



Beacon Economics, LLC

The Economic Outlook

Focus on California

October 2016

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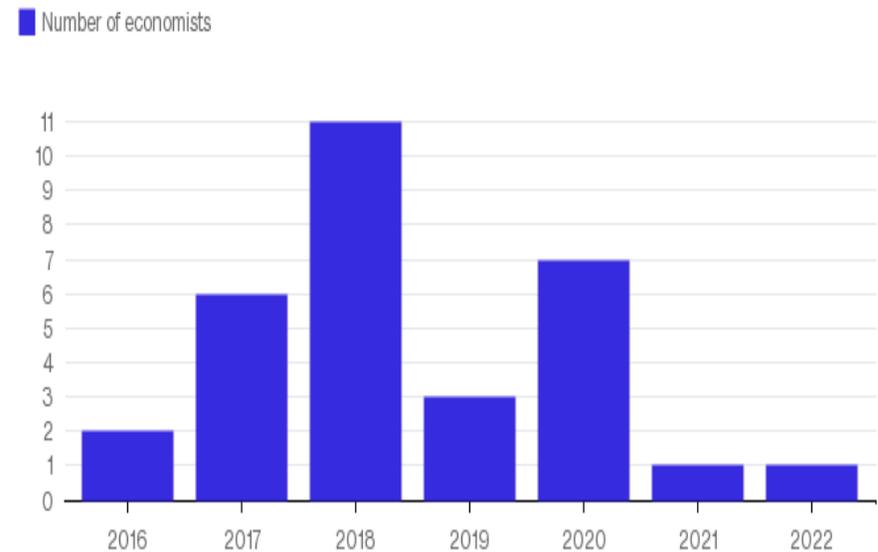


Rhetoric vs. Reality

- American families haven't had a raise in 15 years
- US manufacturing has been decimated by trade agreements
- Secular stagnation and declining productivity
- Income inequality is at record high levels
- Crime on the rise
- The Fed is holding rates "dangerously" low
- California "Worst State to Do Business" 12 years running
- Technology bubble brewing

Coming in 2018: U.S. Recession

The next U.S. downturn will hit in three years, according to the median of 31 economists



Source: Bloomberg News survey

Bloomberg

Word of the Day

Miserabilism



Rhetoric vs. Reality

The Reality

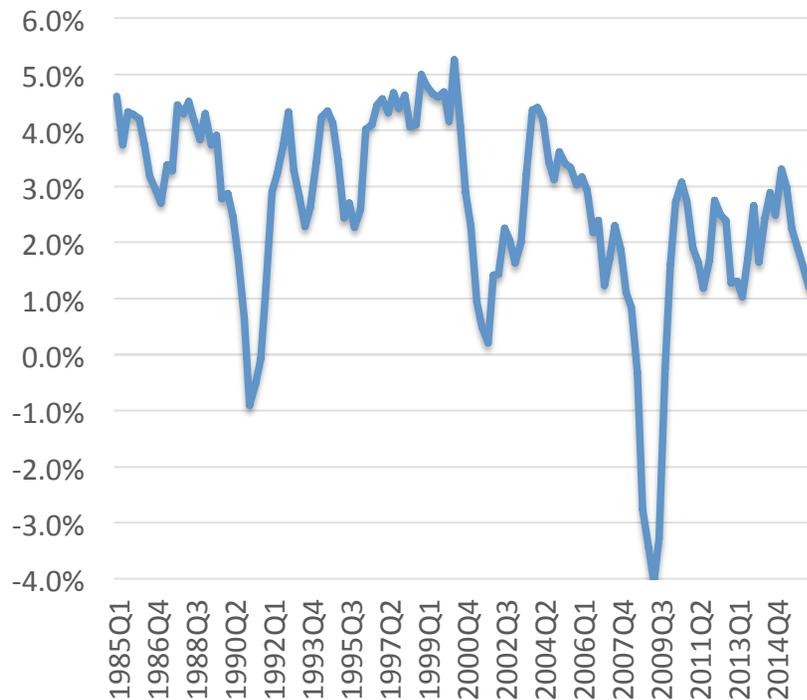
- GDP is growing slower than we like, but it is growing
- Fundamentals are fine, no chance of recession at this point in time
- U.S.: 5% of the world's population, 20% of the world's consumption
- Real incomes have been rising, true well-being even more so
- Labor markets are strong
- Housing still in recovery mode
- Inflation slow, commodities cheap
- There is no financial bubble
- California driving the national economy

Focus on the real issues

- Slow growth due to external problems and self-inflicted wounds
- Global economy weak, particularly Asia
- State and Local budgets still stressed
- Decaying Infrastructure
- State water, revenue and housing policies
- Bad Financial Regulations
- Pensions / Entitlements
- Growing Wealth Inequality
- Political Gridlock
- Donald Trump didn't pay any Federal Income taxes for 20 years

Output Growth

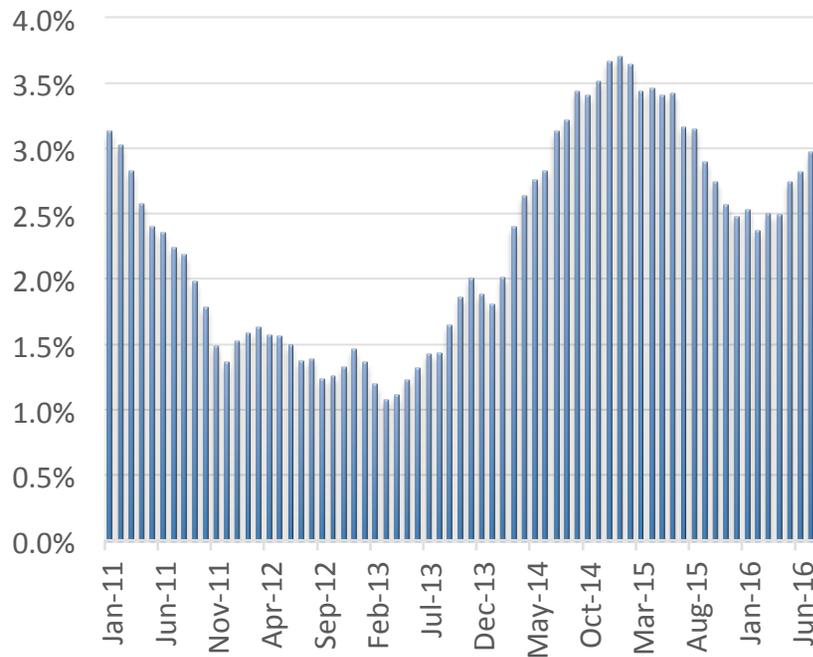
Real GDP Growth Y-o-Y



	2016		Q2-14 to Q3-15	Q4-15 to Q2-16	Diff
	I	II			
GDP	0.80	1.40	2.98	0.93	-2.05
GFD	1.20	2.26	3.34	1.72	-1.62
Consumption	1.11	2.94	2.26	1.86	-0.40
Goods	0.25	1.52	1.01	0.75	-0.27
Services	0.86	1.42	1.24	1.12	-0.13
Investment	-0.56	-1.67	0.98	-0.87	-1.85
Structures	0.00	-0.23	-0.05	-0.23	-0.18
Equipment	-0.59	-0.22	0.29	-0.32	-0.61
IPP	0.15	0.34	0.19	0.22	0.03
Residential	0.29	-0.30	0.37	0.13	-0.24
Inventories	-0.41	-1.26	0.19	-0.68	-0.87
Net exports	0.01	0.10	-0.55	-0.11	0.44
Exports	-0.09	0.14	0.21	-0.10	-0.31
Imports	0.09	-0.04	-0.76	-0.02	0.74
Government	0.28	-0.27	0.30	0.06	-0.23
Federal	-0.10	-0.02	-0.03	0.04	0.07
State local	0.39	-0.25	0.32	0.02	-0.30

In Consumers We Trust

Y-o-Y Growth in Real Consumer Spending

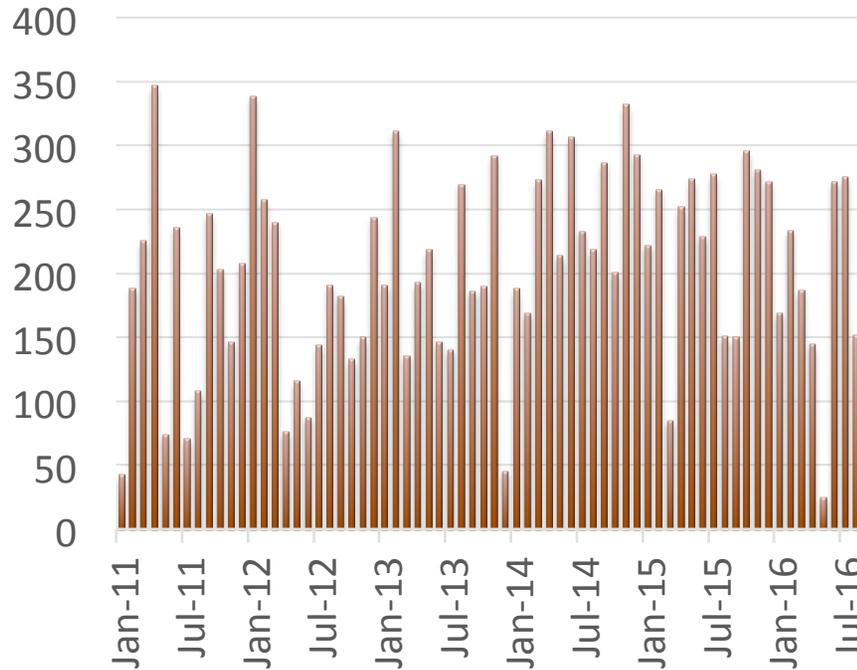


Real Personal Income Y-o-Y Growth to July

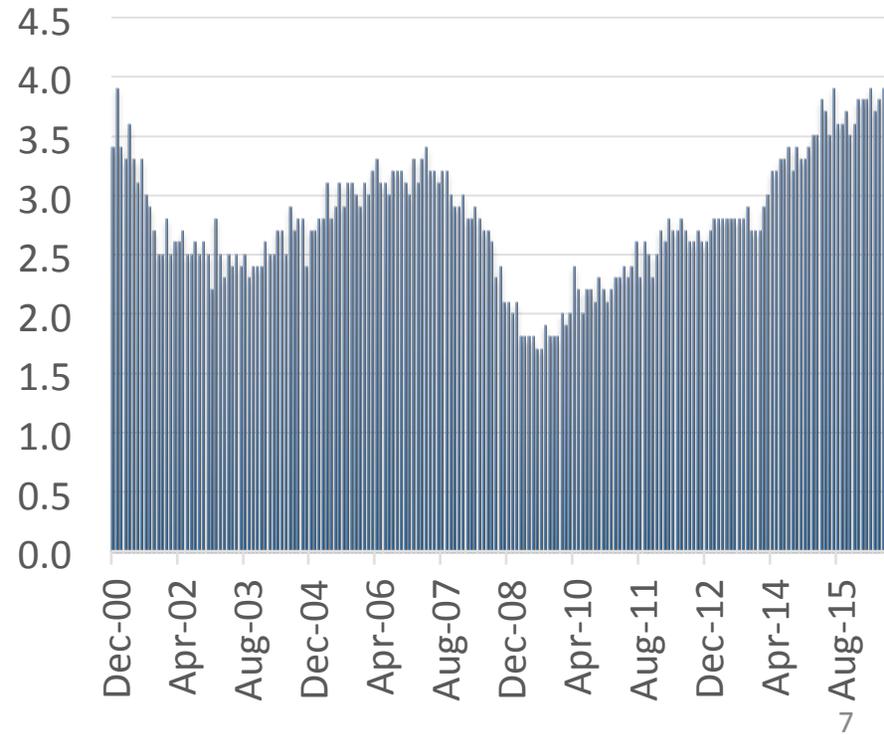


Labor Markets

U.S. Change in Payroll Employment (000s)

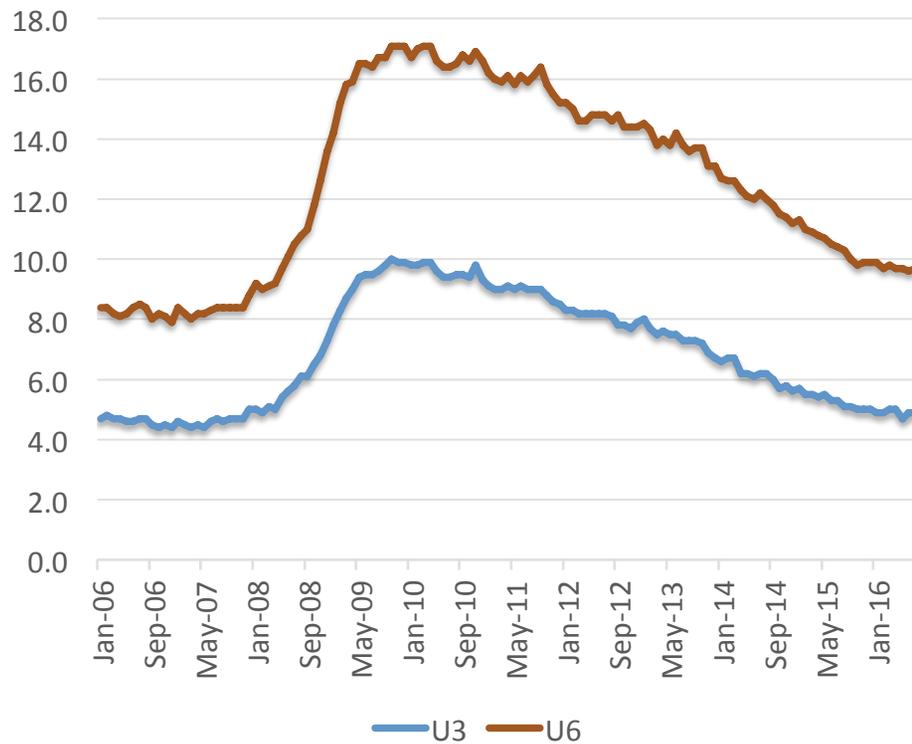


Job Opening Rate (National)

