Brown Sugar: Deriving Satisfaction through Data Analysis

On Behalf of
The FEMSA/FAMA
2018 Annual Conference

By: Anirban Basu Sage Policy Group, Inc.

September 27th, 2018

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

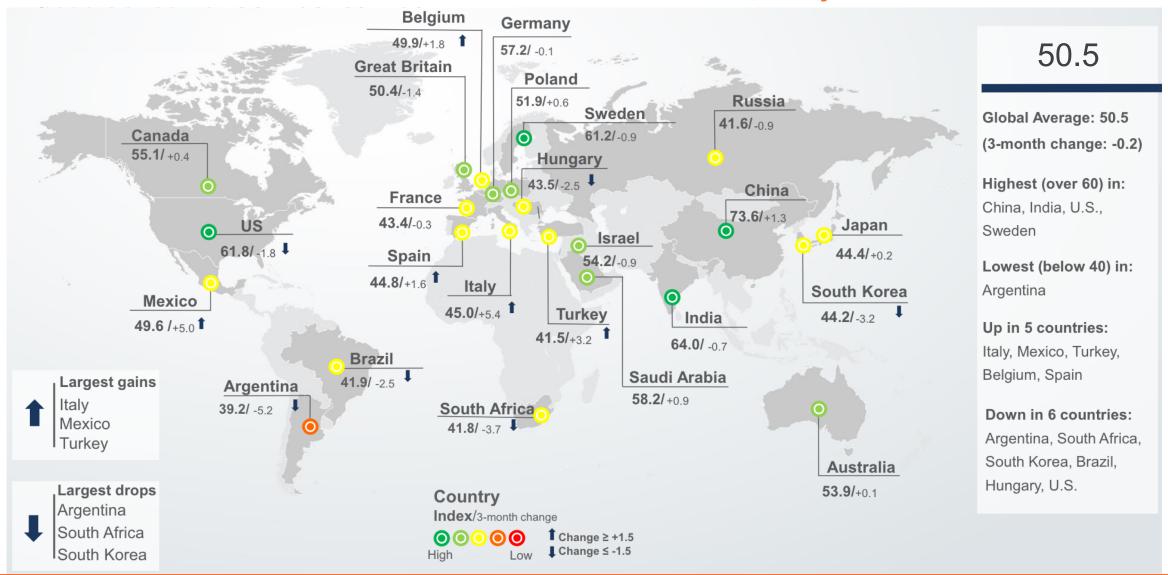


Get off of My Cloud



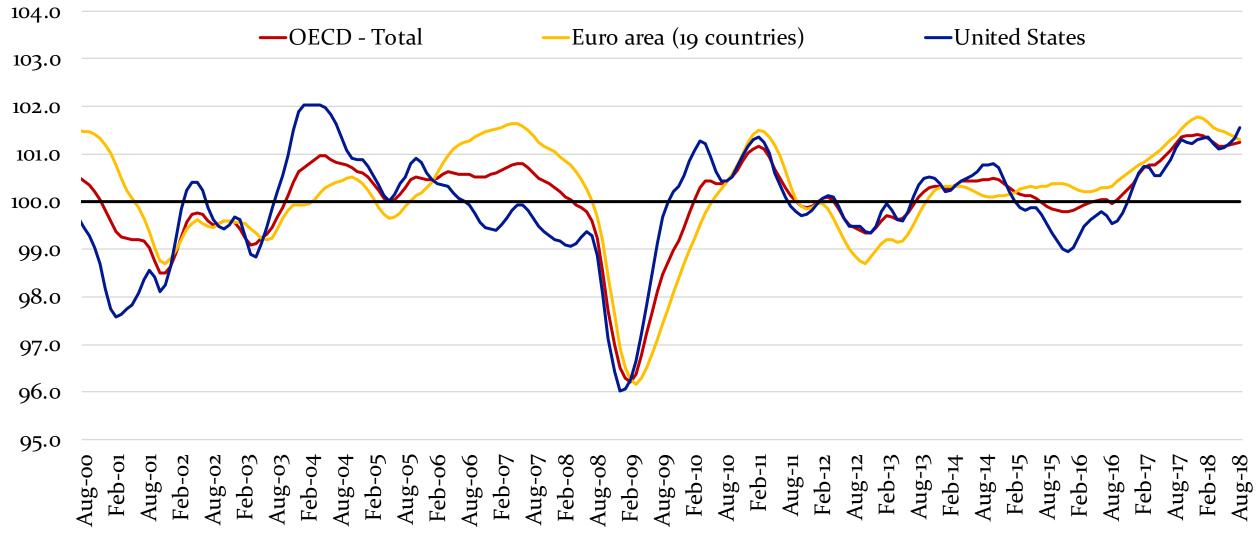


IPSOS Global Confidence Index, July 2018





OECD Business Confidence Index –Select Regions/Countries *August 2000 - August 2018*

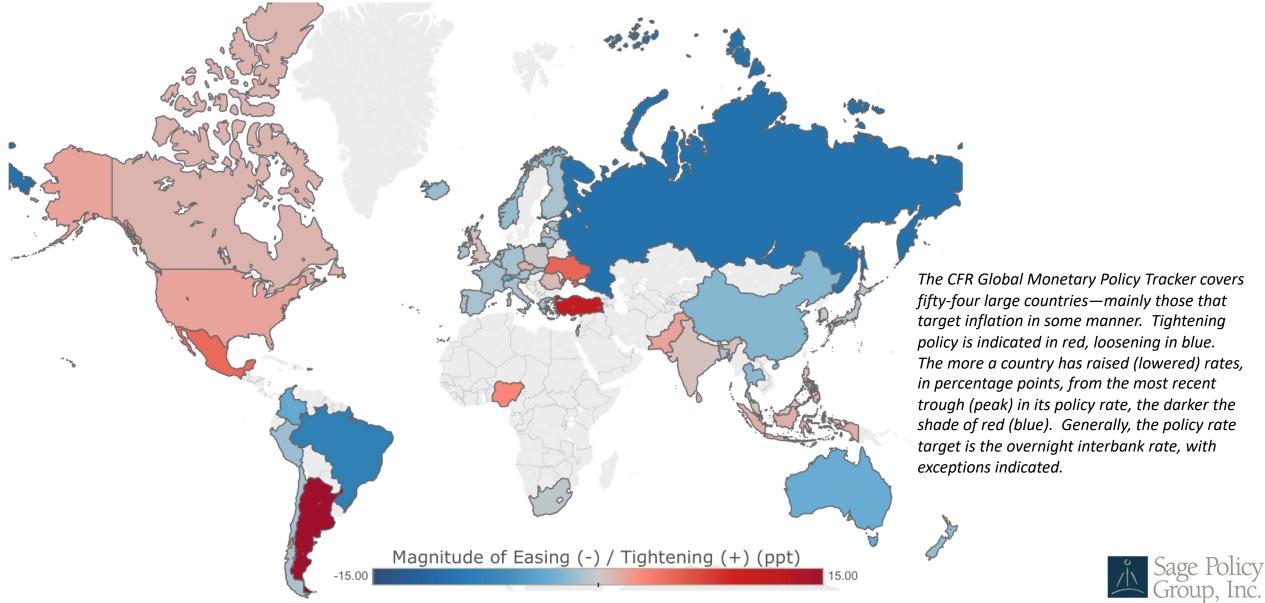


The business confidence index (BCI) is based on enterprises' assessment of production, orders and stocks, as well as its current position and expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions.

