BEACON ECONOMICS

Analysis. Answers

The Economic Outlook

Focus on California

March 2016

Christopher Thornberg

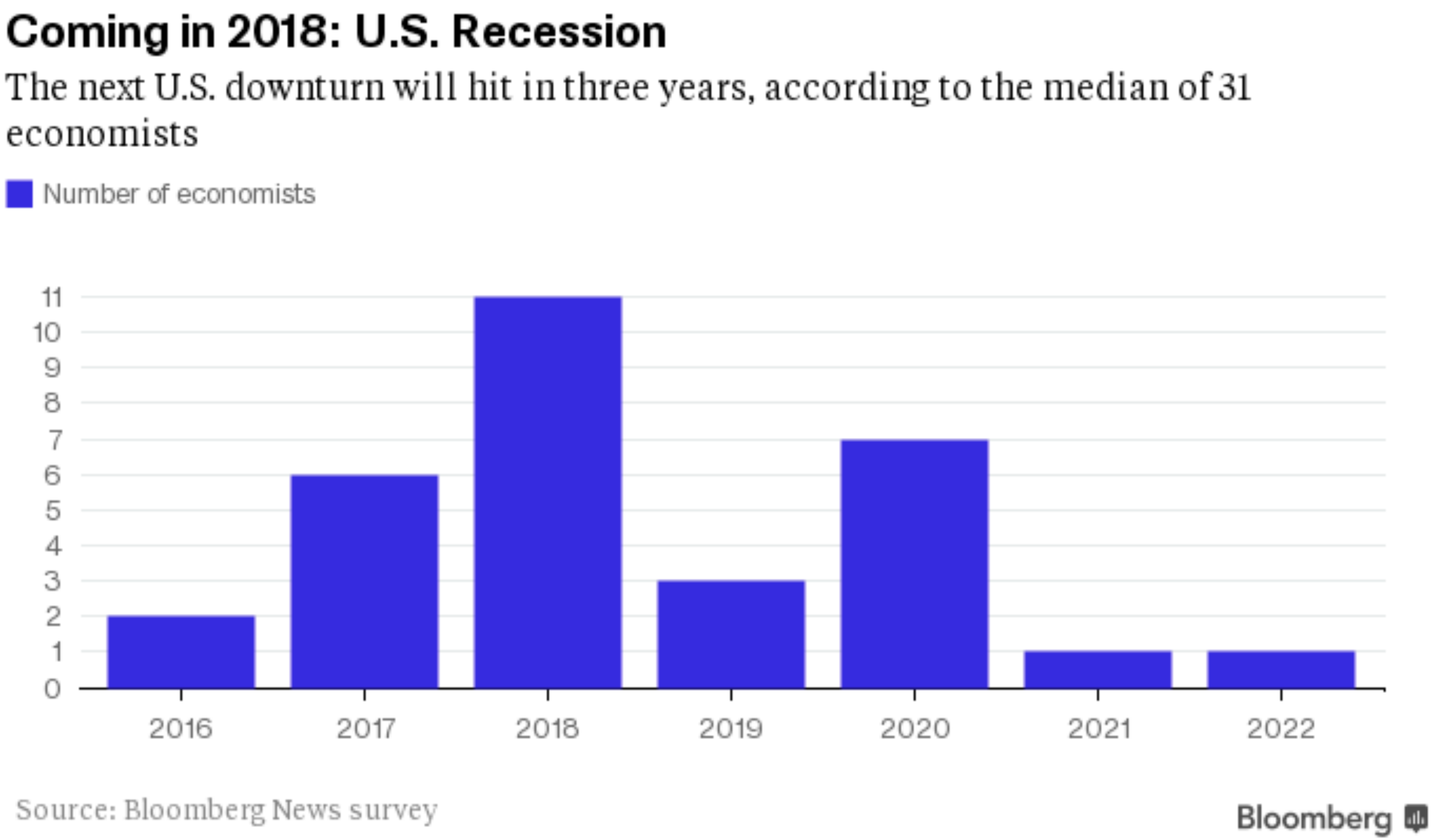
Founding Partner, Beacon Economics

CALIFORNIA SOCIETY of MUNICIPAL FINANCE OFFICERS

CSMFO

Word of the Day

The Wrong Question



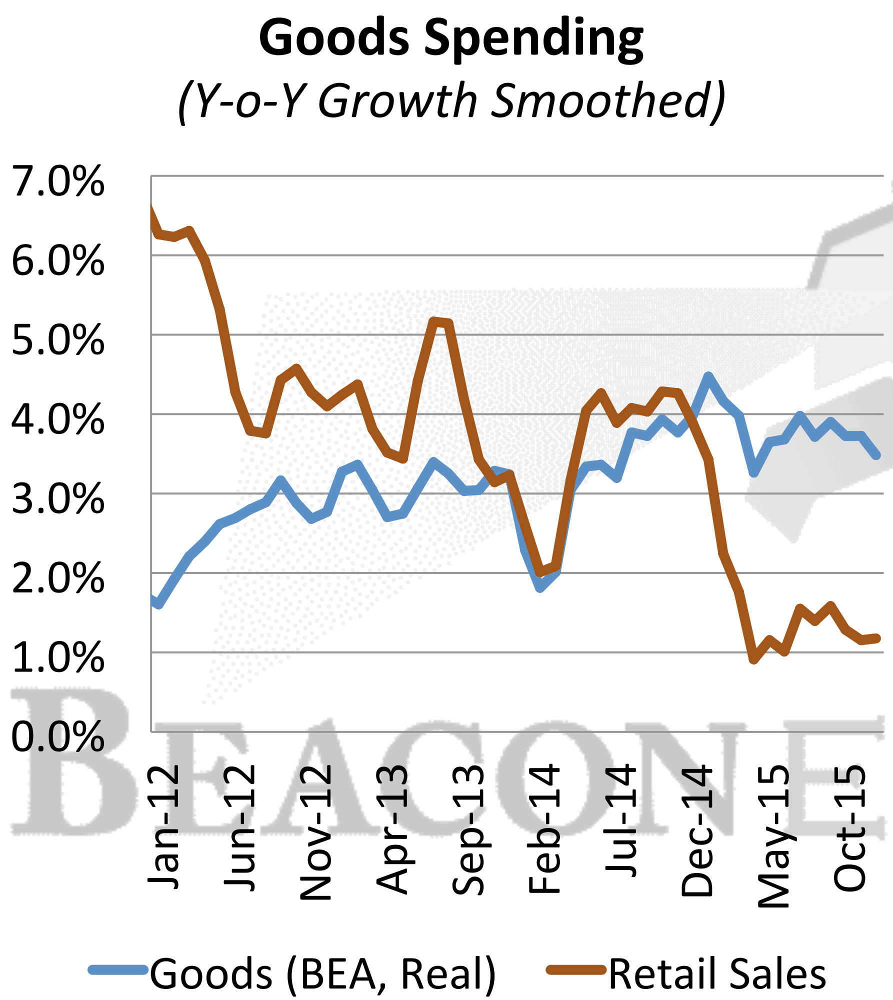
The Right Answer

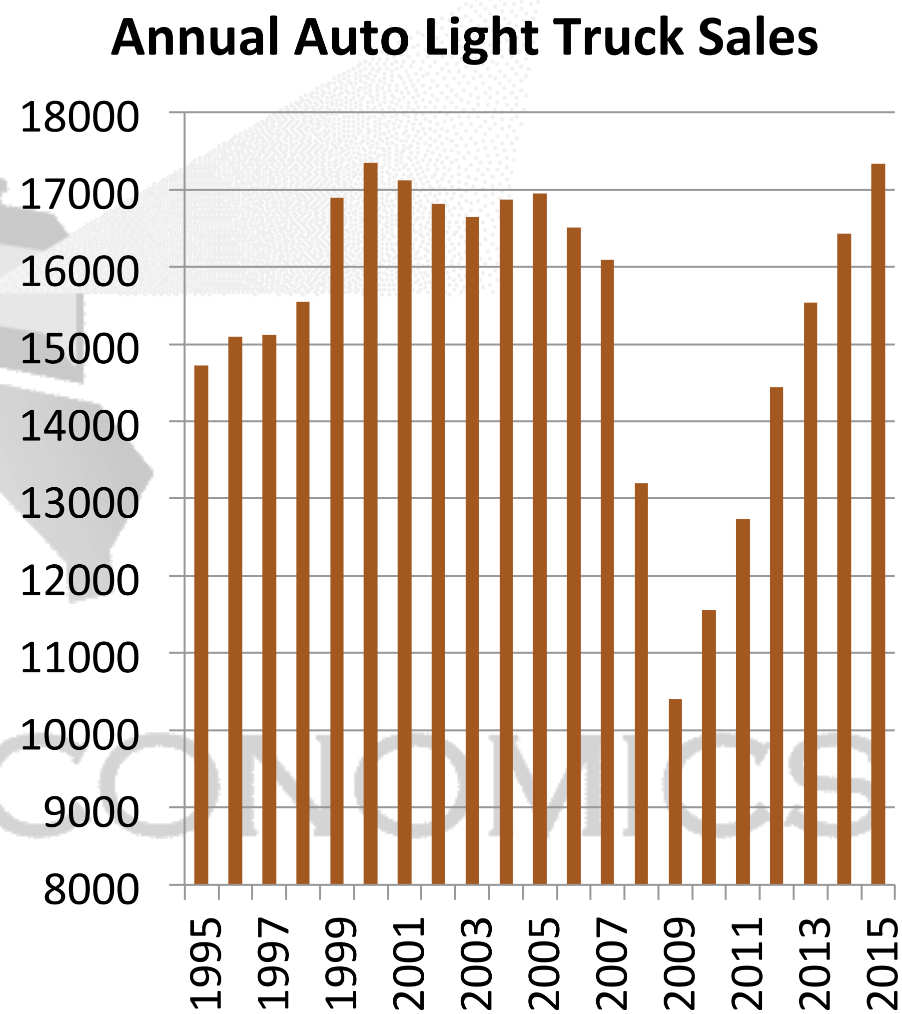
- US Economy Still Moving Along
  - 2015: Better than it looked
  - Labor markets strong
  - Forget the turmoil: there is no bubble
  - Housing still in recovery mode
  - Credit expanding on many levels
  - Commodity prices are down
  - California is leading, not lagging the nation
- Issues? Sure…
  - Still in slow growth mode
  - Local Housing issues
  - State and Local Budgets still stressed
  - Global economy—particularly Asia
  - Bad Financial Regulations
  - Pensions / Entitlements
  - Growing Inequality / Political Gridlock

2015: Better that it looks

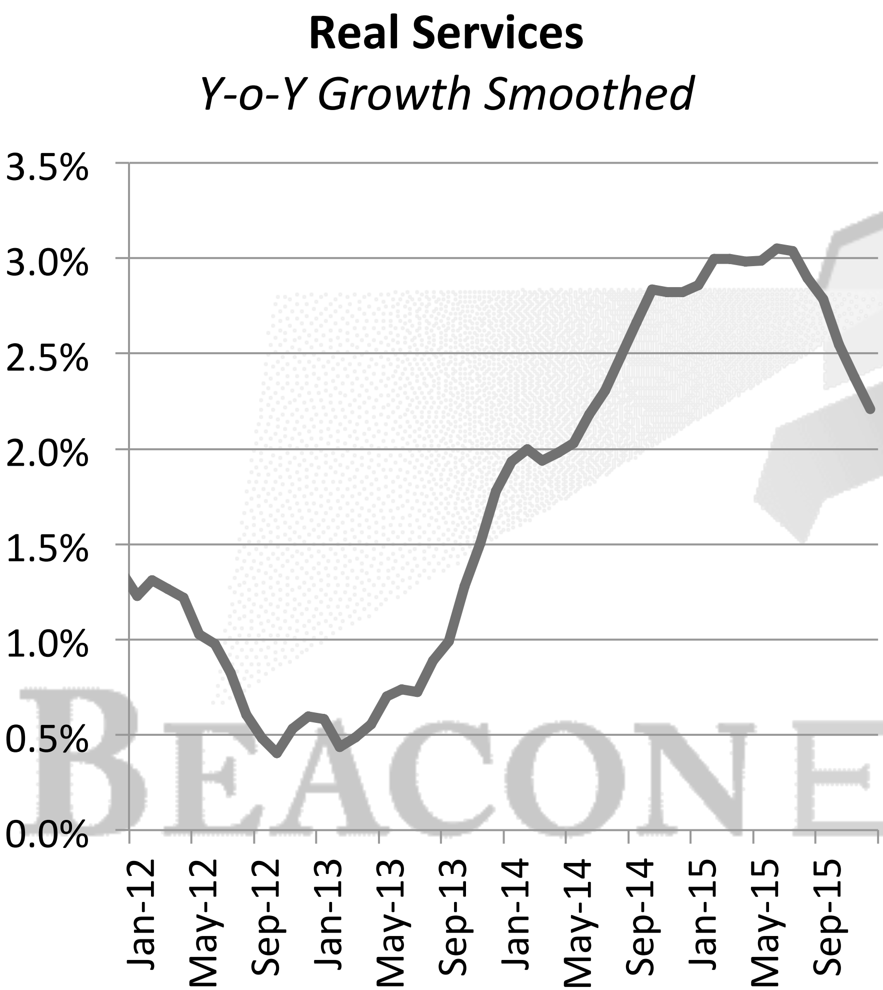
	2015						
	I	II	III	IV	2013	2014	2015
GDP	0.60	3.90	2.00	0.70	2.45	2.53	1.80
Final Demand	1.65	3.70	2.97	1.62	1.64	3.11	2.49
Consumption	1.19	2.42	2.04	1.46	1.56	2.16	1.78
Durable goods	0.14	0.57	0.47	0.32	0.34	0.53	0.38
Nondurable goods	0.10	0.62	0.61	0.22	0.41	0.36	0.39
Services	0.94	1.23	0.96	0.93	0.82	1.27	1.02
Investment	1.39	0.85	-0.11	-0.41	1.15	0.80	0.43
Structures	-0.22	0.18	-0.21	-0.15	0.18	0.14	-0.10
Equipment	0.14	0.03	0.57	-0.15	0.23	0.30	0.15
Intellectual	0.29	0.33	-0.03	0.07	0.13	0.25	0.17
Residential	0.32	0.30	0.27	0.27	0.11	0.16	0.29
Inventories	0.87	0.02	-0.71	-0.45	0.52	-0.05	-0.07
Trade	-1.92	0.18	-0.26	-0.47	0.29	-0.53	-0.62
Exports	-0.81	0.64	0.09	-0.31	0.68	0.32	-0.10
Imports	-1.12	-0.46	-0.35	-0.16	-0.39	-0.85	-0.52
Government	-0.01	0.46	0.32	0.12	-0.55	0.07	0.22
Federal	0.08	0.00	0.02	0.18	-0.53	-0.05	0.07
State and local	-0.09	0.46	0.30	-0.06	-0.02	0.12	0.15