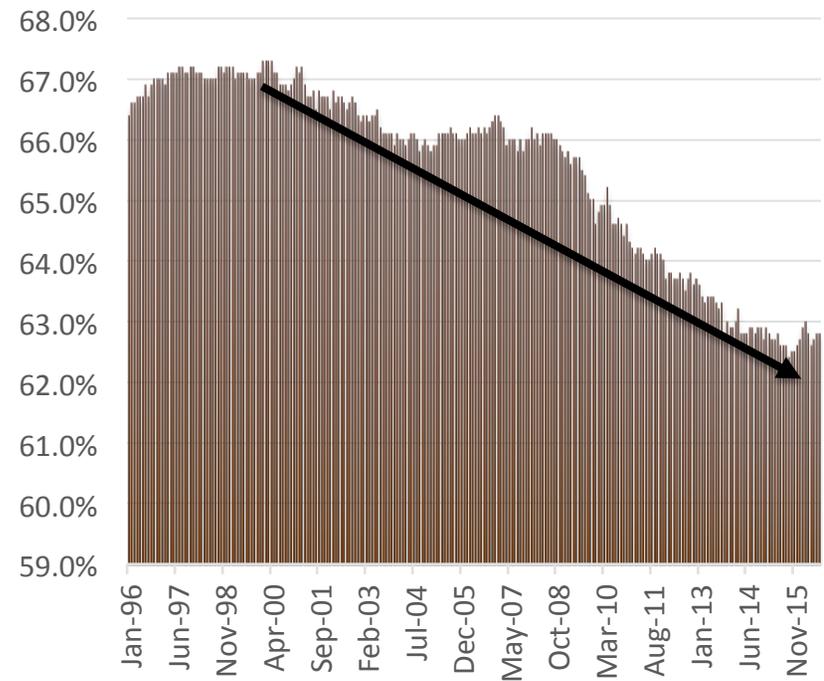


Labor Markets

Unemployment Rate

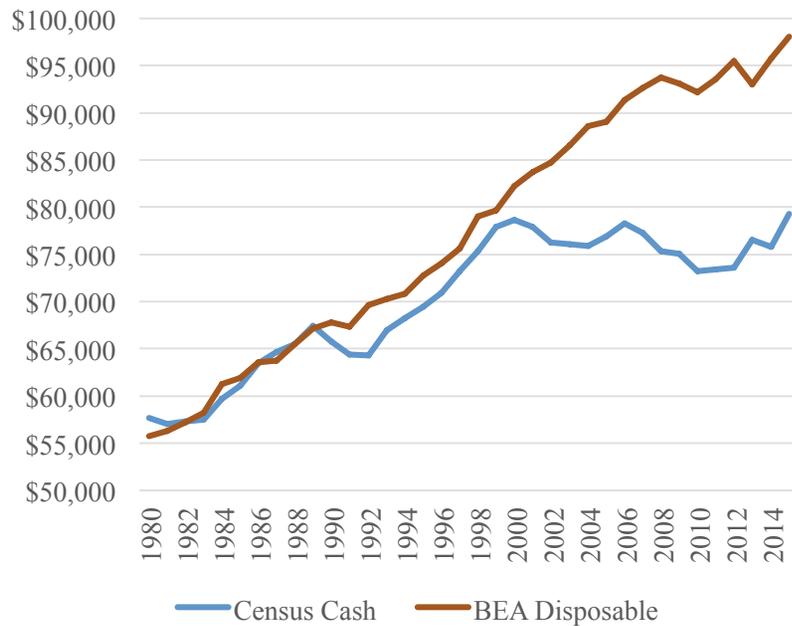


Participation Rate

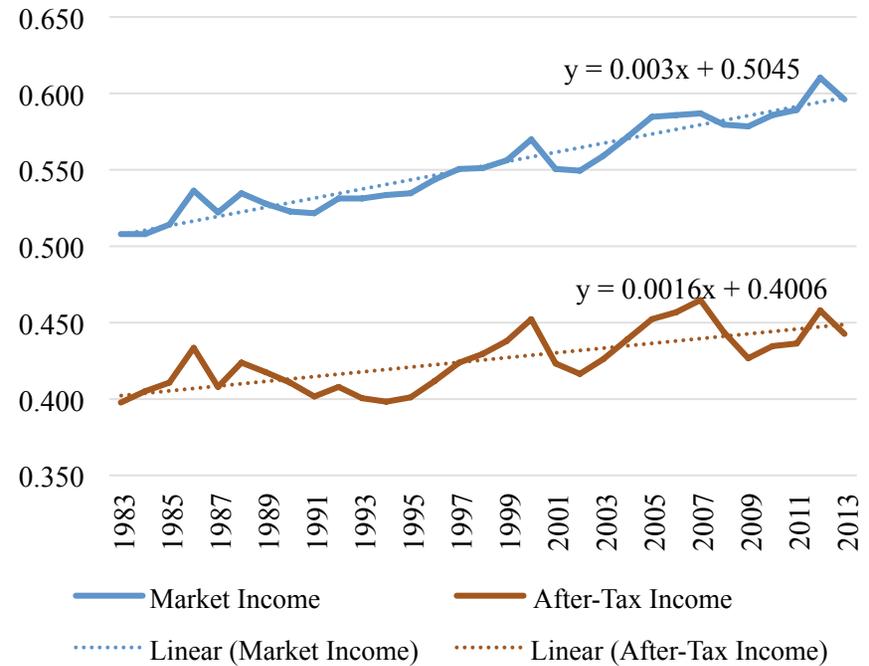


Household Incomes

Real Mean Household Incomes
 Source: U.S. Census, Bureau Economic Analysis, Beacon Economics

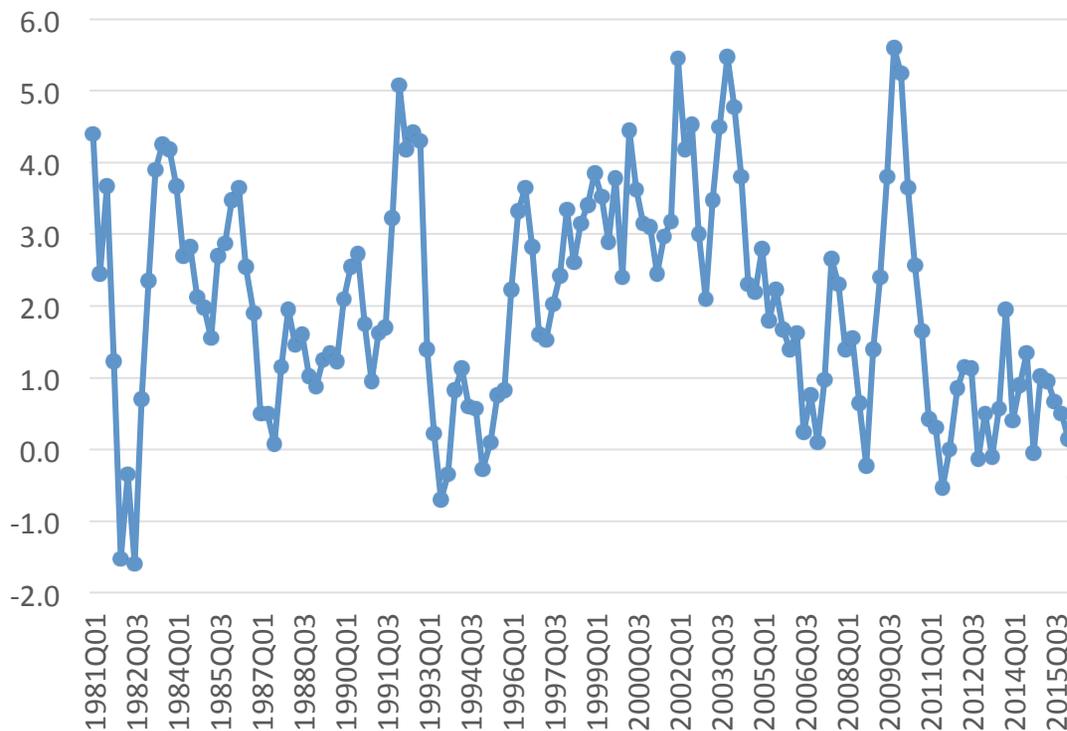


Gini Indexes for Gross and Net US Income
 Source: Congressional Budget Office



Long Run View: Productivity

Smoothed Labor Productivity



After small upward revisions for 2013 and 2015, productivity growth over the past 5 years (0.7%) or last 10 years (1.3%) round to slightly higher numbers. These figures pale compared with those over 1947-2005 (2.3%). Innovations are everywhere—in cancer research, iPhone apps, Olympic sports training, cloud computing—they are just not showing up in the GDP accounts.

Household Wealth

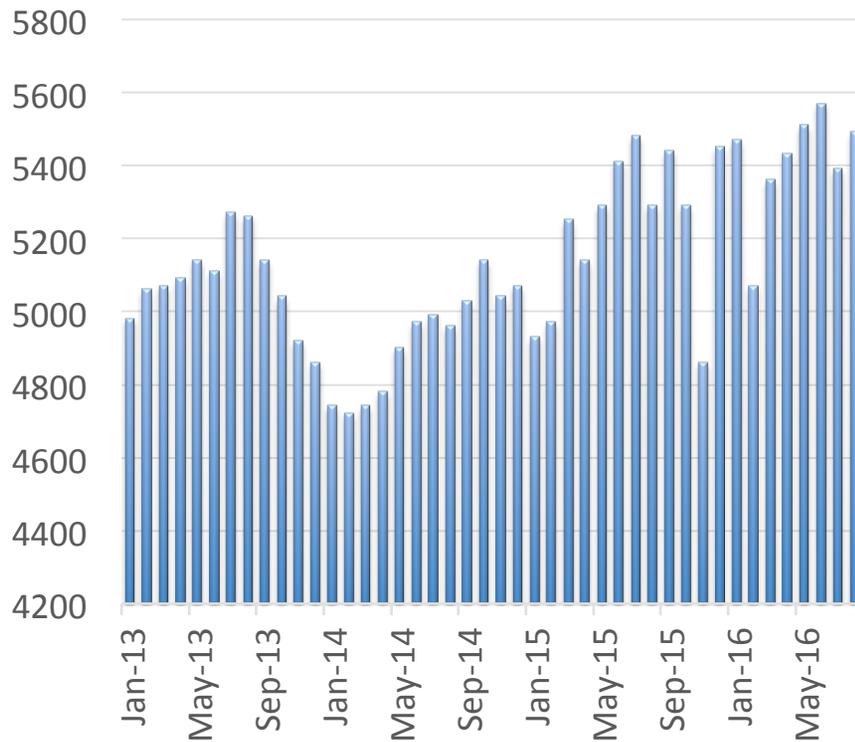
Real Net Worth: Federal Reserve Survey of Consumer Finances			
	1989	2001	2013
Mean Net Worth by Percentile of Net Worth			
Less than 25	-\$1.0	\$0.1	-\$13.0
25-49.9	\$41.8	\$58.4	\$35.9
50-74.9	\$162.2	\$219.9	\$177.7
75-89.9	\$411.6	\$594.0	\$546.3
90-100	\$2,294	\$3,631	\$3,962

Population Growth Projections

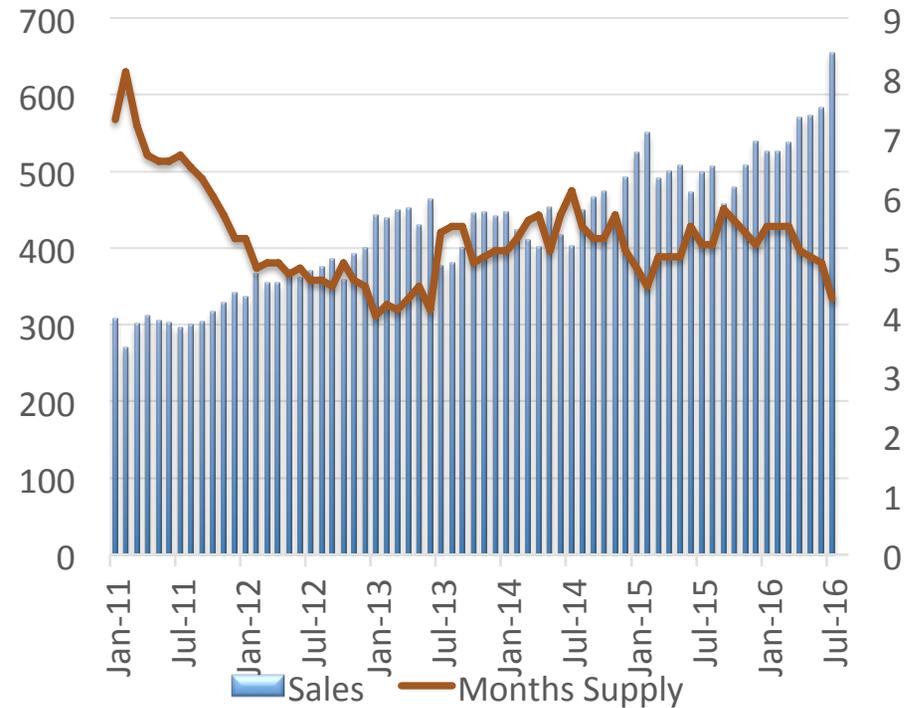
	2015	2015-2025	2025-2035
Total	321,369	25,966 8.1%	23,003 6.6%
<18 years	73,635	1,380 1.9%	2,431 3.2%
18 to 24	31,214	(478) -1.5%	154 0.5%
25 to 44	84,657	8,772 10.4%	3,552 3.8%
45 to 64	84,032	(1,797) -2.1%	3,553 4.3%
65 years+	47,830	18,090 37.8%	13,313 20.2%
85 years+	6,304	1,178 18.7%	4,427 59.2%

Housing Markets

Existing Home Sales (NAR) SAAR

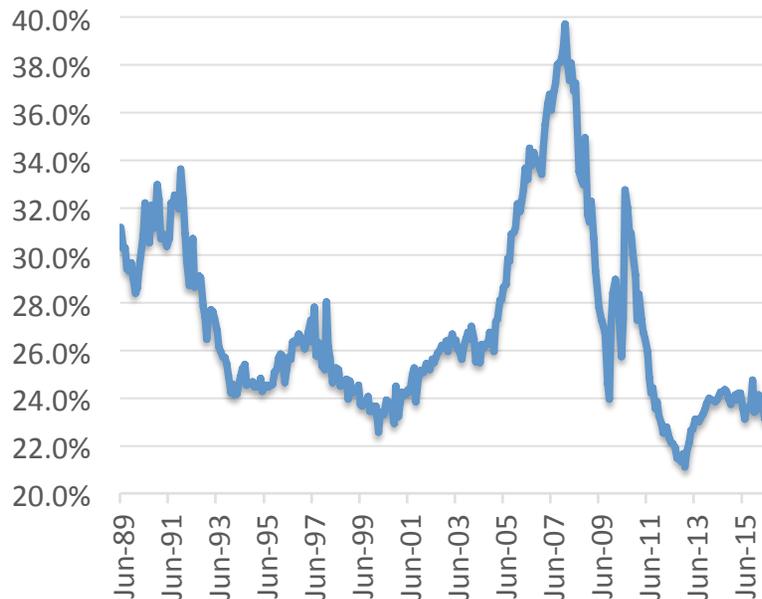


New Home Sales (SAAR) and Months Supply to July



Affordability and Prices

Affordability: Median Price for Median HH, Tax Adjustment, DPI

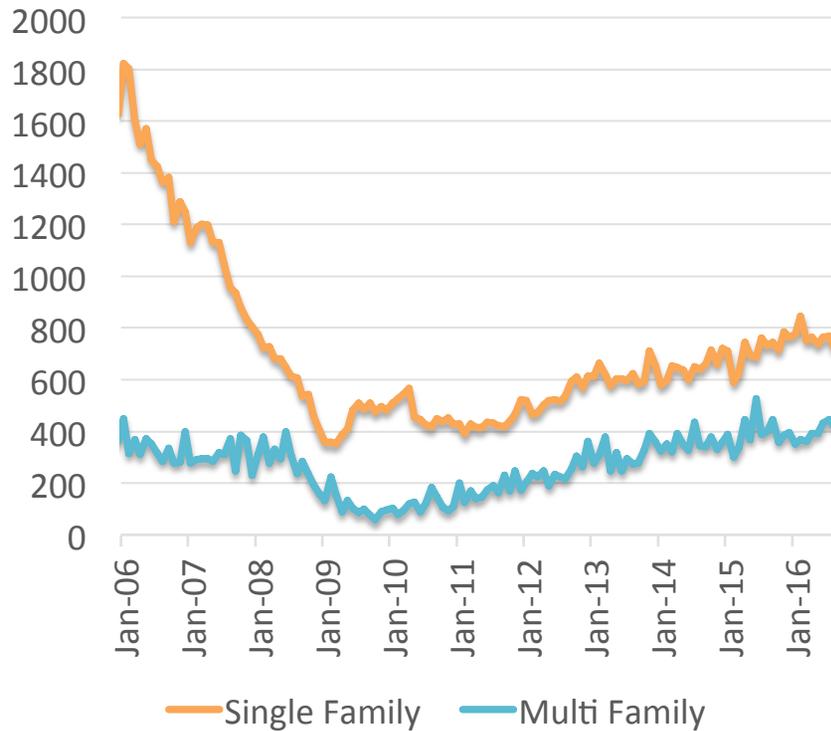


Case Shill HPA Trends

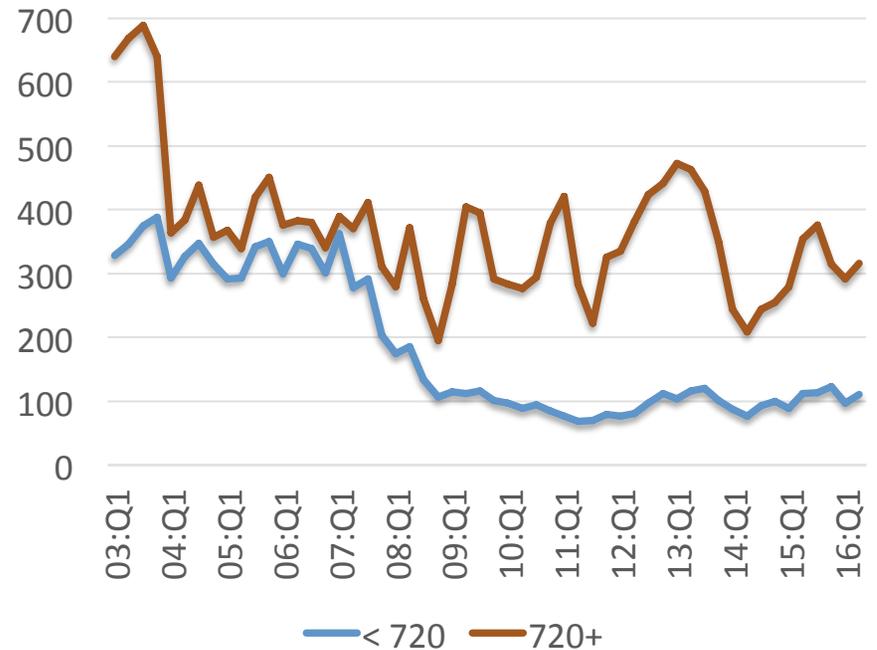
	14-15	15-16		14-15	15-16
OR-Portland	8.6%	12.5%	NC-Charlotte	4.9%	5.4%
WA-Seattle	7.2%	11.2%	NV-Las Vegas	6.2%	5.3%
CO-Denver	10.3%	9.5%	AZ-Phoenix	4.6%	5.2%
TX-Dallas	8.8%	8.4%	National-US	4.5%	5.1%
FL-Tampa	5.8%	7.8%	MN-Minneapolis	3.8%	5.1%
FL-Miami	7.4%	7.1%	Composite-20	5.0%	5.1%
CA-San Francisco	10.3%	6.1%	MA-Boston	4.3%	4.3%
CA-San Diego	5.4%	6.0%	IL-Chicago	1.4%	3.8%
CA-Los Angeles	6.0%	5.5%	OH-Cleveland	2.8%	2.5%
MI-Detroit	5.3%	5.4%	DC-Washington	1.3%	2.1%
GA-Atlanta	6.0%	5.4%	NY-New York	2.2%	1.8%

