Brown Sugar: Deriving Satisfaction through Data Analysis

On Behalf of The Mid-Atlantic CIO Forum

By: Anirban Basu Sage Policy Group, Inc.

December 20th, 2018

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

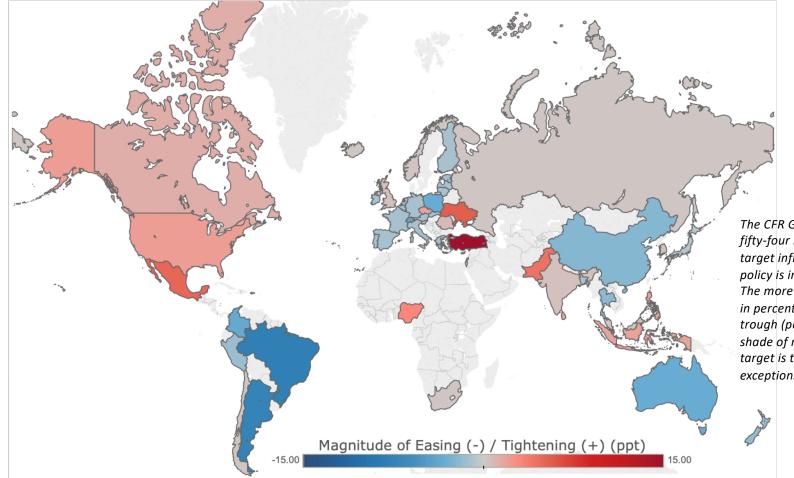


Get off of My Cloud





Global Monetary Policy Tightening/Easing As of November 2018

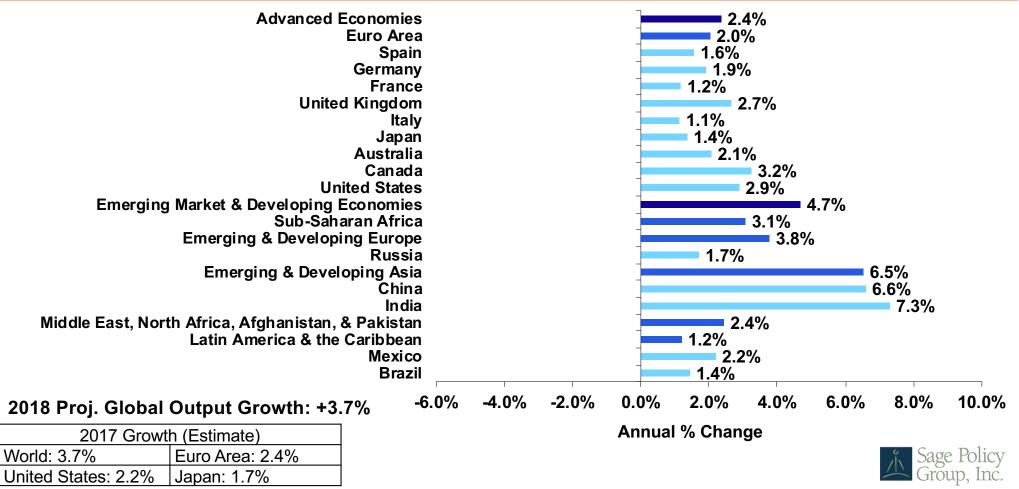


The CFR Global Monetary Policy Tracker covers fifty-four large countries—mainly those that target inflation in some manner. Tightening policy is indicated in red, loosening in blue. The more a country has raised (lowered) rates, in percentage points, from the most recent trough (peak) in its policy rate,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



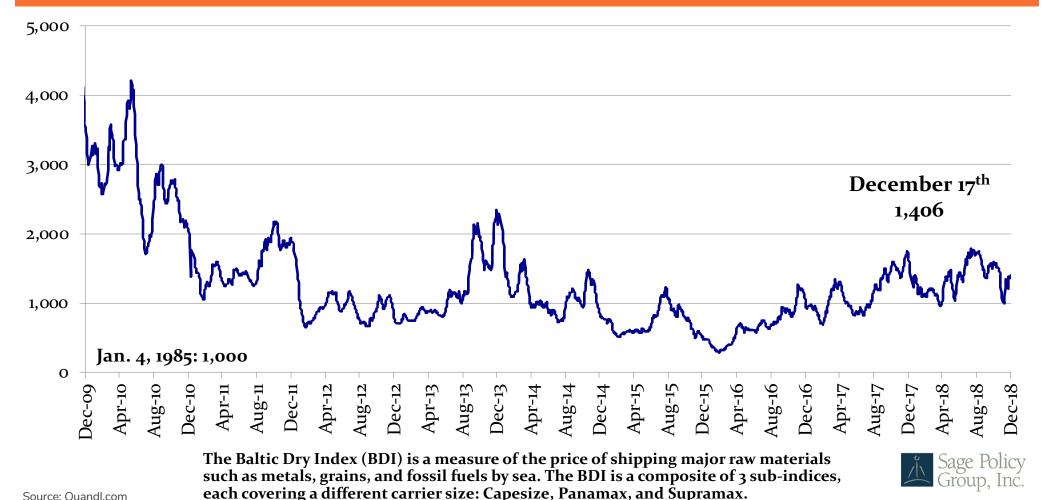
Source: Council on Foreign Relations (CFR), Global Monetary Policy Tracker