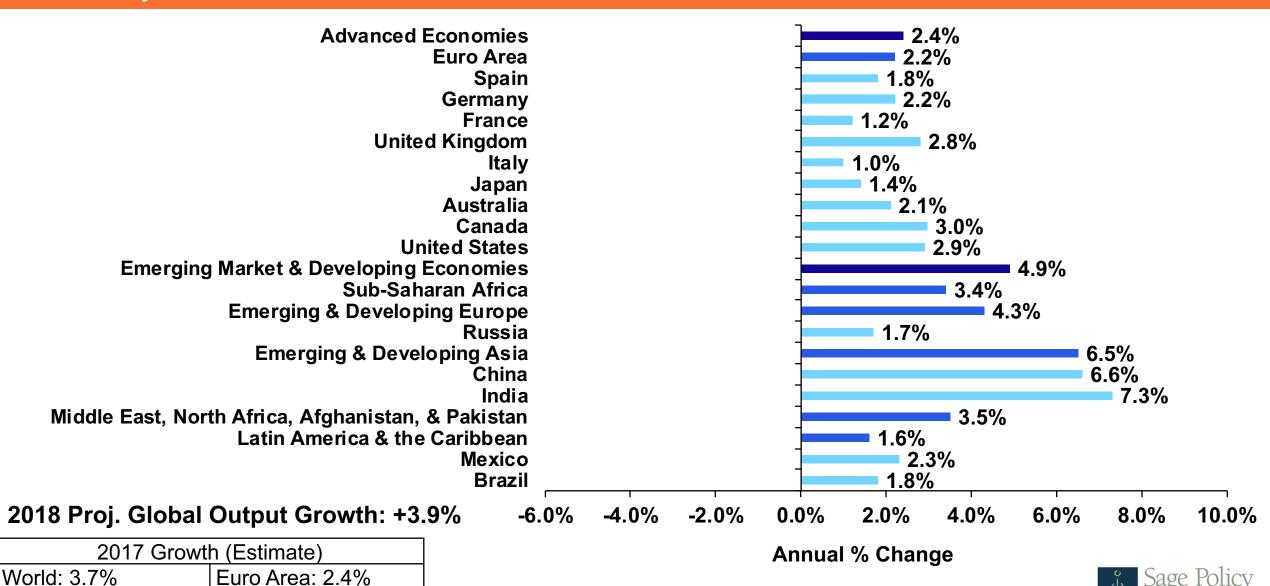


Global Monetary Policy Tightening/Easing

As of August 2018



Estimated Growth in Output by Select Global Areas 2018 Projected



Source: International Monetary Fund: World Economic Outlook Update, July 2018

Japan: 1.7%

United States: 2.3%

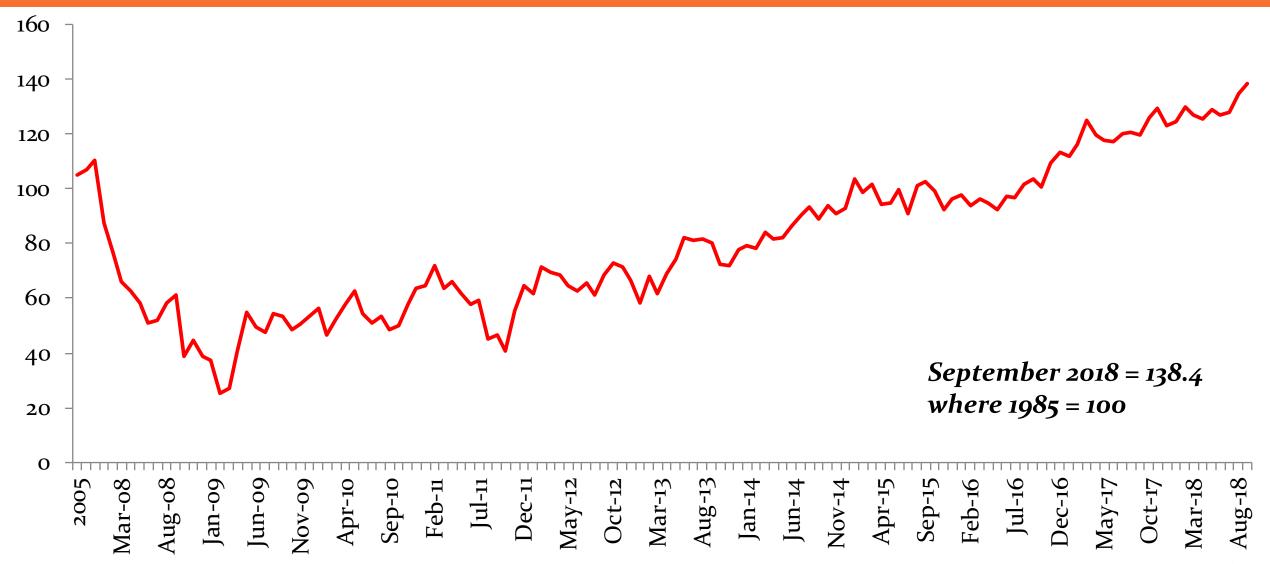
Start Me Up





Conference Board Consumer Confidence Index

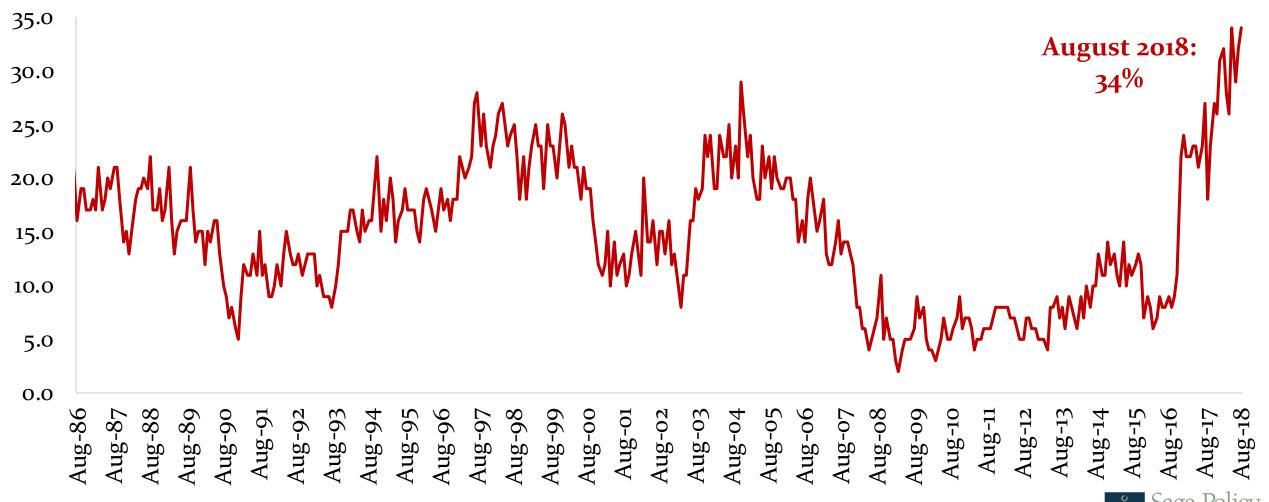
2005 – September 2018





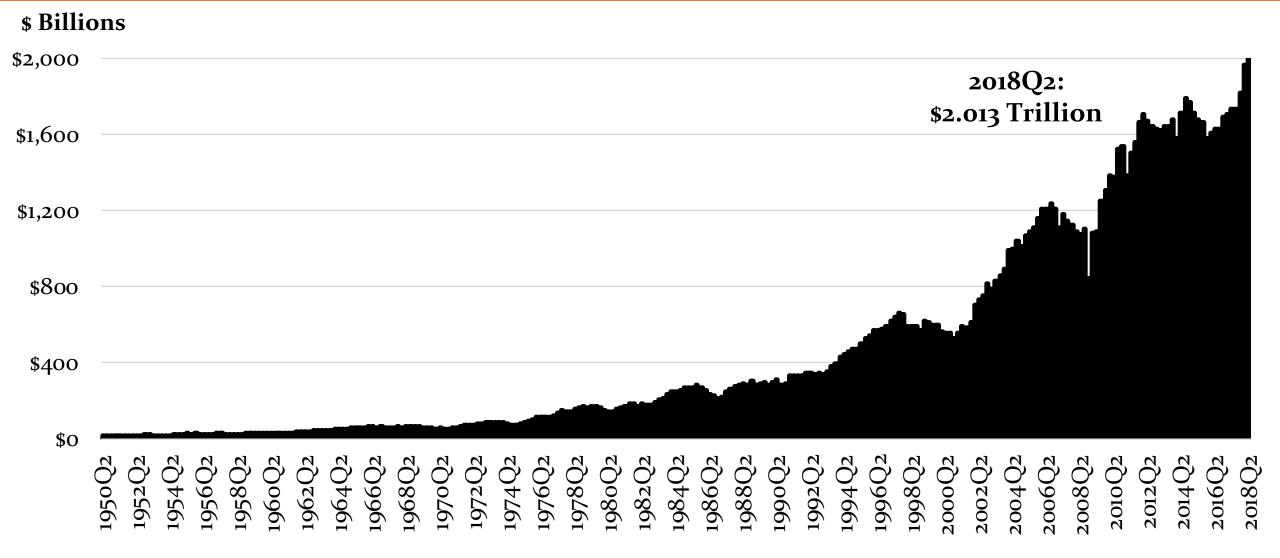
NFIB Index of Small Business Optimism: Good Time to Expand 1986-2018

