UCR School of Business Administration
Center for Economic Forecasting and Development

Home of the A. Gary Anderson Graduate School of Management

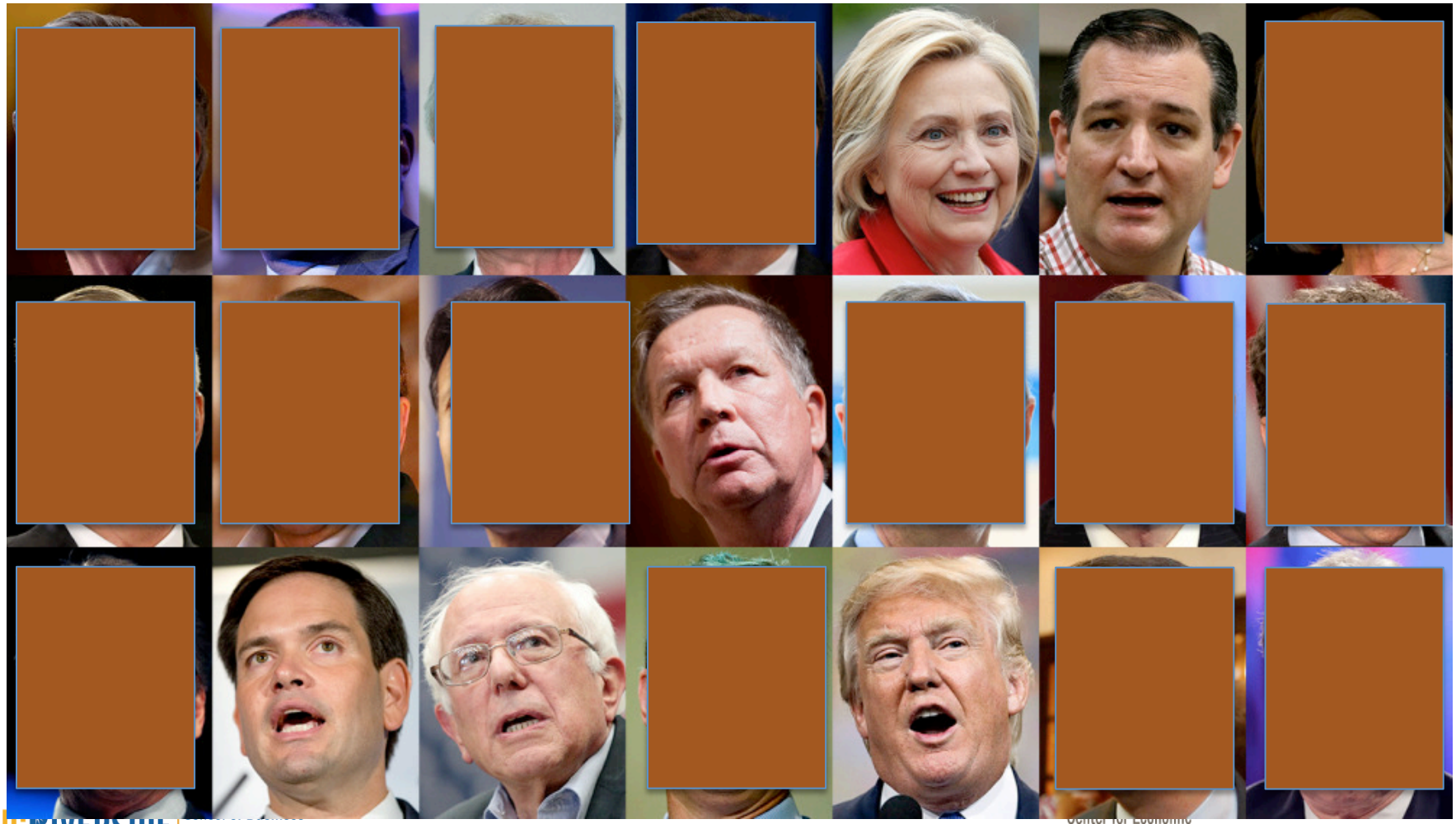
Economic Outlook
Focus on San Bernardino

Christopher Thornberg, PhD
Director of the UCR Forecast Center

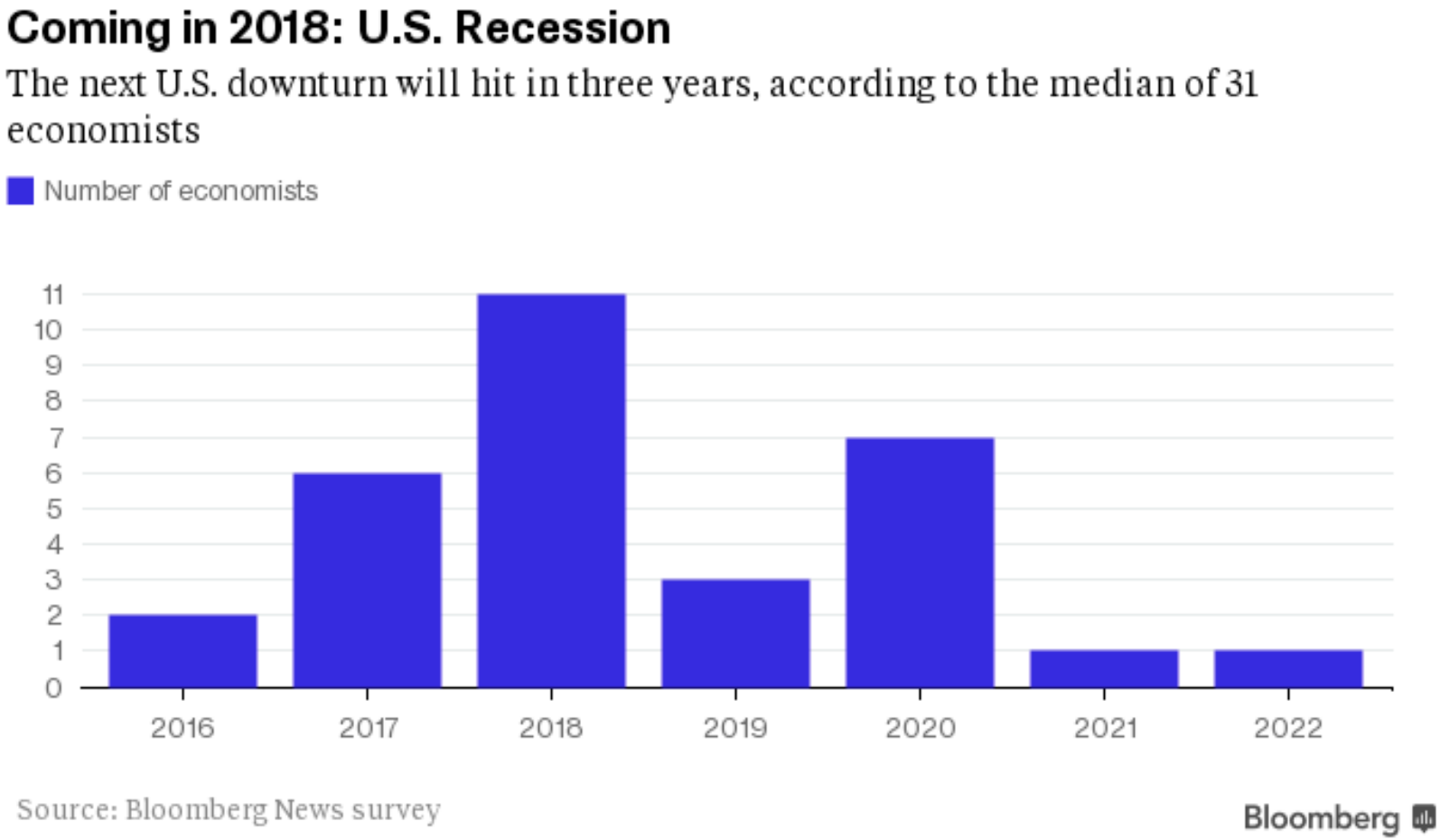
Governments SANBAG Working Together

SANBAG
San Bernardino Associated Governments

Word of the Day



The Wrong Question

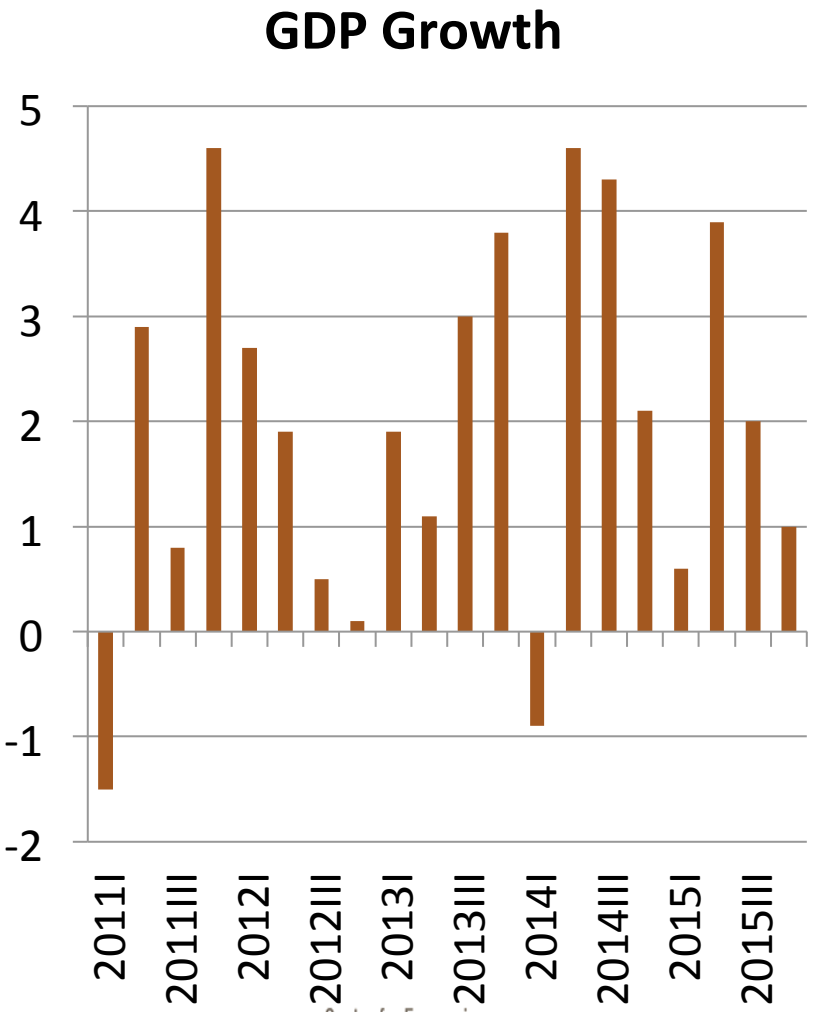


The Right Answer

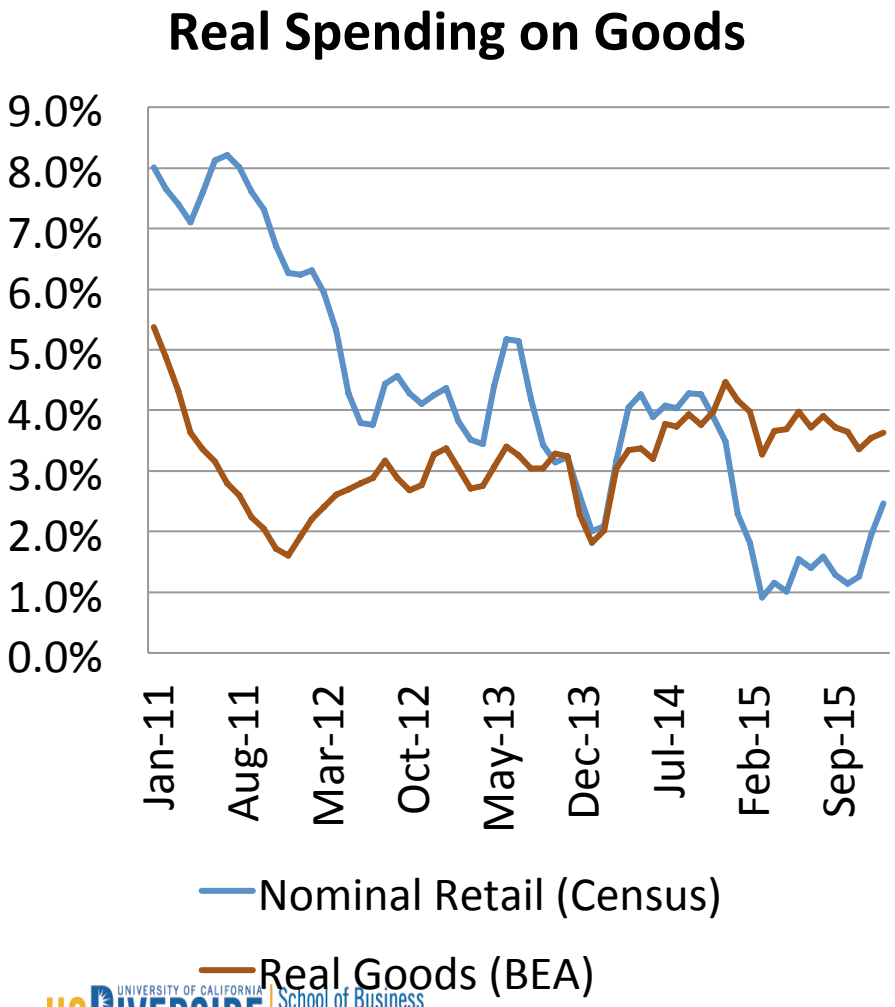
- US Economy Still Moving Along
  - 2015: Better than it looked
  - Labor markets strong
  - Forget the turmoil: there is no bubble
  - Housing still in recovery mode
  - Credit expanding on many levels
  - Commodity prices are down
  - California is leading, not lagging the nation
- Issues? Sure…
 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

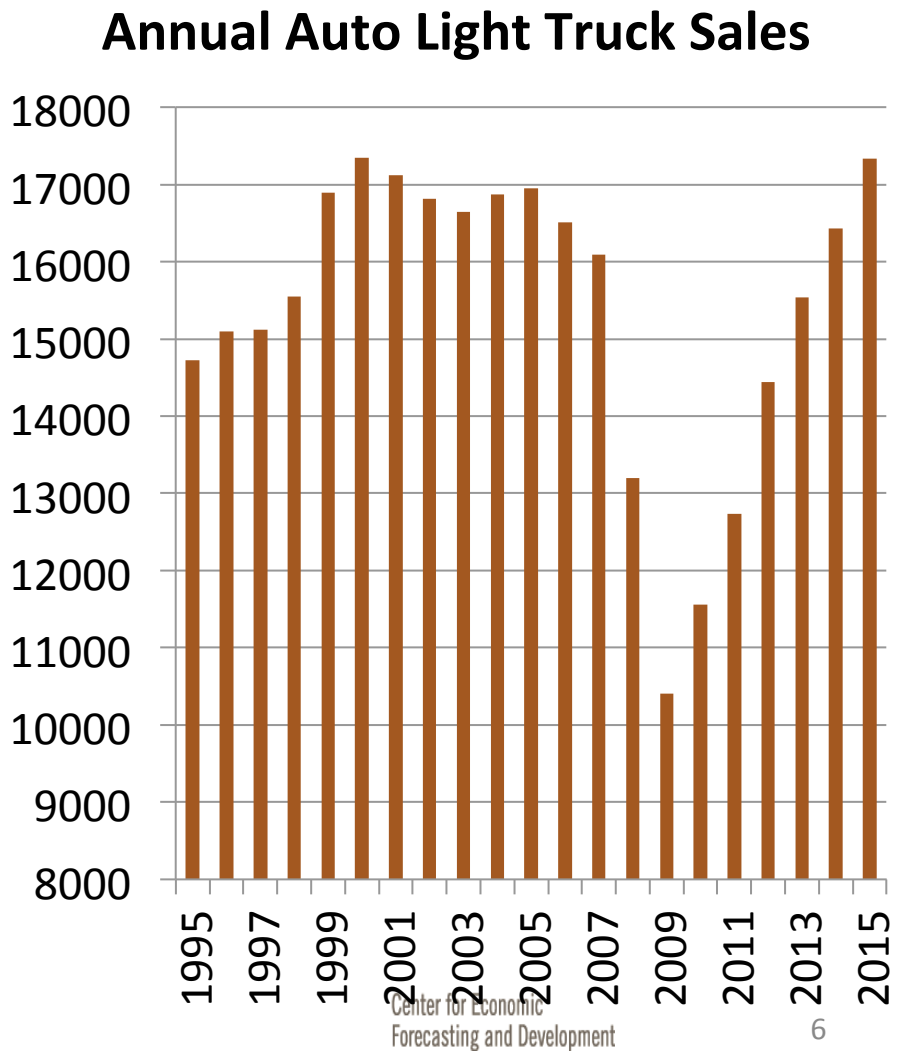
2015: Better that it looks

	2013	2014	2015
GDP	1.50	2.40	2.40
Final Demand	1.24	2.53	2.86
Consumption	1.16	1.84	2.09
Goods	0.71	0.75	0.83
Services	0.45	1.09	1.26
Investment	0.70	0.87	0.82
Structures	0.04	0.23	-0.05
Equipment	0.19	0.34	0.18
Intellectual property	0.15	0.20	0.23
Residential	0.27	0.05	0.28
Change inventories	0.06	0.05	0.18
Net exports	0.20	-0.18	-0.64
Exports	0.38	0.46	0.15
Imports	-0.18	-0.63	-0.79
Government	-0.58	-0.11	0.13
Federal	-0.46	-0.18	-0.02
State and local	-0.12	0.07	0.15

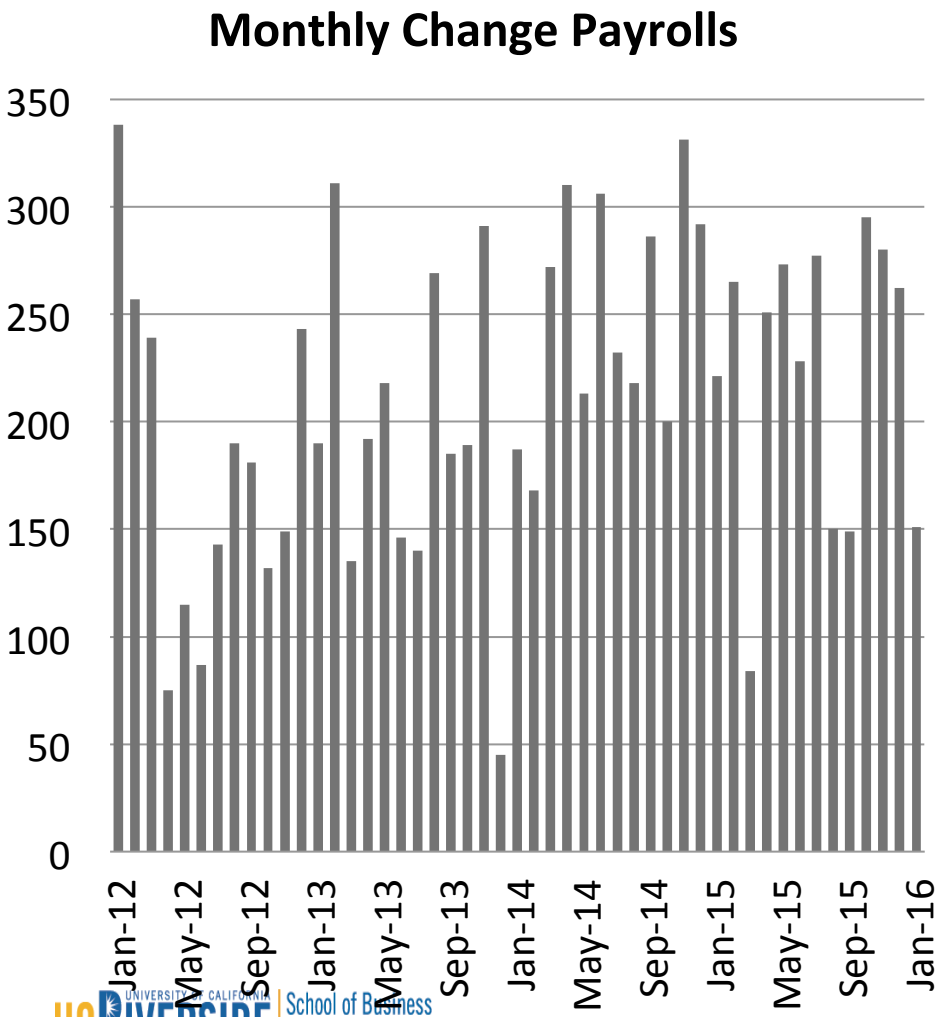


Consumer Spending

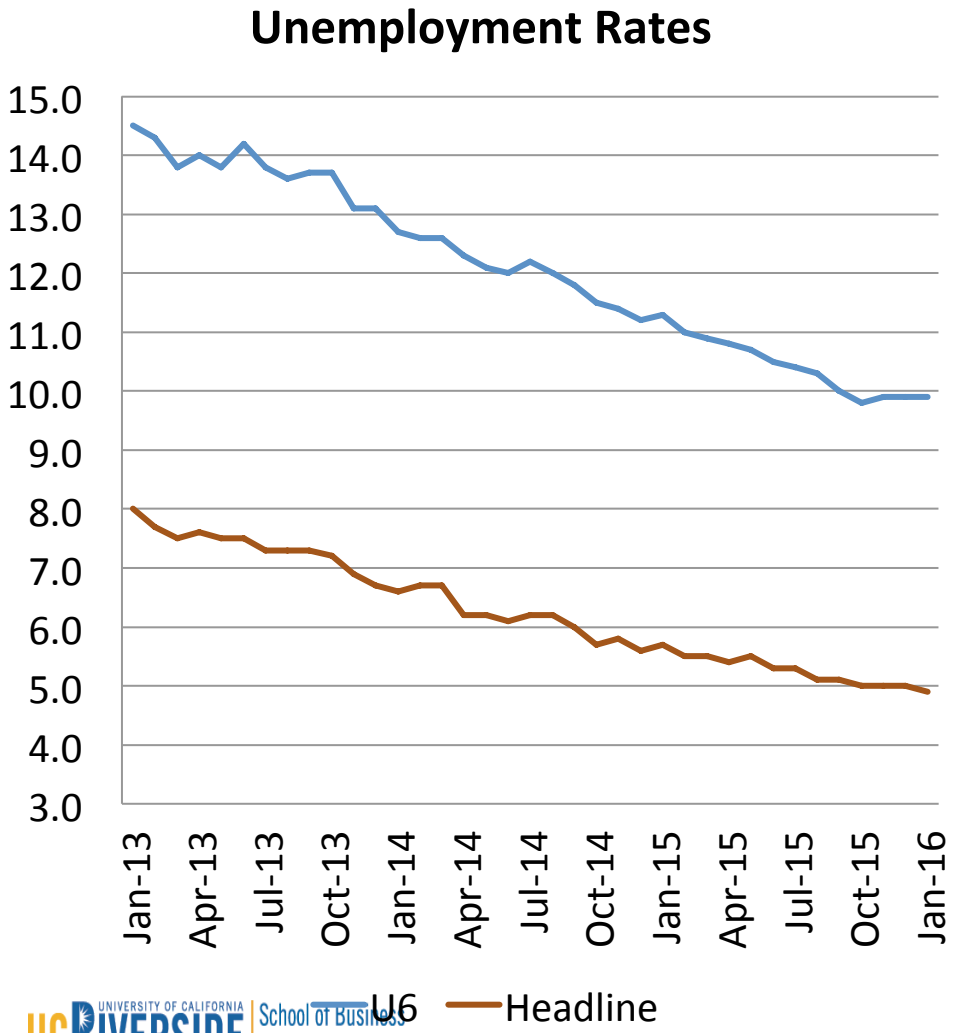




Employment Growth



Unemployment



	Pop 16+	Pt. Rt.
2006	228,815.0	66.2
2015	250,801.0	62.7
Raw Missing	8,778.0	
Demo Adj	3,110.5	63.9

