

The Economic Outlook

January 2018

Christopher Thornberg

Founding Partner, Beacon Economics

Director, UC Riverside Center for Forecasting and Development

Politics



Reality





The Victory of Miserabilism

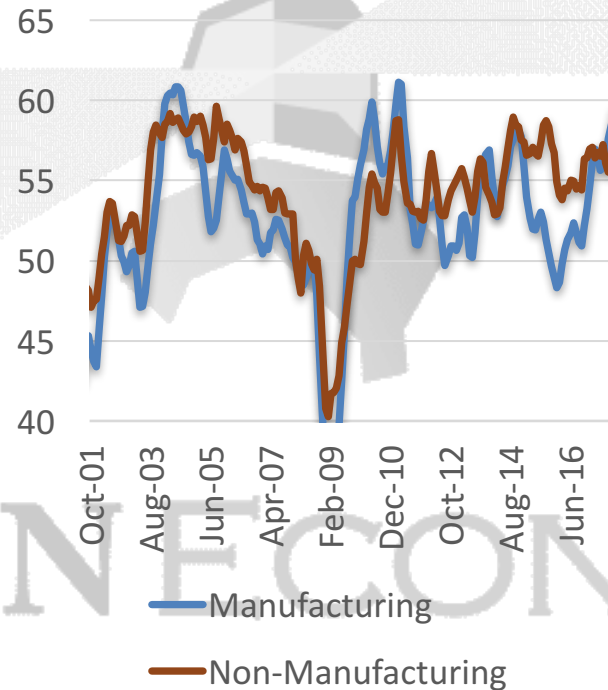
- **The Good: Meet the new economy, same as the old economy**
 - For all the sound and fury, very little actually happened (x taxes)
 - 2017 solid year for growth: looked a lot like 2013-2016
 - 2018 likely to be better: the tax cut stimulus will boost the economy
 - Low chance recession next 24 months
- **The Bad: Brakes and Imbalances**
 - Labor shortage Issues, state housing shortages
 - Consumer savings declines, another bubble forming
 - Aggressive Fed, rising rates, flattening yield curves
 - Little effort to deal with underinvestment in infrastructure, rising wealth and income inequality, healthcare cost inflation, housing
- **The Ugly: 2018 will be seen as a historic turning point**
 - Sharp growth in entitlement spending and government deficits
 - Breakdown in basic norms of political leadership

Optimism Abounds

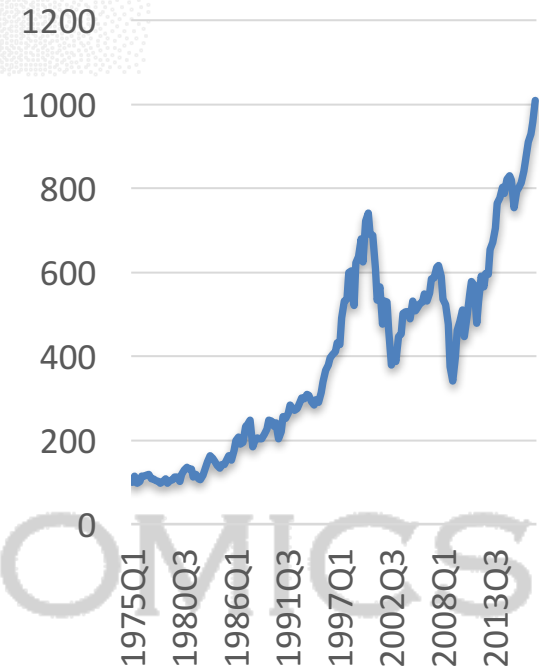
UM Consumer Sentiment
3 Month MA



ISM Diffusion Indexes
3 Month MA

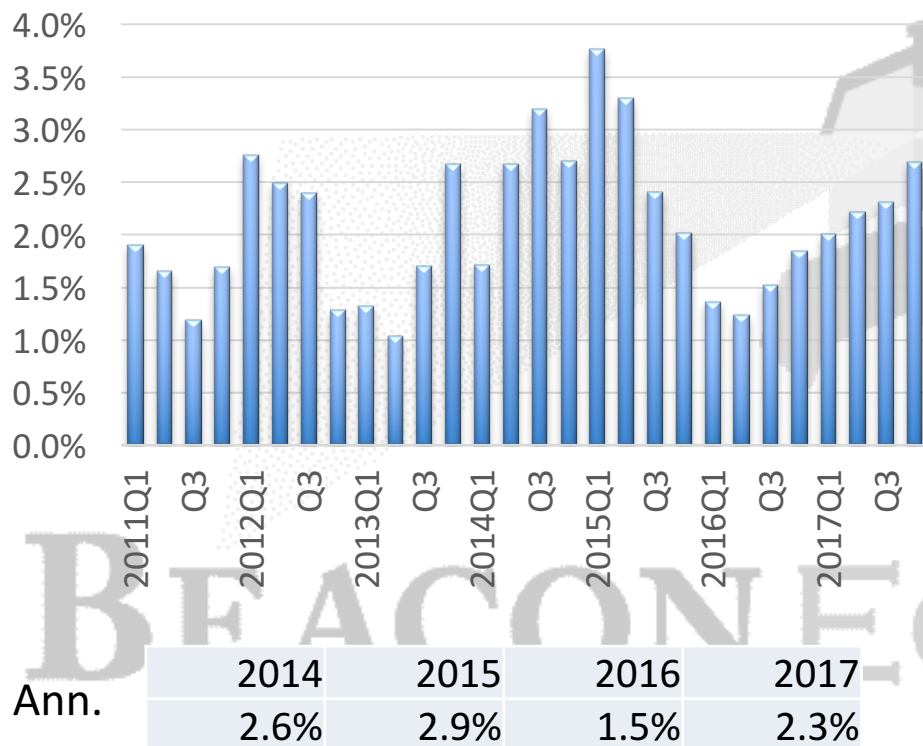


Wilshire 5000 Cap /
GDP Index



GDP Growth: Back to 2.2%

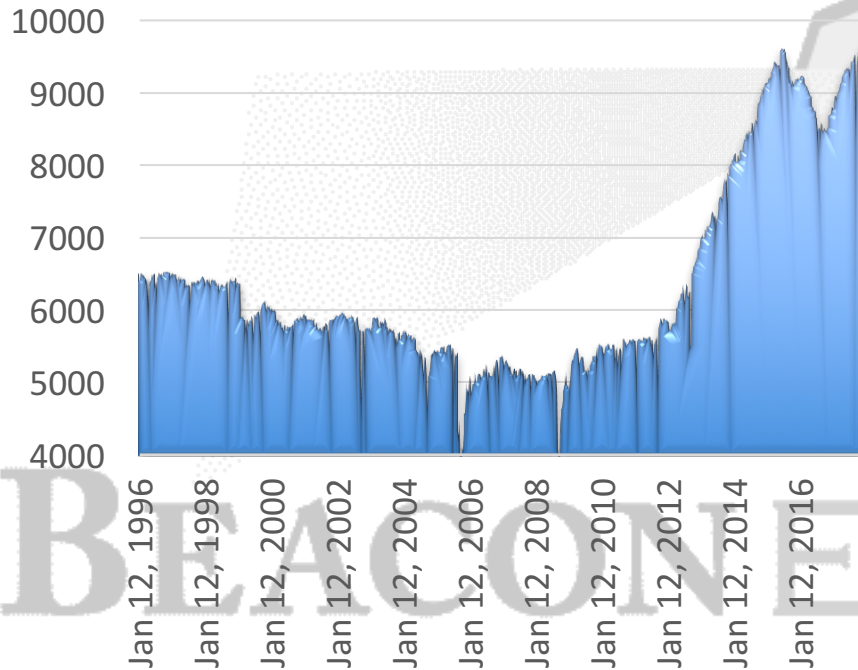
Y-o-Y Growth



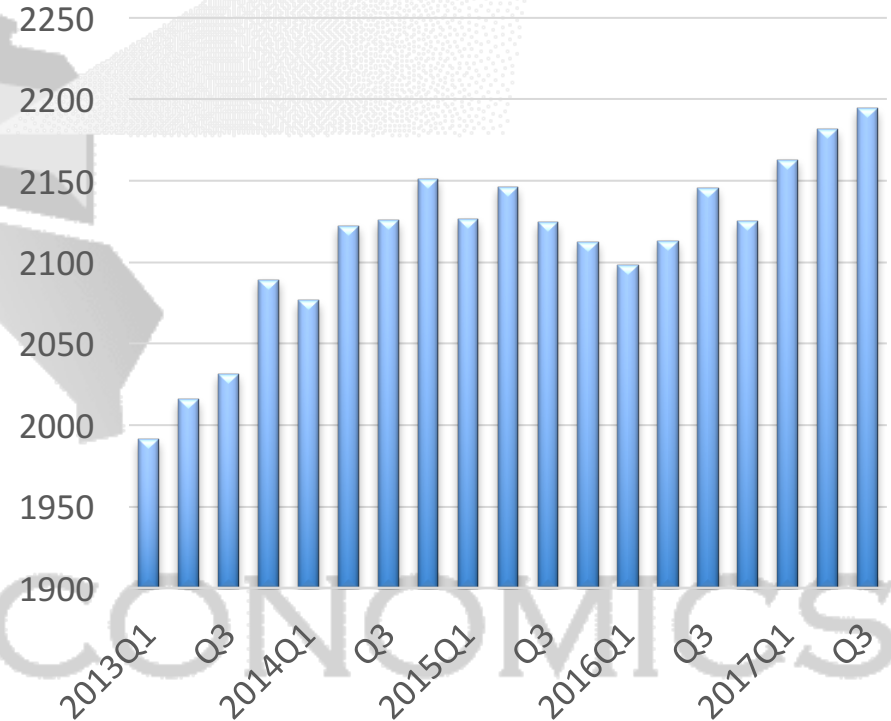
	2015	2016	2017	2017 Q3
GDP	2.00	1.85	2.43	3.00
FD	2.70	2.19	2.36	1.86
Consumption	2.04	1.93	1.73	1.62
Goods	0.88	0.87	0.74	0.92
Services	1.17	1.06	0.98	0.70
Fixed investment	0.40	0.18	0.68	0.25
Structures	-0.28	0.10	0.15	-0.15
Equipment	0.21	-0.22	0.40	0.47
IPP	0.13	0.21	0.18	0.17
Residential	0.35	0.09	-0.04	-0.24
Net exports	-0.68	-0.31	0.28	0.41
Exports	-0.23	0.07	0.52	0.28
Imports	-0.45	-0.38	-0.24	0.12
Government	0.28	0.07	-0.05	-0.02

Oil and Exports

Weekly US Oil Production to
December

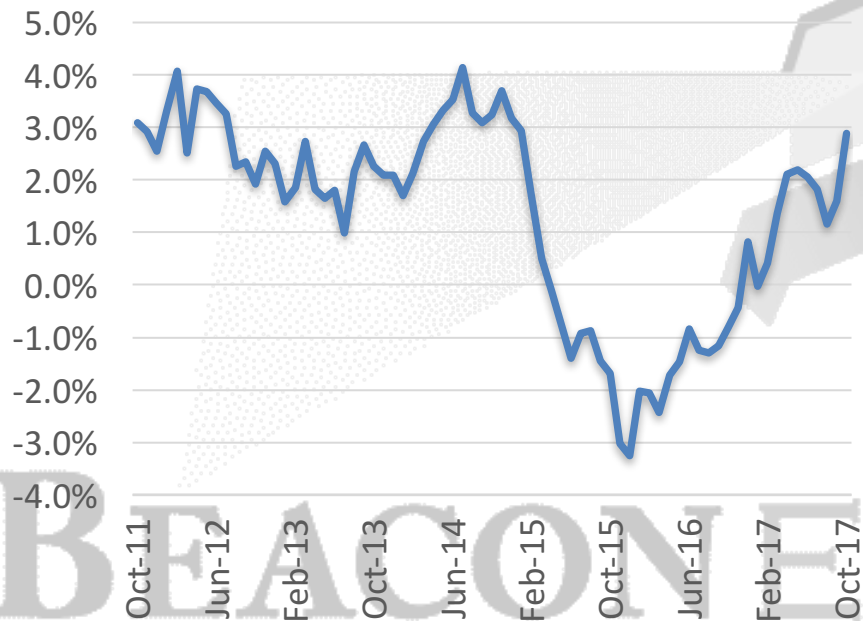


US Exports (Real)

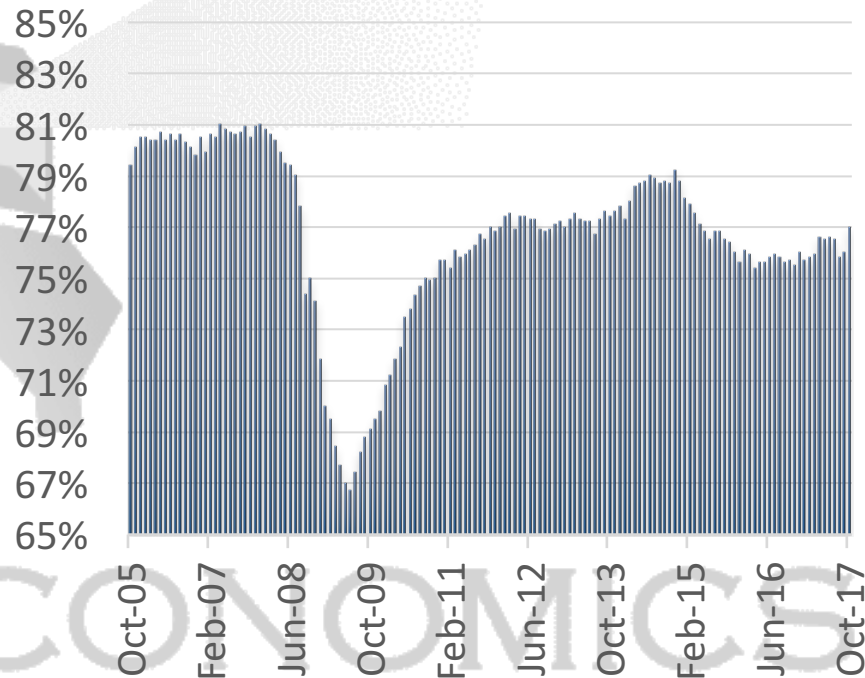


Industrial Stats: Meh.

