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*Founding Partner,
Beacon Economics*

The Economic Outlook

Focus on San Jose

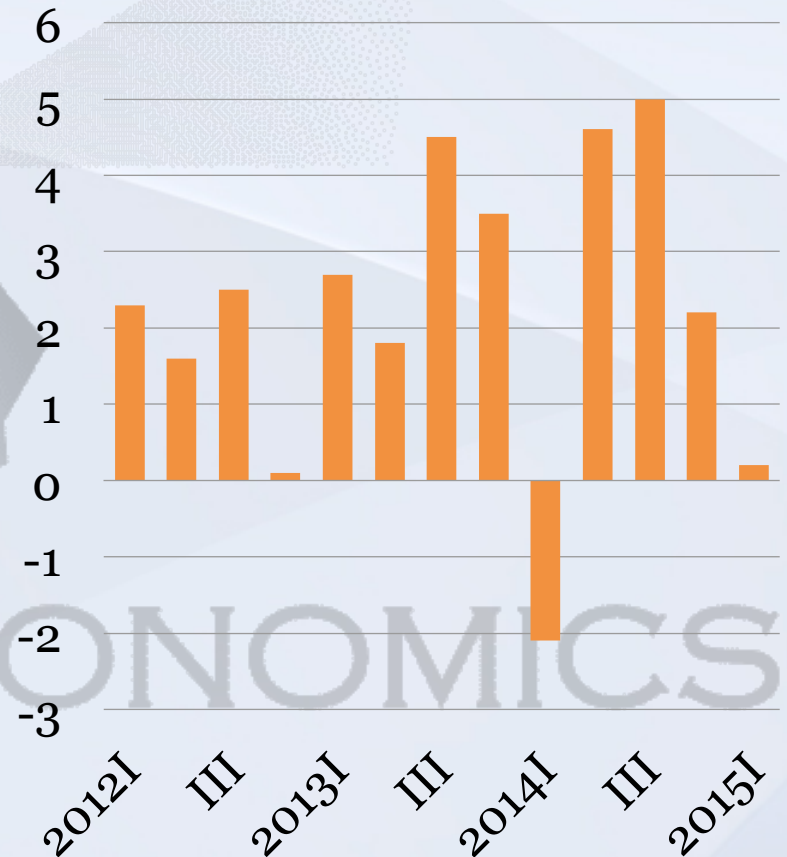
BEACON ECONOMICS

- 2014 Ended Strong
 - Solid acceleration in domestic demand
 - Labor markets turned a corner
 - Credit expanding on many levels
 - Commodity prices down
 - Housing market starting to bounce
 - Earnings remain solid
- Economic growth will accelerate in 2015
 - Slower start to year was transitory
 - Worker wages about to start rising
 - Interest rates aren't going anywhere
 - Asset markets are not in a bubble
 - Oil prices a net positive in the end
- Watch the headwinds
 - Global economy- particularly China
 - Frothy markets could start becoming an issue
 - Politics politics politics



	2012	2013	2014	2015 I
GDP	2.3	2.2	2.4	0.2
Consumption	1.25	1.64	1.73	1.31
Goods	0.64	0.78	0.78	0.05
Services	0.61	0.86	0.94	1.26
Investment	1.33	0.76	0.92	0.34
Structures	0.32	-0.01	0.23	-0.75
Equipment	0.37	0.26	0.36	0.00
IP	0.15	0.13	0.19	0.30
Residential	0.33	0.33	0.05	0.04
Inventories	0.15	0.06	0.09	0.74
Net exports	0.04	0.22	-0.22	-1.25
Exports	0.44	0.41	0.43	-0.96
Imports	-0.40	-0.19	-0.65	-0.29
Government	-0.30	-0.39	-0.03	-0.15
Federal	-0.15	-0.45	-0.14	0.02
State and local	-0.15	0.06	0.11	-0.17

GDP Growth



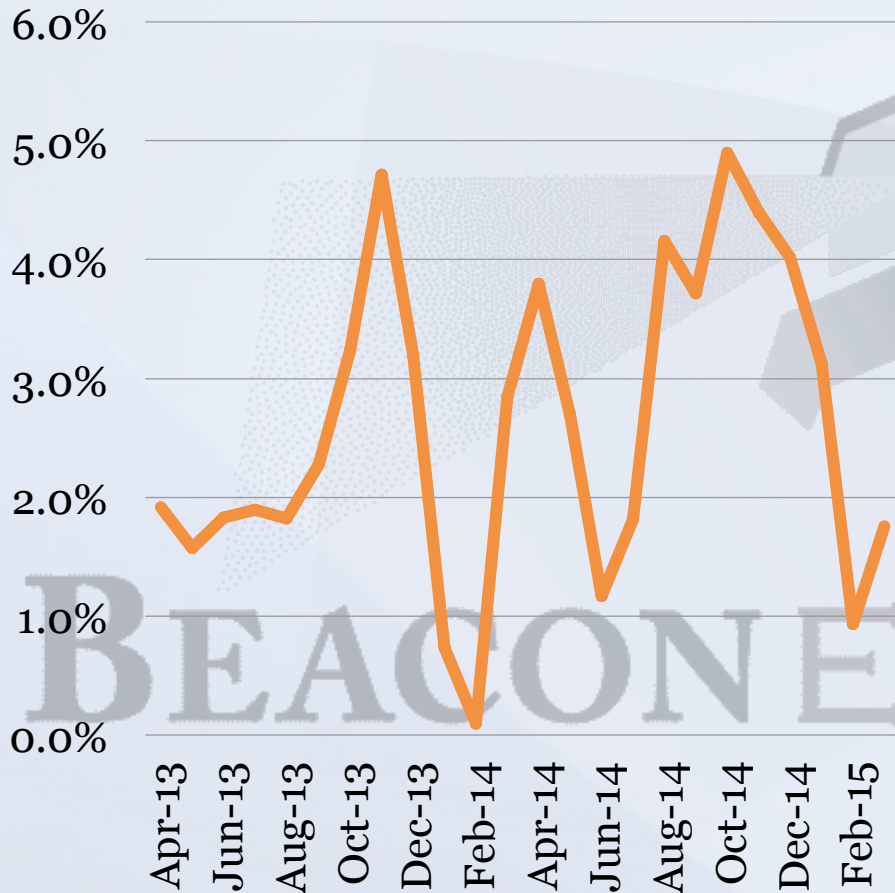


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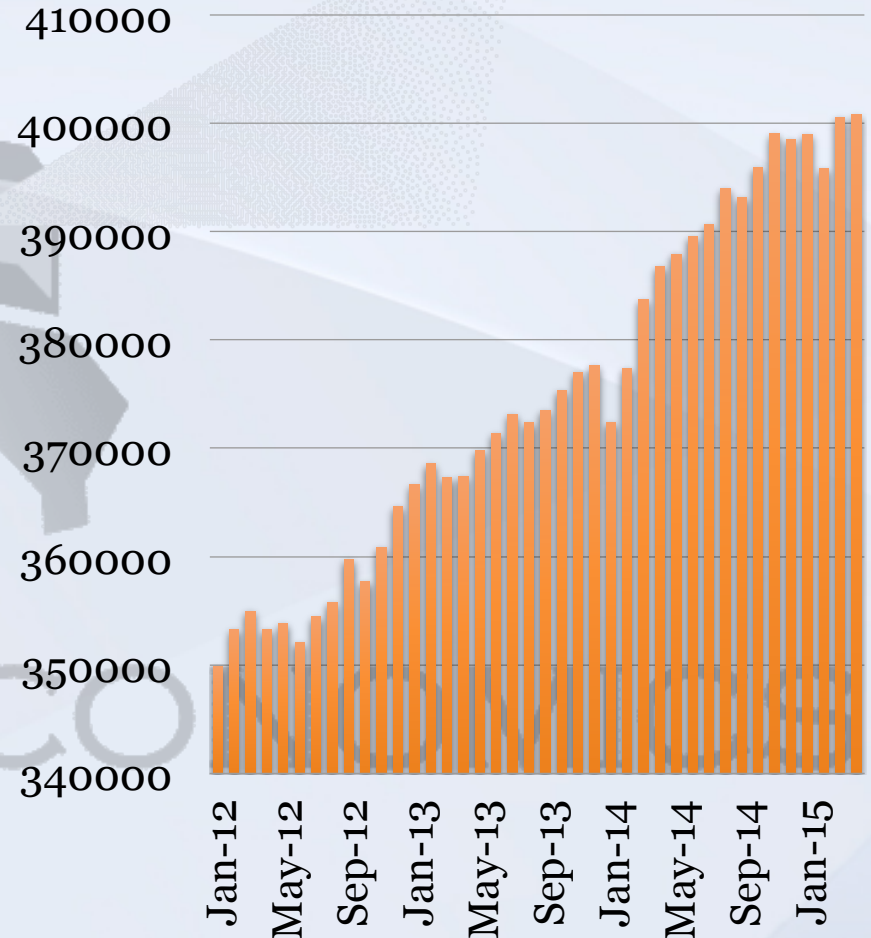
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Real Consumer Spending *Quarterly Growth SAAR*

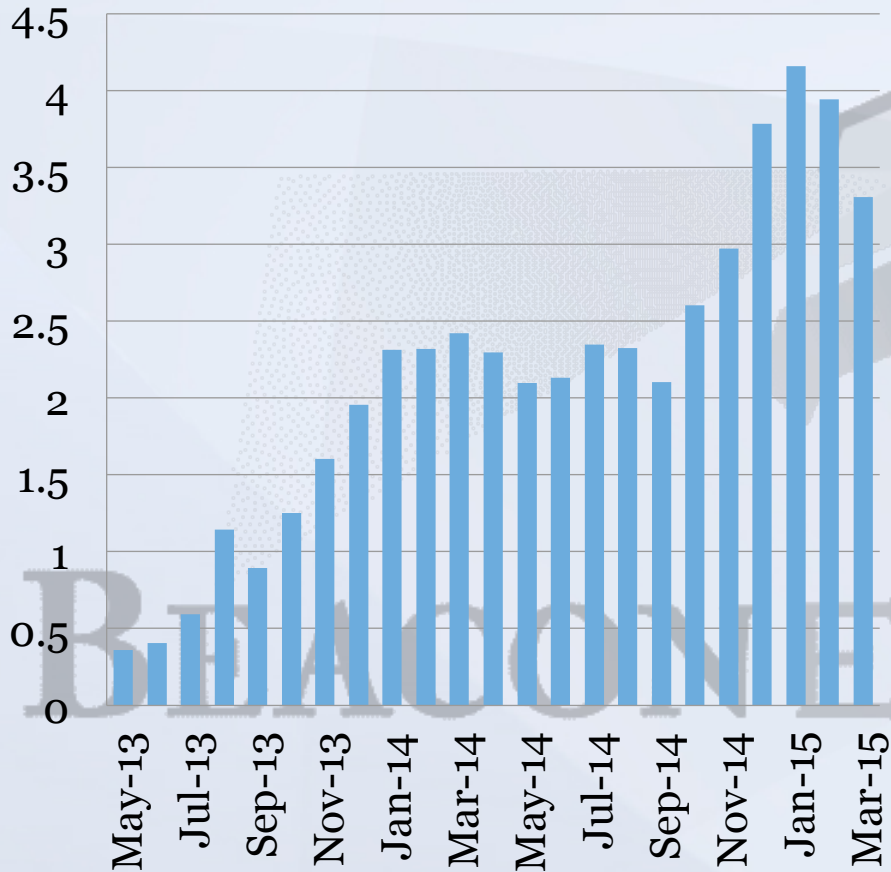


Retail Sales x Gasoline

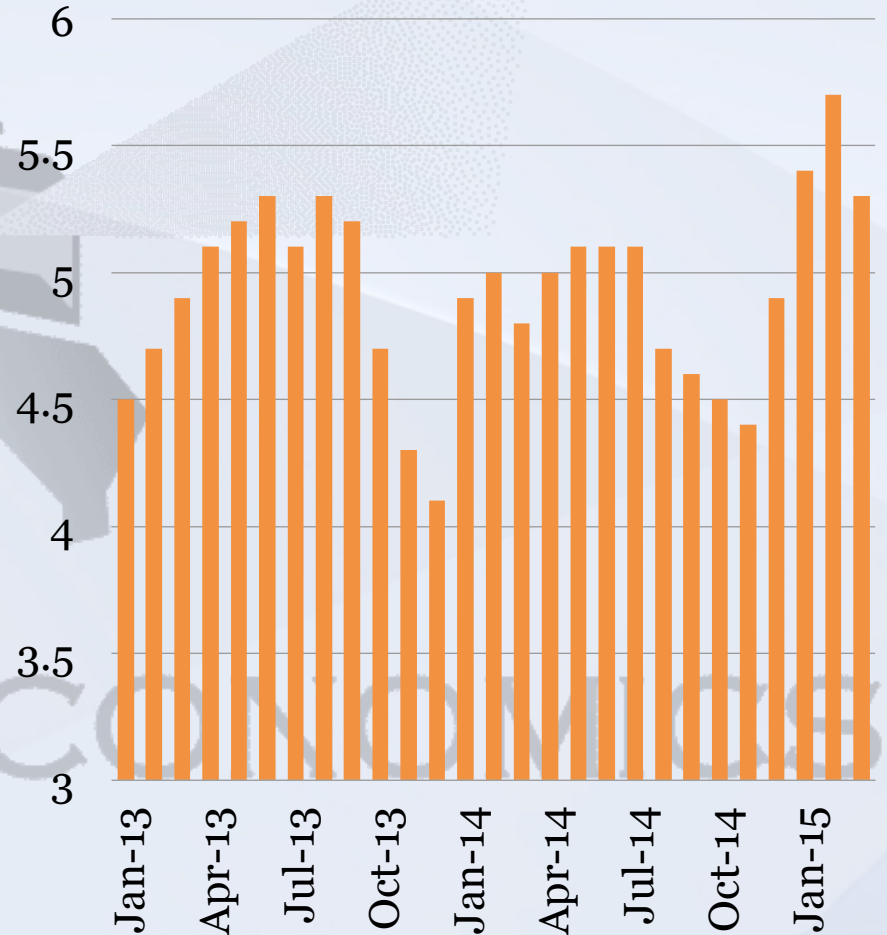




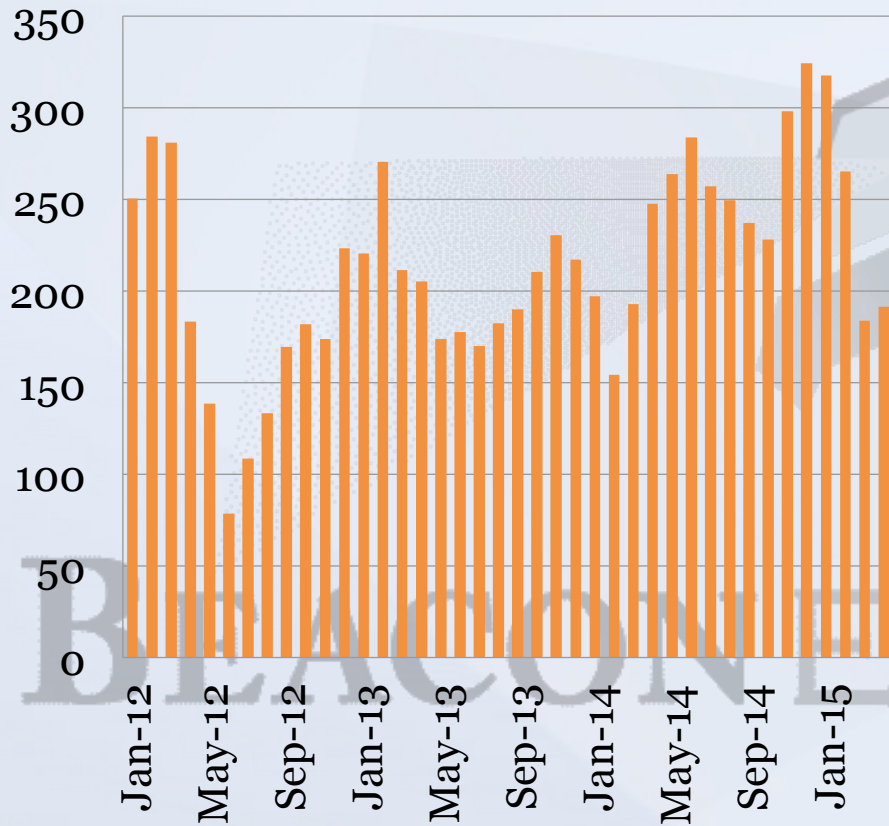
Growth in Aggregate Real Disposable Income (Y-o-Y)