	Pt. Rt. 06	Ch. Pop
16 to 24	60.7	4.5
25 to 54	82.9	0.2
55 Plus	38.0	30.0

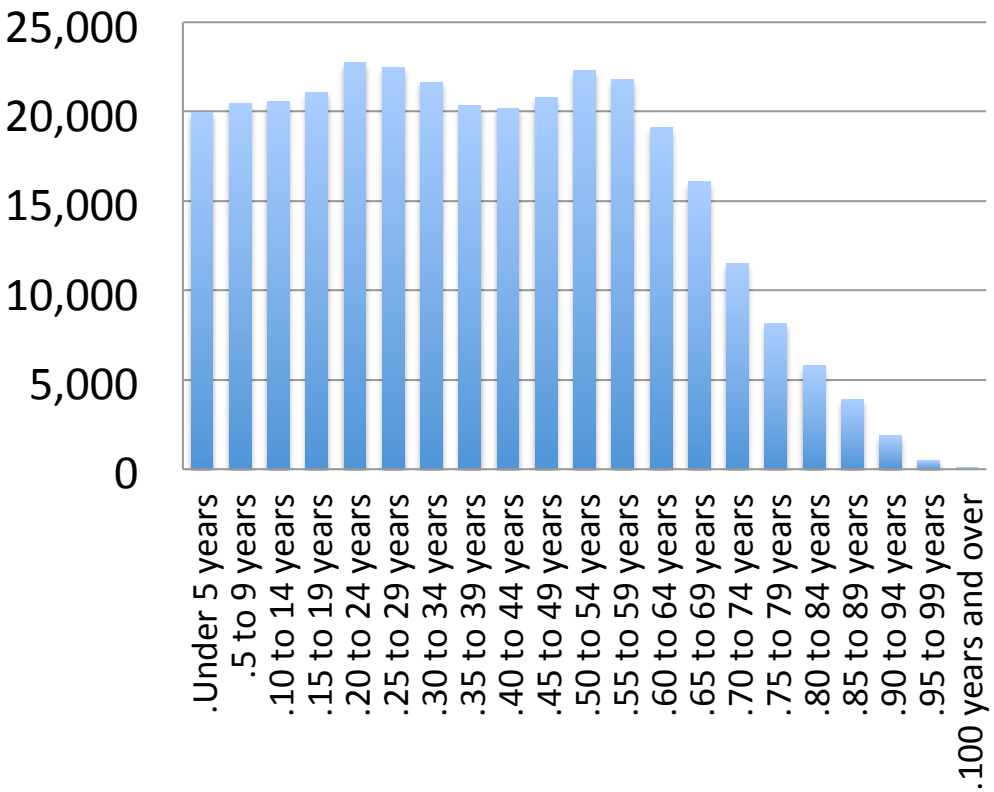
	Pt. Rt. 15	Missing
16 to 24	55.0	2,419
25 to 54	80.8	2,554
55 Plus	39.9	(1,709)

The Millennial Myth

Bigger, Smarter, More Diverse!! Not Really…

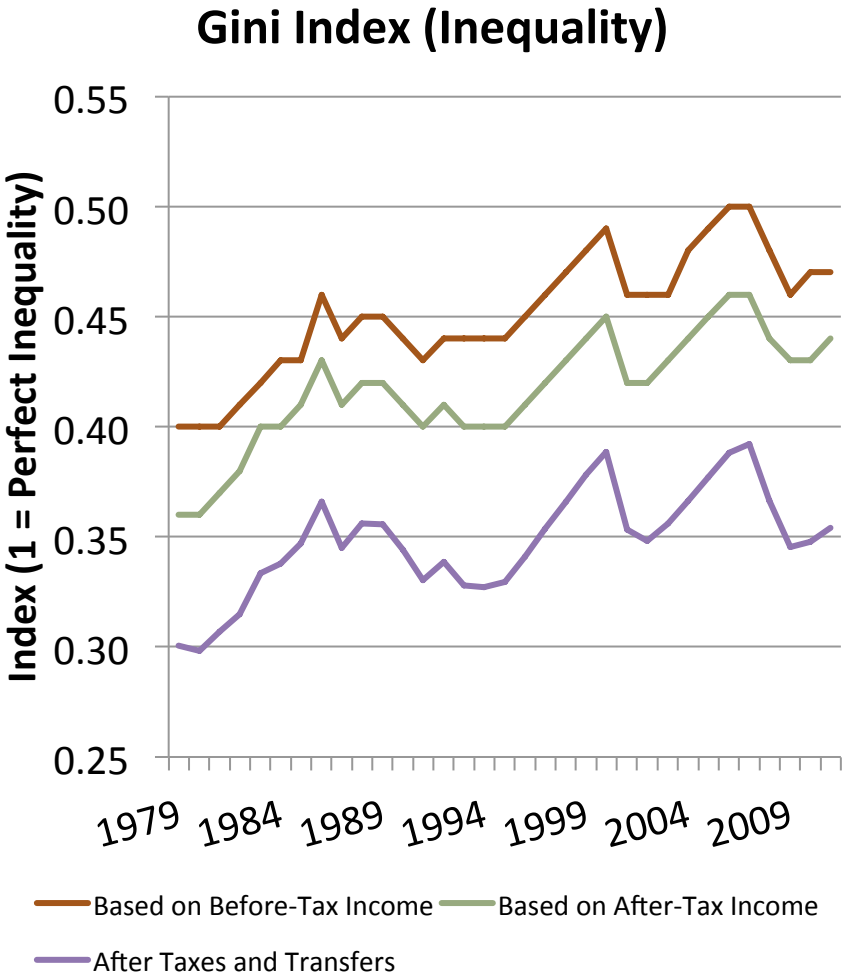
Education	2004	2014
25 to 34 years:		
Bach +	29.9%	33.5%
> High School	59.7%	65.2%
35 to 44 years:		
Bach +	29.5%	33.7%
> High School	58.7%	63.5%
45 to 64 years:		
Bach +	28.6%	29.4%
> High School	57.4%	59.4%
65 years and over:		
Bach +	18.4%	24.8%
> High School	38.4%	49.2%

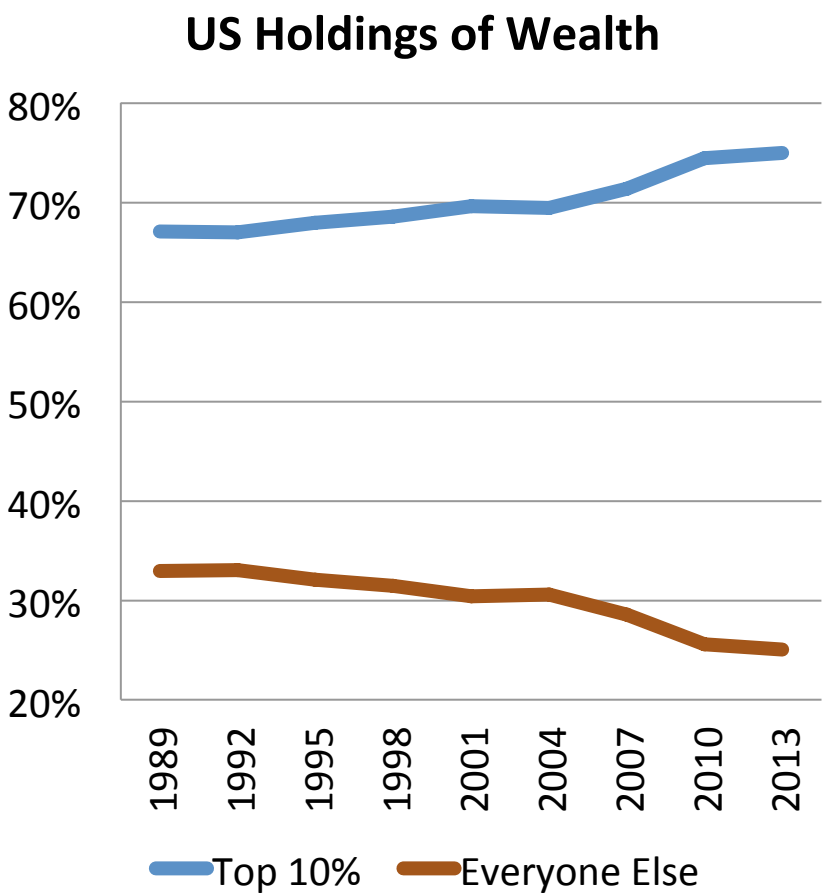
Population by Age 2015



Sources: U.S. Census; American Community Survey

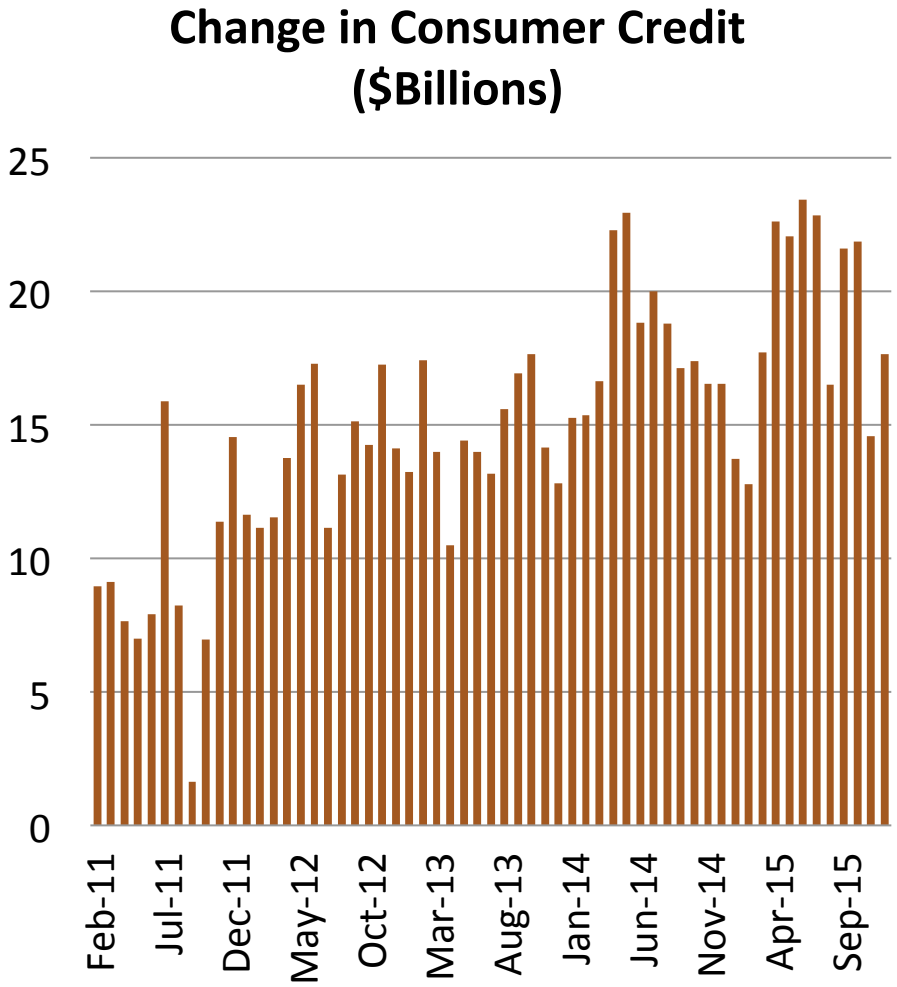
Growing Inequality

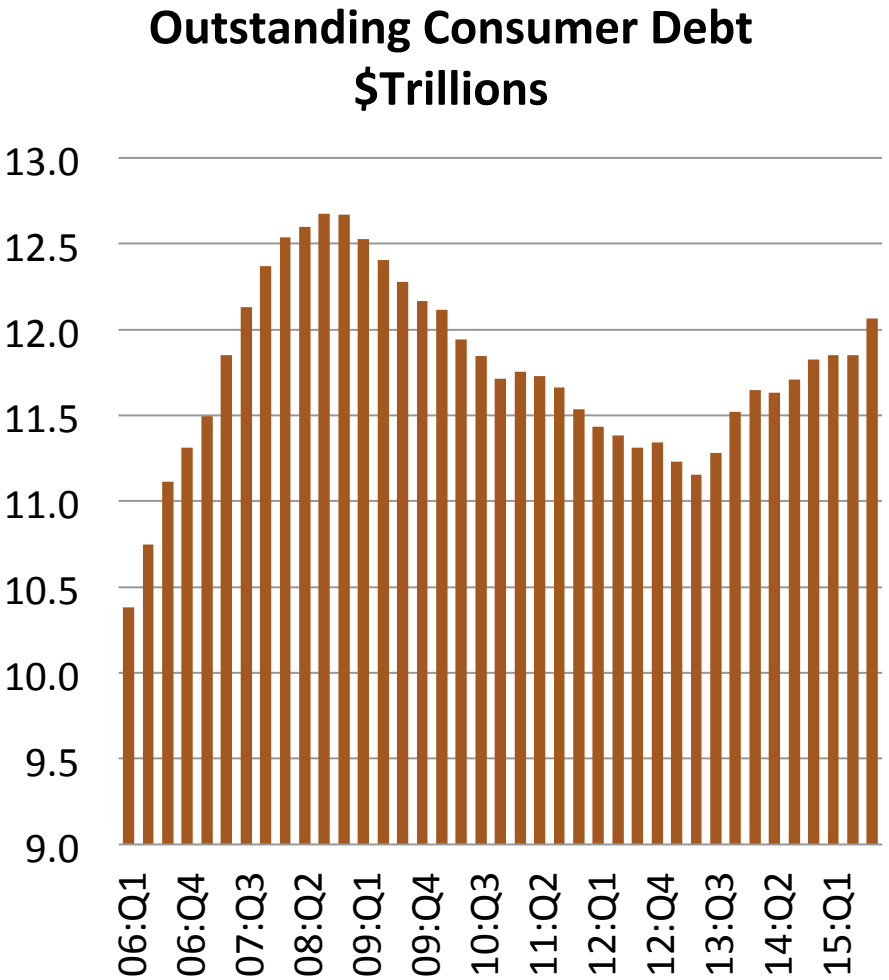




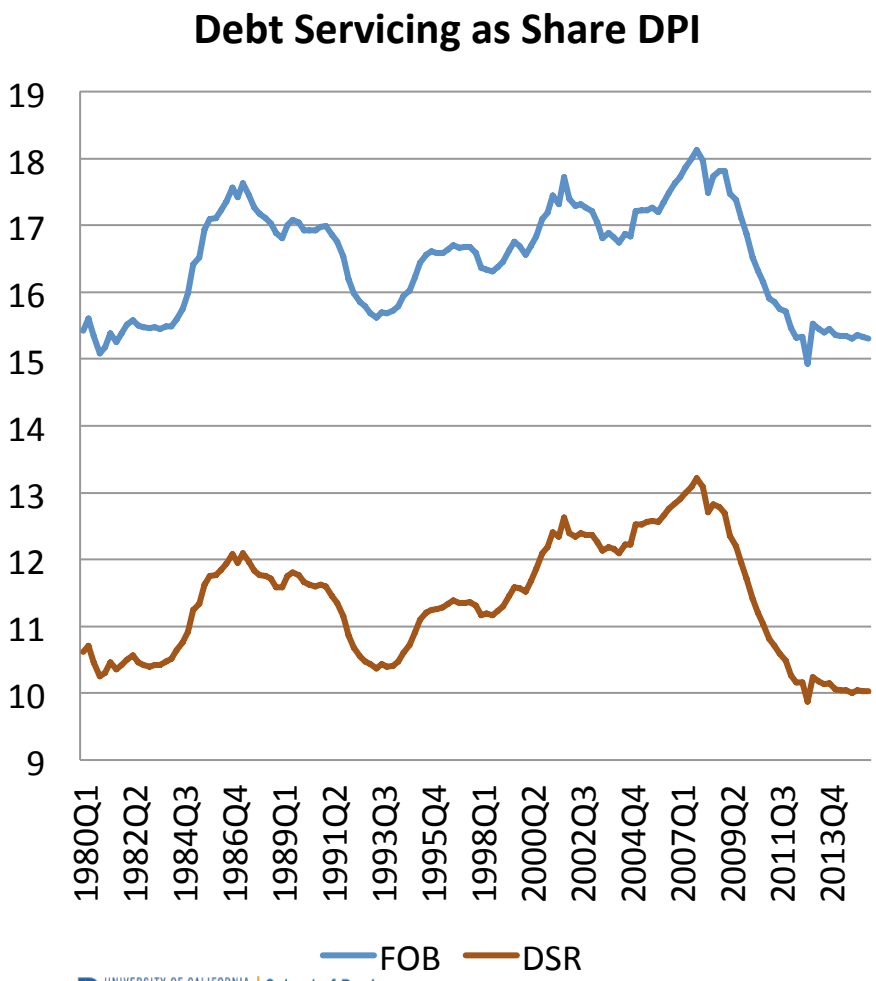
Top 1% own 40% to 50% of all wealth in the world