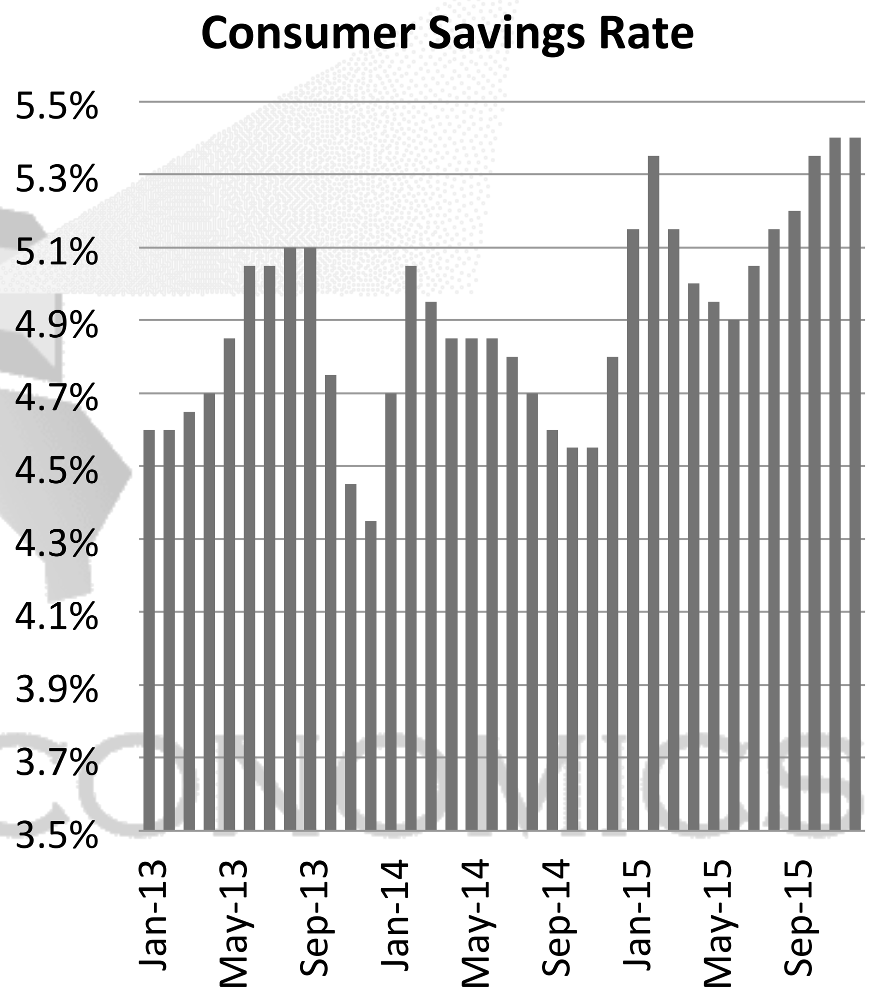
Consumer Spending



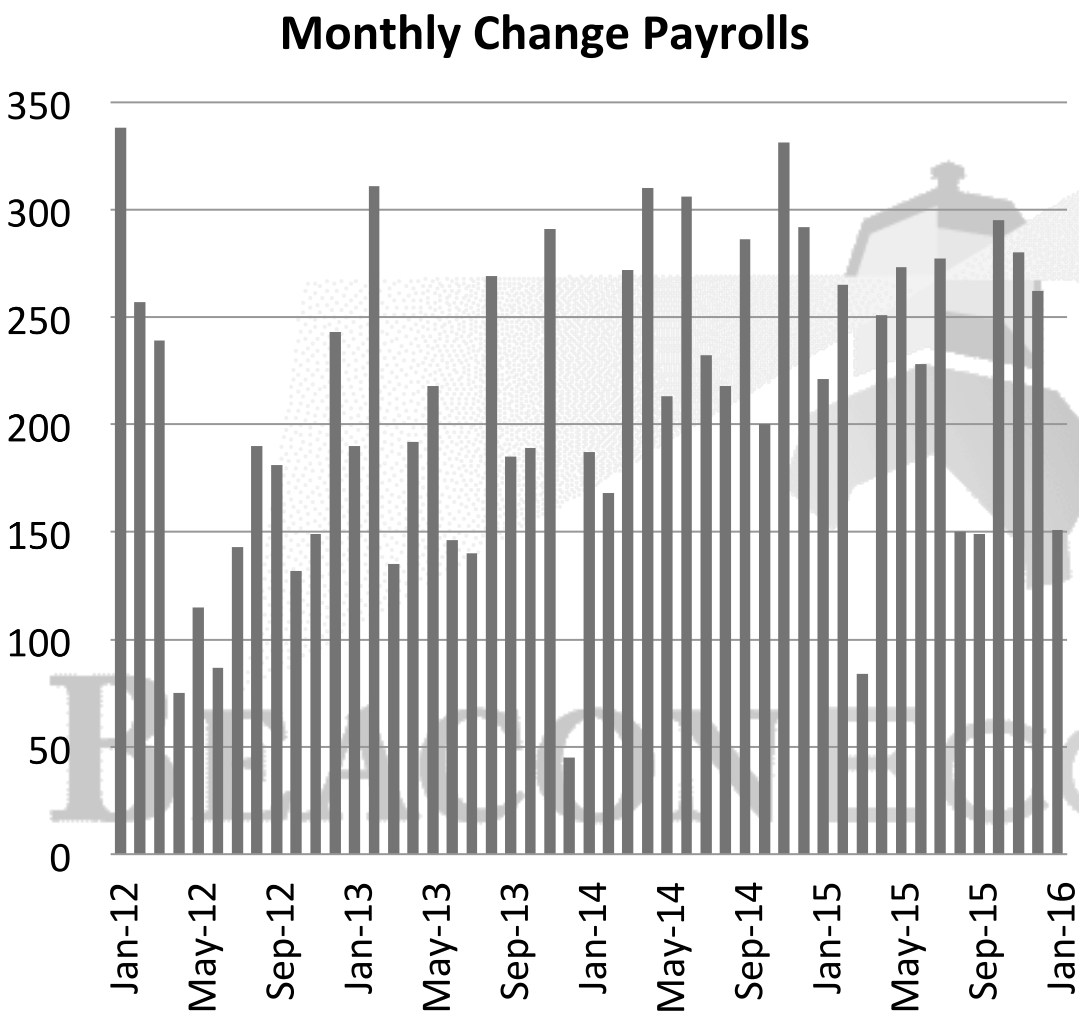


Services and the Weather





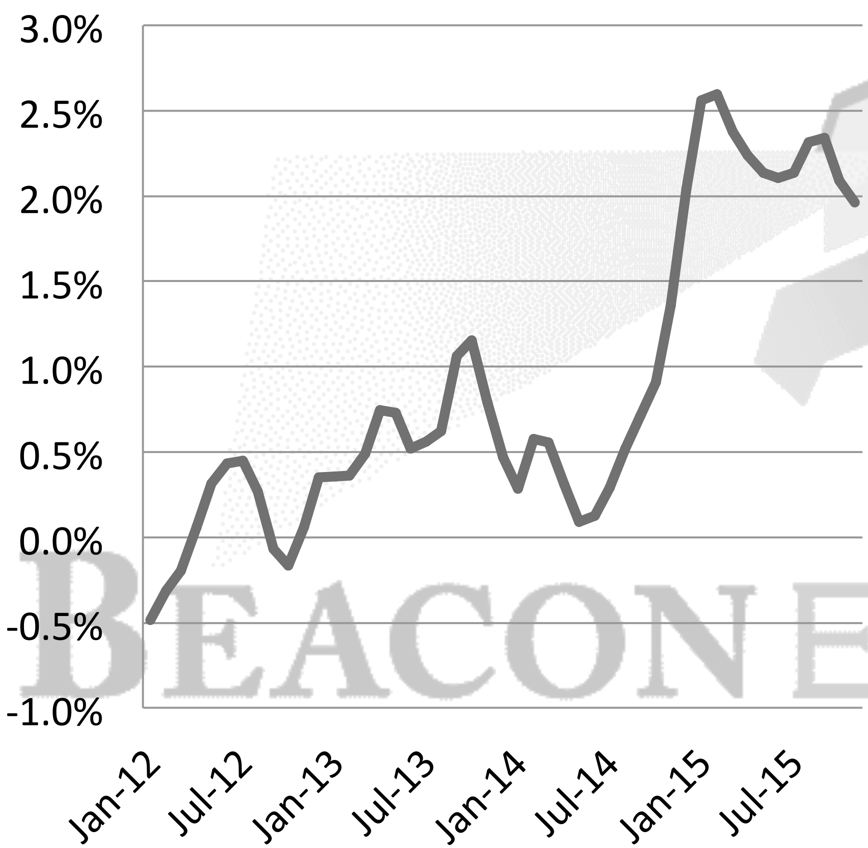
Employment Growth



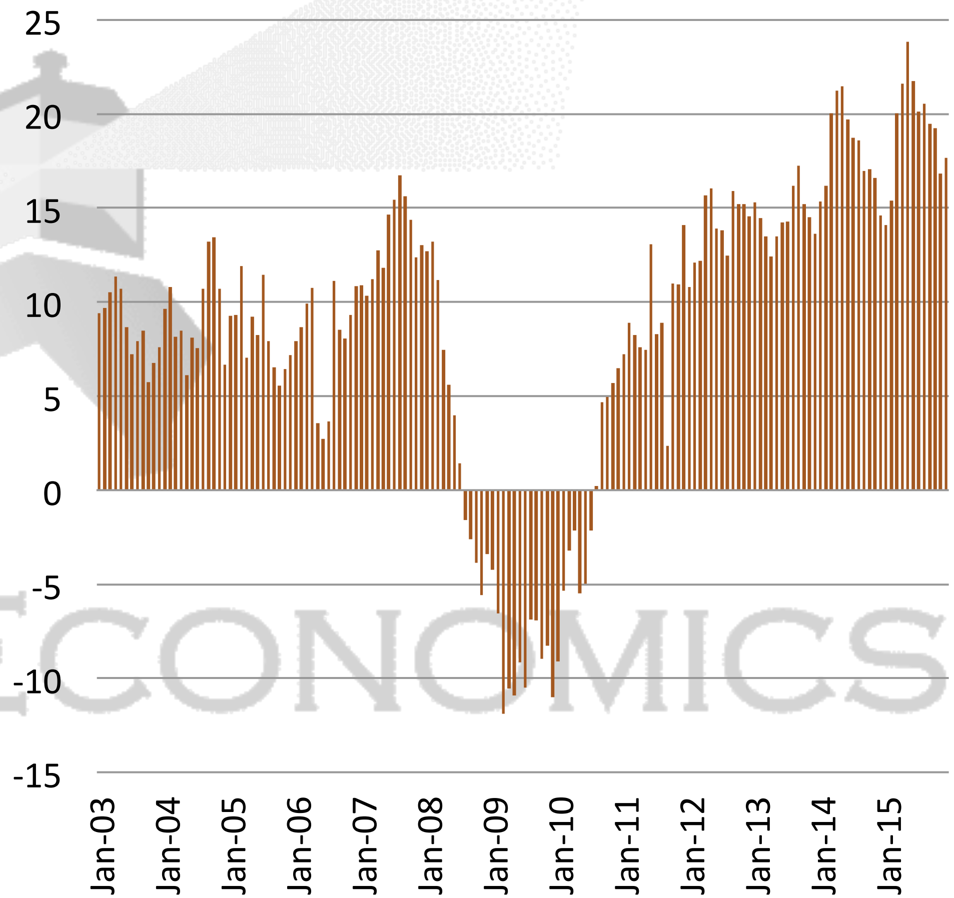
By Sector	Jan 2016	Ch	%
Total nonfarm	141,123	2,612	1.9%
Construction	6,218	265	4.5%
Professional	8,782	301	3.6%
Health care	18,874	611	3.3%
Administrative	8,631	260	3.1%
Leisure	14,670	436	3.1%
Management	2,243	62	2.8%
Retail trade	15,717	302	2.0%
Financial	8,157	149	1.9%
Logistics	4,845	72	1.5%
Other	5,589	57	1.0%
Wholesale trade	5,862	59	1.0%
Information	2,727	24	0.9%
Educational	3,356	18	0.5%
Manufacturing	12,254	51	0.4%
Government	21,893	70	0.3%
Mining	743	(134)	-15.3%

Consumer Savings and Incomes

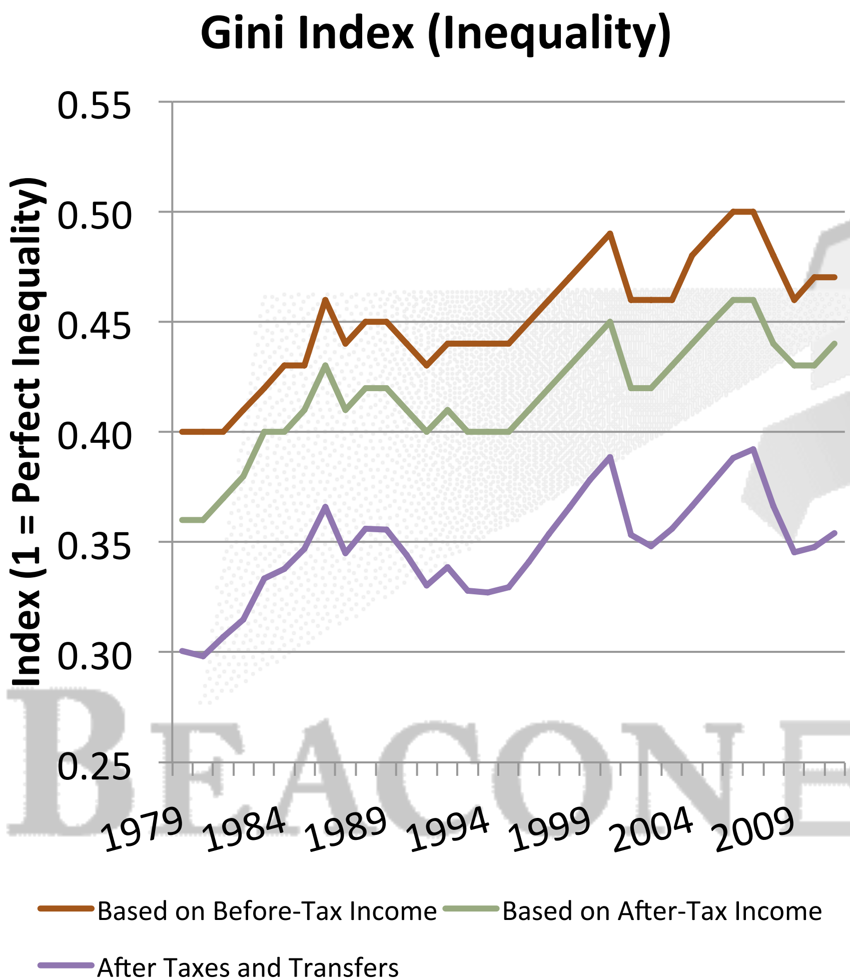
Y-o-Y Growth Average Weekly Earnings

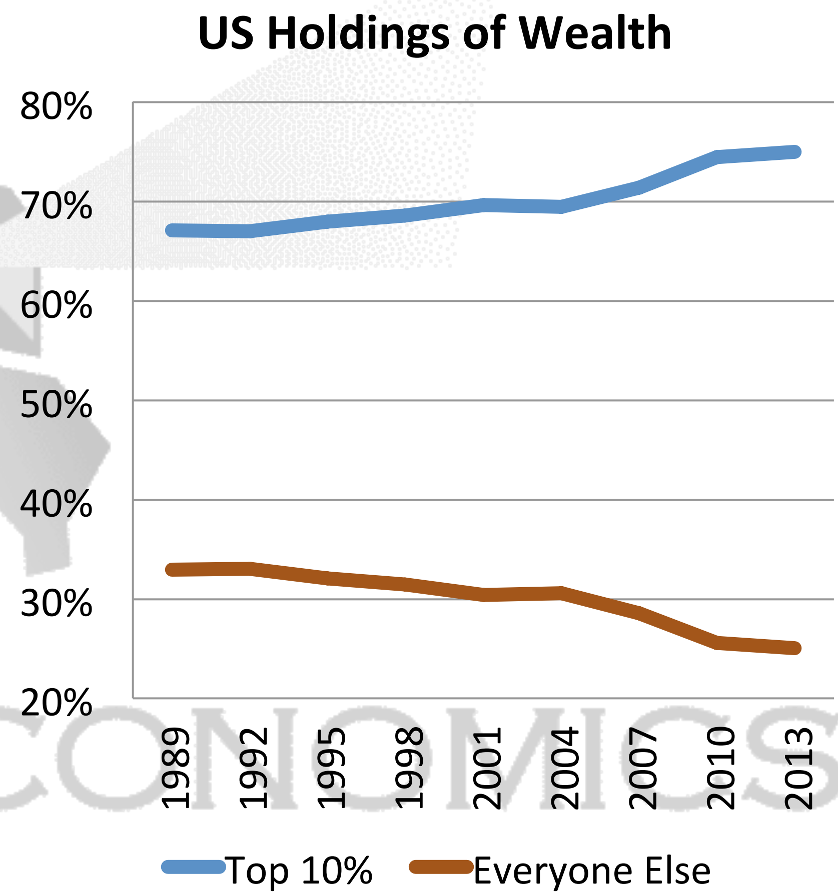


Monthly Change in Credit to December ($Billions, Smoothed)



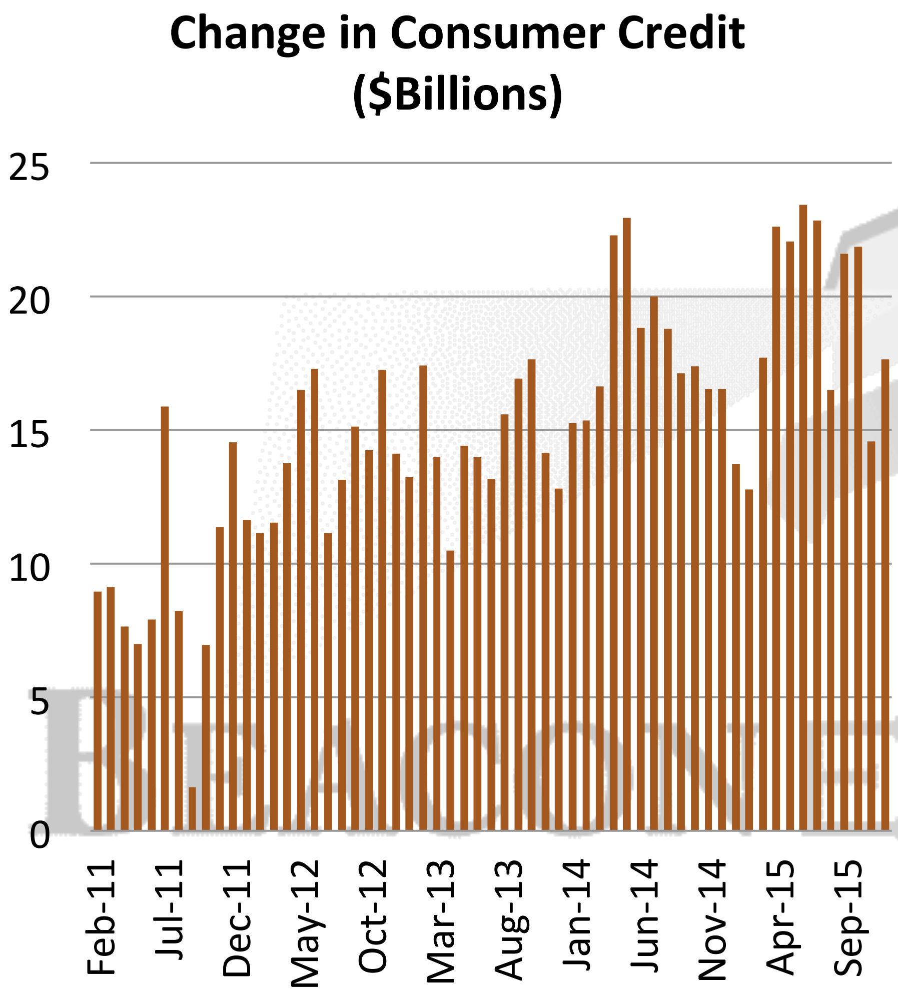
Growing Inequality

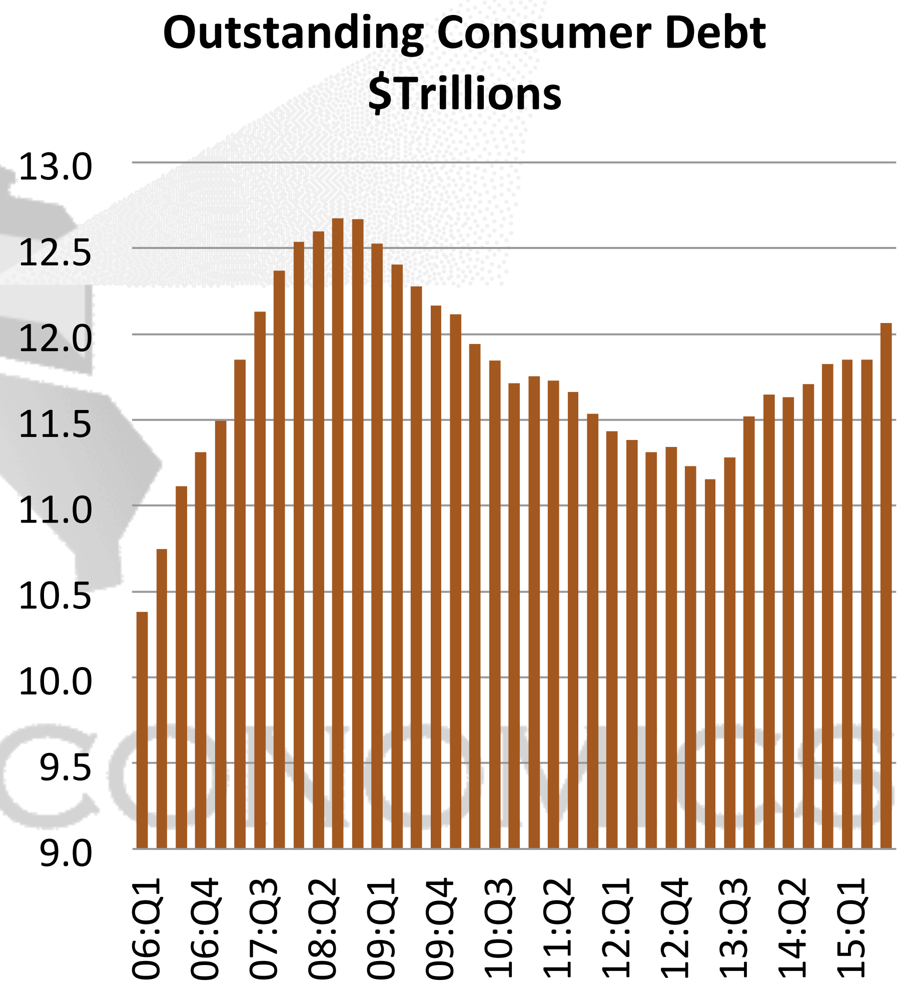




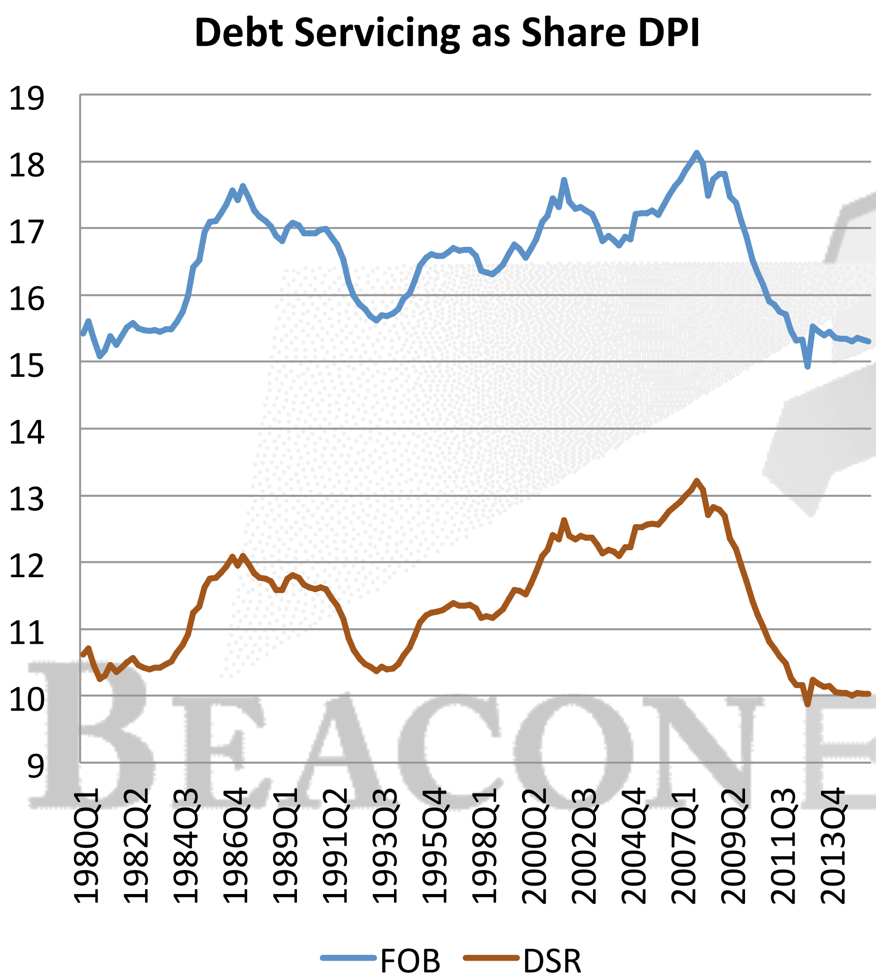
Top 1% own 40% to 50% of all wealth in the world