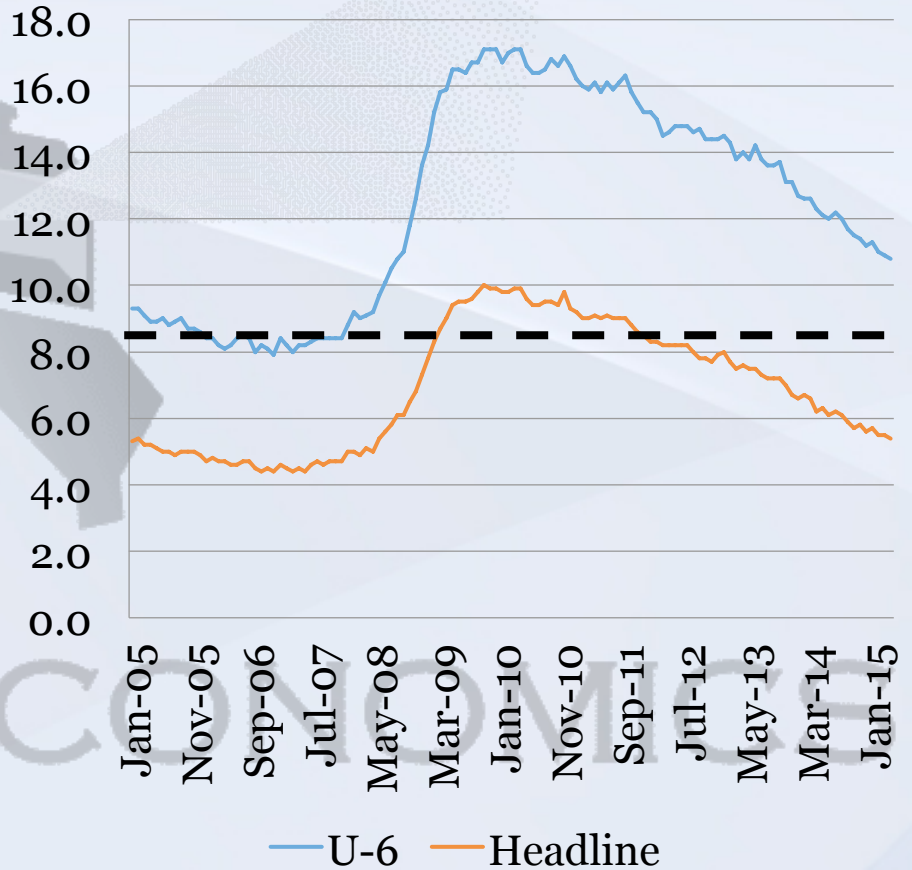
Personal Savings Rate



Change in Payrolls: 3 Month MA



Unemployment Rates



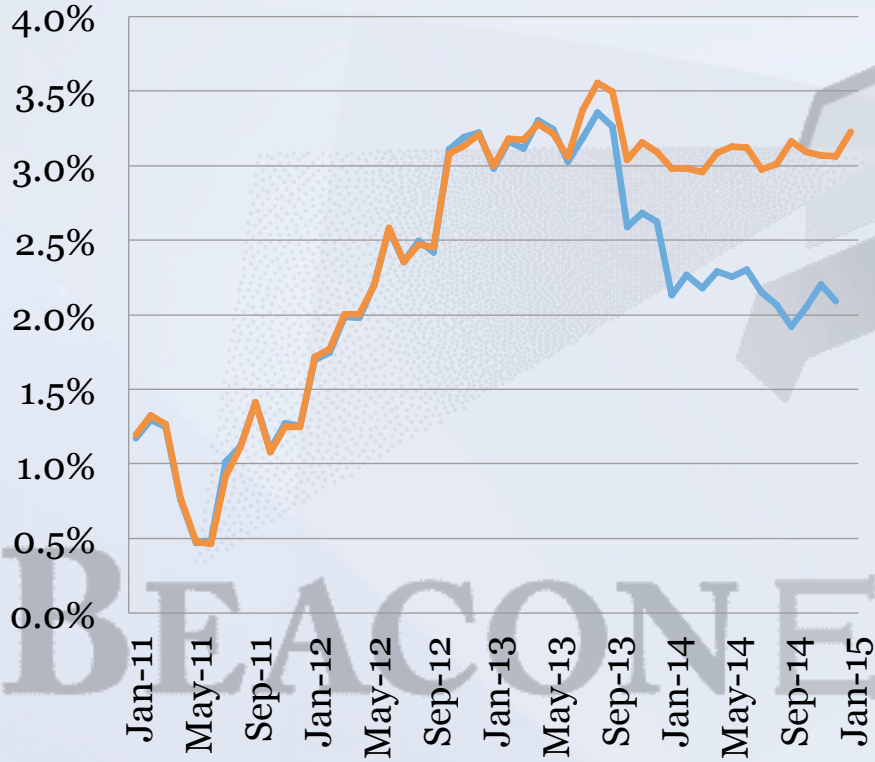


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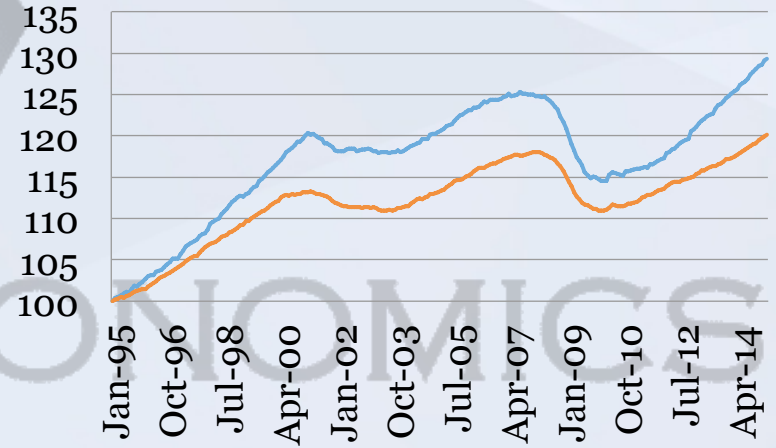
Year on Year Change California Payrolls



— Old — Revised

	Change	Growth
United States	3,212,000	2.4%
New York State	156,800	1.8%
California	498,000	3.2%
Texas	392,900	3.5%

Index Payroll Employment



— California — Balance US

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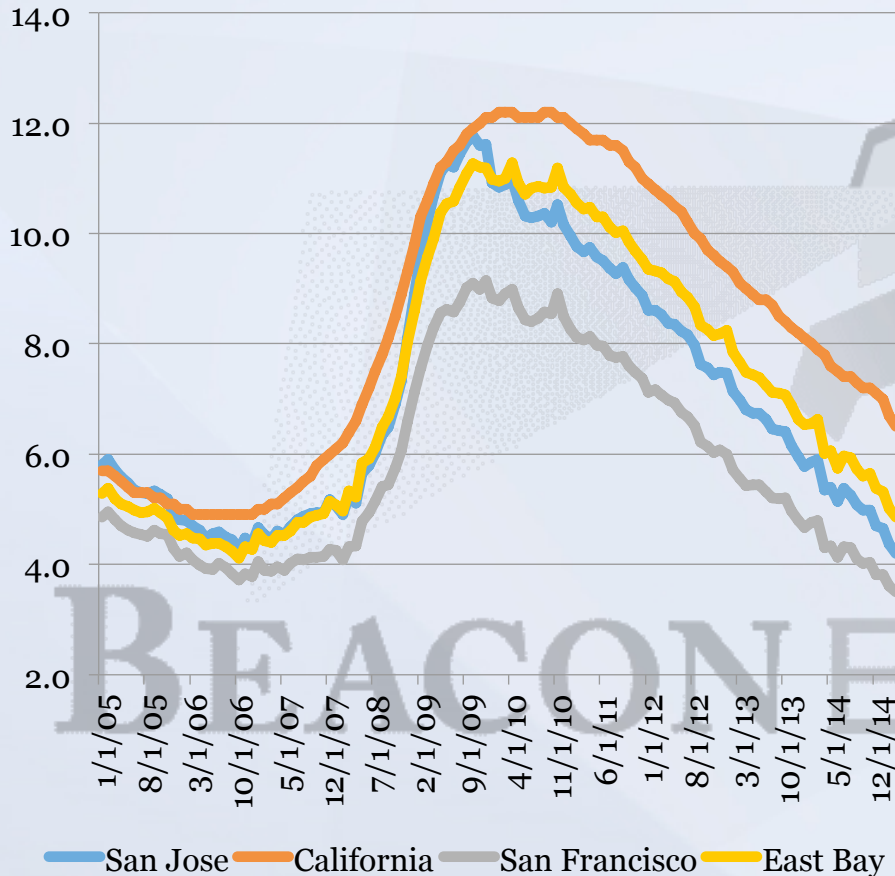
Regional Nonfarm Employment

Region	Mar-15	Change (%)
San Jose	1,044.9	5.3
San Francisco (MD)	1,038.4	4.6
Inland Empire	1,325.8	4.4
South Central Valley	589.4	3.8
Other Southern California	3,262.8	3.0
North Central Valley	1,304.8	2.9
Central Coast	526.0	2.8
Los Angeles (MD)	4,298.4	2.4
Visalia	116.3	2.4
Bakersfield	260.6	2.4
Other Bay Area	1,476.7	2.3
Hanford	38.0	2.2
California	15,982.0	3.1

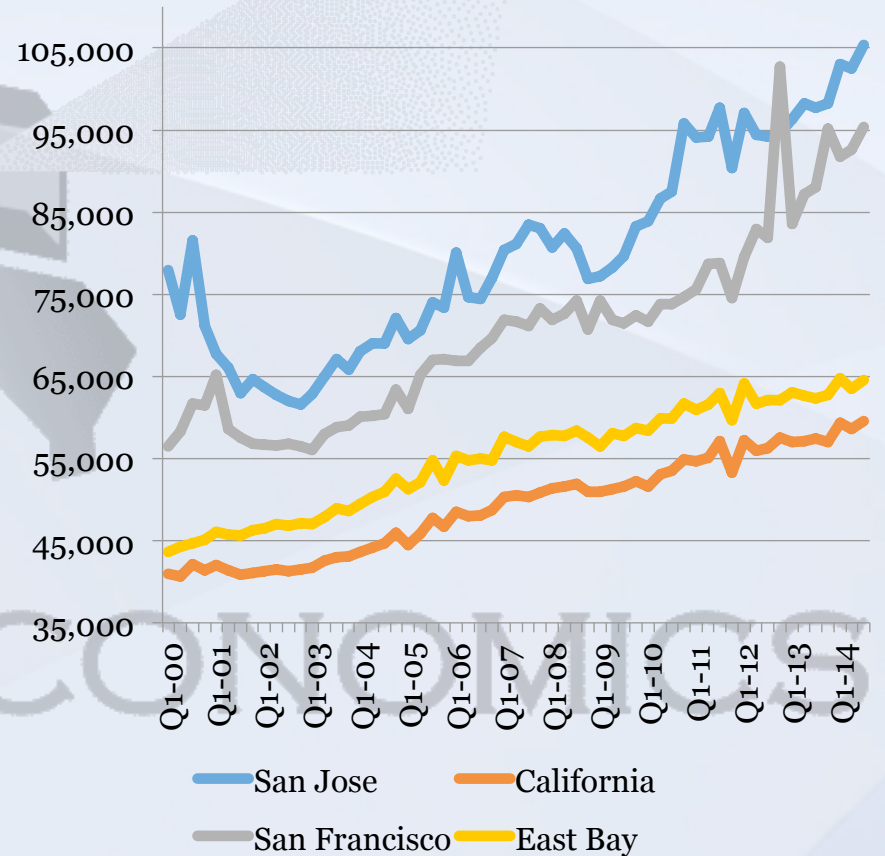
SJ Industry

	Mar-15	Change	Growth
Total Nonfarm	1044.9	53	5.3%
Prof Sci Tech	145.6	15.5	11.9%
Information	73.2	9.6	15.1%
Health Care	111.7	4.6	4.3%
Durable Manu	151	4.5	3.1%
Accommodation	80.8	3.2	4.1%
Admin Support	60.2	2.8	4.9%
Construction	41.2	2.5	6.5%
Local Gov	79.3	1.8	2.3%
Education	43.6	1.6	3.8%
Wholesale Trade	38	1.5	4.1%
Retail Trade	87.5	1.4	1.6%
Non-Durable Manu	12.5	0.8	6.8%
Management	12.1	0.7	6.1%
Arts Entertainment	14.2	0.7	5.2%
Real Estate	13.8	0.6	4.5%
Logistics	15.3	0.5	3.4%
Other Services	26.6	0.4	1.5%