Consumer Credit

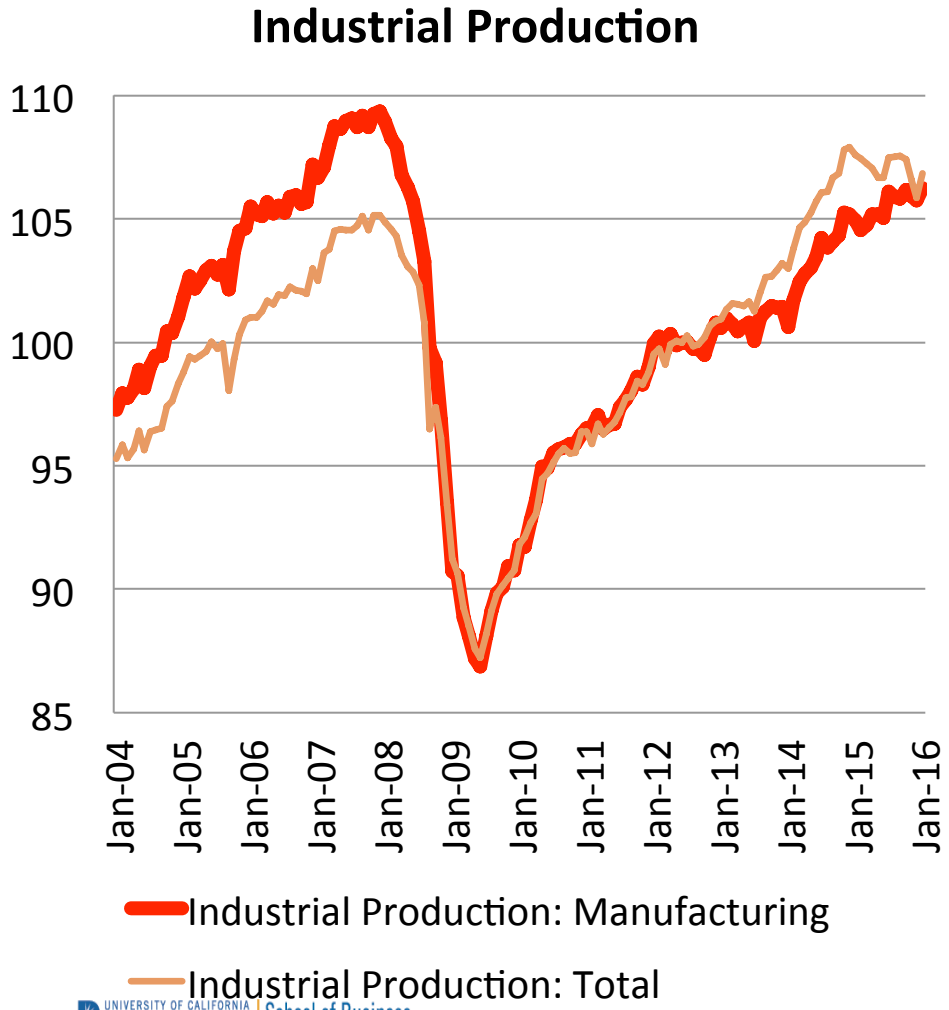


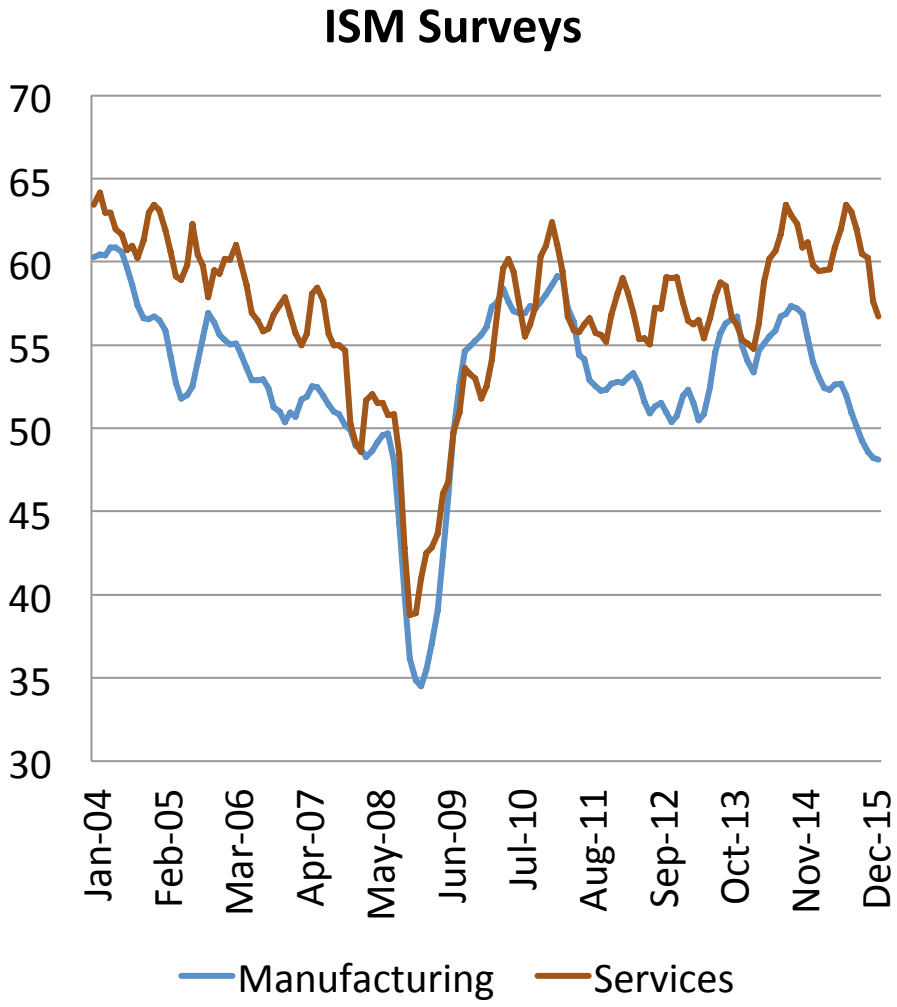


Consumer Credit

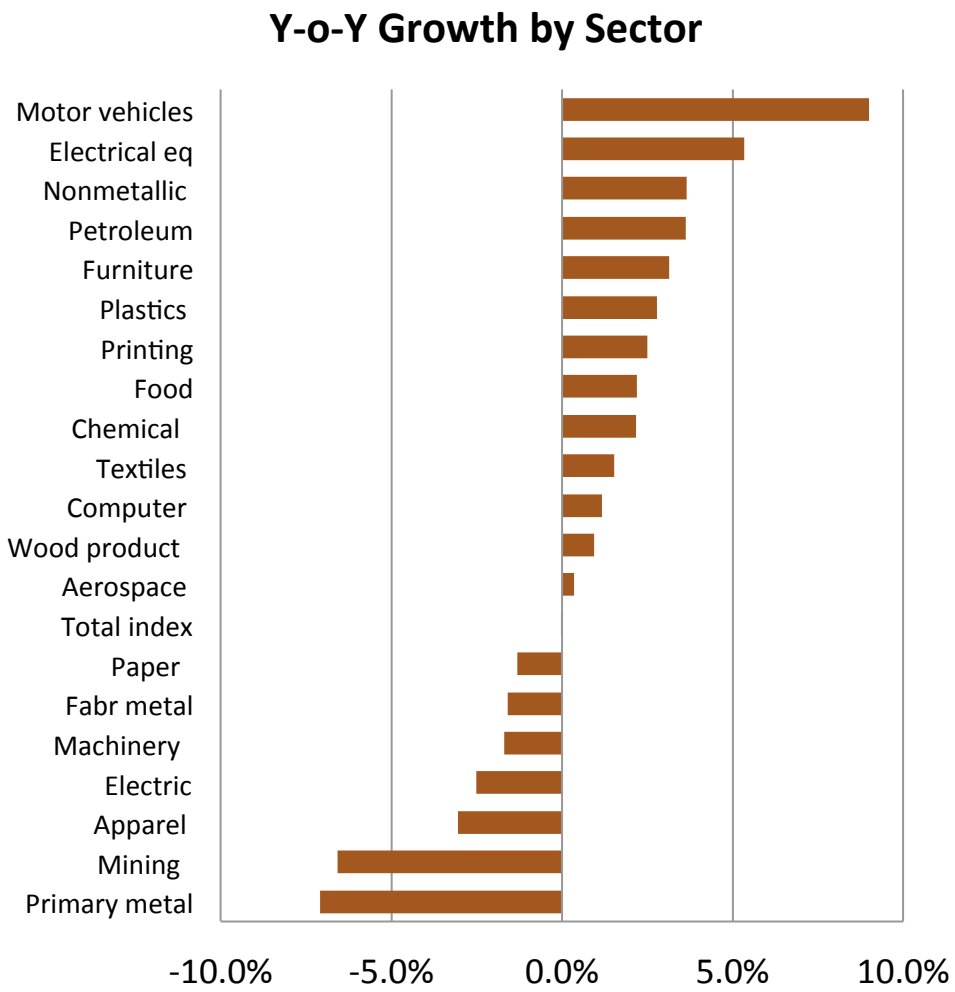


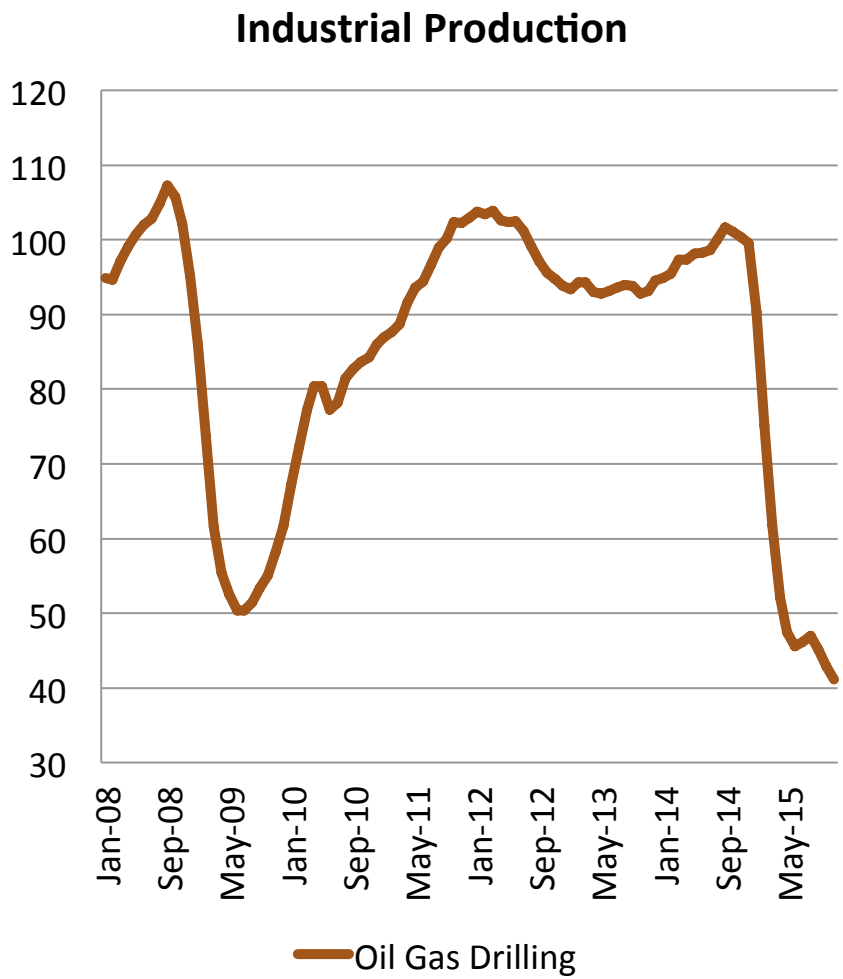
Production


Industrial Production
110
105
100
95
90
85
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Industrial Production: Manufacturing
Industrial Production: Total

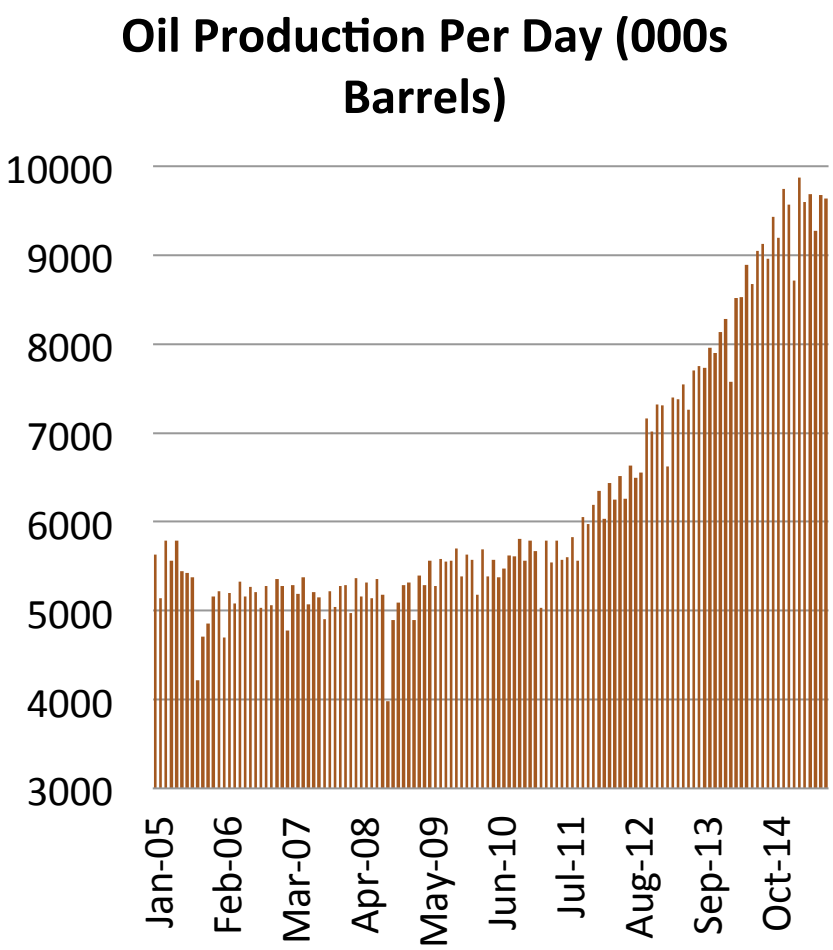

ISM Surveys
70
65
60
55
50
45
40
35
30
Jan-04
Feb-05
Mar-06
Apr-07
May-08
Jun-09
Jul-10
Aug-11
Sep-12
Oct-13
Nov-14
Dec-15
Manufacturing
Services