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



Paint It Black – Corporate Profits

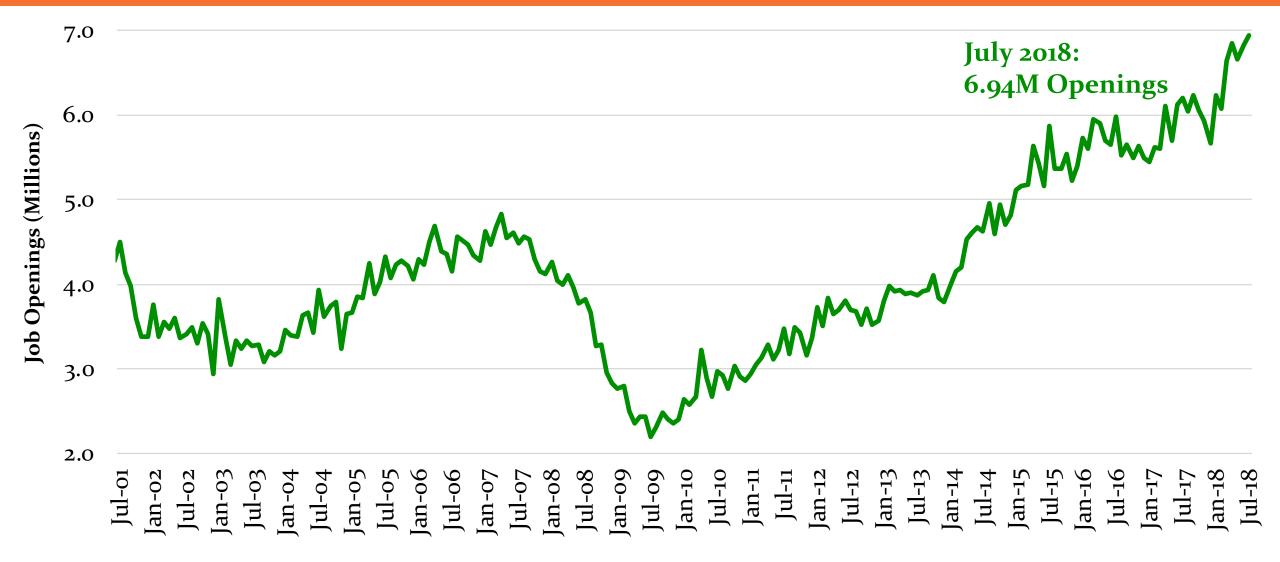
*U.S. Corporate Profits After Tax**





U.S. Job Openings

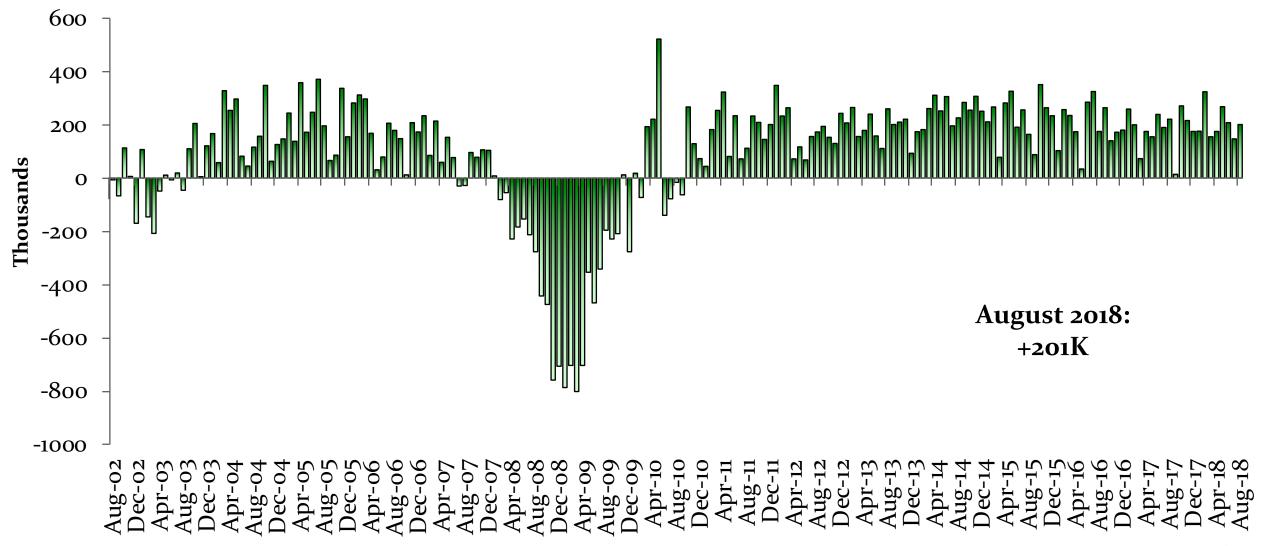
July 2001 through July 2018





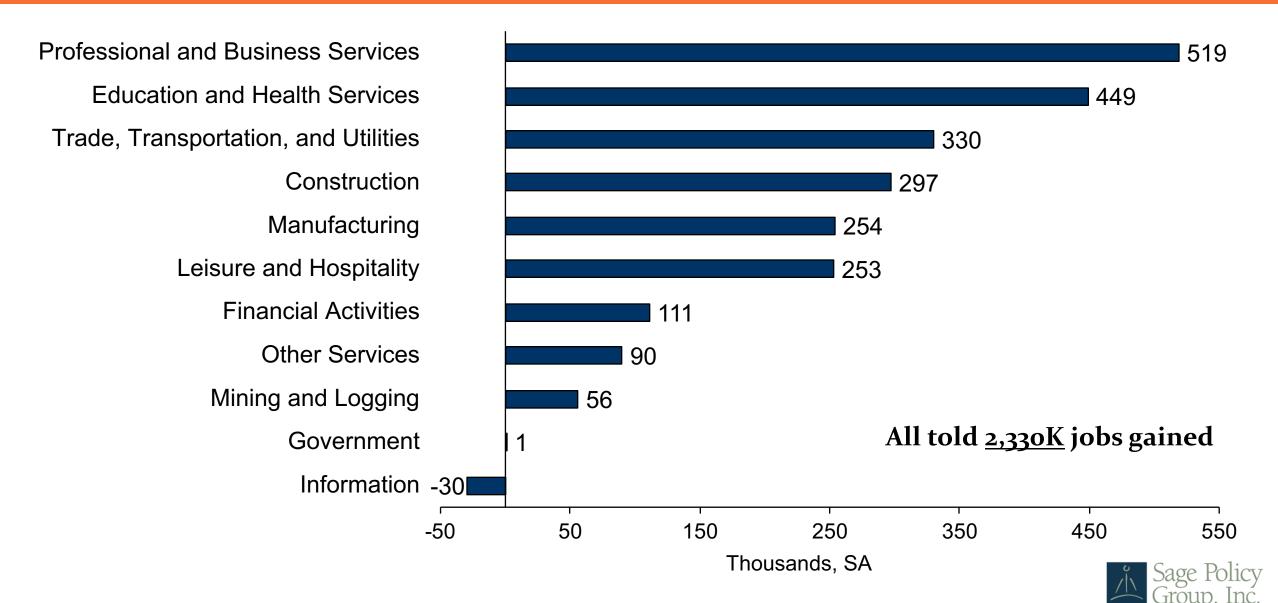
Net Change in U.S. Jobs

August 2002 through August 2018

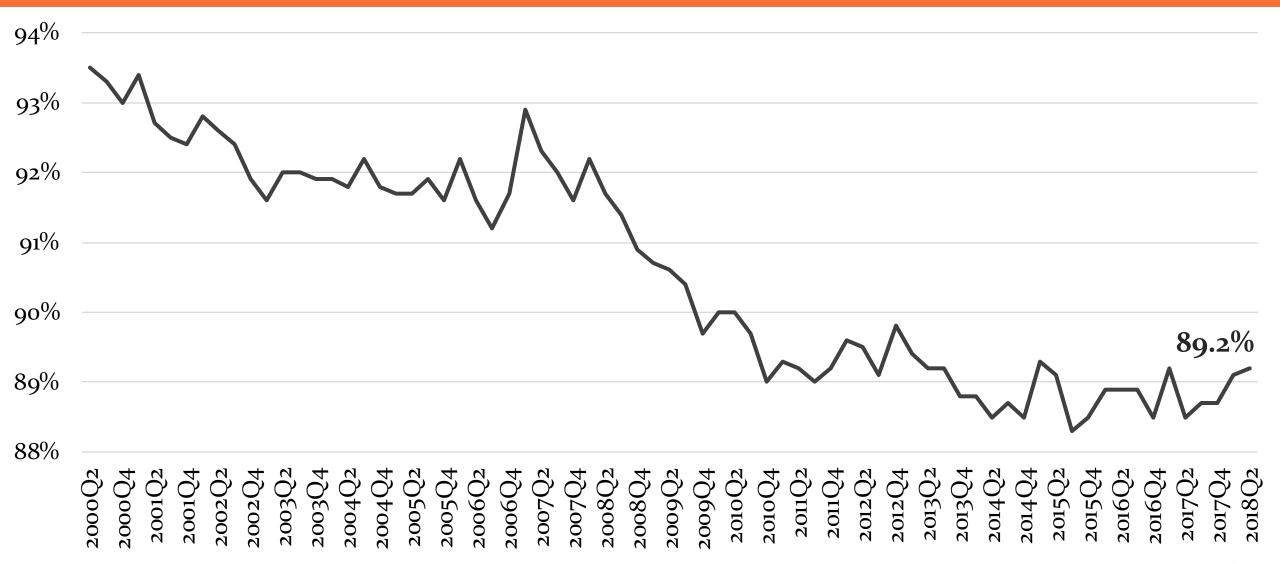




National Nonfarm Employment by Industry Sector, August 2017 v. August 2018



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





Firefighters: Occupational Outlook

- Employment for firefighters is projected to grow 7% from 2016-2026;
- Physically fit applicants with high test scores, some postsecondary firefighter education, and paramedic training have the best job prospects;
- 2/3 calls to firefighters are for medical emergencies, not fires.