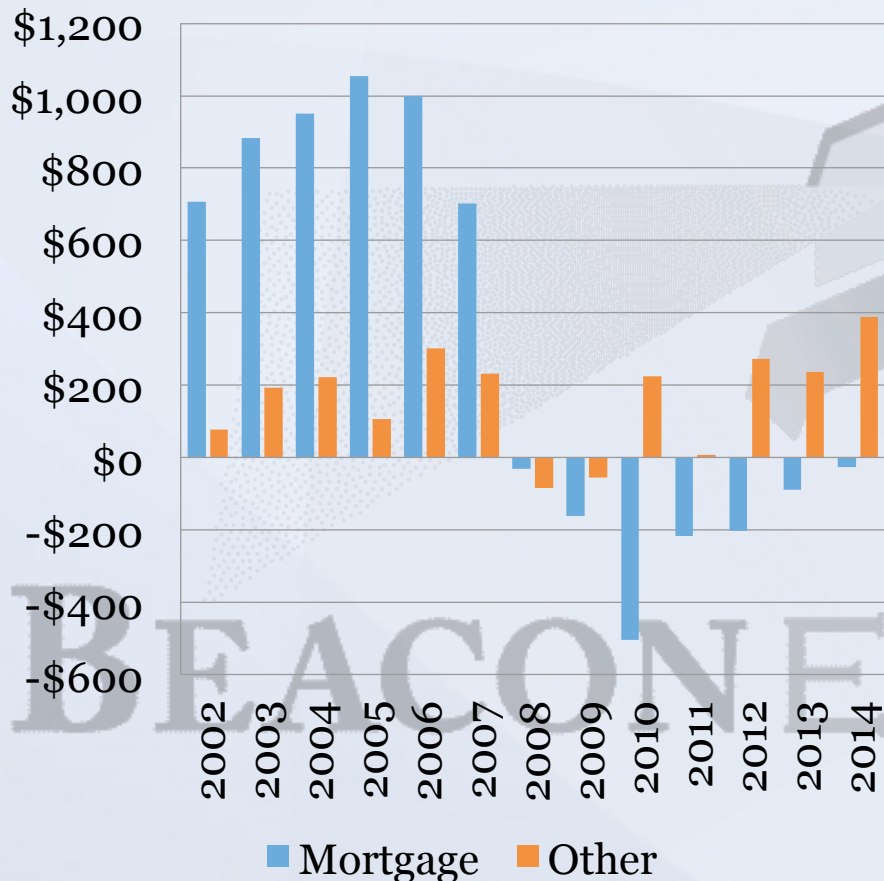
Unemployment Rate



Average Annual Wage



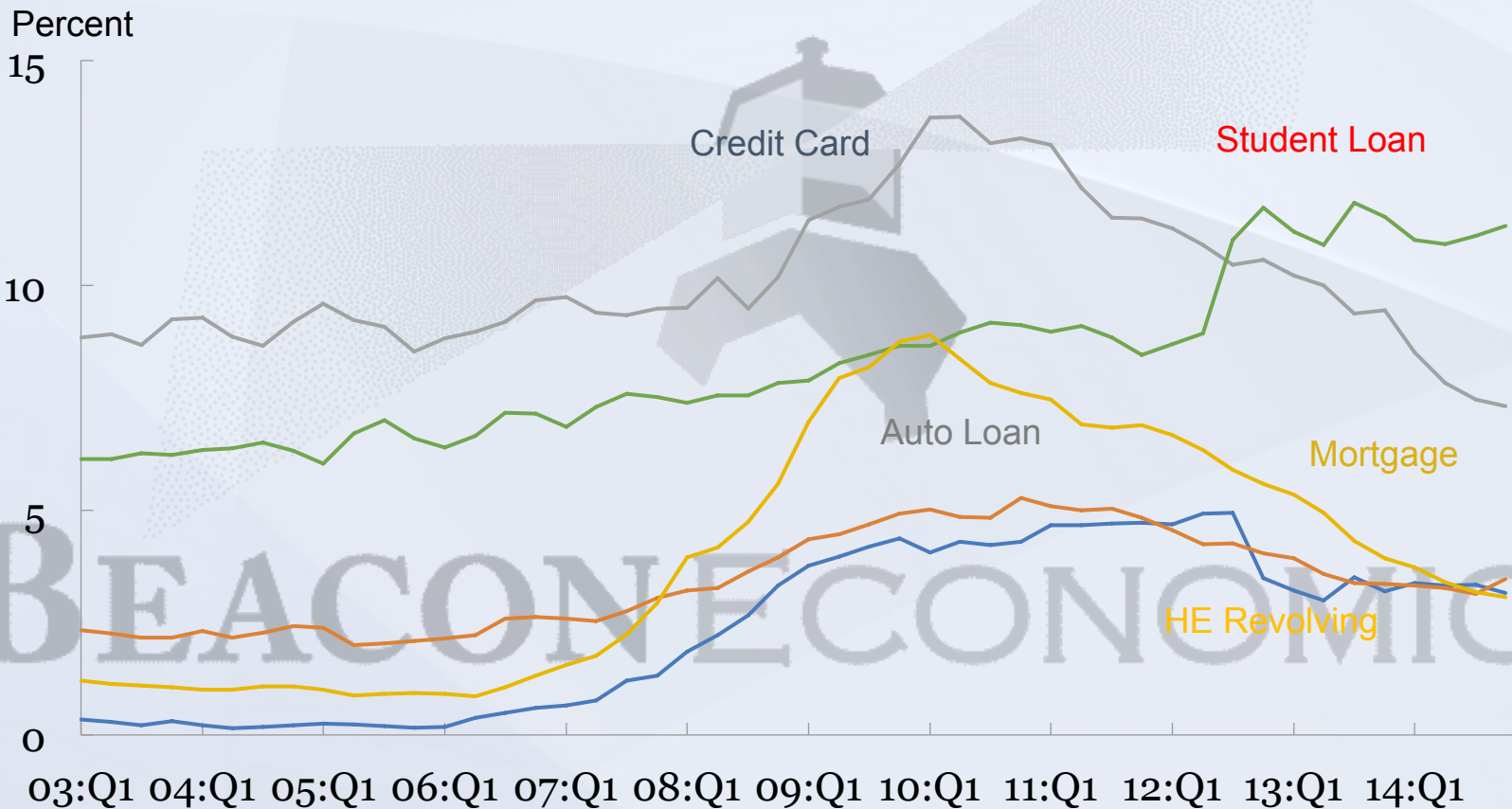
Change in Household Debt



Debt Cost Ratios: % DPI



Percent of Balance 90+ Days Delinquent by Loan Type





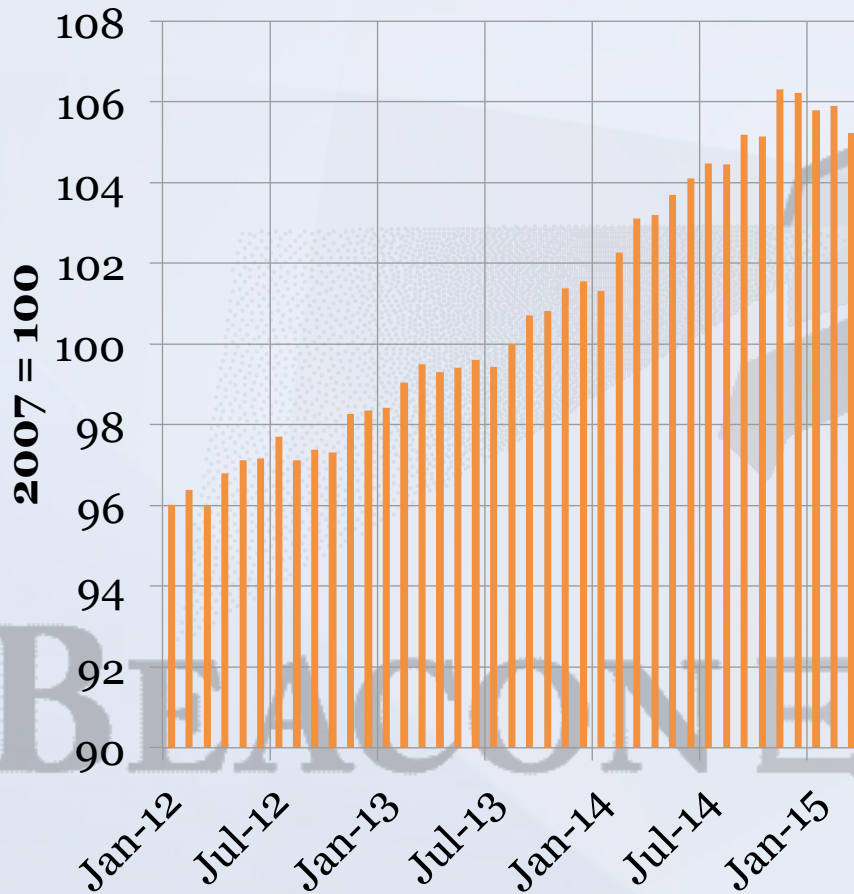
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Annual Income		Diploma's Awarded	
PETROLEUM ENGINEERING	55,103	PSYCHOLOGY	289,968
COMPUTER ENGINEERING	50,542	BUSINESS MANAGEMENT AND A	217,369
CHEMICAL ENGINEERING	48,668	BIOLOGY	178,560
COMPUTER SCIENCE	46,060	GENERAL BUSINESS	171,875
AEROSPACE ENGINEERING	44,651	NURSING	170,595
INDUSTRIAL AND ORGANIZATI	43,804	COMMUNICATIONS	162,915
MECHANICAL ENGINEERING	43,495	MARKETING AND MARKETING R	160,309
ELECTRICAL ENGINEERING	42,238	ACCOUNTING	146,322
MATHEMATICS AND COMPUTER	41,640	ENGLISH LANGUAGE AND LITE	132,367
PHARMACY PHARMACEUTICAL S	40,933	CRIMINAL JUSTICE AND FIRE	123,509
OPERATIONS LOGISTICS AND	40,840	POLITICAL SCIENCE AND GOV	123,106
FINANCE	40,236	FINANCE	123,068
GENERAL ENGINEERING	40,179	ELEMENTARY EDUCATION	116,591
MISCELLANEOUS ENGINEERING	39,965	GENERAL EDUCATION	111,969
ACTUARIAL SCIENCE	39,773	ECONOMICS	101,525
ARCHITECTURAL ENGINEERING	39,522	PHYSICAL FITNESS PARKS RE	100,639
BIOMEDICAL ENGINEERING	39,098	HISTORY	96,637
COMPUTER ADMINISTRATION M	38,760	SOCIOLOGY	88,220
BUSINESS ECONOMICS	38,484	COMMERCIAL ART AND GRAPHI	84,843
CONSTRUCTION SERVICES	38,176	COMPUTER SCIENCE	82,940
FOOD SCIENCE	38,057	MECHANICAL ENGINEERING	67,953
CIVIL ENGINEERING	37,940	FINE ARTS	56,589
NURSING	37,915	ELECTRICAL ENGINEERING	53,805
		LIBERAL ARTS	52,043

Industrial Production



Industrial Production Growth



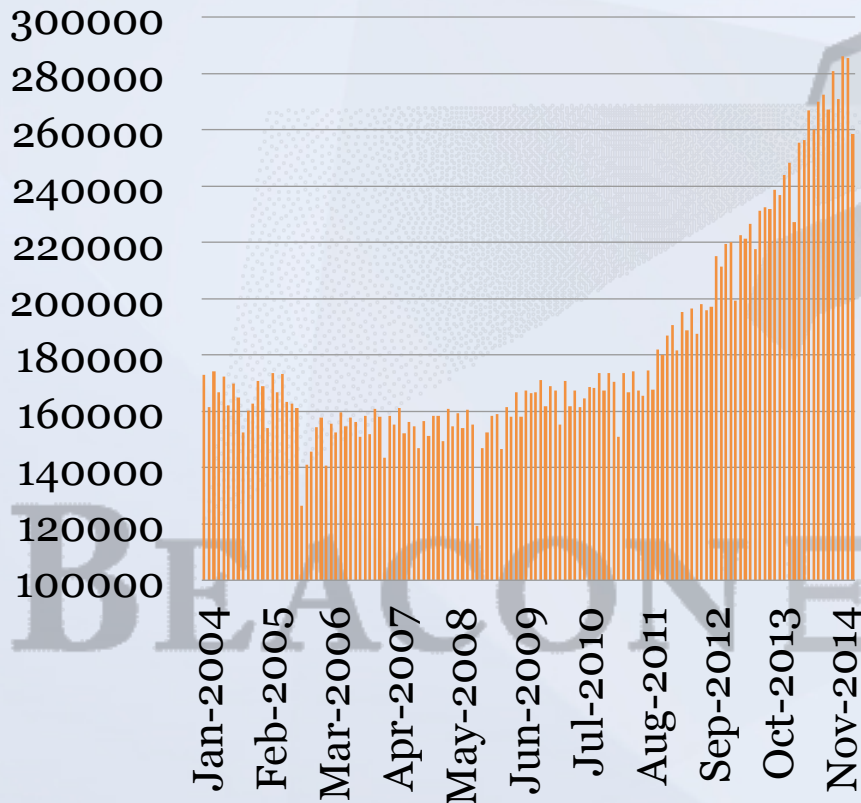


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US Oil Production Thousand Barrels Per Month



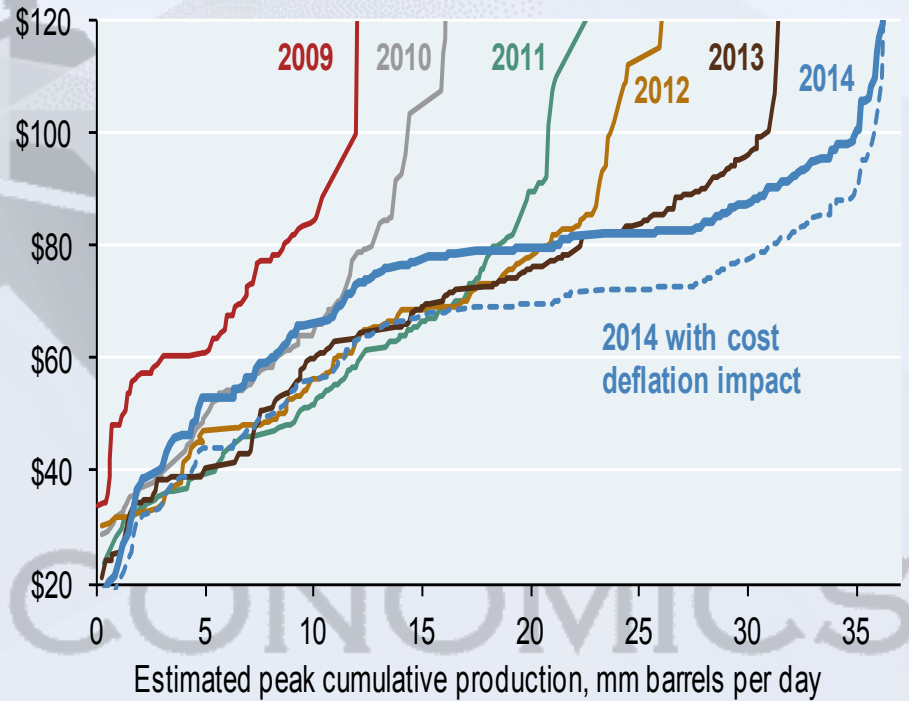
	2010	2014
World	88,158	93,003
United States	9,696	13,973
Saudi Arabia	10,908	11,624
Russia	10,294	10,853
China	4,373	4,526
Canada	3,442	4,383
Europe	4,657	3,870
UAE	2,813	3,471
Iran	4,243	3,380
Iraq	2,403	3,371
Brazil	2,712	2,950
Mexico	2,979	2,812
Kuwait	2,460	2,780
Venezuela	2,599	2,689
Nigeria	2,459	2,427
Qatar	1,788	2,055
Norway	2,144	1,904

WTI Price Per Barrel



Shale oil era has reduced estimated future marginal costs

Breakeven cost for new projects, USD per barrel



Source: Goldman Sachs, "400 projects to change the world", JPMAM. 2014.

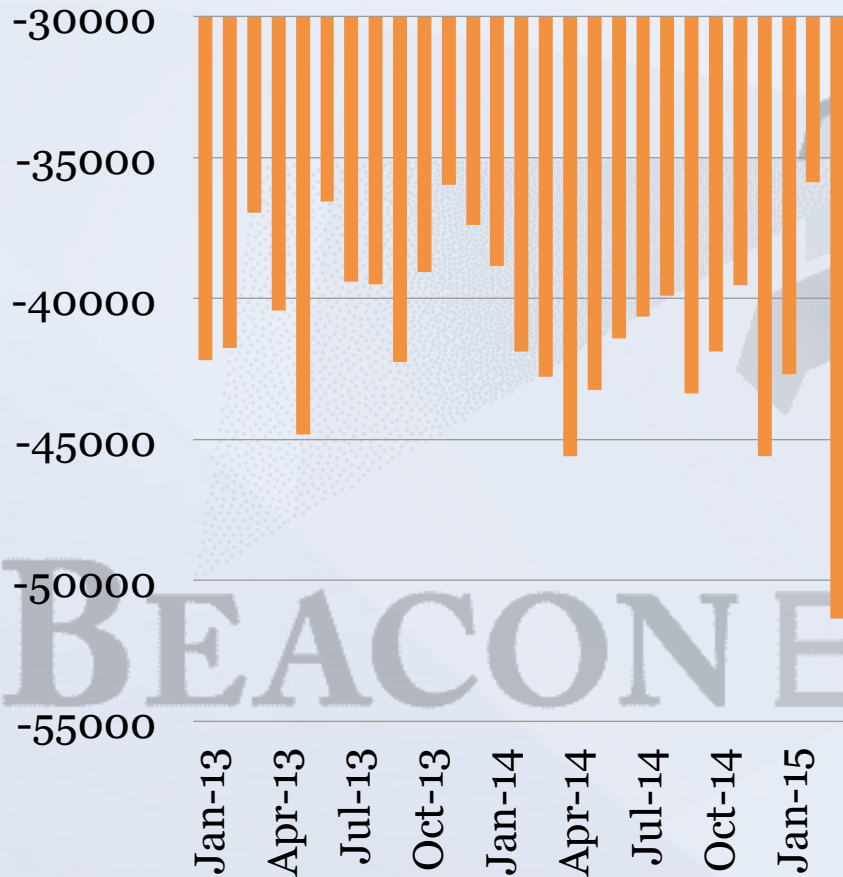


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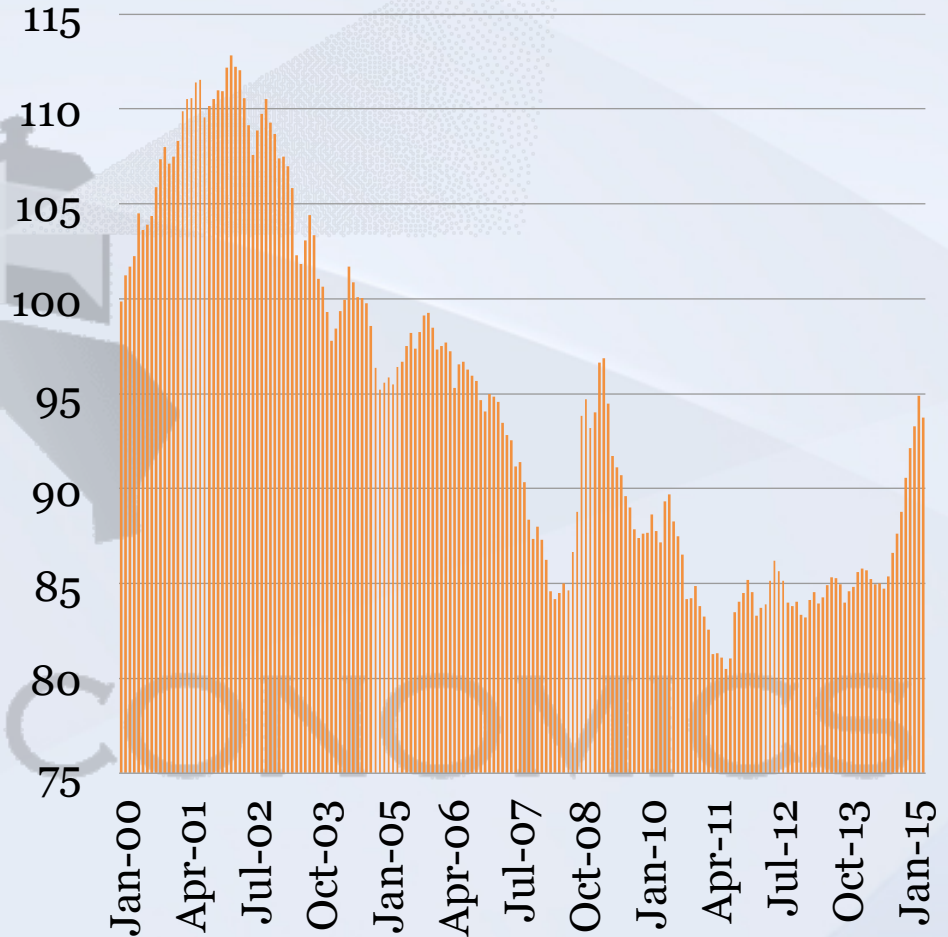
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Nominal Trade Deficit to March



