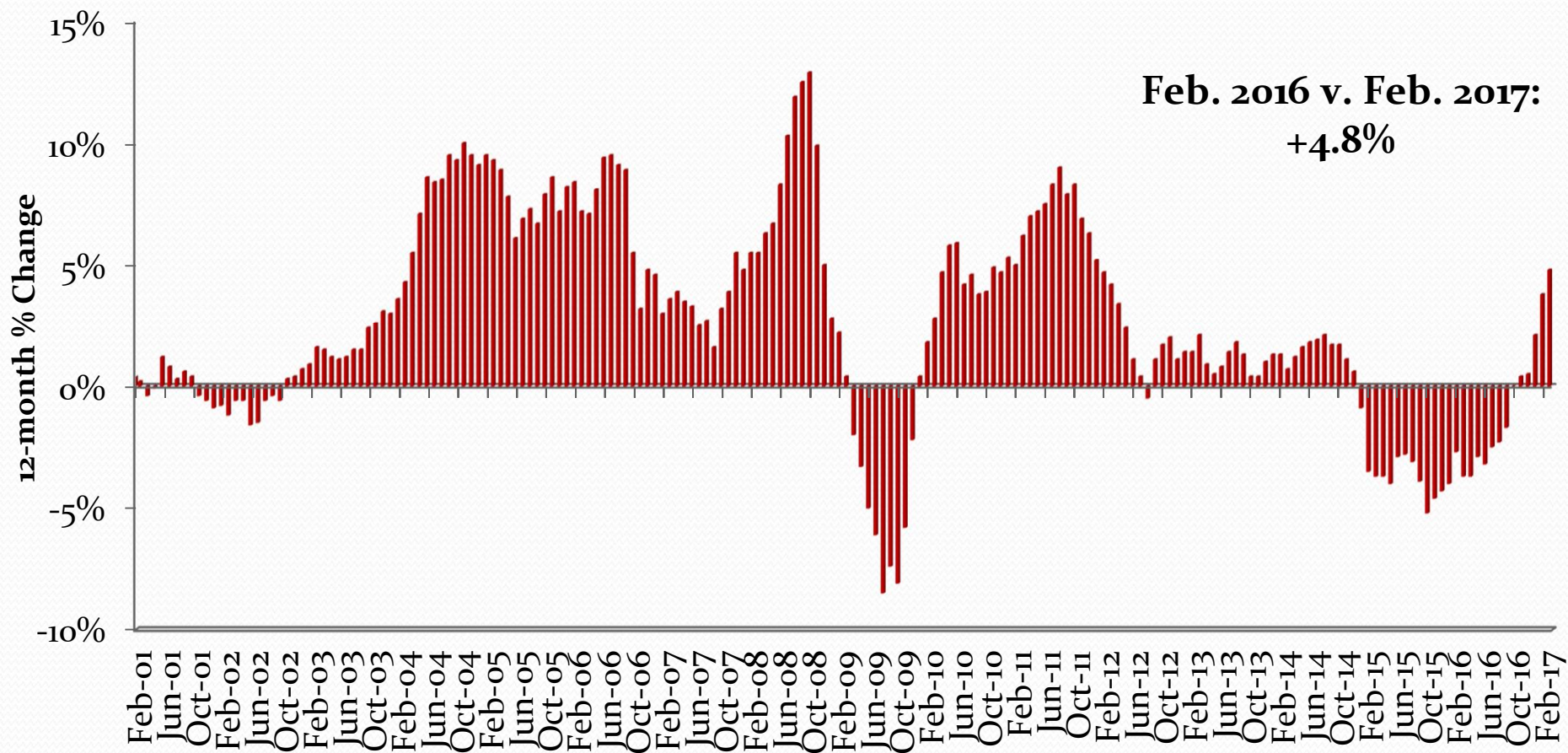
Volunteers Tough to Find

- “ Volunteers have dropped from 300,000 to 50,000 over past 30 years
- “ Training costs have increased
- “ Businesses increasingly reluctant to allow employees to volunteer
- “ Single-income families no longer as commonplace