Industrial Production (Y-o-Y Growth)
to Oct

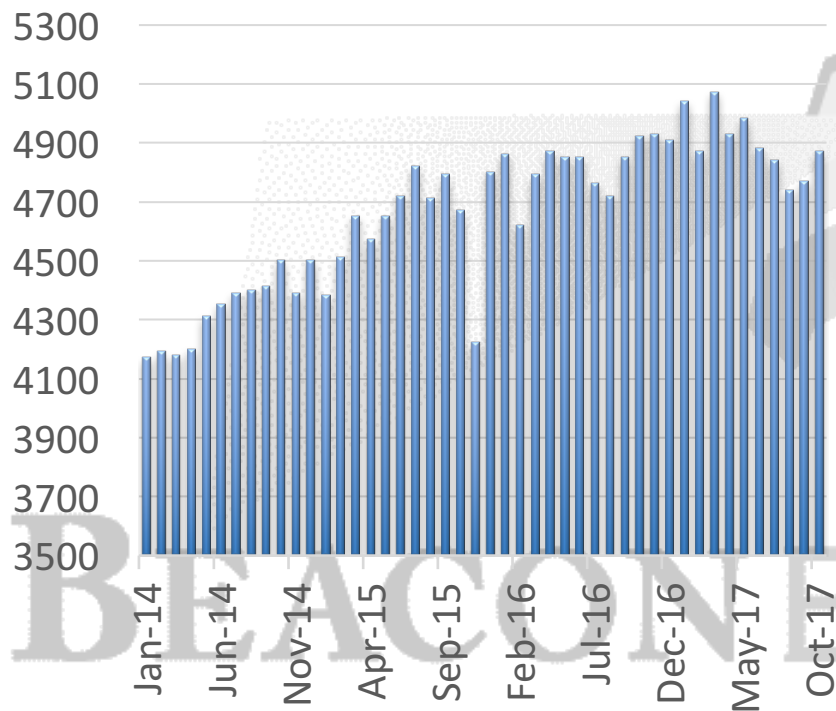


Capacity Utilization

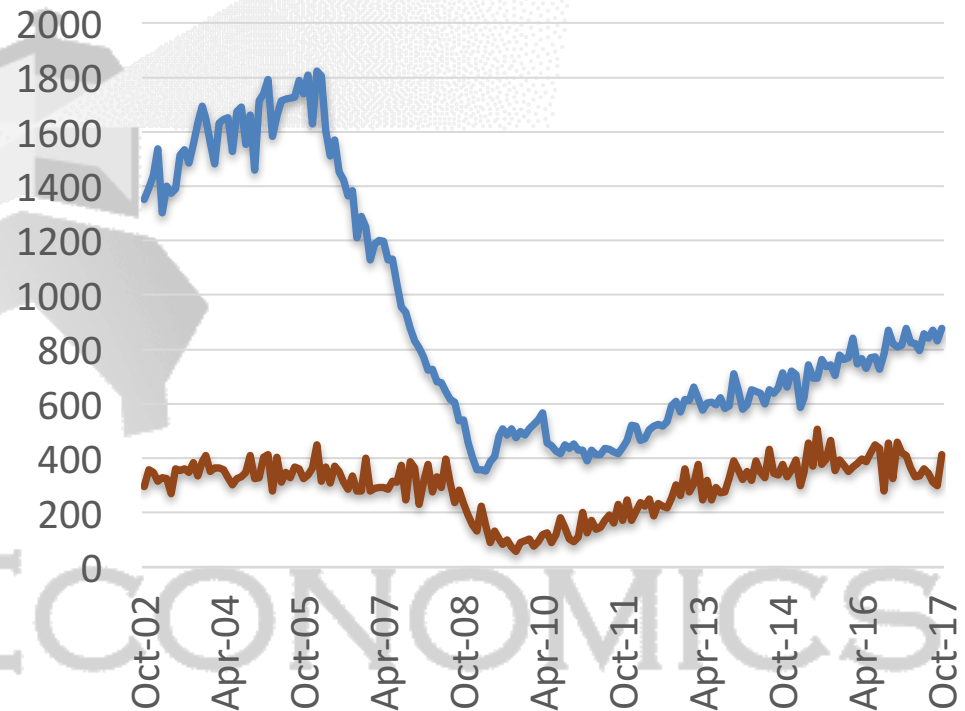


Housing

Existing SF Homes Sales to Oct

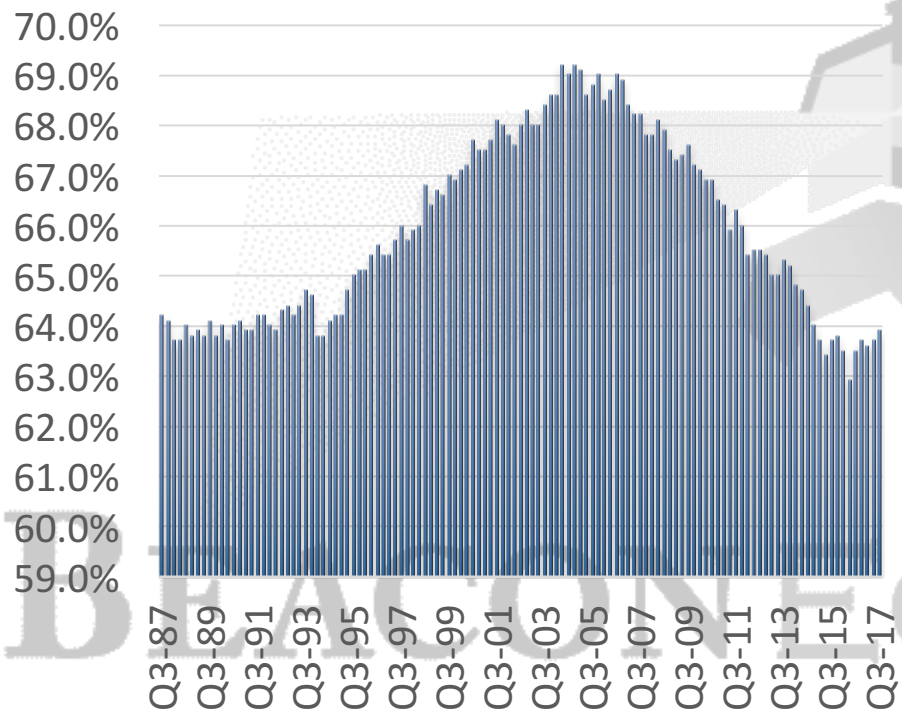


Housing Starts SAAR to October

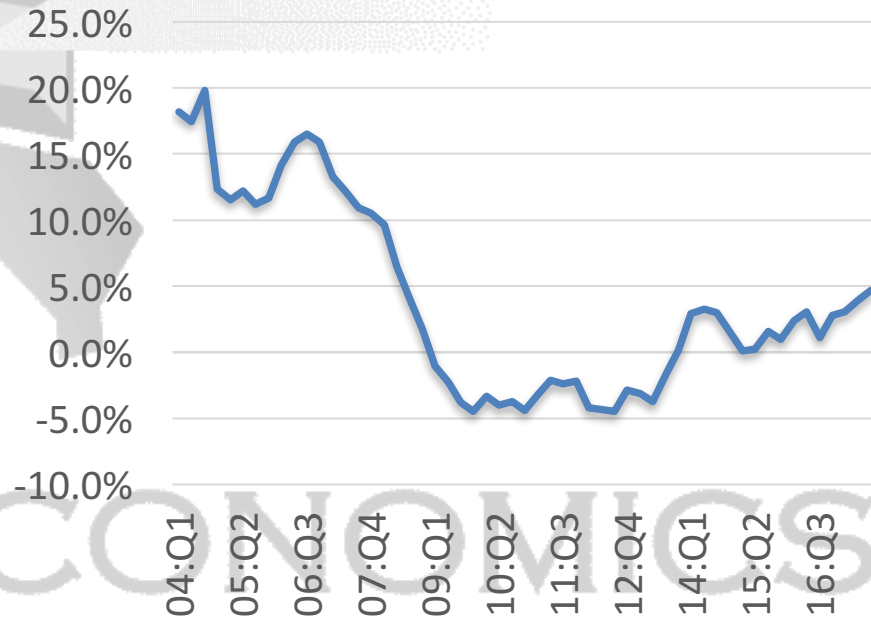


Ownership- Slight Up

Home Ownership

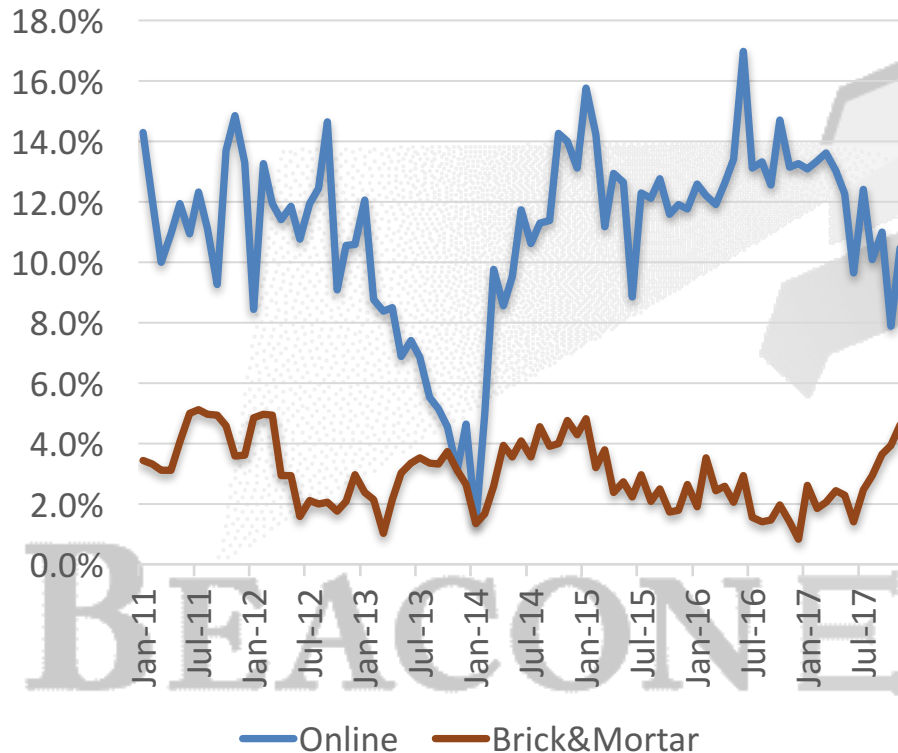


Growth Outstanding Mortgage Debt

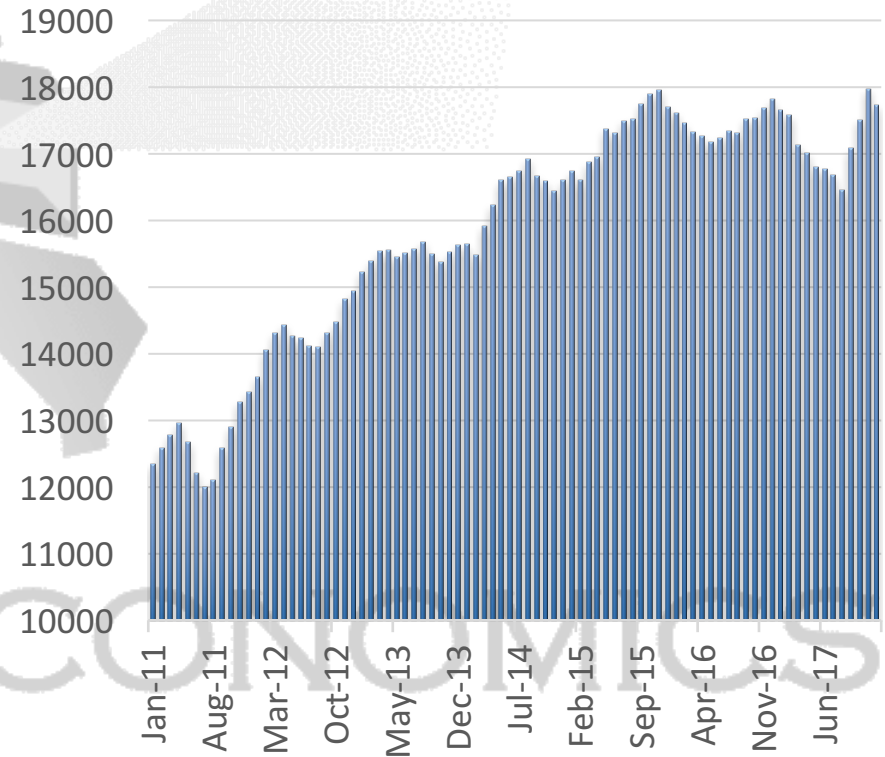


Retail Sales to November

Retail Sales (Y-o-Y to Nov)