- Some firefighters are specially trained in certain areas:
 - Hazardous materials
 (trained to control and clean up hazardous materials, such as oil spills and chemical accidents)
 - Wildland firefighting
 (trained to combat active wildfires
 and manage the environment to
 reduce the impact of fires)



High Demand for Volunteer Firefighters

- Volunteer firefighters share the same duties as paid firefighters and account for the majority of firefighters in many areas.
- According to the U.S. Fire Administration, 70.8% of fire departments were "predominately volunteer" and 16.0% were "mostly volunteer" in 2017.
- Only 13.2% were "career" (8.7%) or "mostly career" (4.5%)



Volunteers Tougher to Find

- At the same time, the need for volunteer firefighters has grown and volunteers continue to age;
- The number of volunteer firefighters reached a low in 2011. While there has been some growth since then, it hasn't been enough to meet the steady increase in call volume;
- Call volume has tripled in the last 30 years in large measure due to growth in emergency medical calls;

- Departments are having trouble attracting younger volunteers:
 - Increased demands on people's time;
 - Growth of two-income households;
 - Increased training requirements and costs.



Federal Funding for Firefighting I

On January 3, 2018, the President signed the United States Fire Administration, the Assistance to Firefighters Grant (AFG) Program, and SAFER Program Reauthorization Act of 2017 (P.L. 115-98). The Act:

- Extends the AFG and SAFER authorizations through FY2023;
- Extends the sunset provisions for AFG and SAFER through September 30, 2024;
- Extends the USFA authorization through FY2023;
- Provides that the U.S. Fire Administration in FEMA may develop and make widely available an online training course on AFG and SAFER grant administration;

- Expands SAFER hiring grant eligibility to cover the conversion of part-time or paid-on-call firefighters to full-time firefighters;
- Directs FEMA, acting through the Administrator of USFA, to develop and implement a grant monitoring and oversight framework to mitigate and minimize risks of fraud, waste, abuse, and mismanagement related to the AFG and SAFER grant programs.

Employment Growth, U.S. States (SA)

August 2017 v. August 2018 Percent Change

| RANK | STATE | % | RANK | STATE | % | RANK | STATE | % |
|------|----------------|-----|------|----------------|-----|------|----------------------|------|
| 1 | UTAH | 3.5 | 17 | MASSACHUSETTS | 1.9 | 35 | MISSOURI | 1.2 |
| 2 | NEVADA | 3.3 | 17 | SOUTH CAROLINA | 1.9 | 36 | ALABAMA | 1.1 |
| 2 | WASHINGTON | 3.3 | 17 | TENNESSEE | 1.9 | 36 | CONNECTICUT | 1.1 |
| 4 | TEXAS | 3.2 | 21 | NEW HAMPSHIRE | 1.8 | 36 | PENNSYLVANIA | 1.1 |
| 5 | IDAHO | 3.1 | 22 | MISSISSIPPI | 1.6 | 39 | NORTH DAKOTA | 1.0 |
| 6 | ARIZONA | 2.9 | 22 | OHIO | 1.6 | 39 | WEST VIRGINIA | 1.0 |
| 7 | COLORADO | 2.7 | 24 | DELAWARE | 1.5 | 41 | INDIANA | 0.9 |
| 7 | HAWAII | 2.7 | 24 | MINNESOTA | 1.5 | 41 | NEW YORK | 0.9 |
| 9 | FLORIDA | 2.6 | 24 | NEW JERSEY | 1.5 | 43 | ILLINOIS | 8.0 |
| 10 | OREGON | 2.4 | 24 | SOUTH DAKOTA | 1.5 | 43 | LOUISIANA | 8.0 |
| 11 | NORTH CAROLINA | 2.3 | 24 | WISCONSIN | 1.5 | 43 | MAINE | 0.8 |
| 11 | WYOMING | 2.3 | 29 | NEBRASKA | 1.4 | 46 | MARYLAND | 0.7 |
| 13 | CALIFORNIA | 2.1 | 29 | VIRGINIA | 1.4 | 46 | ARKANSAS | 0.7 |
| 14 | GEORGIA | 2.0 | 31 | IOWA | 1.3 | 46 | DISTRICT OF COLUMBIA | 0.7 |
| 14 | NEW MEXICO | 2.0 | 31 | MICHIGAN | 1.3 | 49 | KENTUCKY | 0.4 |
| 14 | OKLAHOMA | 2.0 | 31 | MONTANA | 1.3 | 50 | VERMONT | -0.6 |
| 17 | KANSAS | 1.9 | 31 | RHODE ISLAND | 1.3 | 51 | ALASKA | -0.9 |



Employment Growth, 25 Largest Metros (NSA)

August 2017 v. August 2018 Percent Change

| Rank | MSA | % | Rank | MSA | % |
|-------|-------------------------------------------------|-----|------|-------------------------------------------|-----|
| 1 | Orlando-Kissimmee-Sanford, FL | 4.1 | 13 | Atlanta-Sandy Springs-Roswell, GA | 2.0 |
| 2 | Seattle-Tacoma-Bellevue, WA | 3.9 | 15 | San Francisco-Oakland-Hayward, CA | 1.9 |
| 3 | Houston-The Woodlands-Sugar Land, TX | 3.7 | 16 | Baltimore-Columbia-Towson, MD | 1.8 |
| 4 | Phoenix-Mesa-Scottsdale, AZ | | 17 | Philadelphia-Camden-Wilmington, | |
| 5 | Riverside-San Bernardino-Ontario, CA | 3.5 | 1/ | PA-NJ-DE-MD | 1.7 |
| 6 | Dallas-Fort Worth-Arlington, TX | 3.2 | 17 | San Diego-Carlsbad, CA | 1.7 |
| 7 | Denver-Aurora-Lakewood, CO | 2.8 | 19 | Miami-Fort Lauderdale-West Palm Beach, FL | 1.5 |
| 8 | Charlotte-Concord-Gastonia, NC-SC | 2.7 | 20 | New York-Newark-Jersey City, NY-NJ-PA | 1.4 |
| 9 | Portland-Vancouver-Hillsboro, OR-WA | 2.5 | 21 | Los Angeles-Long Beach-Anaheim, CA | 1.2 |
| 9 | Tampa-St. Petersburg-Clearwater, FL | 2.5 | 21 | San Antonio-New Braunfels, TX | 1.2 |
| 11 | Boston-Cambridge-Nashua, MA-NH | 2.3 | 23 | Detroit-Warren-Dearborn, MI | 0.9 |
| 12 | Minneapolis-St. Paul-Bloomington, MN-WI | 2.1 | 24 | Chicago-Naperville-Elgin, IL-IN-WI | 0.8 |
| 1 1 7 | Washington-Arlington-Alexandria, DC-VA-MD-WV | 2.0 | 24 | St. Louis, MO-IL | 0.8 |