Construction: Slow

Housing Starts (SAAR) to August

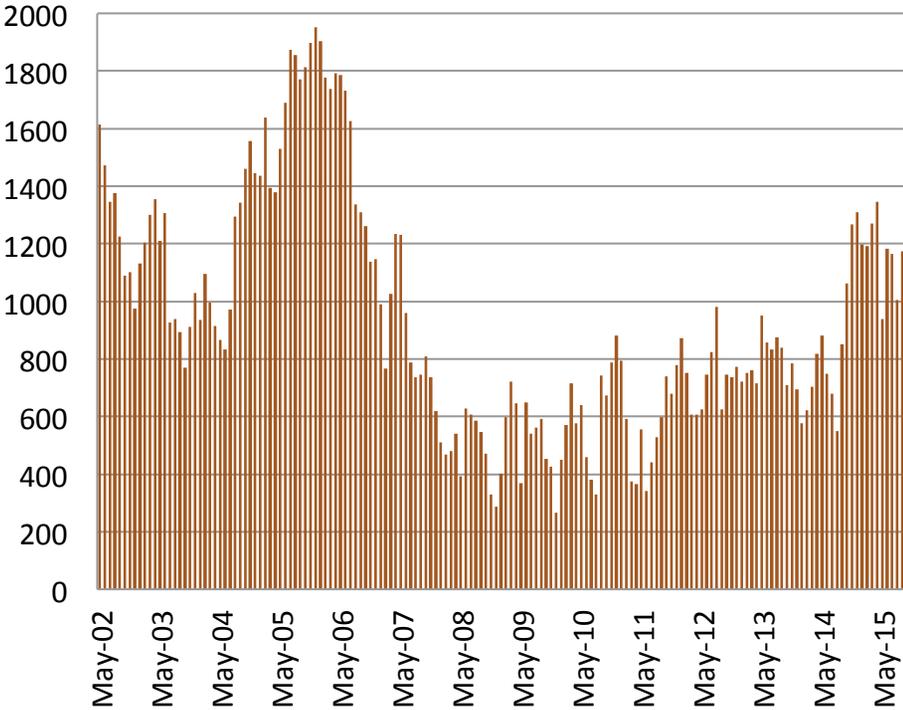


Mortgage Credit Origination by Credit Score to Q2

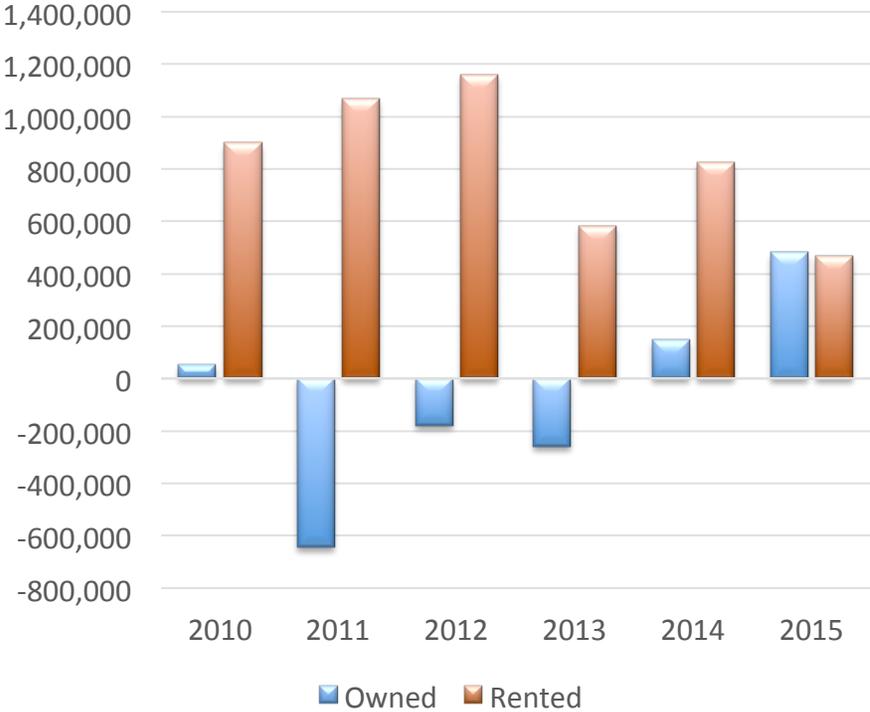


Better News

Change in Households (2 year Smoothed)

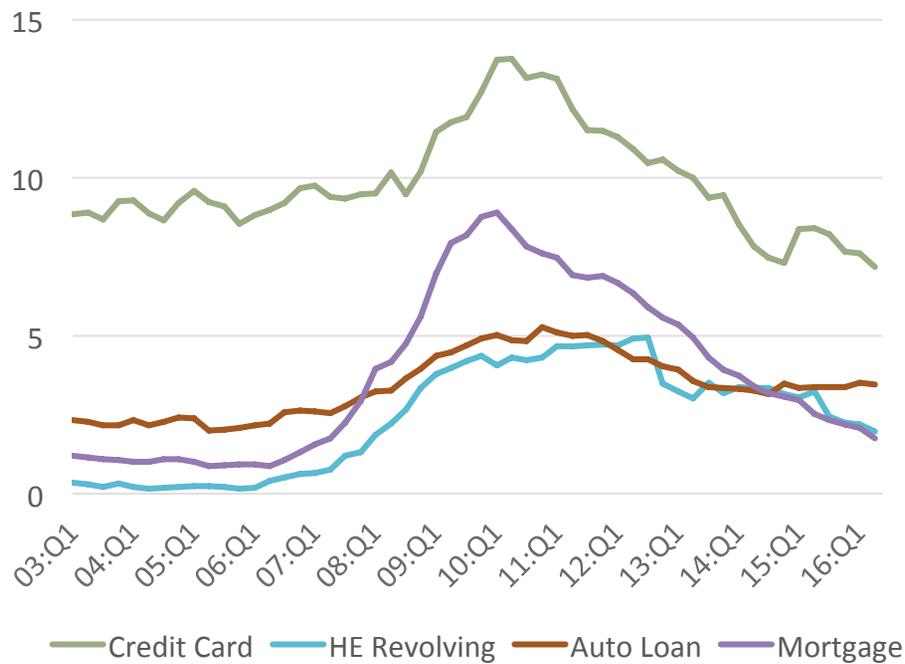


Change in US Households by Tenure from Previous Year (ACS)

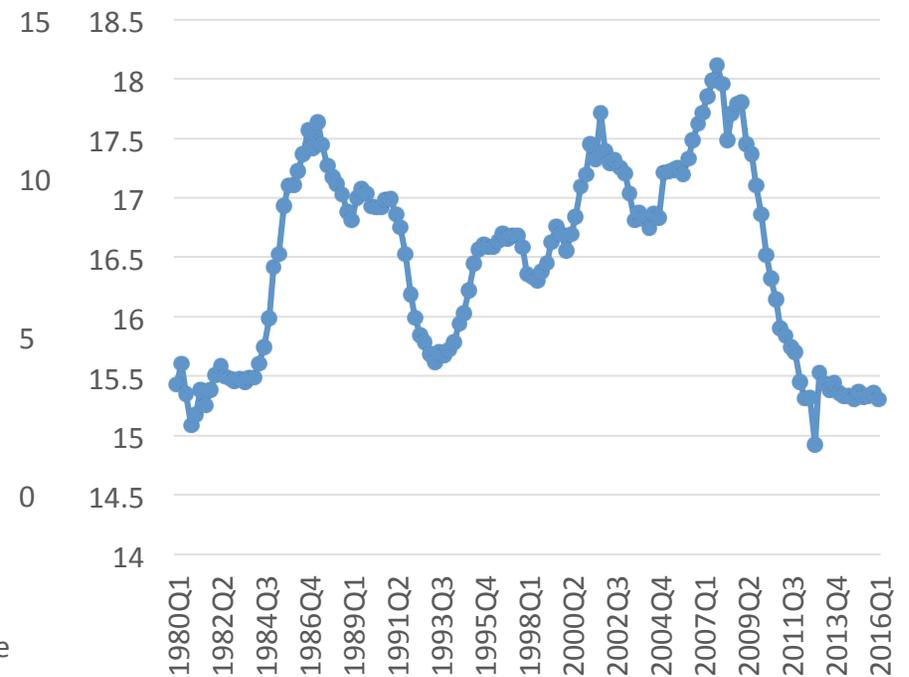


Consumer Credit

Loan Delinquencies by Type



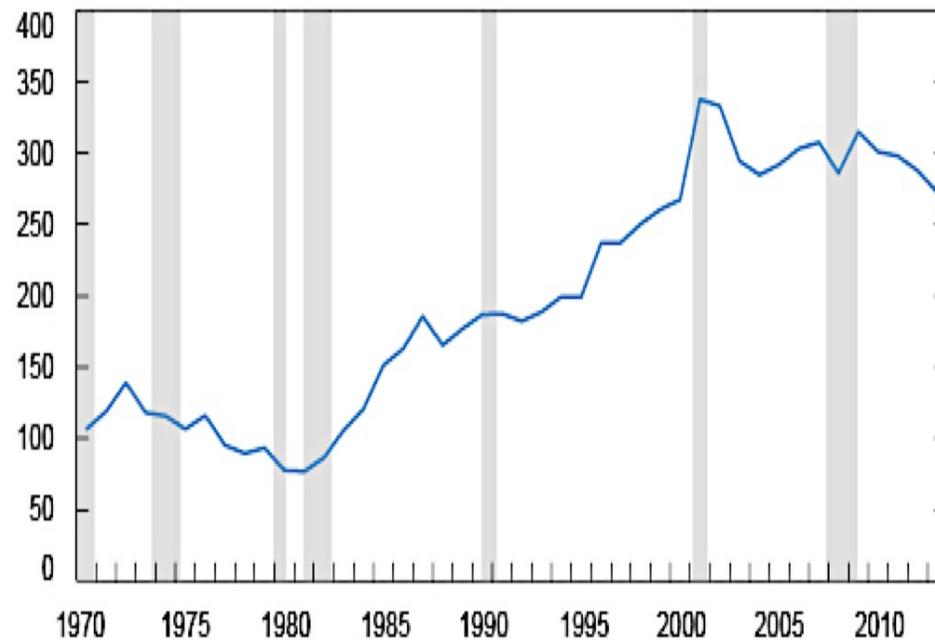
Financial Obligations Ratio



Degrees Among 21-27 with Bachelor

Net Present Value of a Bachelor's Degree, 1970-2013

Thousands of dollars



Annual Income

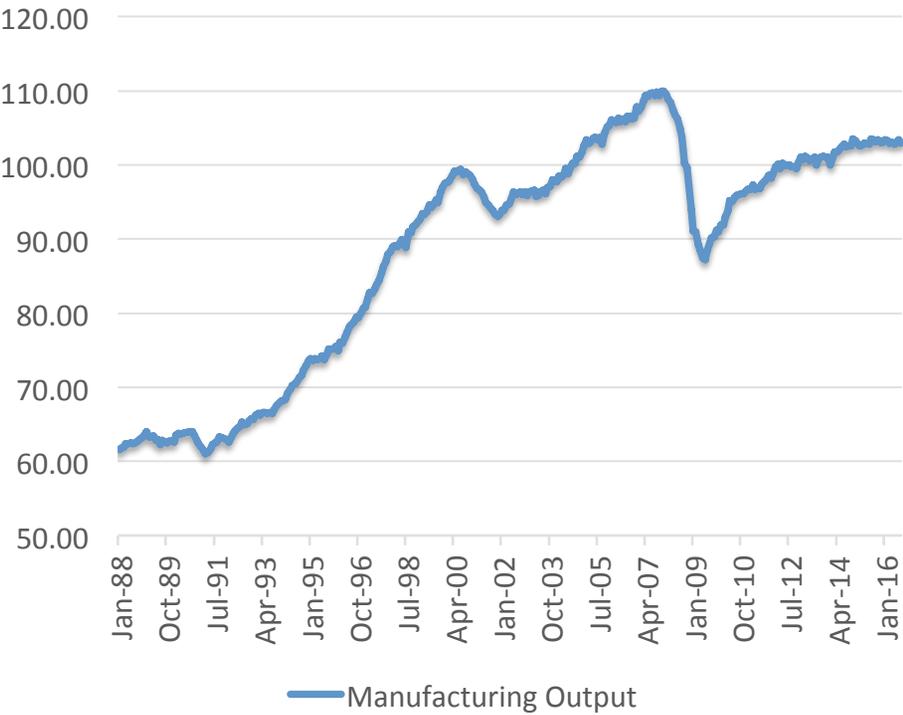
PETROLEUM ENGINEERING	55,103
COMPUTER ENGINEERING	50,542
CHEMICAL ENGINEERING	48,668
COMPUTER SCIENCE	46,060
AEROSPACE ENGINEERING	44,651
INDUSTRIAL AND ORGANIZATI	43,804
MECHANICAL ENGINEERING	43,495
ELECTRICAL ENGINEERING	42,238
MATHEMATICS AND COMPUTER	41,640
PHARMACY PHARMACEUTICAL S	40,933
OPERATIONS LOGISTICS AND	40,840
FINANCE	40,236

Diploma's Awarded

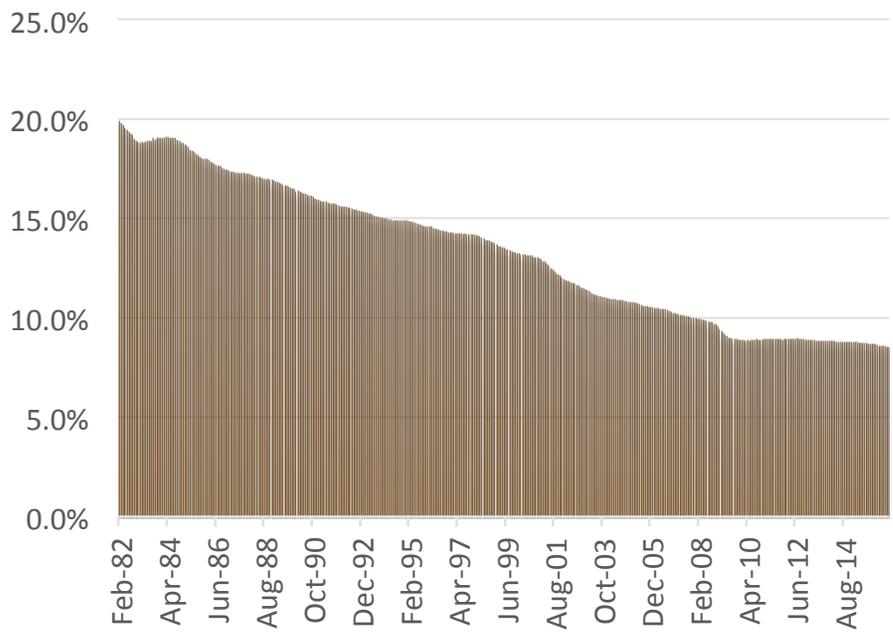
PSYCHOLOGY	289,968
BUSINESS MANAGEMENT AND A	217,369
BIOLOGY	178,560
GENERAL BUSINESS	171,875
NURSING	170,595
COMMUNICATIONS	162,915
MARKETING AND MARKETING R	160,309
ACCOUNTING	146,322
ENGLISH LANGUAGE AND LITE	132,367
CRIMINAL JUSTICE AND FIRE	123,509
POLITICAL SCIENCE AND GOV	123,106
FINANCE	123,068