Value \$US Broad Real

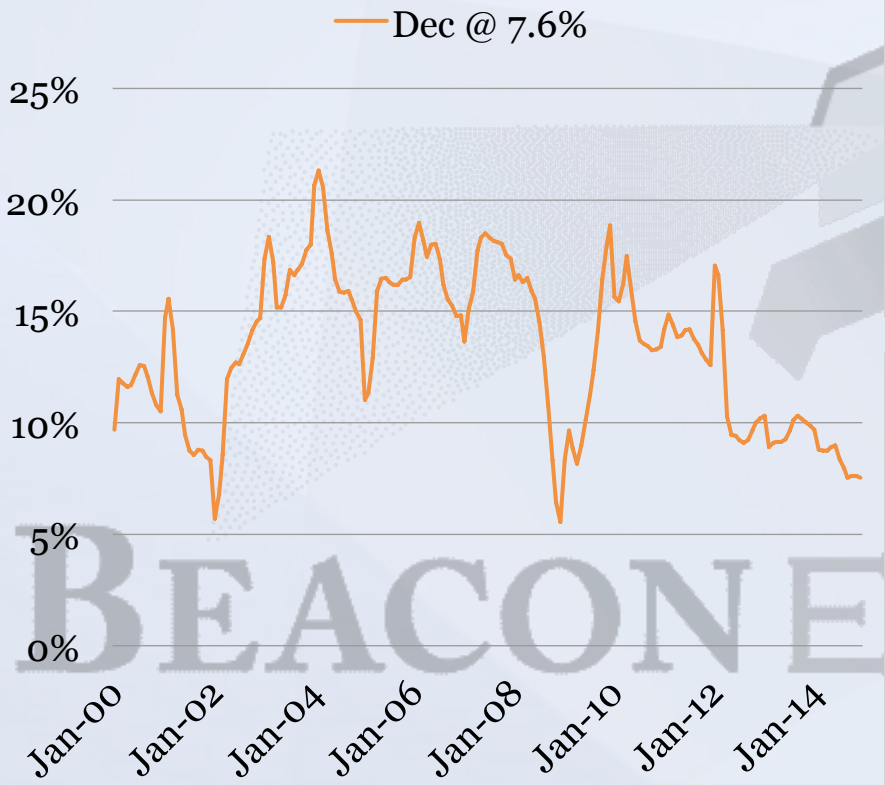


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Nominal Trade Flows: Goods to March \$Billions

	Exports	Imports	Ch TD
Canada	-5.2%	-8.6%	3.2
China	-9.6%	10.3%	-13.3
Mexico	-0.5%	1.0%	-1
Japan	-5.9%	-1.5%	-0.5
Germany	-3.1%	2.5%	-1.1
Korea, South	-6.1%	13.5%	-2.8
United Kingdom	10.8%	3.1%	0.9
France	1.3%	-3.5%	0.5
Brazil	-20.6%	3.1%	-2.4
Taiwan	-9.5%	7.5%	-1.3
Netherlands	2.0%	-13.7%	0.9
India	6.4%	3.8%	-0.1
Switzerland	-9.0%	0.0%	-0.6
Italy	-11.4%	9.5%	-1.4

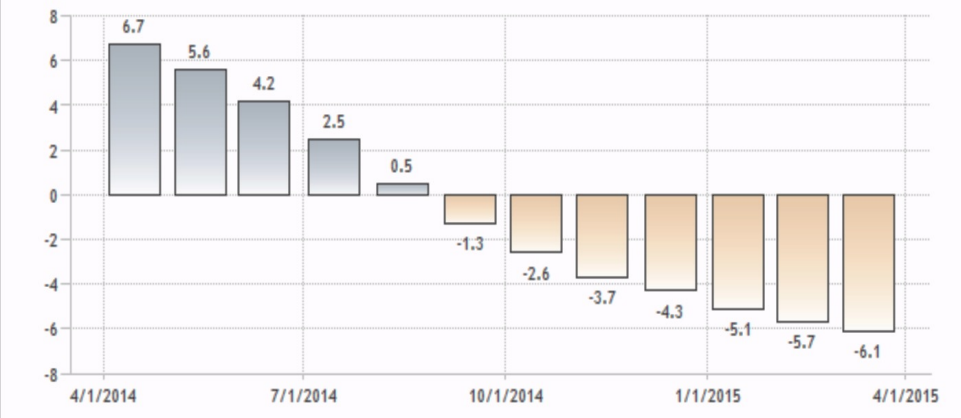
Chinese IP Index Y-o-Y Percent Change, 3MA



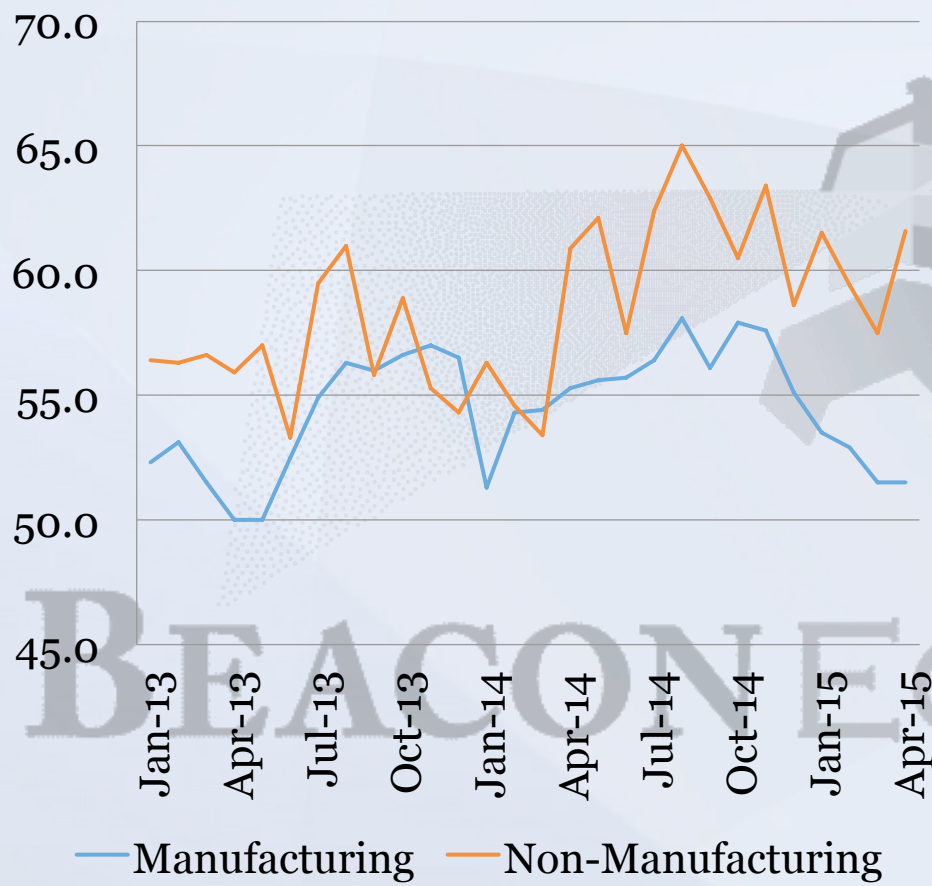
CHINA FOREIGN EXCHANGE RESERVES



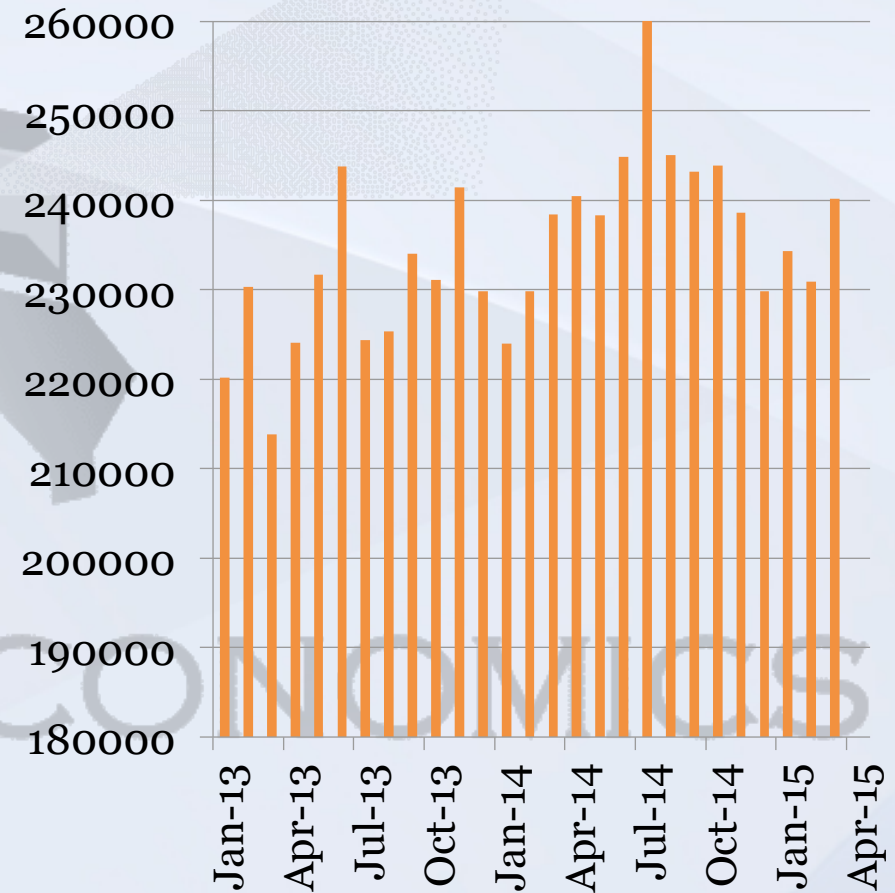
CHINA NEWLY BUILT HOUSE PRICES YOY CHANGE