Unemployment Rates, 25 Largest Metros (NSA) *July 2018*

| Rank | MSA | UR | Rank | MSA | UR | | | |
|---------|-------------------------------------------------|-----|------|---------------------------------------------|-----|--|--|--|
| 1 | Minneapolis-St. Paul-Bloomington, MN-WI | 2.6 | 10 | St. Louis, MO-IL (1) | 3.8 | | | |
| 2 | San Francisco-Oakland-Hayward, CA | 2.8 | 10 | Tampa-St. Petersburg-Clearwater, FL | 3.8 | | | |
| 3 | Denver-Aurora-Lakewood, CO | 2.9 | 15 | Seattle-Tacoma-Bellevue, WA | 3.9 | | | |
| II ZL I | Washington-Arlington-Alexandria, DC-VA-MD-WV | | 16 | Miami-Fort Lauderdale-West Palm Beach, FL | 4.0 | | | |
| | | | 17 | Chicago-Naperville-Elgin, IL-IN-WI | 4.1 | | | |
| 4 | San Antonio-New Braunfels, TX | 3.5 | 18 | Phoenix-Mesa-Scottsdale, AZ | 4.3 | | | |
| 4 | San Diego-Carlsbad, CA | 3.5 | 19 | Houston-The Woodlands-Sugar Land, TX | 4.4 | | | |
| 7 | Boston-Cambridge-Nashua, MA-NH | 3.6 | 19 | New York-Newark-Jersey City, NY-NJ-PA | 4.4 | | | |
| 7 | Dallas-Fort Worth-Arlington, TX | 3.6 | 21 | Baltimore-Columbia-Towson, MD | 4.6 | | | |
| 7 | Orlando-Kissimmee-Sanford, FL | 3.6 | 21 | Los Angeles-Long Beach-Anaheim, CA | 4.6 | | | |
| 10 | Atlanta-Sandy Springs-Roswell, GA | 3.8 | 21 | Philadelphia-Camden-Wilmington, PA-NJ-DE-MD | 4.6 | | | |
| 10 | Charlotte-Concord-Gastonia, NC-SC | 3.8 | 21 | Riverside-San Bernardino-Ontario, CA | 4.6 | | | |
| 10 | Portland-Vancouver-Hillsboro, OR-WA | 3.8 | 25 | Detroit-Warren-Dearborn, MI | 5.0 | | | |



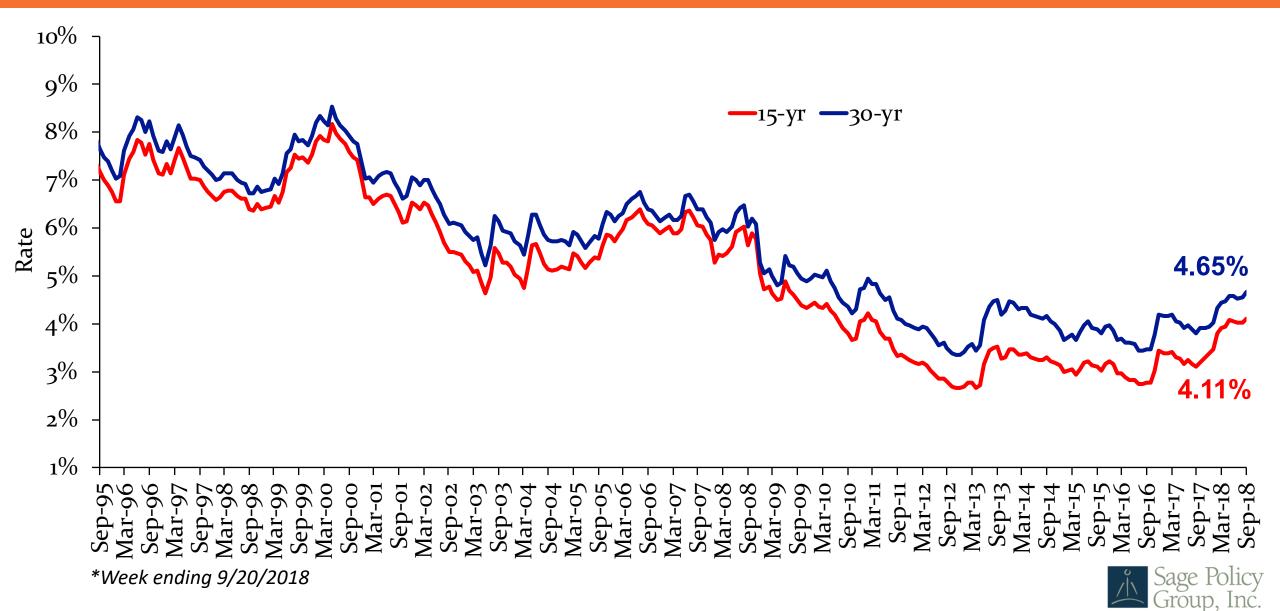
Gimme Shelter





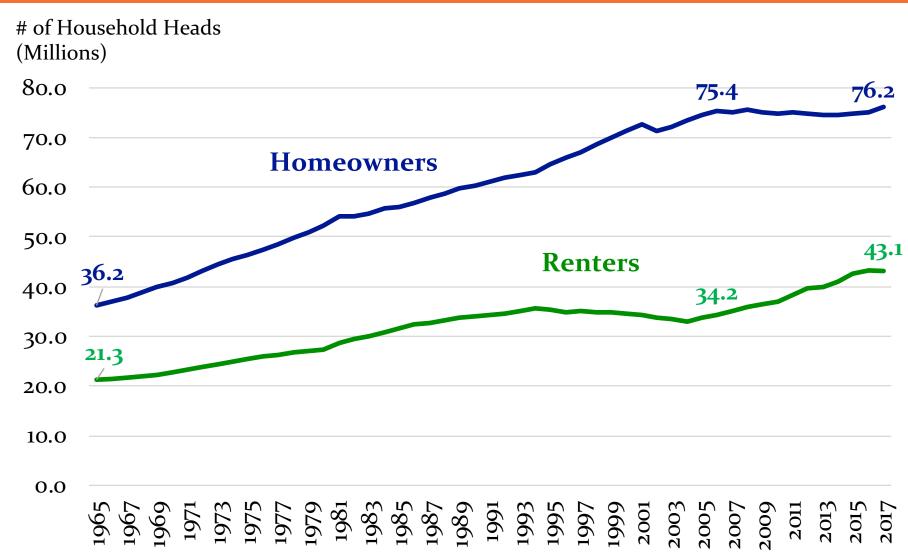
15-Year & 30-Year Fixed Mortgage Rates

September 1995 through September 2018*



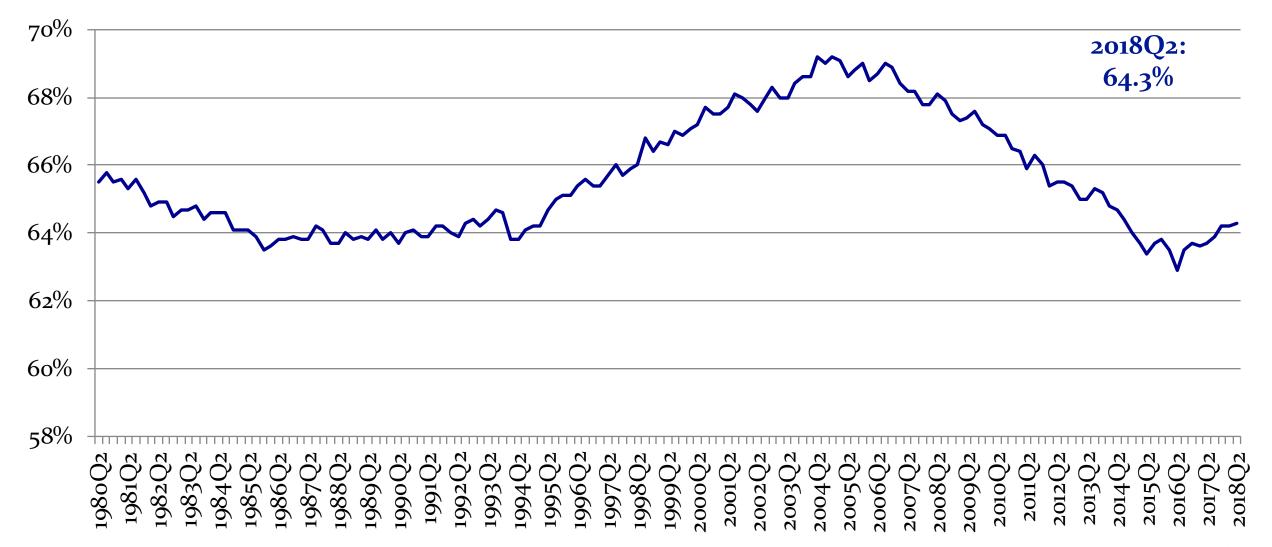
U.S. Households: Owner v. Renter Occupied, 1965-2017

- 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.