Manufacturing

Output Indexes

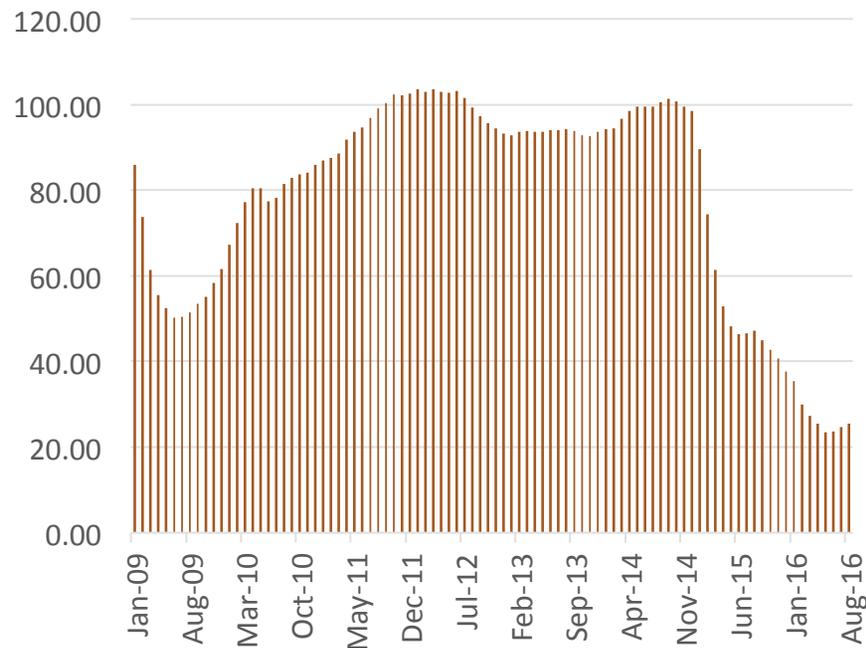


Manufacturing Share Total Employment

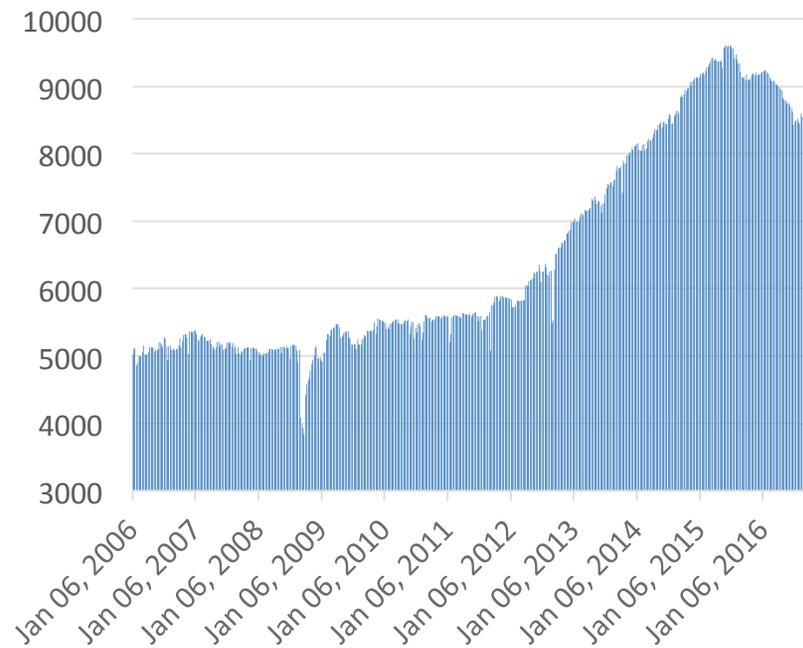


Commodities Production

IP (2012=100): Drilling Oil/Gas Wells to August

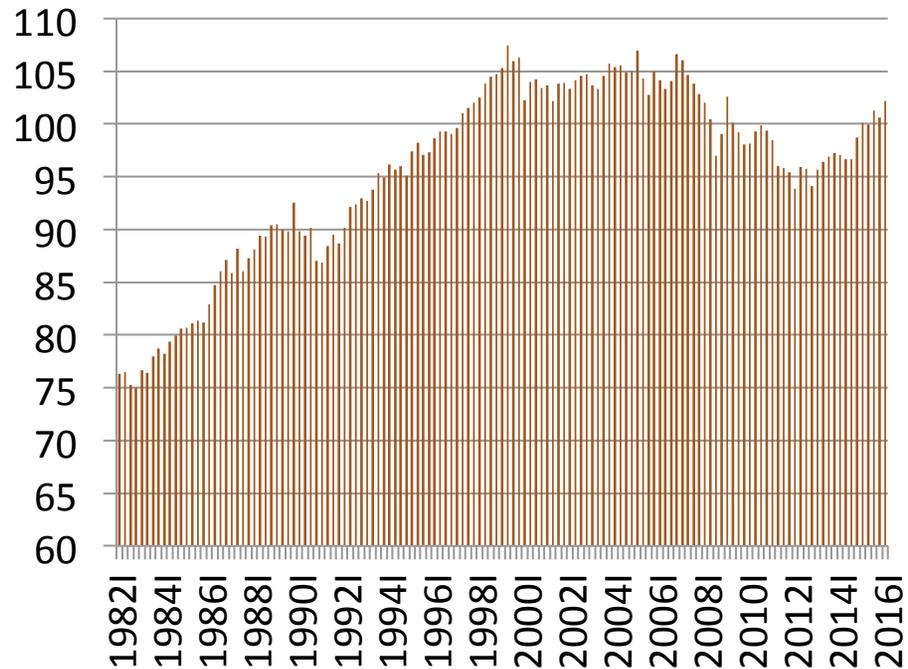


Daily Oil Production (000s Brls to September)

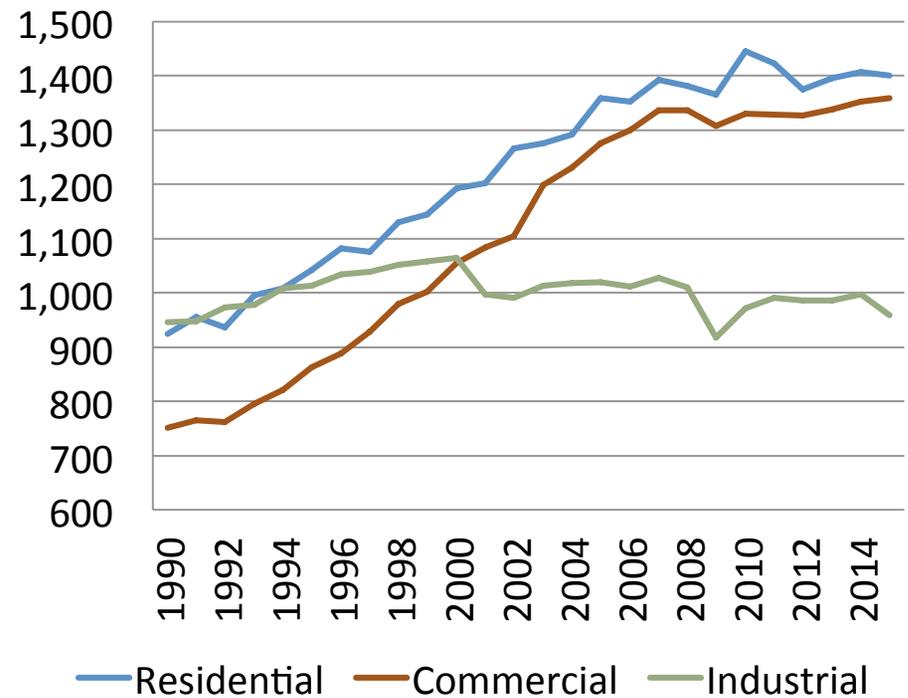


Consumption

Real Consumer Spending: Gasoline and other energy goods



Electricity Consumption

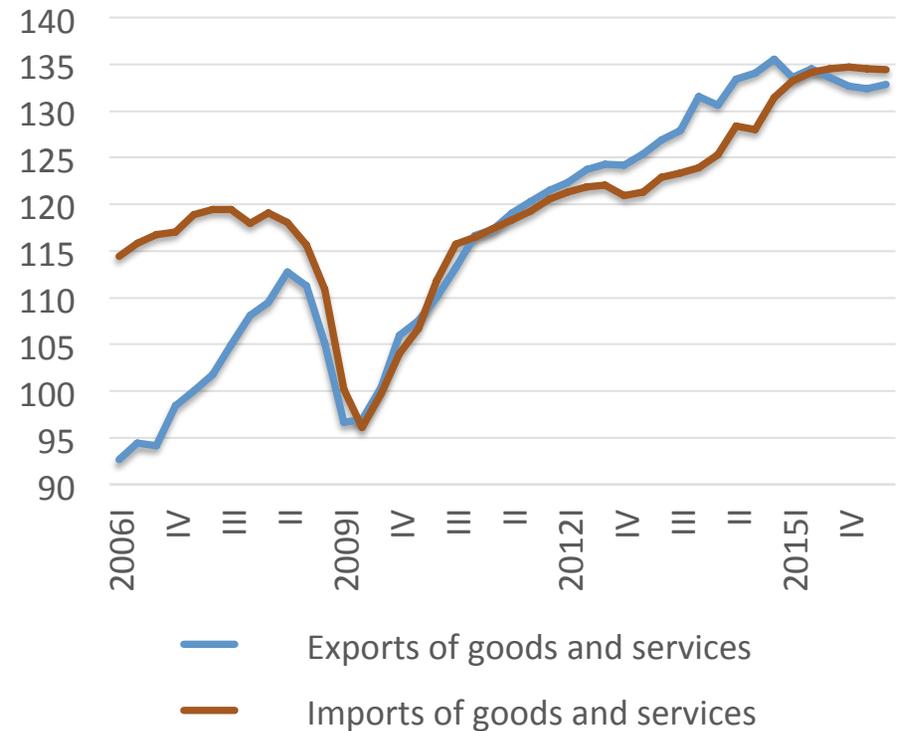


Inventories and Trade

Ratio of Private inventories to final sales

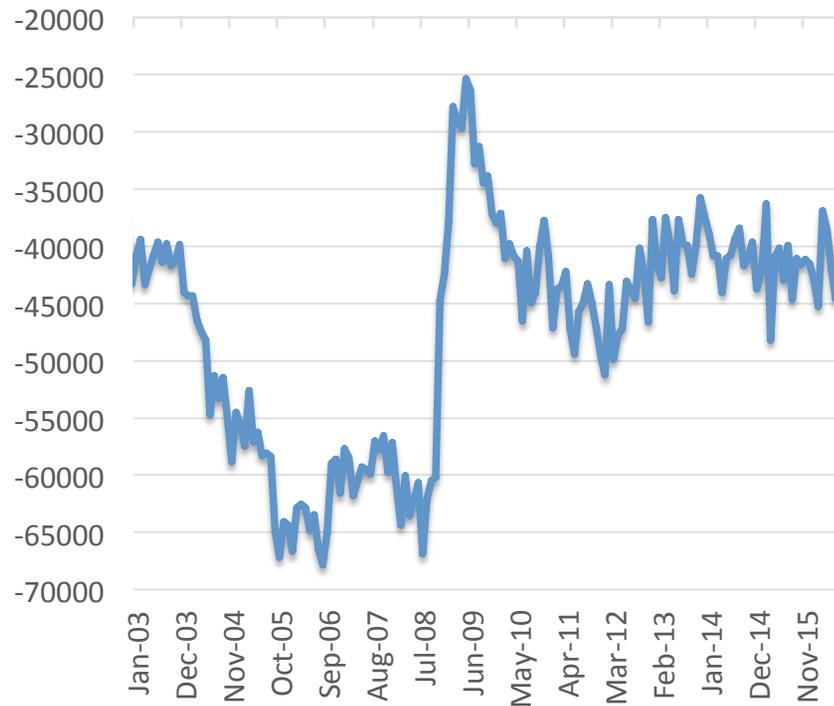


Index Real Exports and Imports to Q2

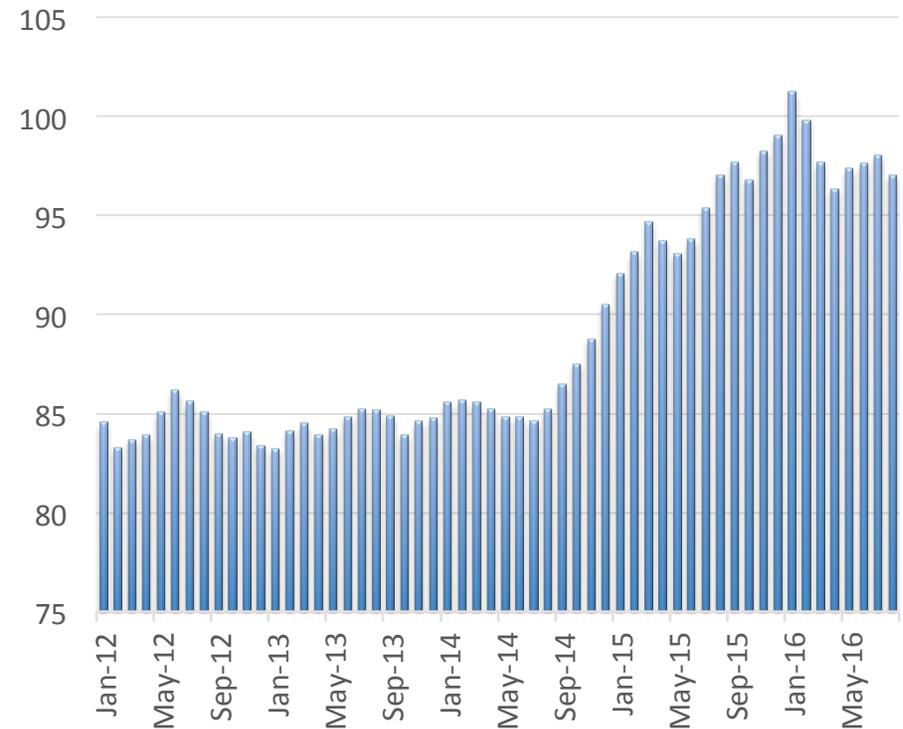


Global Environment

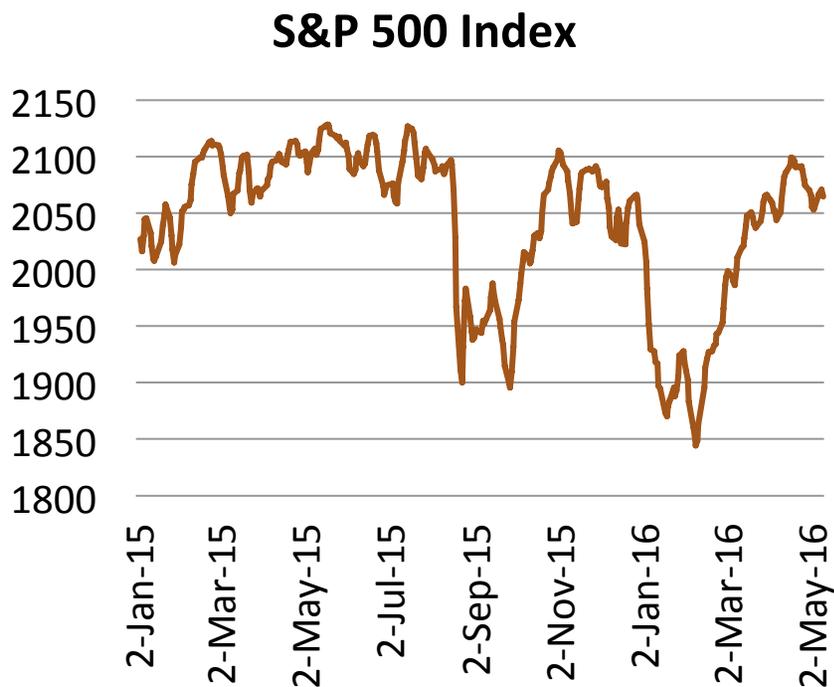
Nominal Trade Balance



U.S. Dollar Broad Index, Real



What inning is it?



**There is STILL no bubble...
(at least not yet)**

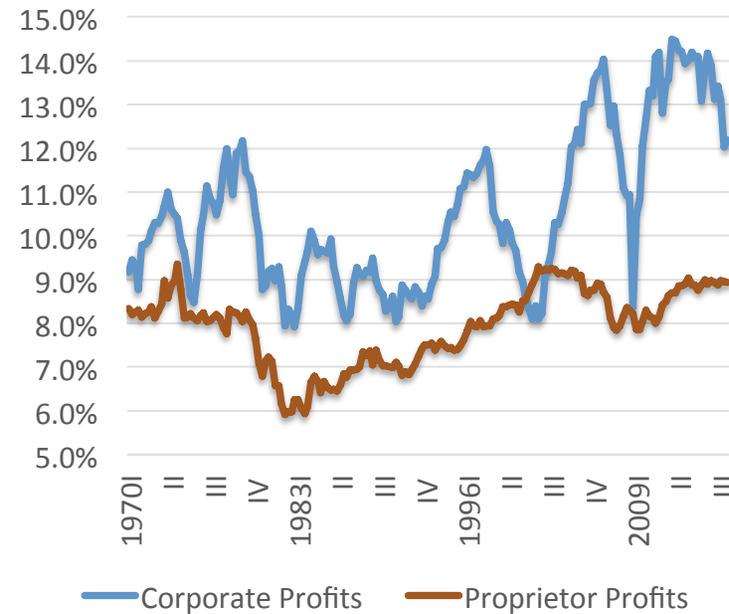
Why?