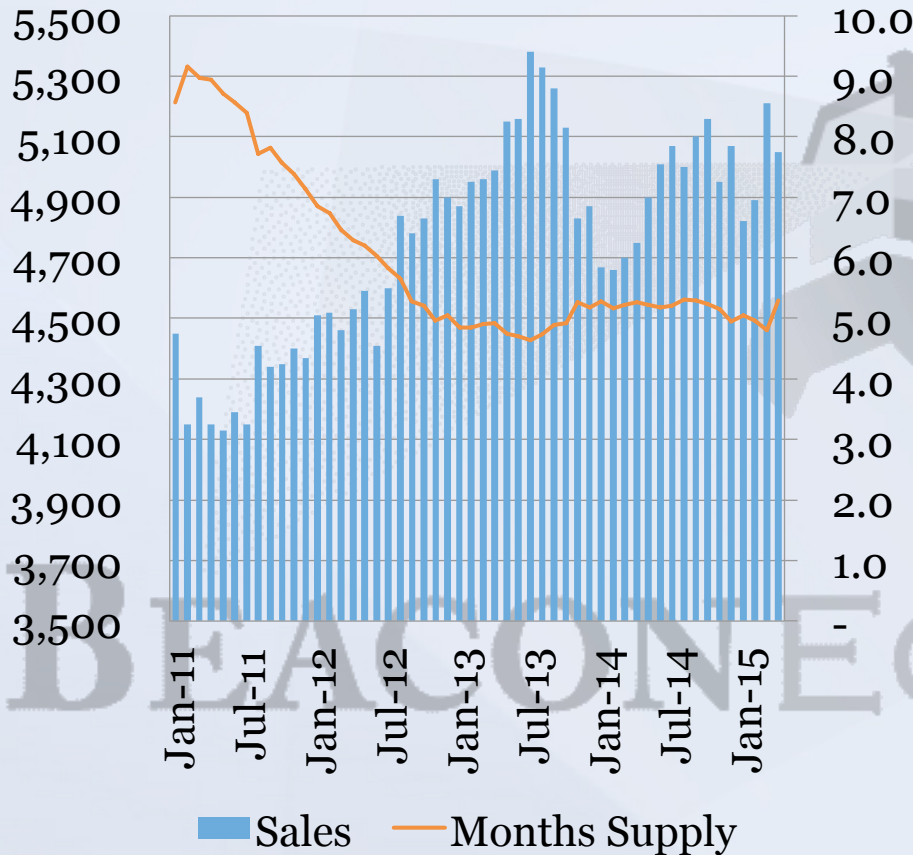
ISM Indexes



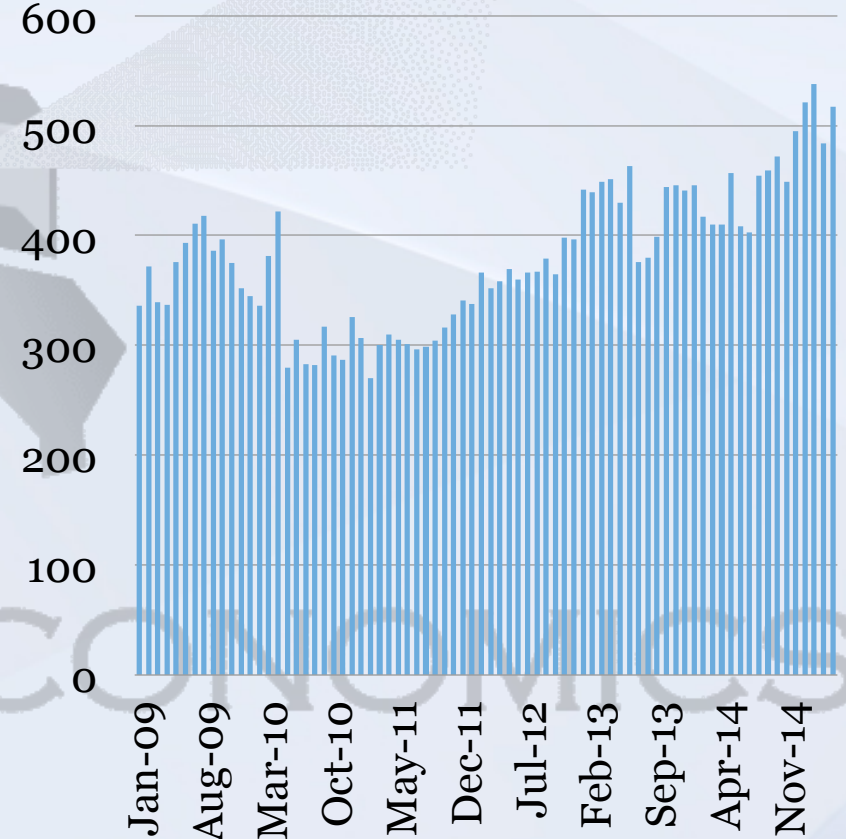
Durable Orders to March



Nar Existing Home Sales



New Home Sales



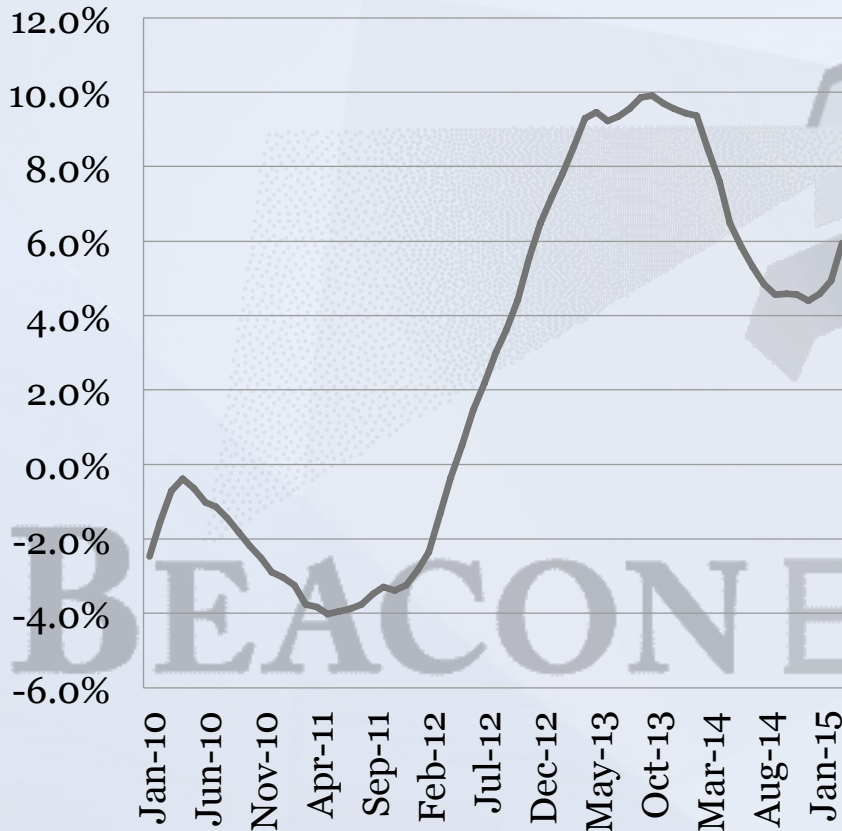


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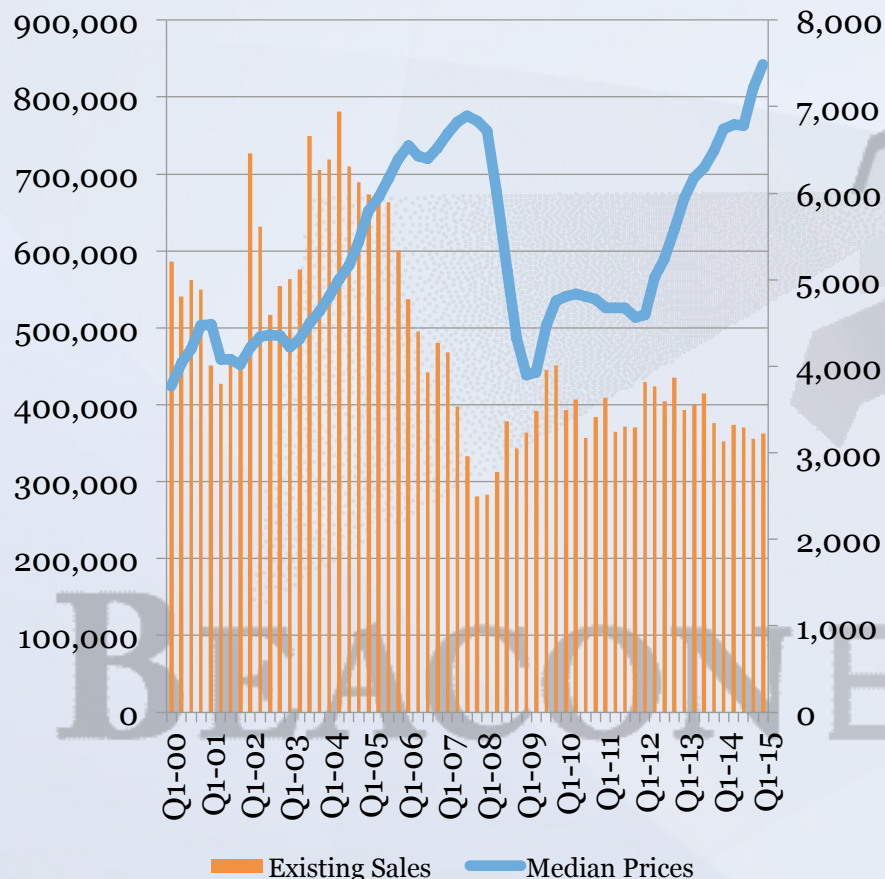


Core Logic HPI Y-o-Y Growth to March



Case Shiller HPI SA	Dec-Dec	Dec-Mar AR
AZ-Phoenix	2.4%	6.2%
CA-Los Angeles	5.5%	10.6%
CA-San Diego	5.0%	16.1%
CA-San Francisco	9.4%	26.1%
CO-Denver	8.1%	17.6%
DC-Washington	1.3%	8.3%
FL-Miami	8.4%	13.0%
FL-Tampa	6.4%	10.1%
GA-Atlanta	5.1%	9.7%
IL-Chicago	1.4%	20.3%
MA-Boston	3.8%	9.2%
MI-Detroit	2.4%	20.8%
MN-Minneapolis	1.7%	19.7%
NC-Charlotte	3.5%	10.4%
NV-Las Vegas	6.9%	7.0%
NY-New York	1.9%	8.4%
OH-Cleveland	1.5%	5.3%
OR-Portland	6.8%	14.2%
TX-Dallas	7.5%	14.4%
WA-Seattle	6.6%	14.3%
Composite-20	4.5%	12.8%

Home Prices and Sales



California Residential Real Estate Market

County/MSA	2015Q1	% Change
------------	--------	----------

Median Prices

San Jose	842,099	11.1
California	393,550	6.9
San Francisco MD	1,043,678	9.0
Oakland MD	570,277	10.4

Existing Home Sales

San Jose	3,225	2.9
California	78,440	5.4
San Francisco MD	2,673	-4.7
Oakland MD	5,866	5.3

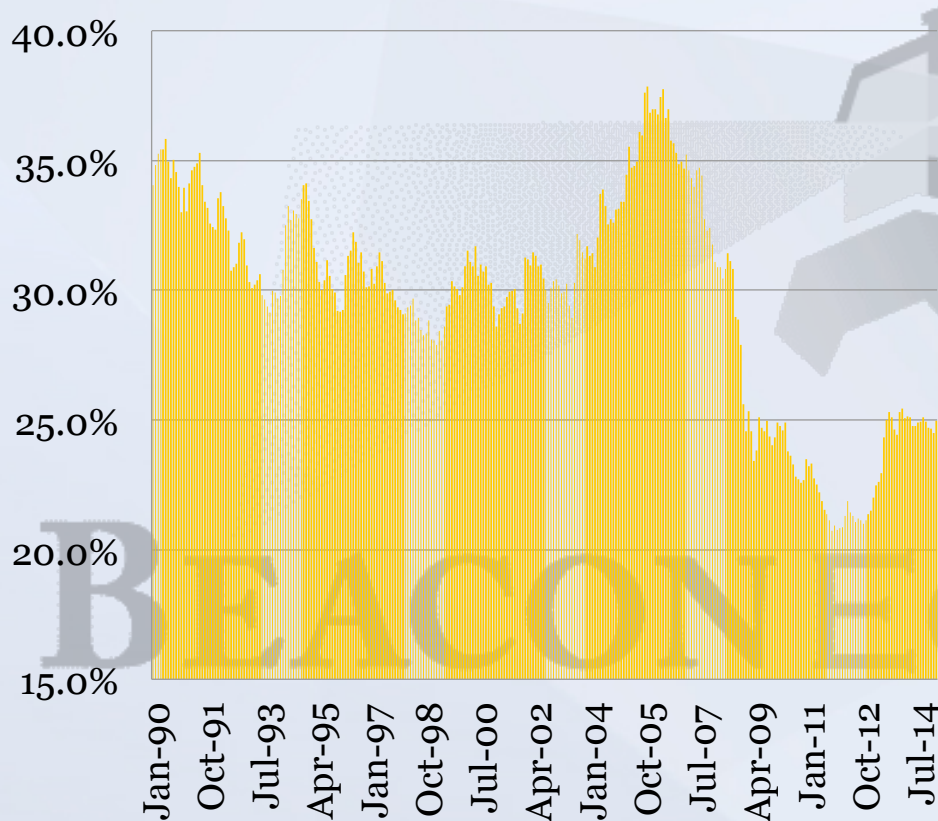


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Housing Affordability (Median Price as % of Median Income w/ Taxes)



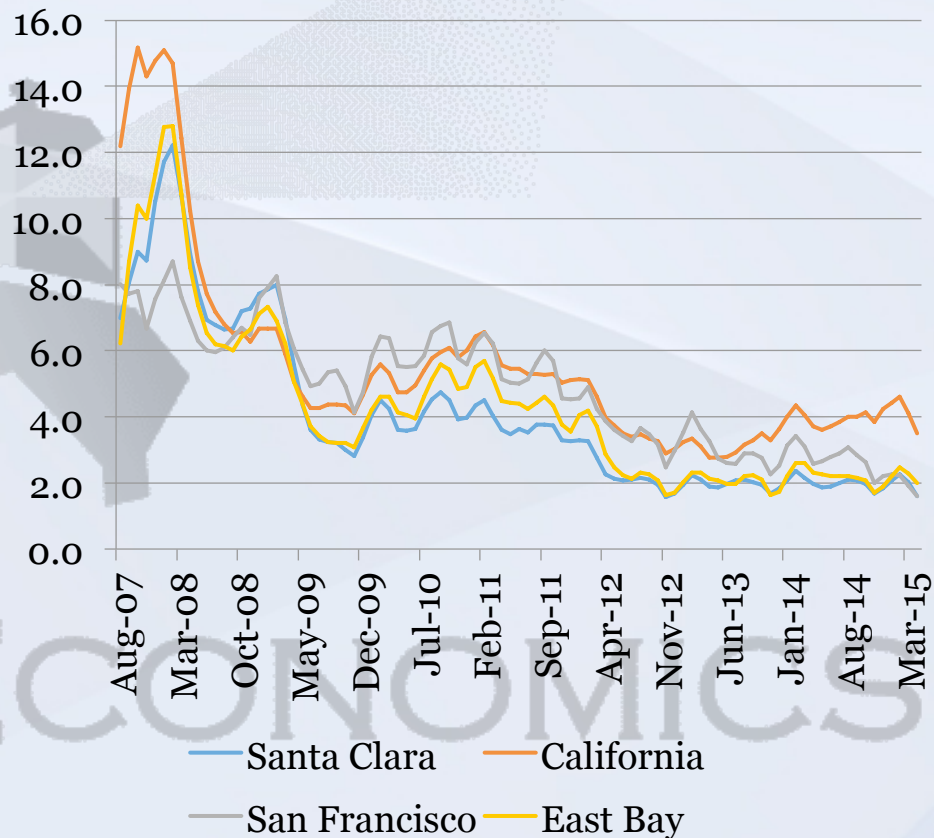
30 FR Mortgage Conforming



San Jose Apartment Market



Months Supply (Moving Average)



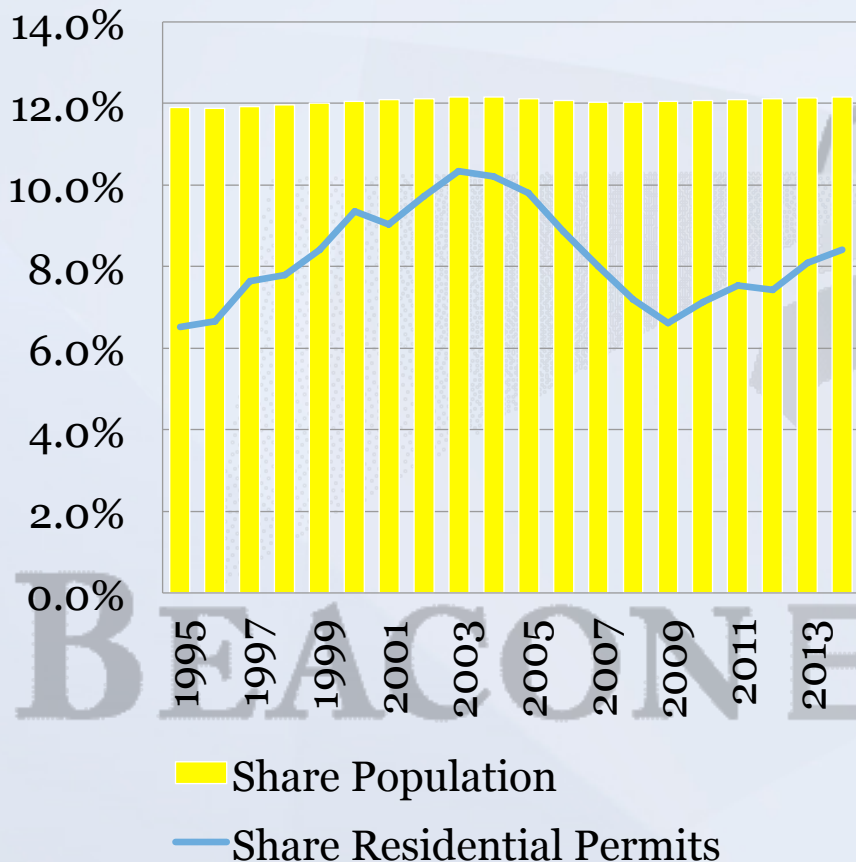


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State Housing / Population Imbalance



2013 Vacancy

Miami	2.1%	7.4%	4.2%
Dallas	1.4%	7.2%	3.7%
Inland Empire	1.9%	6.5%	3.7%
Chicago	1.9%	5.6%	3.2%
New York	1.6%	4.3%	2.9%
San Diego	1.4%	4.1%	2.7%
Washington, DC	1.0%	5.1%	2.5%
Los Angeles	1.0%	3.7%	2.4%
San Francisco	0.9%	3.0%	1.9%

Share Housing Costs over 35% of Income:

MSA	Renters
Inland Empire	51%
Los Angeles	50%
San Diego	47%
New York	45%
Chicago	42%
San Francisco	41%
Washington, DC	38%
Dallas	38%

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

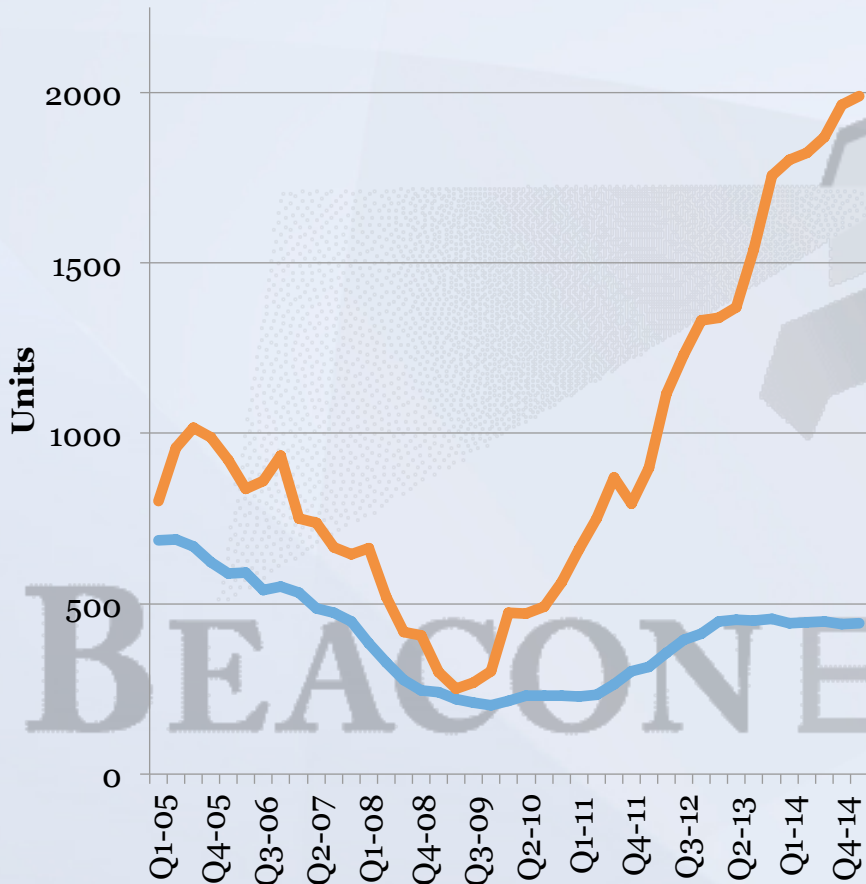


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San Jose Residential Permits



Residential Units Permitted

	2015Q1	% Change
<u>Single-Family</u>		
San Jose	443.0	0.2
California	9348.0	3.4
San Francisco	125.0	2.5
East Bay	679.0	2.1
<u>Multi-Family</u>		
San Jose	1991.0	10.4
California	13513.0	14.6
San Francisco	1085.0	-22.7
East Bay	825.0	42.5