Source: U.S. Bureau of Labor Statistics

Inputs to Construction PPI (NSA)

February 2001 – February 2017



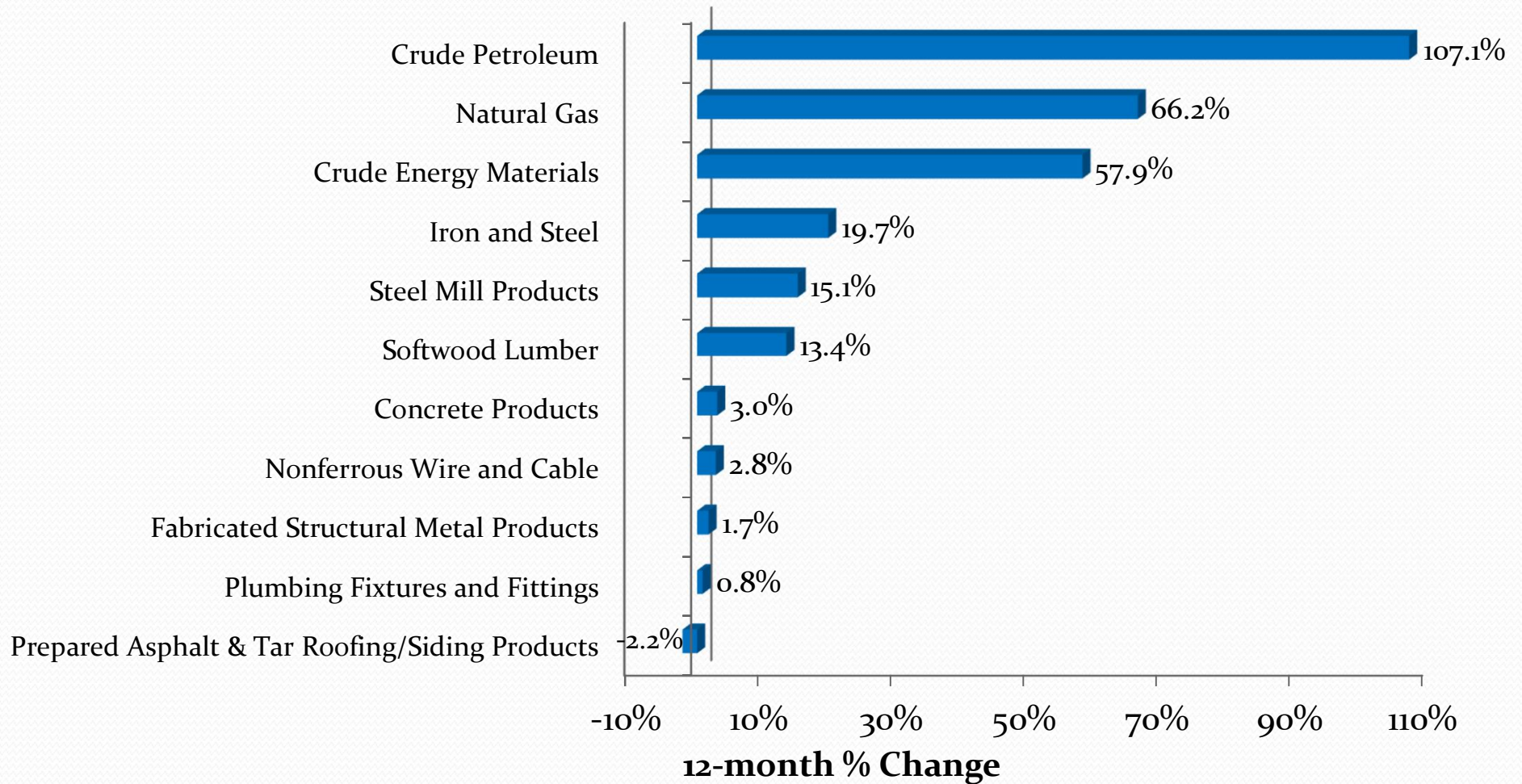
Source: U.S. Bureau of Labor Statistics



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Construction Materials PPI (NSA)