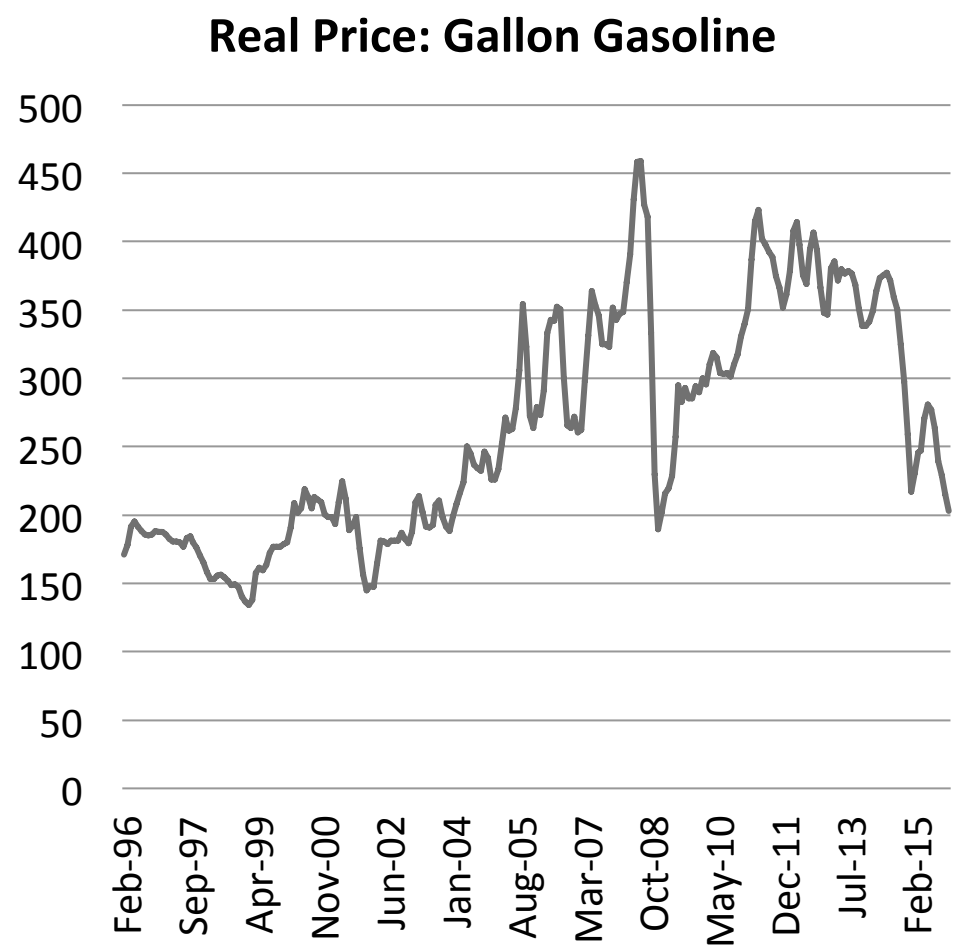
Production Breakdown



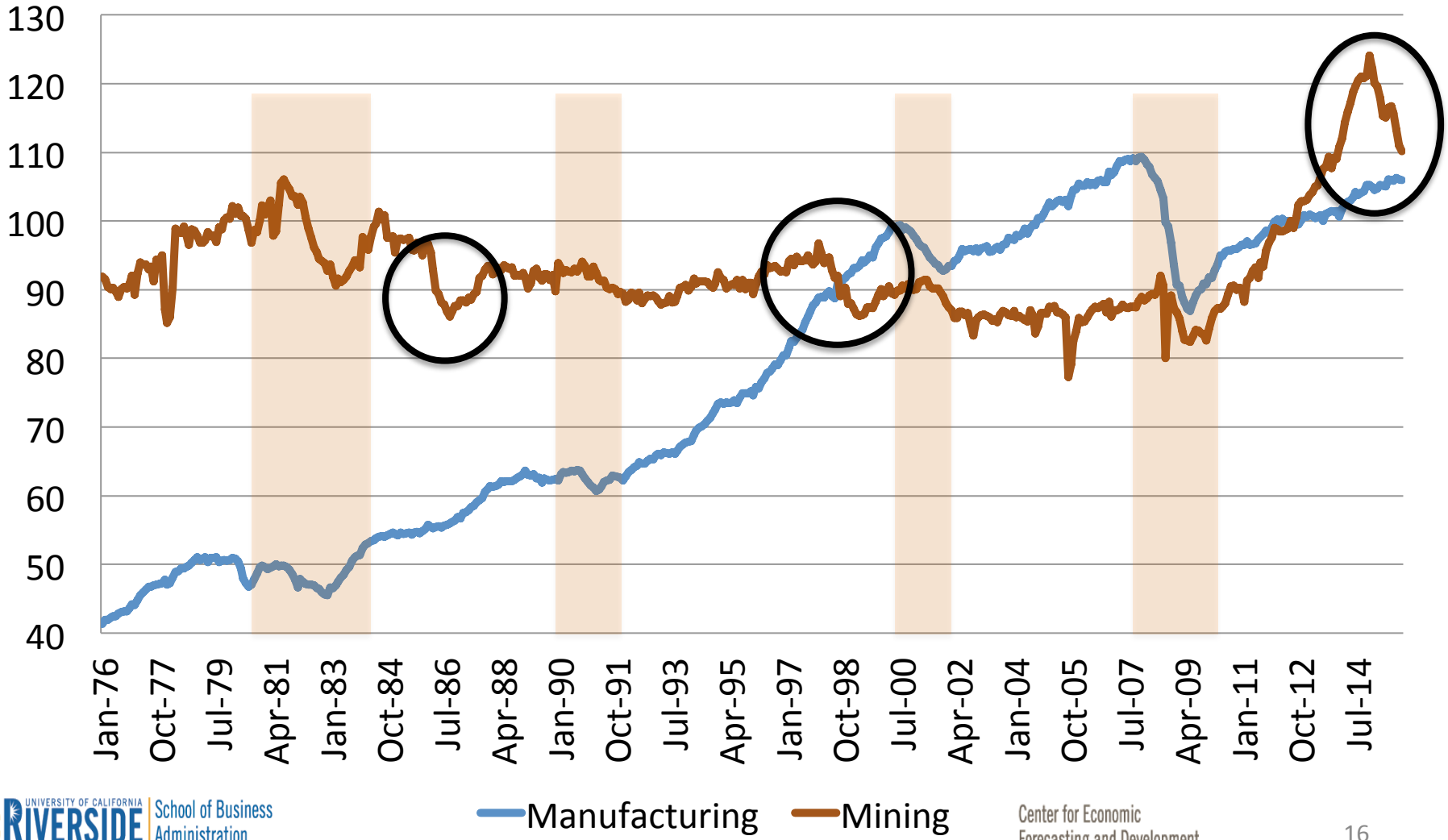


Oil Activity

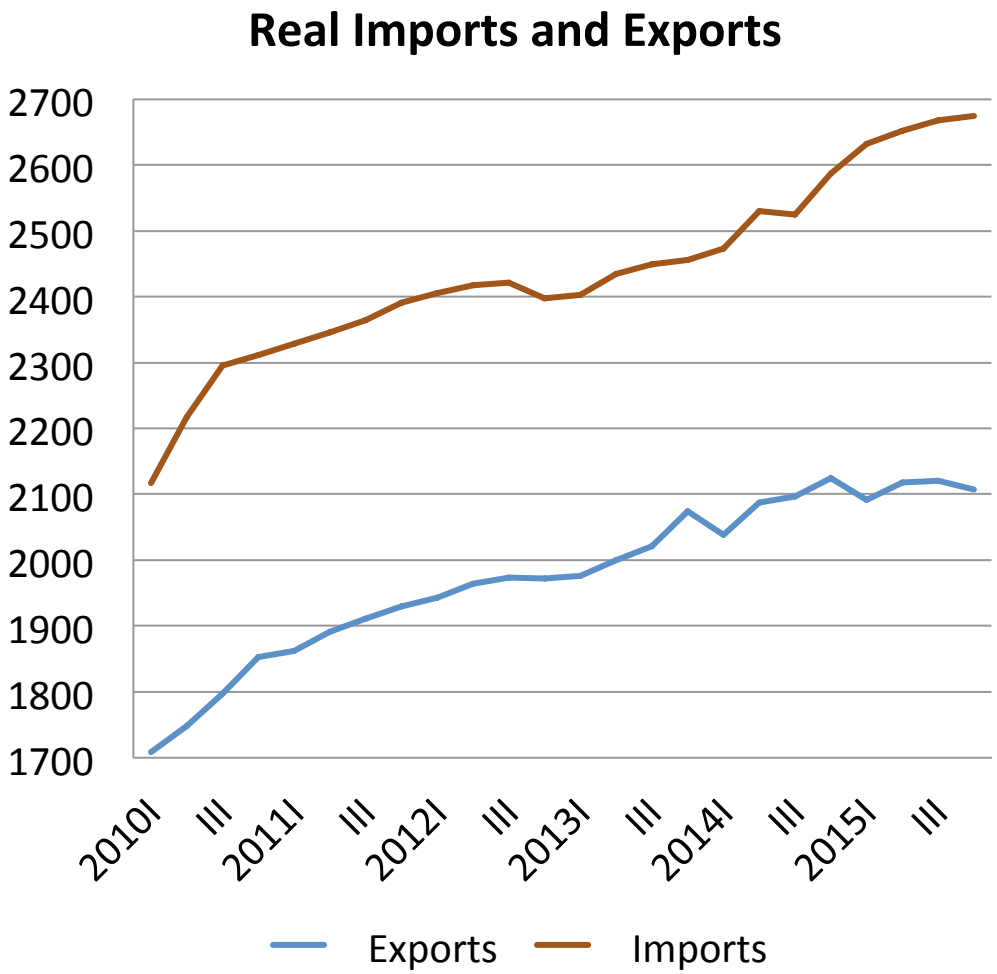




Mining and Manufacturing: IP



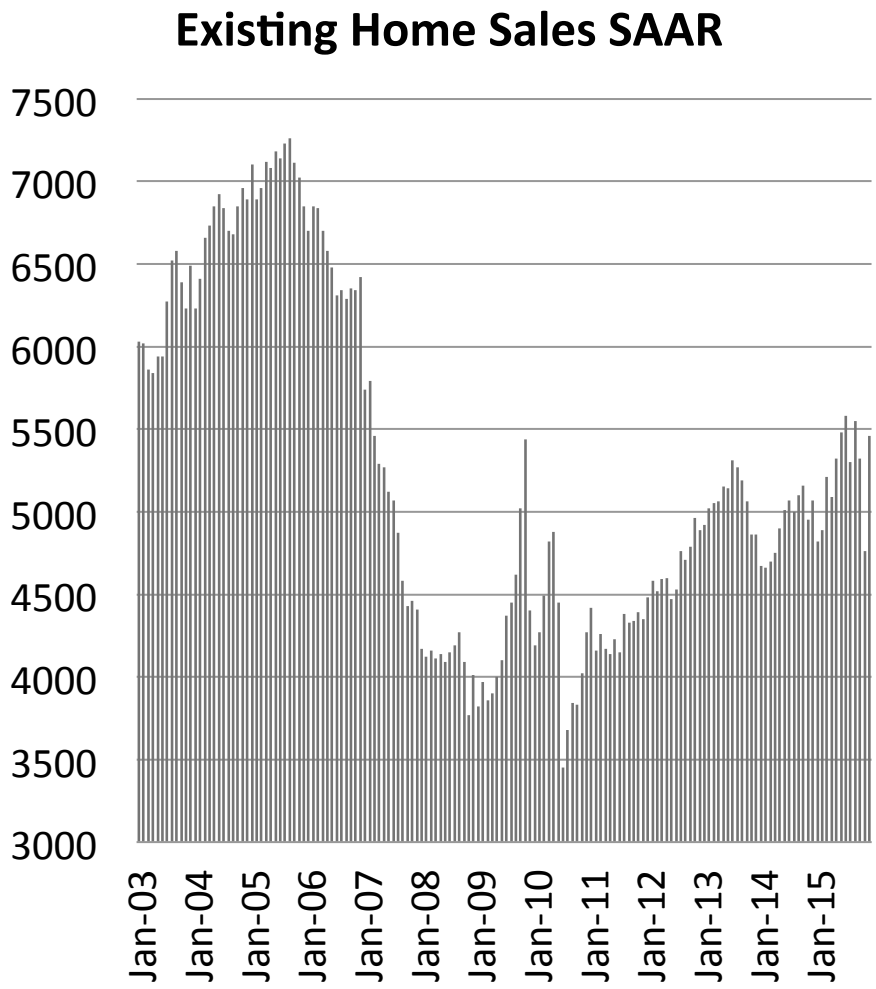
Trade

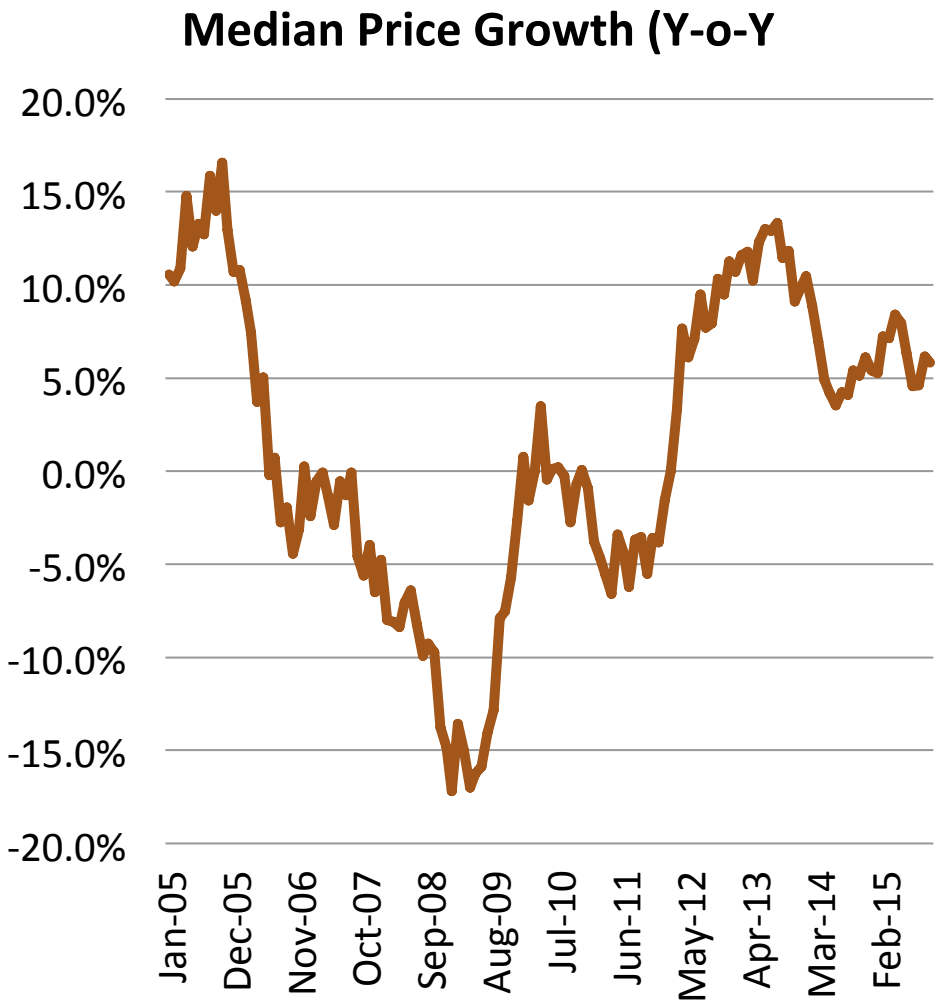


Change in Nominal Goods Trade 2014 to 2015

	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

Housing Markets



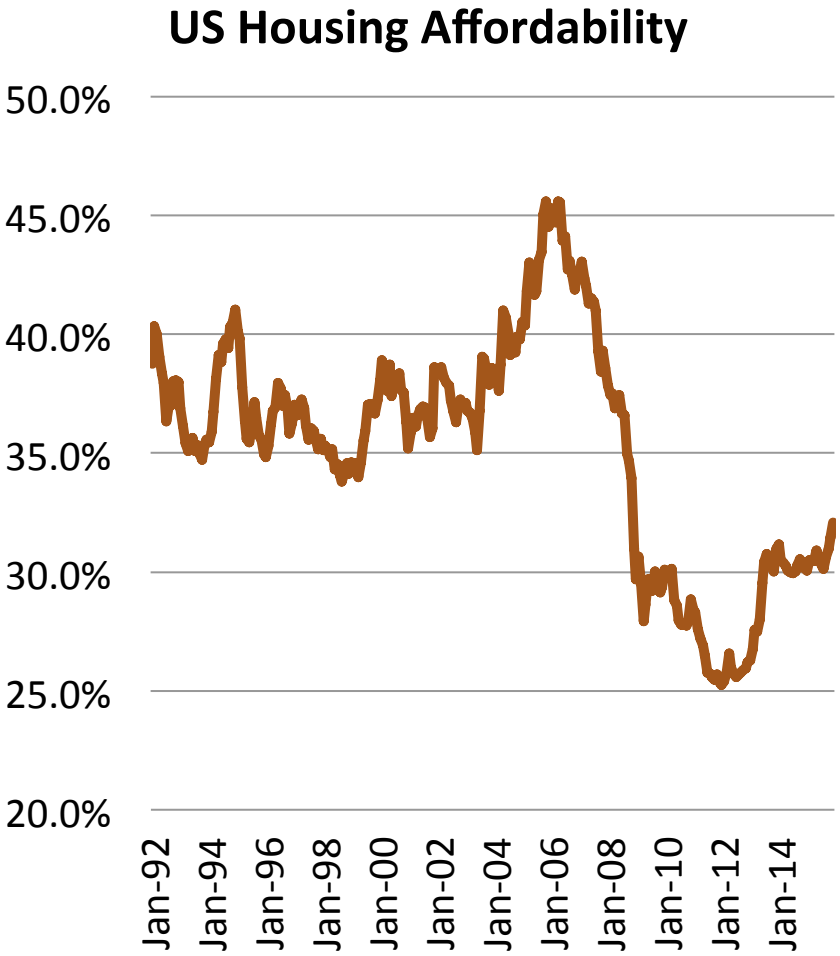


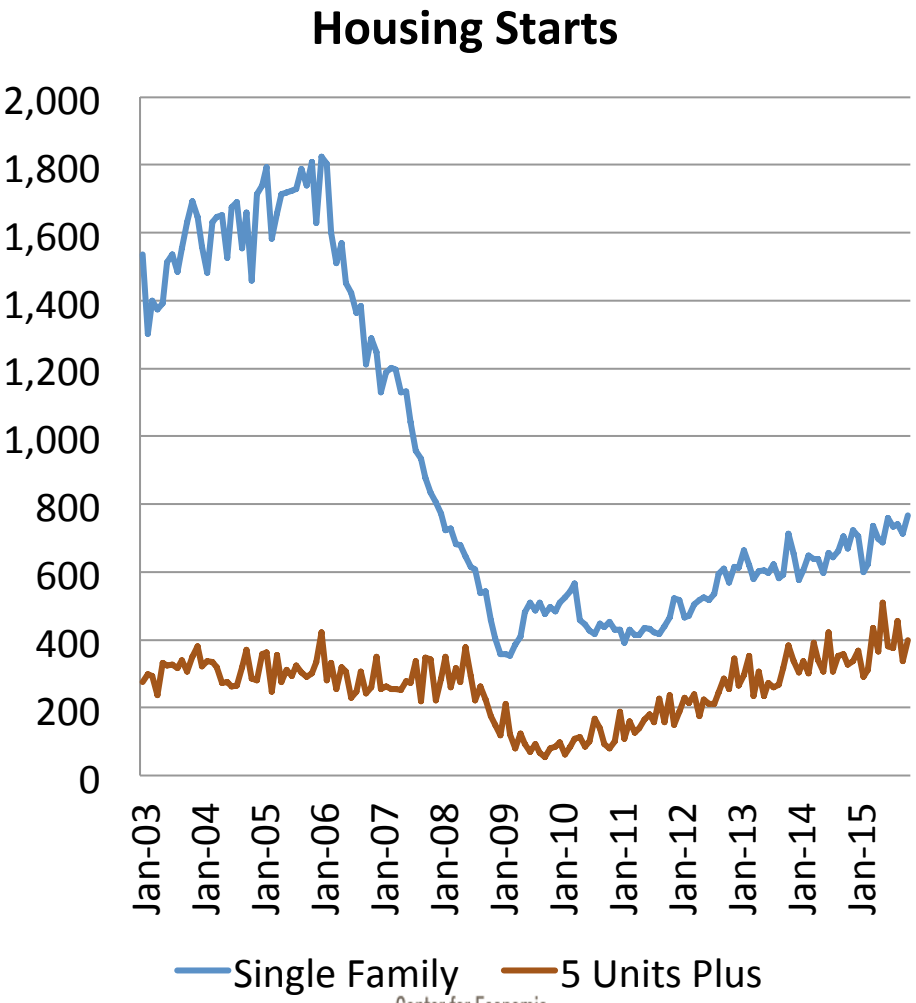
Case-Shiller Regional Price Trends

	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%*

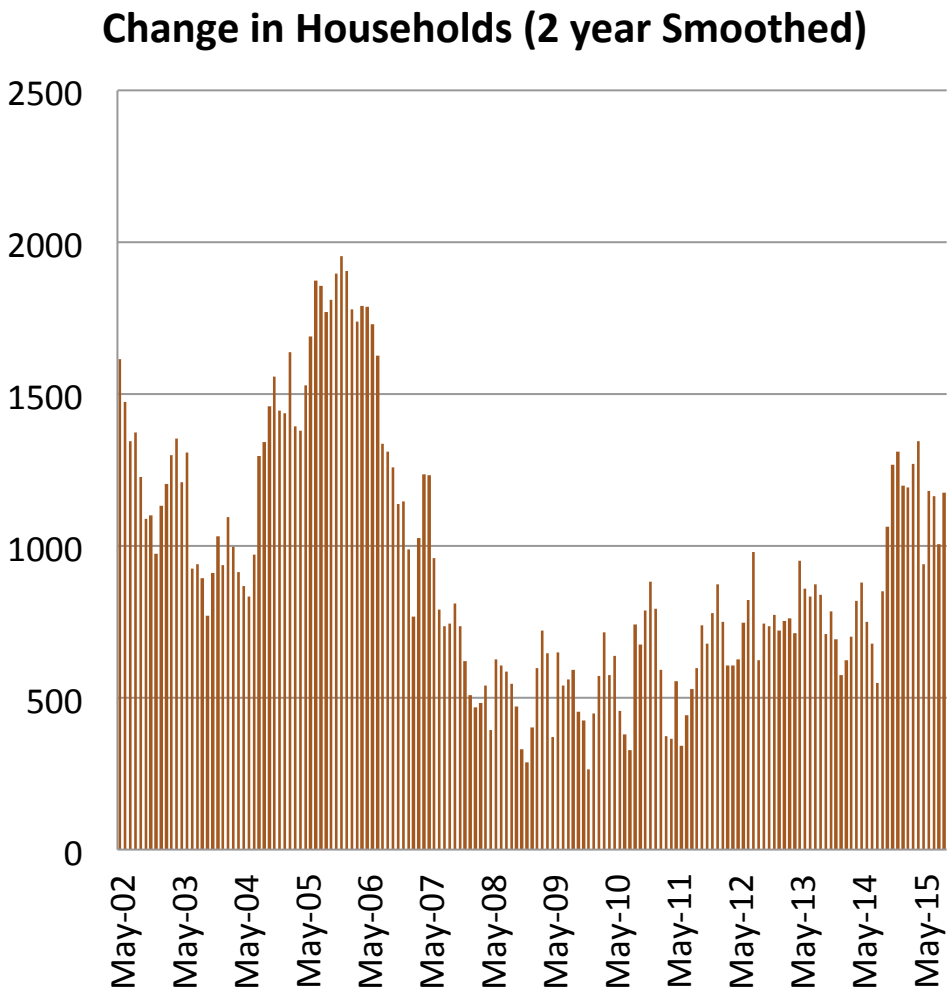
	13-14	14-15	*Diff*
AZ-Phoenix	2.2%	5.7%	*3.5%*
Composite-20	**4.4%**	**5.6%**	***1.1%***
MI-Detroit	3.6%	5.3%	*1.6%*
MA-Boston	4.3%	5.2%	*0.9%*
National-US	**4.6%**	**5.2%**	***0.5%***
NC-Charlotte	2.7%	4.7%	*2.0%*
MN-Minneapolis	2.1%	4.0%	*2.0%*
NY-New York	1.8%	3.1%	*1.3%*
OH-Cleveland	0.8%	2.2%	*1.5%*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