Estimated Growth in Output by Select Global Areas 2018 Projected



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

Baltic Dry Index December 2009 through December 2018



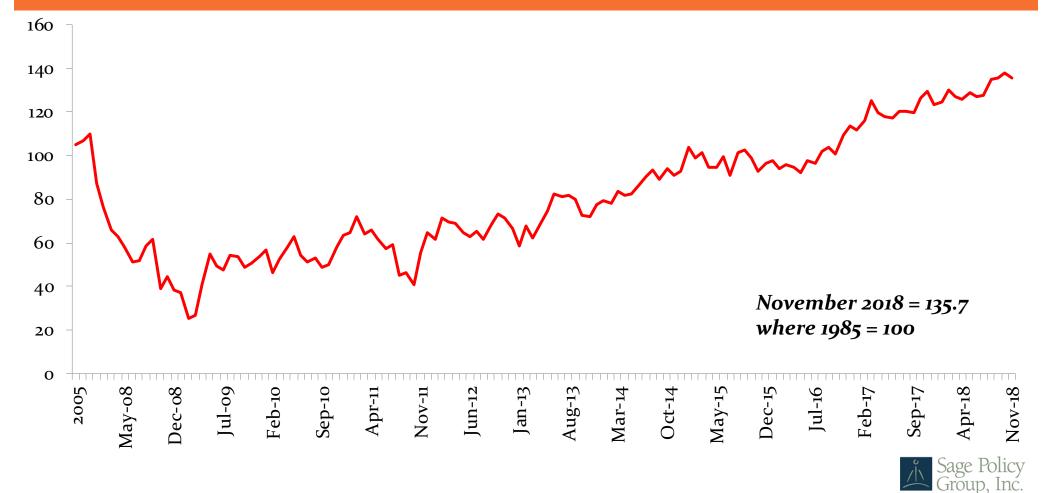
Source: Quandl.com

Start Me Up





Conference Board Consumer Confidence Index 2005 – November 2018



Source: Conference Board

NFIB Index of Small Business Optimism: Good Time to Expand 1986-2018

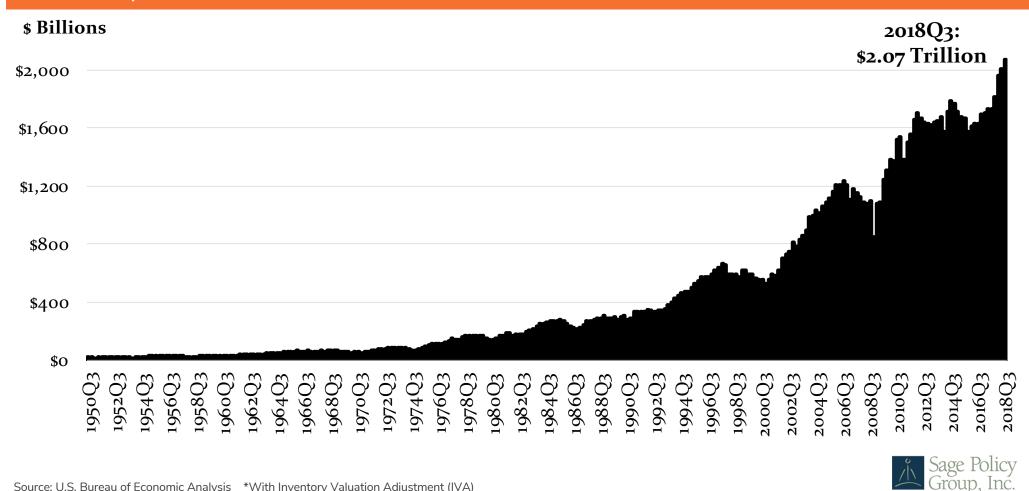
% of respondents who think the next 3 months will be a good time to for small business to expand



Source: National Federation of Independent Business (NFIB)