12-month % Change as of February 2017



Source: U.S. Bureau of Labor Statistics

Down to “The Wire”

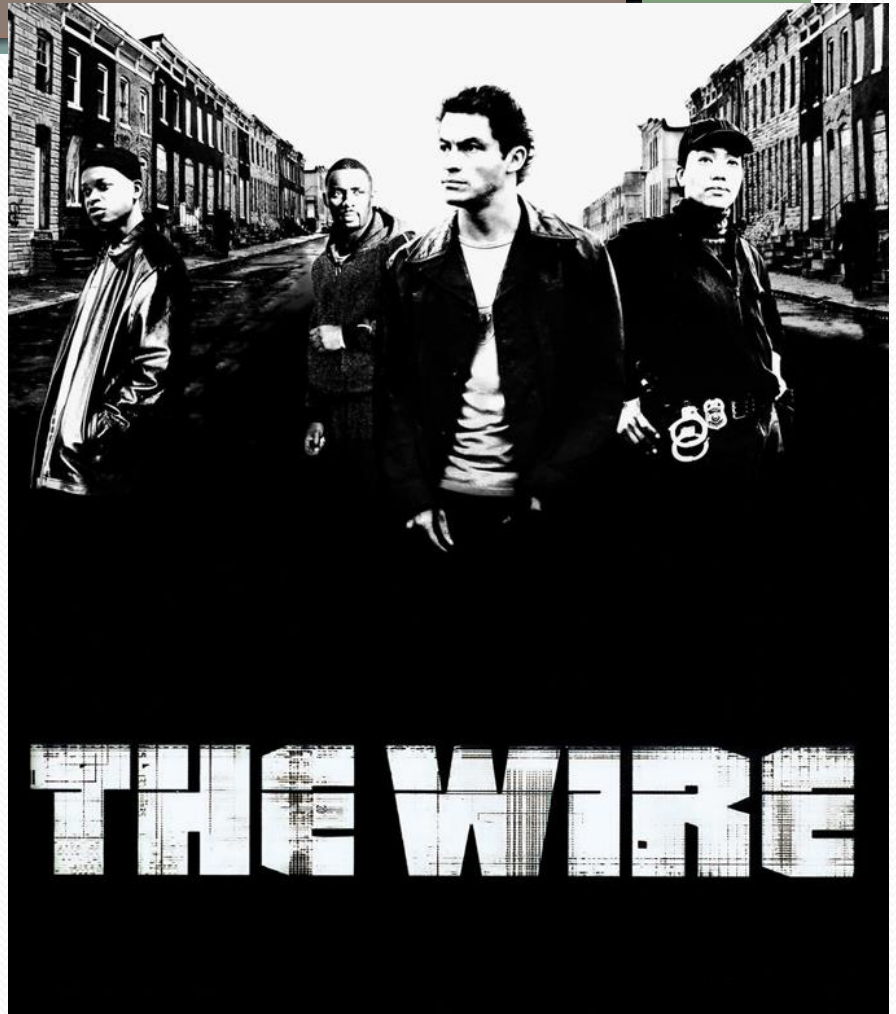
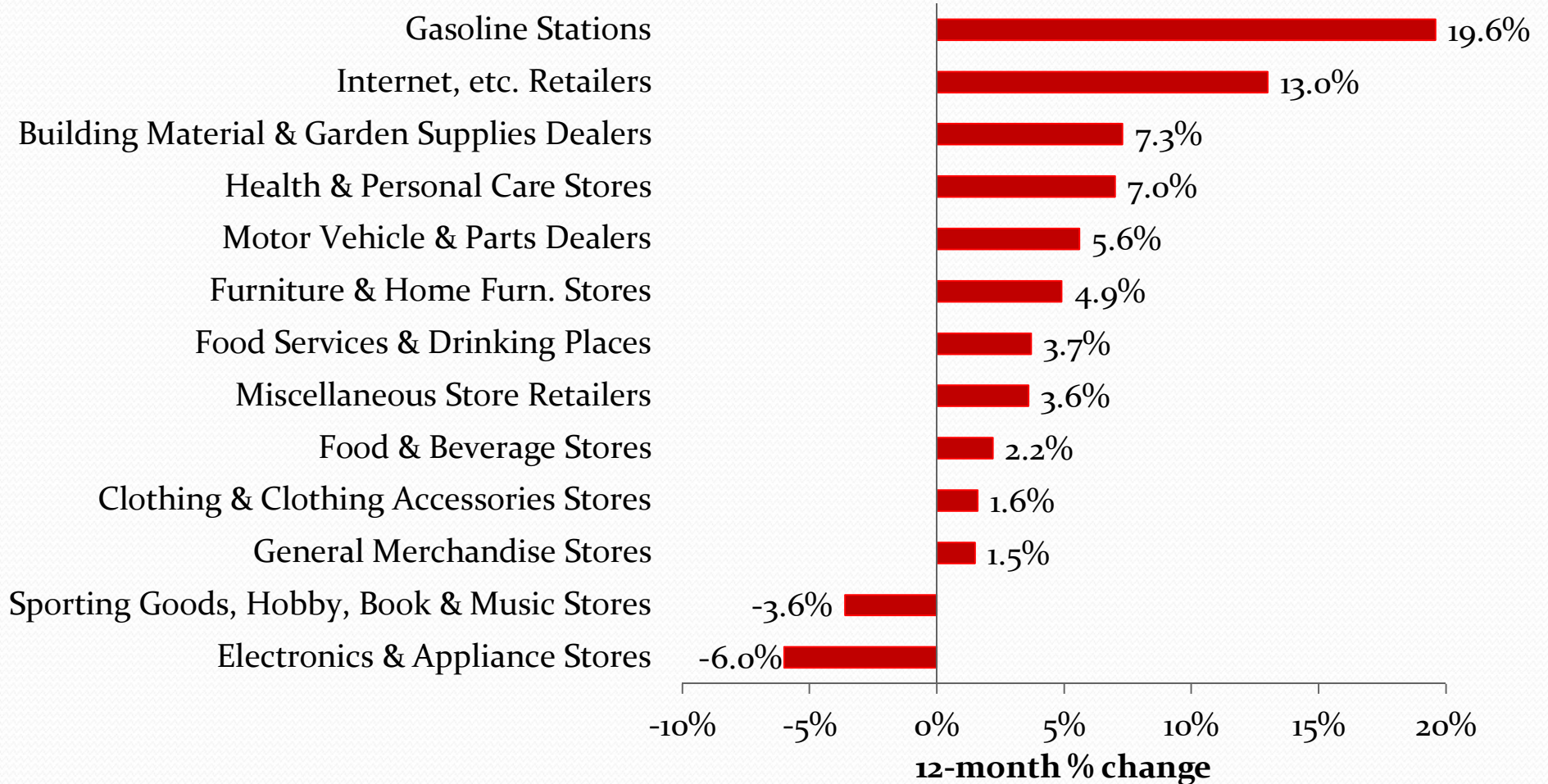