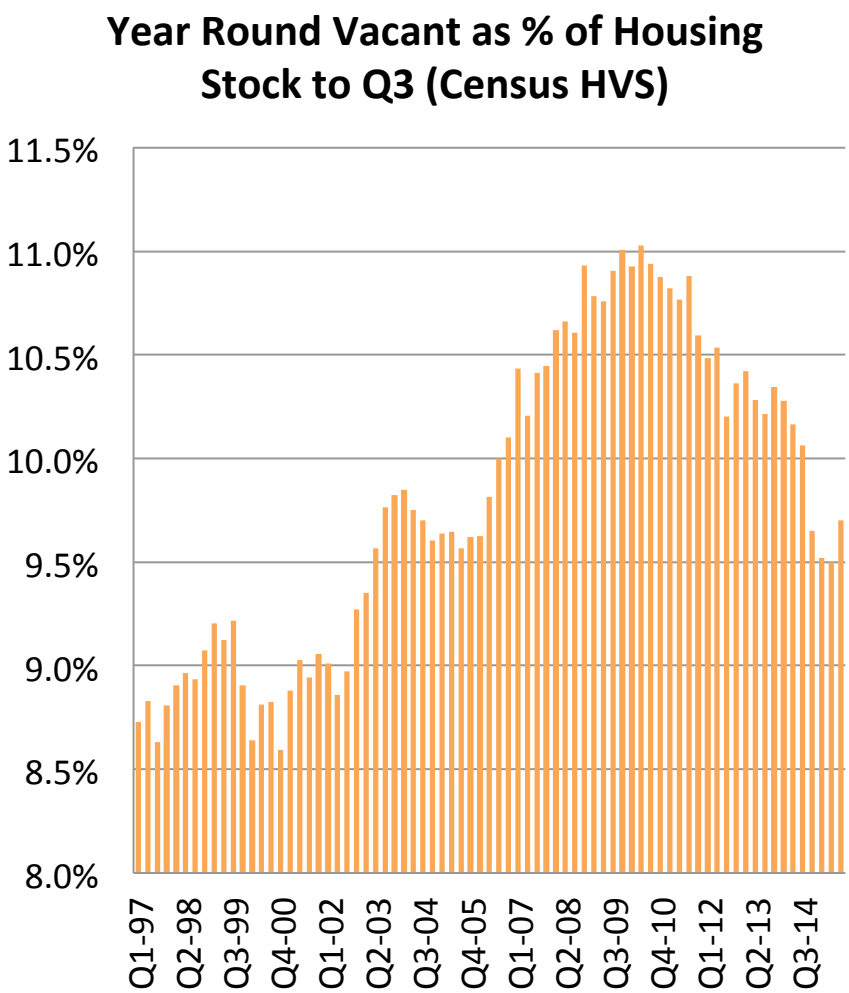
Affordability And Construction



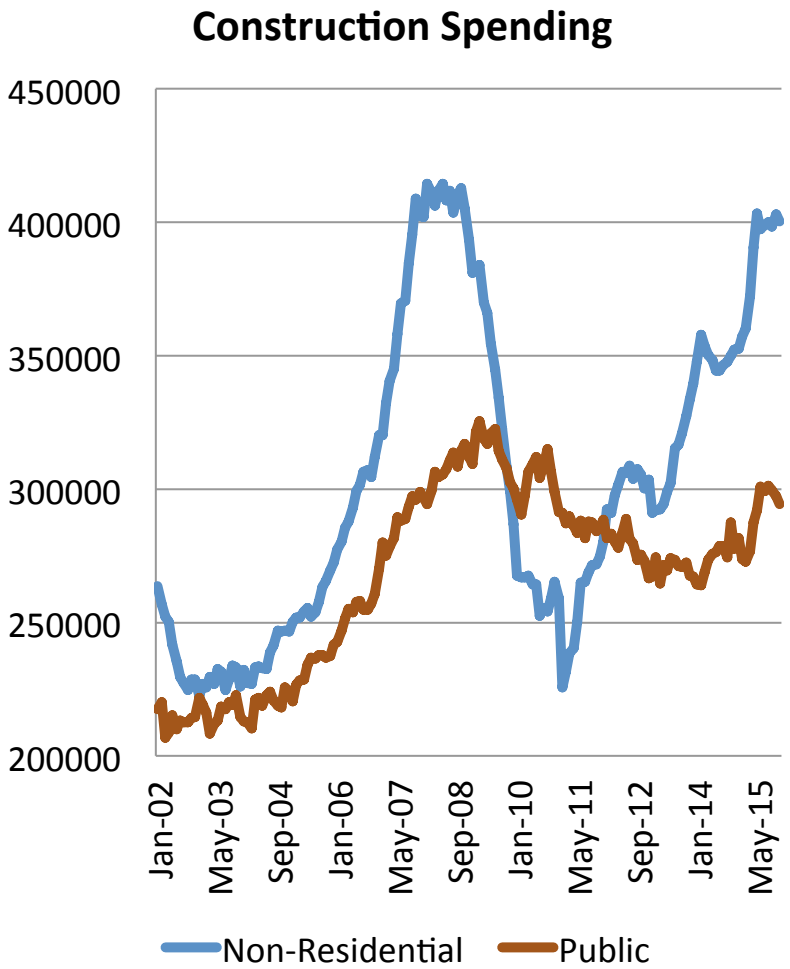


Improved Outlook



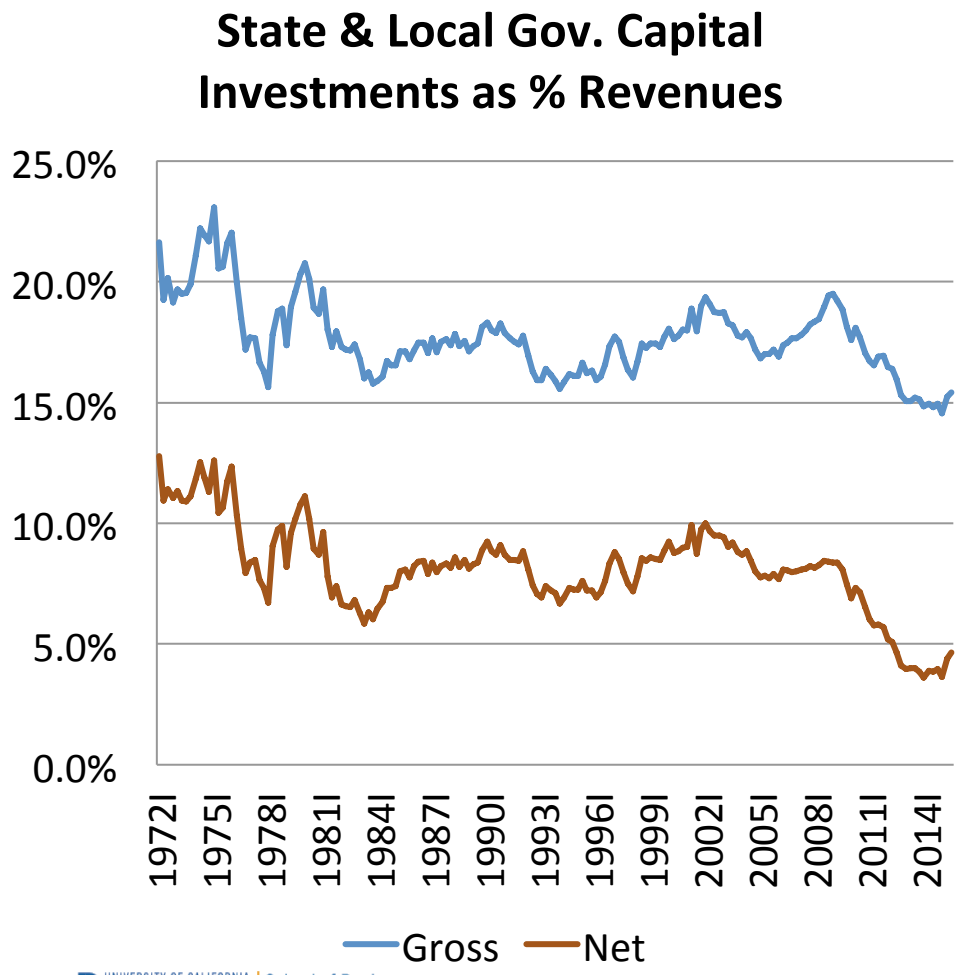


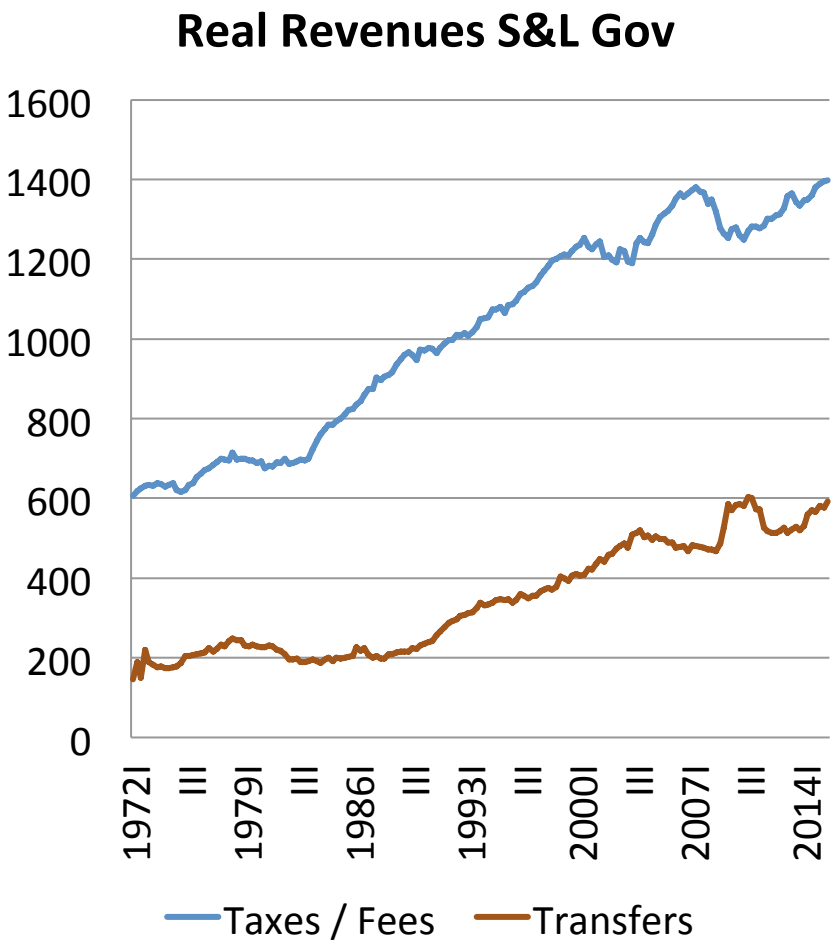
Non Residential Trends



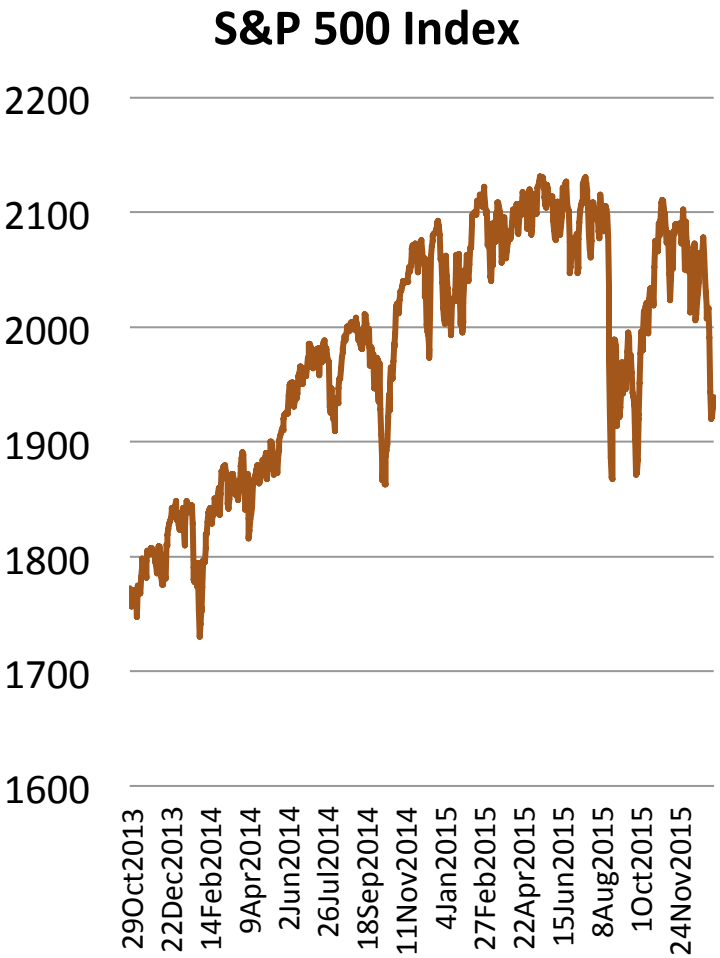
	2013	2014	2015
Lodging	13.0	15.7	20.3
Office	30.1	38.3	47.5
Retail	32.8	37.0	39.3
Warehouse	8.7	13.7	16.3
Medical	29.7	28.6	31.2
Education	16.9	16.7	17.6
Infrastructure	108.1	120.8	109.7
Manufacturing	49.8	57.0	83.5

Public Capital Investments





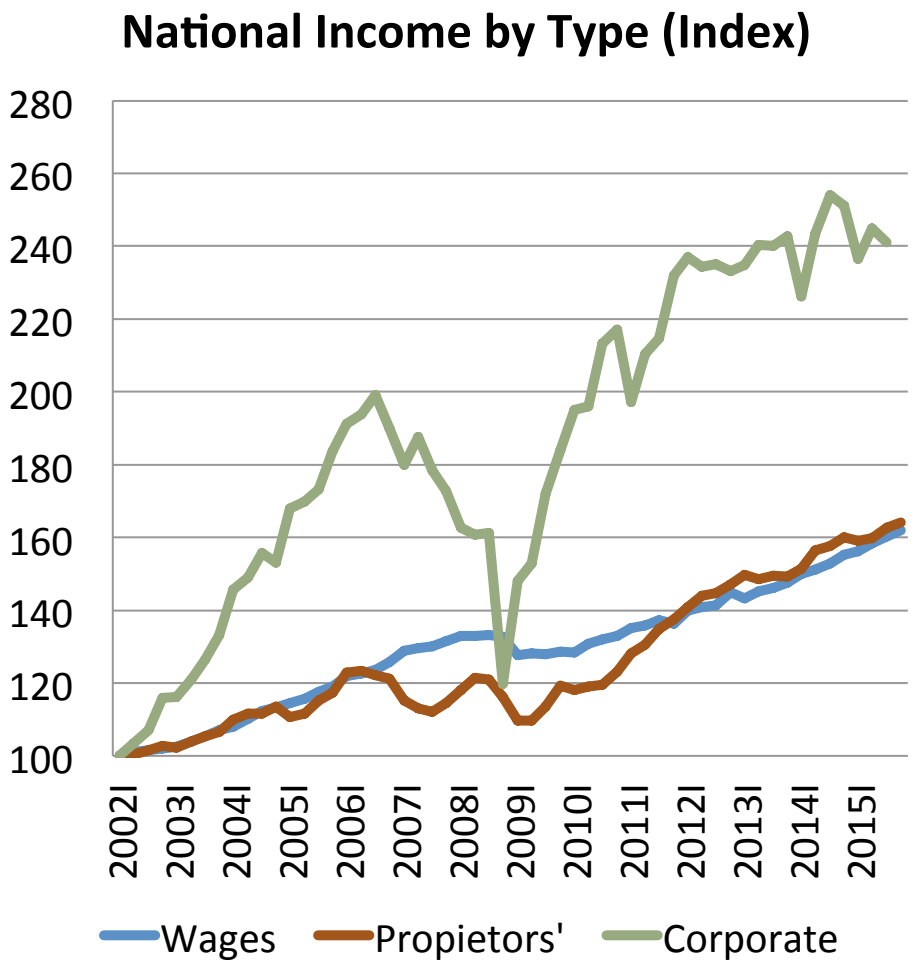
What inning is it?

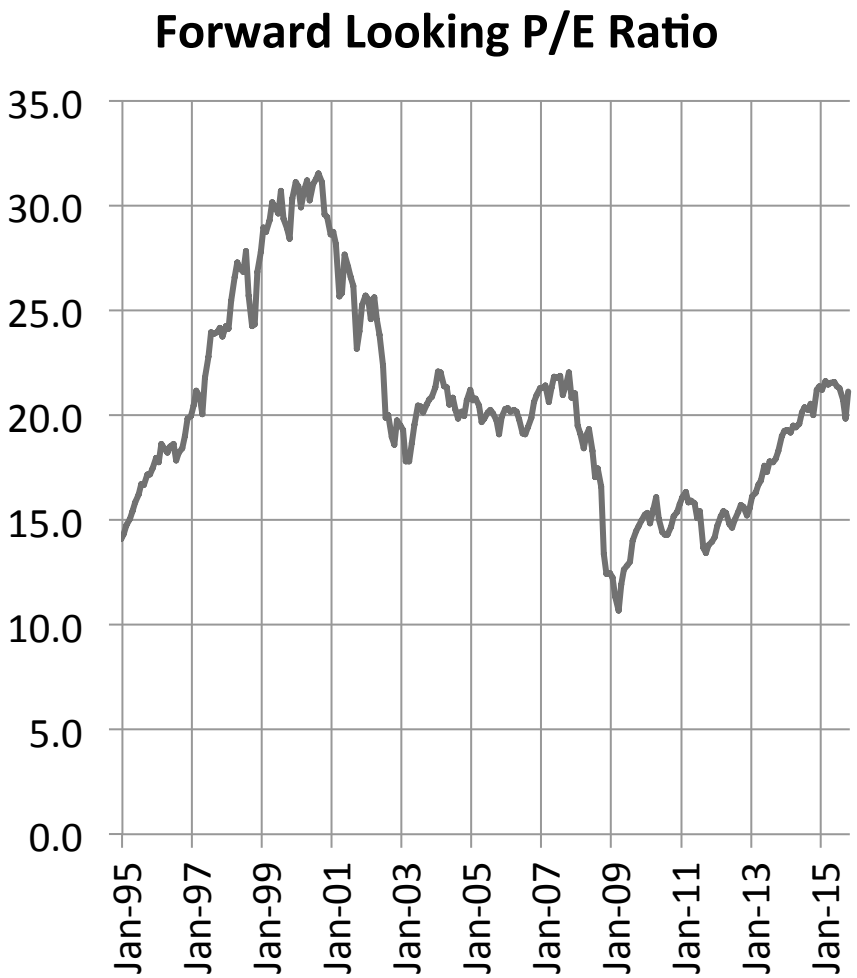


There is no Bubble… (at least not yet) Why?

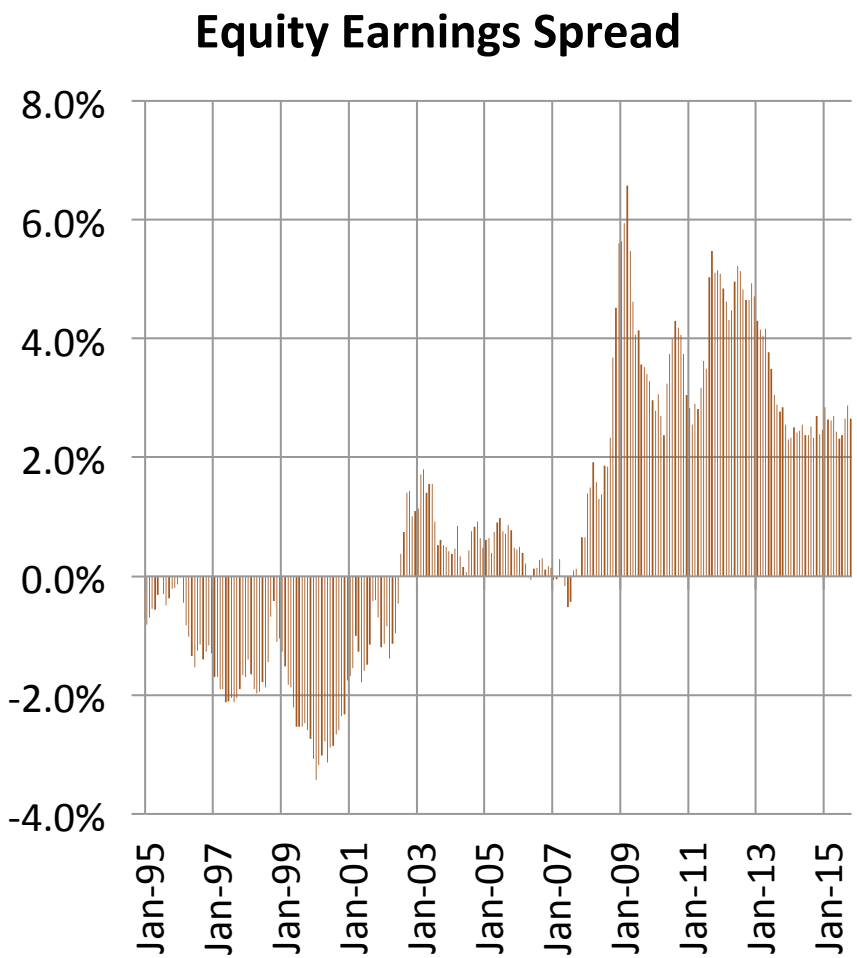
1. Asset prices are being driven by fundamentals, not speculation
2. The global savings glut is driving interest rates, not Fed policy
3. Leverage is not a factor
4. The real economy is in balance