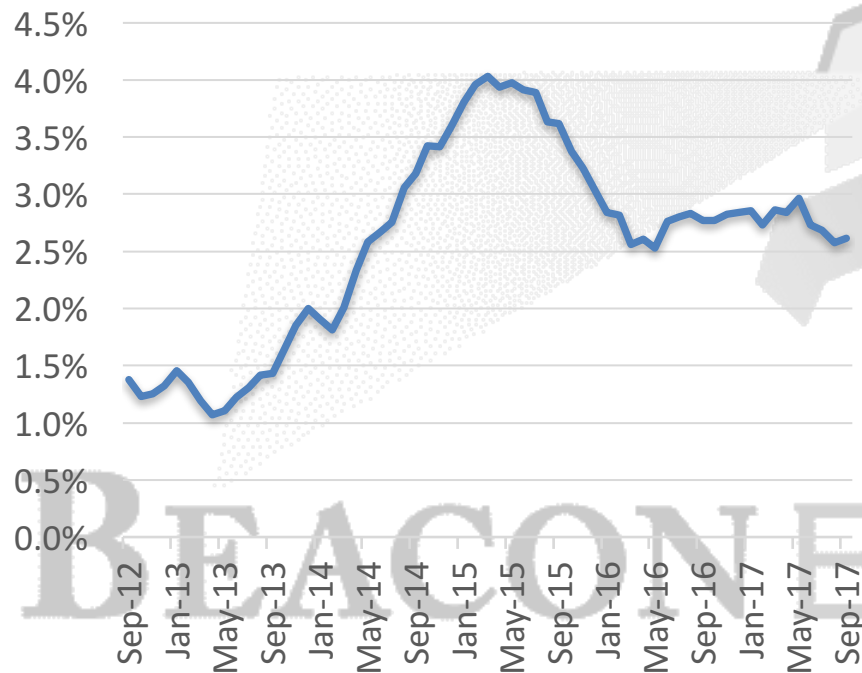


Auto Sales SAAR

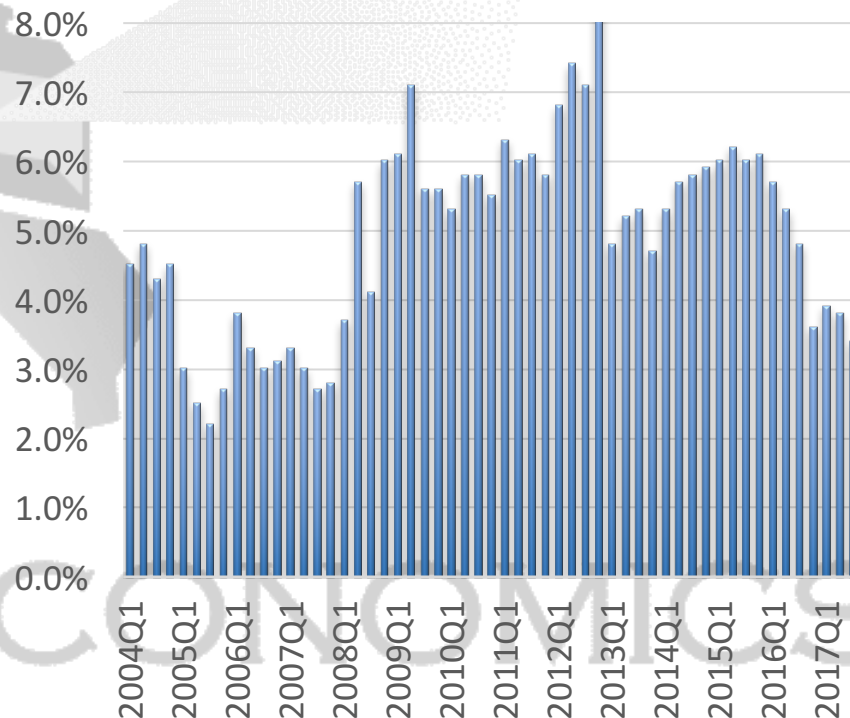


Consumer Spending

Real Consumer Spending (3 Month
MA Growth) to September

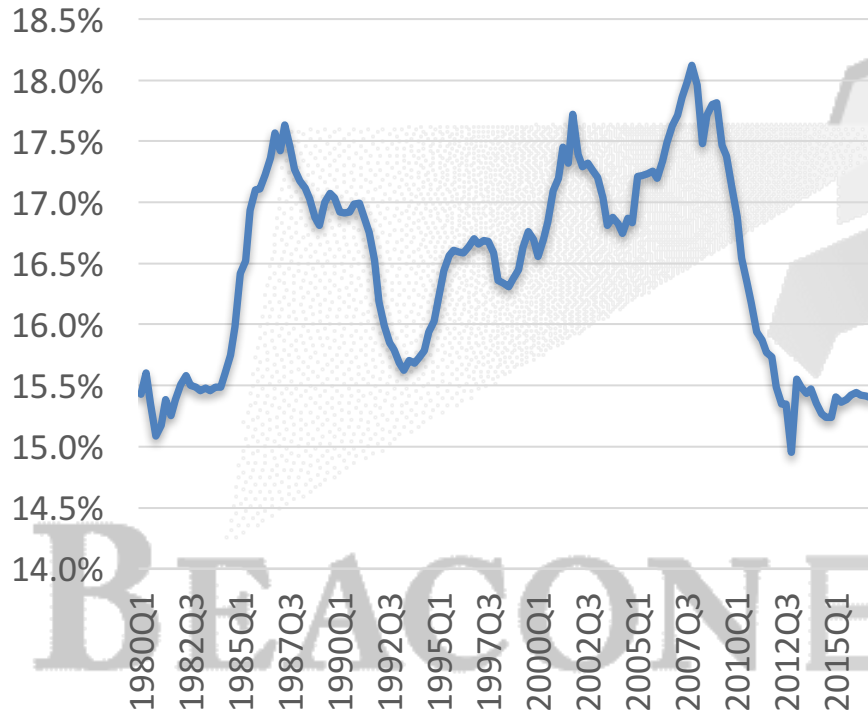


Consumer Savings Rate

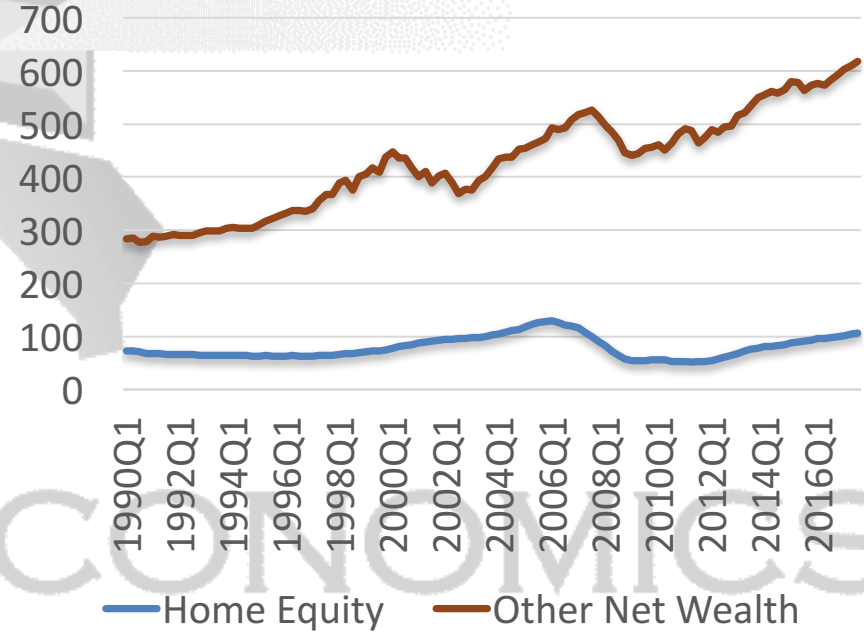


Wealth and Debt

Household Financial Obligation Ratio

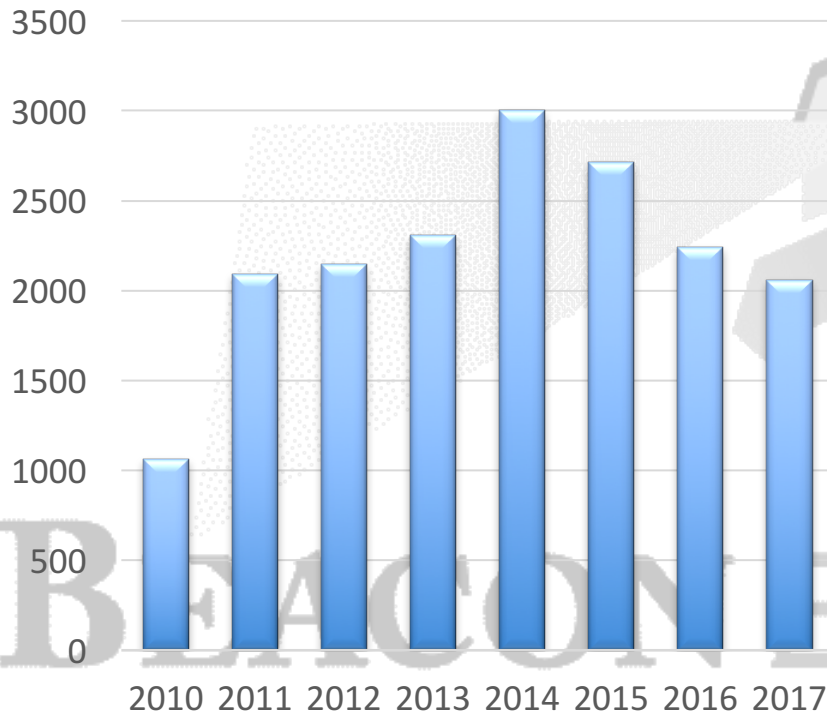


Real Average Wealth per Household (FOF, Thous.)

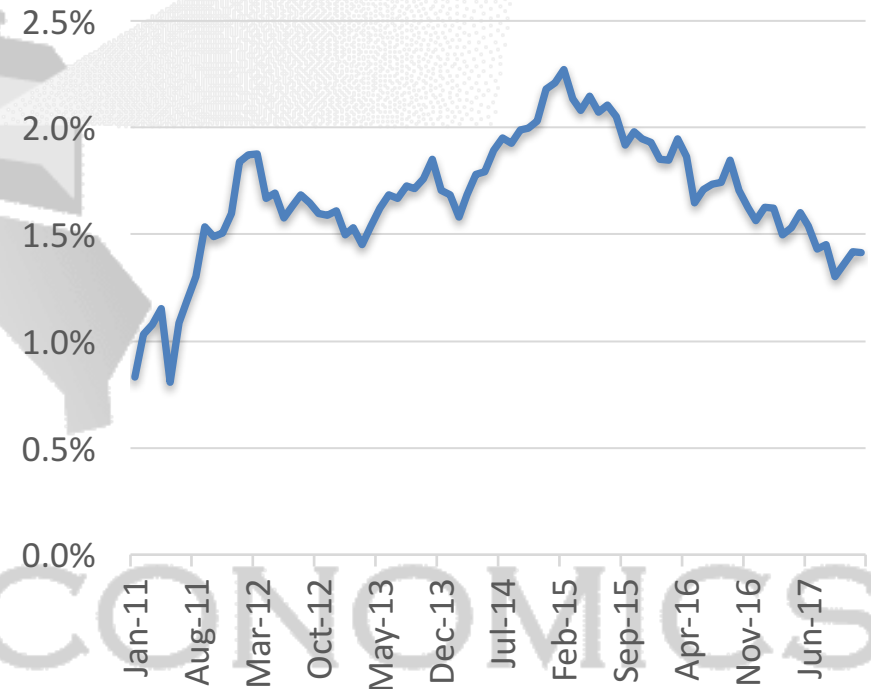


Labor Markets

Net Change Payroll Jobs

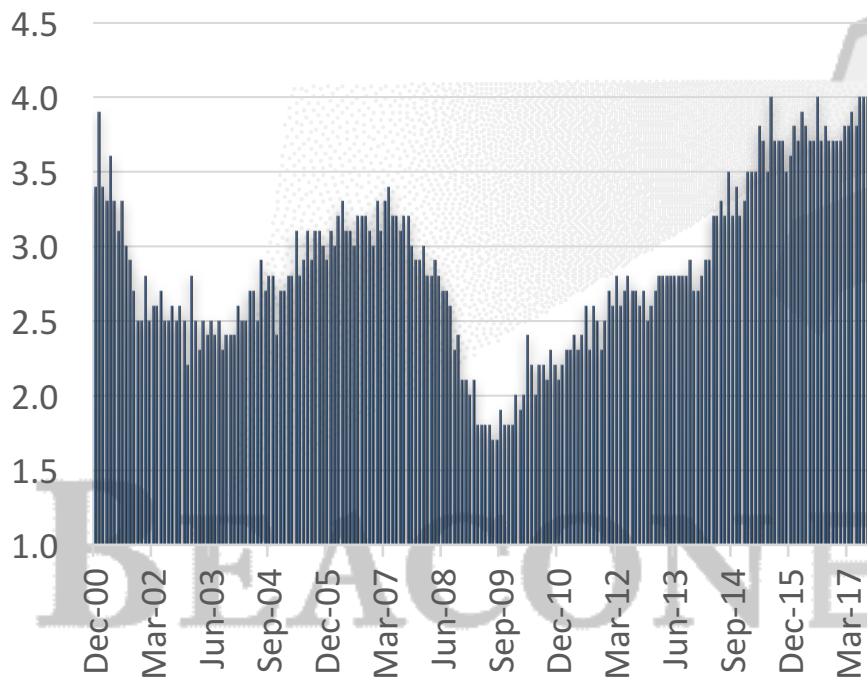


Growth Payroll Employment (Y-o-Y)

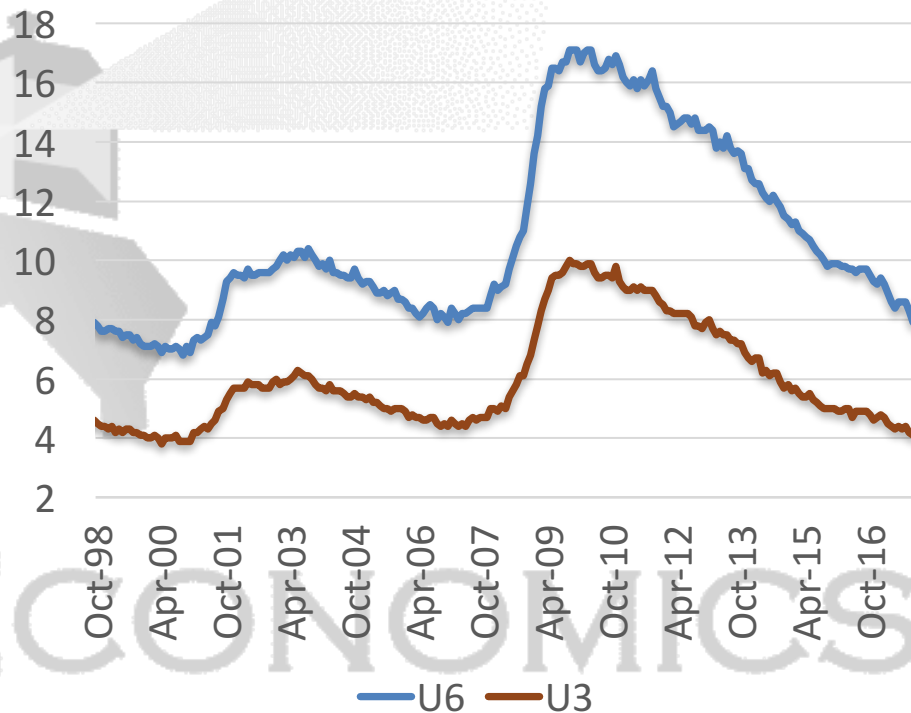


Why Slowing Job Growth?

JOLT Job Openings Rate
(% of Jobs)