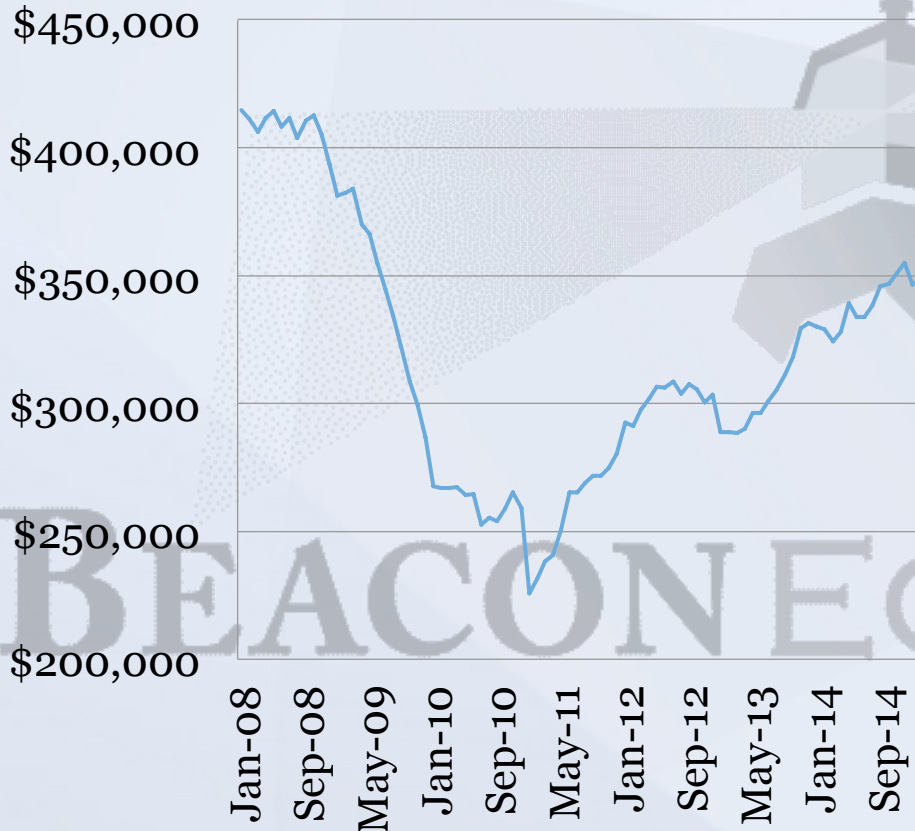


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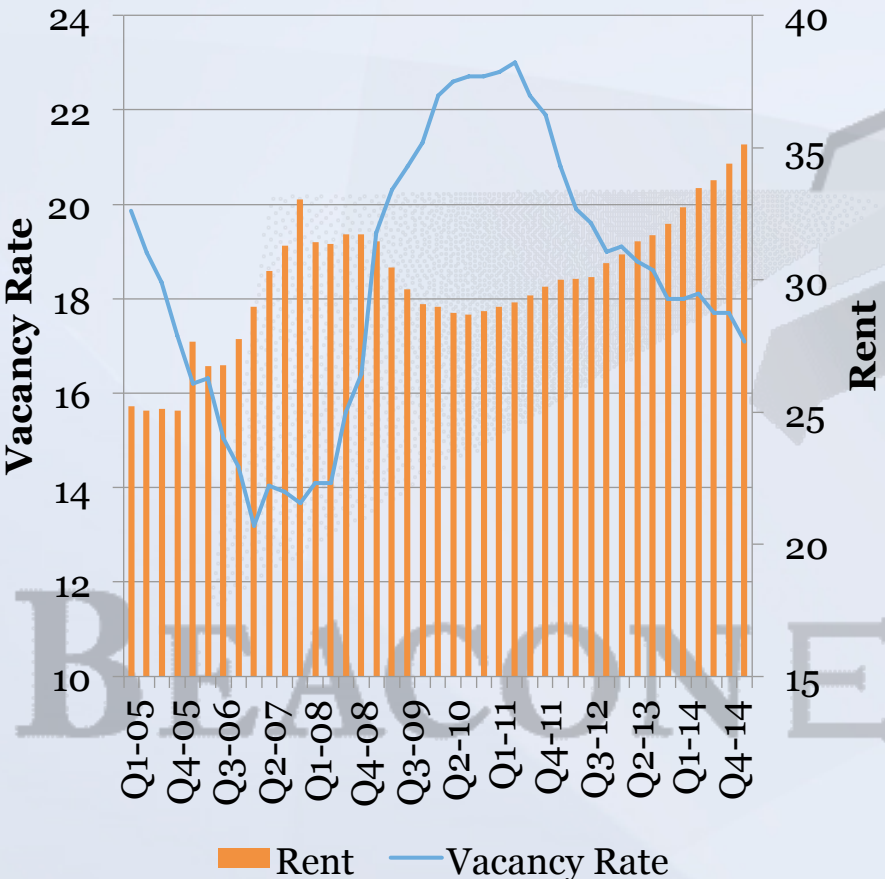
Non Residential Construction Spending to Feb \$Millions



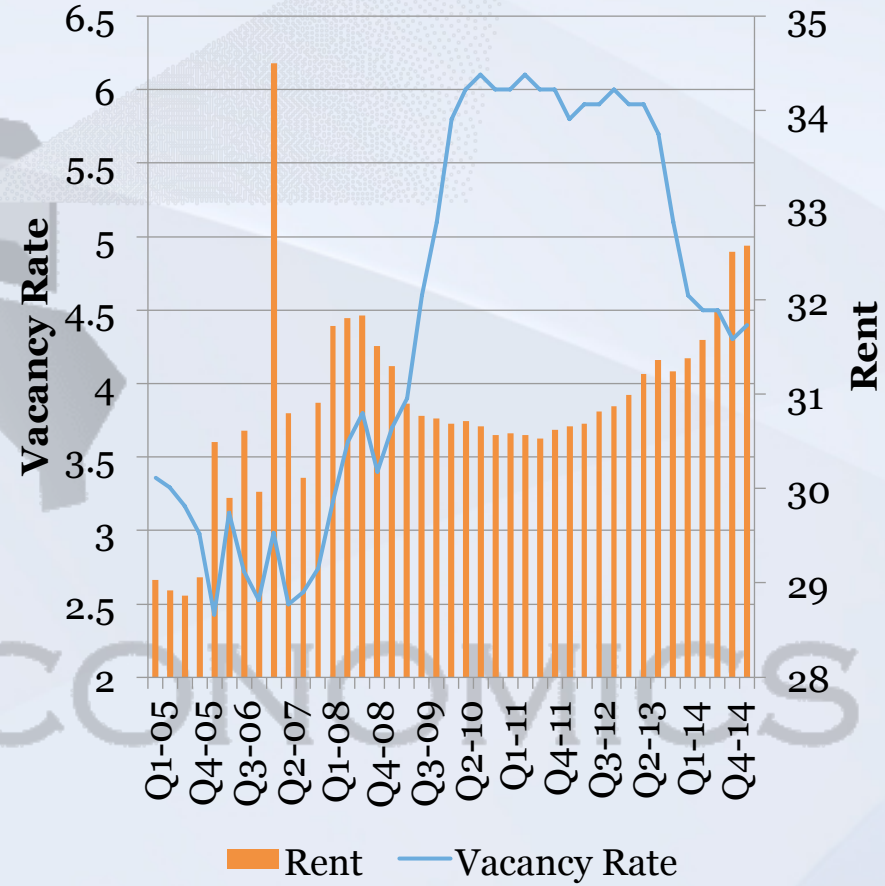
	Level Q1	Gr YoY
Infrastructure	108,970	-11.6%
Manufacturing	66,926	35.2%
Office	41,230	23.2%
Retail	36,548	9.6%
Health	29,221	1.8%
Lodging	16,317	14.0%
Education	15,738	-1.8%
Warehouse	15,042	45.7%

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Office Real Estate



Retail Real Estate





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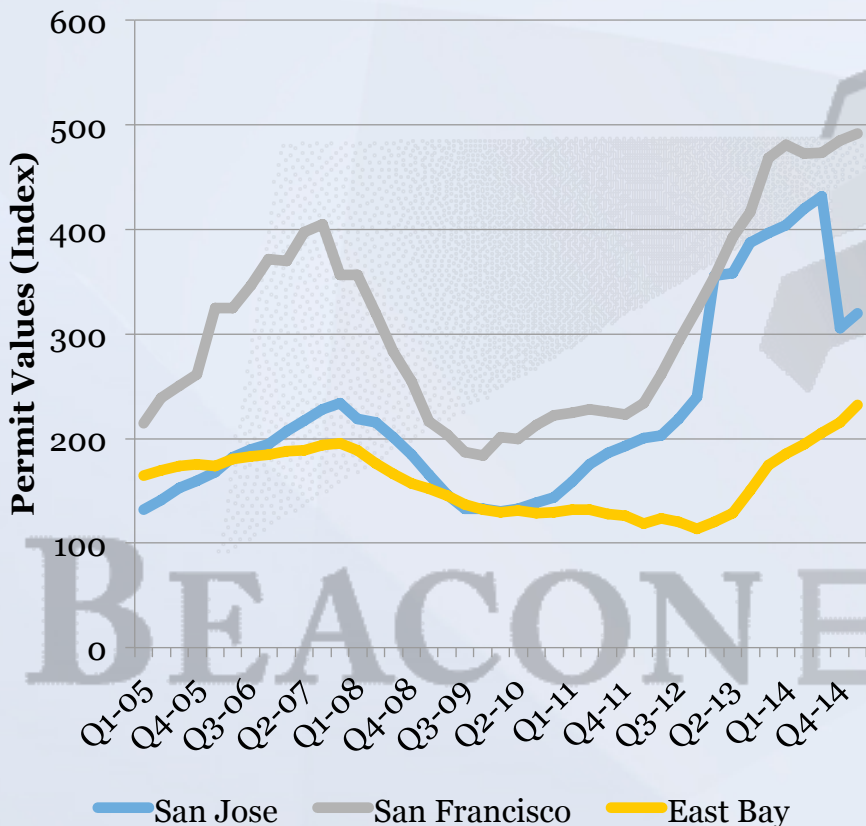
San Jose Sales Tax Receipts by Category

Category	2014 (\$ 000s)	Change (%)
Autos and Transportation	49,414	0.0
Building and Construction	29,956	11.0
Business and Industry	95,018	5.5
Food and Drugs	15,994	2.8
Fuel and Service Stations	29,020	-3.0
General Consumer Goods	78,621	1.5
Restaurants and Hotels	42,586	8.4
Total	401,352	4.8

Bay Area Hotel Statistics

Area	Mar-15	% Change
<u>Average Daily Rate</u>		
San Jose	199.6	15
California	147.4	8.6
San Francisco	258.8	14.2
East Bay	133.1	11.9
<u>Occupancy Rate</u>		
San Jose	82.3	8.8pp
California	75.5	3.3pp
San Francisco	85.2	3.6pp
East Bay	81.6	8.4pp

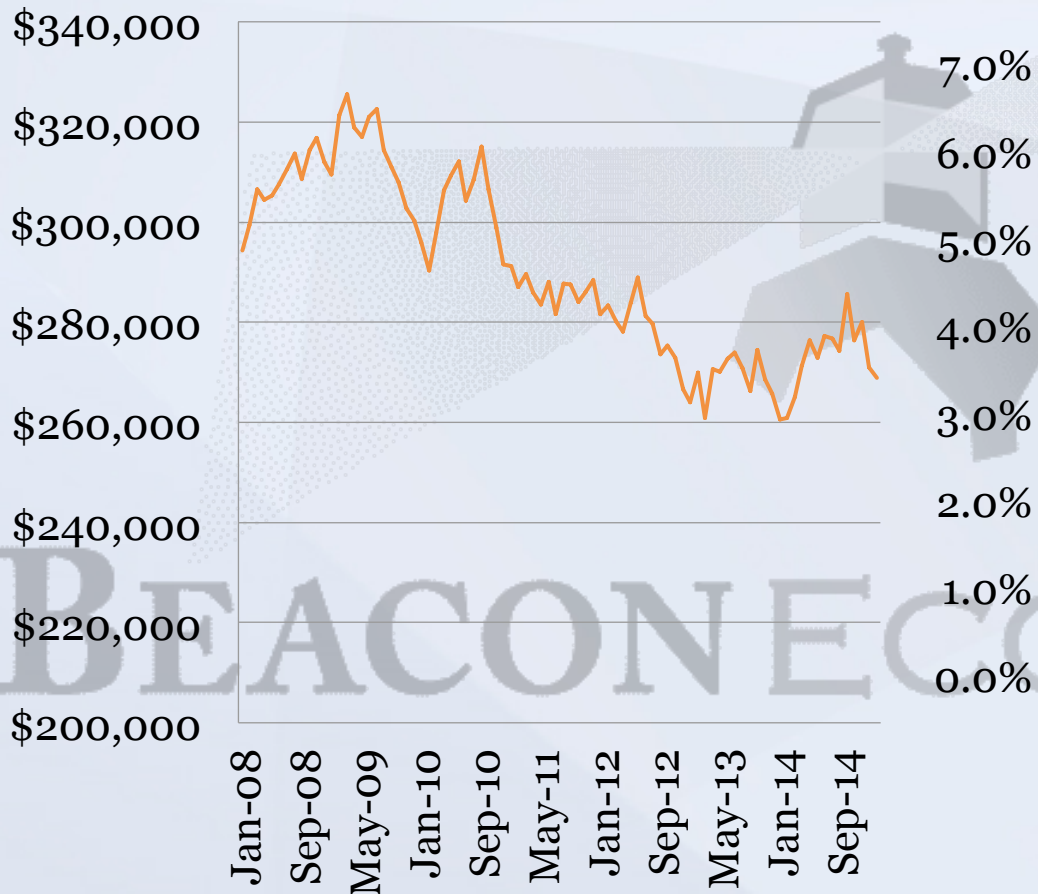
San Jose Nonresidential Permits



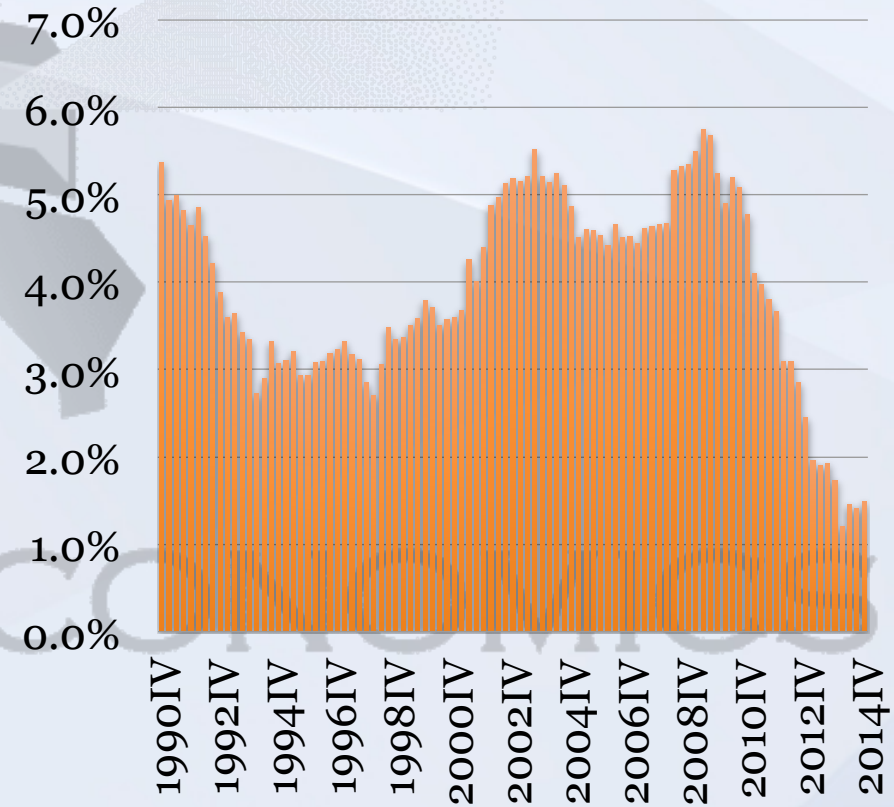
San Jose Nonresidential Permits by Type (\$000s)

Permit Type	2014	Change (%)
Total Nonresidential	3,433,158	4.3
Alterations	1,449,591	14.7
New Commerical	1,070,343	29.2
Other Nonres	776,907	-13.9
Office	541,492	22.3
Retail	174,309	7.6
Hotel	40,365	53.6
Industrial	27,999	-42.0