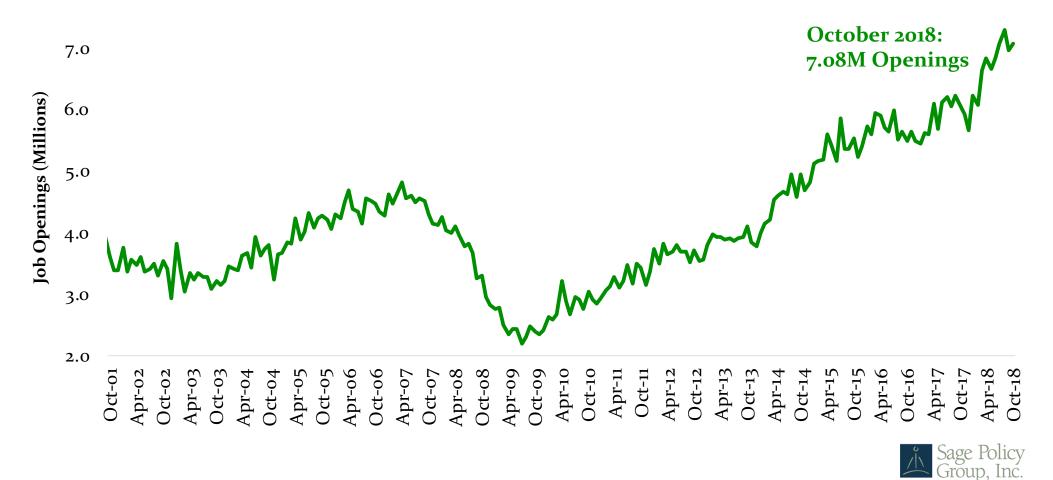
Paint It Black – Corporate Profits

U.S. Corporate Profits After Tax*

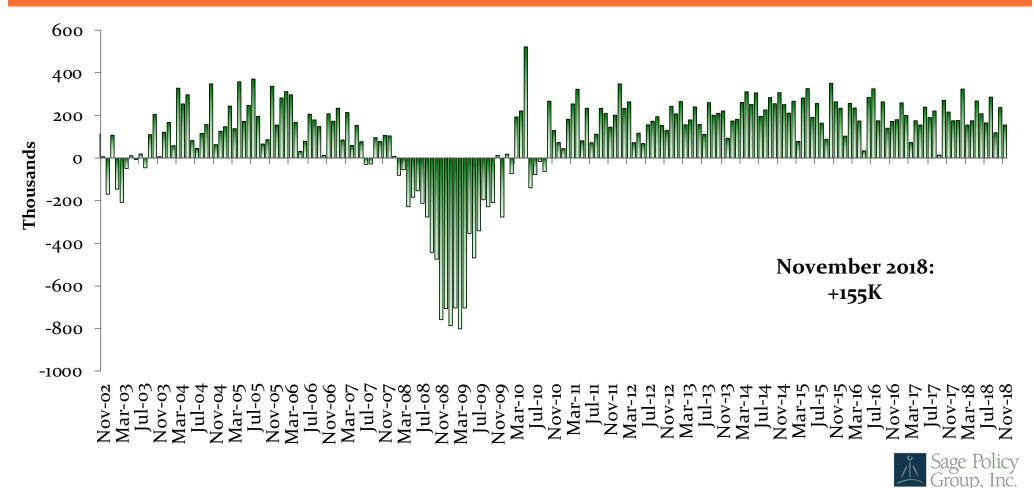


Source: U.S. Bureau of Economic Analysis *With Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj); Seasonally Adjusted Annual Rate

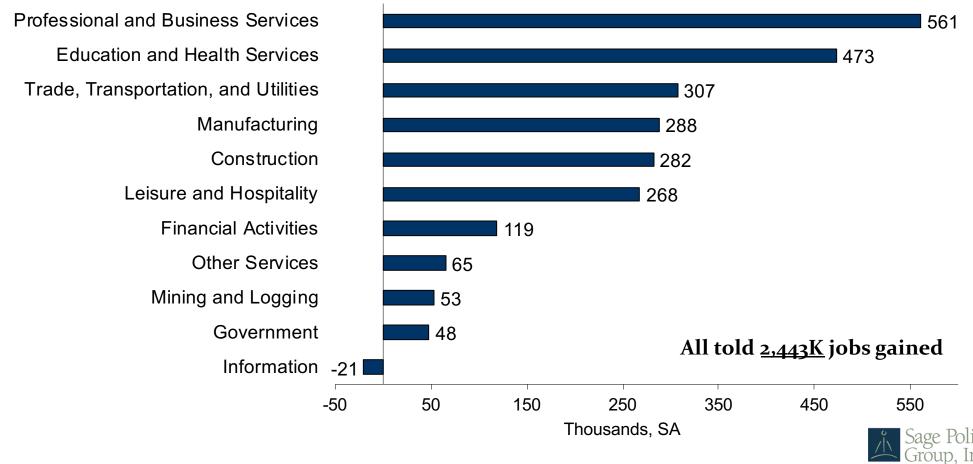
U.S. Job Openings October 2001 through October 2018



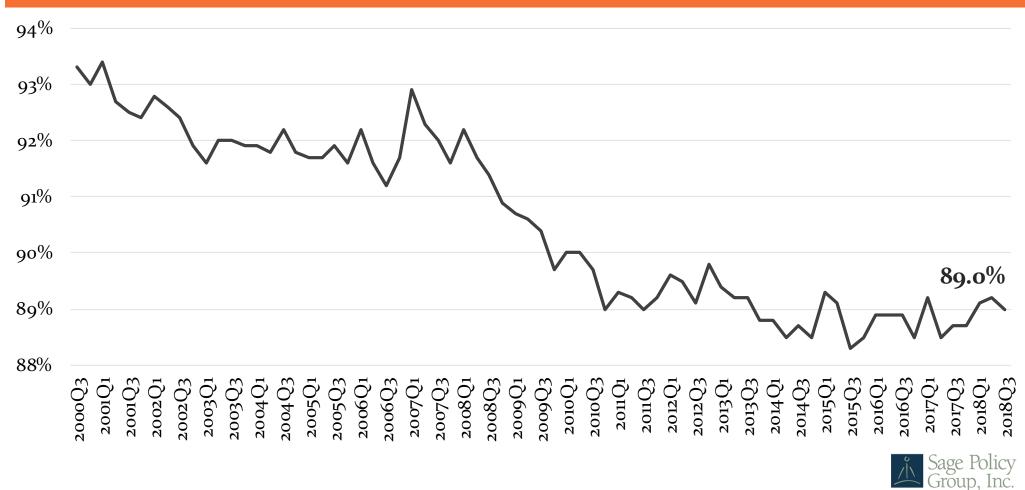
Net Change in U.S. Jobs November 2002 through November 2018