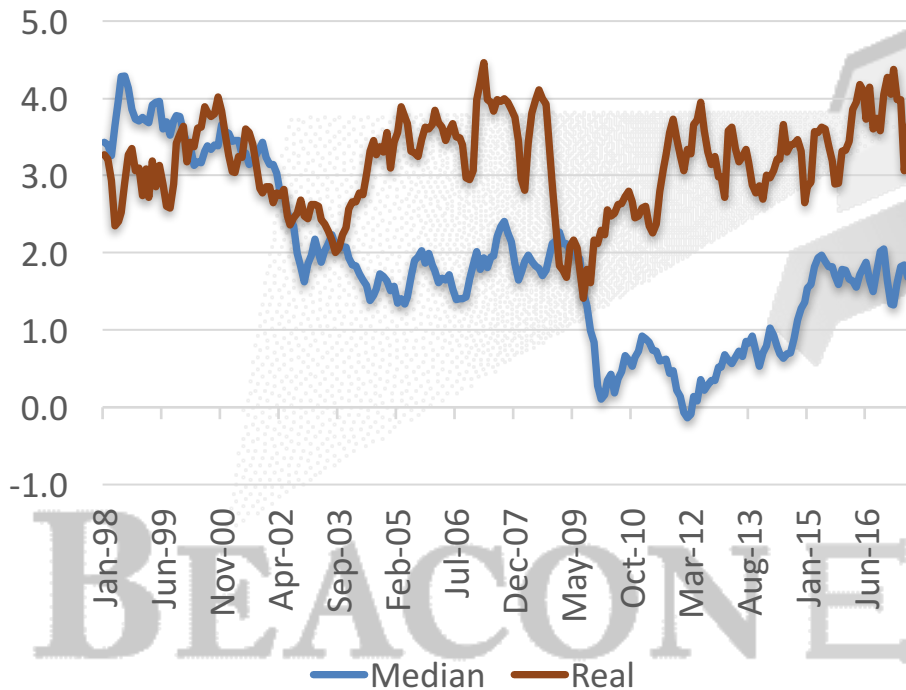


Unemployment

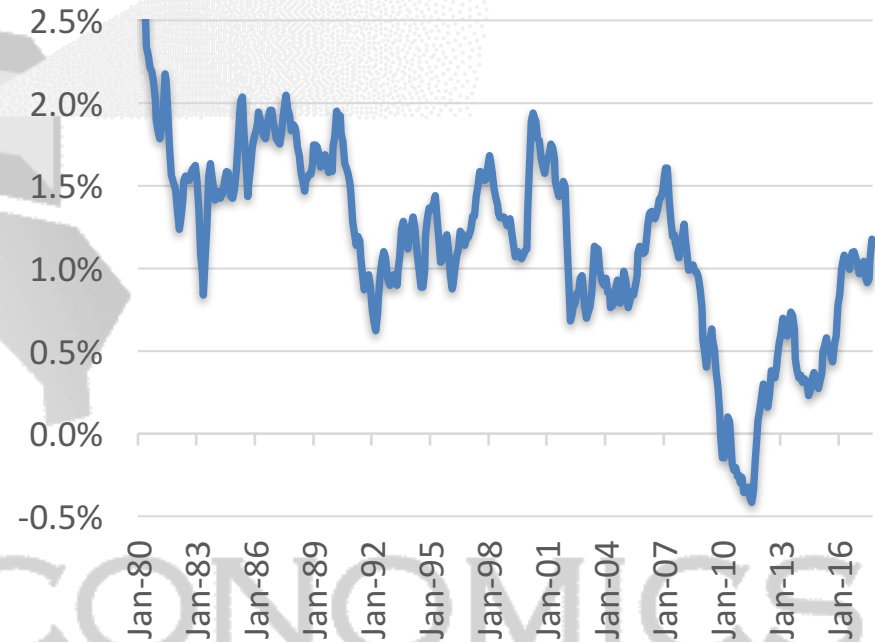


Consequences

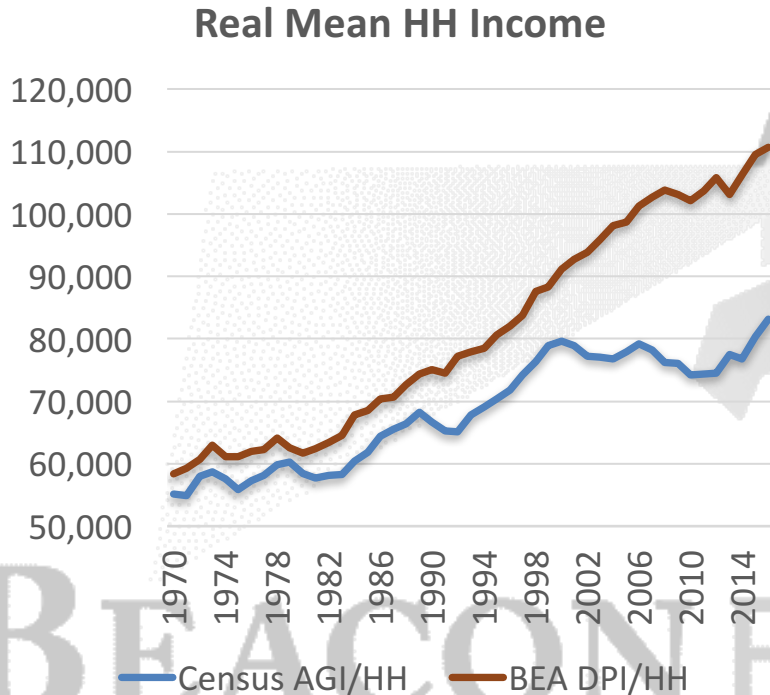
Real Wage Gains



Labor Force Growth



Income Stagnation?



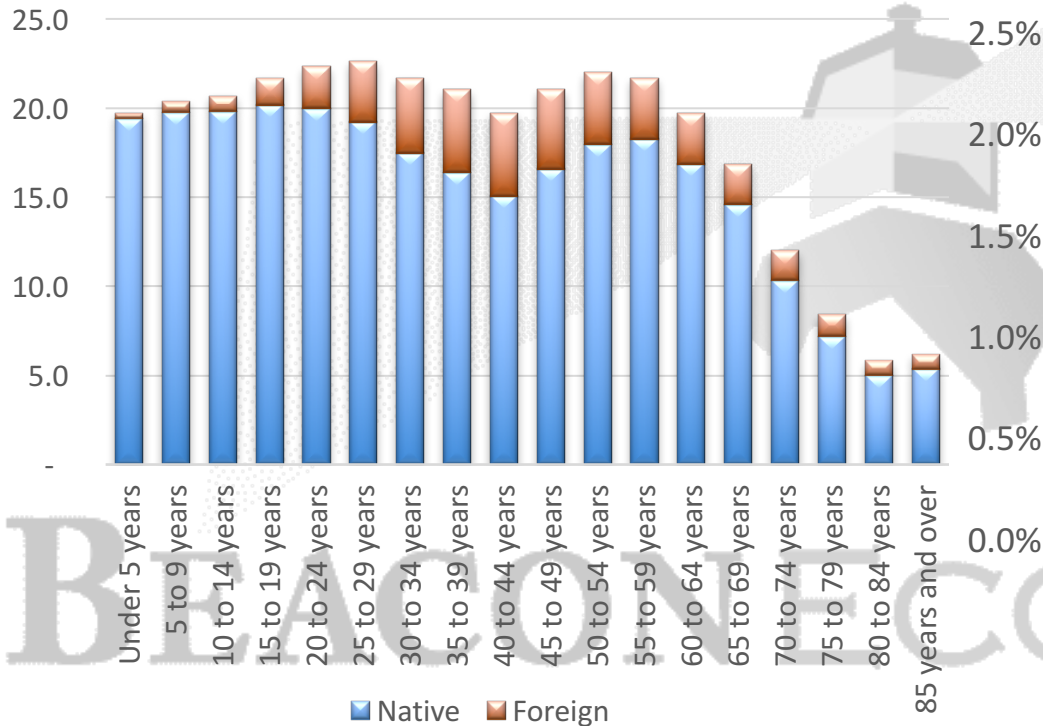
- What is better today?

- Communications
- Medical care, Pharmaceuticals
- Entertainment options
- Transportation
- Shopping, Product quality
- Food quality / variety
- Access to information
- Environmental conditions
- Legal Marijuana

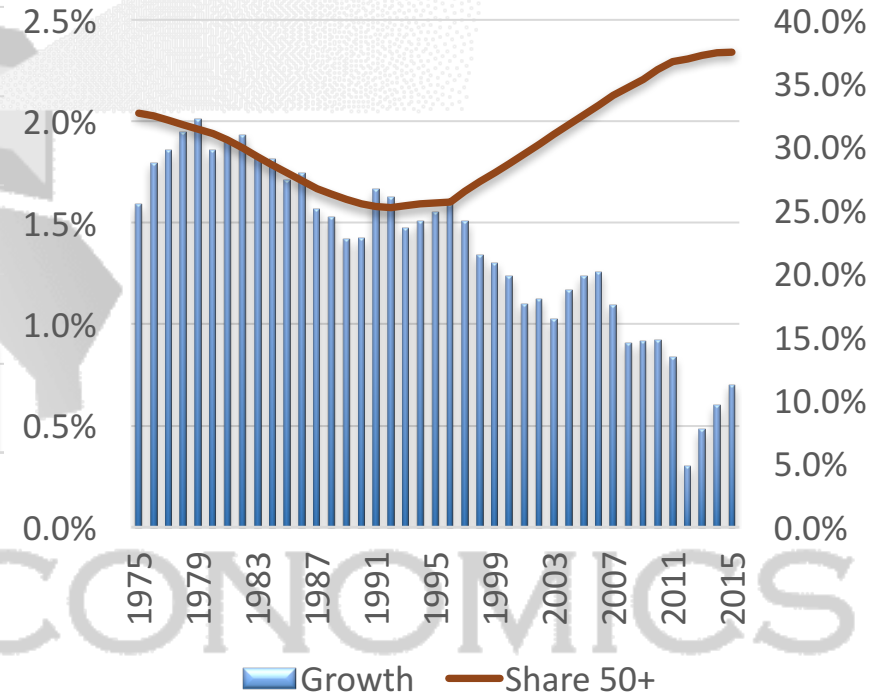
- What isn't?

Demographic Limits

2016 Population by Age by Nativity (Millions)

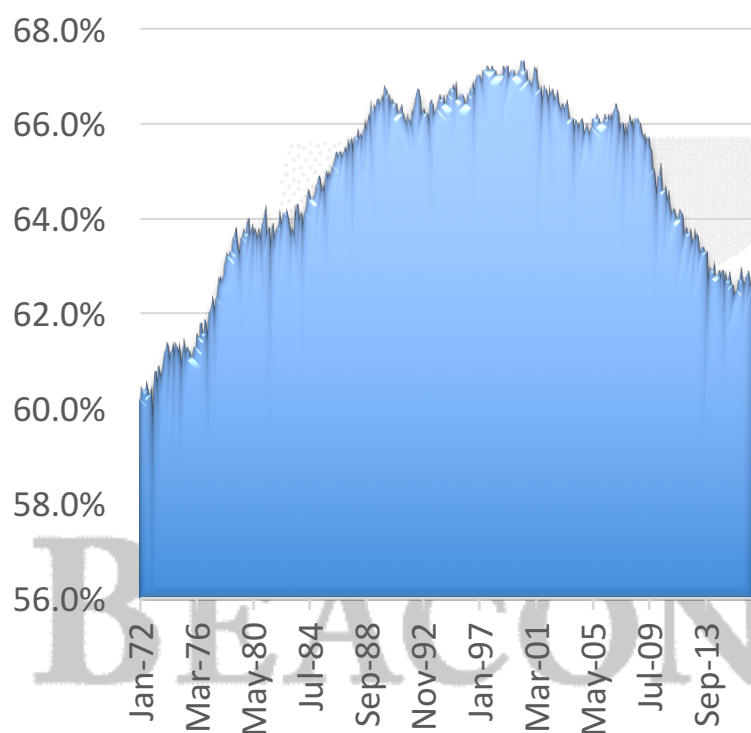


US Population of 25-64 Year Olds



Blue Collar Blues?

US Labor Participation Rate



Female	Age 25-44			Age 45-64		
	2000	2016	Dif	2000	2016	Dif
Bachelors Degree +	80.5%	85.6%	5.1%	77.8%	78.5%	0.7%
Some College	78.2%	78.8%	0.6%	71.2%	71.1%	0.0%
High School Graduate	73.4%	69.4%	-4.1%	63.5%	63.4%	-0.1%
Less Than High School	57.7%	53.5%	-4.1%	44.7%	46.1%	1.4%
Male	2000	2016	Dif	2000	2016	Dif
	2000	2016	Dif	2000	2016	Dif
Bachelors Degree +	94.1%	94.9%	0.8%	87.9%	88.9%	1.0%
Some College	92.0%	89.1%	-2.9%	82.8%	79.6%	-3.2%
High School Graduate	89.2%	83.1%	-6.1%	76.7%	74.2%	-2.5%
Less Than High School	84.0%	75.5%	-8.5%	66.3%	64.3%	-2.0%

2.7 million 'missing' or 2% of LF

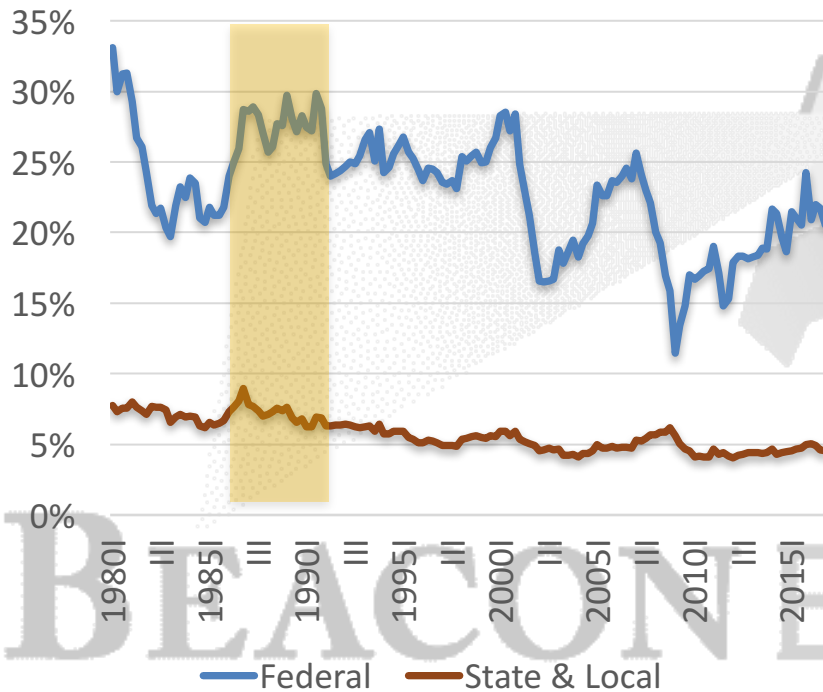
The Cure for Secular Stagnation

Figure 8: Increase in Average Annual Growth Rate With Estimated Policy Shifts

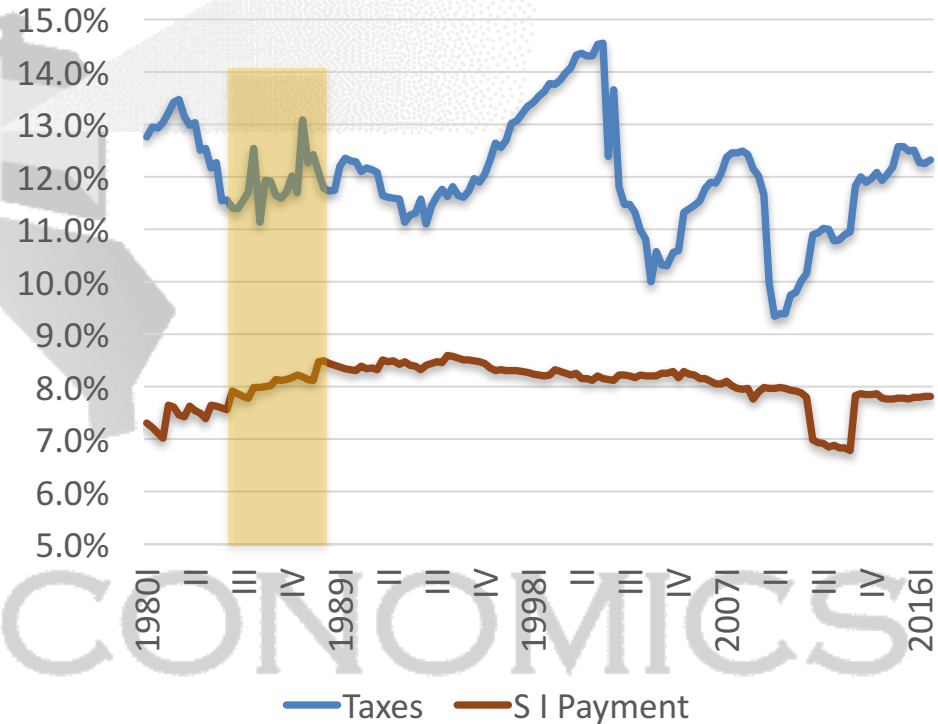
Policy Change	Boost in Annual Growth Rate	Estimated By
Enact immigration reform to increase number of workers	0.3%	CBO
Reform the income tax code	0.05% - 0.3%	JCT, Treasury
Increase the Social Security retirement ages by two years	0.15%	CBO
Reduce deficits by \$4 trillion over ten years	0.1%	CBO
Expand energy production at level of shale boom*	0.09%	CBO
Repeal the Affordable Care Act ("Obamacare")	0.08%	CBO
Ratify the Trans-Pacific Partnership	0.01%	U.S. ITC
Increase public investment in infrastructure, education, and research by \$400 billion	0 - 0.01%	CBO