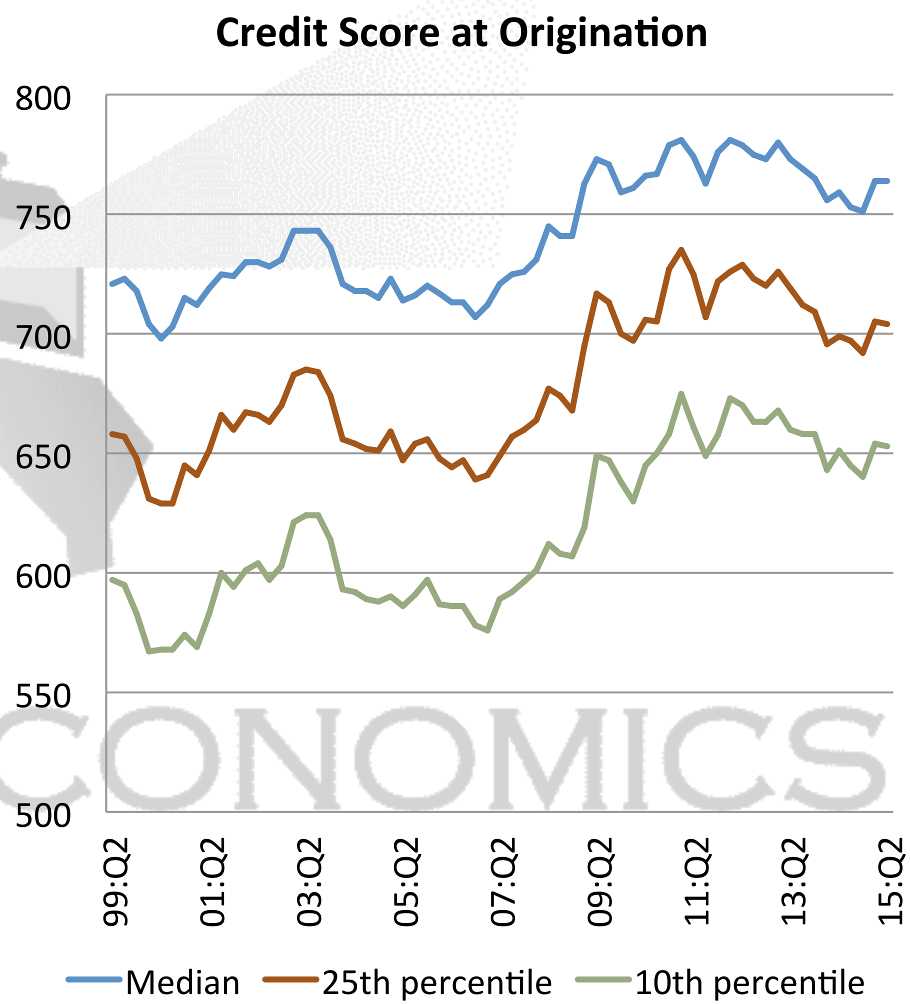
Consumer Credit



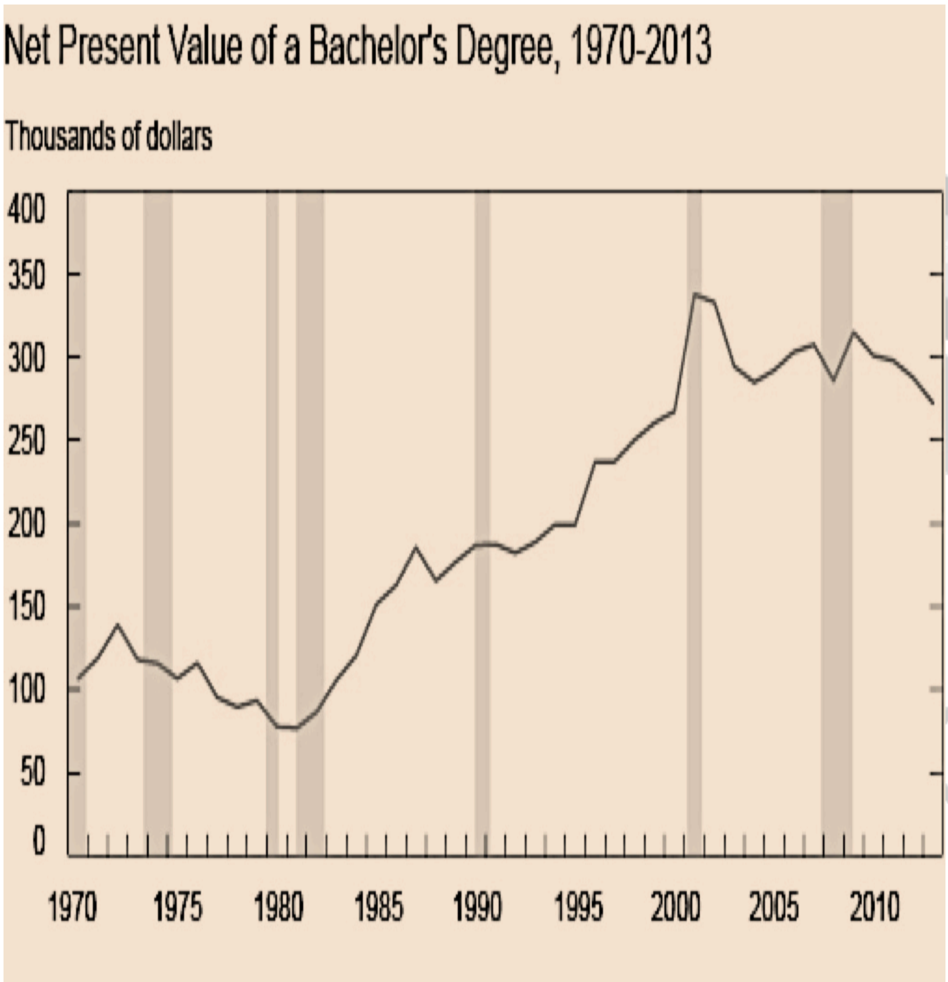


Consumer Credit





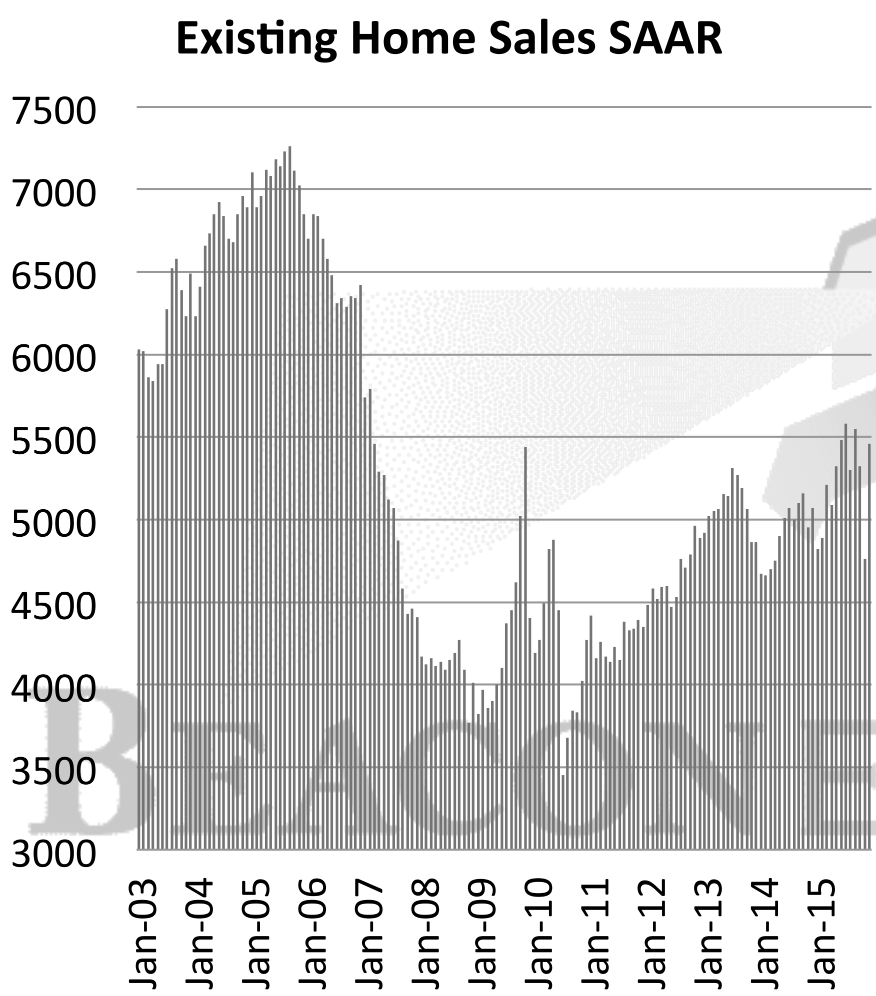
Degrees Among 21-27 with Bachelor

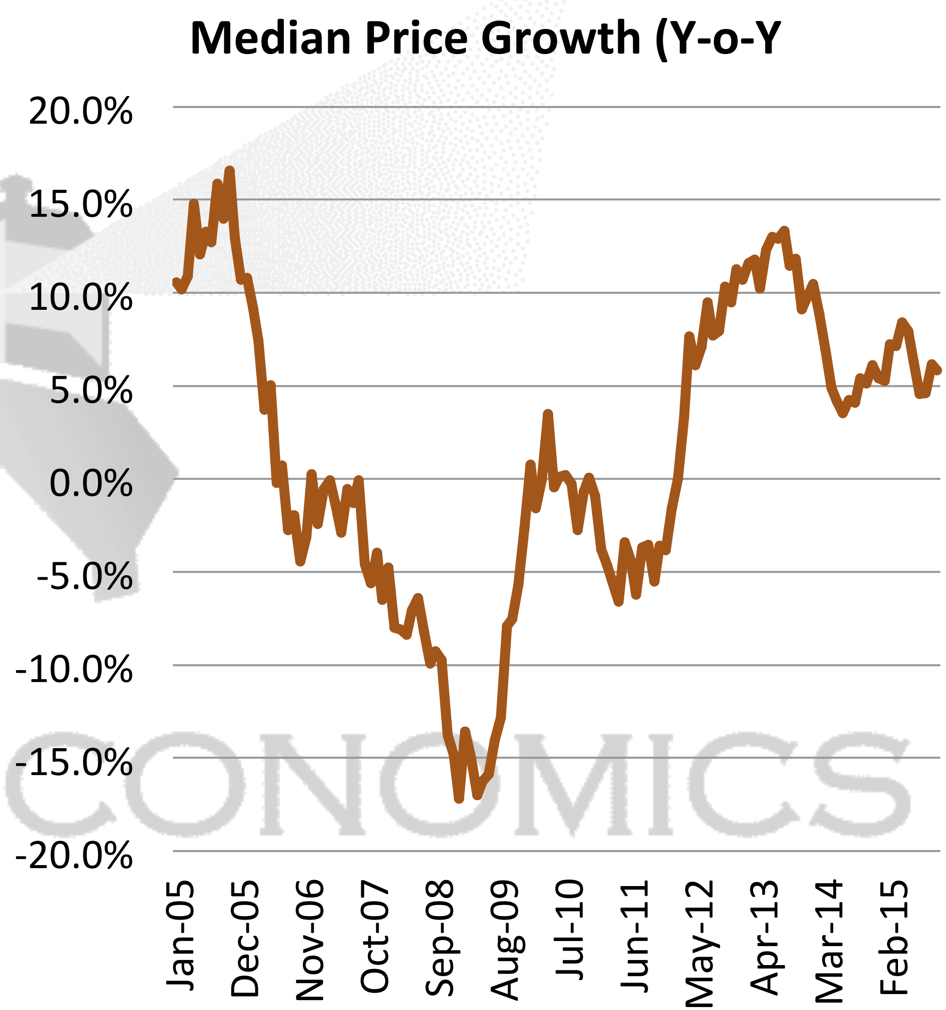


Annual Income	
PETROLEUM ENGINEERING	55,103
COMPUTER ENGINEERING	50,542
CHEMICAL ENGINEERING	48,668
COMPUTER SCIENCE	46,060
AEROSPACE ENGINEERING	44,651
INDUSTRIAL AND ORGANIZATI	43,804
MECHANICAL ENGINEERING	43,495
ELECTRICAL ENGINEERING	42,238
MATHEMATICS AND COMPUTER	41,640
PHARMACY PHARMACEUTICAL 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**

Housing Markets



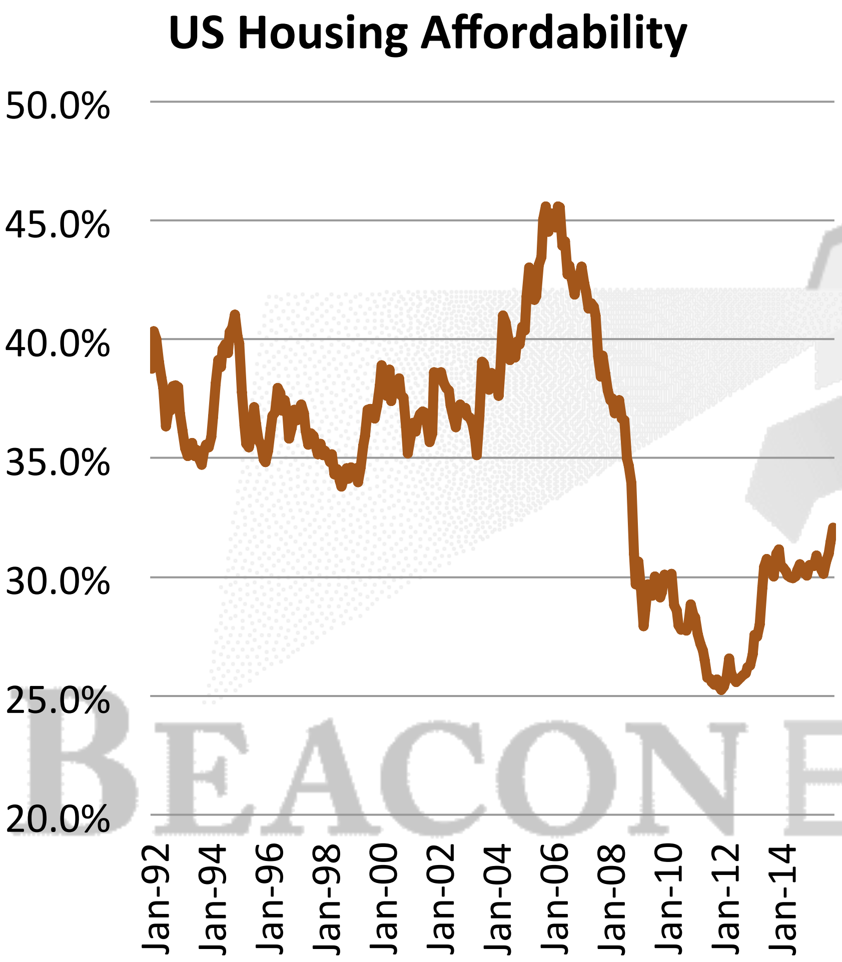


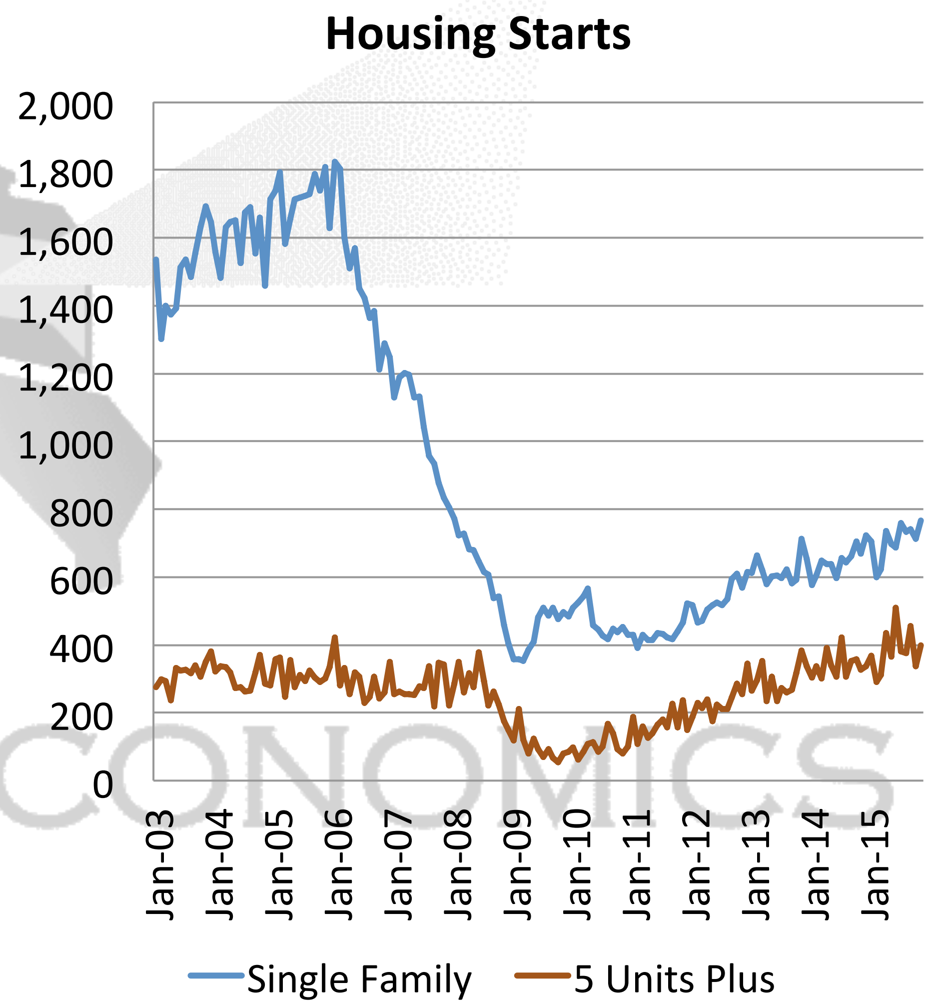
Case-Shiller Regional Price Trends

	13-14	14-15	*Diff*
OR-Portland	6.2%	11.0%	*4.8%*
CA-San Francisco	9.5%	10.9%	*1.5%*
CO-Denver	7.1%	10.9%	*3.7%*
TX-Dallas	7.7%	9.3%	*1.6%*
WA-Seattle	6.2%	8.8%	*2.6%*
FL-Miami	9.5%	8.0%	*-1.5%*
FL-Tampa	6.1%	6.4%	*0.3%*
CA-San Diego	4.7%	6.3%	*1.6%*
CA-Los Angeles	4.9%	6.1%	*1.3%*
GA-Atlanta	4.4%	6.1%	*1.6%*
NV-Las Vegas	7.8%	5.8%	*-2.1%*

	13-14	14-15	*Diff*
AZ-Phoenix	2.2%	5.7%	*3.5%*
Composite-20	**4.4%**	**5.6%**	***1.1%***
MI-Detroit	3.6%	5.3%	*1.6%*
MA-Boston	4.3%	5.2%	*0.9%*
National-US	**4.6%**	**5.2%**	***0.5%***
NC-Charlotte	2.7%	4.7%	*2.0%*
MN-Minneapolis	2.1%	4.0%	*2.0%*
NY-New York	1.8%	3.1%	*1.3%*
OH-Cleveland	0.8%	2.2%	*1.5%*
DC-Washington	2.0%	1.7%	*-0.3%*
IL-Chicago	1.8%	1.4%	*-0.4%*

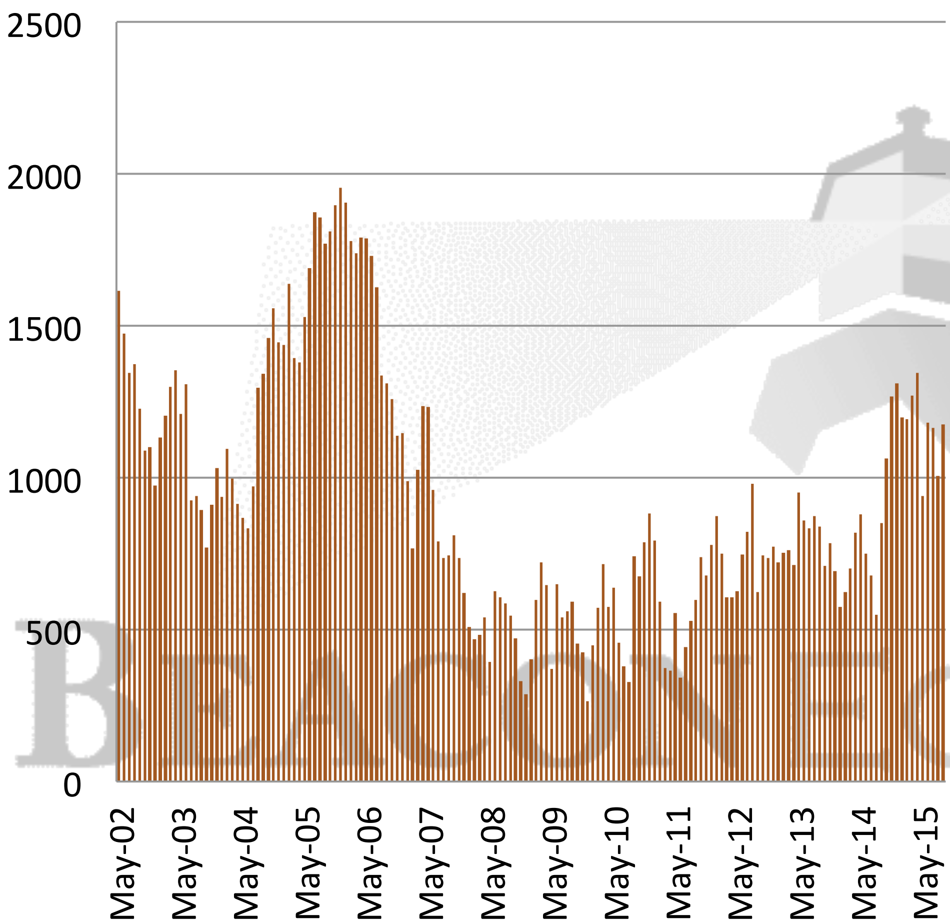
Affordability And Construction



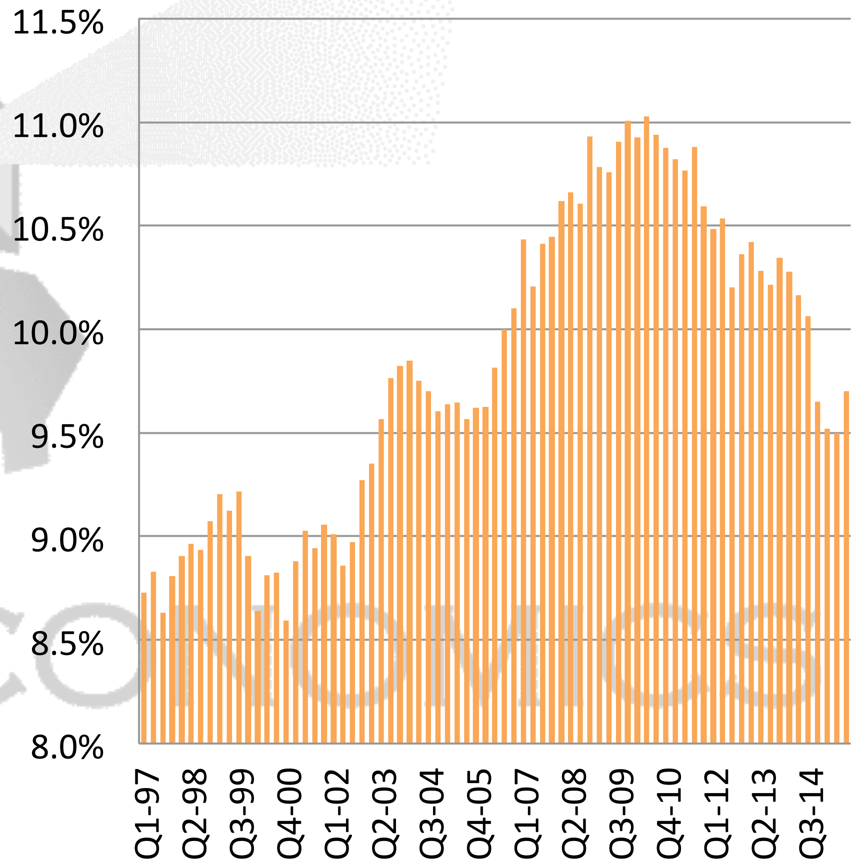


Improved Outlook

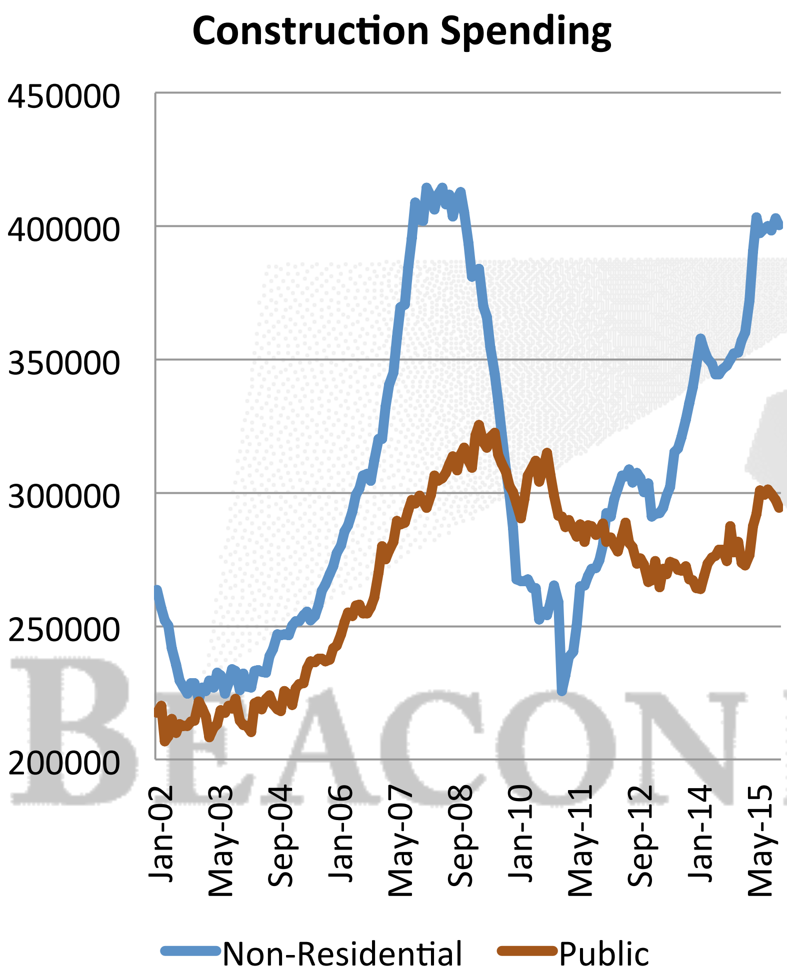
Change in Households (2 year Smoothed)



Year Round Vacant as % of Housing Stock to Q3 (Census HVS)