U.S. Homeownership (NSA) 1980Q2-2018Q2





U.S. Private New Multifamily Construction

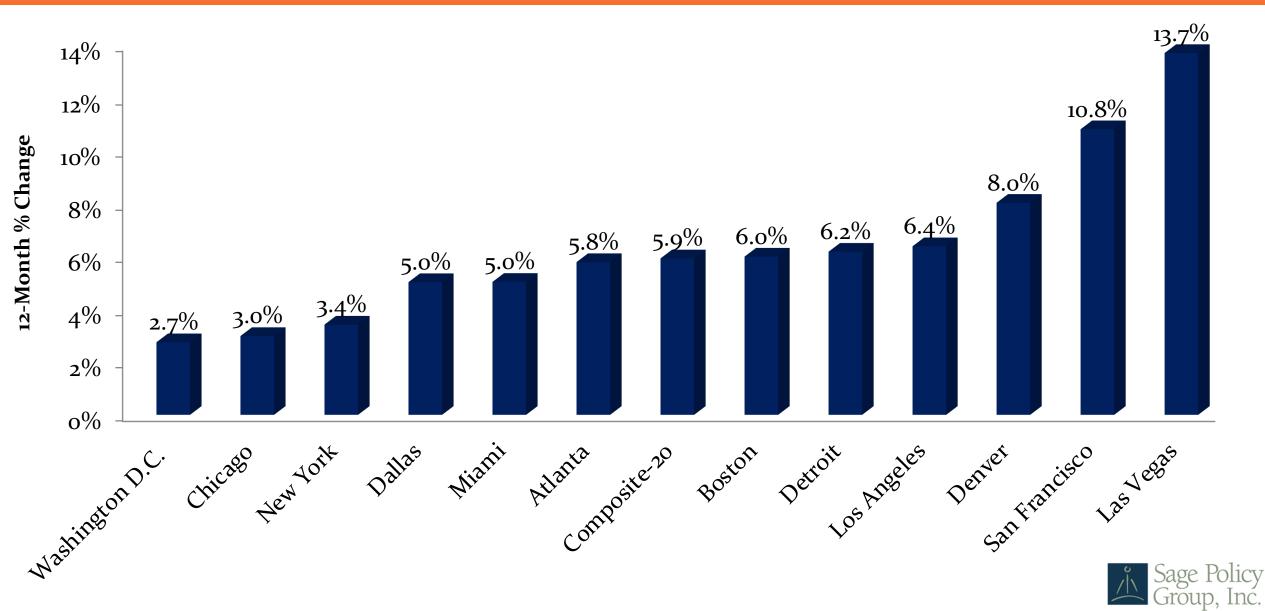
July 1993 through July 2018





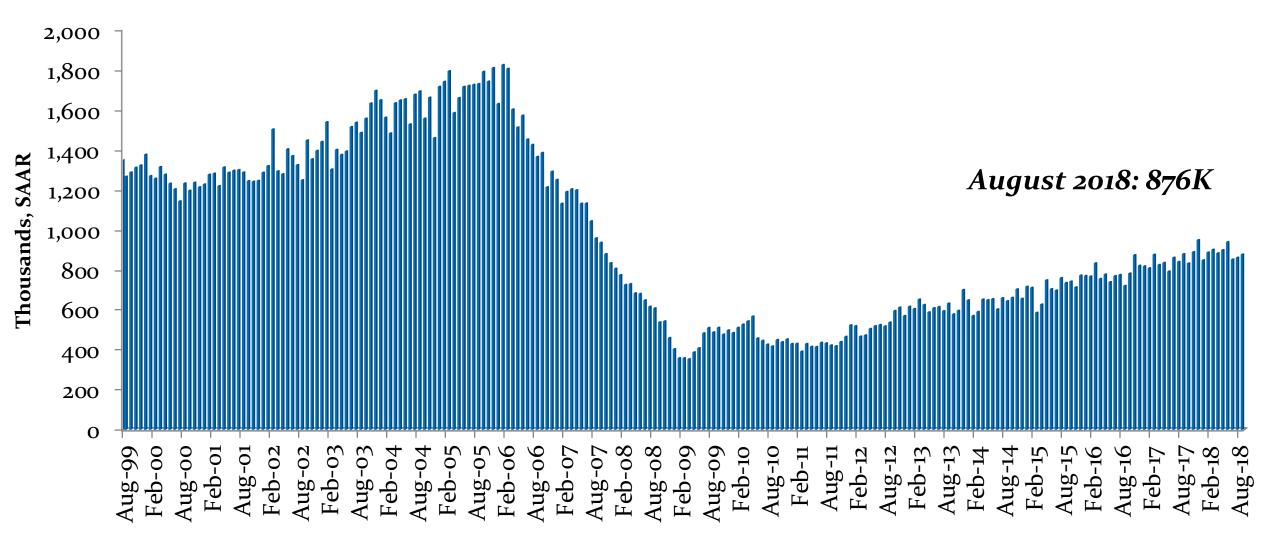
S&P Case-Shiller Home Price Indices for Select Metros