National Nonfarm Employment by Industry Sector, November 2017 v. November 2018



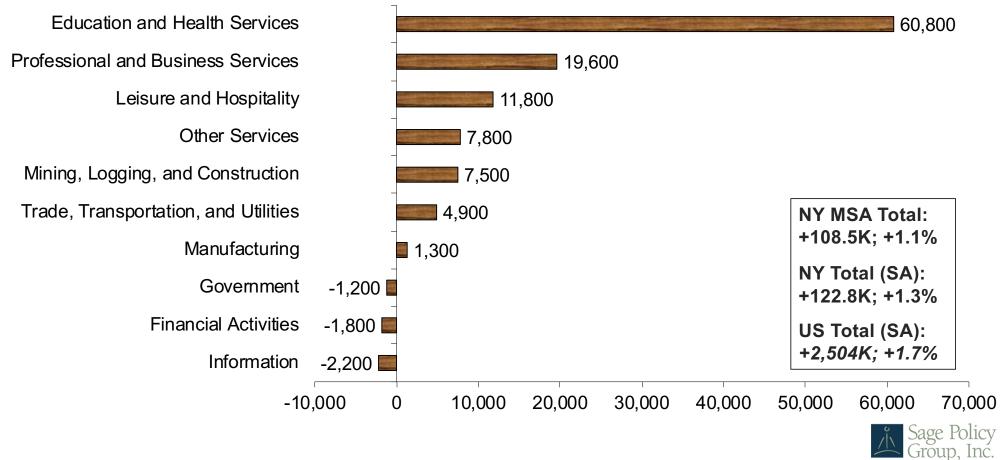
U.S. Labor Force Participation: Men Ages 25-34 2000 – 2018



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

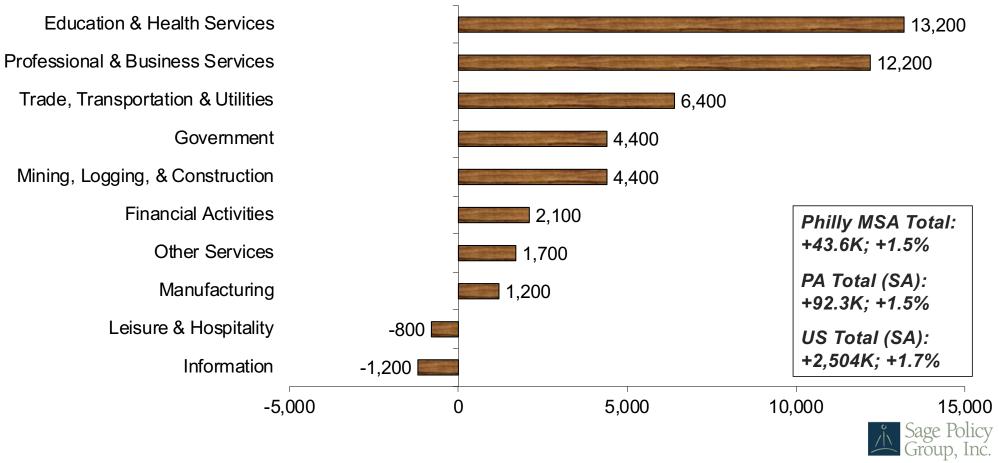
New York-Newark-Jersey City, NY-NJ-PA MSA Nonfarm Employment

by Industry Sector Groups (NSA) October 2017 v. October 2018 Absolute Change



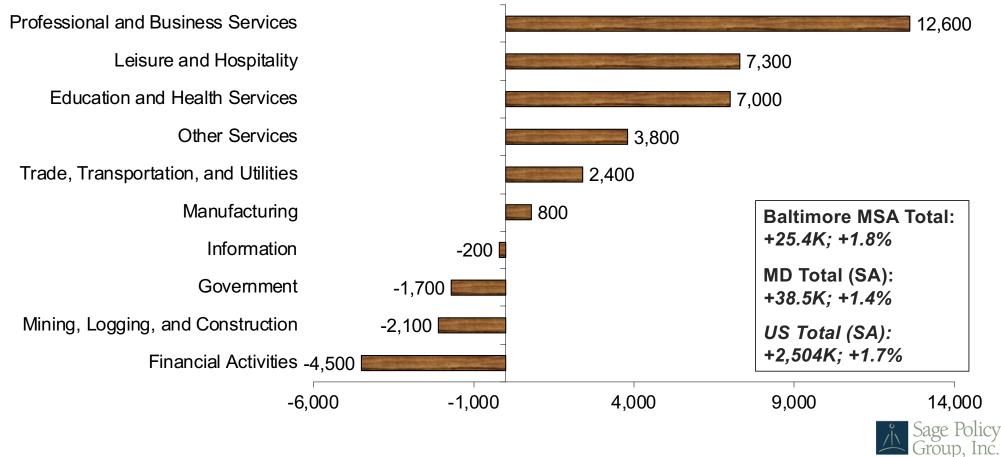
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA Nonfarm Employment

by Industry Sector Groups (NSA) October 2017 v. October 2018 Absolute Change



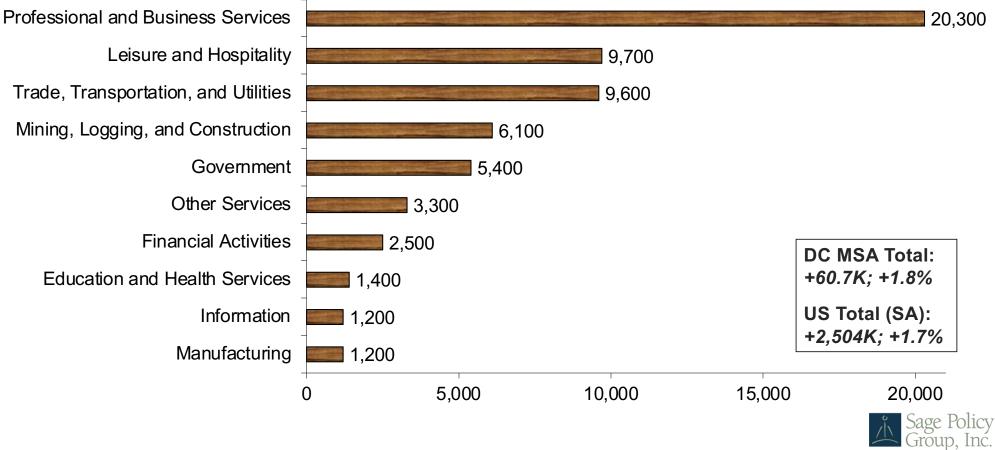
Baltimore-Columbia-Towson MSA Nonfarm Employment