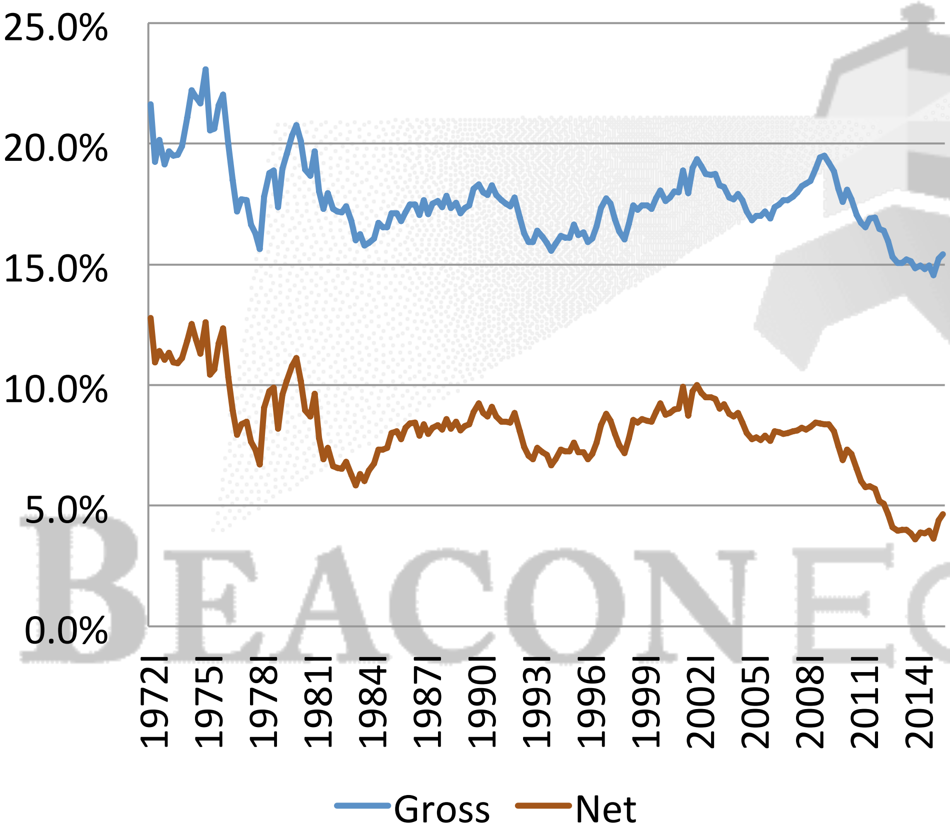
Non Residential Trends



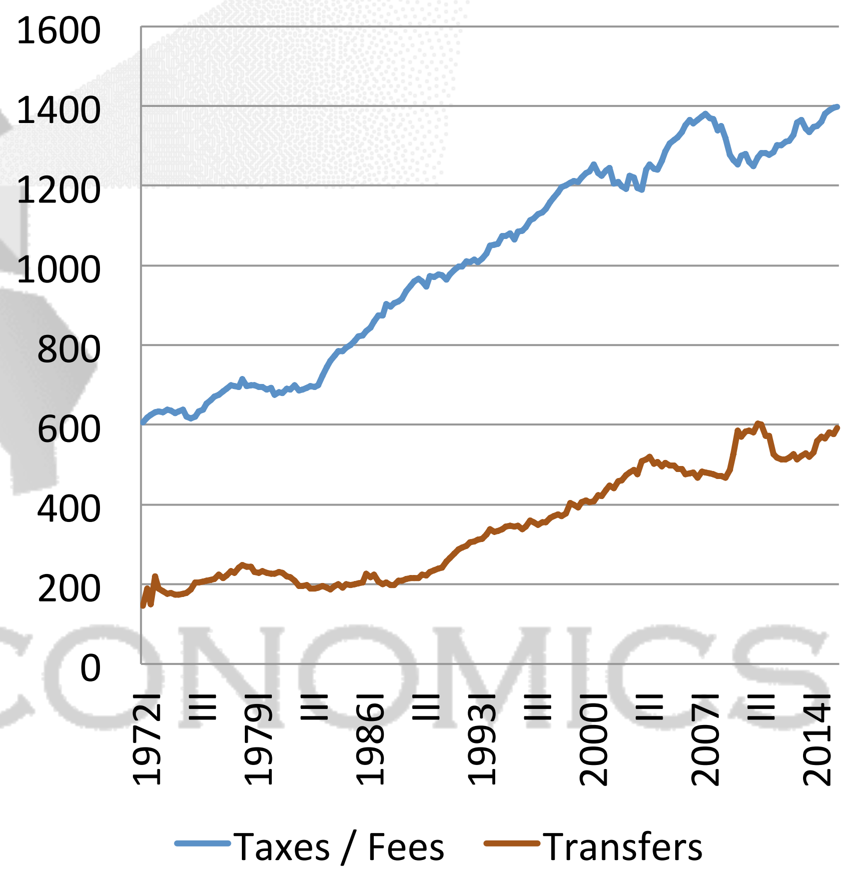
	2013	2014	2015
Lodging	13.0	15.7	20.3
Office	30.1	38.3	47.5
Retail	32.8	37.0	39.3
Warehouse	8.7	13.7	16.3
Medical	29.7	28.6	31.2
Education	16.9	16.7	17.6
Infrastructure	108.1	120.8	109.7
Manufacturing	49.8	57.0	83.5