July 2018, 12-Month Percentage Change



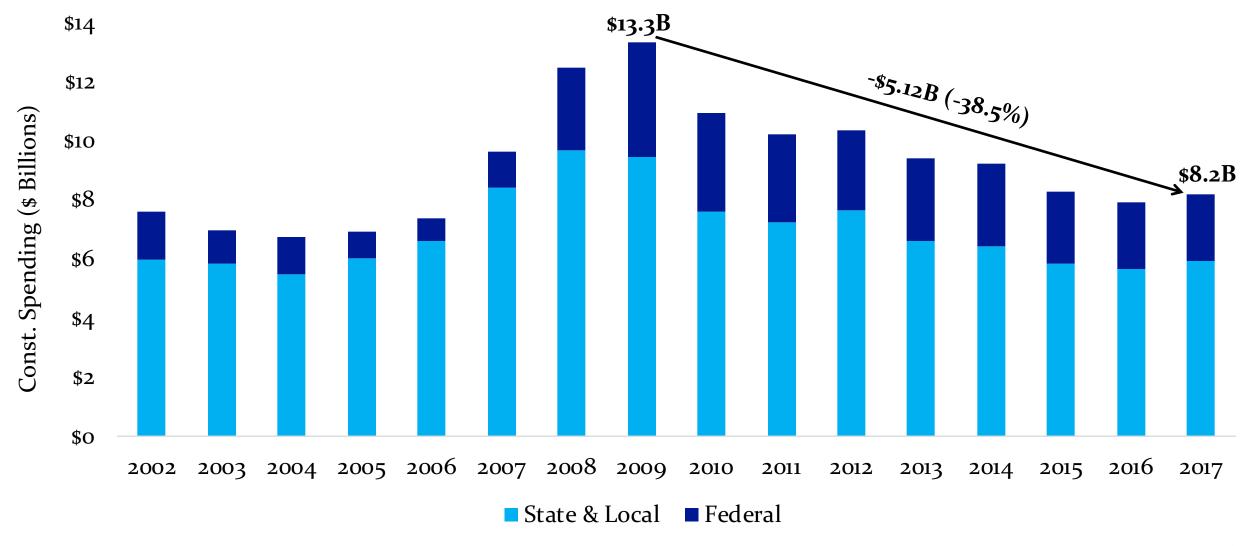
U.S. Single-Family Housing Starts

August 1999 through August 2018



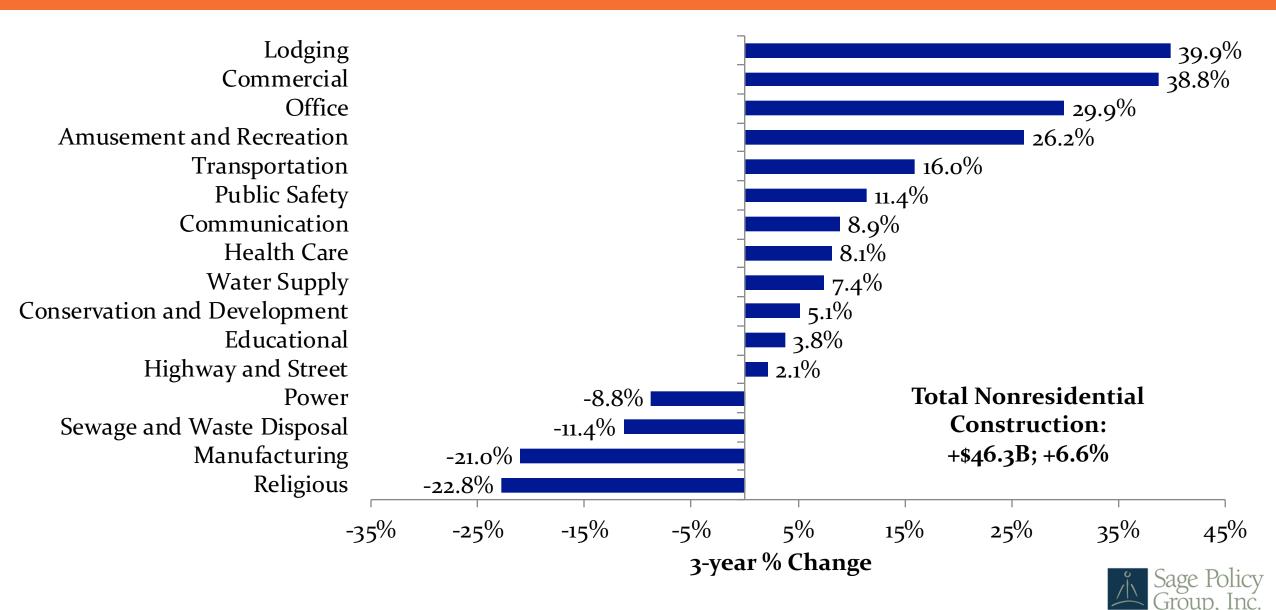


U.S. Public Safety Construction Spending, 2002-2017

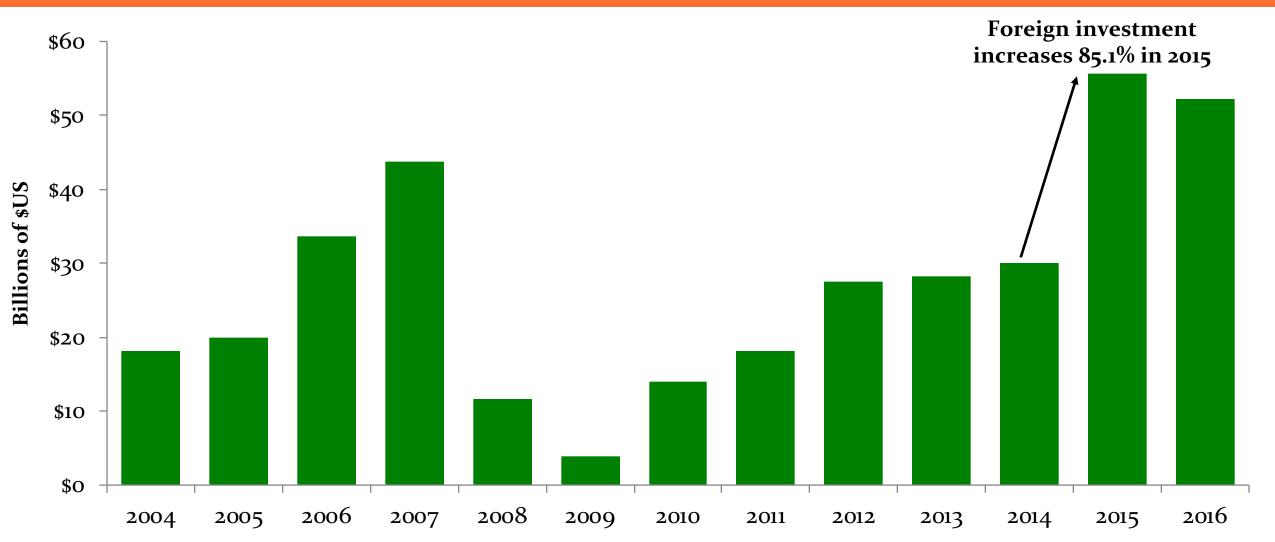




National Nonresidential Construction Spending by Subsector July 2015 v. July 2018



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

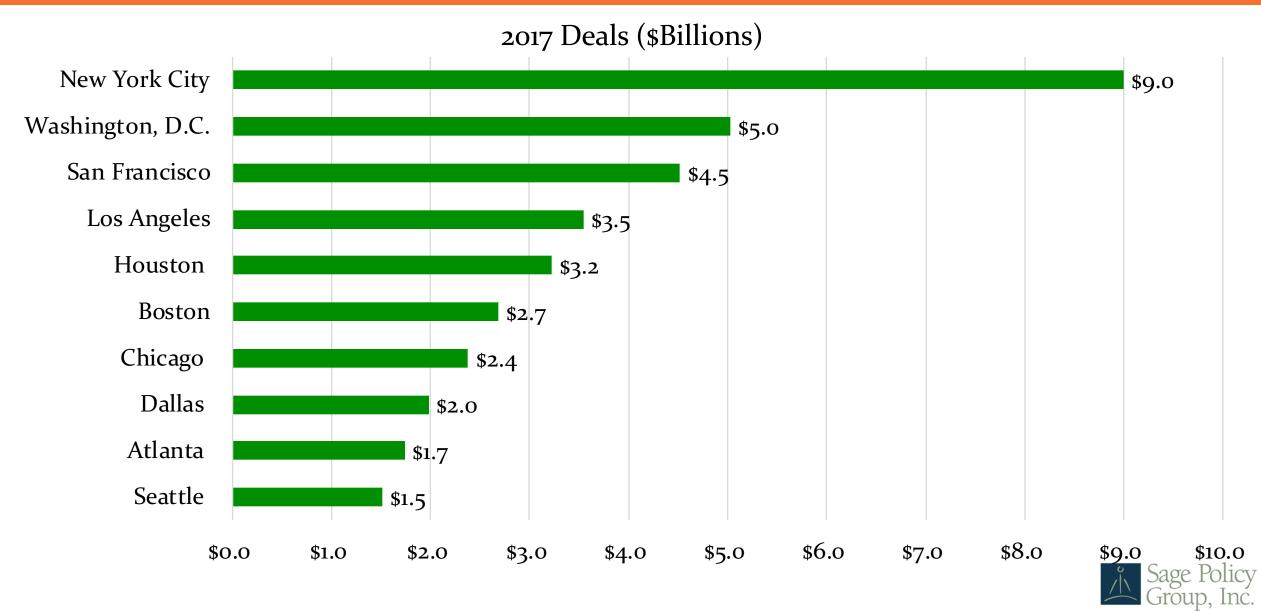


Cross-border investment remained elevated in 2016: Although down relative to a record 2015, offshore investment levels still exceeded the pre-2015 high in 2007.