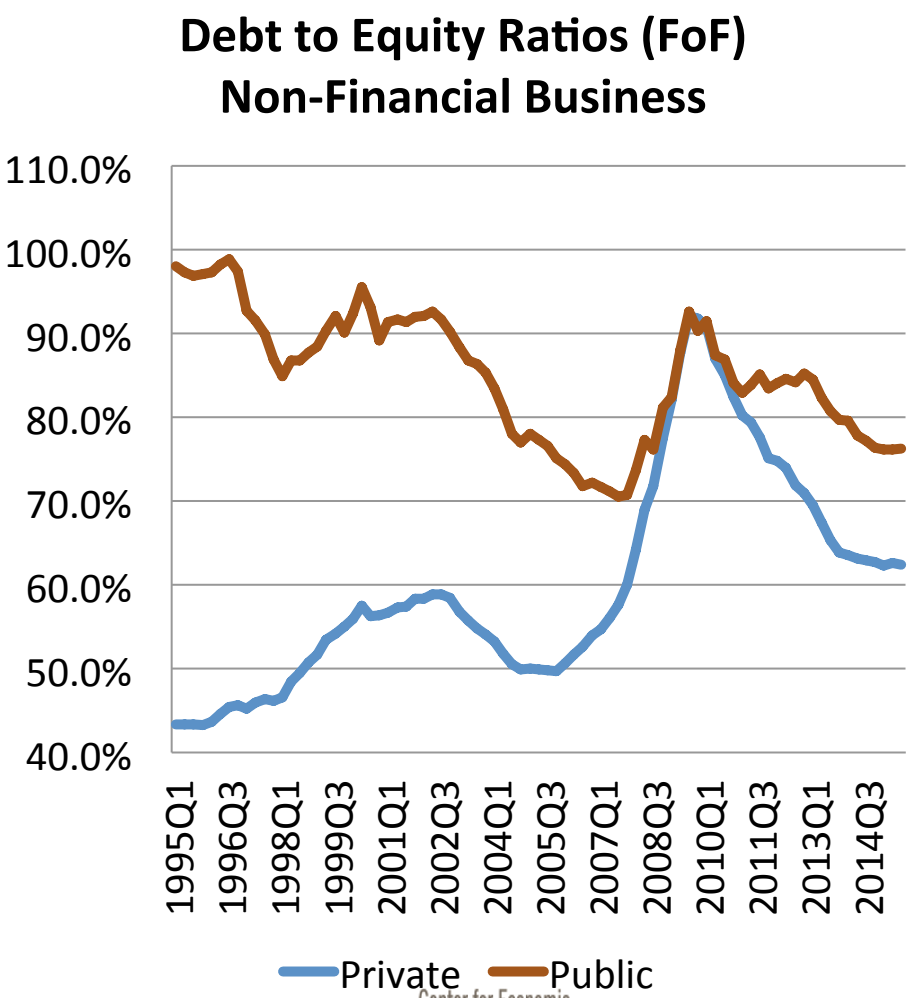
Earnings and Prices



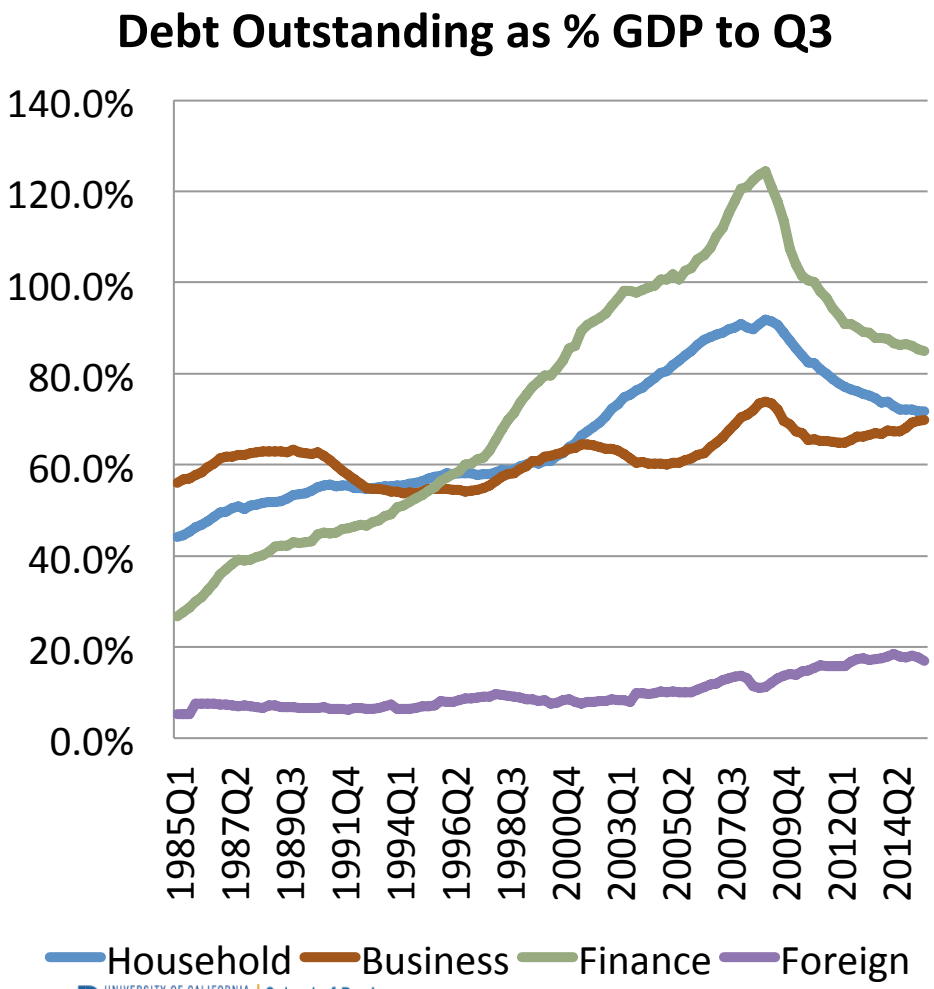


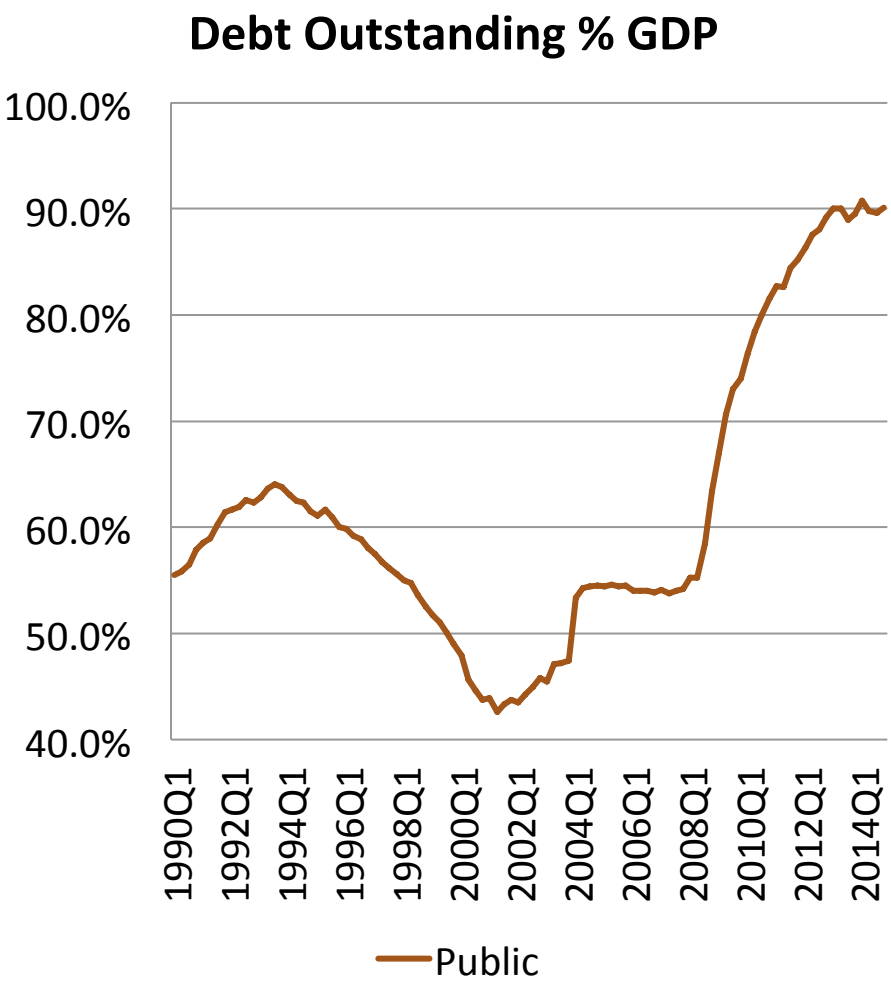
Equity Fundamentals



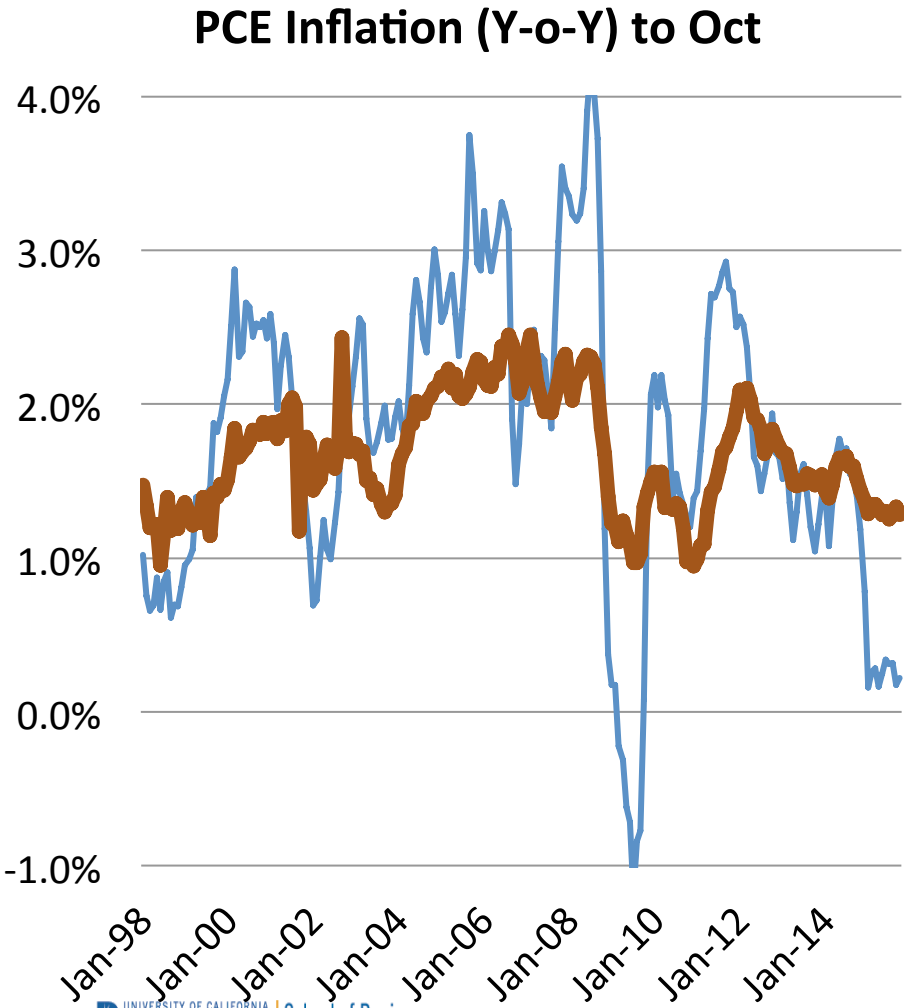


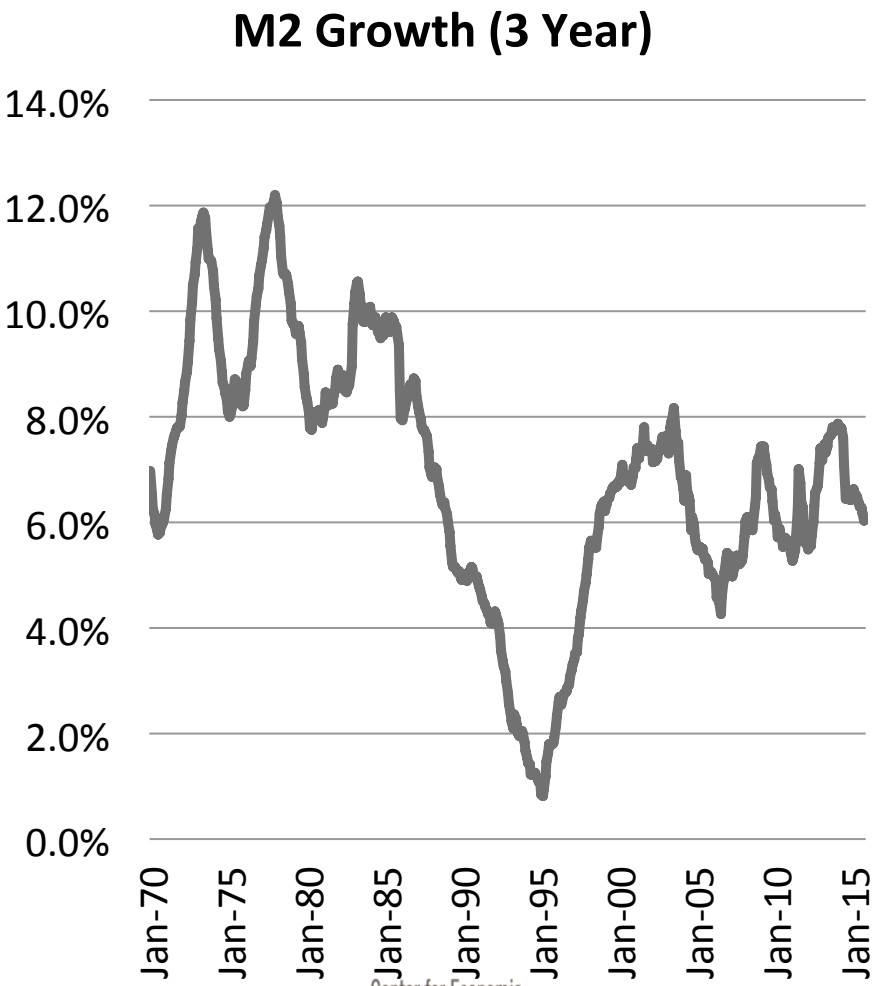
Risk Factors



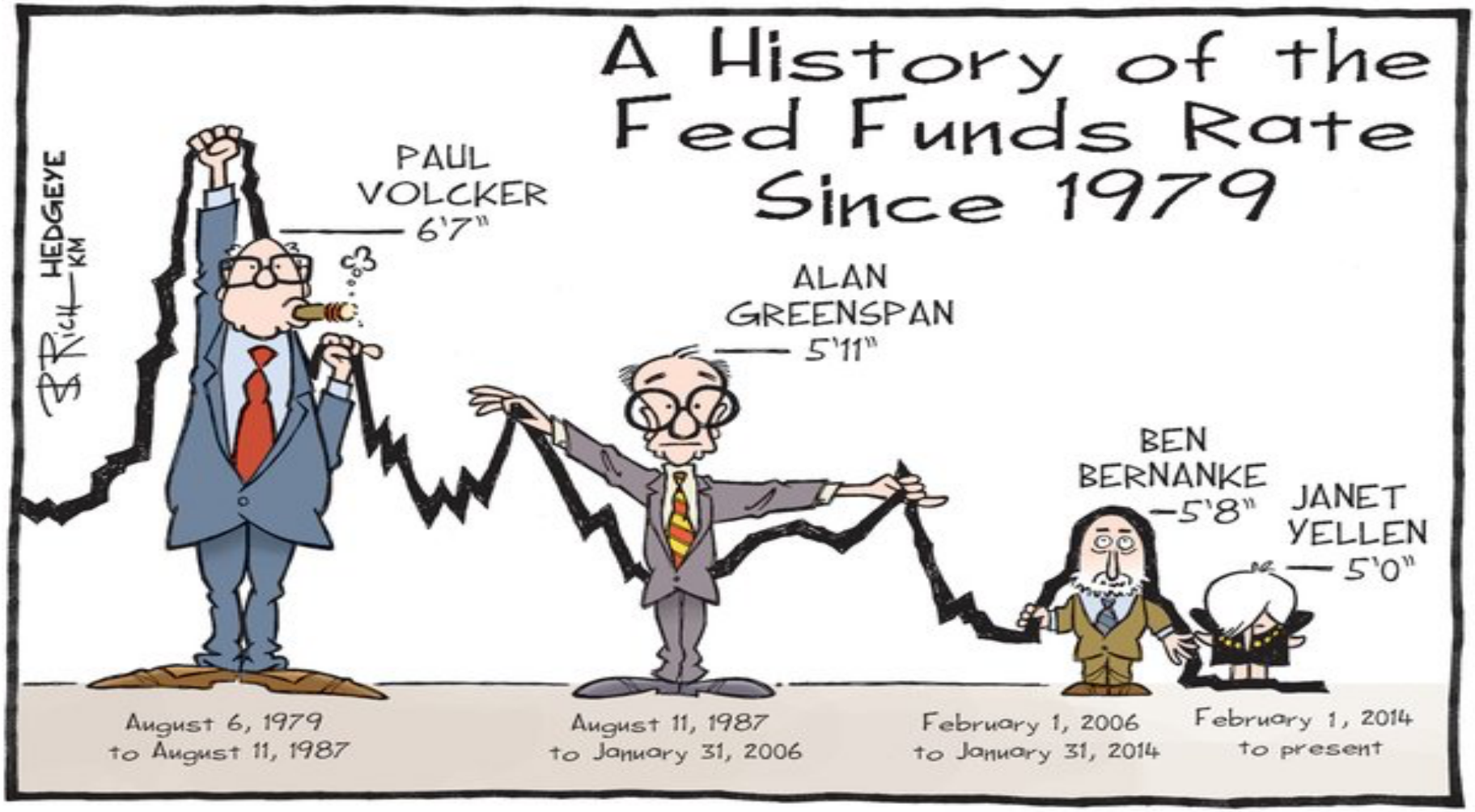


~~When~~ How Fast

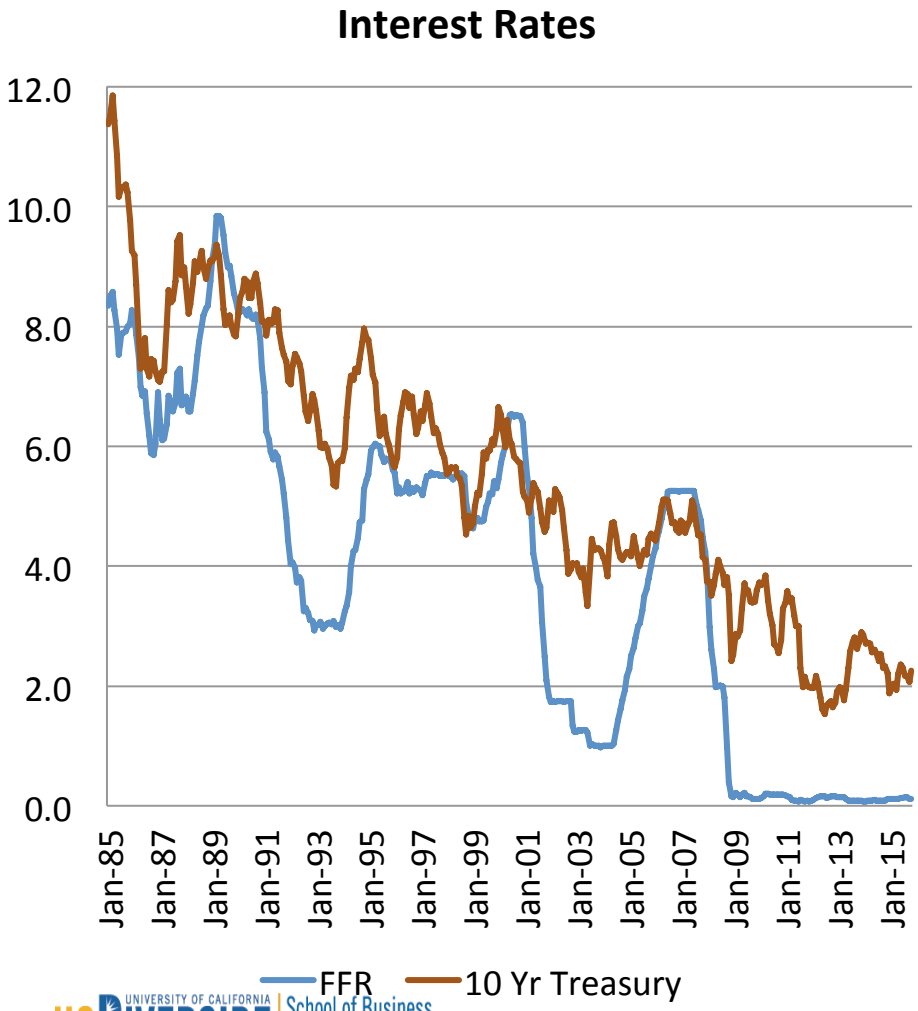


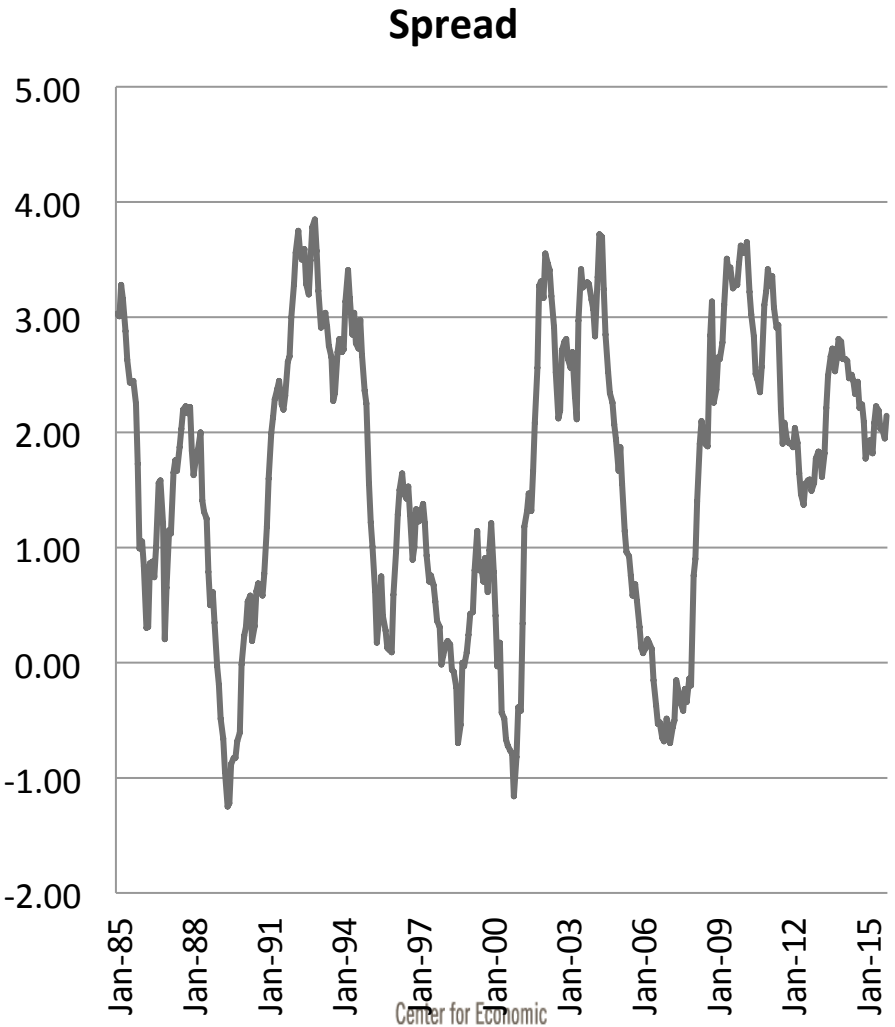


And the Fed?


A History of the Fed Funds Rate Since 1979
PAUL VOLCKER 6'7"
ALAN GREENSPAN 5'11"
BEN BERNANKE 5'8"
JANET YELLEN 5'0"
August 6, 1979 to August 11, 1987
August 11, 1987 to January 31, 2006
February 1, 2006 to January 31, 2014
February 1, 2014 to present
HEDGEYE KM

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?"