Public Capital Investments

State & Local Gov. Capital Investments as % Revenues

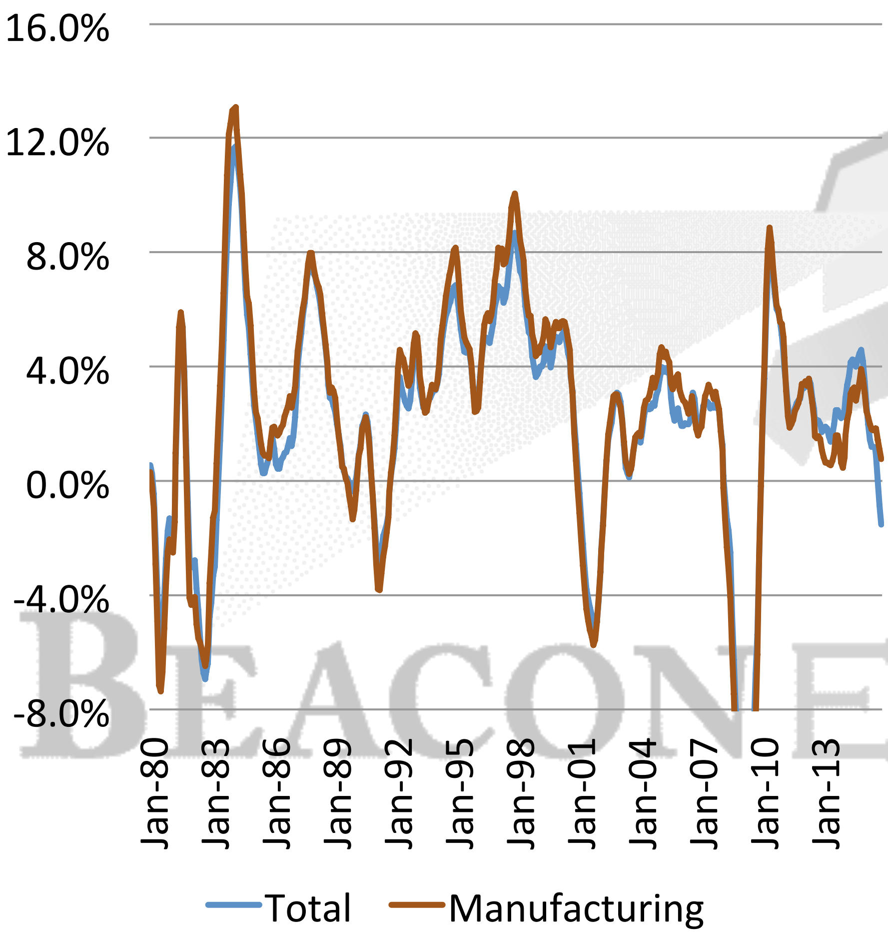


Real Revenues S&L Gov

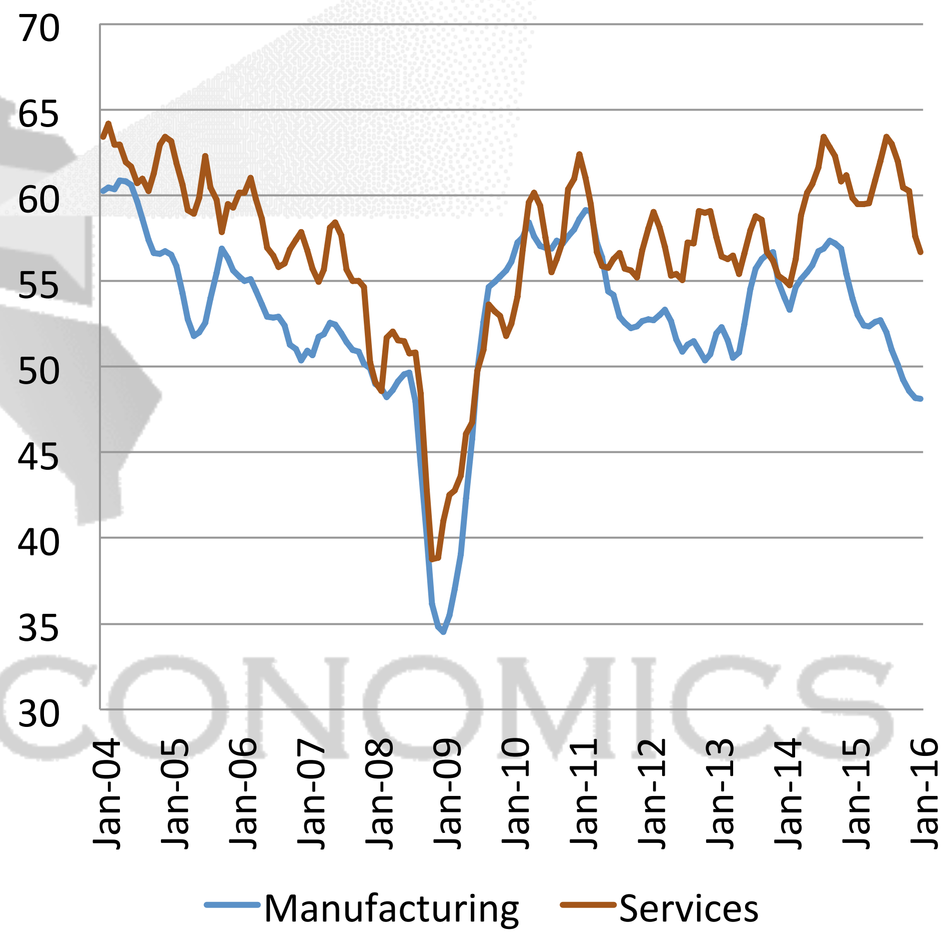


Production

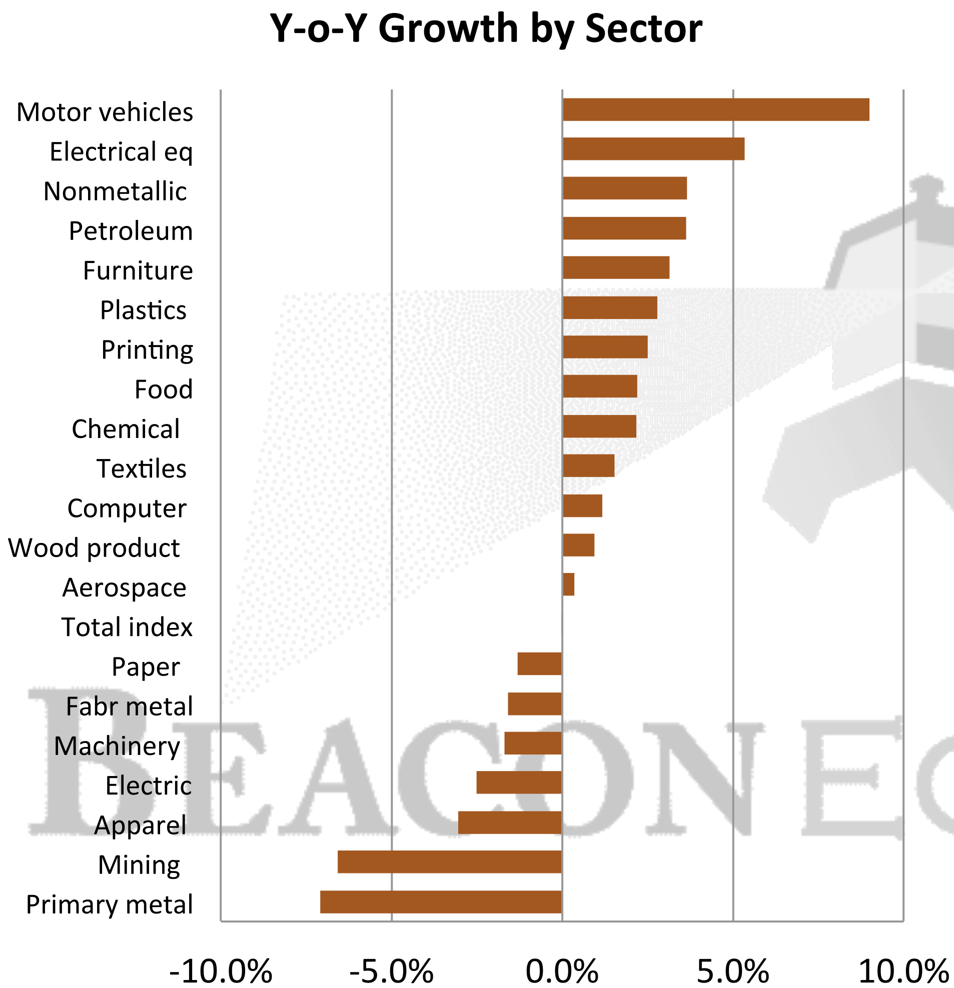
Real Production: Y-o-Y Growth

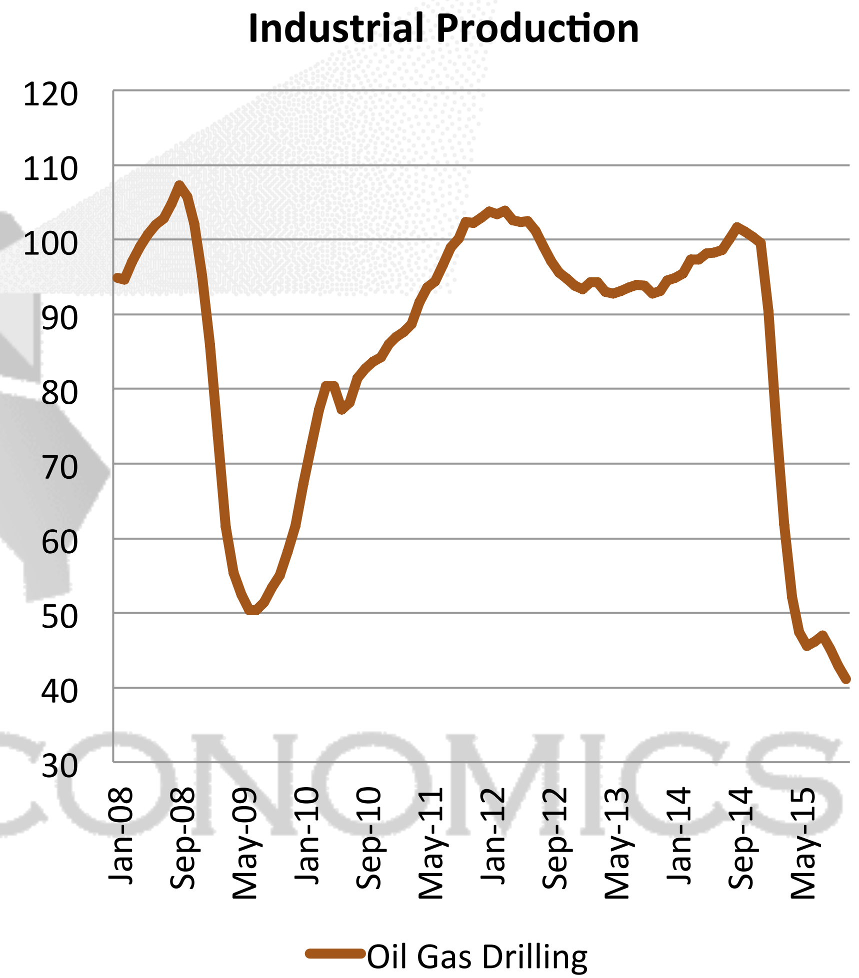


ISM Surveys

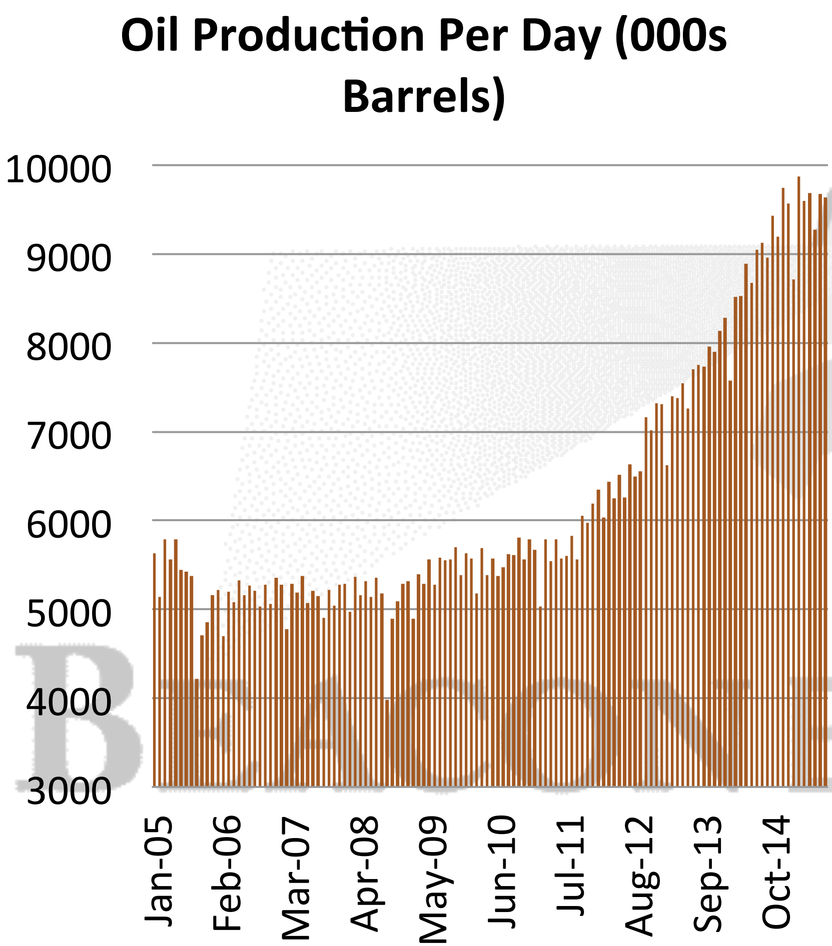


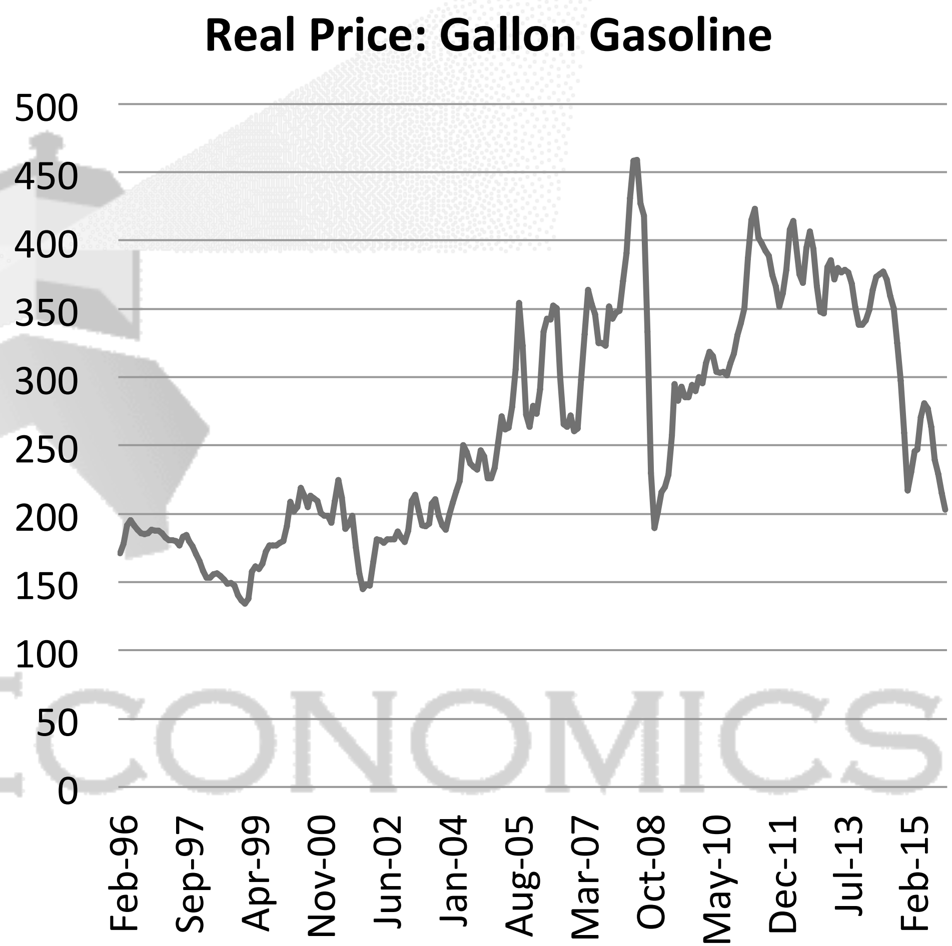
Production Breakdown



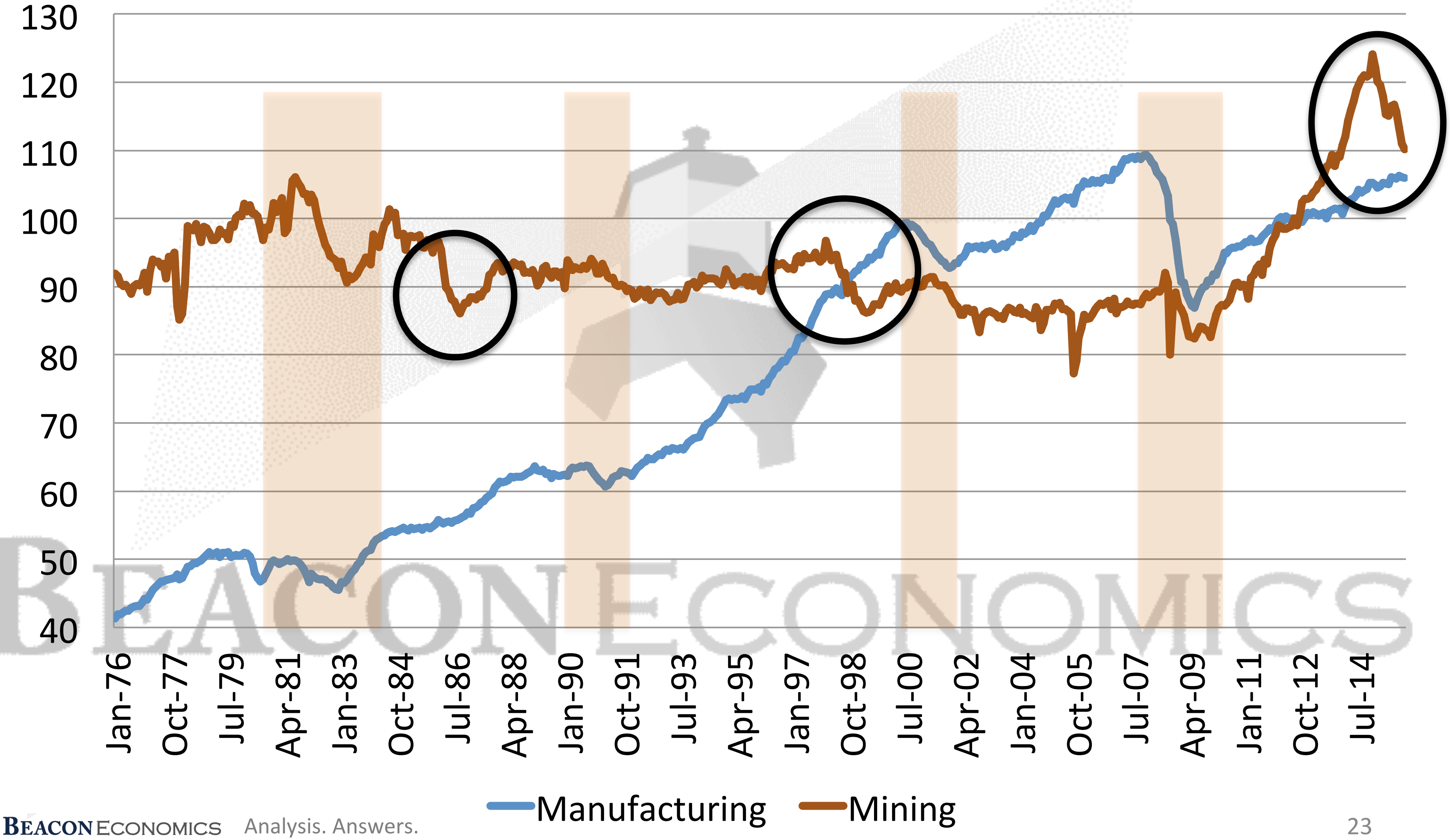


Oil Activity





Mining and Manufacturing: IP



Major Markets

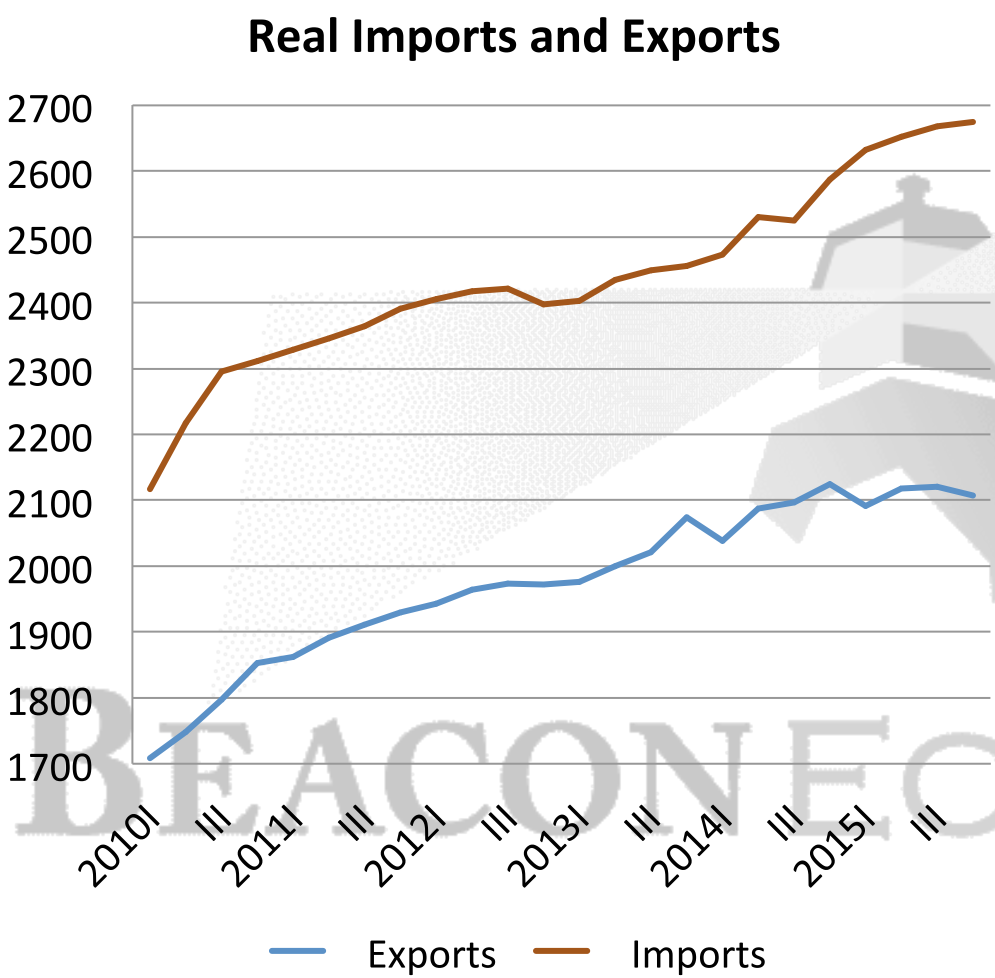
Total Nonfarm

Inland Empire, California	1,351	3.6
Tampa, Florida	1,260	3.2
Atlanta, Georgia	2,625	3.0
Dallas, Texas	3,431	2.9
San Francisco, California	2,171	2.8
San Diego, California	1,406	2.7
Baltimore, Maryland	1,385	2.3
Los Angeles, California	5,928	2.3
Miami, Florida	2,513	2.2
Boston, Massachusetts	2,650	1.8
New York City, New York	9,340	1.7
Philadelphia, Pennsylvania	2,834	1.3
Pittsburgh, Pennsylvania	1,179	1.2
Houston, Texas	2,993	0.8

Manufacturing

Inland Empire, California	95	4.9
Atlanta, Georgia	160	4.2
Baltimore, Maryland	57	3.6
San Diego, California	99	1.9
Tampa, Florida	62	1.6
San Francisco, California	121	1.5
New York City, New York	367	0.4
Los Angeles, California	523	-0.5
Boston, Massachusetts	190	-0.7
Miami, Florida	81	-1.2
Philadelphia, Pennsylvania	178	-1.4
Dallas, Texas	256	-2.7
Pittsburgh, Pennsylvania	88	-3.0
Houston, Texas	241	-6.2

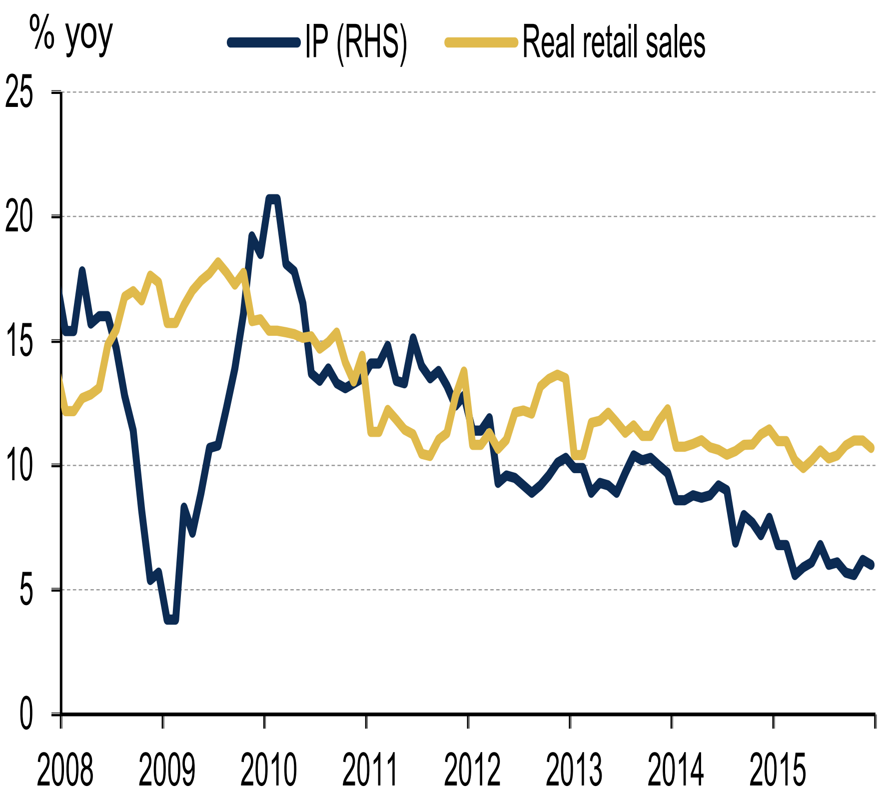
Trade

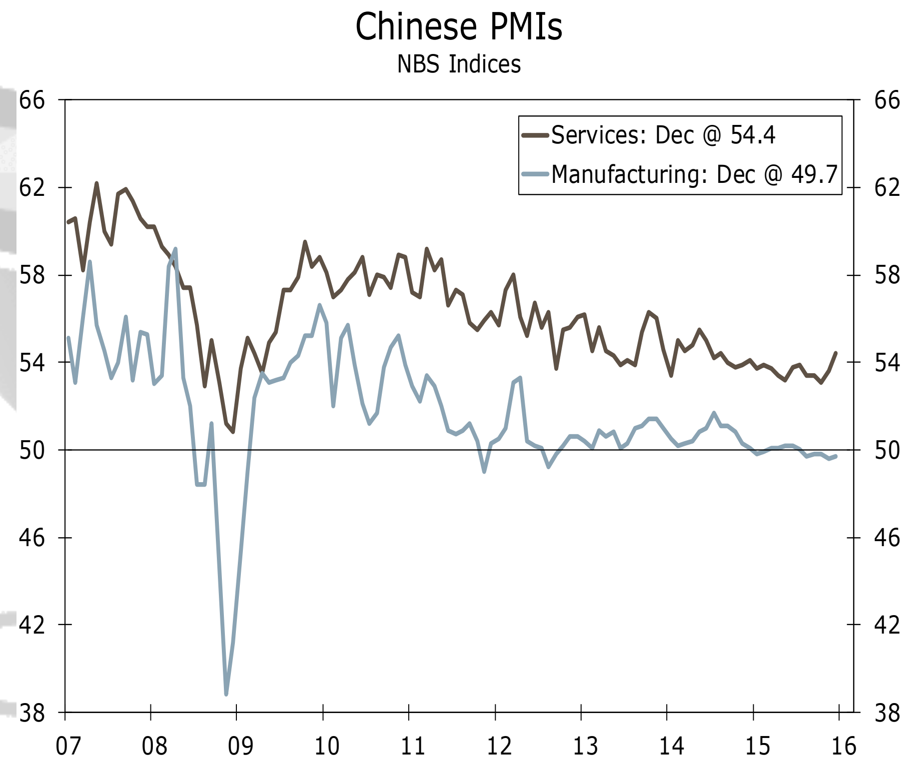


Change in Nominal Goods Trade 2014 to 2015

	Exports	Imports	Bal.
Total	-104.4	-87.3	-17.1
Canada	-28.8	-45.8	17
Netherlands	-2.8	-3.9	1.1
Belgium	-0.6	-1.2	0.6
India	0.3	-0.1	0.4
Germany	0.2	0.3	-0.1
Taiwan	-0.5	0.1	-0.6
Japan	-3.5	-2.7	-0.8
France	-1.1	0.6	-1.7
UK	2.8	4.5	-1.7
Italy	-0.9	1.7	-2.6
Korea, South	-0.6	2.8	-3.4
Mexico	-3.6	1.3	-4.9
Brazil	-10	-2.3	-7.7
China	-5.7	17.8	-23.5

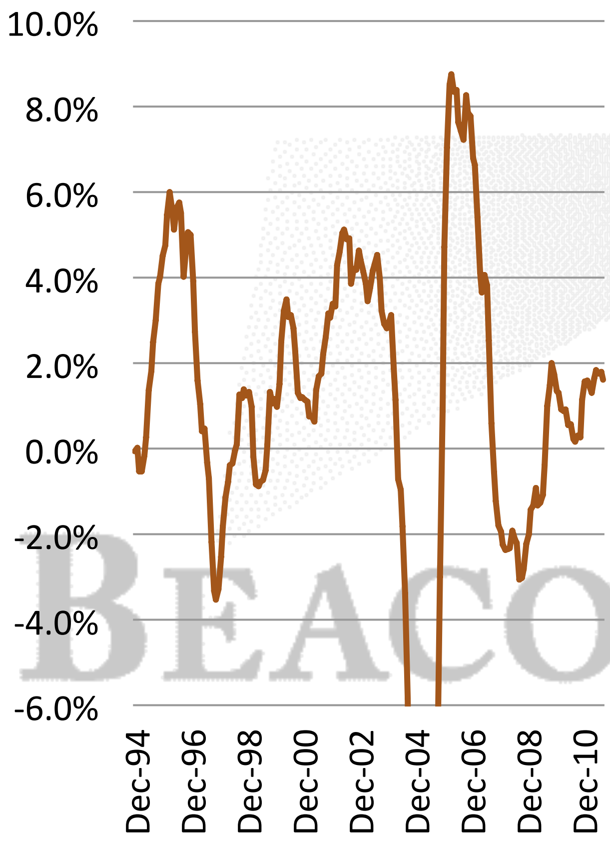
China: Slowed, not stopped



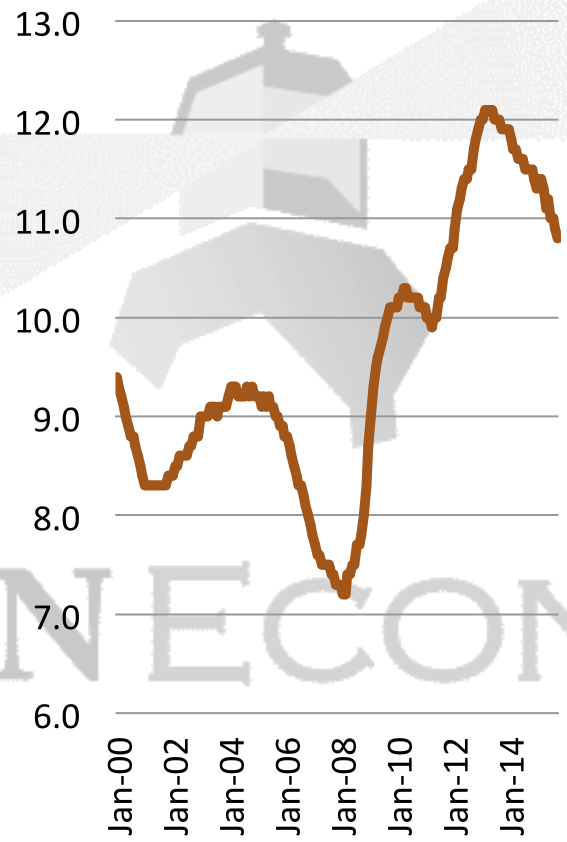


Europe

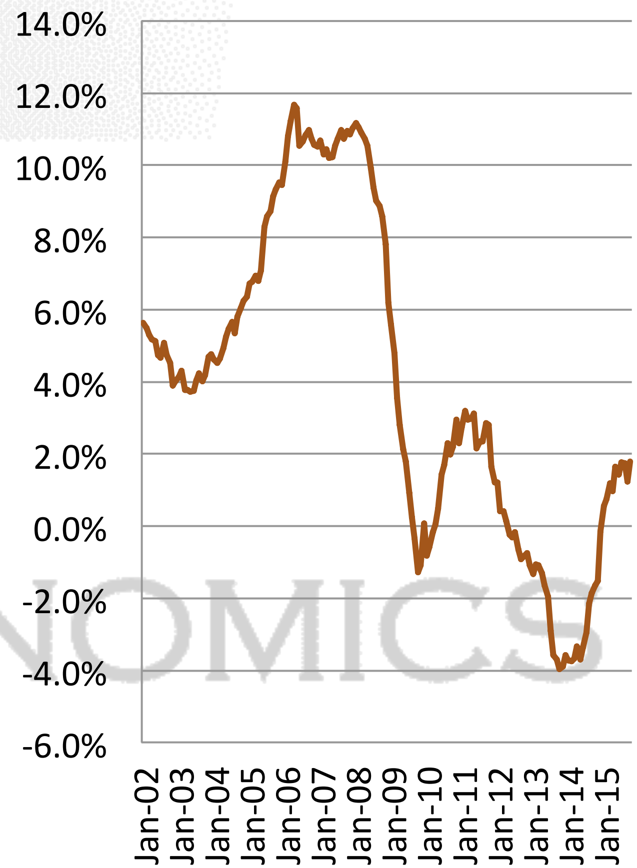
EU Industrial Production Growth



EU Unemployment Rate to October

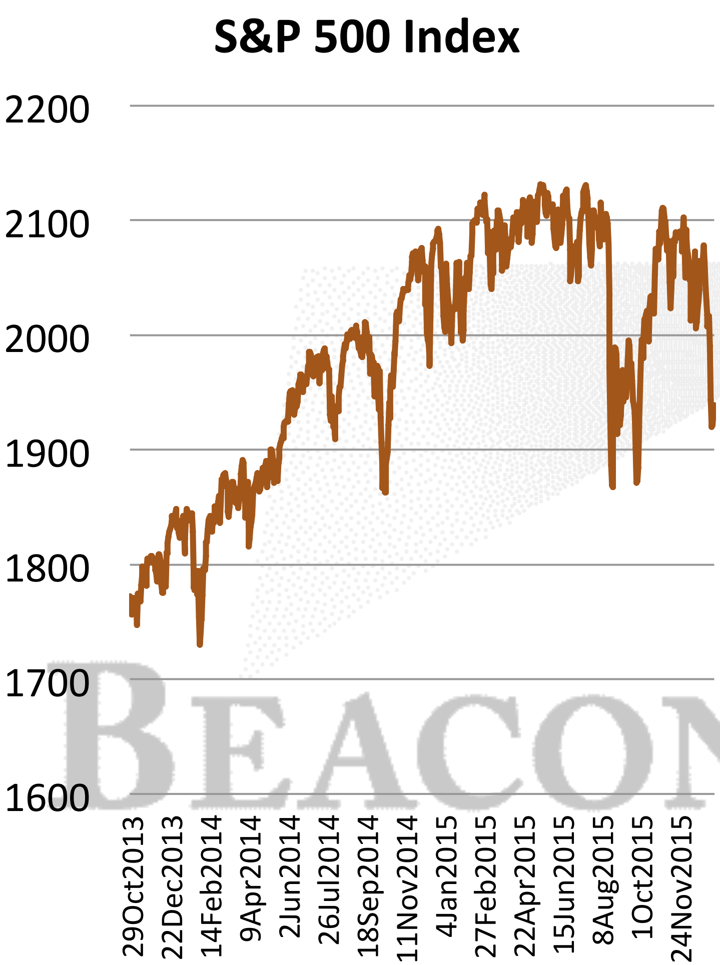


Y-o-Y Growth Bank Loans to Oct (Non-Gov or MFI)



And the bubble??

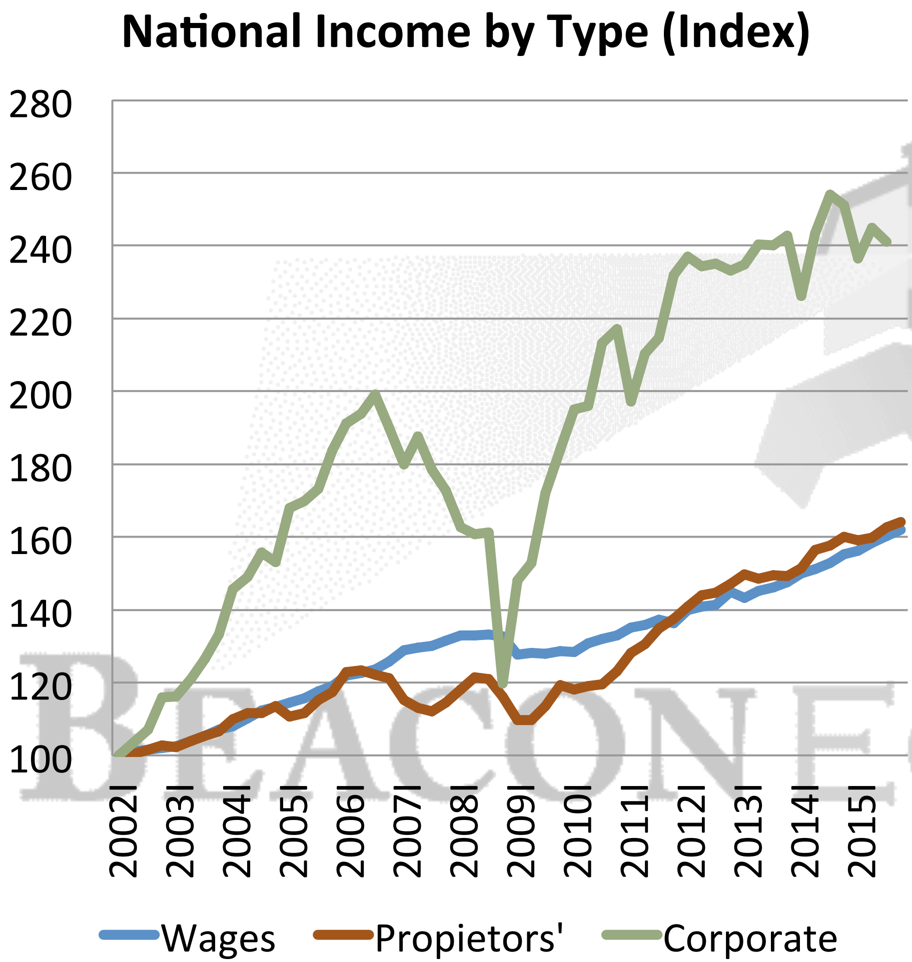
What inning is it?



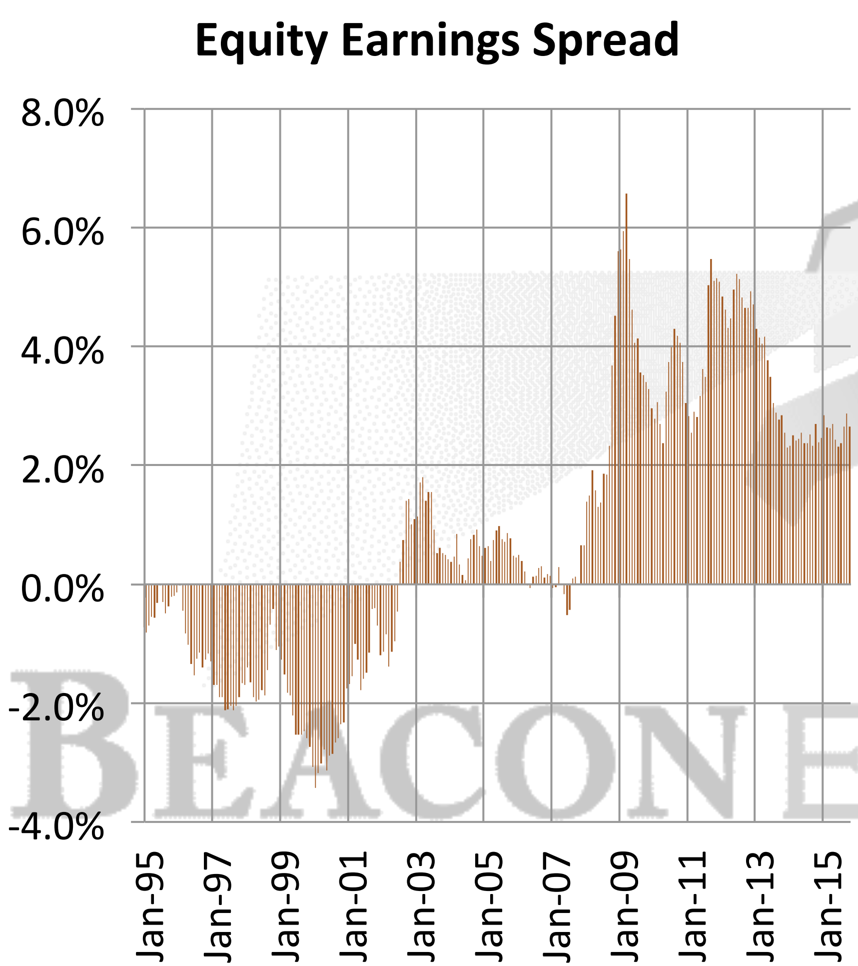
There is no Bubble… (at least not yet) Why?