by Industry Sector Groups (NSA) October 2017 v. October 2018 Absolute Change



Washington, DC-Arlington-Alexandria MSA Nonfarm Employment

by Industry Sector Groups (NSA) October 2017 v. October 2018 Absolute Change



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

Rank	State	%	RANK	State	%	RANK	State	%
1	NEVADA	3.4	17	MASSACHUSETTS	1.8		MAINE	1.3
2	UTAH	3.3	17	SOUTH CAROLINA	1.8	-	NEW YORK	1.3
2	WASHINGTON	3.3	17	VIRGINIA	1.8	34	RHODE ISLAND	1.3
4	ARIZONA	3.1	21	ALABAMA	1.7	38	MINNESOTA	1.2
4	TEXAS	3.1	21	HAWAII	1.7	38	MISSISSIPPI	1.2
6	COLORADO	2.7	21	NEW JERSEY	1.7	38	NORTH DAKOTA	1.2
6	FLORIDA	2.7	21	SOUTH DAKOTA	1.7	41	DELAWARE	1.1
6	NEW MEXICO	2.7	25	MISSOURI	1.6	41	WISCONSIN	1.1
9	OREGON	2.5	25	NEBRASKA	1.6	43	ILLINOIS	1.0
10	NEW HAMPSHIRE	2.3	27	MONTANA	1.5	43	LOUISIANA	1.0
10	NORTH CAROLINA	2.3	27	PENNSYLVANIA	1.5	45	WEST VIRGINIA	0.9
12	GEORGIA	2.1	29	MARYLAND	1.4	46	INDIANA	0.8
12	IDAHO	2.1	29	IOWA	1.4	47	ARKANSAS	0.7
12	ОНЮ	2.1	29	KANSAS	1.4	48	KENTUCKY	0.5
12	WYOMING	2.1	29	MICHIGAN	1.4	49	DISTRICT OF COLUMBIA	0.2
16	TENNESSEE	2.0	29	OKLAHOMA	1.4	50	ALASKA	0.1
17	CALIFORNIA	1.8	34	CONNECTICUT	1.3	51	VERMONT	-0.9

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



Employment Growth, 25 Largest Metros (NSA) October 2017 v. October 2018 Percent Change

Rank	MSA	%	Rank	MSA	%
1	Orlando-Kissimmee-Sanford, FL		14	Baltimore-Columbia-Towson, MD	1.8
2	Houston-The Woodlands-Sugar Land, TX Phoenix-Mesa-Scottsdale, AZ		1 /	Washington-Arlington-Alexandria, DC-VA-MD-WV	
3			14		
4	Seattle-Tacoma-Bellevue, WA		14	San Diego-Carlsbad, CA	1.8
5	Dallas-Fort Worth-Arlington, TX	3.0	17	Minneapolis-St. Paul-Bloomington, MN-WI	1.7
6	Portland-Vancouver-Hillsboro, OR-WA	2.6	17	San Francisco-Oakland-Hayward, CA	1.7
7	Denver-Aurora-Lakewood, CO		19	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.5
7	Riverside-San Bernardino-Ontario, CA	2.5	20	Los Angeles-Long Beach-Anaheim, CA	1.2
9	Charlotte-Concord-Gastonia, NC-SC	2.4	21	Detroit-Warren-Dearborn, MI	1.1
9	Miami-Fort Lauderdale-West Palm Beach, FL	2.4	21	New York-Newark-Jersey City, NY-NJ-PA	1.1
11	Atlanta-Sandy Springs-Roswell, GA	2.2	23	Chicago-Naperville-Elgin, IL-IN-WI	0.9
11	Tampa-St. Petersburg-Clearwater, FL		23	San Antonio-New Braunfels, TX	0.9
13	Boston-Cambridge-Nashua, MA-NH	1.9	25	St. Louis, MO-IL	0.8



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

Unemployment Rates, 25 Largest Metros (NSA) October 2018

Rank	MSA	UR	Rank	MSA	UR
1	Minneapolis-St. Paul-Bloomington, MN-WI		14	Atlanta-Sandy Springs-Roswell, GA	3.4
2	Boston-Cambridge-Nashua, MA-NH		15	Seattle-Tacoma-Bellevue, WA	3.5
2	San Francisco-Oakland-Hayward, CA		16	New York-Newark-Jersey City, NY-NJ-PA	
4	Orlando-Kissimmee-Sanford, FL		17	Baltimore-Columbia-Towson, MD	
5	St. Louis, MO-IL (1)	2.8	17	Houston-The Woodlands-Sugar Land, TX	3.8
6	Tampa-St. Petersburg-Clearwater, FL	2.9	17	Portland-Vancouver-Hillsboro, OR-WA	3.8
7	Denver-Aurora-Lakewood, CO		20	Philadelphia-Camden-Wilmington,	
8	San Antonio-New Braunfels, TX		20	PA-NJ-DE-MD	3.9
9	Washington-Arlington-Alexandria, DC-VA-MD-WV	3.2	20	Phoenix-Mesa-Scottsdale, AZ	3.9
9	Charlotte-Concord-Gastonia, NC-SC	3.2	22	Chicago-Naperville-Elgin, IL-IN-WI	4.0
9	Dallas-Fort Worth-Arlington, TX		23	Riverside-San Bernardino-Ontario, CA	
9	Miami-Fort Lauderdale-West Palm Beach, FL		24	Los Angeles-Long Beach-Anaheim, CA	4.2
13	San Diego-Carlsbad, CA	3.3	25	Detroit-Warren-Dearborn, MI	4.4