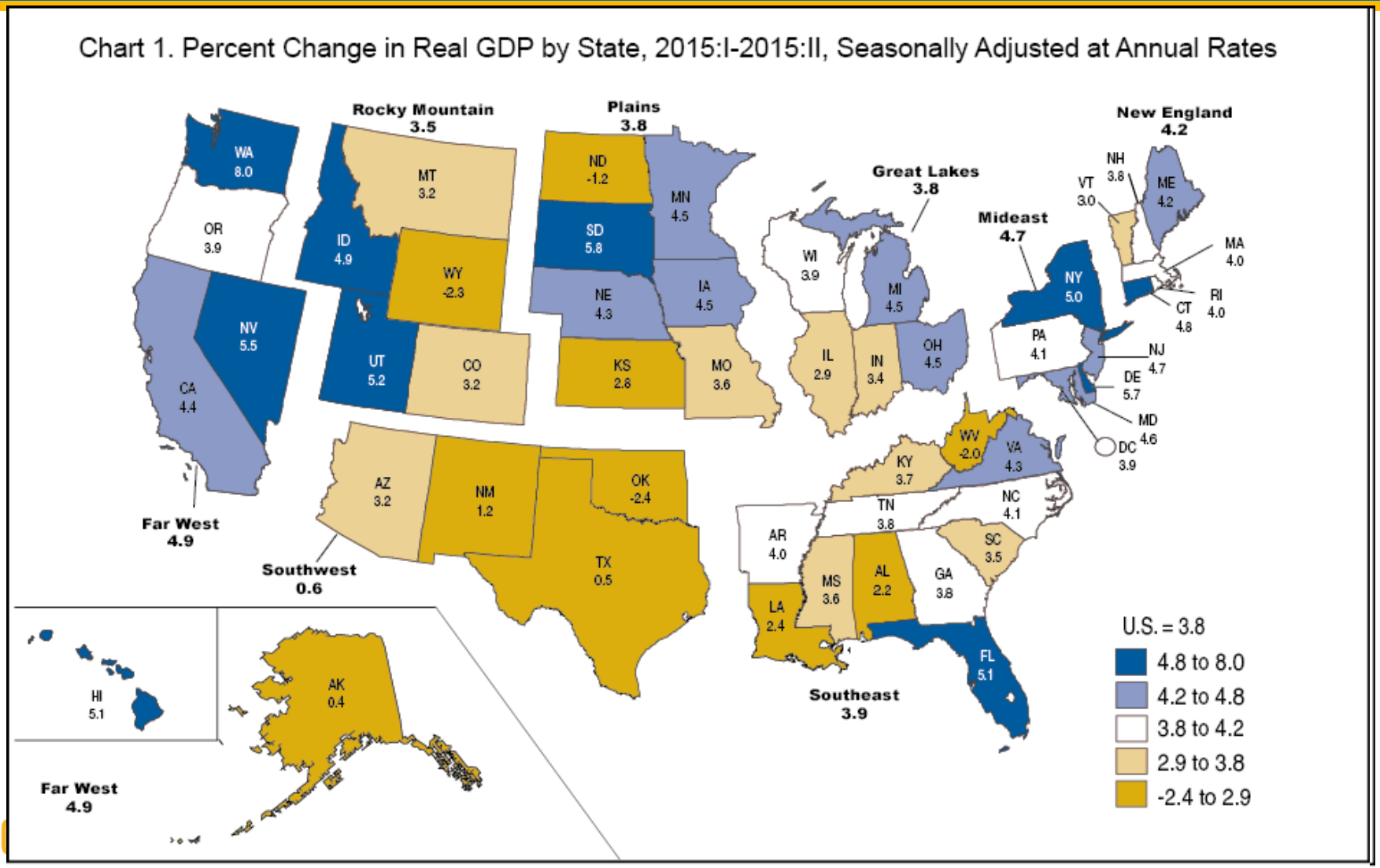
California Hype:

- High taxes, Over regulated
- People/business fleeing

Reality

- State still outperforming
- Certain industries more vulnerable than others, but others doing great
- Real enemy: CEQA, dumb taxes

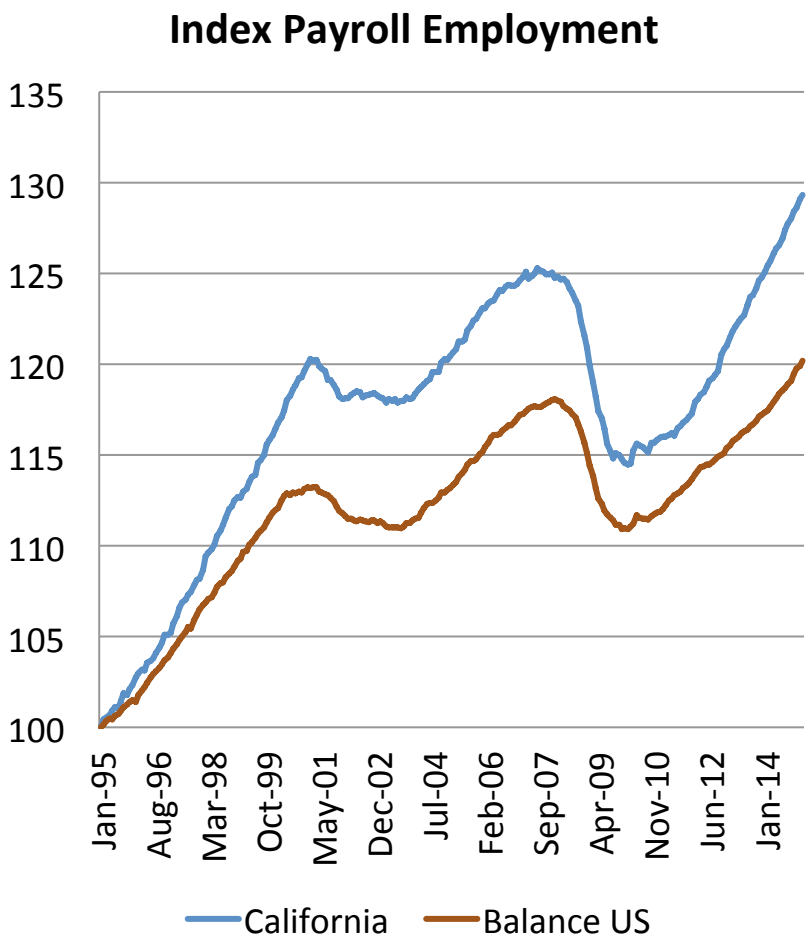
Regional Growth



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

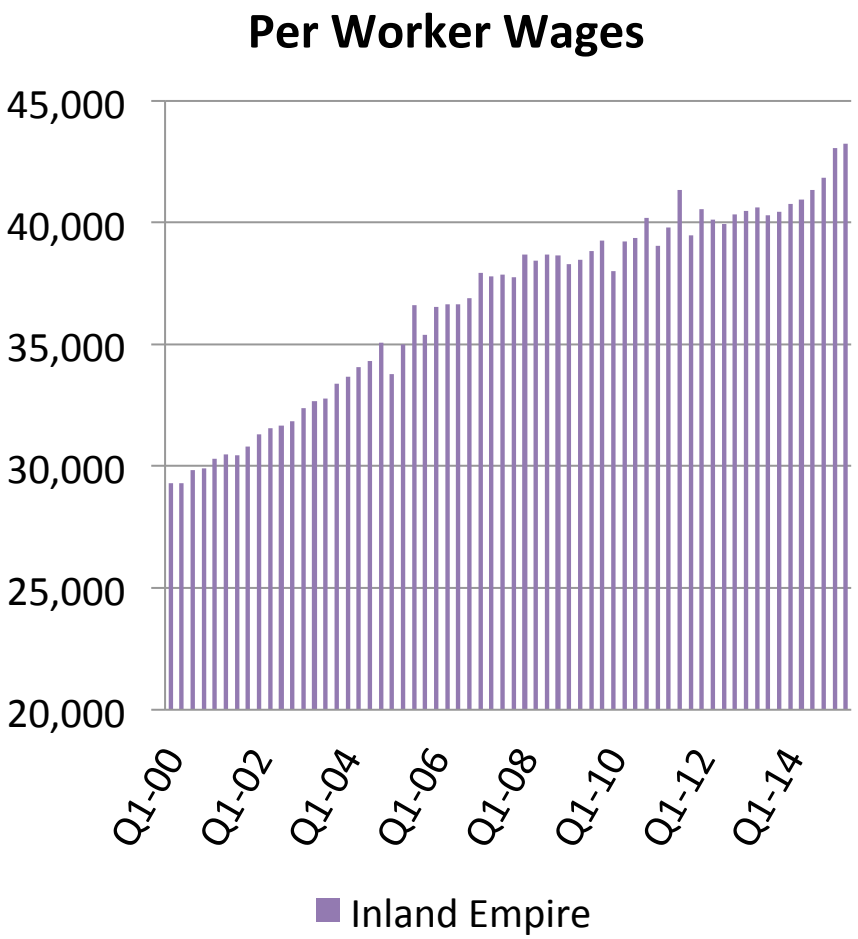
	Jan-16	
Civilian Employment	17,930	1.7%
Unemployment Rate	5.7%	
Total Payroll	16,673	2.8%
Construction	750	6.5%
Logistics	567	4.8%
Information	492	4.6%
Health Care	2,153	4.2%
Hospitality	1,871	4.1%
Education	357	4.1%
Professional	1,232	4.0%
Administrative	1,072	2.6%
Wholesale Trade	728	1.9%
Retail Trade	1,676	1.7%
Management	232	1.7%
Government	2,480	1.6%
Financial Activities	800	1.5%
Other Services	546	1.4%
Total Farm	427	0.3%
Manufacturing	1,291	0.3%

State Employment by Region

AREATITLE	Jan-16	
Monterey	135,600	4.0%
Stockton	222,400	3.9%
San Jose	1,061,500	3.8%
Inland Empire	**1,371,400**	**3.5%**
Solano	134,800	3.4%
Santa Cruz	99,600	3.1%
Sacramento	930,100	2.9%
Tulare	120,500	2.8%
Fresno	328,300	2.8%
Modesto	168,800	2.7%
San Diego	1,404,900	2.7%
Sonoma	199,100	2.7%
Orange	1,563,000	2.6%
East Bay	1,108,900	2.6%
Santa Barbara	182,700	2.6%
Los Angeles	4,315,200	2.2%
Kern	262,500	1.2%
San Luis Obispo	115,000	0.9%
Ventura	295,800	0.8%

Inland Empire Jobs

	Jan-16		
Total, All Industries	1,384,200	46,800	3.5%
Logistics	101,500	8,400	9.0%
Government	240,000	7,600	3.3%
Construction	86,100	7,400	9.4%
Health Care	189,200	6,500	3.6%
Hospitality	155,000	6,200	4.2%
Wholesale Trade	63,300	3,600	6.0%
Manufacturing	96,600	2,800	3.0%
Retail Trade	174,300	2,100	1.2%
Other Services	44,500	1,800	4.2%
Financial Activities	43,400	700	1.6%
Management	9,900	700	7.6%
Professional	40,300	600	1.5%
Information	11,300	0	0.0%
Education	17,600	-100	-0.6%
Administrative	94,600	-2,400	-2.5%

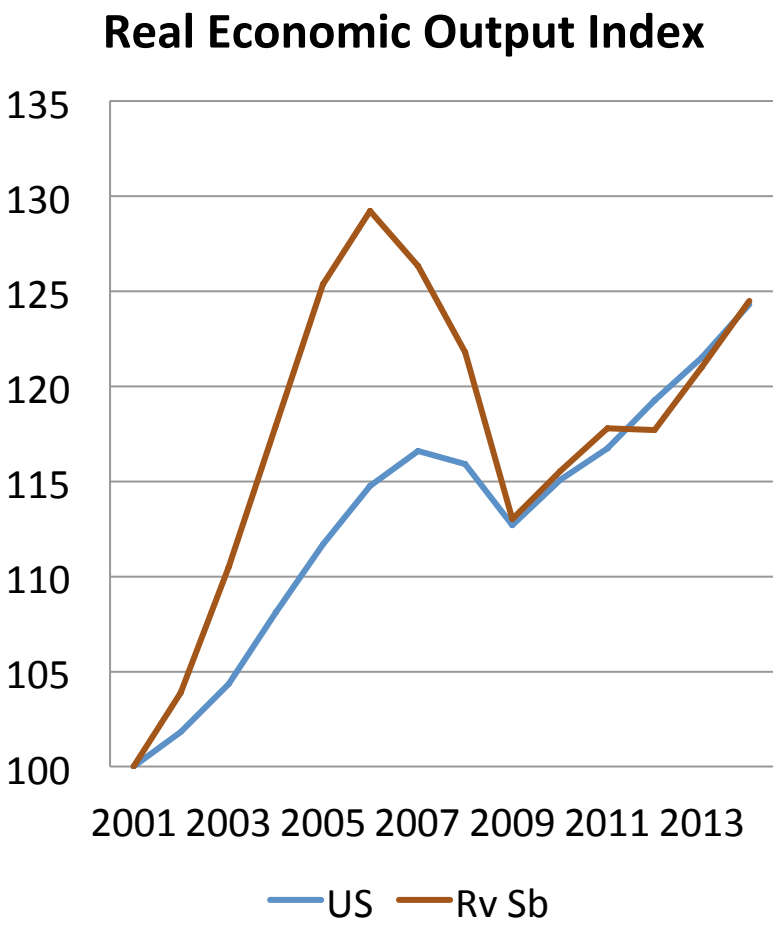


San Bernardino Payrolls

	2006	2015	14-15	Change	Wage	Change
Total, all industries	545,153	572,487	4.5%	24,463	$39,841	2.5%
Natural resources	3,797	3,487	10.4%	329	$43,121	2.3%
Construction	46,951	32,815	7.9%	2,394	$54,676	3.7%
Manufacturing	65,990	53,482	7.1%	3,530	$51,638	8.1%
Trade, transportation	162,084	182,025	4.2%	7,268	$39,842	1.7%
Information	7,737	4,883	2.9%	136	$56,697	-0.6%
Financial activities	28,064	22,005	-2.2%	(485)	$53,492	8.6%
Professional	80,160	80,591	4.1%	3,143	$37,562	-1.4%
Education health	66,548	103,311	2.8%	2,855	$43,320	1.9%
Leisure hospitality	55,975	67,659	5.3%	3,375	$17,200	1.8%
Other services	27,823	19,226	3.9%	720	$32,891	4.1%

IE Output in Context

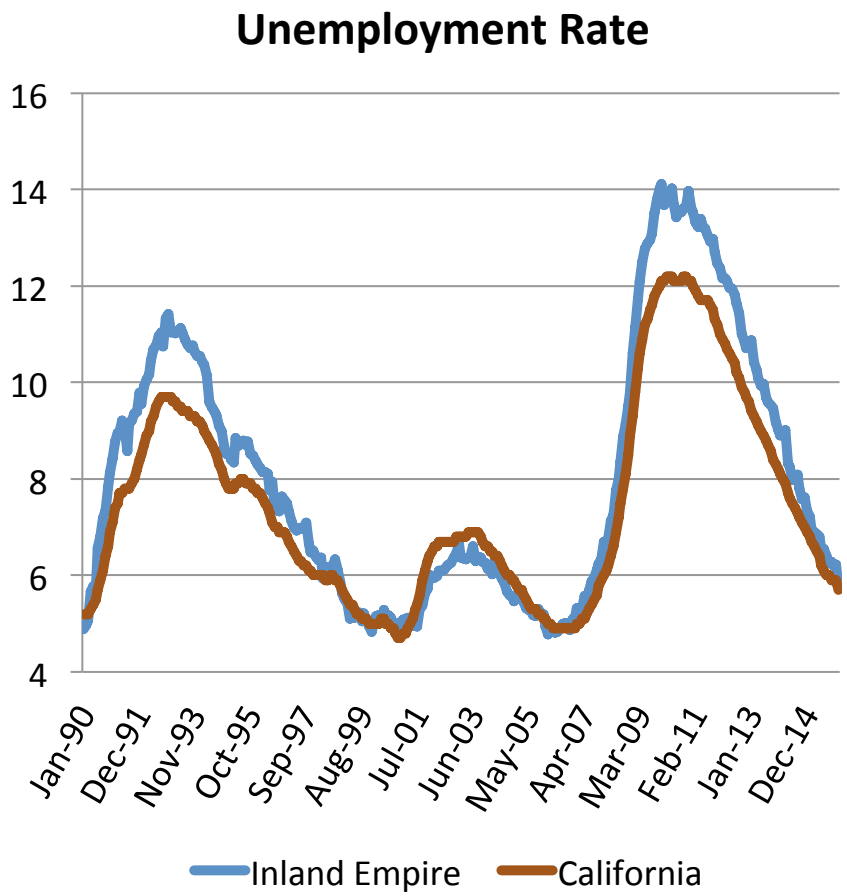
2014 MSA	MGP	Rank
Denver	187,111	18
Baltimore	173,516	19
Portland	159,328	20
St. Louis	149,951	21
Charlotte-Concord	143,628	22
Pittsburgh, PA	135,662	23
Riverside-San Bernardino	**133,983**	**24**
Tampa-St. Petersburg	128,201	25
Indianapolis	125,864	26
Cleveland	124,609	27
Kansas City	121,638	28
Cincinnati	121,407	29
Columbus	117,824	30
Orlando	115,927	31



IE Economic Output

Industry	2014 Output	Cont. to Gr.	Share
All industry total	122685	24.9%	
Government	23069	4.2%	18.8%
Health care	10319	4.2%	8.4%
Professional	9871	3.6%	8.0%
Wholesale trade	8362	3.5%	6.8%
Retail trade	11426	3.3%	9.3%
Logistics	6680	3.0%	5.4%
Manufacturing	10262	1.5%	8.4%
Finance	21506	1.1%	17.5%
Hospitality	4984	1.0%	4.1%
Information	2236	0.9%	1.8%
Utilities	1938	0.7%	1.6%
Educational	838	0.3%	0.7%
Mining	541	0.1%	0.4%
Other services\	3726	0.0%	3.0%
Agriculture	492	-0.7%	0.4%
Construction	6498	-1.8%	5.3%

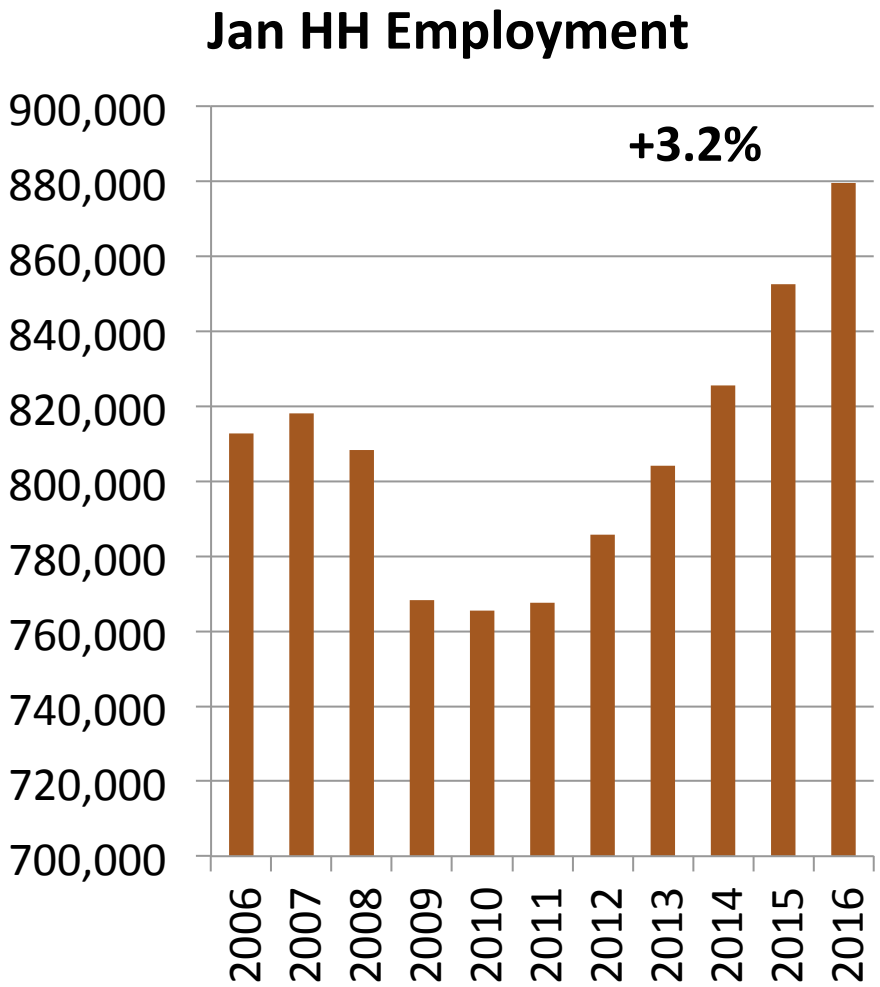
Local Labor Markets

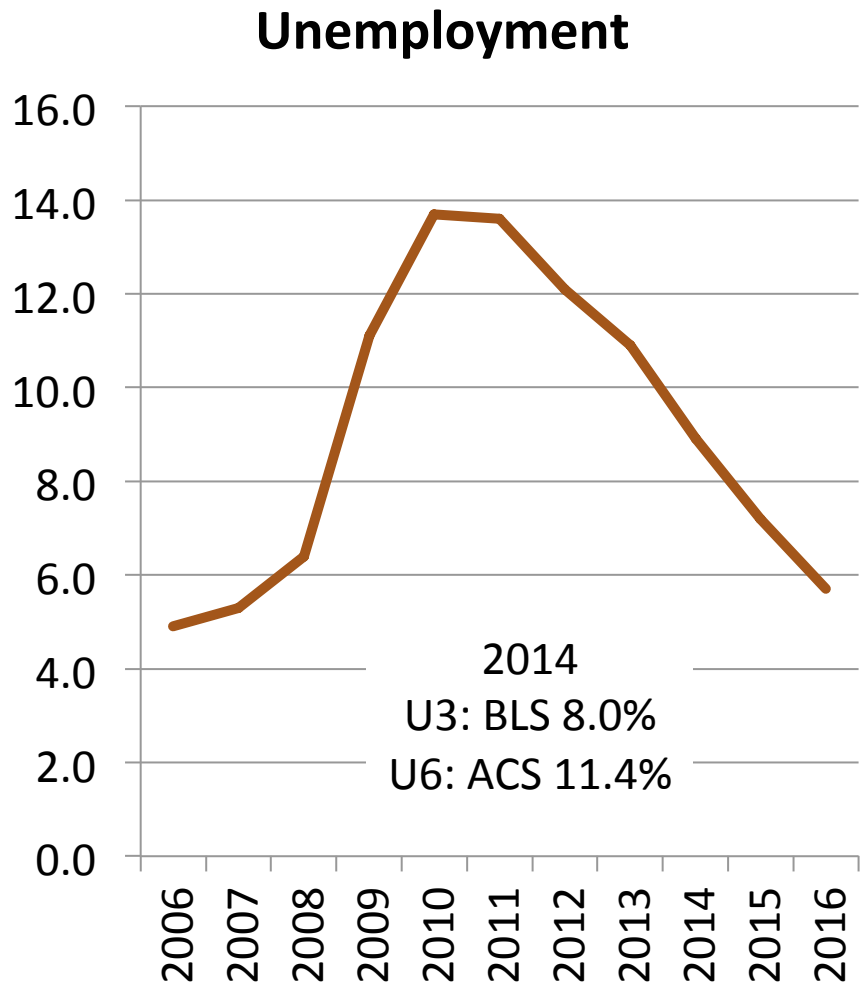


	Labor Force
Los Angeles	5,011,706
Inland Empire	1,943,788
Orange Cnty	1,597,216
San Diego	1,564,030
East Bay	1,365,904
San Jose	1,059,842
Sacramento	1,055,713
San Francisco	991,071