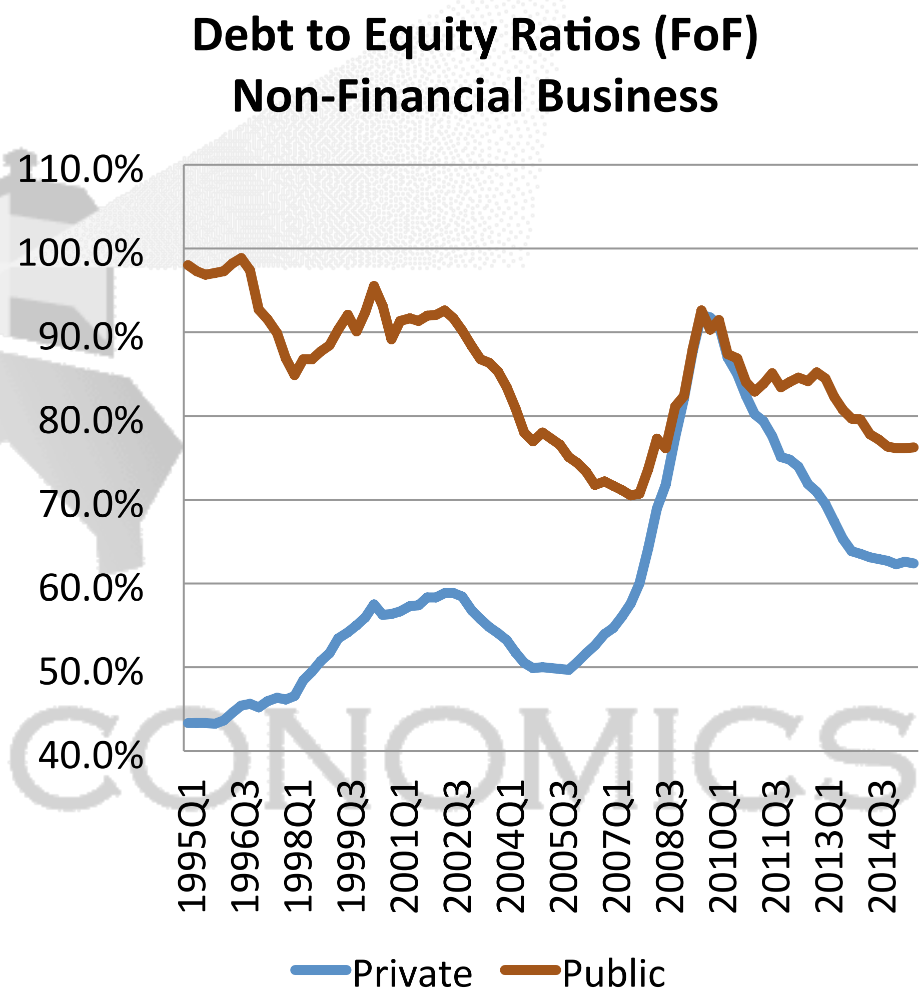
1. Asset prices are being driven by fundamentals, not speculation
2. The global savings glut is driving interest rates, not Fed policy
3. Leverage is not a factor
4. The real economy is in balance

Earnings and Prices

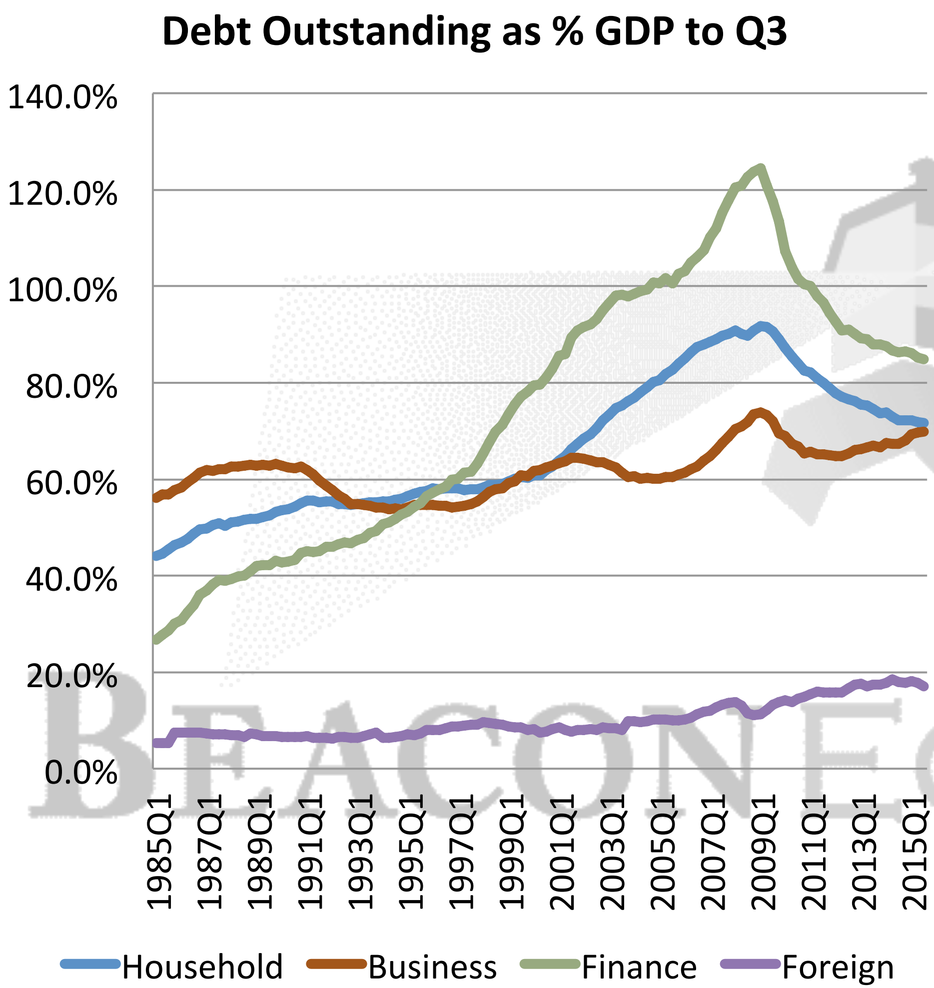


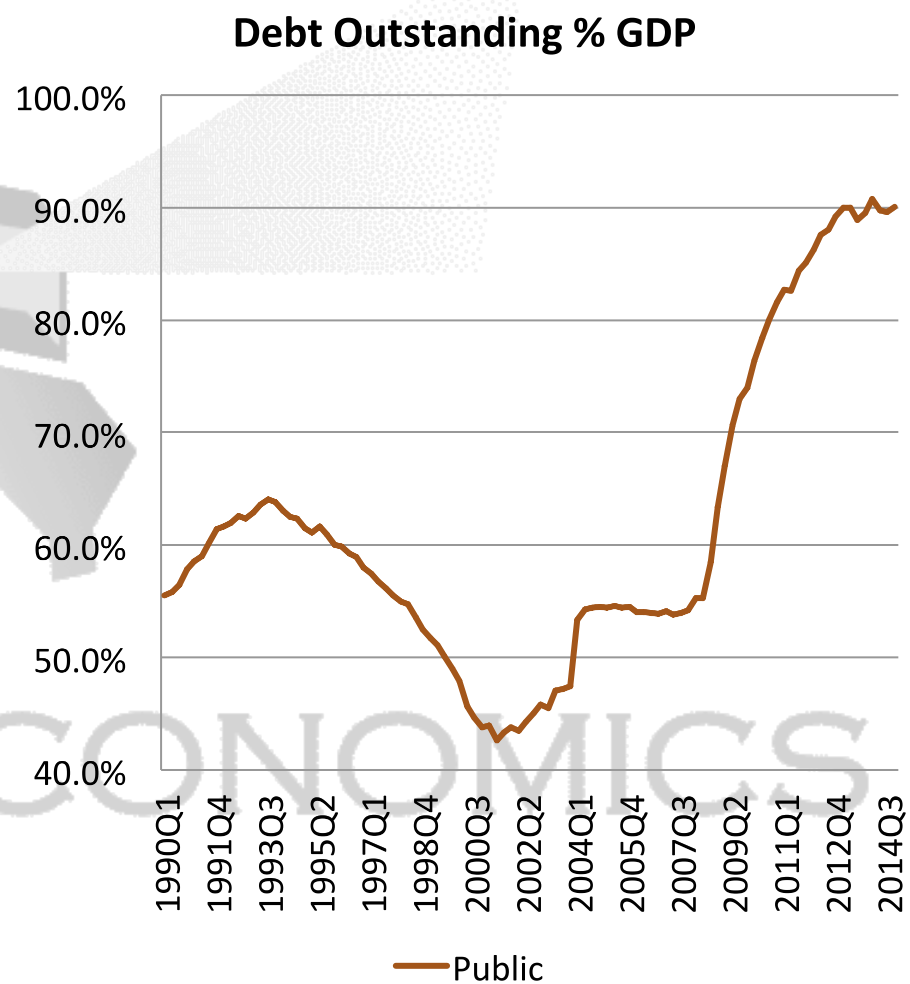
Equity Fundamentals



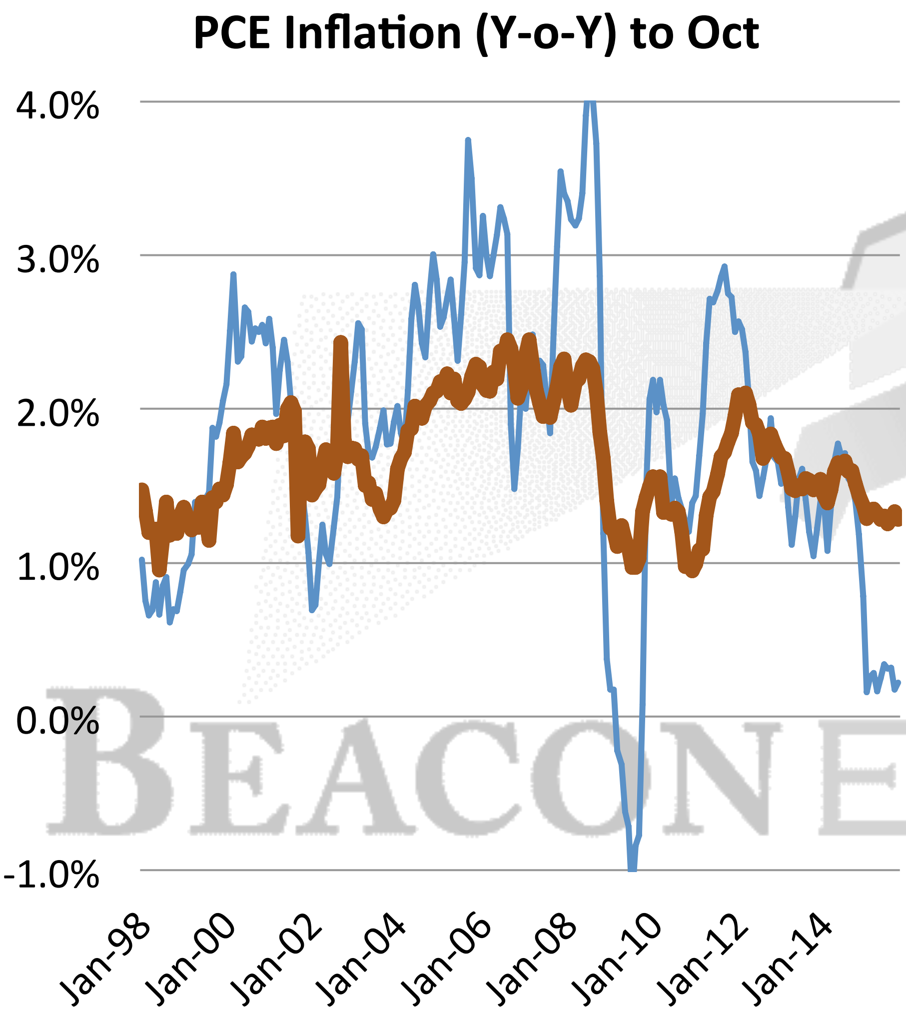


Risk Factors

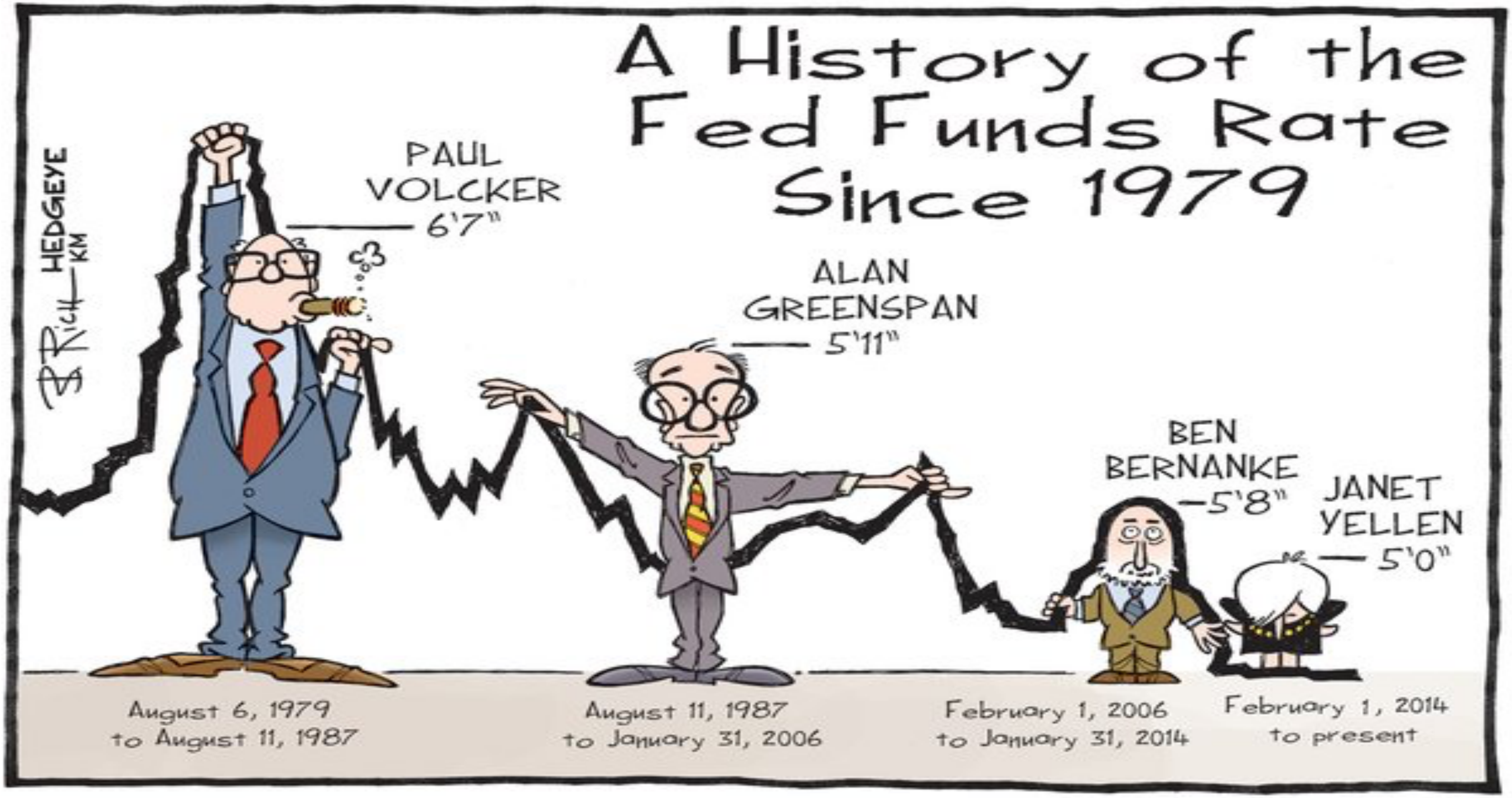




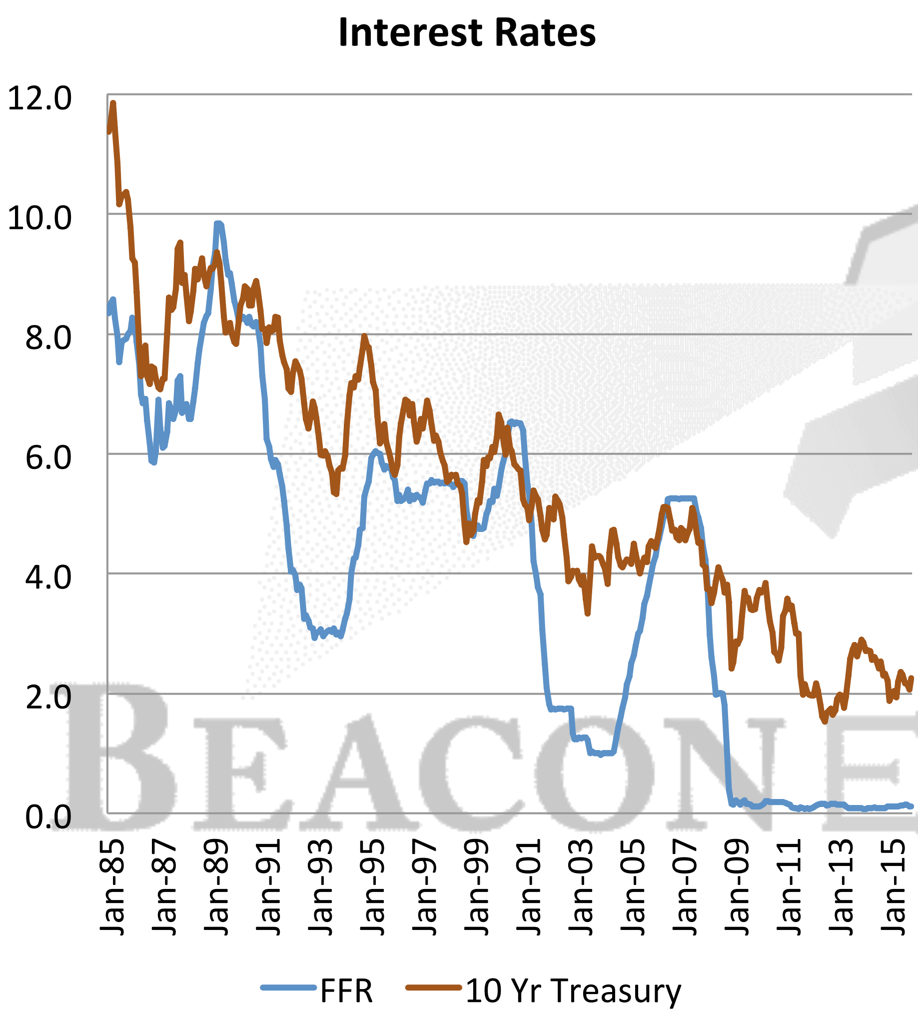
~~When~~ How Fast

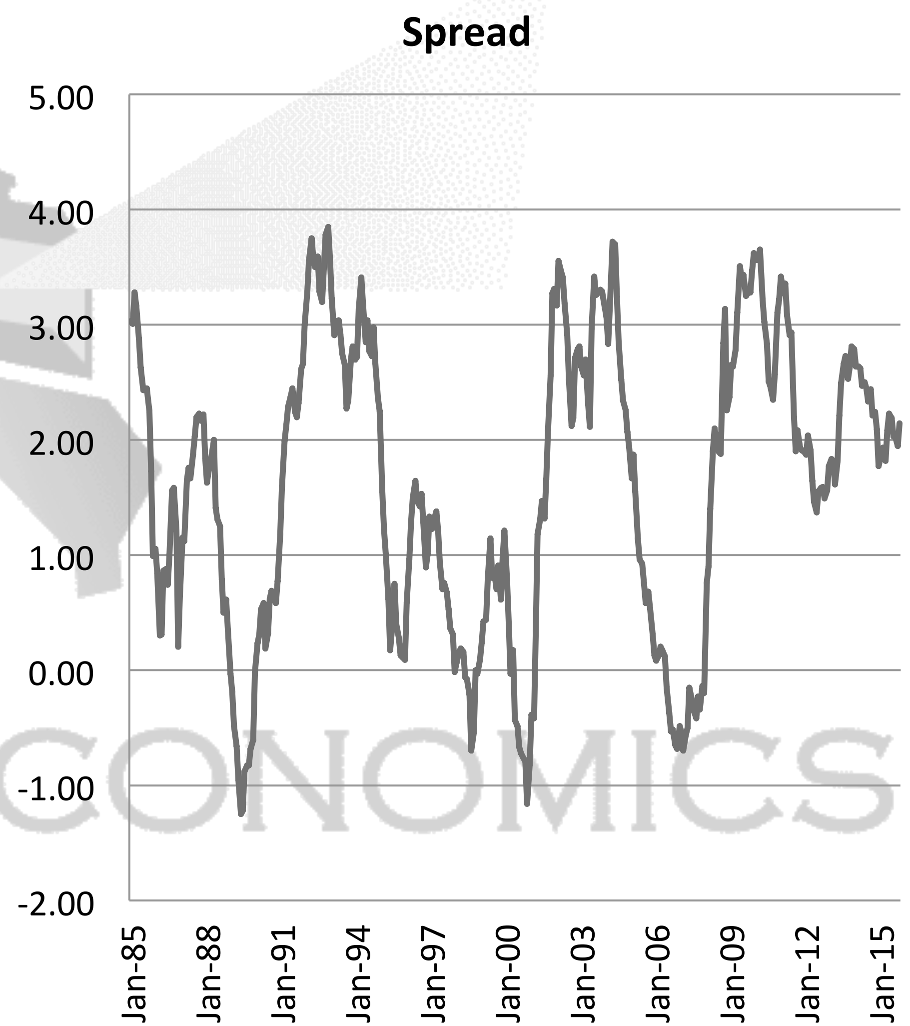


The Fed: Explained!



Limited Space to Turn





California fact versus fiction

"Looking back a few years (2009 / 2010) everyone was saying that CA would fail like Greece or Detroit, but things look different now. What has happened to turn things around?"