1. Asset prices are being driven by fundamentals, not speculation
2. The global savings glut is driving interest rates, not Fed policy
3. Leverage is not a factor
4. The real economy is in balance

Profits and Investment

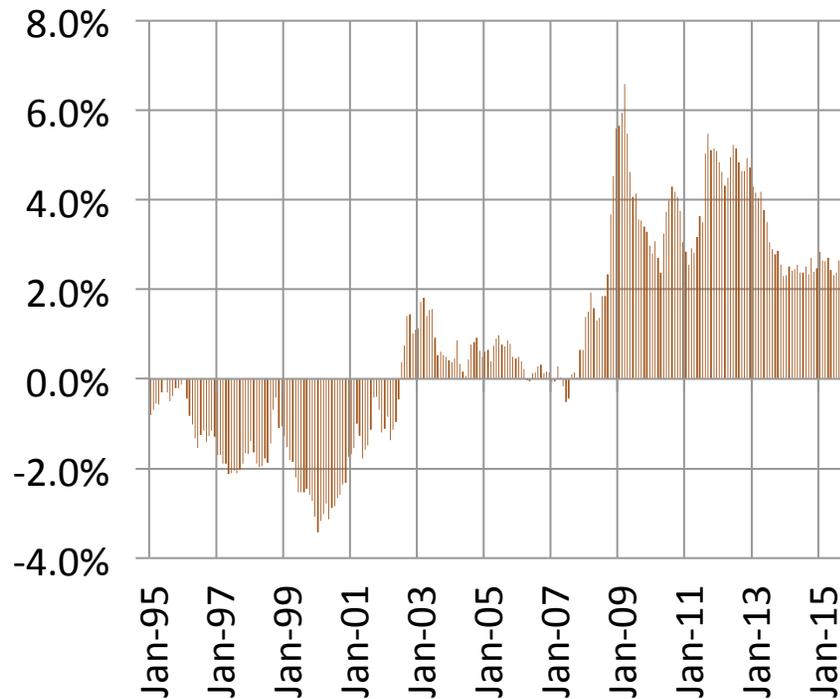
Profits to Q1	2016	Y-o-Y
	I	Gr
Corporate profits with IV	2,257	-4.0%
Nonfinancial	1,485	-3.4%
Other nonfinancial	398.1	2.5%
Motor vehicles	44	16.4%
Transportation	96	15.1%
Information	154	7.7%
Wholesale trade	179	5.7%
Food and beverage	75	-0.9%
Computer etc	70	-4.1%
Retail trade	181	-4.4%
Fabricated metal	27	-5.3%
Chemical products	90	-5.8%
Electrical etc	19	-6.1%
Machinery	22	-40.5%
Utilities	9	-64.3%
Petroleum and coal	(8)	-117.8%

Share of National Income

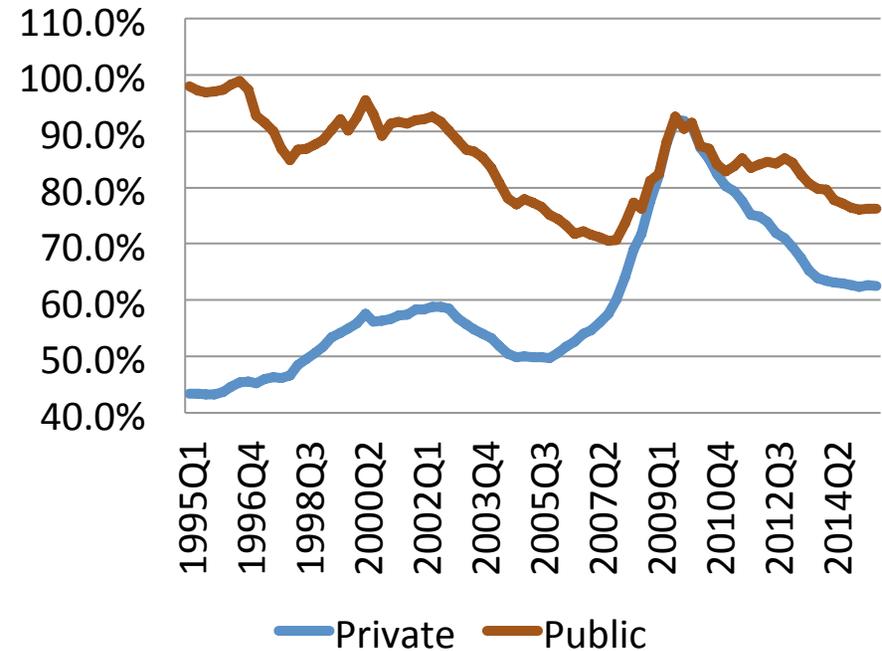


Earnings and Prices

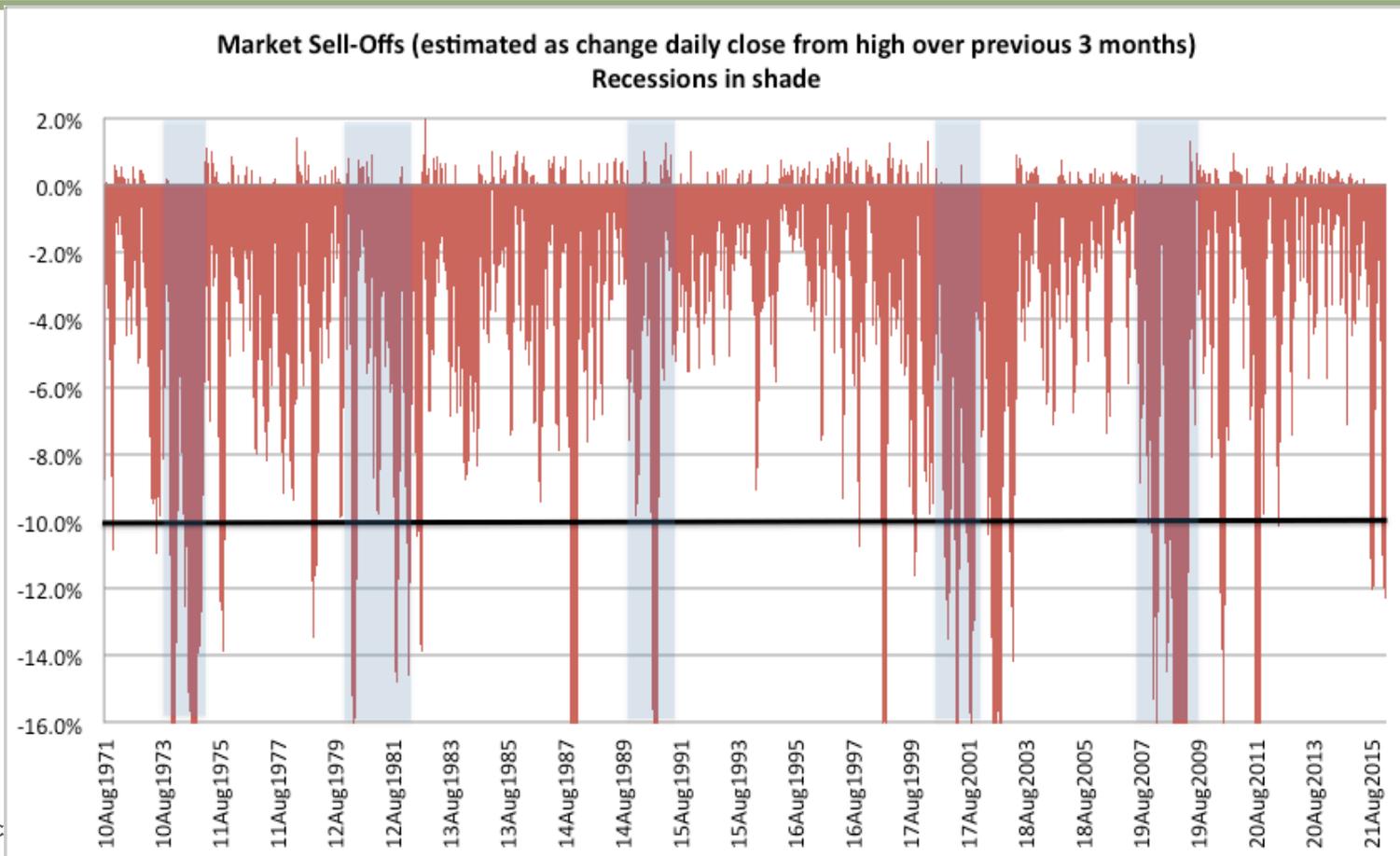
Equity Earnings Spread



Debt to Equity Ratios (FoF) Non-Financial Business

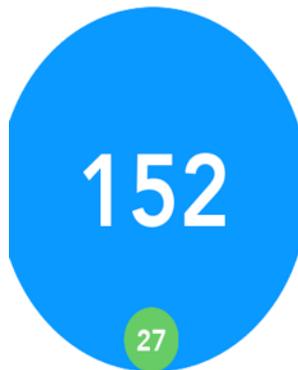


Recent Market Volatility

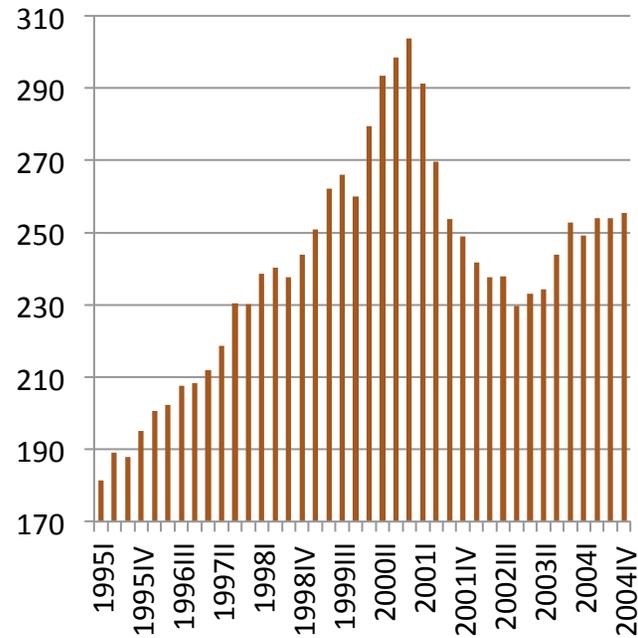


What about Tech?

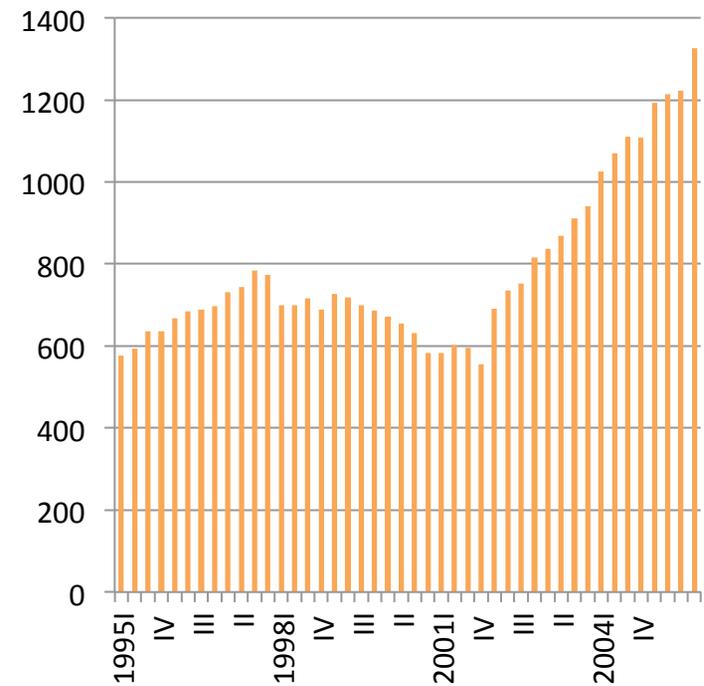
Tech P/Es



Investment: Information processing equipment

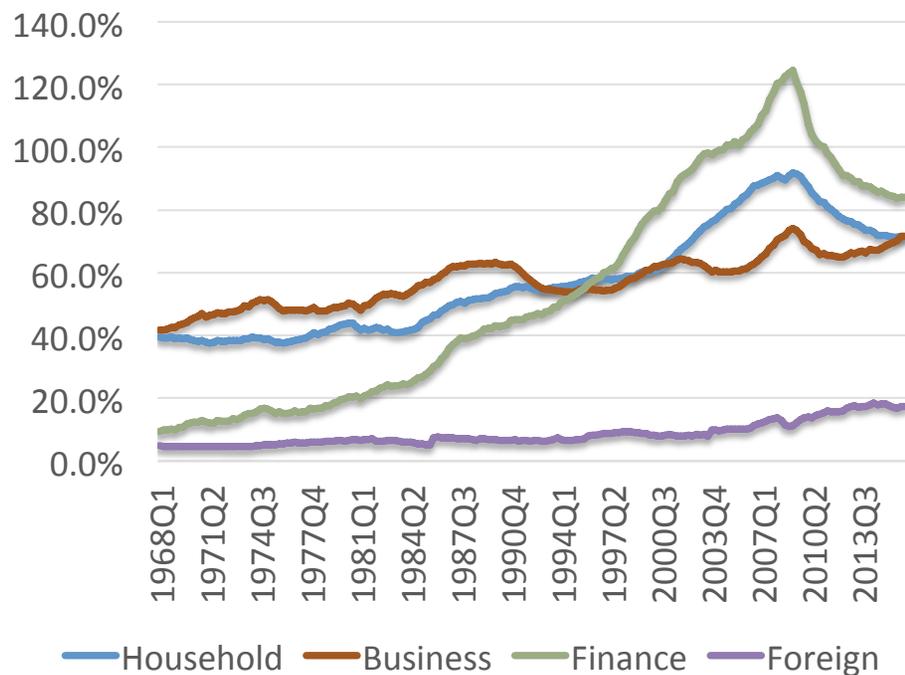


Corporate profits

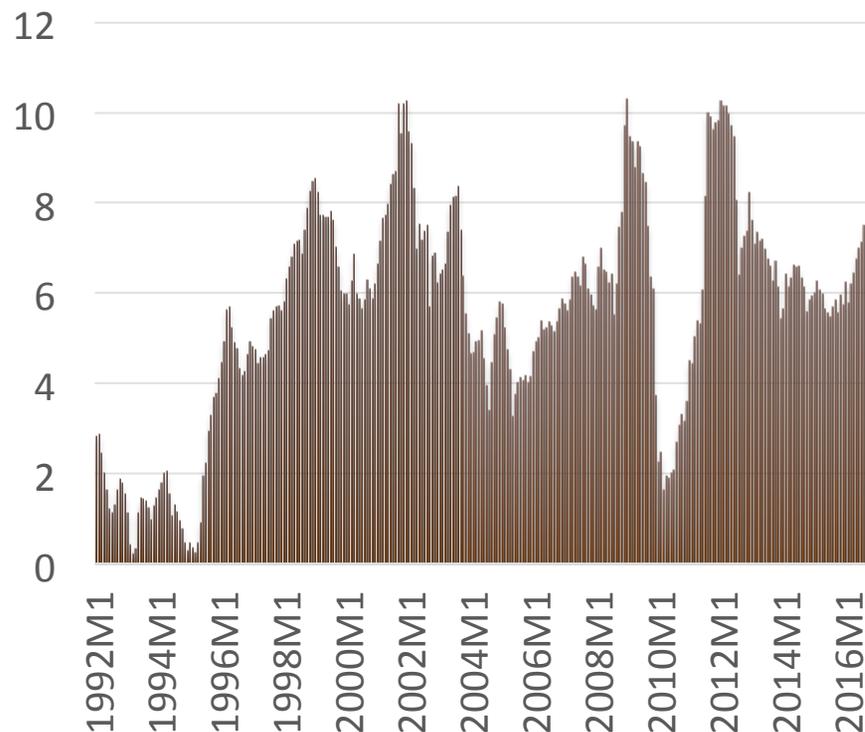


Risk Factors

FOF: Debt Outstanding by Sector as % of GDP to Q2



M2 Growth (Y-o-Y) to August

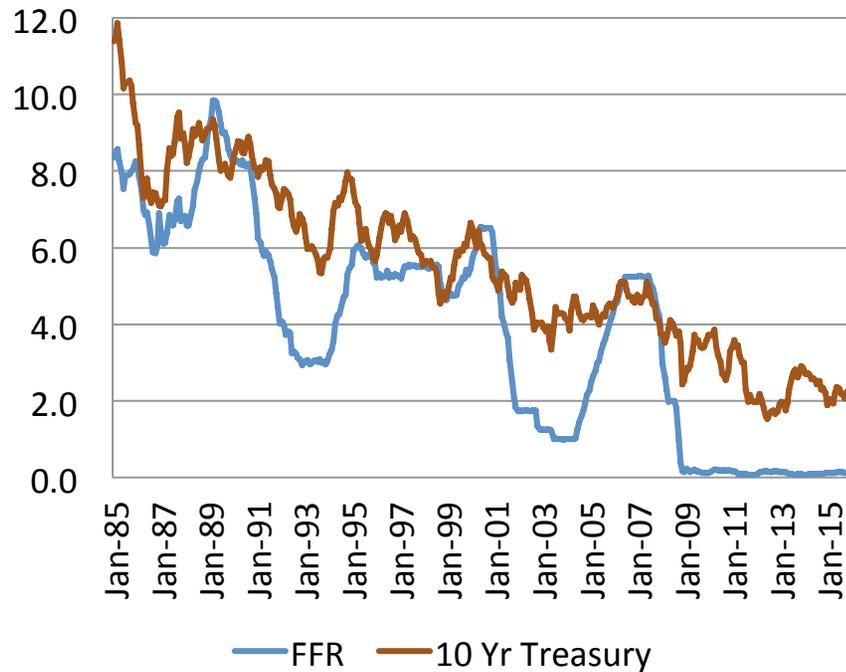


And the Fed?