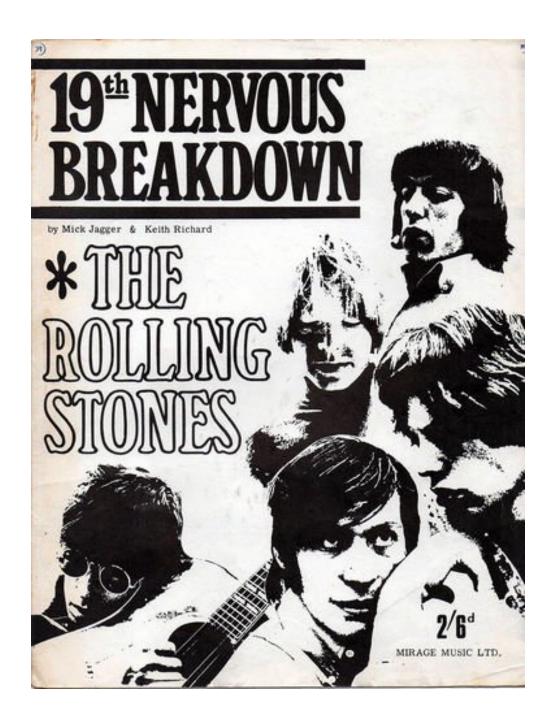


Foreign Investment in U.S. Commercial Real Estate

Top Destination Markets, 2017

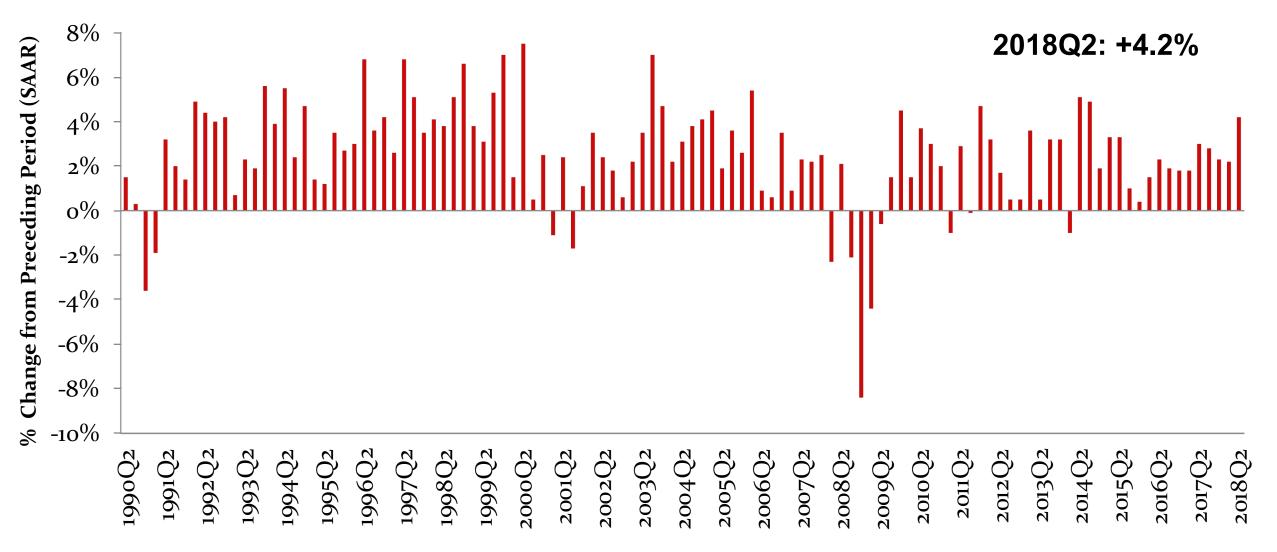


19th Nervous Breakdown





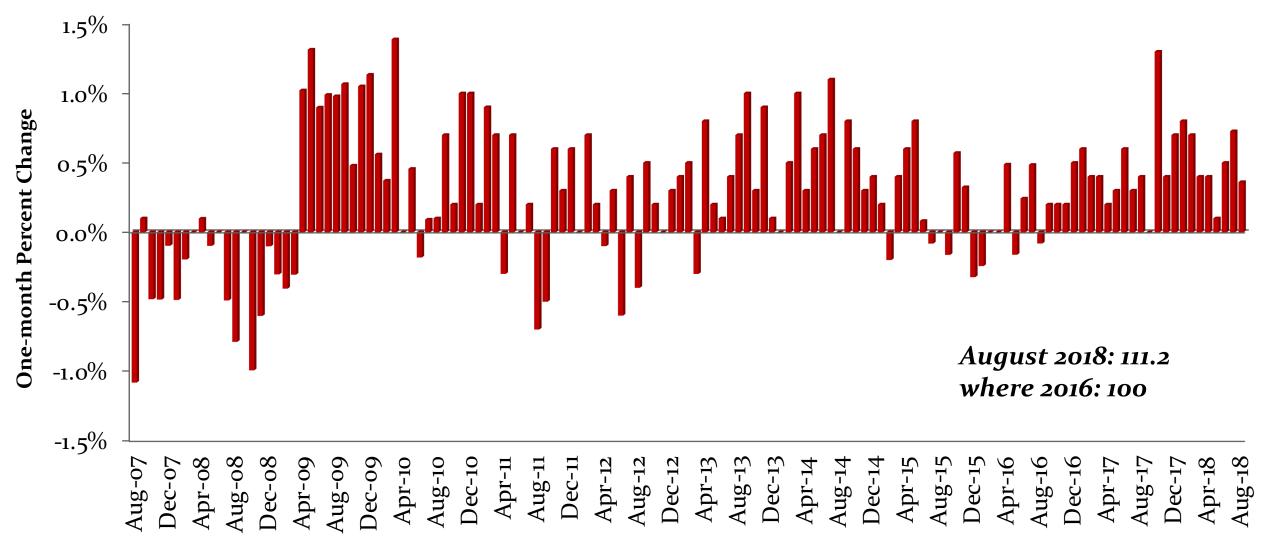
Gross Domestic Product 1990Q2 through 2018Q2*





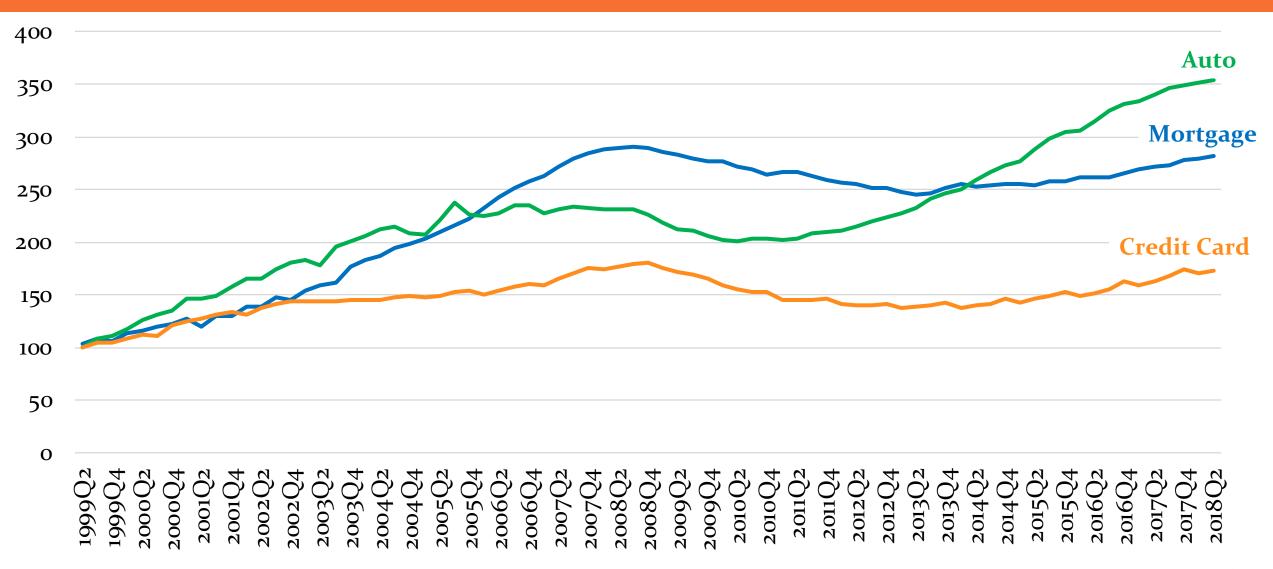
Conference Board Leading Economic Indicators Index

August 2007 through August 2018





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



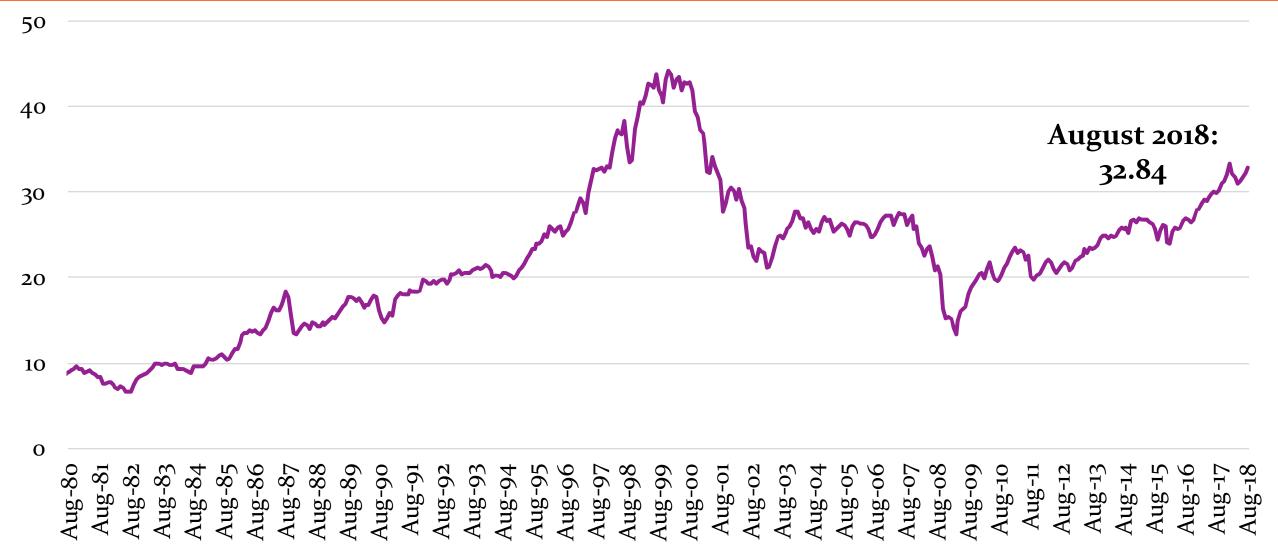


Global Debt Reaches All Time Highs (IIF)

- 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"



Shiller Price-Earnings Ratio, 1980-2018





Shattered! --- Bitcoin Price, 2014-2018





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

- U.S. setting up for best year since '05. . .;
- Global economy better than it was -- still;
- Job opportunities are abundant;
- Corporate profitability elevated;
- Consumer and business confidence has 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 will be fine better than fine 2019 might be, too, but beyond that, potential deleveraging cycle prompted by a repricing of assets Bad!!!!



Thank You

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