California Hype:

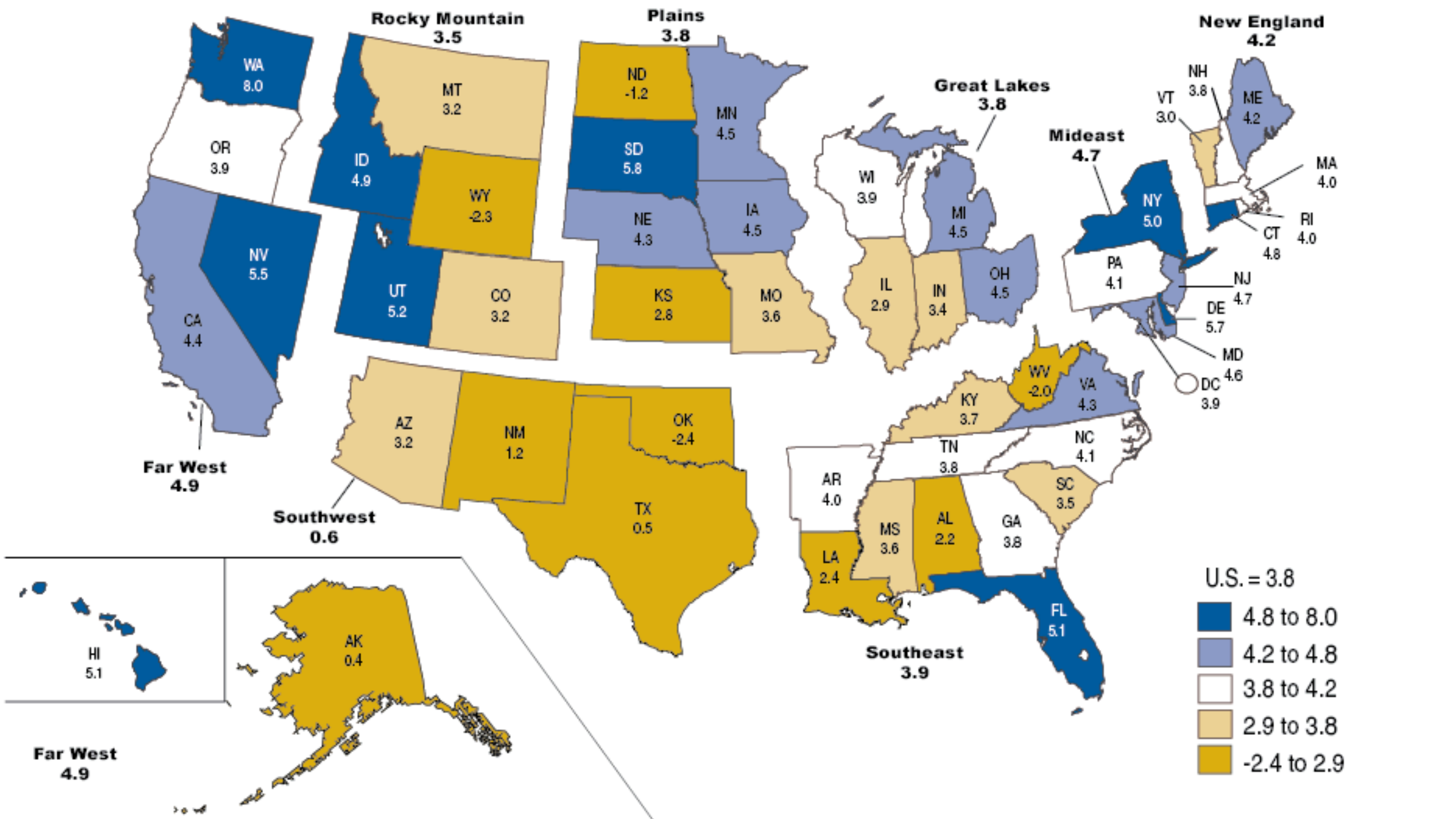
- High taxes, Over regulated
- People/business fleeing

Reality

- Business Climate is not that important
- State still outperforming
- Certain industries more vulnerable than others, but others doing great
- Real enemy: CEQA, dumb taxes

Regional Growth

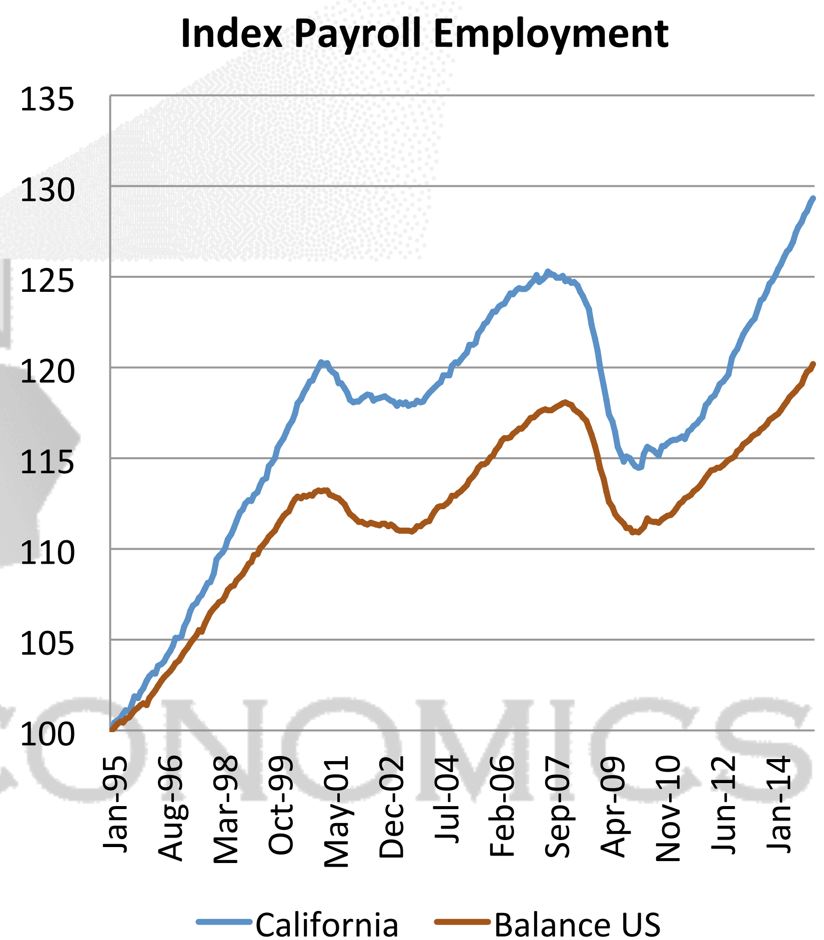
Chart 1. Percent Change in Real GDP by State, 2015:I-2015:II, Seasonally Adjusted at Annual Rates



U.S. Bureau of Economic Analysis

2015 Job Growth (*Ch Gr from 14*)

Idaho	4.1%	*2.0%*
Utah	3.6%	*0.8%*
Florida	3.0%	*-0.3%*
Washington	2.8%	*-0.1%*
Oregon	2.7%	*-0.3%*
South Carolina	2.6%	*0.1%*
California	**2.6%**	***-0.3%***
South Dakota	2.6%	*2.0%*
Nevada	2.5%	*-0.9%*
Arizona	2.5%	*0.7%*
Massachusetts	2.2%	*0.6%*
Georgia	2.2%	*-1.1%*
North Carolina	2.2%	*-0.1%*
Hawaii	2.1%	*1.8%*
Maryland	2.0%	*1.0%*
Indiana	1.9%	*0.7%*
N York	1.9%	*0.8%*



What kind? Where?

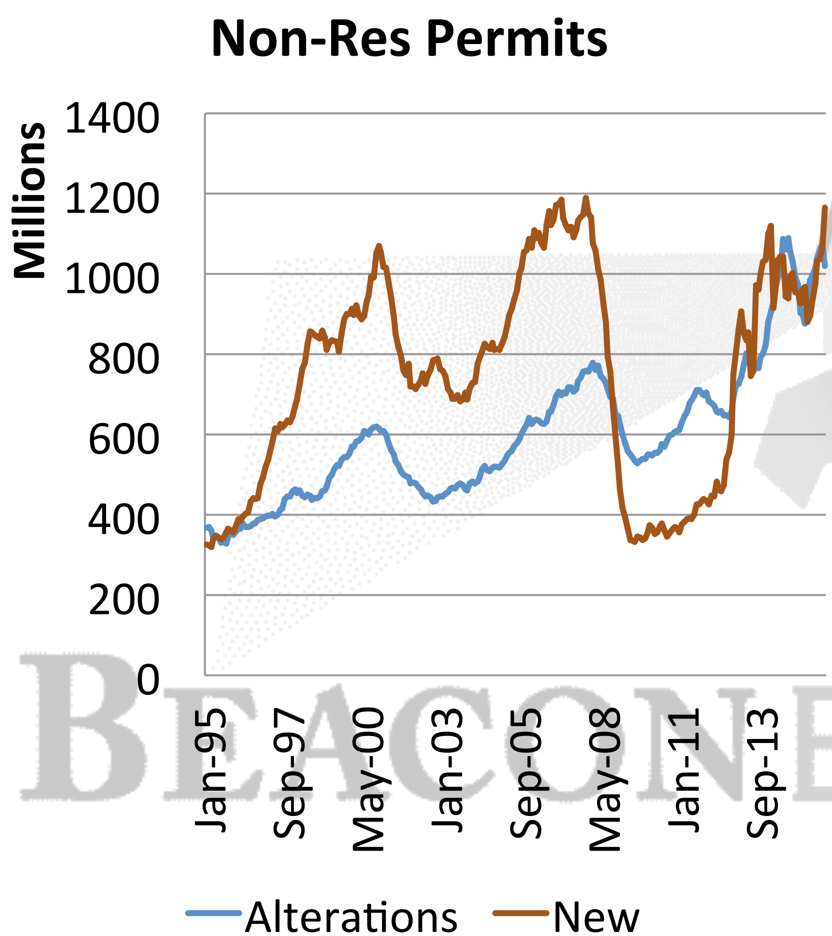
State Employment by Sector

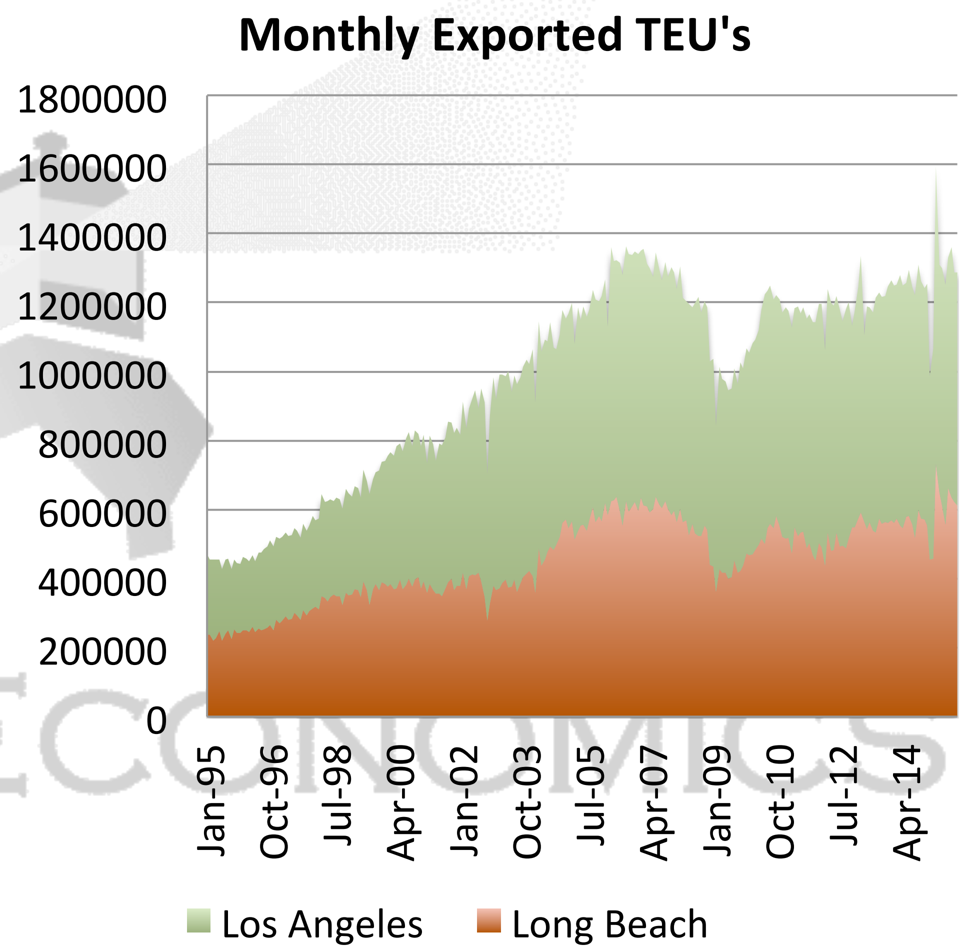
	Dec-15		
Total Nonfarm	16320.1	459.4	2.9%
Construction/NR	773.9	56.3	7.8%
Prof Sci and Tech	1287.8	66.2	5.4%
Admin Support	1098.9	53.5	5.1%
Leisure and Hospitality	1861.1	76.6	4.3%
Information	477.4	15.4	3.3%
Education/Health	2516	72.1	3.0%
Trade,Transport,Util.	2984.7	70.4	2.4%
Management	231.3	4.9	2.2%
Government	2467.2	35.5	1.5%
Other Services	555.1	6.5	1.2%
Financial Activities	797.4	4.4	0.6%
Manufacturing	1269.2	-2.5	-0.2%

State Employment by Region

San Jose	4.4%	Los Angeles	2.2%
SLO	4.0%	Oxnard	2.1%
San Fran	3.7%	Visalia	2.1%
Riverside	3.6%	Fresno	2.0%
Vallejo	3.5%	Oakland	2.0%
Salinas	3.4%	Redding	1.9%
Stockton	3.2%	El Centro	1.8%
Santa Maria	3.2%	Napa	1.7%
Santa Rosa	2.9%	Madera	1.6%
San Diego	2.7%	Bakersfield	0.8%
Anaheim	2.7%	Yuba City	0.7%
Chico	2.6%	Hanford	0.5%
Sacramento	2.5%	Santa Cruz	-0.7%
Modesto	2.5%	Merced	-2.3%

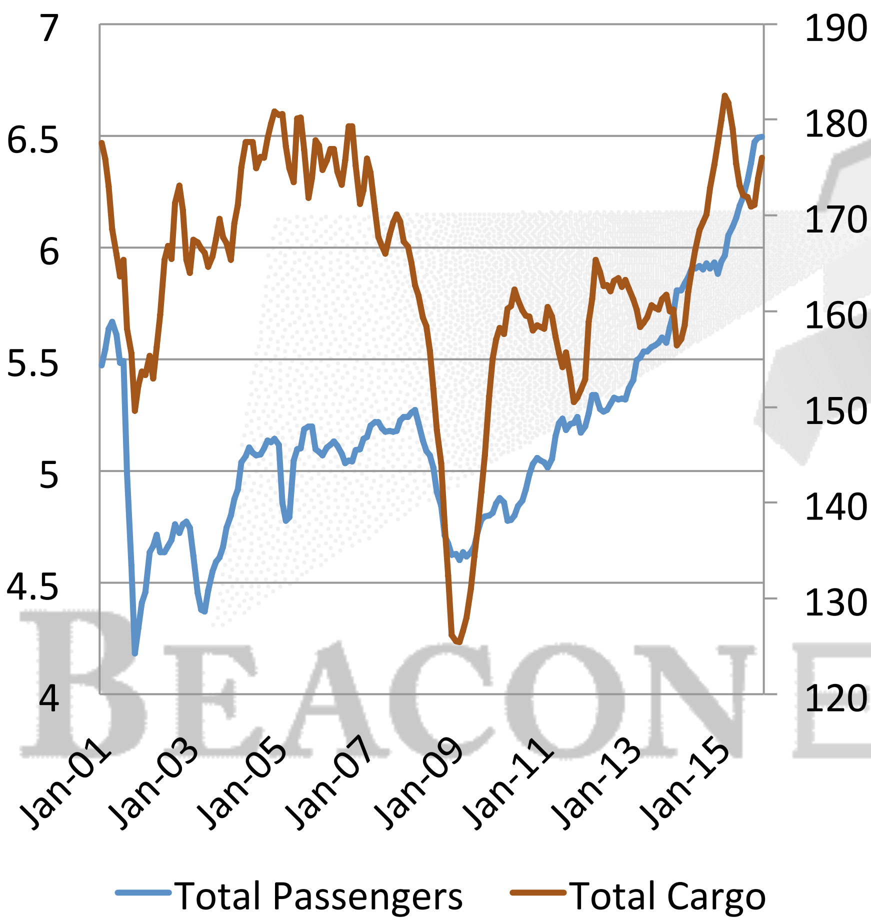
Signs of Growth





Travel and Tourism

LAX Traffic



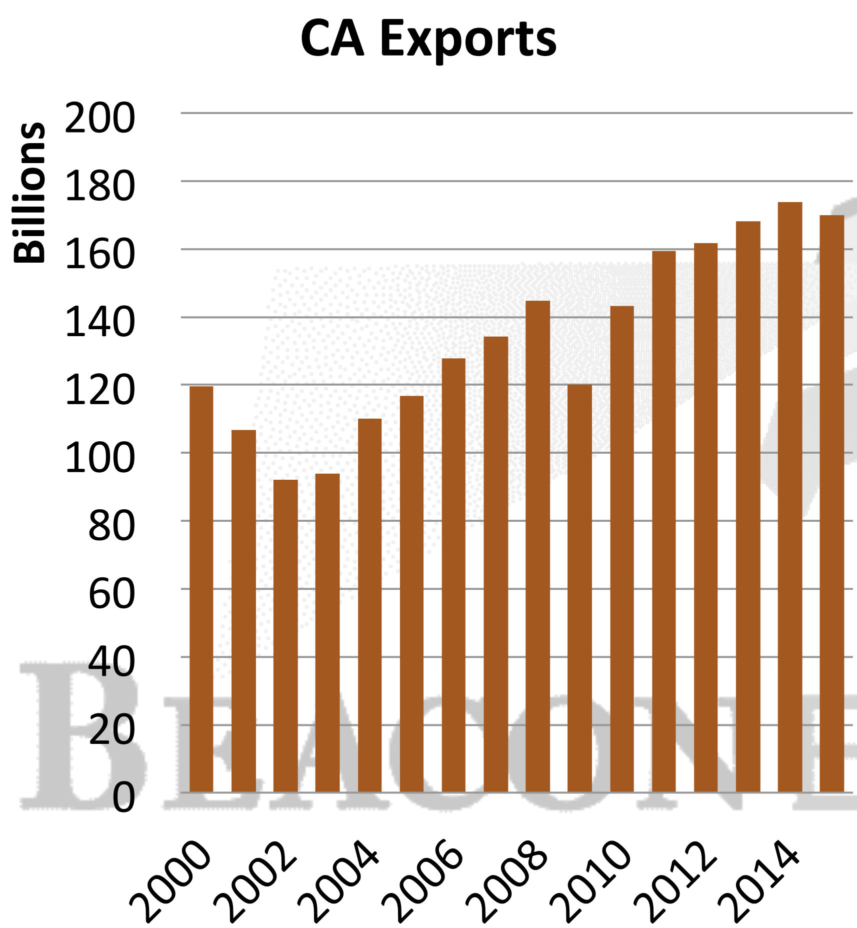
Hotel Activity

	REVPAR 2015	2014	VAR
DOWNTOWN	$168.74	$155.02	8.9%
DOWNTOWN 2	$108.94	$95.23	14.4%
HOLLYWOOD	$188.57	$180.46	4.5%
SAN FERNANDO VALLEY	$129.59	$118.80	9.1%
PASADENA	$156.08	$148.46	5.1%
SAN GABRIEL VALLEY	$96.88	$91.03	6.4%
SANTA MONICA	$305.46	$294.05	3.9%
AIRPORT	$126.57	$114.32	10.7%
MARINA DEL REY	$200.70	$184.01	9.1%
SOUTH BAY	$129.45	$117.68	10.0%
LONG BEACH	$126.21	$112.35	12.3%
BEVERLY HILLS	$378.77	$367.79	3.0%
WEST HOLLYWOOD	$222.23	$216.20	2.8%
OTHER WEST L.A.	$258.65	$247.99	4.3%
I-5 CORRIDOR/WHITTIER	$100.94	$93.23	8.3%
SANTA CLARITA	$114.19	$101.11	12.9%
PALMDALE/LANCASTER	$84.18	$78.17	7.7%
OVERALL AVERAGE	**$160.04**	**$148.98**	**7.4%**

State Output: Q2 14 to Q2 15

GSP by Industry	US	CA	Diff
All industry total	2.7%	4.3%	1.6%
Agriculture, forestry, fishing, and hunting	4.1%	28.2%	24.1%
Construction	4.2%	7.9%	3.7%
Professional, scientific, and technical services	5.7%	9.4%	3.6%
Management of companies and enterprises	6.7%	10.2%	3.5%
Accommodation and food services	1.6%	5.0%	3.4%
Information	6.1%	9.4%	3.3%
Durable goods manufacturing	1.6%	4.5%	2.9%
Wholesale trade	5.1%	7.7%	2.5%
Administrative and waste management services	4.2%	5.8%	1.6%
Health care and social assistance	3.5%	4.8%	1.3%
Government	-0.3%	0.8%	1.1%
Retail trade	2.9%	3.8%	0.9%
Transportation and warehousing	-1.2%	-1.0%	0.2%
Other services, except government	1.7%	1.8%	0.1%
Finance and insurance	2.5%	2.3%	-0.3%
Real estate and rental and leasing	2.6%	2.2%	-0.4%
Arts, entertainment, and recreation	2.4%	1.7%	-0.7%
Utilities	-3.4%	-4.2%	-0.8%
Educational services	-0.5%	-3.4%	-2.8%
Nondurable goods manufacturing	-0.1%	-3.9%	-3.7%
Mining	9.0%	-0.6%	-9.5%