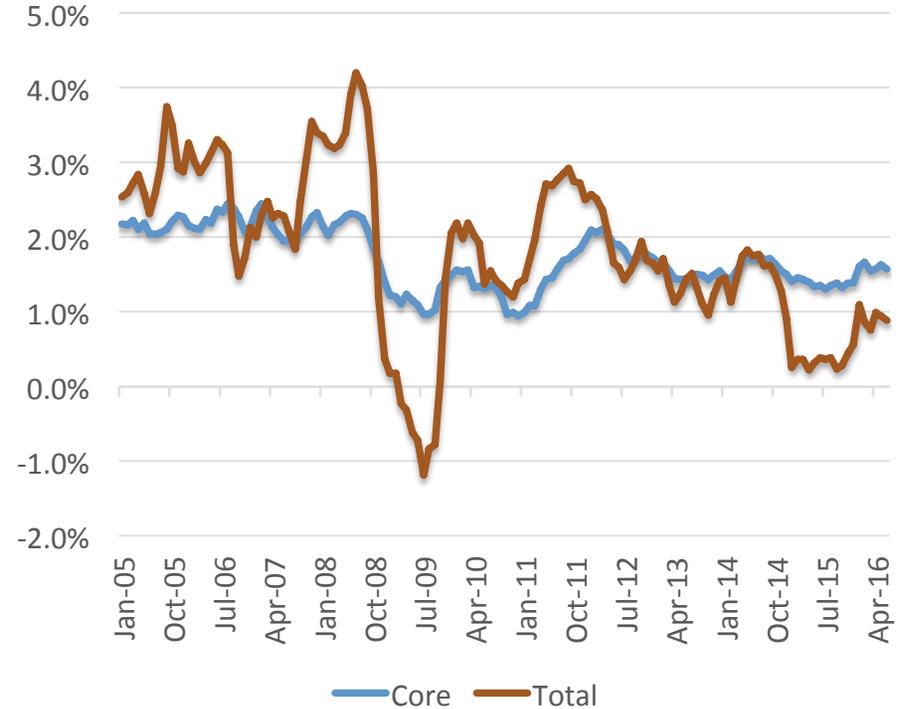


Who drives whom?

Interest Rates



PCE Inflation



California fact versus fiction



2016 Best & Worst States For Business

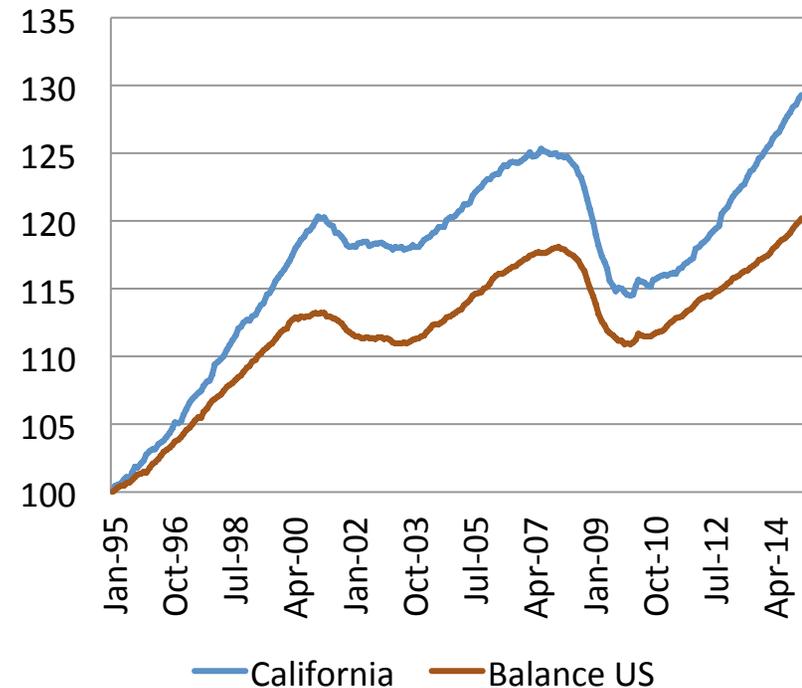
- 50 [California](#)
- 49 [New York](#)
- 48 [Illinois](#)
- 47 [New Jersey](#)
- 46 [Massachusetts](#)
- 45 [Connecticut](#)
- 44 [Hawaii](#)
- 43 [Michigan](#)
- 42 [Oregon](#)
- 41 [Vermont](#)
- 40 [Maryland](#)
- 39 [Mississippi](#)
- 38 [West Virginia](#)
- 37 [Rhode Island](#)



California Blues?

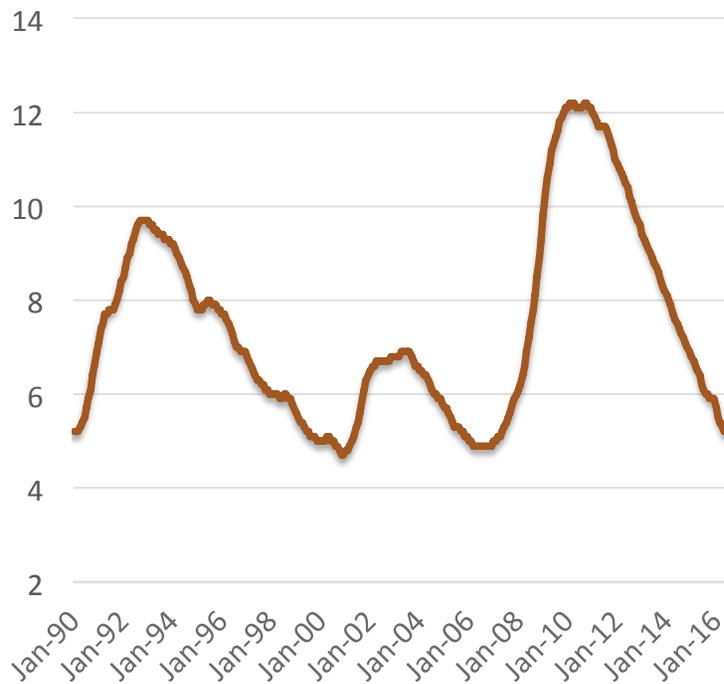
State Growth July-July		July 2016	Gr YoY	Ch YoY
1	Idaho	696.4	3.4%	22.7
2	Oregon	1,837.1	3.3%	58.2
3	Florida	8,359.3	3.1%	250.2
4	Utah	1,424.9	3.1%	42.3
5	Washington	3,249.9	3.0%	94.4
6	Colorado	2,616.0	2.9%	74.2
7	Georgia	4,386.4	2.7%	116.2
8	Arizona	2,703.3	2.6%	67.3
9	Nevada	1,290.1	2.5%	31.9
10	Michigan	4,346.1	2.5%	105.5
11	California	16,489.0	2.3%	374.6
12	South Carolina	2,053.3	2.3%	46.1
23	Virginia	3,914.3	1.5%	57.2
25	Texas	12,021.5	1.5%	173.0
26	Ohio	5,506.3	1.5%	78.8

Index Payroll Employment

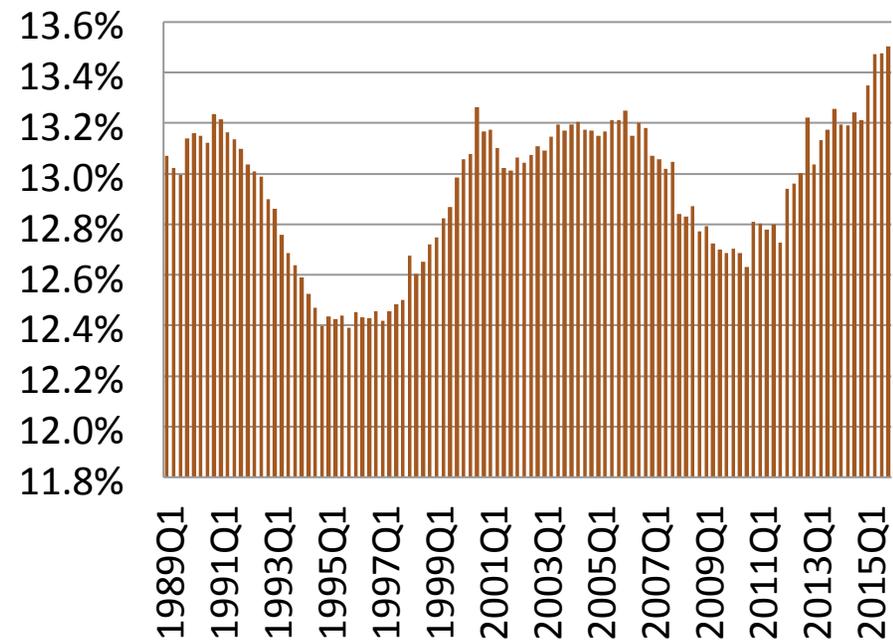


State Unemployment / Income

California Unemployment



CA Share of National Personal Income

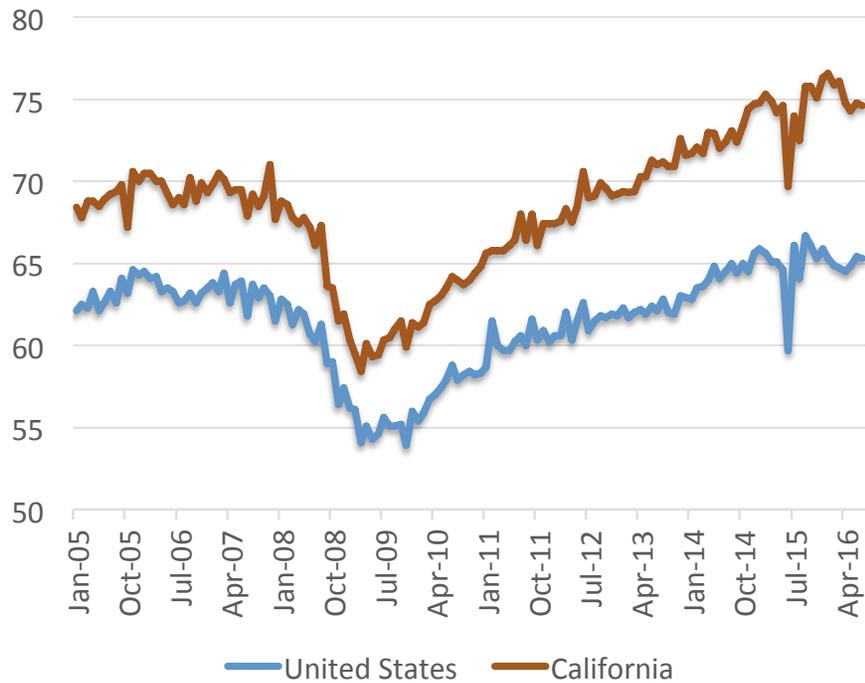


Regional Patterns

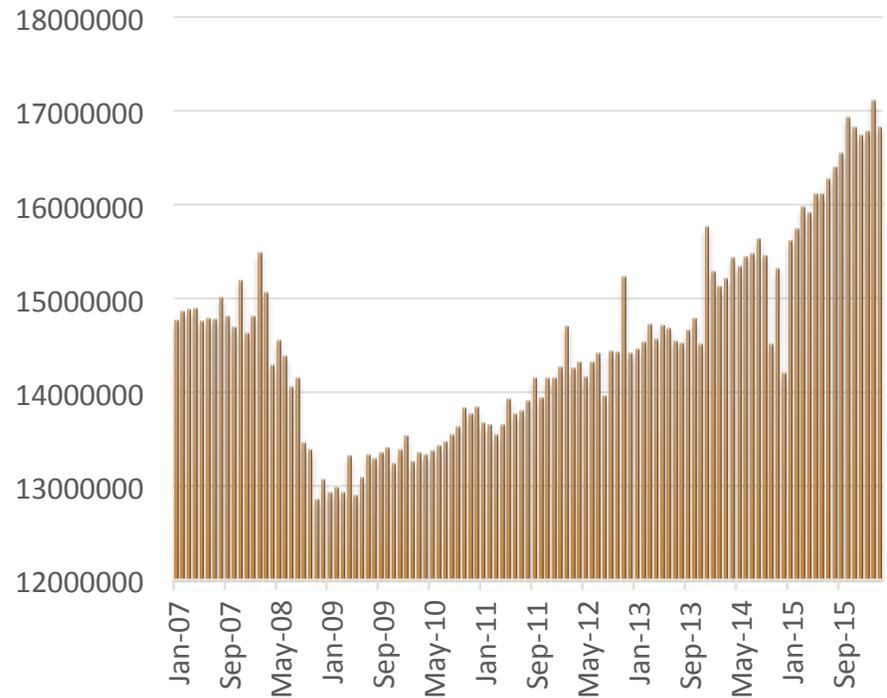
	Unemp		Payrolls		Growth	
	Jul-16	3 Yr Ch	Jul-16	3 Yr	1 Yr	
Unemployment Rate	Jul-16	3 Yr Ch	Jul-16	3 Yr	1 Yr	
California	5.5	-3.3	16,489.0	8.8%	2.3%	
Santa Rosa	4.1	-3.0	205.1	13.9%	3.7%	
San Jose	4.0	-2.5	1,086.4	13.2%	3.1%	
San Francisco (MD)	3.3	-2.0	1,084.8	13.1%	2.6%	
Inland Empire	6.2	-3.5	1,381.6	12.1%	2.0%	
Fresno	9.7	-3.4	335.4	11.4%	3.3%	
Stockton	8.4	-3.6	227.9	10.4%	4.1%	
Oakland (MD)	4.5	-2.7	1,128.3	8.9%	2.9%	
Orange County (MD)	4.2	-2.3	1,588.9	8.6%	2.8%	
Sacramento	5.5	-3.0	937.4	8.0%	1.7%	
San Diego	4.9	-2.8	1,421.8	7.9%	2.0%	
Los Angeles (MD)	4.8	-5.2	4,354.5	5.8%	1.7%	
Bakersfield	10.5	-1.0	262.4	4.8%	0.7%	
Ventura	5.4	-2.4	298.4	3.4%	1.1%	