Tax Reform vs Tax Cuts

US Corporate Taxes as % Profit



Income Taxes Share of Income



Overview of Plan

Overall Taxes Go Down (even in CA 85% of households will see a tax cut)

- A. The plan will give a short term boost to the economy (albeit at full employment)
- B. The plan is regressive
- C. The deficit will increase by \$1.5 trillion to \$3.5 trillion in 10 Years

Implications

**Real Income Growth by
Bracket 13-16**

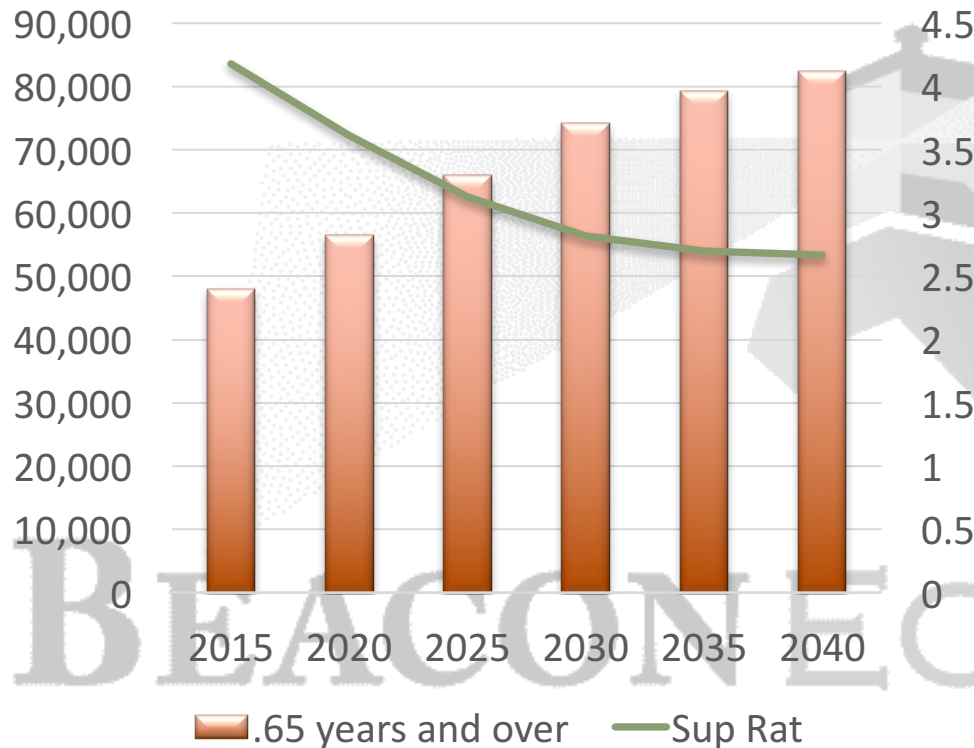
	Mean	
Less than 20	\$14.4	4.6%
20–39.9	\$31.8	8.0%
40–59.9	\$53.4	9.6%
60–79.9	\$87.4	7.9%
80–89.9	\$138.7	8.3%
90–100	\$509.8	21.7%

**Real Average Net Worth by
Bracket**

	1989	2001	2016
< 25	\$(1) 0%	\$0 0%	\$(12) 0%
25–49.9	\$43 3%	\$60 3%	\$45 2%
50–74.9	\$166 12%	\$227 11%	\$204 7%
75–89.9	\$422 18%	\$612 17%	\$659 14%
90–100	\$2,317 67%	\$3,748 70%	\$5,336 77%
Top 1%	\$10,407 30%	\$17,772 33%	\$26,645 39%

The Looming Social Insurance Crisis

Demographic Trends

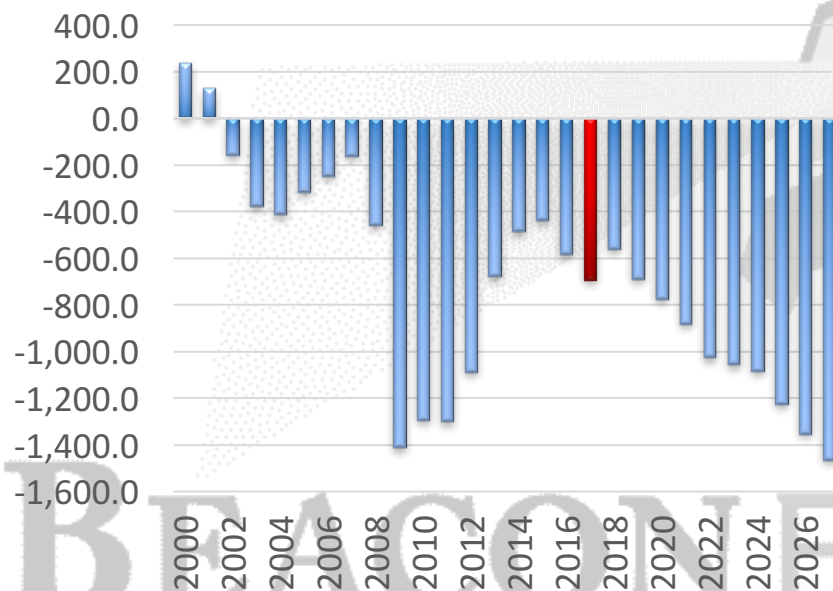


Medicare Spending Projections

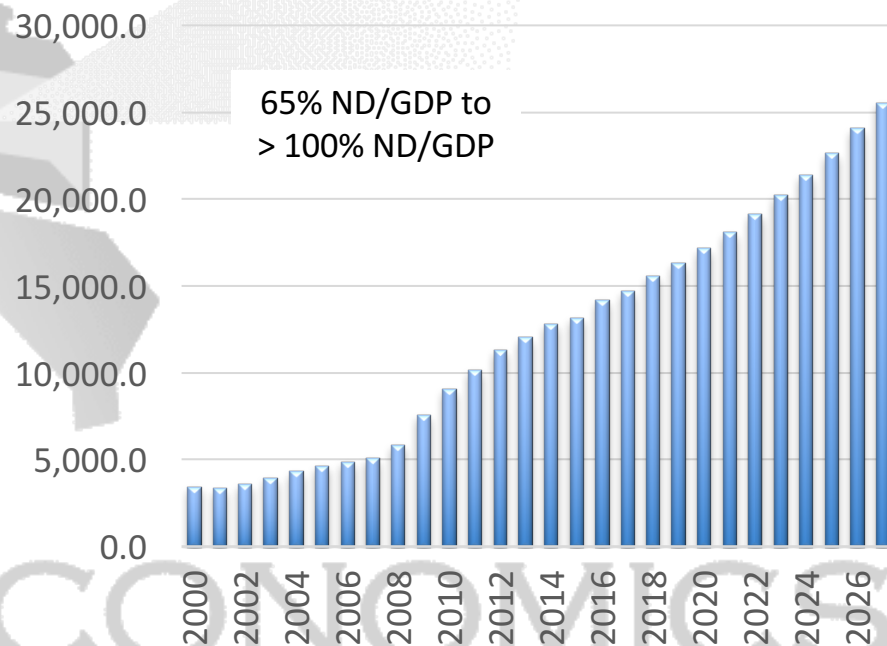
	Fed M. Spending / Senior
1995	\$5,461
2015	\$13,531
2035*	\$43,395
	Spending Share Federal Rev
1995	13.0%
2015	18.7%
2035*	41.0%