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 : 3.7%

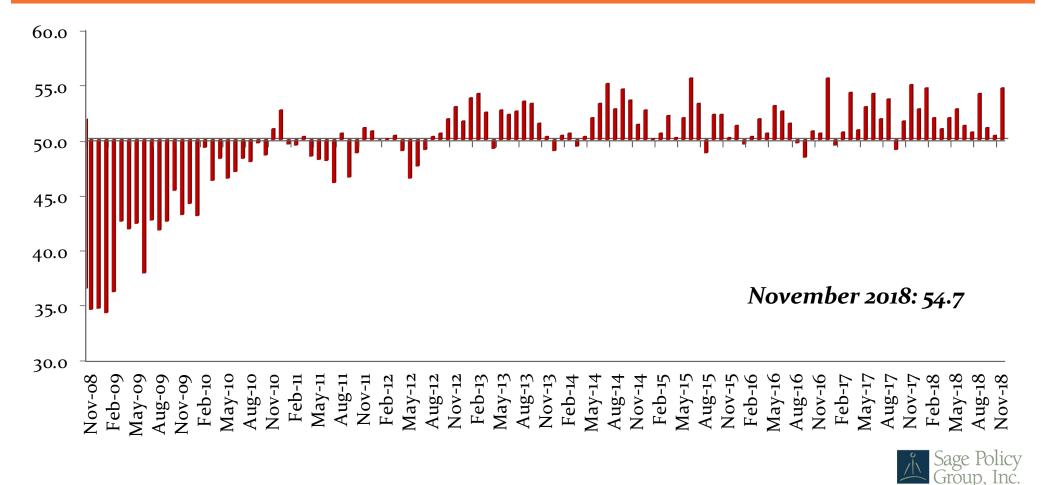


Gimme Shelter





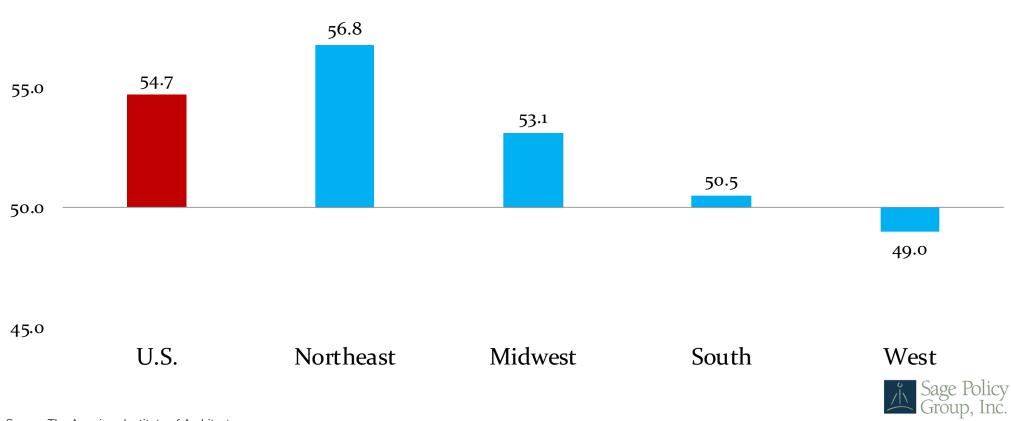
Architecture Billings Index November 2008 through November 2018



Source: The American Institute of Architects

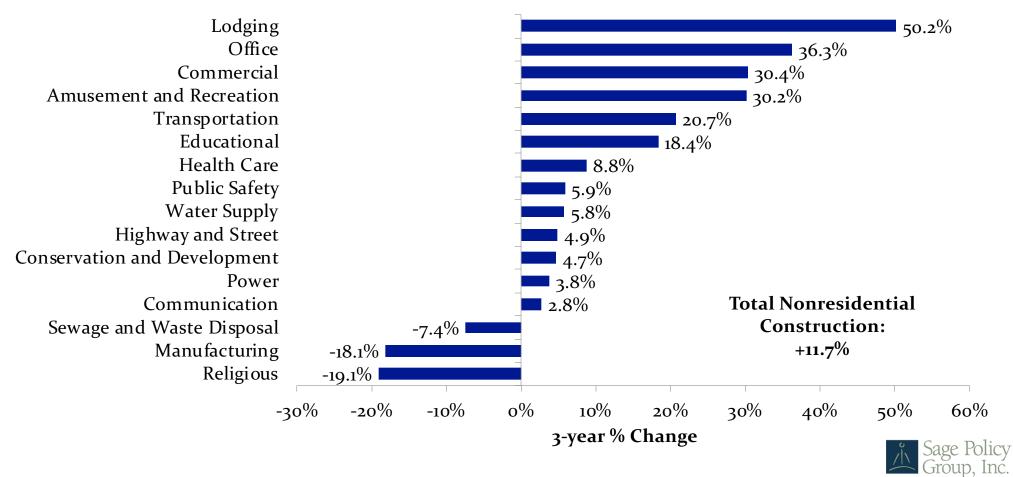
Architecture Billings Index by U.S. Region November 2018