Photo: RecapGuide.com

Sales Growth by Type of Business

February 2016 v. February 2017*



Source: U.S. Census Bureau

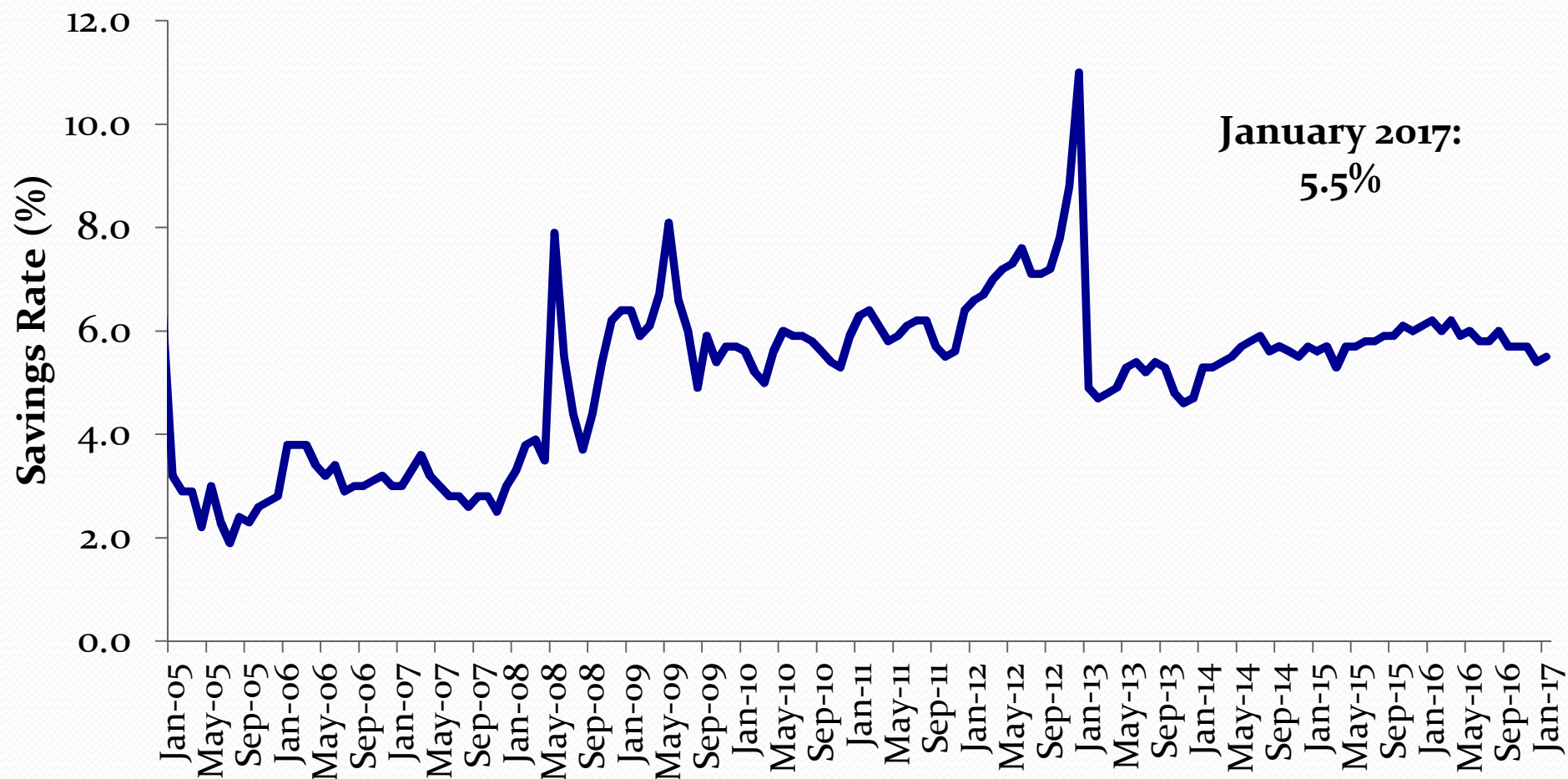
*February 2017 advanced estimate

Total Retail Sales: +5.7% YOY



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

(Savings as Percentage of Personal Disposable Income)