The Federal Budget Outlook

CBO: Past and Projected Federal Budget Gap

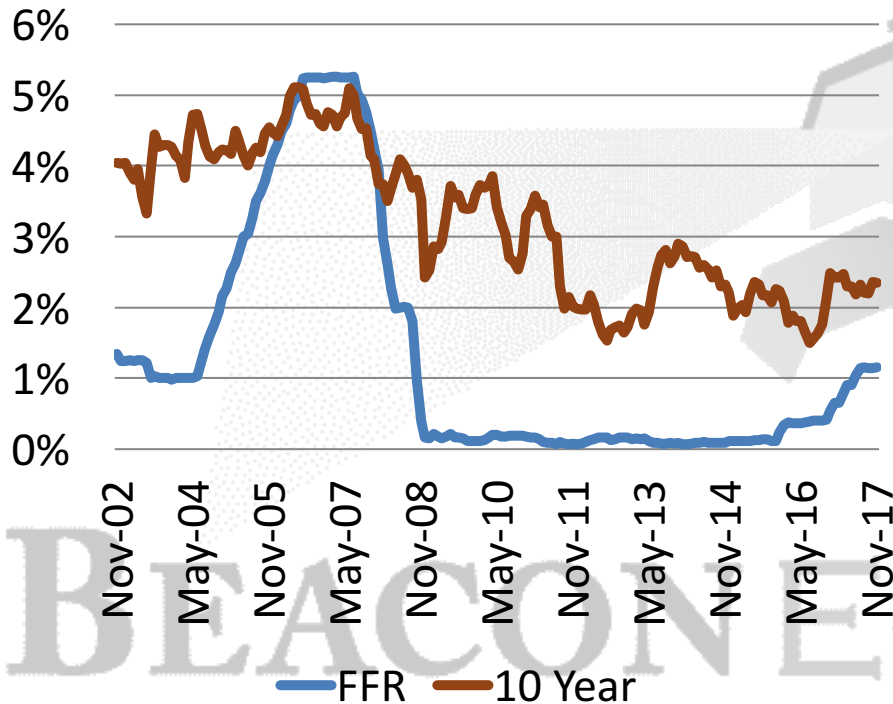


Outstanding Federal Debt

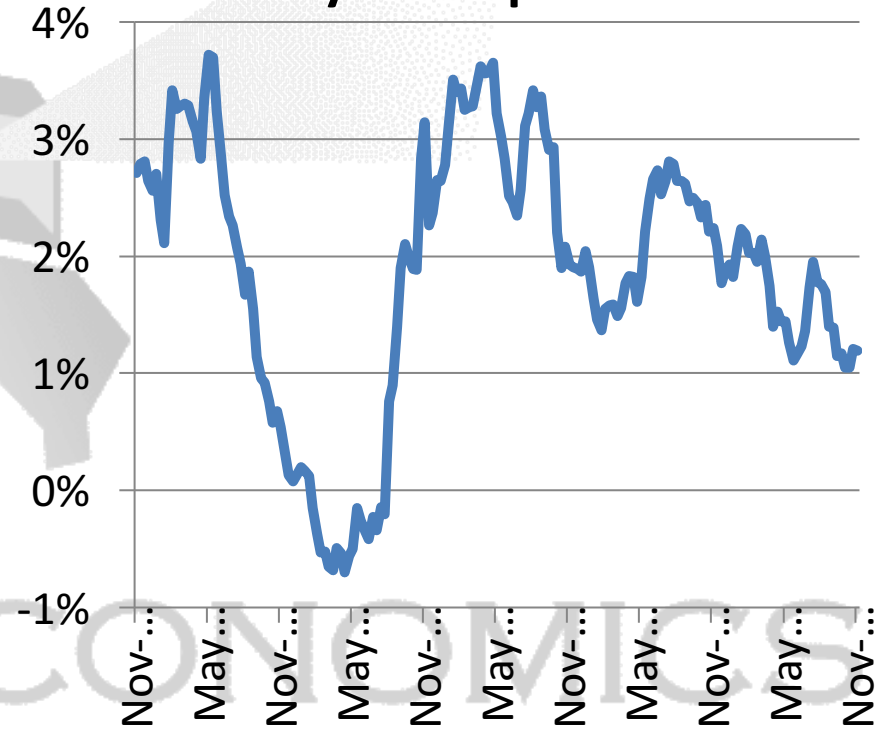


Fed Tightening

Interest Rates

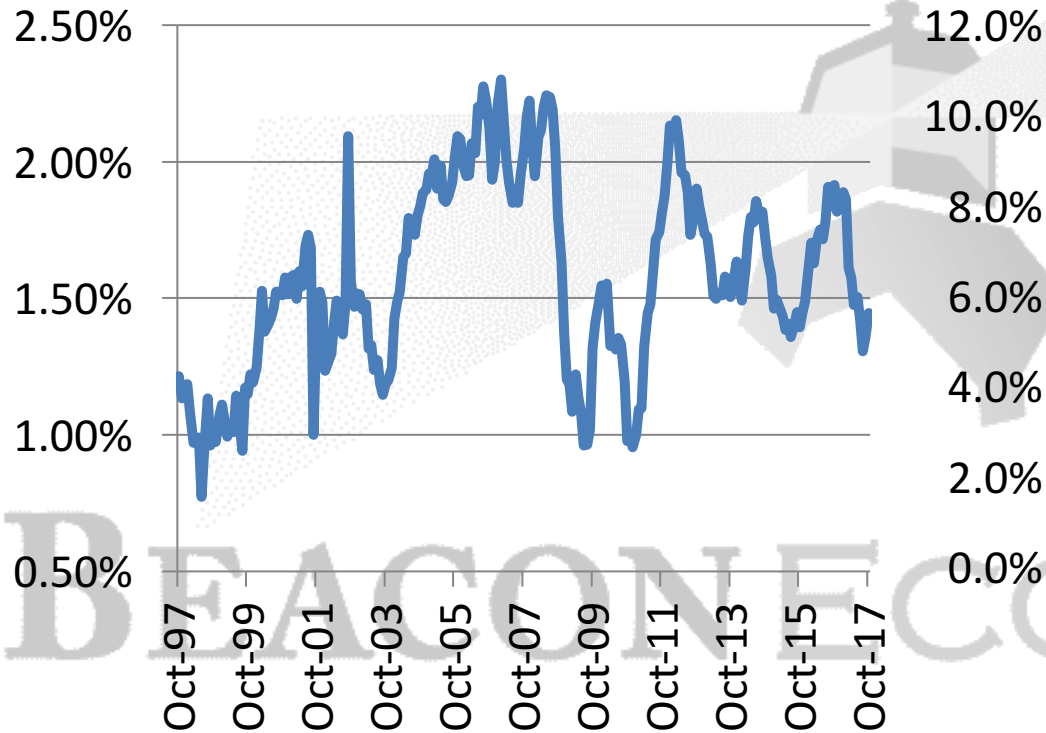


10 yr FFR Spread

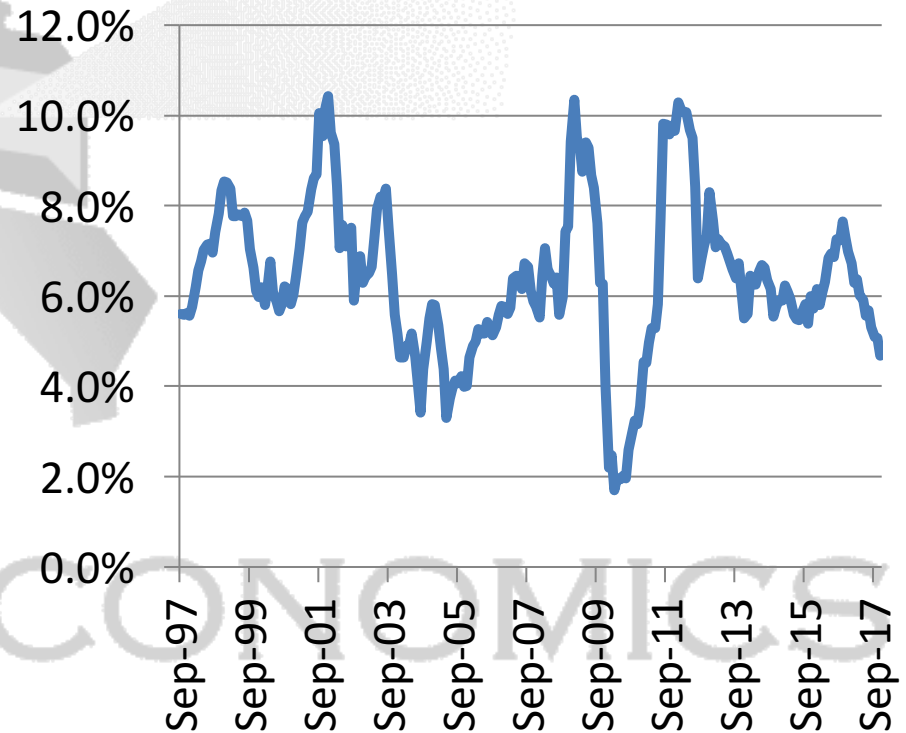


Inflation: Slowing

PCE Deflator: Core Y-o-Y

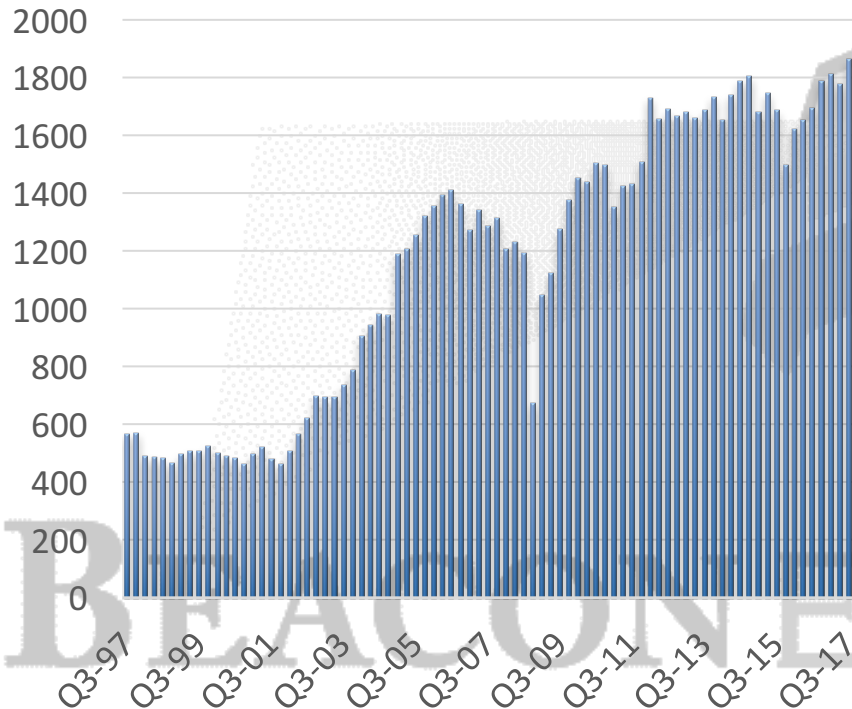


M2 Growth Y-o-Y

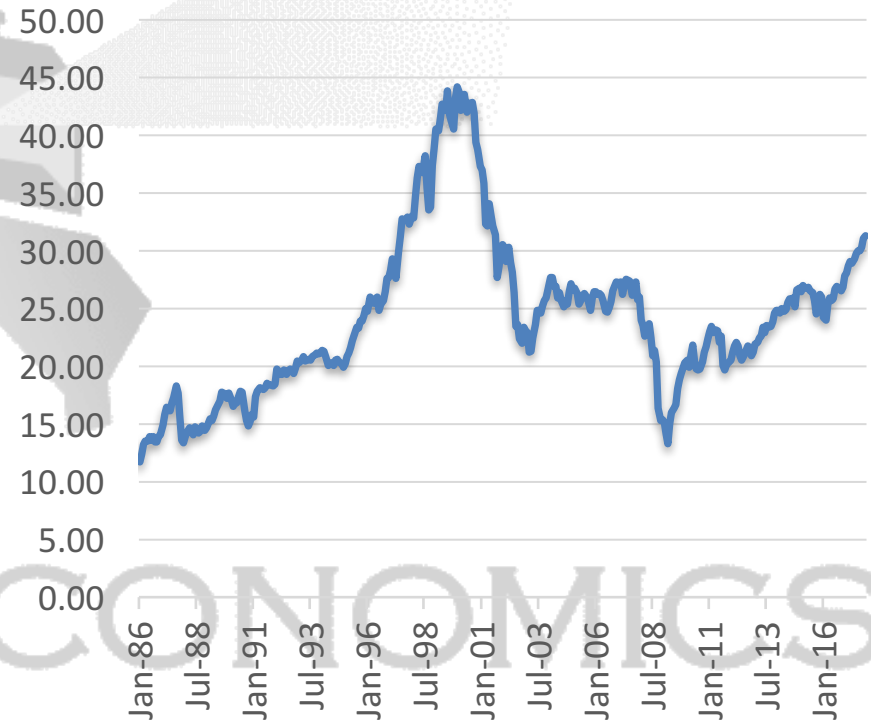


Frothy Equities

Corporate Profits and Growth



Shiller P/E Ratio

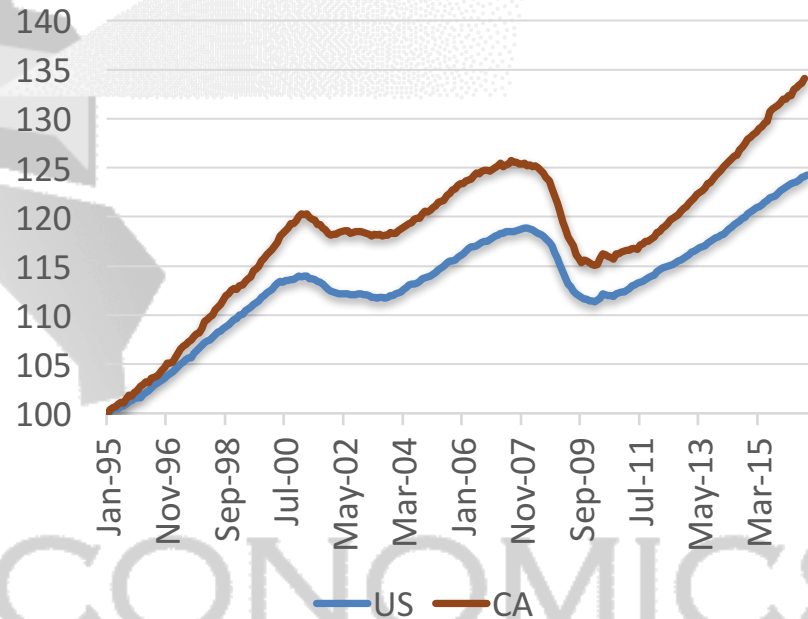


State Economic Performance

5 Year Change in Payroll Jobs by State

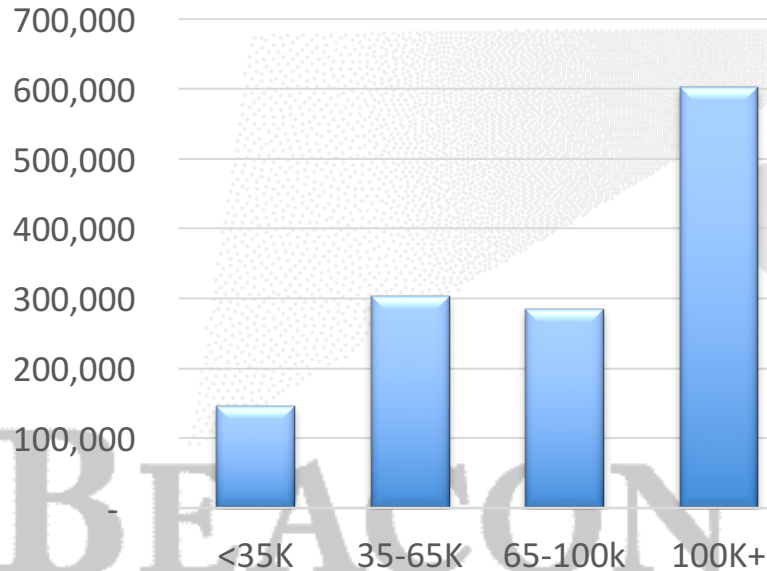
	New Jobs	Ann Gr	US Share
Utah	226	3.5%	1.8%
Nevada	188	3.1%	1.5%
Florida	1,207	3.1%	9.5%
Idaho	96	3.0%	0.8%
Colorado	344	2.9%	2.7%
Oregon	228	2.7%	1.8%
Washington	401	2.7%	3.2%
California	2,038	2.7%	16.1%
Georgia	521	2.5%	4.1%
Texas	1,425	2.5%	11.2%
Arizona	298	2.3%	2.3%
South Carolina	220	2.3%	1.7%
Tennessee	314	2.3%	2.5%
North Carolina	421	2.1%	3.3%
Montana	40	1.8%	0.3%

Employment (Index)

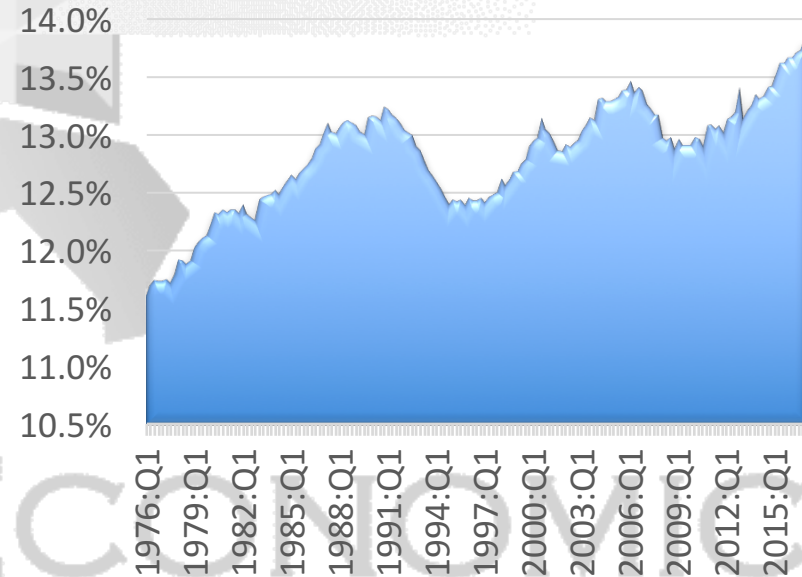


State Employment / Income

California: Change in Employment
by Income (F.T.) 2012-2016

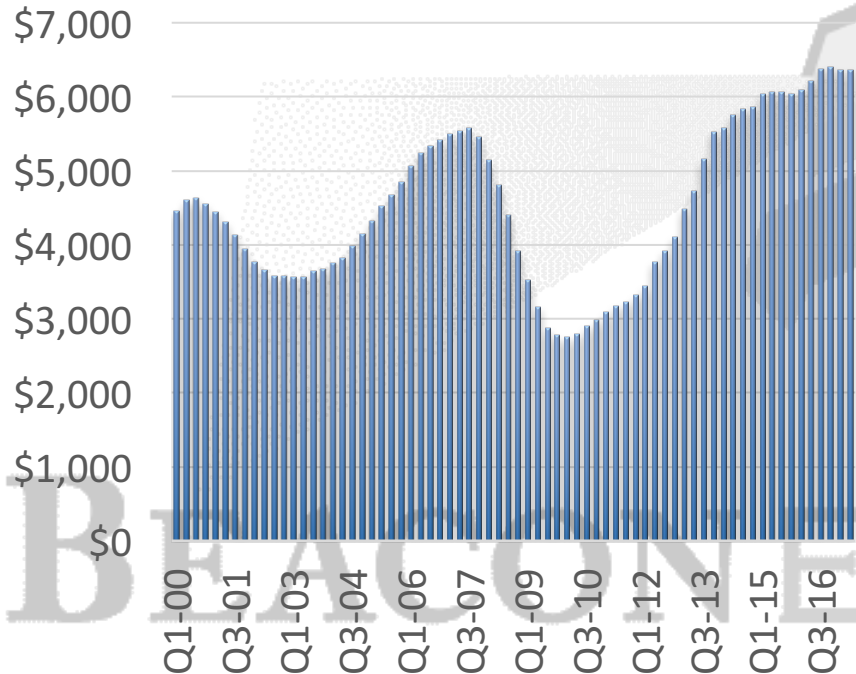


California Share National Personal
Income

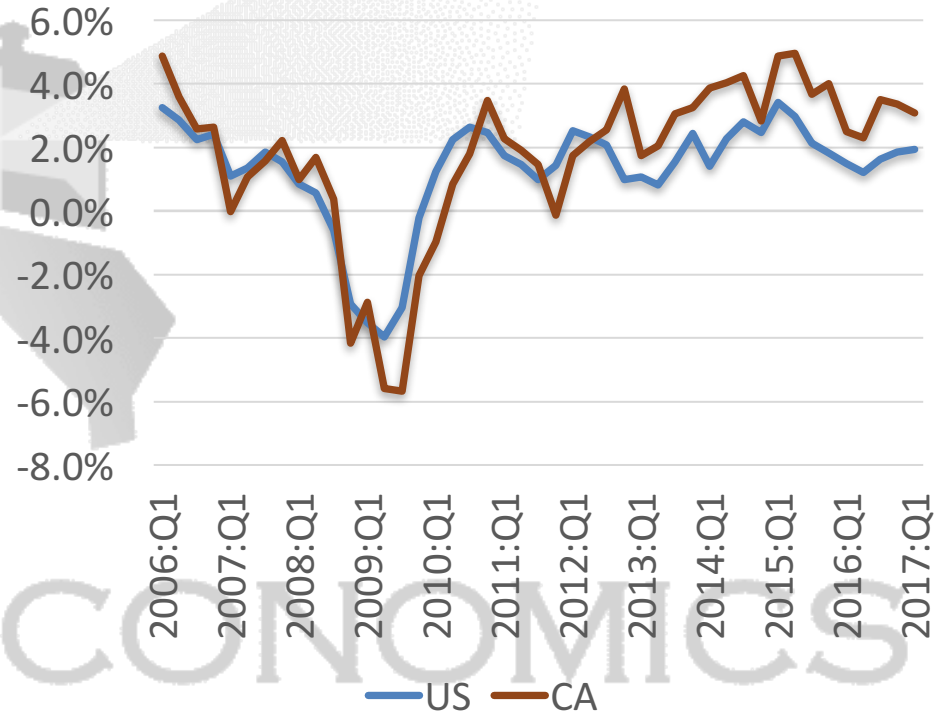


Still Strong Indicators

California Non Residential Permit Values

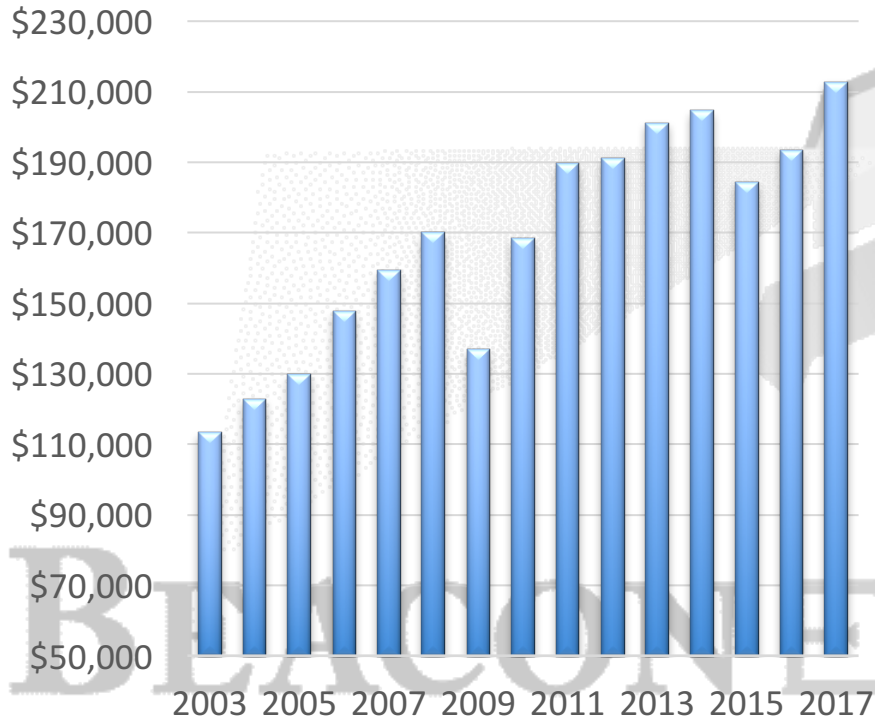


Real GDP Growth (y-o-y)