Public Construction Spending to Feb \$Millions



Public Net Investment as % of Revenues



2012 STATE REPORT CARD GPA

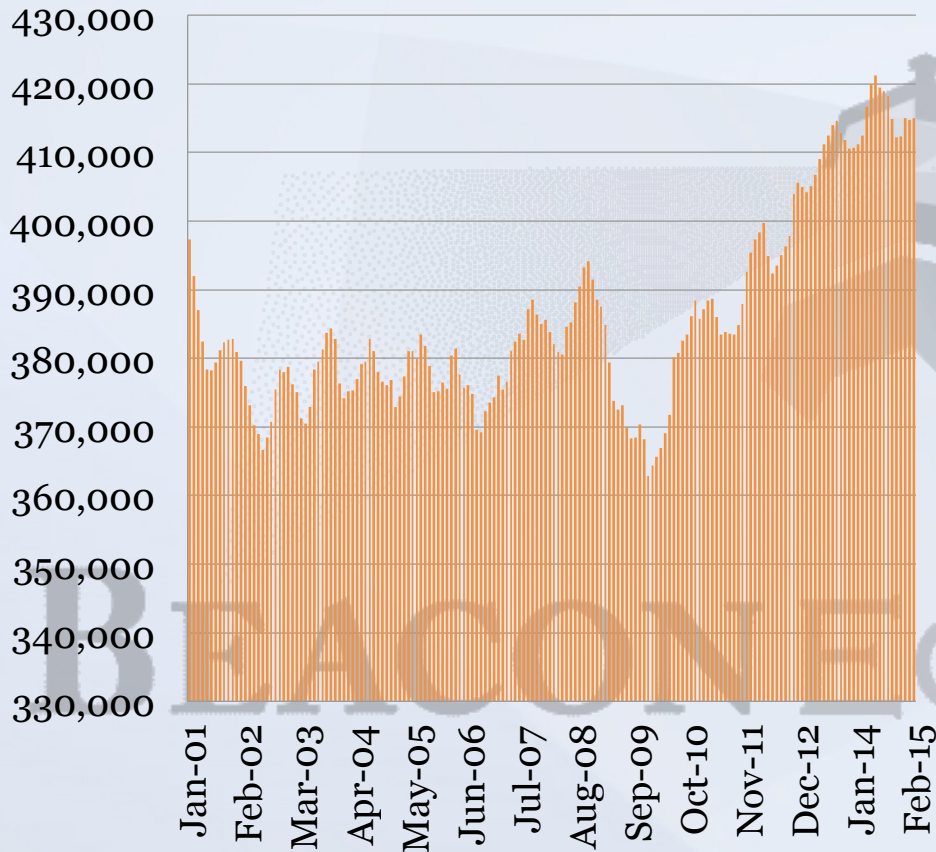
C

Aviation	C+
Drinking Water	C
Levees	D
Ports	B-
Solid Waste	B
Transportation	C-
Urban Runoff	D+
Wastewater	C+

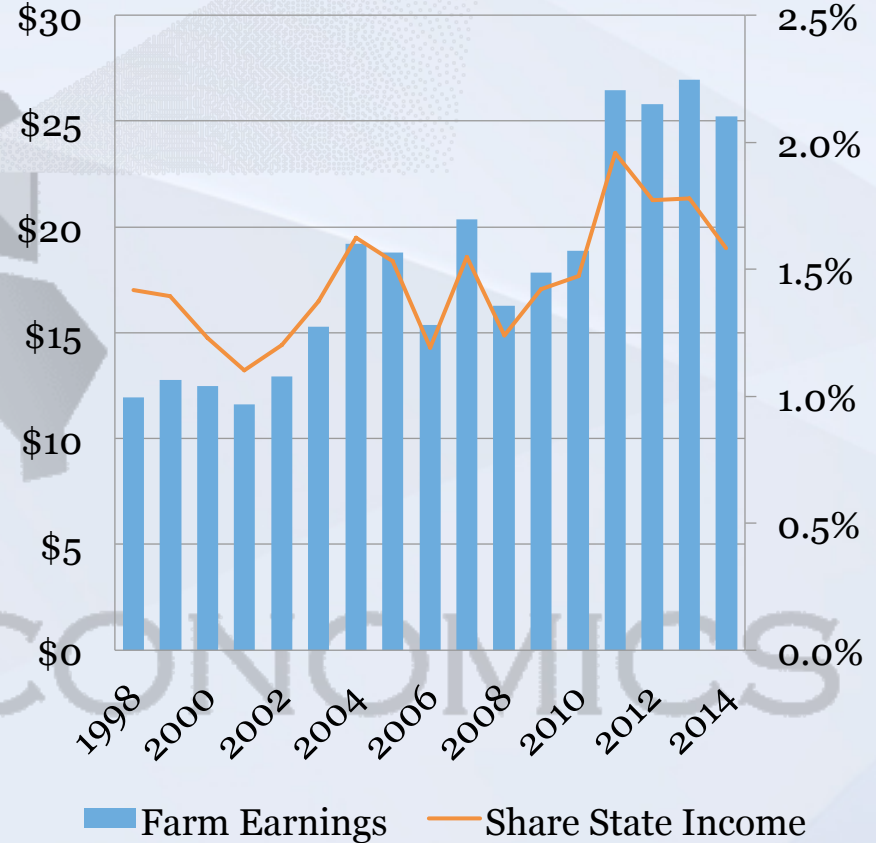
Source: Amer. Society of Civil Engineers

- Unfunded infrastructure investments: \$650B – B!
- 10 million new residents projected in next 20 years
- Current ‘surplus’ in name only with expiring tax increases, underfunded pensions
- State desperately in need of revenue reform

California Farm Employment



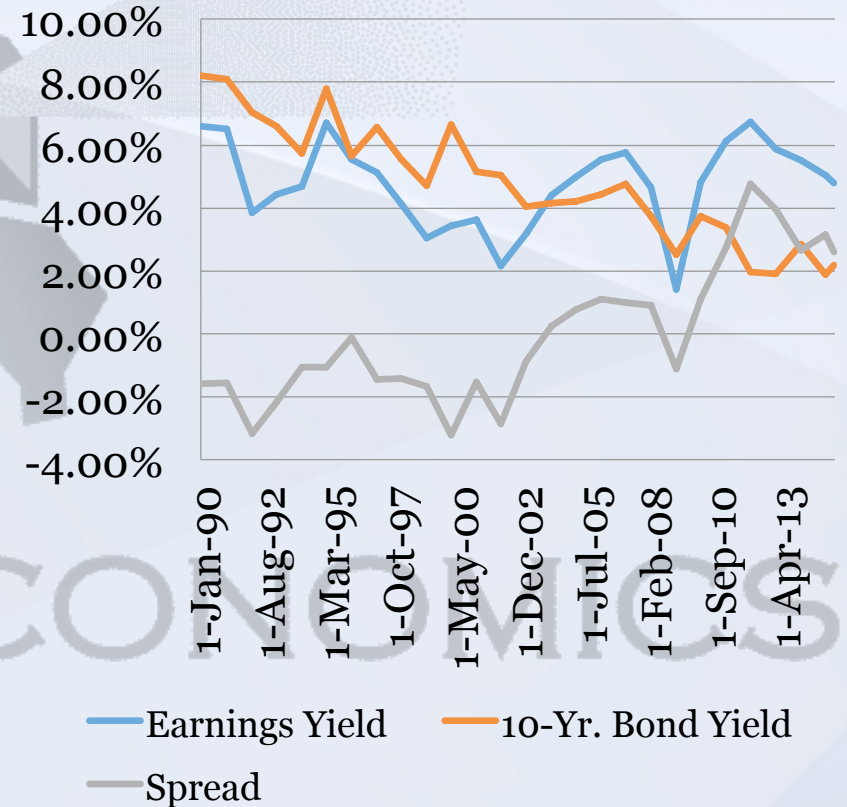
Farm Earnings



S&P 500

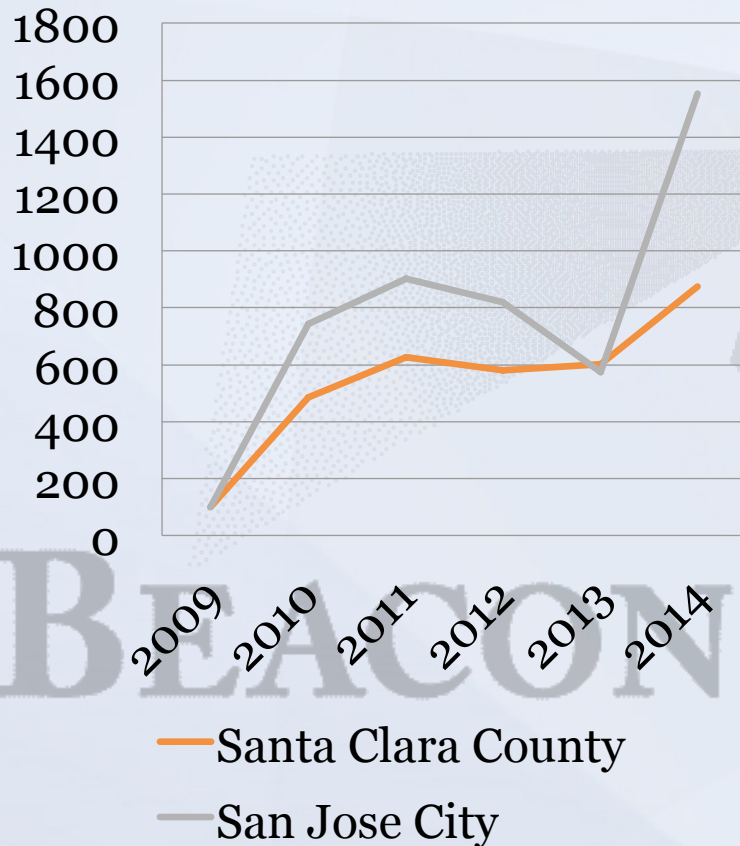


Bond And Earnings Yield Spread 1990 - 2015



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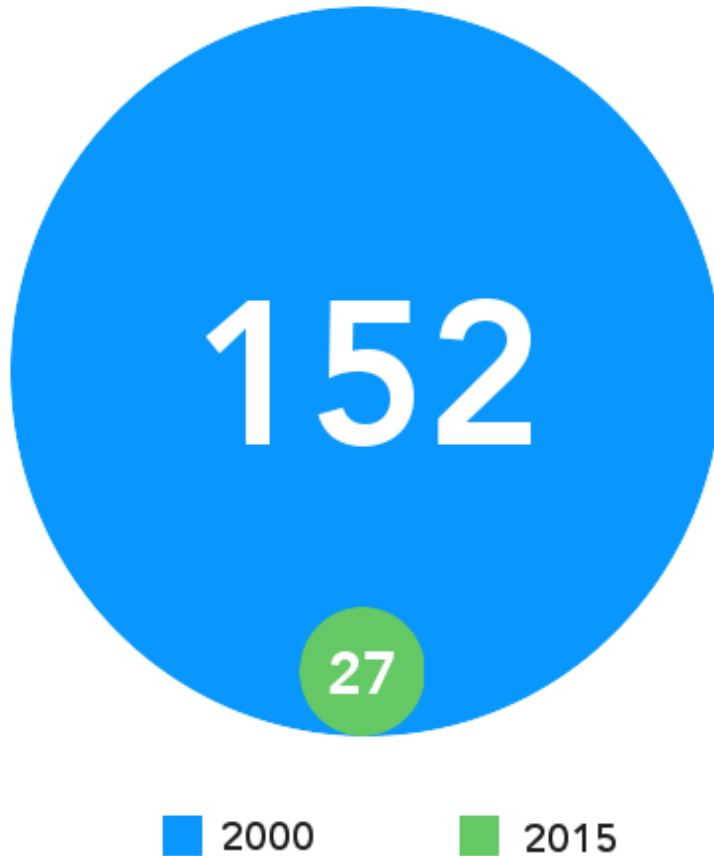
VC Funding (\$ Mill.) Indexed, 2009 = 100



City of San Jose VC funding by Industry

Industry	2014 (\$ Mill.)	1-Yr Chg.
Media and Entertainment	27	318.0%
Software	706	333.9%
Semiconductors	120	343.7%
Computers and Peripherals	96	49.8%
Networking and Equipment	20	-84.8%
Industrial Energy Electronics	36	50.3%
Instrumentation	146	14917.6%
Total	733	170.6%