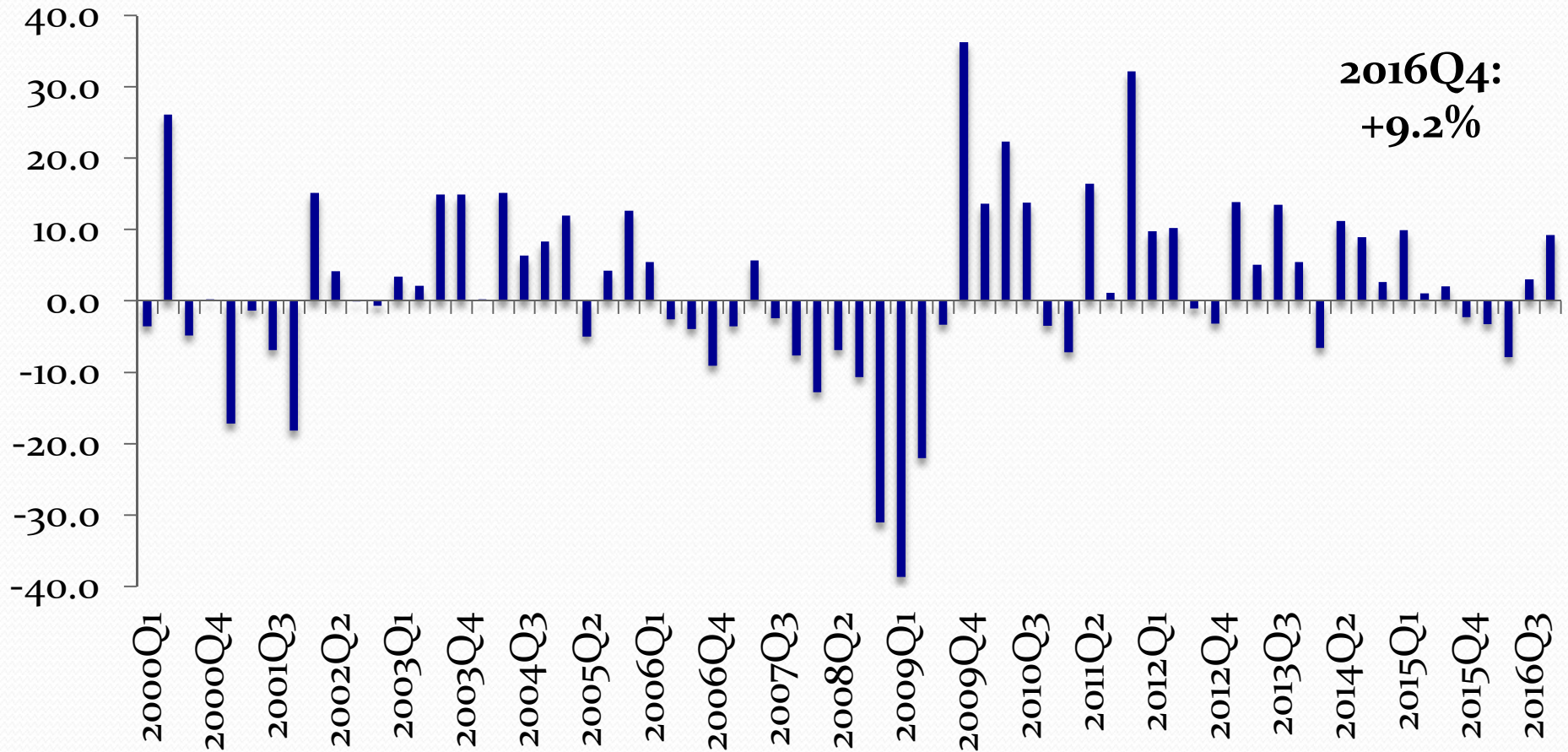
Source: Bureau of Economic Analysis



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U.S. Gross Private Domestic Investment (SAAR)