60.0



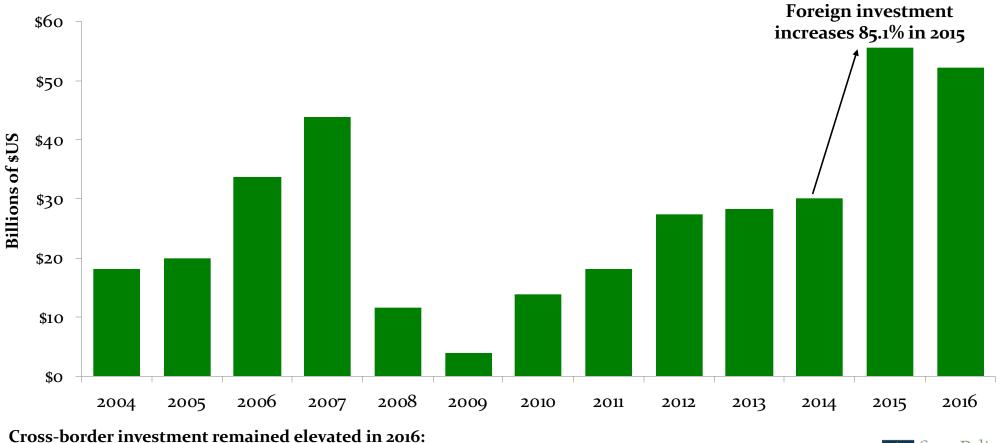
Source: The American Institute of Architects

National Nonresidential Construction Spending by Subsector October 2015 v. October 2018



Source: U.S. Census Bureau

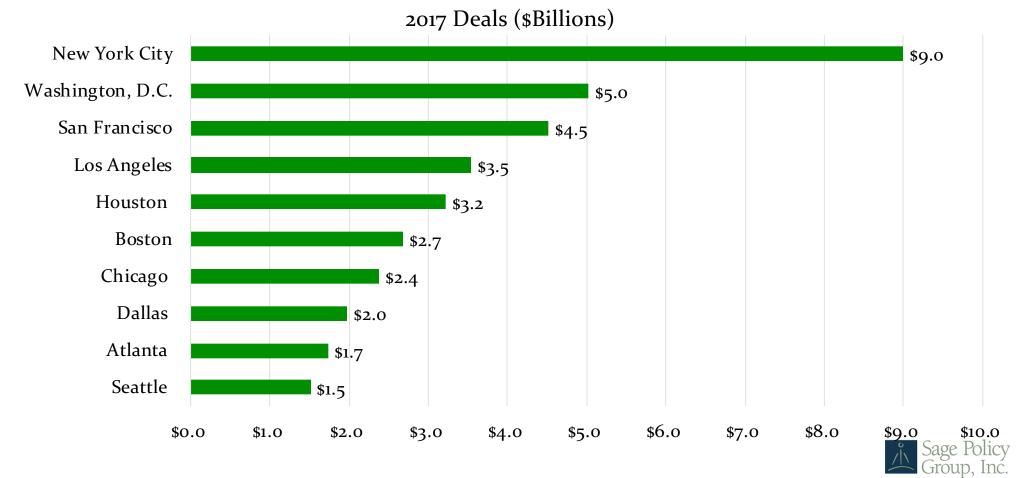
Commercial/Multifamily Offshore Investment Sales Volumes Reach New Heights in 2015/16



Although down relative to a record 2015, offshore investment levels still exceeded the pre-2015 high in 2007.

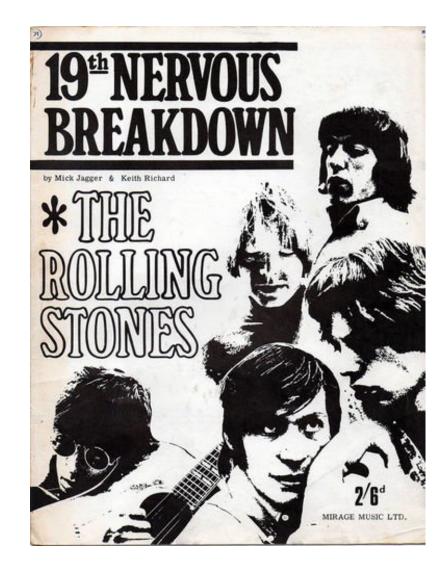
Source: Jones Lang LaSalle; Real Capital Analytics Note: Among transactions larger than \$5.0 million