Tourism / Travel

Hotel Occupancy Rates

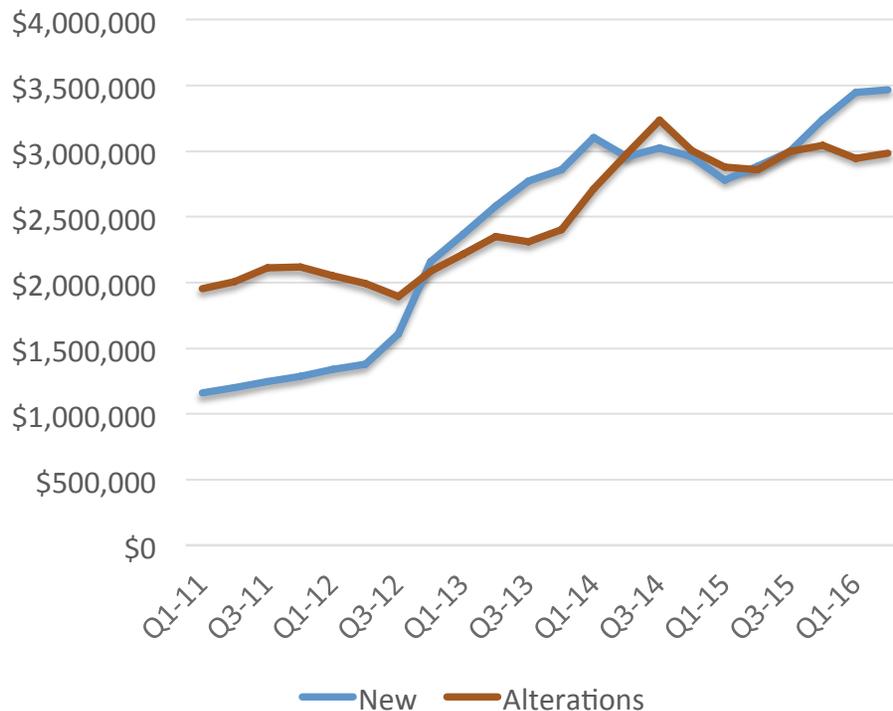


California Airport Traffic



Non Residential Trends

Non Residential Permit Values

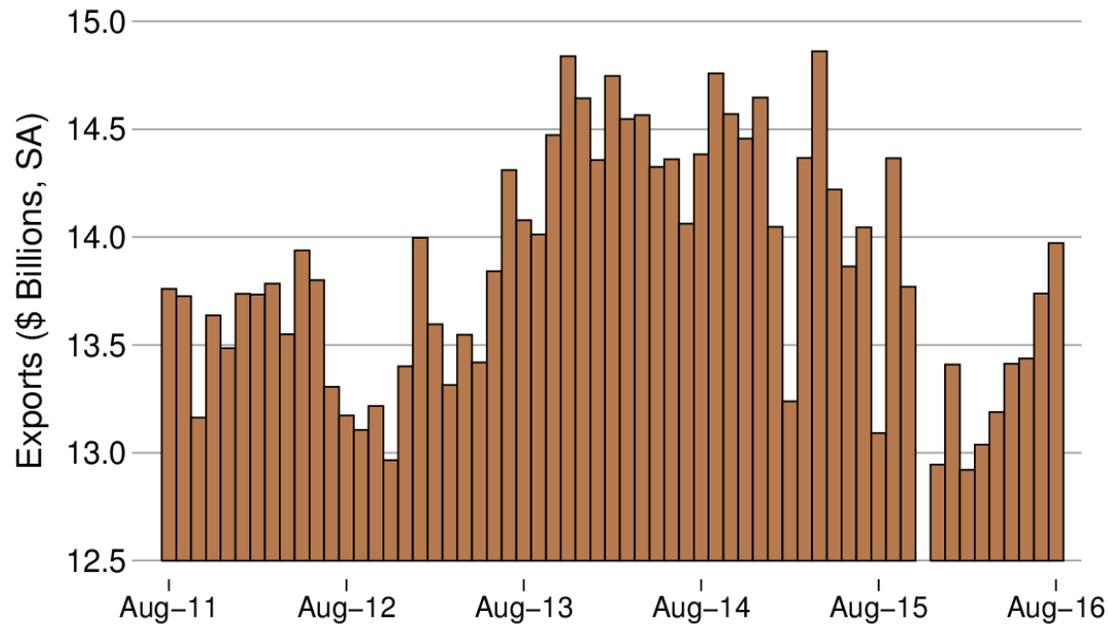


Office Vacancies (REIS)

Vacancy Rate	Q2-16	
Inland Empire	22	-1.9
Los Angeles (MD)	13.6	-1.3
Oakland (MD)	15.1	-1.3
Seattle	10.9	-1.3
Ventura	17	-1
Sacramento	18.7	-0.9
San Diego	14.6	-0.6
San Francisco (MD)	10.1	-0.6
Phoenix	24.6	-0.6
San Jose	16.7	-0.4
Orange County (MD)	16.1	-0.4
Denver	18.1	0.7

State Exports

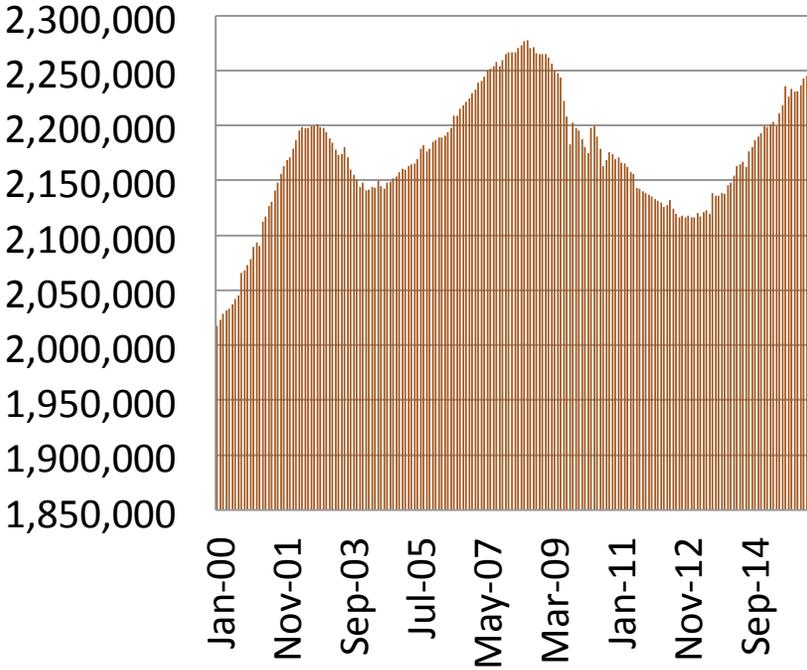
California Monthly Export Trade
Aug-11 to Aug-16



Source: WISER Trade, Beacon Economics

Public Sector

State and Local Employment

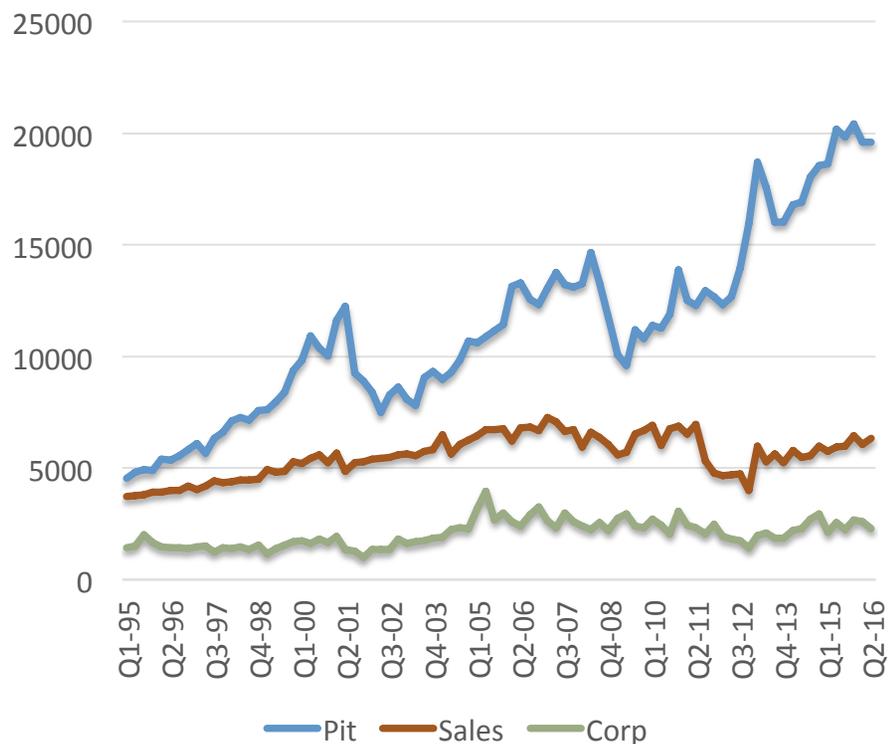


State & Local Gov. Capital Investments as % Revenues



Income tax driving the show

Major Sources State Revenues

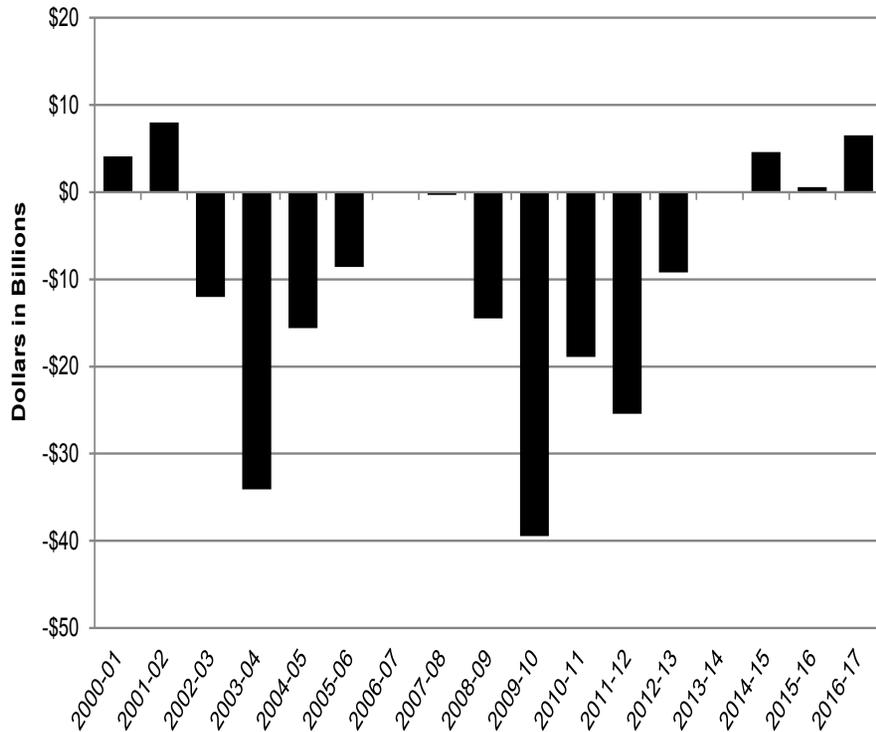


PIT Share General Fund

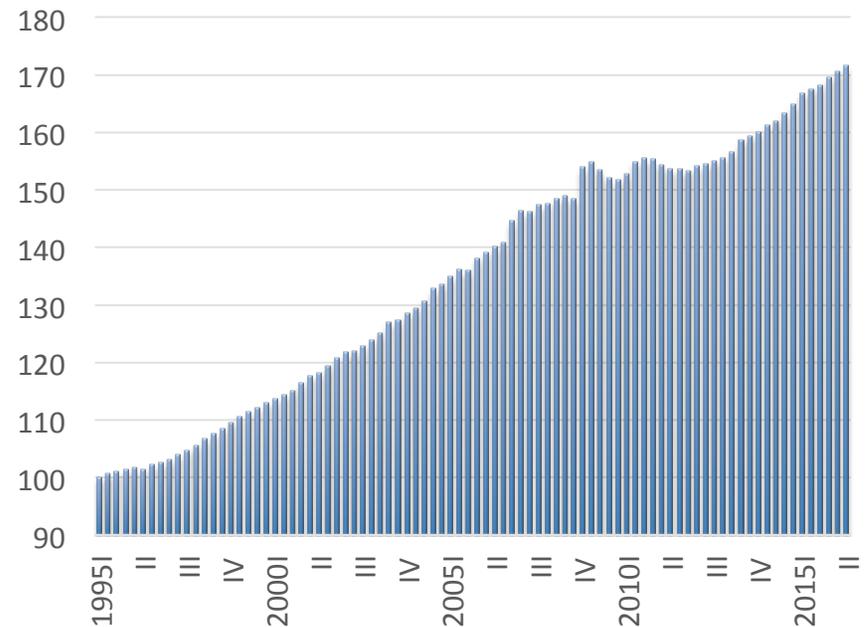


Setting up for a problem

Balanced Budgets Have Been Quickly Followed by Huge Deficits¹

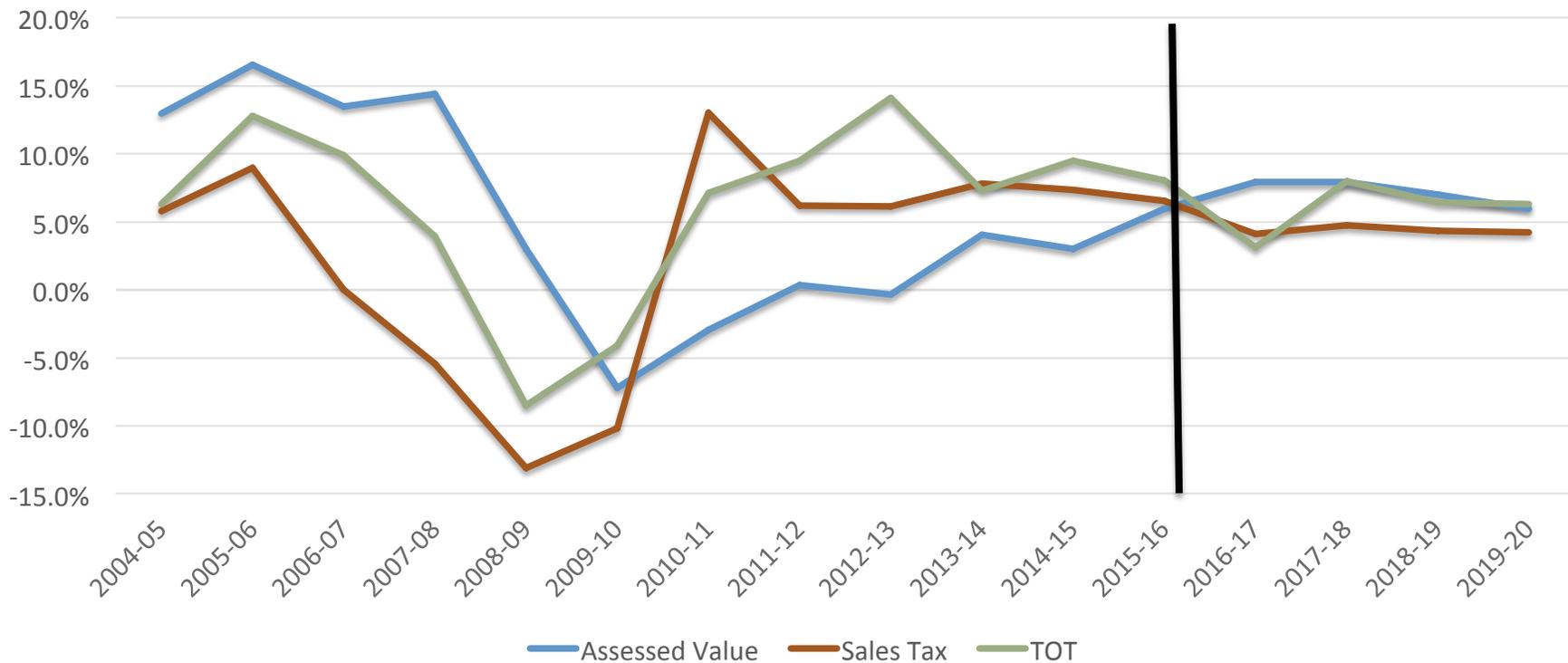


Price Government Services / Consumer Goods



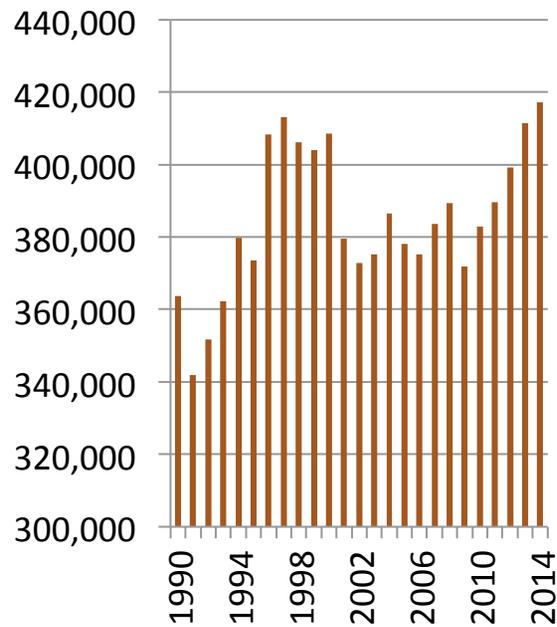
Local Revenue Growth Slowing

Beacon Economics Local Revenue Forecast (City Average)