% Change from Previous Quarter, 2000Q1 – 2016Q4*



Source: Bureau of Economic Analysis

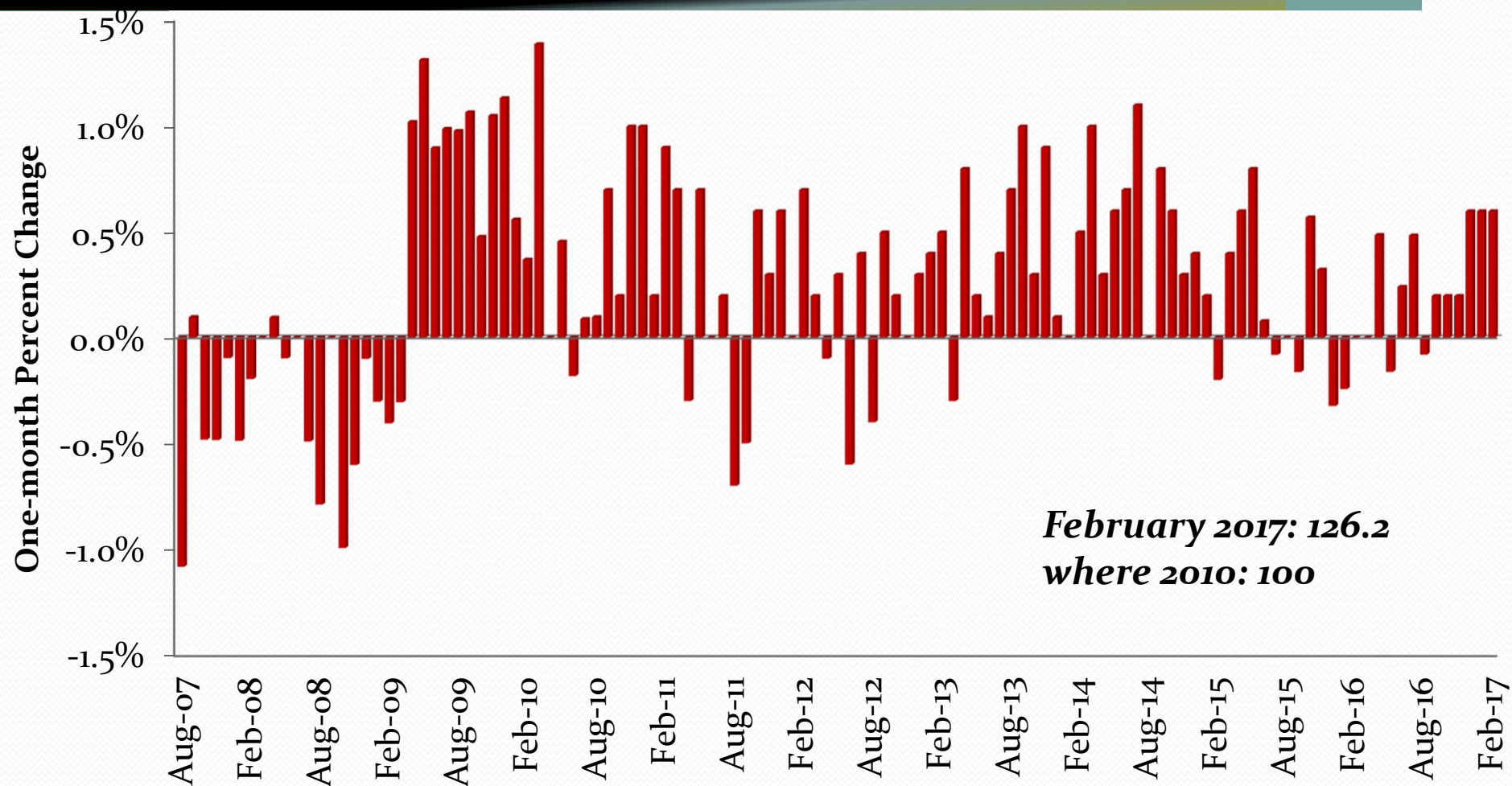
*2nd Estimate



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Conference Board Leading Economic Indicators Index

August 2007 through February 2017



Source: Conference Board



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The Closer

- “ Global economy remains weak, and correspondingly . . . ;
- “ Global money has continued to pour into North America in search of yield and safety, including into commercial real estate – that was particularly true in 2015, a bit less true in 2016;
- “ Inflationary pressures are on the rise – so, too, are US interest rates – that could begin to squeeze asset prices in 2017, particularly if expected tax cuts are not passed into law;
- “ There are indications of mini-bubbles forming in commercial real estate, particularly in office, lodging and multifamily segments;
- “ But tax cuts, stimulus, and more defense spending should see the US through 2017-18;
- “ 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;
- “ 2017 shaping up to be solid, but beyond 2018, US may have some issues . . .

Photo: Google



*Kyra Sedgwick as Brenda Leigh Johnson



Thank You

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