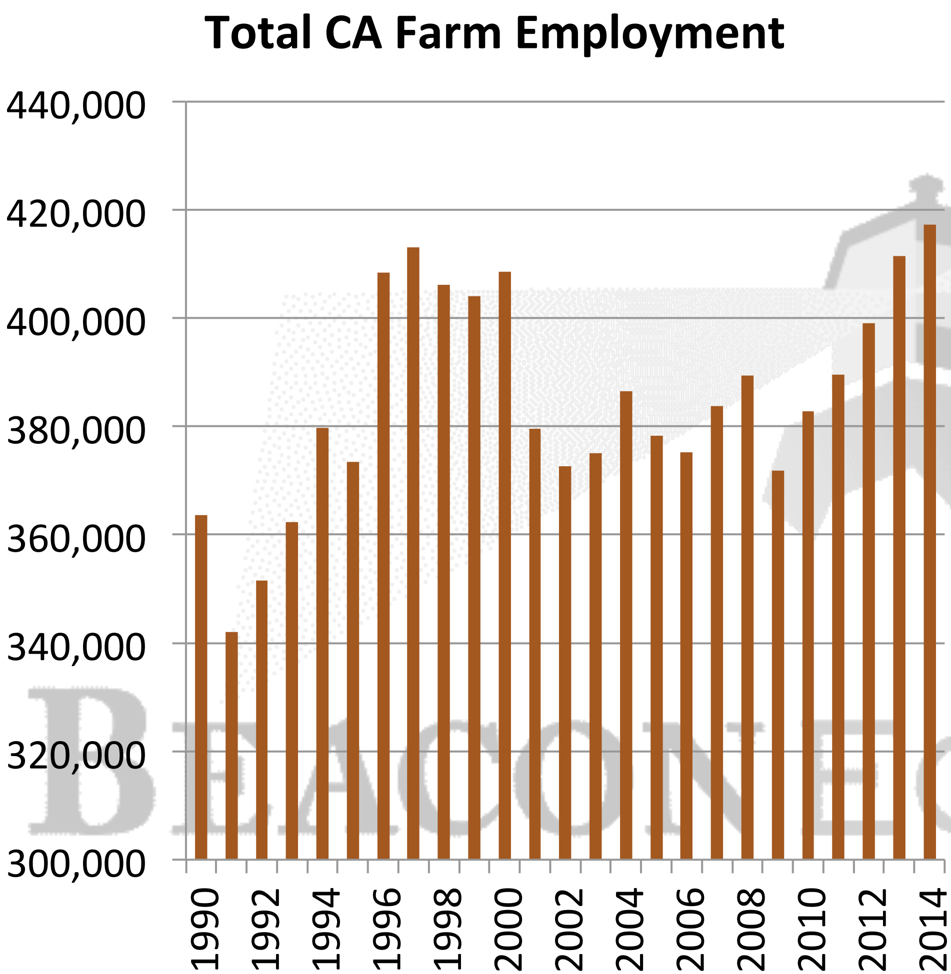
California Exports

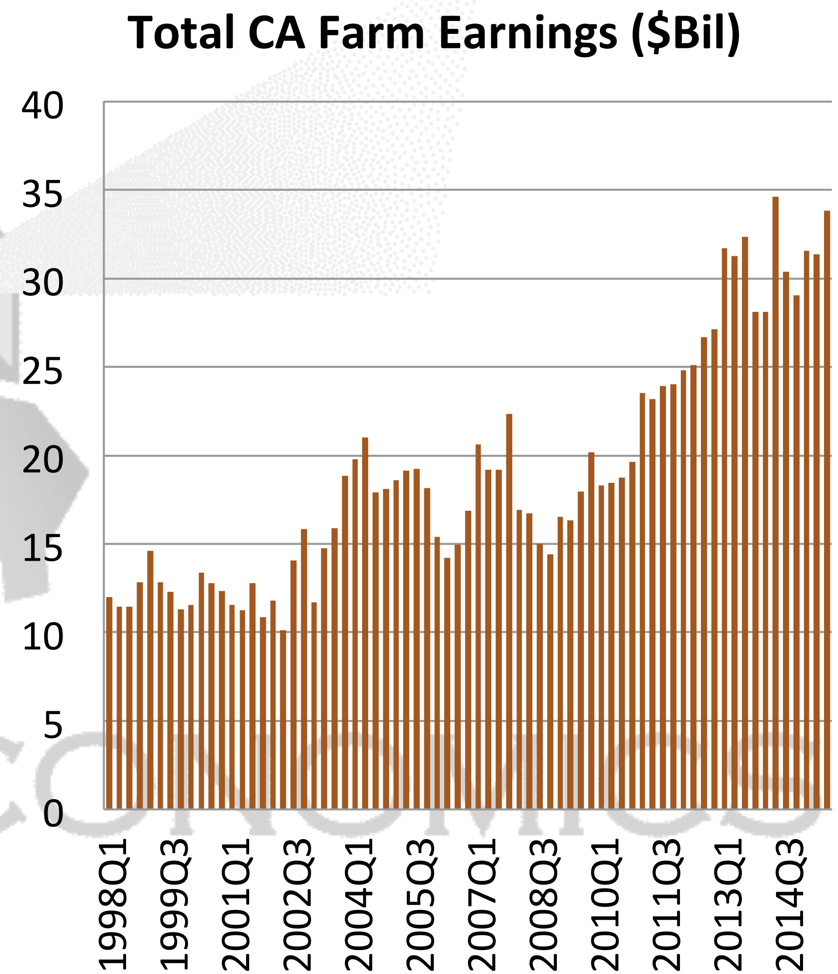


Share Growth 2009-2015 Est

TOTAL ALL INDUSTRIES	
Computer And Electronic Products	19.8%
Agricultural Products	12.6%
Machinery, Except Electrical	10.6%
Transportation Equipment	10.3%
Miscellaneous Manufactured	10.3%
Electrical Equipment	7.3%
Chemicals	6.6%
Used Or Second-Hand Merchandise	5.7%
Food And Kindred Products	4.9%
Petroleum And Coal Products	4.7%
Primary Metal Manufacturing	2.7%
Fabricated Metal Products, Nesoi	1.8%
Beverages And Tobacco Products	1.6%
Plastics And Rubber Products	1.5%
Apparel And Accessories	1.3%

Ag and the Drought

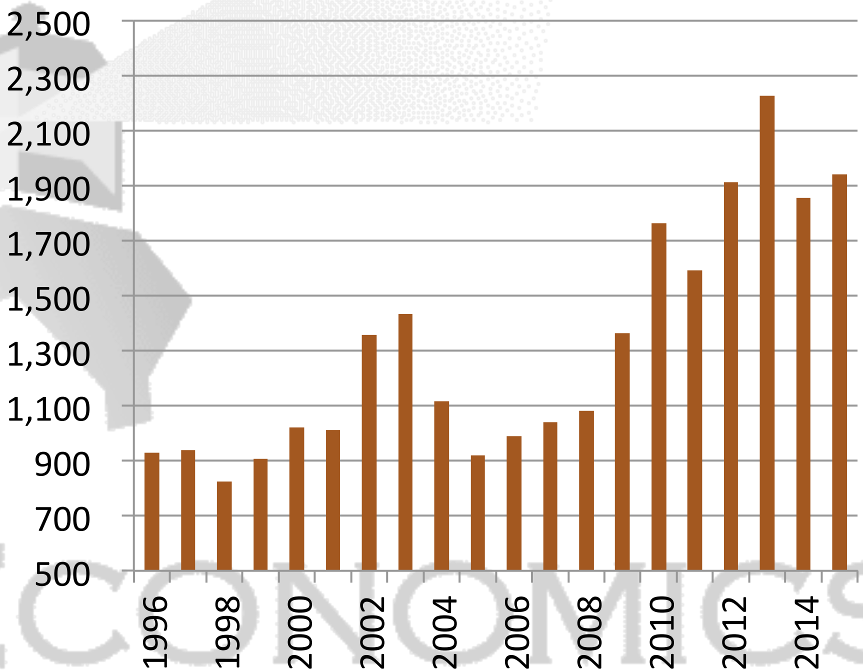




Looking Closer

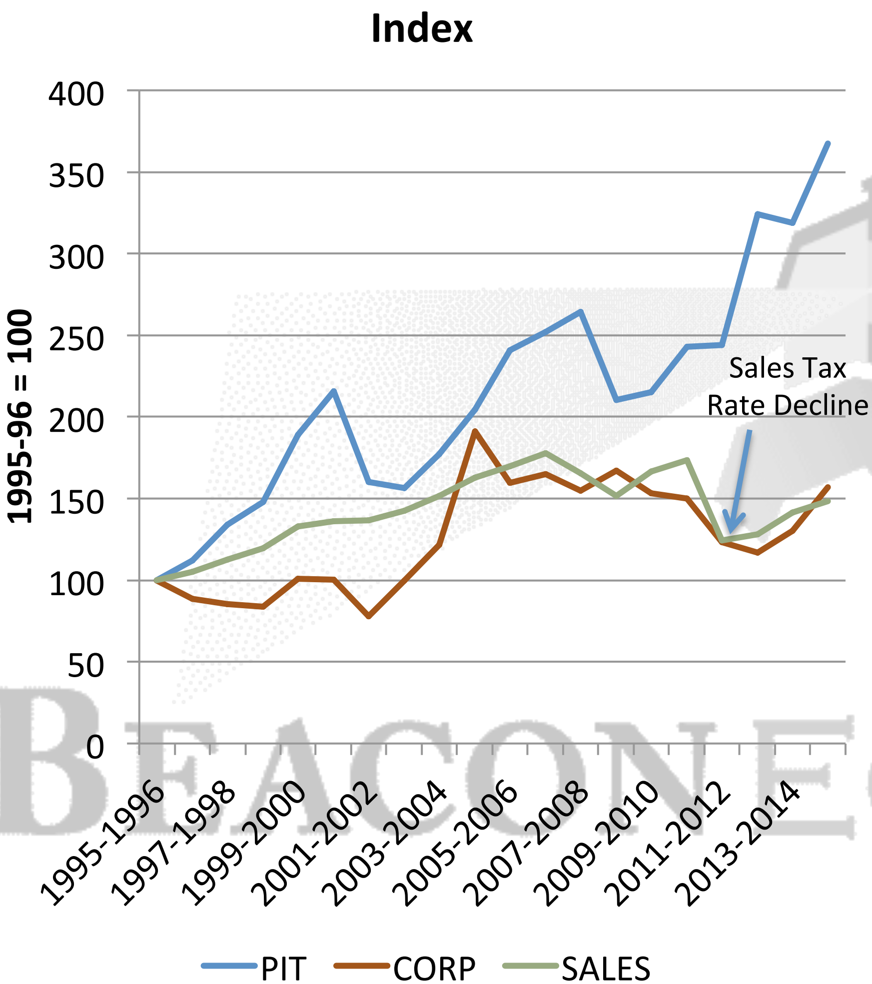
Insurable Crops	2006	2014
	6,664,689	6,055,791
Forage Production	1,060,000	930,000
Almonds	580,000	860,000
Wheat	530,000	585,000
Grapes (Wine)	445,147	570,000
Rice	526,000	495,000
Corn	540,000	430,000
Cotton	600,000	315,000
Walnuts	215,000	290,000
Tomatoes	306,465	288,000
Citrus – 8 types	267,913	270,000

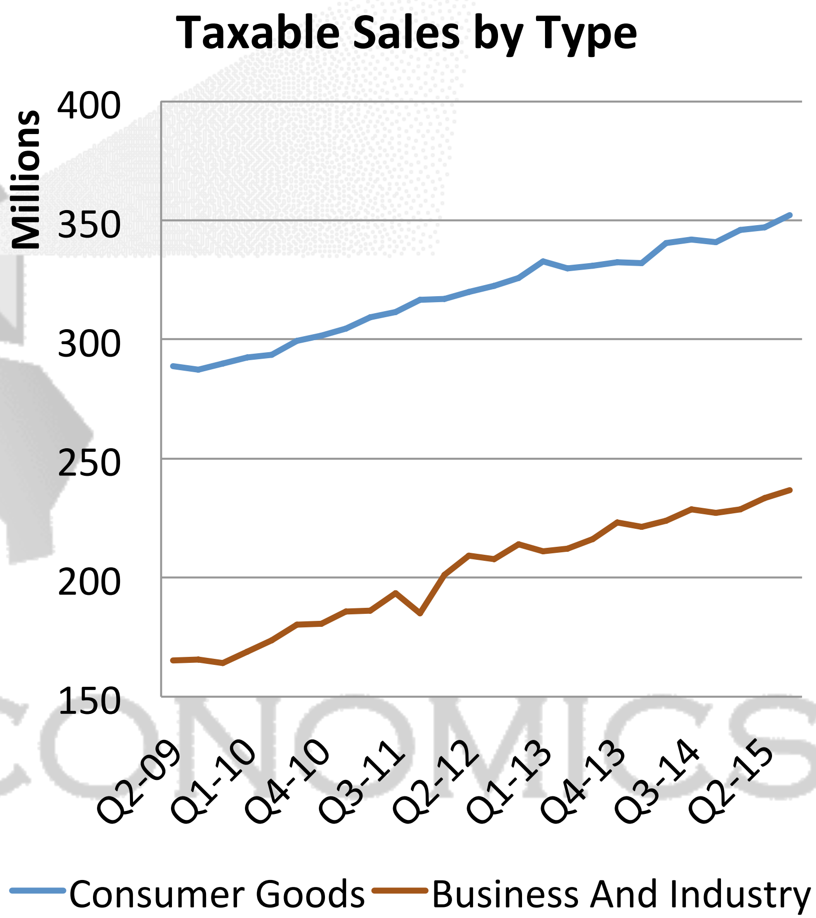
California Produced Exports of Hay, Alfalfa etc



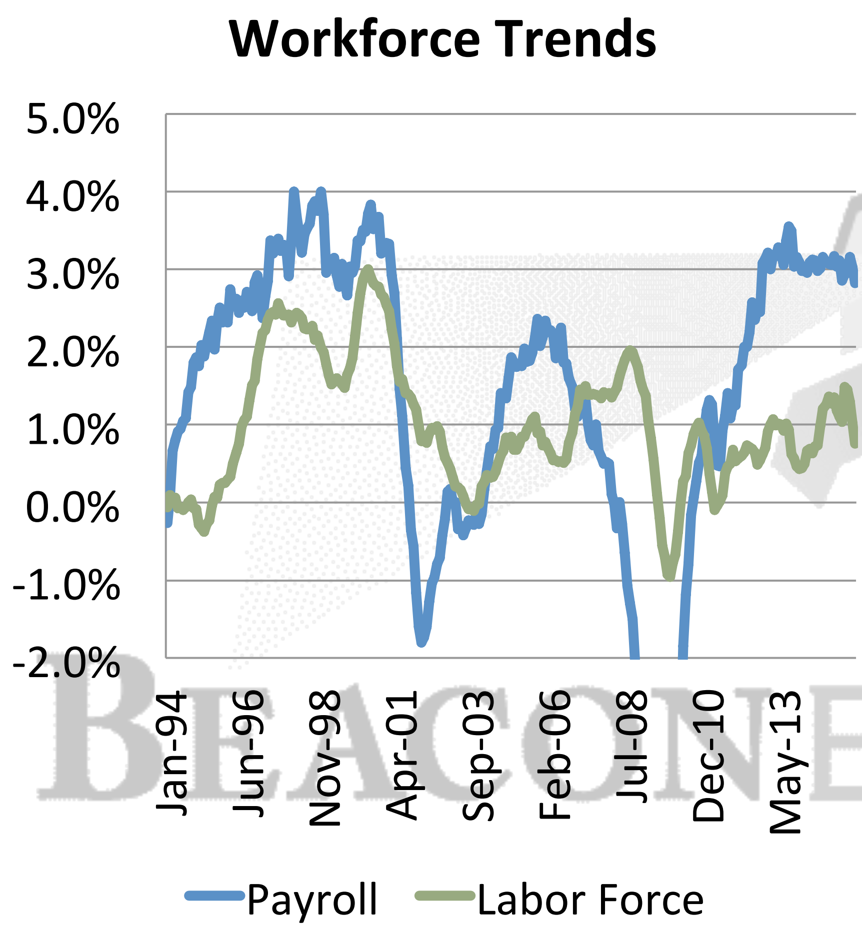
$ / Kg	Alfalfa	Rice	Nuts
	$0.27	$0.79	$7.07

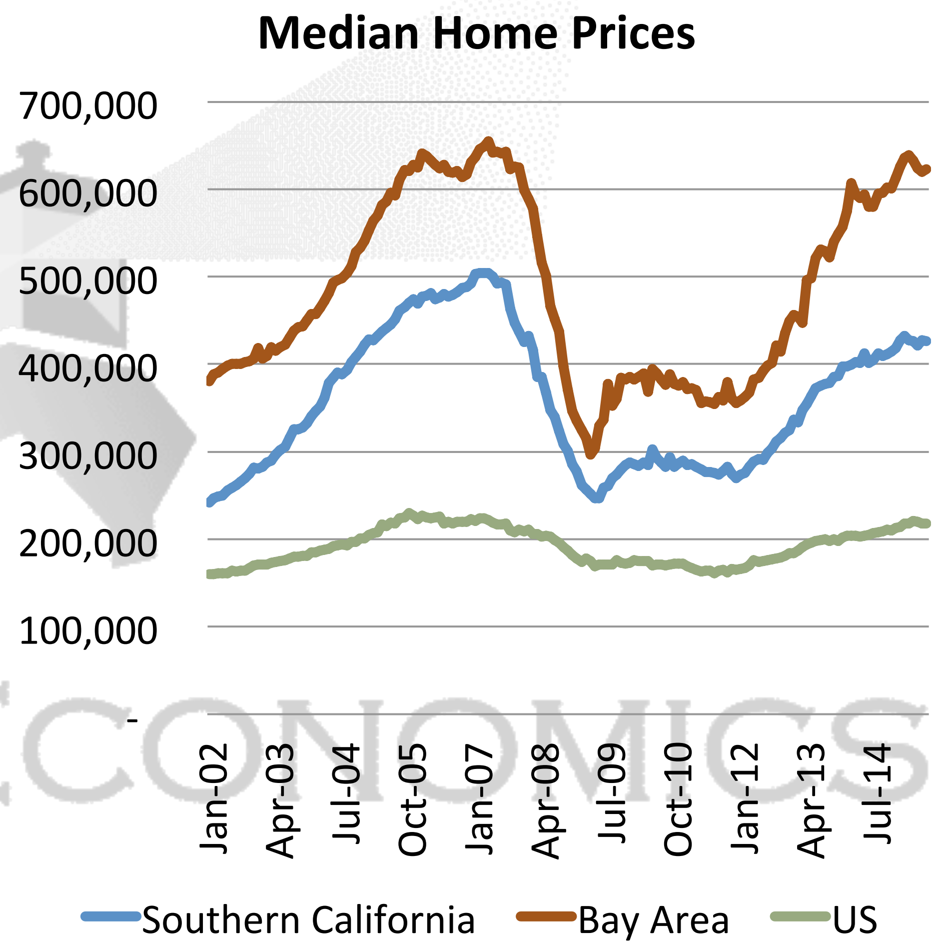
Income tax driving the show





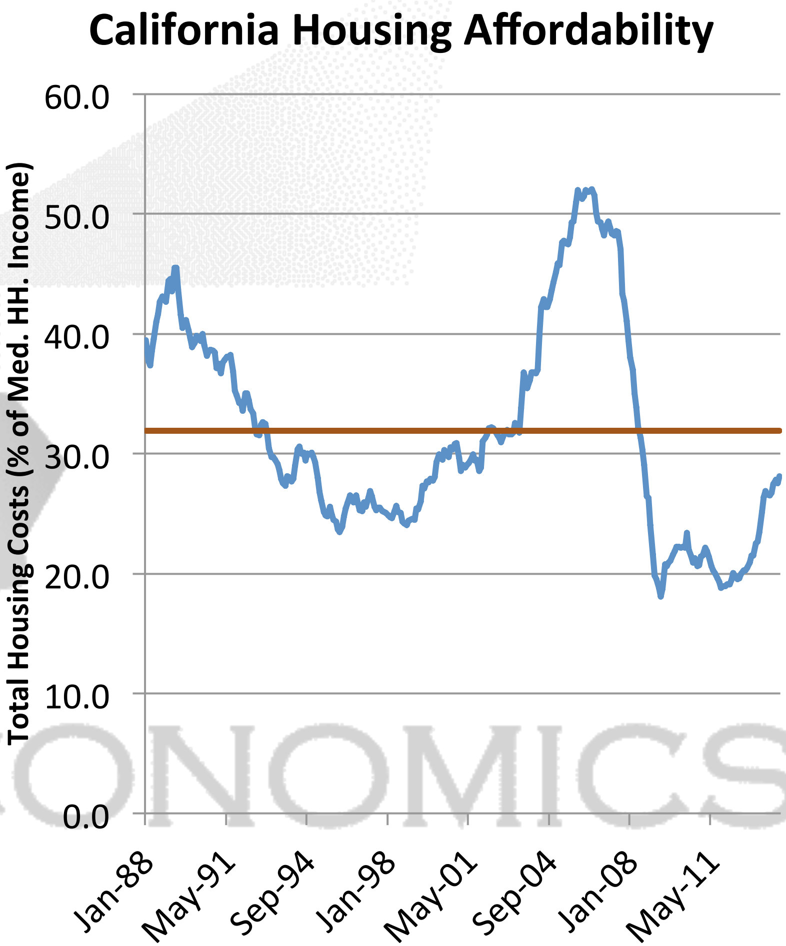
Homes and Workers



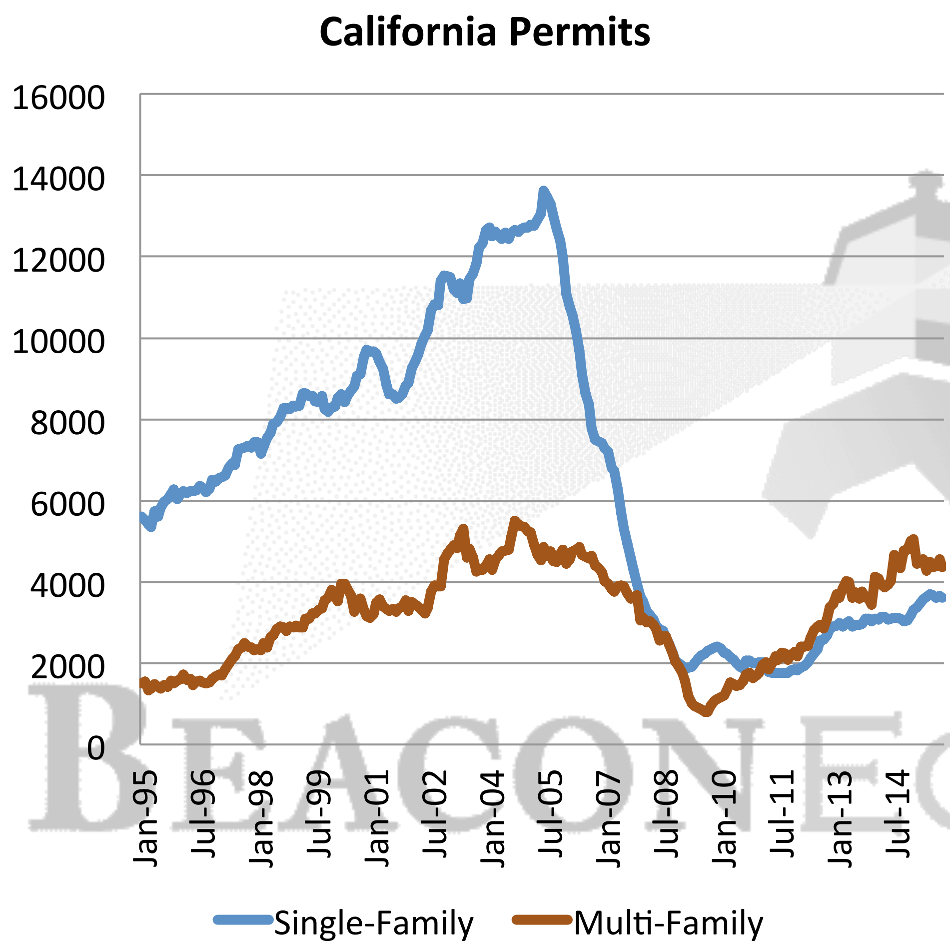


Bubble? No...

% Over Crowded		% Vacant	
Hawaii	8.6%	Utah	5.1%
California	**8.2%**	Minnesota	5.2%
Alaska	6.5%	**California**	**5.3%**
New York	5.0%	Vermont	5.4%
Texas	4.8%	Colorado	5.5%
Arizona	4.5%	Massachusetts	5.6%
Nevada	4.2%	New Hampshire	5.6%
New Mexico	3.6%	Wisconsin	5.8%
District of Columbia	3.3%	Oregon	6.0%
Utah	3.3%	Washington	6.4%
Oregon	3.3%	Idaho	6.4%
Washington	3.1%	Delaware	6.9%
Florida	3.0%	Maine	7.0%



Pace of Construction



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

Why the Shortage?

CEQA Prop-13

Total Domestic Net Migration by Income 08-13

Under $25,000	-192,061
$25,000 to $50,000	-58,600
$50,000 to $99,999	18,955
Over $100,000	2,619
Total	-229,087

	Texas
Under $25,000	-40070
$25,000 to $50,000	-23741
$50,000 to $99,999	-3433
Over $100,000	599

In Summary

What not to worry about.

- The US Dollar
- Student Debt
- Asset Bubbles
- Drought
- Consumer Spending
- Labor Markets
- California Business
- Taxes
- California Tax Levels
- Politics

What to worry about.

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

BEACON ECONOMICS

- To view or download this presentation or for further information, visit: www.BeaconEcon.com
- Contact Christopher Thornberg
  Chris@BeaconEcon.com
  310-571-3399

Our Services


Economic & Revenue Forecasting


Regional Intelligence Reports


Business & Market Analysis


Real Estate Market Analysis


Ports & Infrastructure Analysis


Economic Impact Analysis


Public Policy Analysis