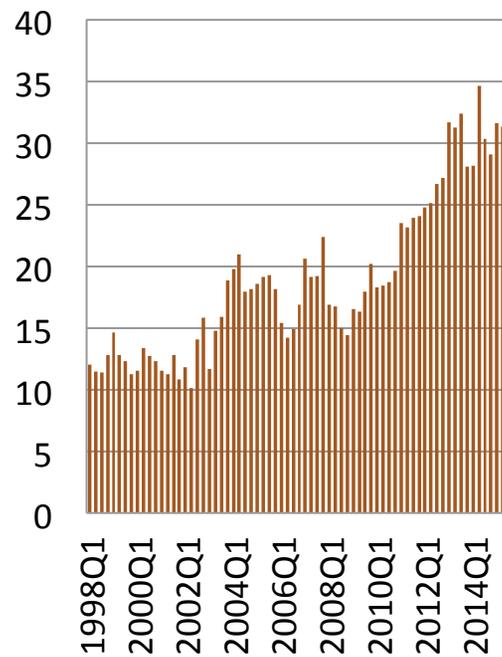


Ag and the Drought

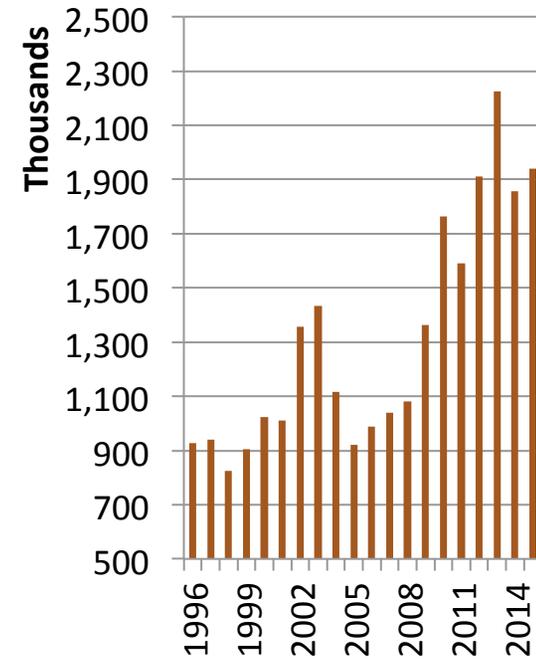
Total CA Farm Employment



Total CA Farm Earnings (\$Bil)

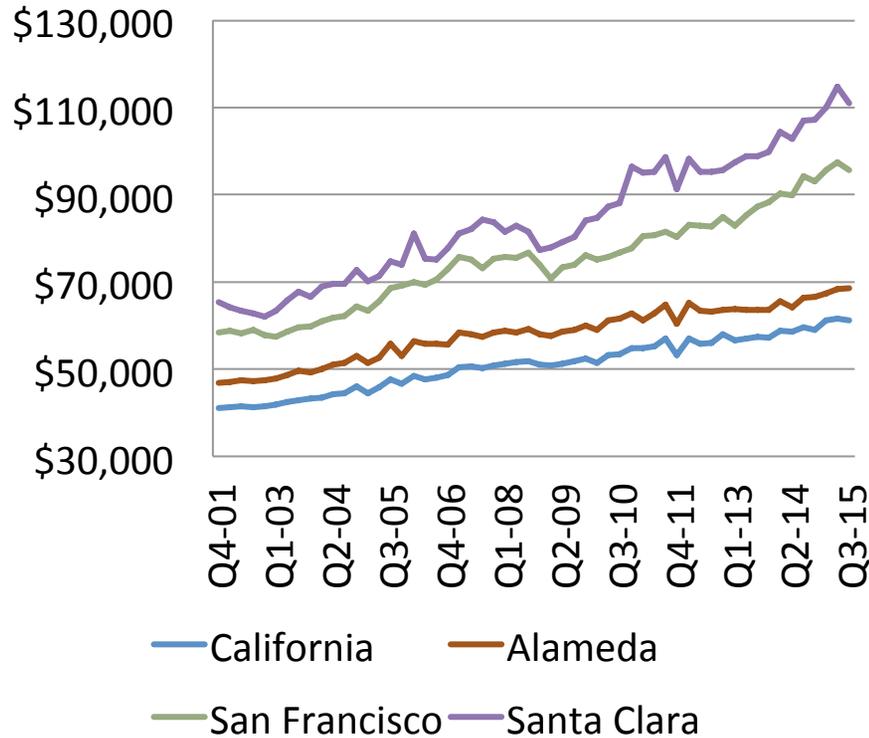


Hay Exports (Tons)



Income Growth

Avg Annual Income



Weekly Pay

Industry	2005	2015	Ch.
Information	\$1,558	\$2,703	73.5%
Financial activities	\$1,365	\$1,809	32.5%
Manufacturing	\$1,128	\$1,576	39.7%
Professional	\$1,017	\$1,564	53.7%
Total, all industries	\$949	\$1,227	29.3%
Construction	\$849	\$1,148	35.2%
Total, all industries	\$855	\$1,145	33.9%
Trade, transportation	\$738	\$930	26.0%
Education and health	\$795	\$904	13.7%
Other services	\$450	\$685	52.2%
Natural resources	\$474	\$682	44.1%
Leisure and hospitality	\$382	\$483	26.6%

The Minimum Wage ~~Debate~~ Debacle

- **The Working Poor Problem**
 - Great Recession, tax policies, technological change
 - California is worse because of housing, immigration
- **The reality: minimum wages don't help**
 - Only \$1 out of \$4 in increased payroll costs go to needy households
 - Small employment effects but mainly hit most at risk workers
 - Increase in costs hits those on fixed incomes
- **There are better ways to handle**
 - Modest state level rules with explicit exemptions / regional variances
 - Better yet- EITC, Pre-K, housing supports—but these cost money

	Median Rent Paid	Median Full-Time Hourly Earnings
Santa Clara	\$1,787	\$34.40
San Francisco	\$1,587	\$34.10
San Mateo	\$1,793	\$29.70
Contra Costa	\$1,443	\$29.50
Alameda	\$1,391	\$27.30
Orange	\$1,572	\$23.60
San Diego	\$1,373	\$23.30
Sonoma	\$1,374	\$23.20
Sacramento	\$1,017	\$20.10
Los Angeles	\$1,239	\$19.00
San Bernardino	\$1,125	\$18.90
Riverside	\$1,196	\$18.60
Santa Barbara	\$1,395	\$18.40
Kern	\$870	\$17.20
Monterey	\$1,233	\$15.60
Fresno	\$891	\$15.60
Tulare	\$829	\$15.10

Quiz Time

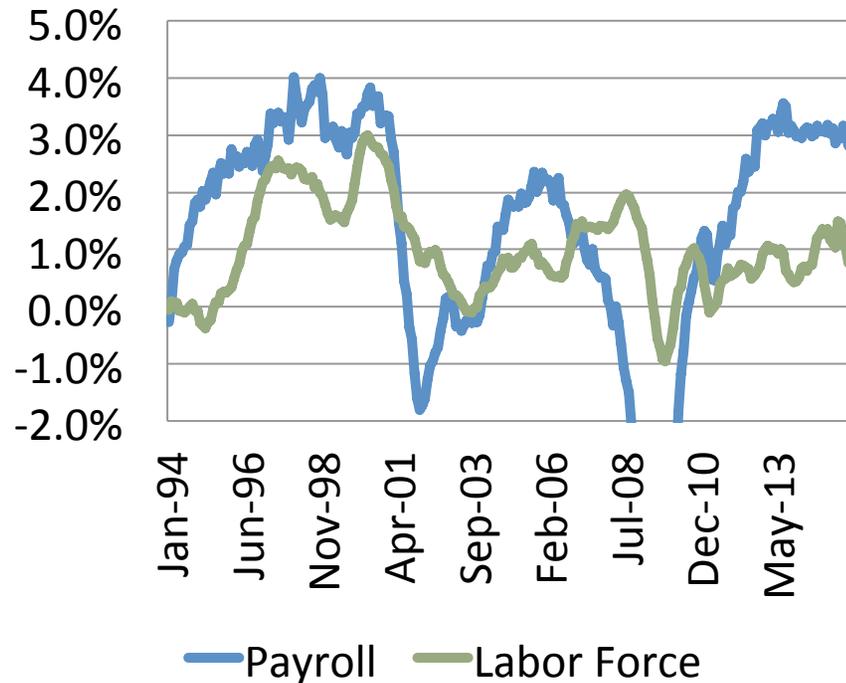
Match the payroll employment growth rate (letters)
(1995-2015) to the California region (numbers)

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

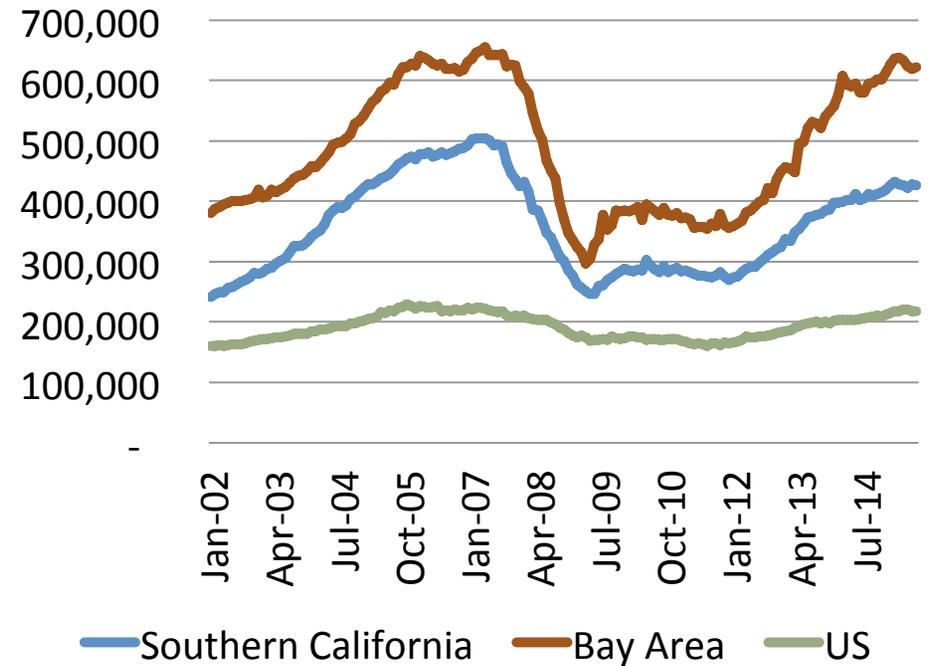
1	Bay Area
2	Central Coast
3	Greater Los Angeles
4	Greater Sacramento
5	So Central Valley

Homes and Workers

Workforce Trends

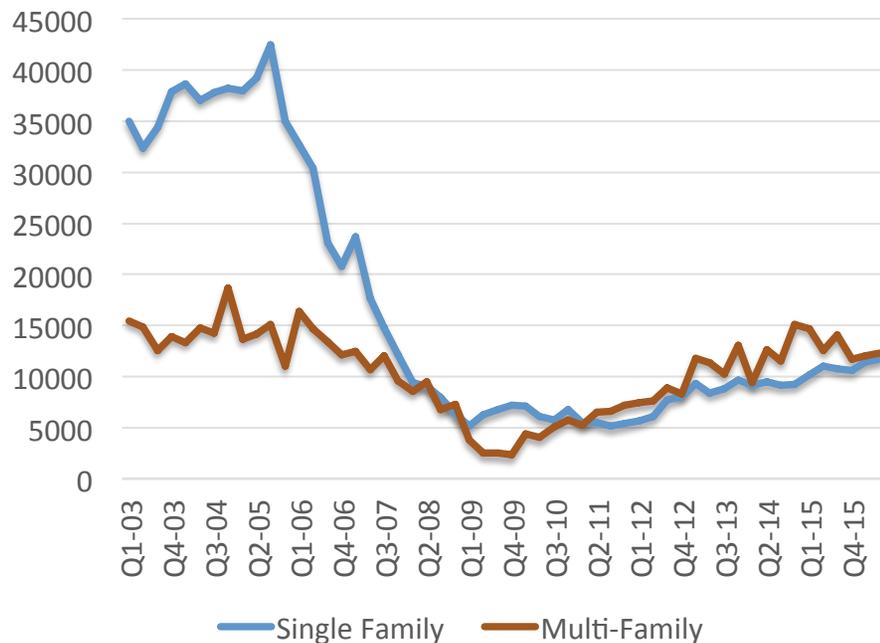


Median Home Prices



State Housing

State Residential Permits (Units)



New Pop / Permits

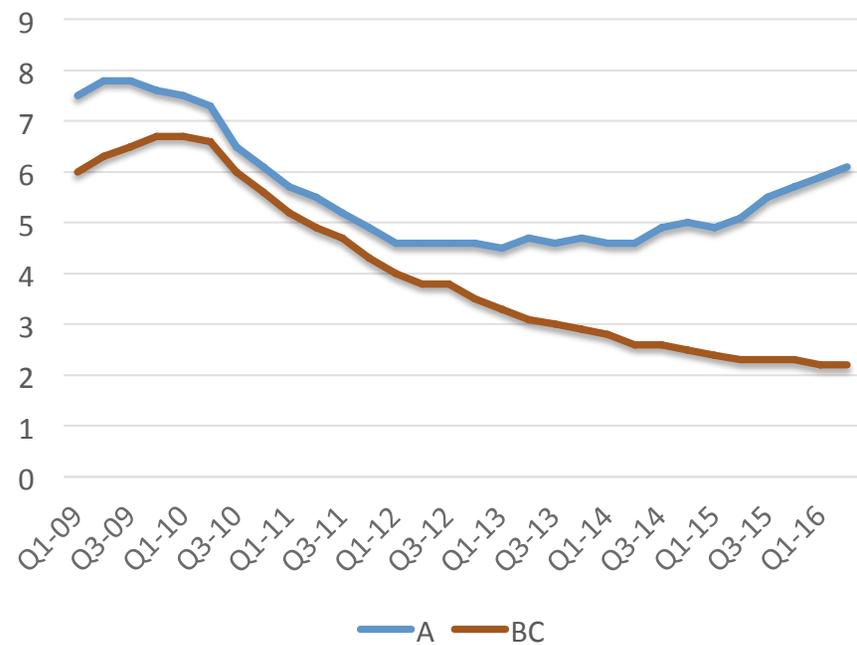
California	4.1	Tulare	4.0
Ventura	6.8	Los Angeles	4.0
Contra Costa	6.6	Fresno	4.0
Sonoma	6.1	San Mateo	3.4
Alameda	5.9	Kern	3.0
Santa Barbara	5.3	Santa Clara	3.0
San Bernardino	5.0	Orange	2.8
Solano	4.6	Placer	2.1
Riverside	4.5	San Francisco	2.1
San Diego	4.2	Sacramento	0.7

Apartments

Share Renters with > 30% of Income on Rent

	2010	2014
Los Angeles	59.2%	60.1%
Riverside	62.7%	59.8%
Santa Barbara	56.7%	58.4%
Fresno	57.0%	58.3%
Orange	58.3%	58.0%
San Diego	58.8%	56.7%
Sacramento	58.7%	54.5%
Alameda	53.7%	51.4%
Santa Clara	47.7%	49.2%
San Francisco	46.2%	42.5%

California Apartment Vacancies



Why the Shortage?

CEQA Prop-13

Total Domestic Net Migration by Income 08-13

Under \$25,000	-192,061		Texas
\$25,000 to \$50,000	-58,600	Under \$25,000	-40070
\$50,000 to \$99,999	18,955	\$25,000 to \$50,000	-23741
Over \$100,000	2,619	\$50,000 to \$99,999	-3433
Total	-229,087	Over \$100,000	599

Cooperation is the Key

		City 1	
		Restrict Housing	Build Housing
City 2	Restrict Housing	2,2	10,0
	Build Housing	0,10	8,8

Problems

Land use restrictions / Zoning

Regulatory costs, both in dollars and time, at the state and local levels

Bureaucracies have no incentive to be creative

CEQA/Local interpretations of code

Local resistance to residential/NIMBYism

Current Issues

Rent Control

Use of Ballot for Development

Density Bonuses Being Shrunk

Controls on Variances

In Summary

What not to worry about.

- The US Dollar
- Asset Bubbles
- Drought
- Labor Markets
- California Business
- Taxes
- California Tax Levels
- Politics

What to worry about.

- China
- Bad financial regulation
- Water Policy
- Growing Wealth Inequality
- California Housing
- Lack of public investment
- California Tax Structure
- A lack of engagement



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