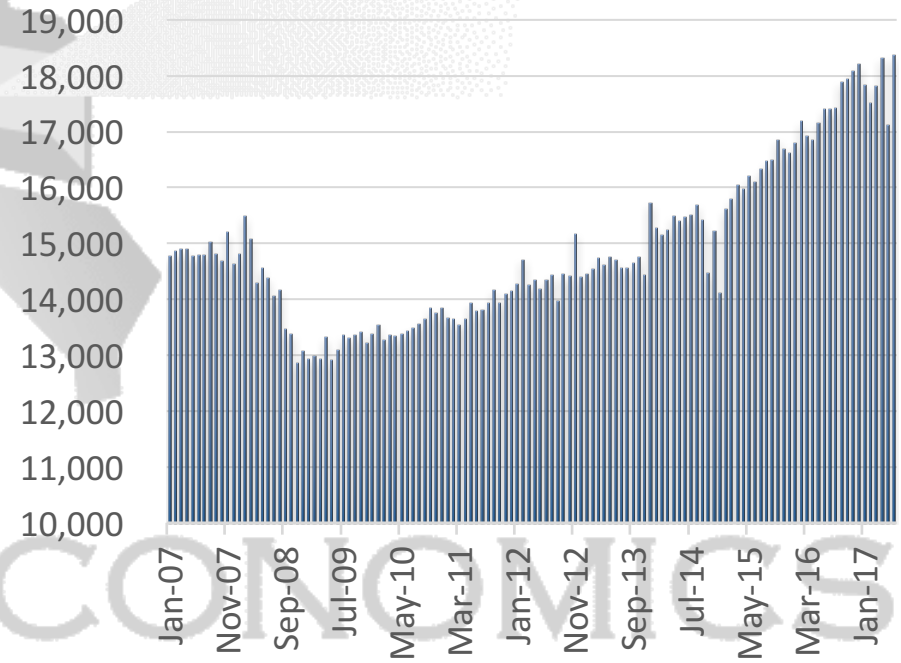


Exports / Travel

California Exports (Nominal)

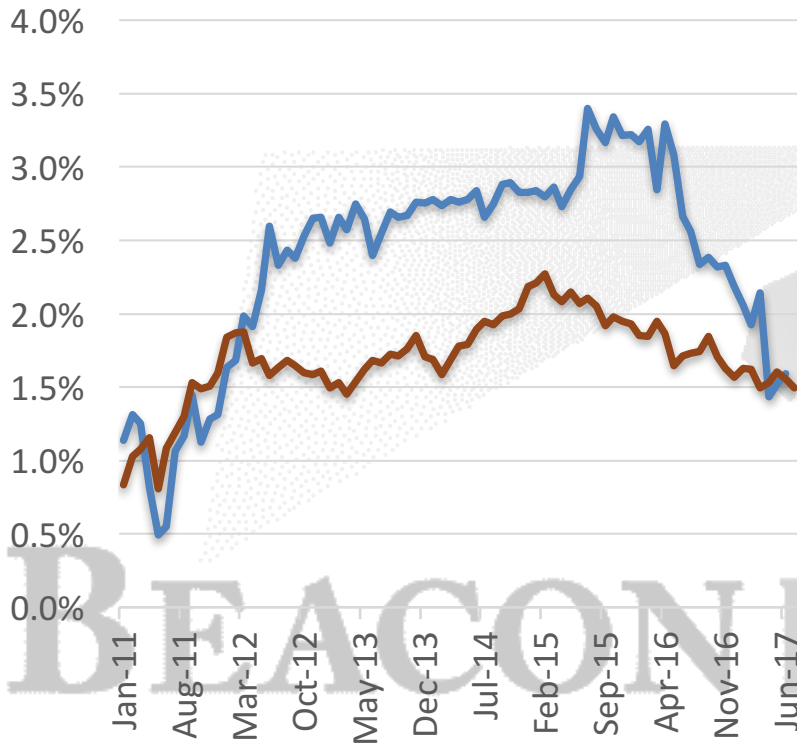


California Airport Activity (Arrivals / Departures)



The Big Slowdown

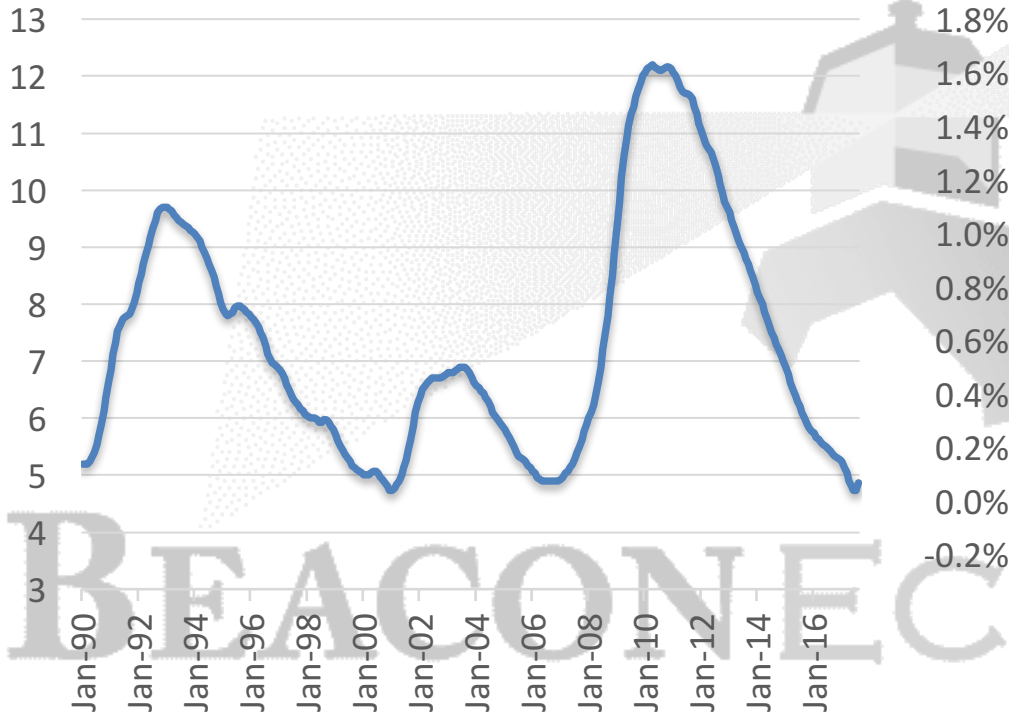
State and National Job Growth



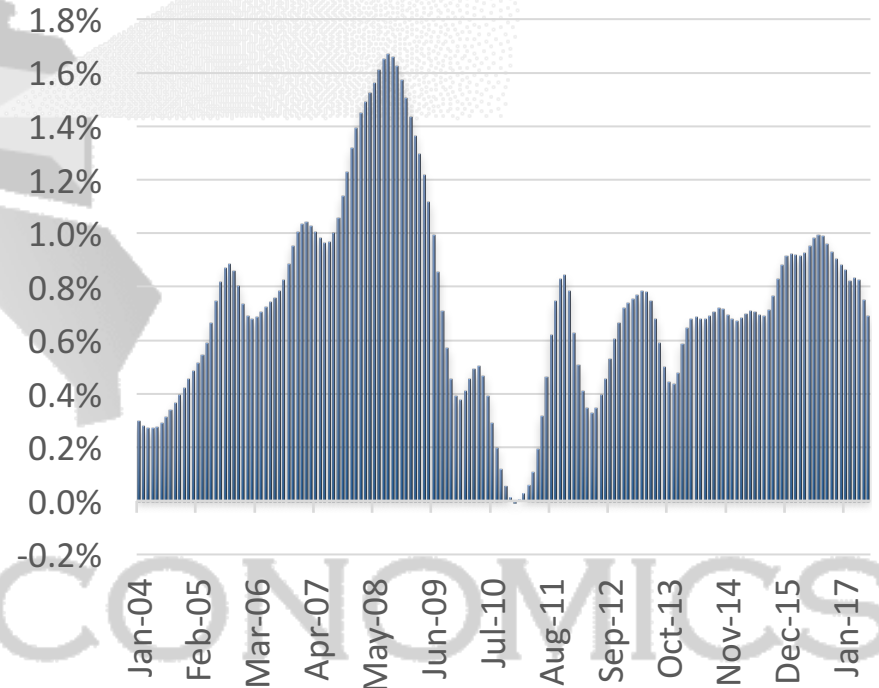
	Nov-17	14-15	15-16	16-17
Inland Empire	1,470,000	4.8%	3.4%	3.2%
Modesto	177,900	3.3%	3.0%	2.3%
Santa Barbara	186,300	1.2%	1.7%	2.3%
Ventura	309,700	1.5%	1.5%	2.2%
Sacramento	978,700	3.5%	3.1%	2.1%
San Francisco	1,125,700	4.9%	3.3%	2.0%
Fresno	346,000	3.9%	3.2%	1.7%
San Jose	1,102,100	3.9%	2.8%	1.7%
Kern	260,400	-0.5%	-0.5%	1.6%
San Diego	1,457,400	3.2%	2.3%	1.5%
East Bay	1,162,400	3.5%	2.9%	1.4%
Stockton	231,300	4.3%	2.8%	1.4%
Sonoma	203,900	2.8%	1.6%	1.1%
Orange	1,600,700	3.2%	1.6%	0.8%
Los Angeles	4,465,200	2.8%	2.3%	0.8%

Labor Supply Constraints

Unemployment Rate



California Labor Force Growth



The Upside of Labor Shortages

	Number (Mil)	Median Income 2016	Change 13-16	Part Rate 2016	Change 13-16	Unemp 2016	Change 13-16
Total	20.96	40,005	10.2%	77.1%	0.2%	5.5%	-3.0%
No High School	3.52	21,558	13.1%	65.4%	-0.5%	8.2%	-3.7%
High School	4.26	30,231	10.9%	72.6%	-0.4%	7.0%	-4.0%
Some College	6.14	36,985	3.1%	77.4%	0.1%	5.5%	-3.4%
Bachelor	7.03	60,121	9.4%	85.4%	0.4%	3.6%	-1.6%
Graduate		82,271					

Quiz Time

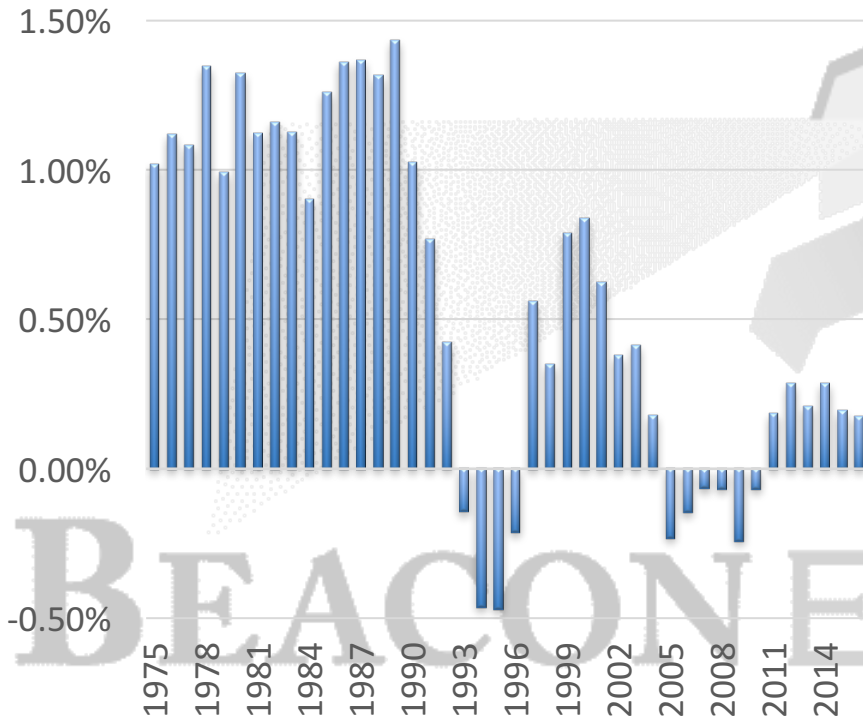
Match the payroll employment growth rate (letters)
(1995-2015) to the California region (numbers)

A	23.6%
B	25.8%
C	27.0%
D	33.8%
E	39.8%

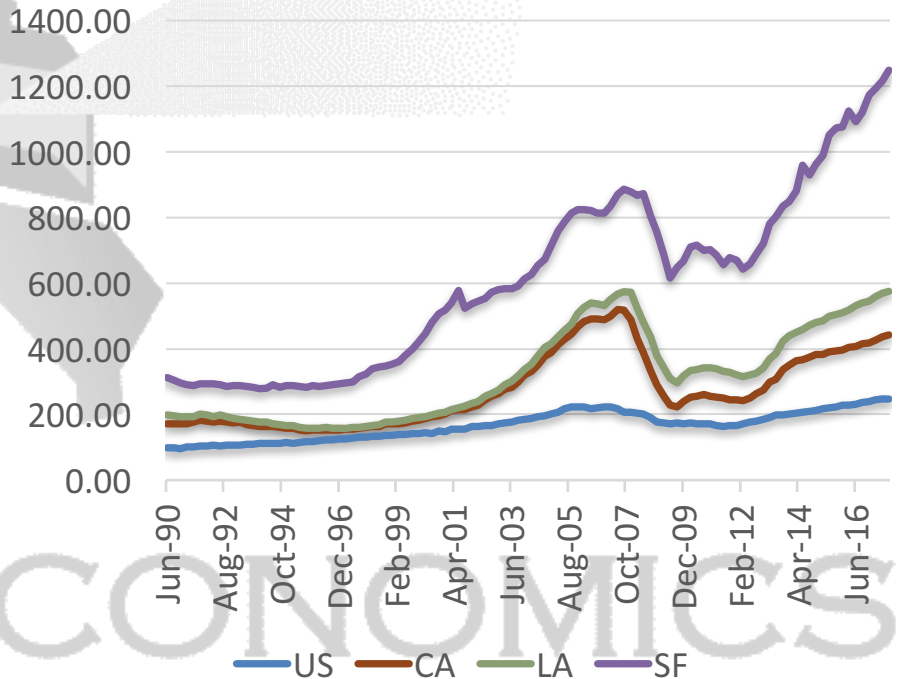
1	Bay Area
2	Central Coast
3	Greater Los Angeles
4	Greater Sacramento
5	So Central Valley

Don't Go West, Young Man?