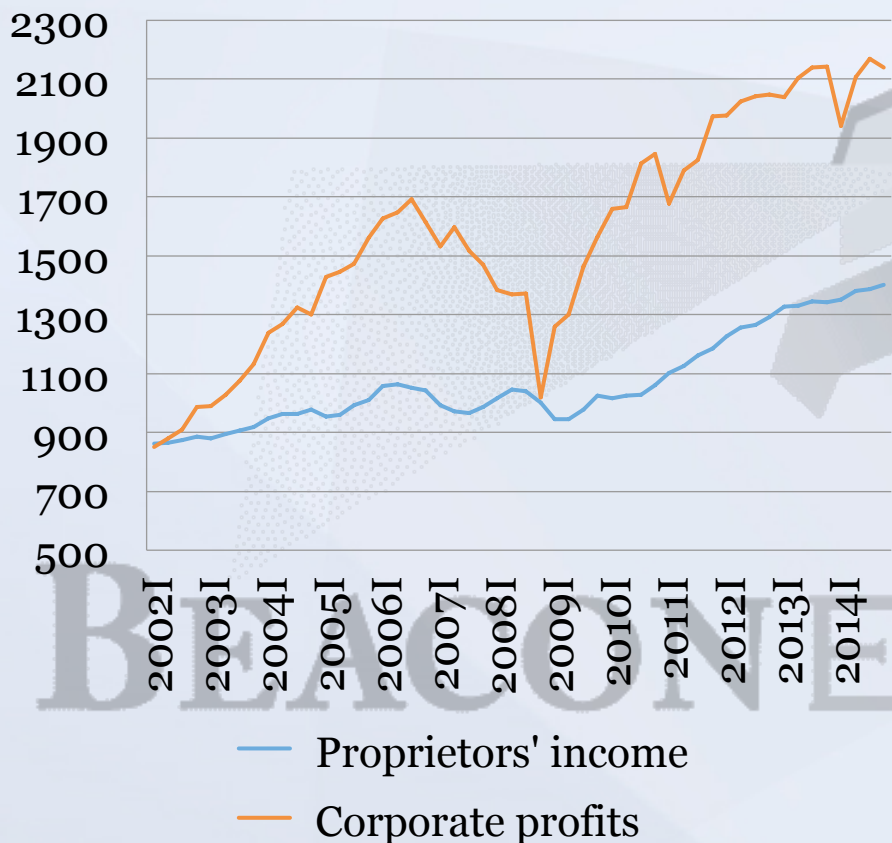
Price Earnings Ratio



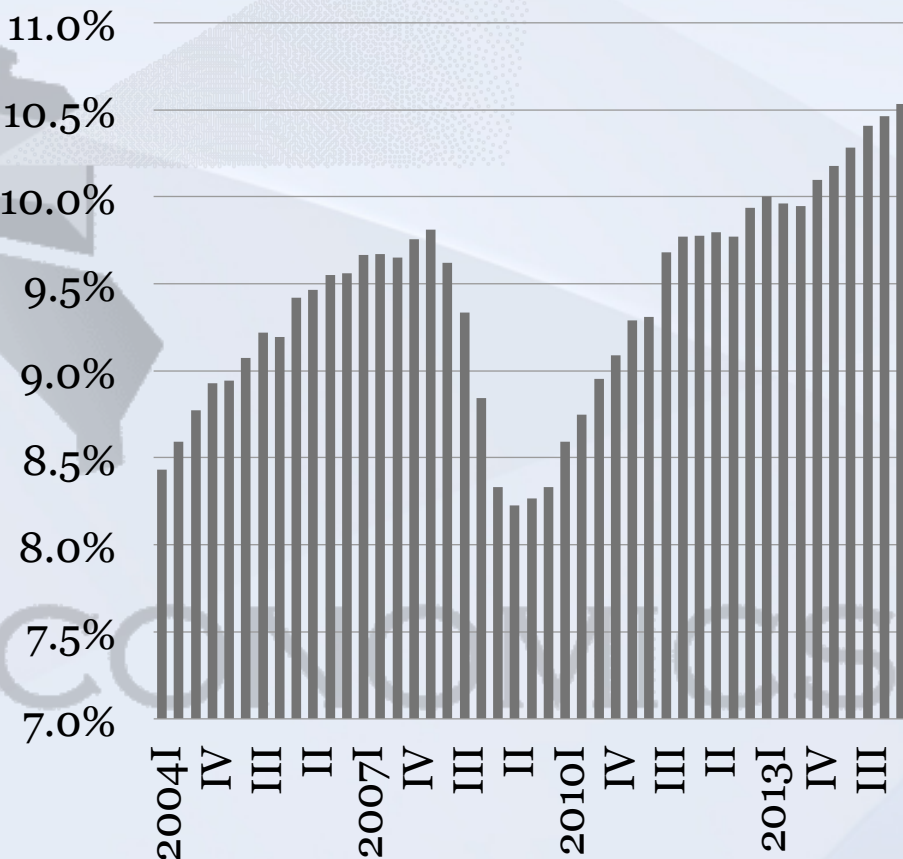
Price Book Ratio



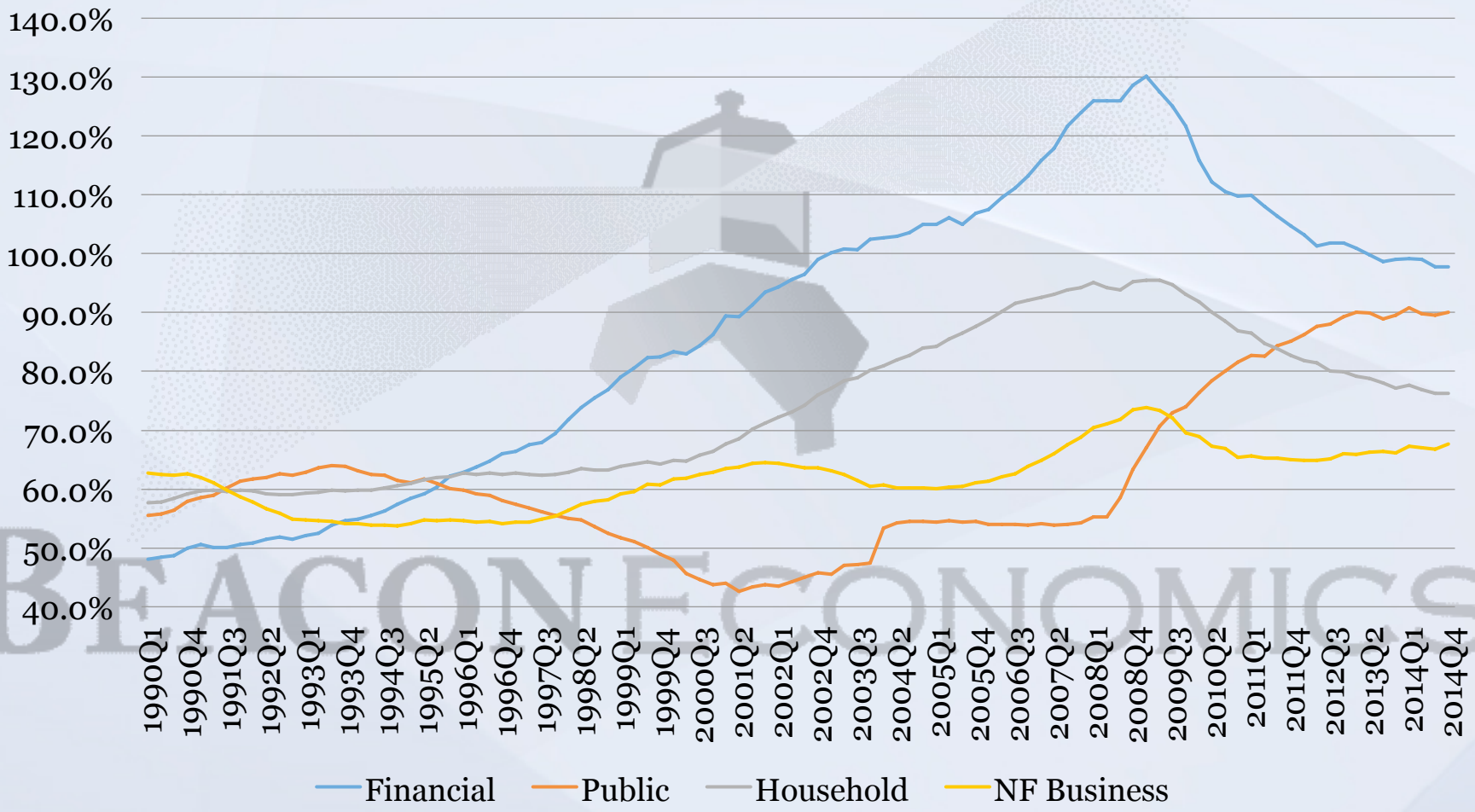
Business Earnings (\$Billions)



Investment Equipment and IP as % of GDP: Real



Debt Outstanding % GDP



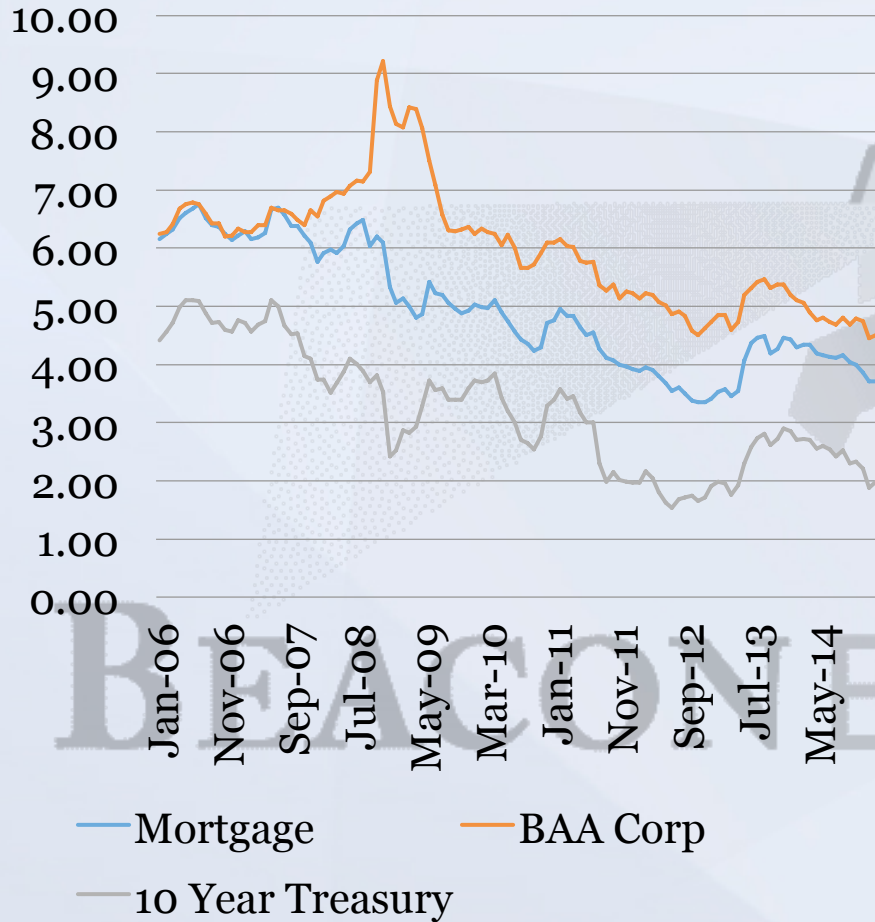


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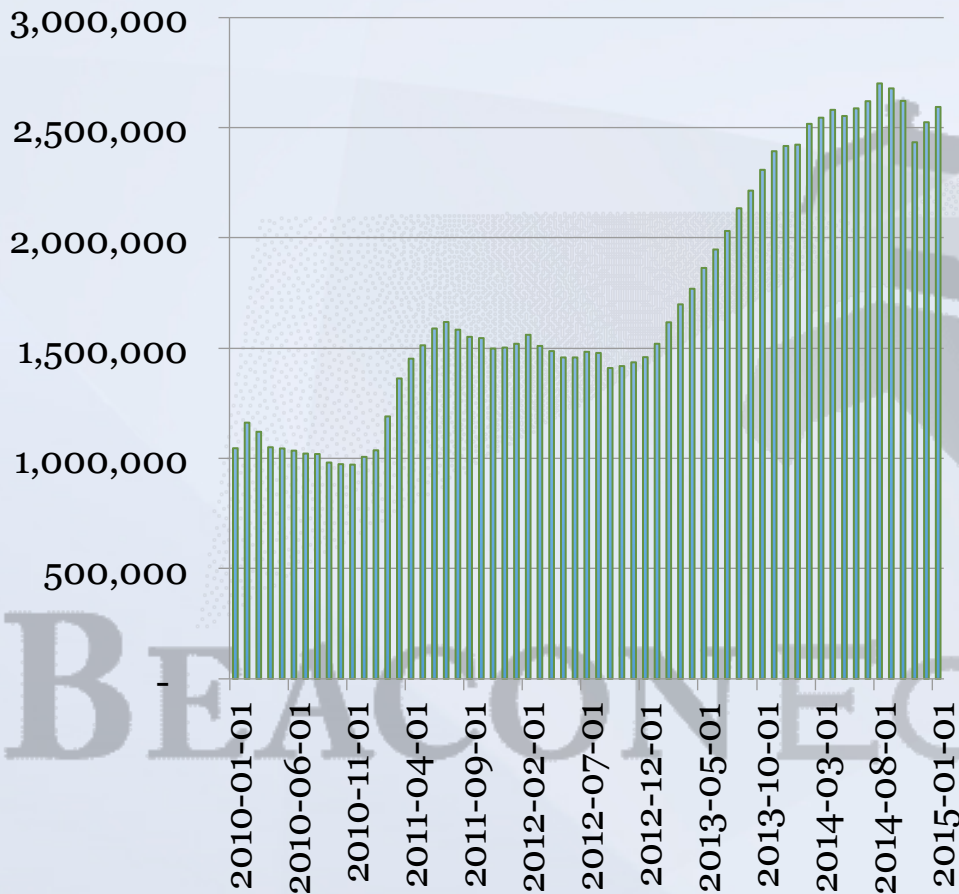
Rates



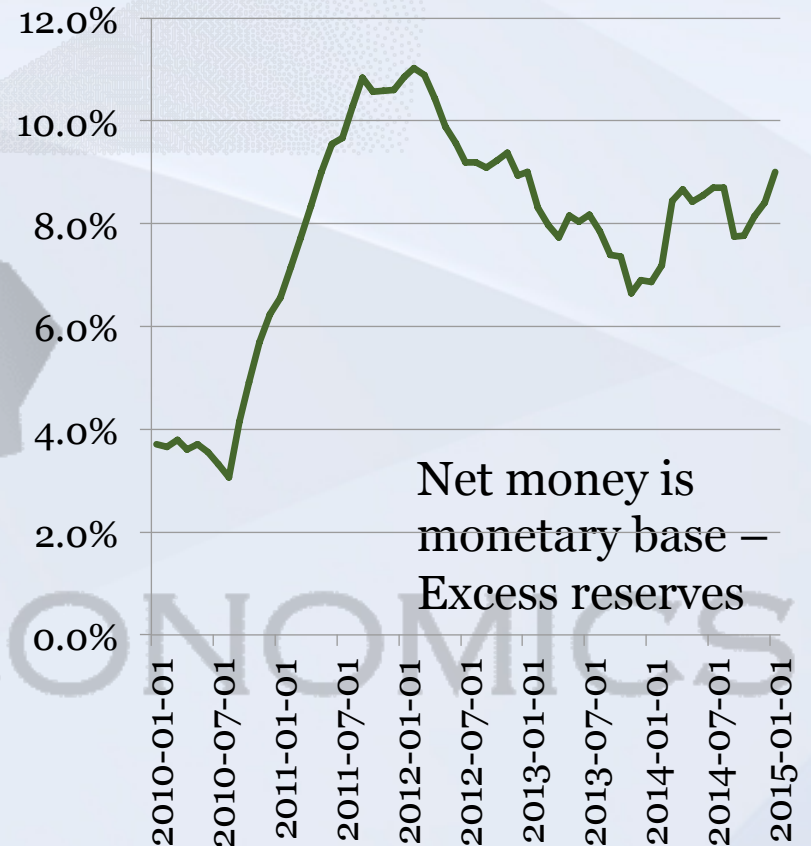
Consumer Inflation



Bank Excess Reserves

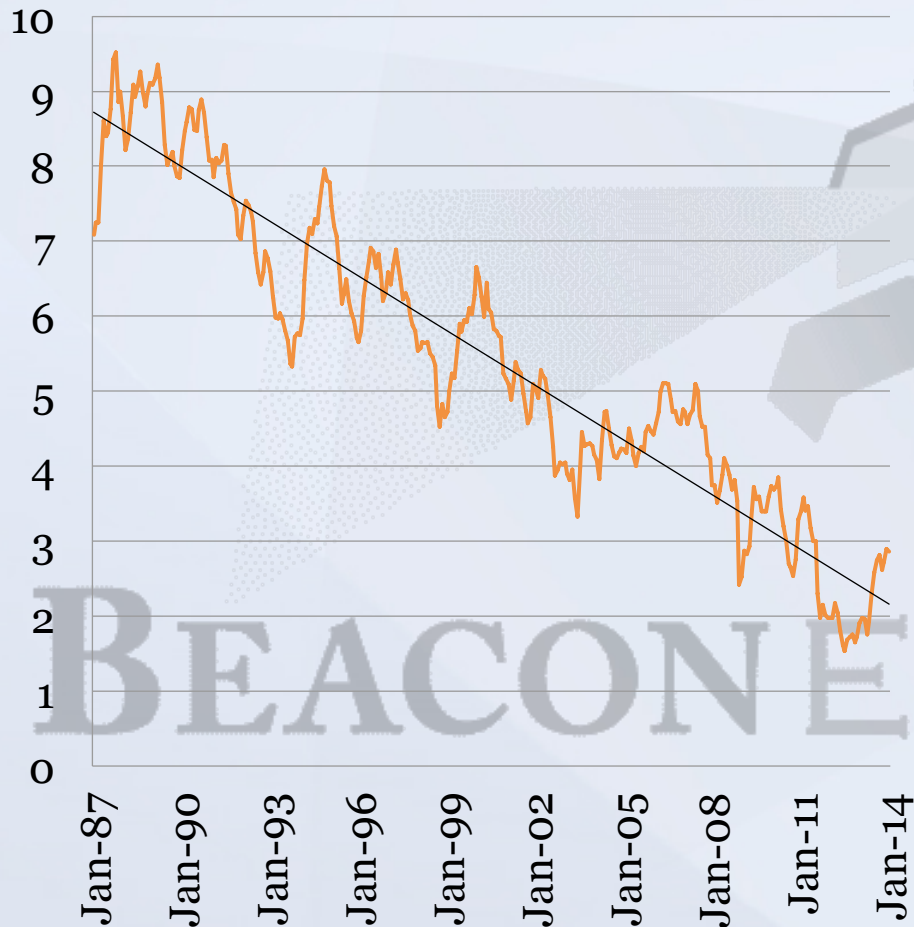


Y-o-Y growth Net Monetary Base

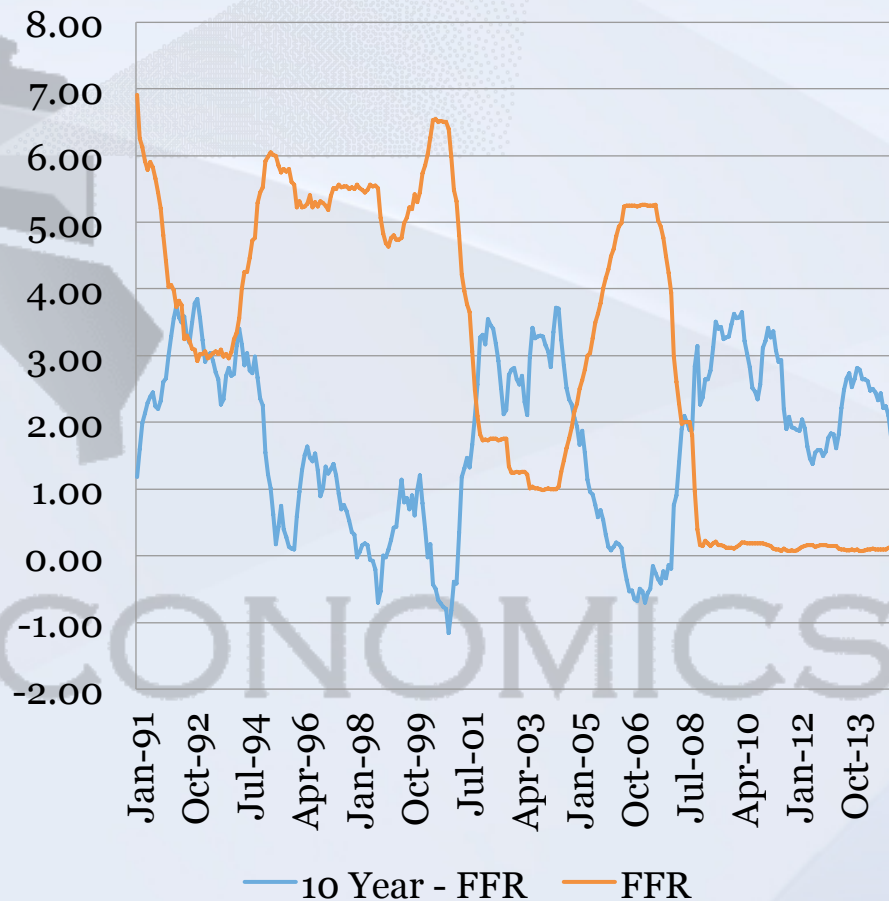


Net money is
monetary base –
Excess reserves

10 Yr Bond Rate



Short and Long Run Rate Dynamics



What not to worry about. What to worry about.

- The US Dollar
 - Student Debt
 - Asset Bubbles
 - Drought
 - Consumer Spending
 - Labor Markets
 - California Business
 - Taxes
 - Funded public liabilities
 - Politics
- China
 - Educational Choices
 - Bad financial regulation
 - Water Policy
 - Savings Rates
 - Growing Inequality
 - California Housing
 - Lack of public investment
 - Unfunded public liabilities
 - A lack of political engagement

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