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



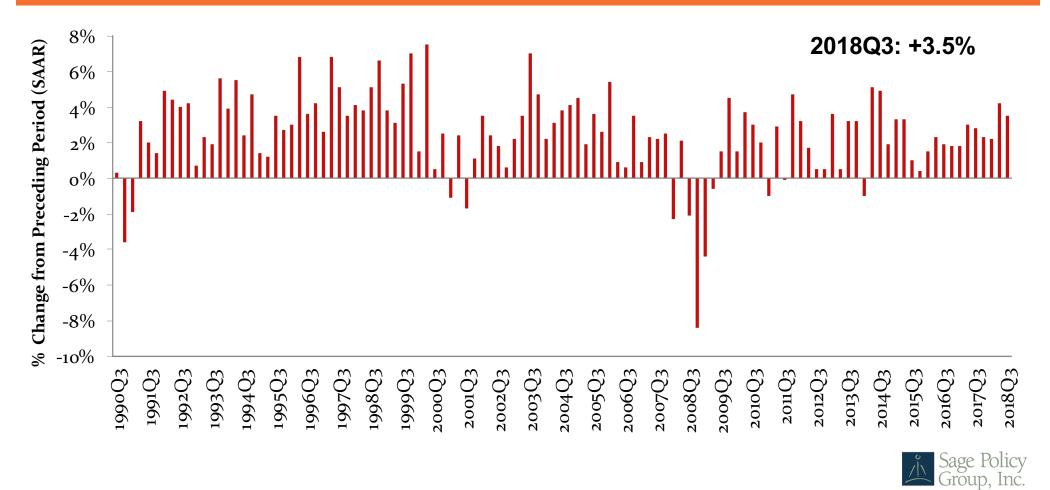
Source: Real Capital Analytics; Colliers International

19th Nervous Breakdown



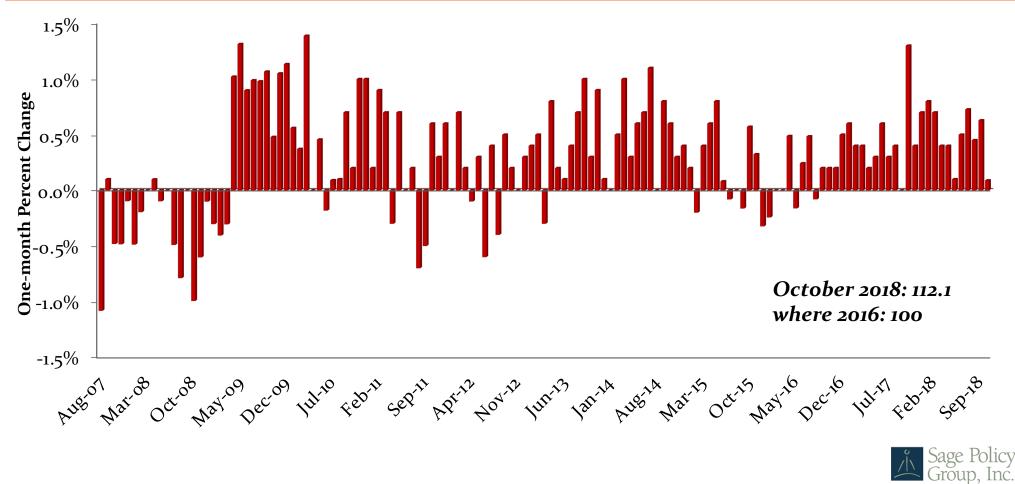


Gross Domestic Product 1990Q3 through 2018Q3*



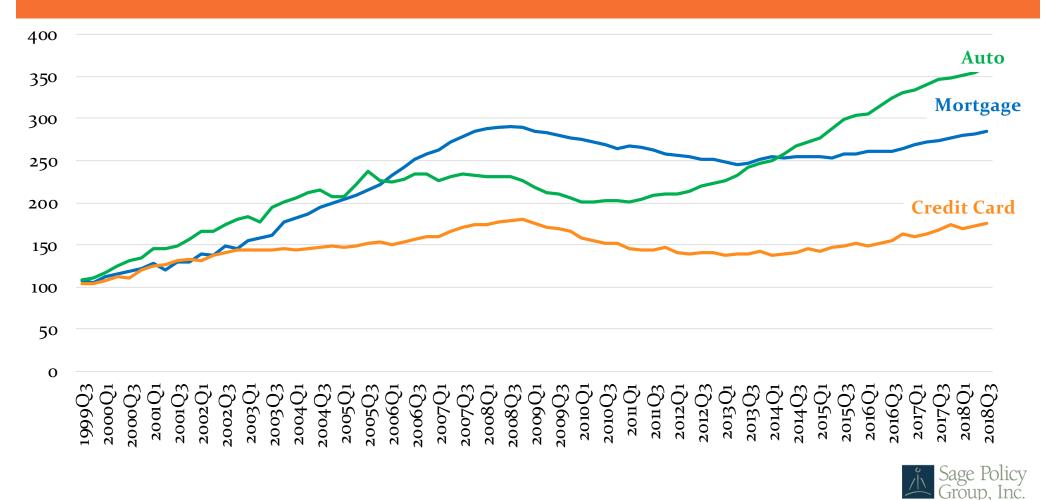
Source: U.S. Bureau of Economic Analysis *2nd Estimate

Conference Board Leading Economic Indicators Index August 2007 through October 2018



Source: Conference Board

Total U.S. Debt Volume by Select Loan Types, Index 1991Q1=100





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 **\$247 trillion** as of 2018Q1, 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"



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

Shiller Price-Earnings Ratio, 1980-2018



Source: Robert J. Shiller Data used in his book, "Irrational Exuberance" Princeton University Press.

Shattered! --- Bitcoin Price, 2014-2018



Source: CoinMarketCap.com

Time is on My Side, at least in the Near-Term

- 2018 best year since '05. . .;
- Global economy better than it was -- still;
- Job opportunities abundant;
- Corporate profitability elevated;
- Consumer and business confidence have 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 better than fine 1st half of 2019 might be, too, but beyond that, potential deleveraging cycle prompted by a repricing of assets – Bad!!!!



Thank You

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