Net Migration as a % of Pop

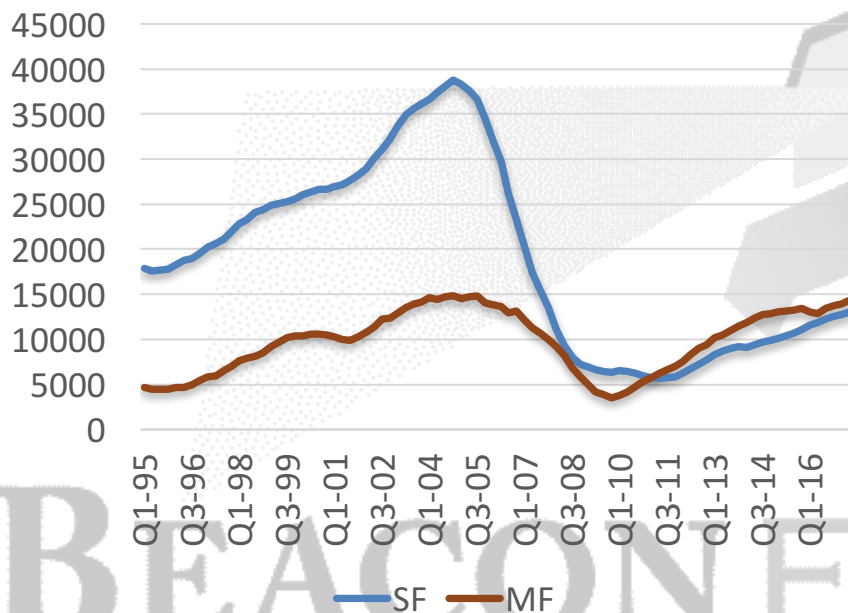


Home Prices



New Housing Supply

New Home Permits



How Much Housing Needed?

Housing Needed to maintain 2%
State Job Growth

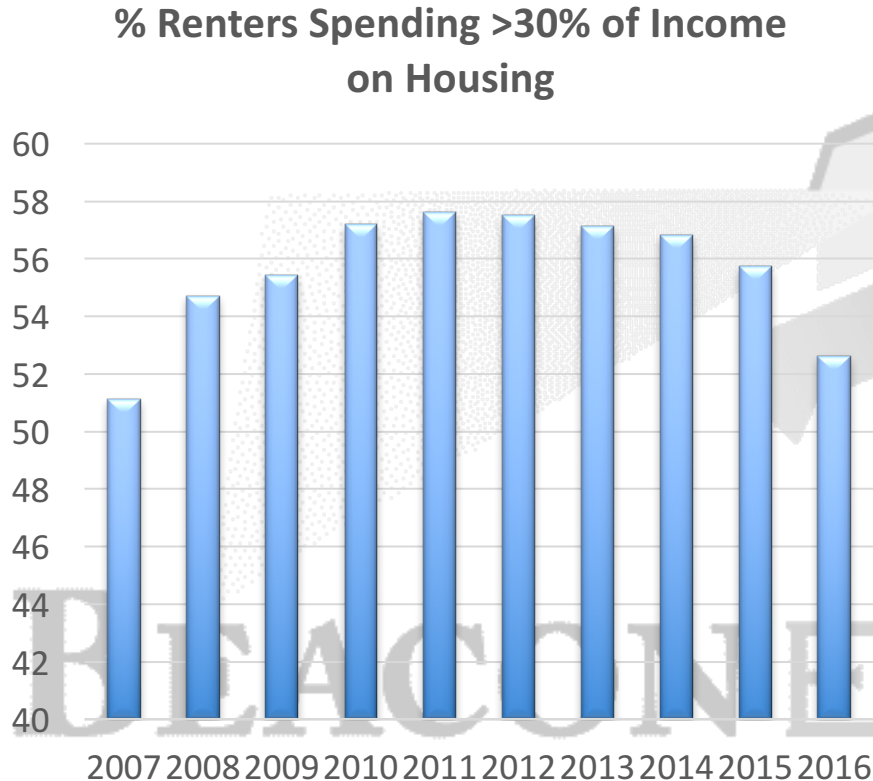
Method 1

Total	722,022
Per Year	206,674
Current	106,185
Shortfall	100,489

Method 2

Total	911,001
Per Year	263,667
Current	106,185
Shortfall	157,482

Don't Just Focus on Affordable Rentals



CA	2014	2016	Change
Less than \$20k	92.7%	92.5%	-0.2%
\$20k to \$35k	89.0%	89.2%	0.2%
\$35k to \$50k	67.3%	71.9%	4.6%
\$50k to \$75k	41.1%	46.1%	5.0%
\$75k+	10.5%	11.8%	1.3%
All	56.8%	55.4%	-1.4%

Filtering Blockage

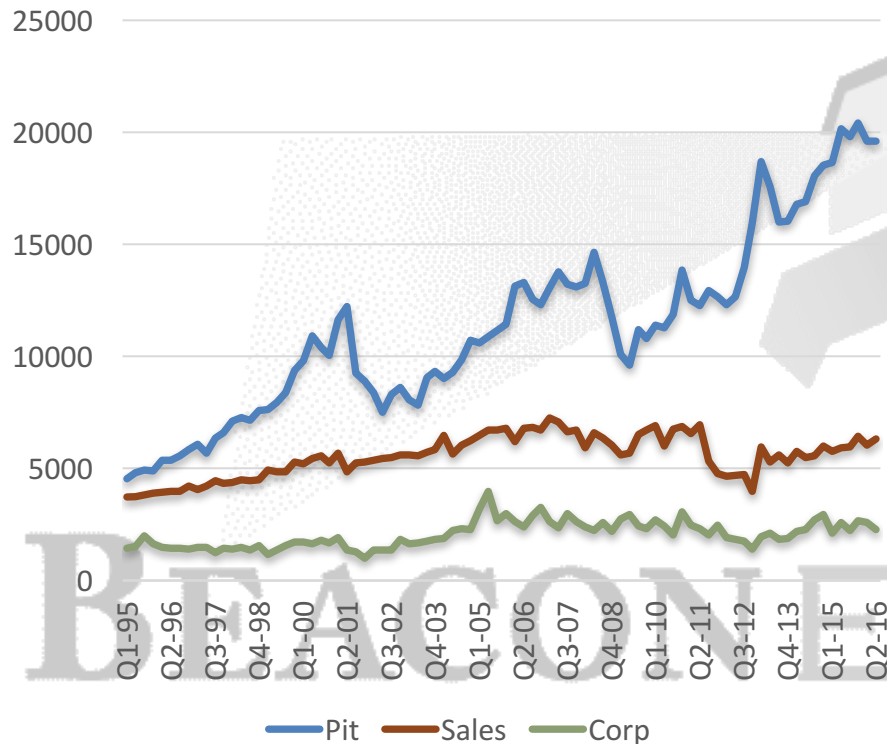
Renters by Income: Struture Built Before 1970			
Metro	Household Income Less than \$35,000	Household Income \$35,000 to \$74,999	Household Income \$75,000 or More
San Francisco	26.5%	22.2%	51.2%
East Bay	31.4%	32.6%	36.0%
San Diego	35.0%	33.5%	31.5%
Orange	32.4%	36.3%	31.3%
Los Angeles	40.2%	31.7%	28.0%
Houston	45.4%	31.4%	23.2%
Inland Empire	47.5%	30.7%	21.8%
Phoenix	50.3%	28.2%	21.5%
Dallas	46.6%	33.0%	20.4%

And it isn't just renters...

Share with Mortgage Burden $\geq 30\%$			
Metro	2005	2010	2015
Los Angeles	50.1	55.3	44.4
San Diego	49.4	51.5	41.3
Inland Empire	46.6	52.2	40.8
San Francisco MD	51.2	51.2	39.8
Orange County	46.5	51.3	39.5
East Bay	49.4	49.7	36.5
Phoenix	33.5	41.0	28.9
Dallas	34.0	32.8	26.8
Houston	33.8	34.7	25.5

Income tax driving the show

Major Sources State Revenues

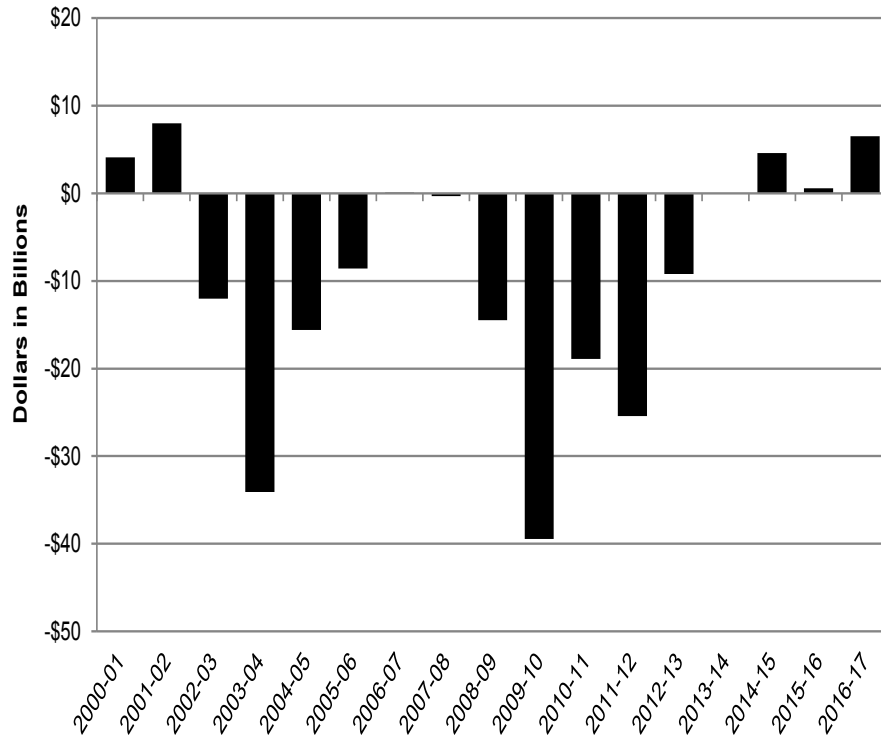


PIT Share General Fund

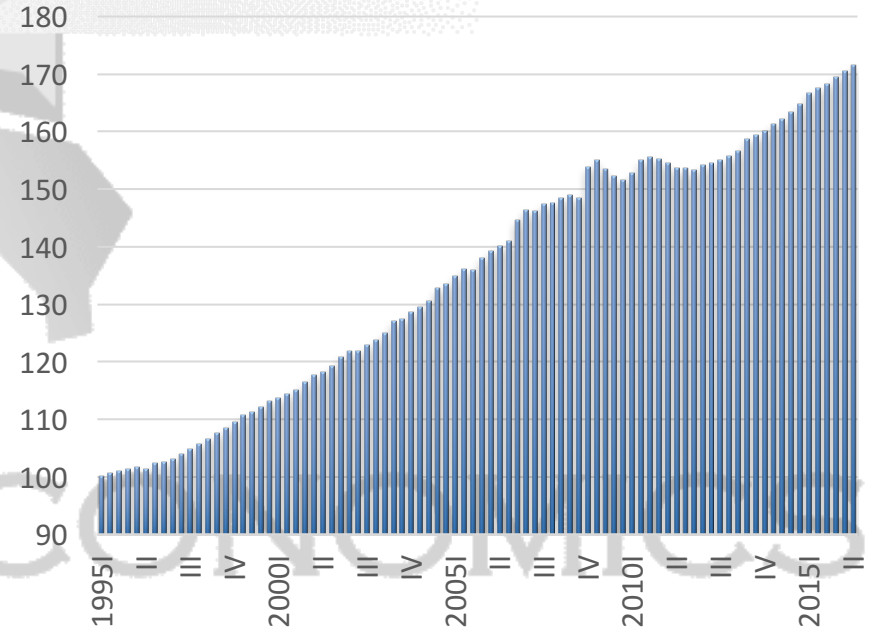


Setting up for a problem

Balanced Budgets Have Been Quickly
Followed by Huge Deficits¹



Price Government Services /
Consumer Goods



The Big Picture

- **Positives: It will be a good year**
 - GDP Growth Outlook for 2018: 3%
 - State revenues will look positive
 - Labor markets to remain tight, constraining growth
 - Rising wages to put pressure on profits
 - Exports, business investment continue to pick up
 - California housing shortages will constrain growth locally
- **Negatives**
 - Fed will continue to tighten, yield curve flattening
 - Markets looking frothy—watch debt levels
 - Consumer savings: entering dangerous waters
 - Federal deficit will widen sharply
 - Political uncertainty to dominate headlines

The Great Disconnect

What we *are* worried about

The Number of Jobs
Who pays for Healthcare
Tax Levels
Income Inequality
Funded Govt. Liabilities
Business Investment
Inflation
The Cost of CA Housing

What we *should be* worried about

The Number of Workers
What are we paying for?
Tax Structure
Wealth Inequality
Unfunded Govt. Liabilities
A Lack of Public Investment
Slowing Lending
The Supply of CA Housing



Our Services



Economic & Revenue Forecasting



Regional Intelligence Reports



Business & Market Analysis



Real Estate Market Analysis



Ports & Infrastructure Analysis



Economic Impact Analysis

Public Policy Analysis

- ❖ To view or download this presentation or for further information, visit:

www.BeaconEcon.com

- ❖ Contact Christopher Thornberg

Chris@BeaconEcon.com

310-571-3399

Economic Impact Analyses

- **Beacon Economics Background**
 - Based in California
 - Beacon Team: 15 on staff, 50+ years of experience
 - Regional Economics: economic impact, forecasting, industry studies, public policy analysis, revenue forecasting
- **Universities and Public Agencies**
 - California State University, Northridge
 - University of Southern California
 - Loyola Marymount University
 - LA 2024 Olympic Bid Committee
 - Riverside County Transportation Commission
 - Orange County Transportation Authority
 - Metropolitan Water District

Our Approach to Impact Analyses

- **Economic Impact: Jobs, Spending**
 - Based on expenditures of all university direct operations along with associated spending (i.e. student expenditures or sporting events)
 - Includes primary and multiplier effects
 - Impacts can be regionalized and scaled for context
- **Fiscal Impact: Public Revenues**
 - Tax and fee revenues generated by the economic impact, scaled for context
- **Social Impact: Telling the Story**
 - All impacts not measured directly by university or associated spending
 - Involves intangibles or holistic impacts
 - Charity efforts of university and students, research spin-offs, student success and contributions to economy, faculty accolades, athletic success, community outreach and development, etc.