Personal Income	2014	Rank
San Diego	$167,931,419	16
Baltimore	$149,573,086	17
Denver	$148,684,245	18
Riverside-San Bernardino	$147,727,265	19
San Jose	$144,290,968	20
St. Louis	$132,988,974	21

San Bernardino



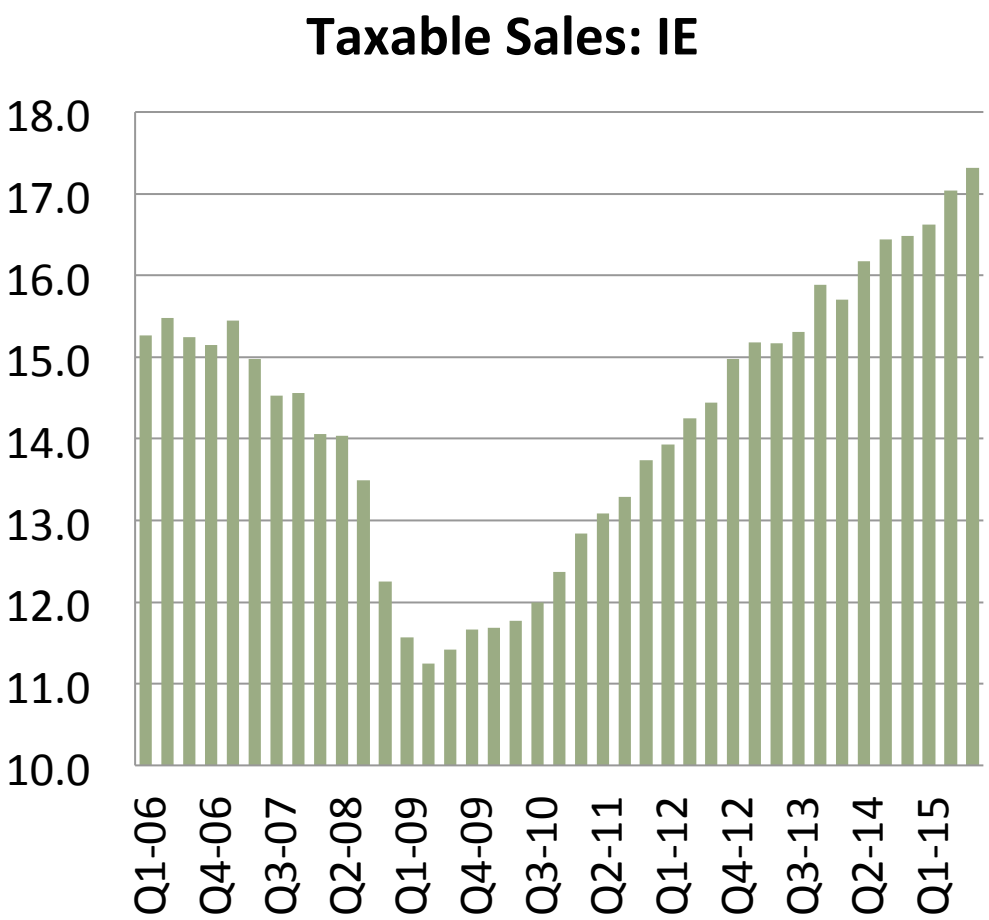


City Stats (5 Yr ACS)

	HH Emp	% Bach
Fontana	83,282	20.5%
Rancho Cucamonga	82,296	36.7%
Ontario	73,154	16.0%
San Bernardino	72,399	14.5%
Rialto	38,282	11.5%
Victorville	38,047	14.2%
Chino Hills	37,200	48.6%
Upland	34,726	32.2%
Chino	33,486	29.1%
Hesperia	30,504	12.5%
Redlands	30,343	44.5%
Apple Valley	24,310	20.5%

	HH Emp	% Bach
Yucaipa	21,382	23.2%
Highland	21,291	23.8%
Colton	21,035	13.8%
Montclair	15,897	16.3%
Loma Linda	10,699	53.4%
Barstow	7,769	14.9%
Adelanto	7,256	9.4%
Yucca Valley	6,900	16.1%
Grand Terrace	5,767	30.9%
Twentynine Palms	5,741	25.4%
Big Bear Lake	2,103	26.3%
Needles	1,802	10.7%

Local Sales



Region/ Submarket	2015 YTD	Change (%)
I-10 Corridor	12,070,171	7.6
City of Riverside	3,967,895	6.2
Corona/I-71	5,305,898	5.5
SW Riverside	4,765,296	4.6
Moreno Valley	1,136,789	4.4
Mountains	2,505,812	4.1
City of San Bernardino	2,039,720	2.2
Other	430,814	2.2
Coachella Valley	4,457,089	1.4
High Desert	2,817,918	-0.3
RSB Total	**50,245,338**	**5.5**

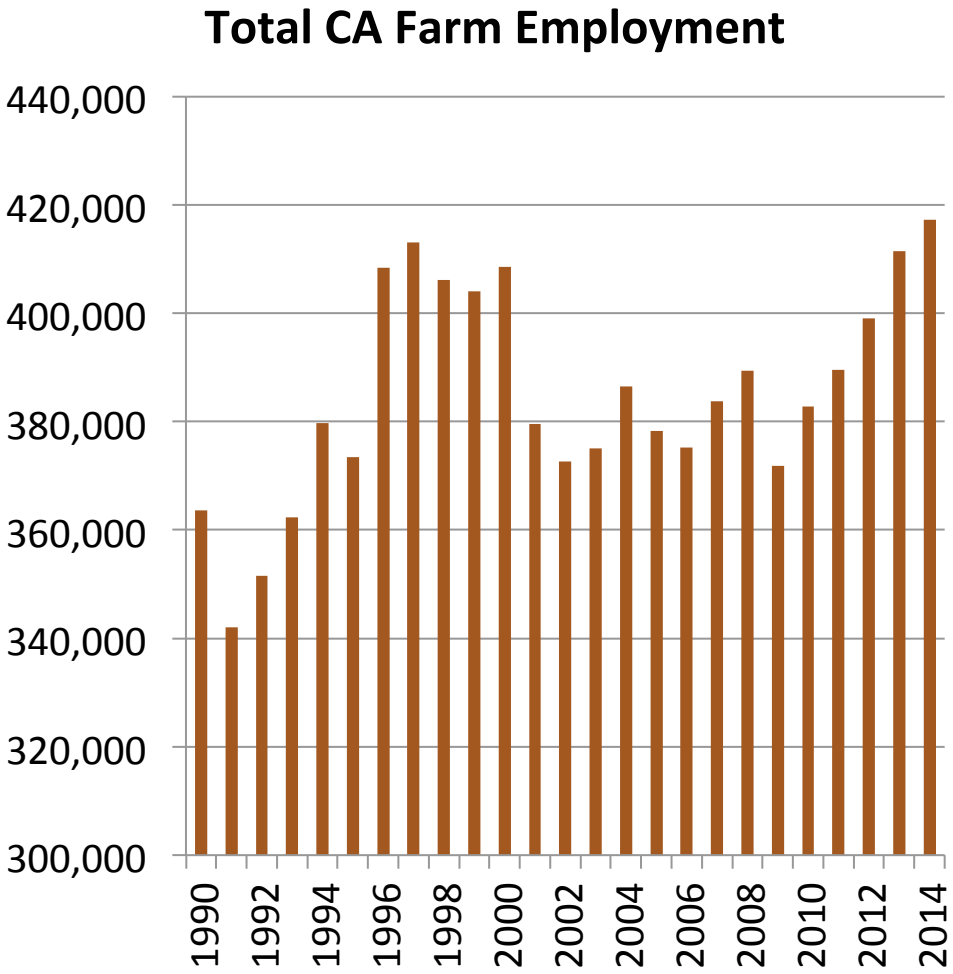
Local Households

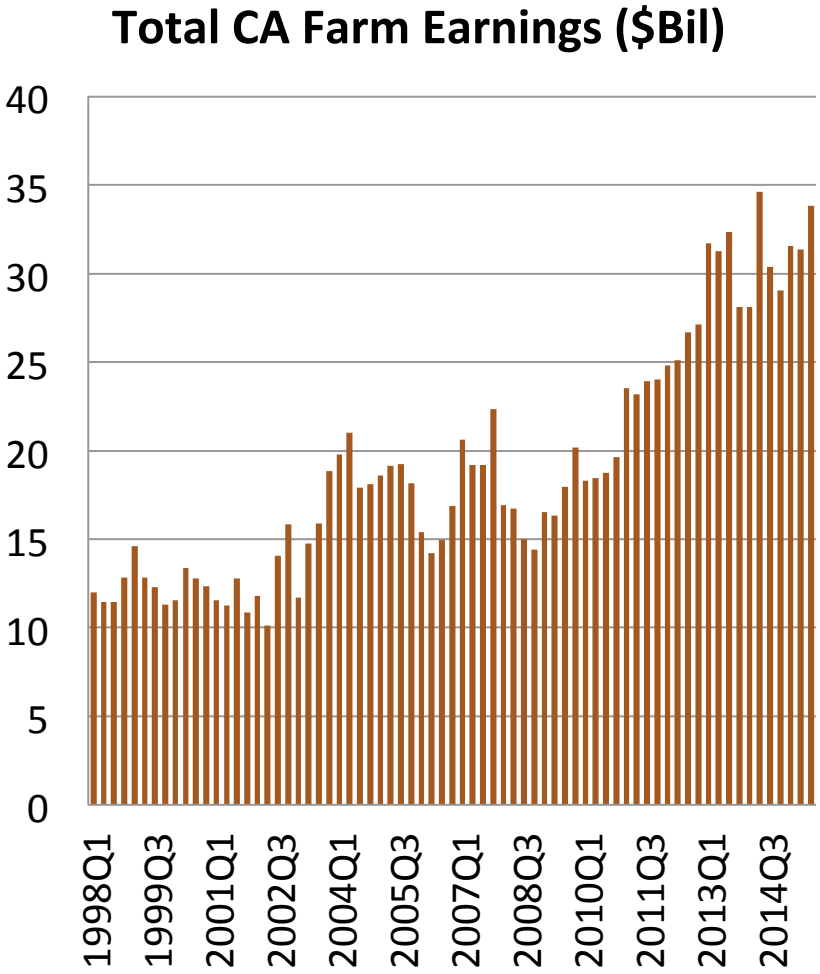
	US	CA	Riverside	San Bern.
HH	117,259	12,759	701	617
Gr 06-14	5.1%	5.0%	8.9%	4.1%
2006				
Share < $50k	51.3%	44.4%	46.7%	47.0%
$50-$100k	30.8%	31.0%	32.5%	34.2%
Share > $100k	17.9%	24.6%	20.7%	18.9%
Median	48,451	56,645	53,508	52,941
2014				
Share < $50k	46.6%	41.2%	44.5%	47.6%
$50-$100k	29.8%	28.6%	31.5%	30.8%
Share > $100k	23.6%	30.0%	24.0%	21.6%
Median	53,657	61,933	57,006	52,041
Change Income	10.7%	9.3%	6.5%	-1.7%
Ch $100K +	5.7%	5.4%	3.3%	2.7%
New $100K +	7,693.7	838.4	35.0	21.3

State Output: Q2 14 to Q2 15

	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%

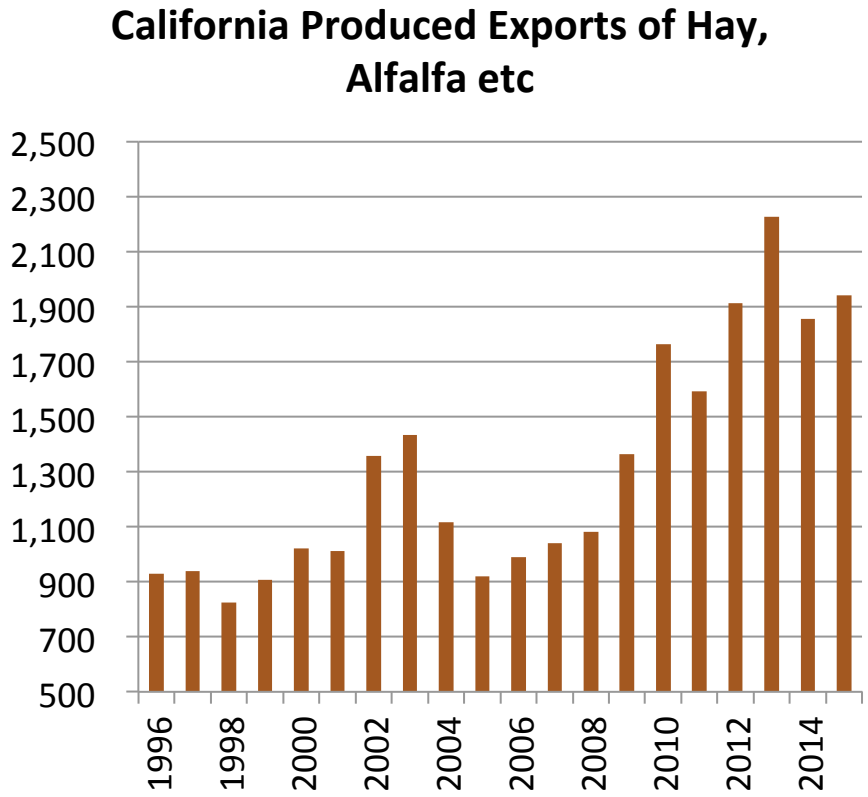
Ag and the Drought





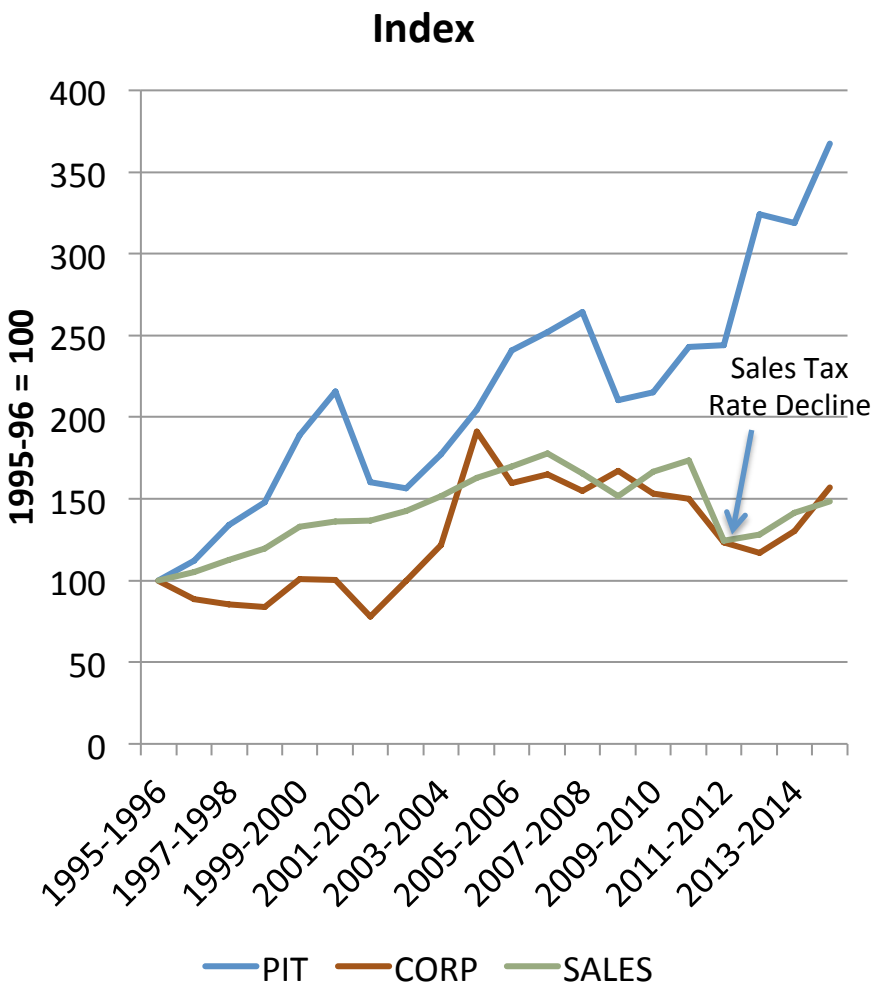
Looking Closer

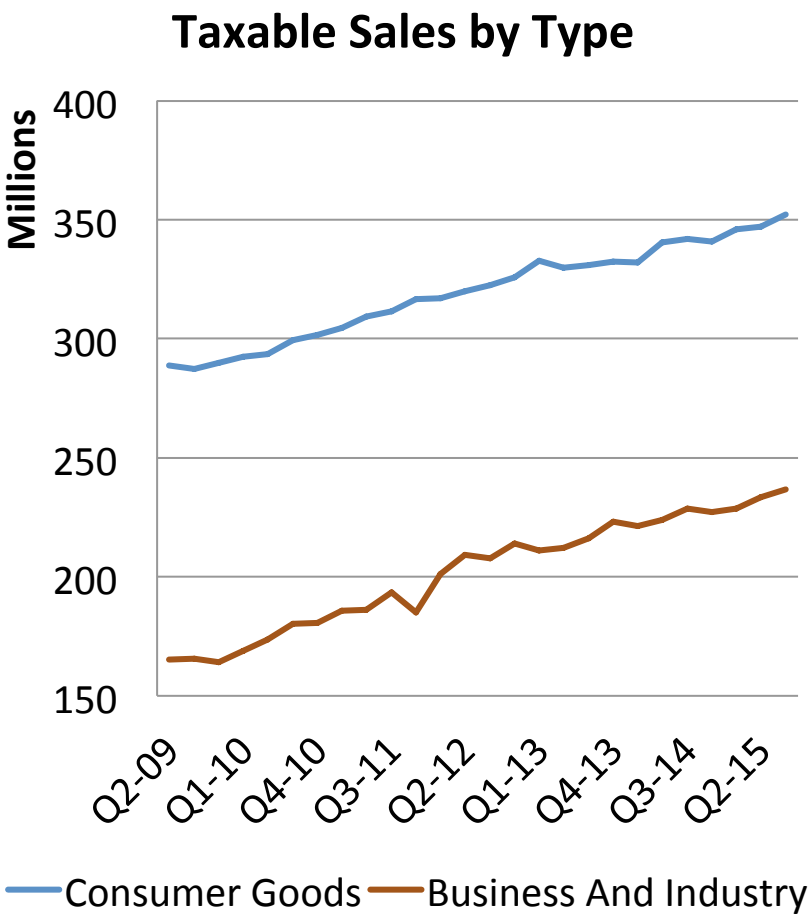
Insurable Crops	2006	2014
	6,664,689	6,055,791
Forage Production	1,060,000	930,000
Almonds	580,000	860,000
Wheat	530,000	585,000
Grapes (Wine)	445,147	570,000
Rice	526,000	495,000
Corn	540,000	430,000
Cotton	600,000	315,000
Walnuts	215,000	290,000
Tomatoes	306,465	288,000
Citrus – 8 types	267,913	270,000



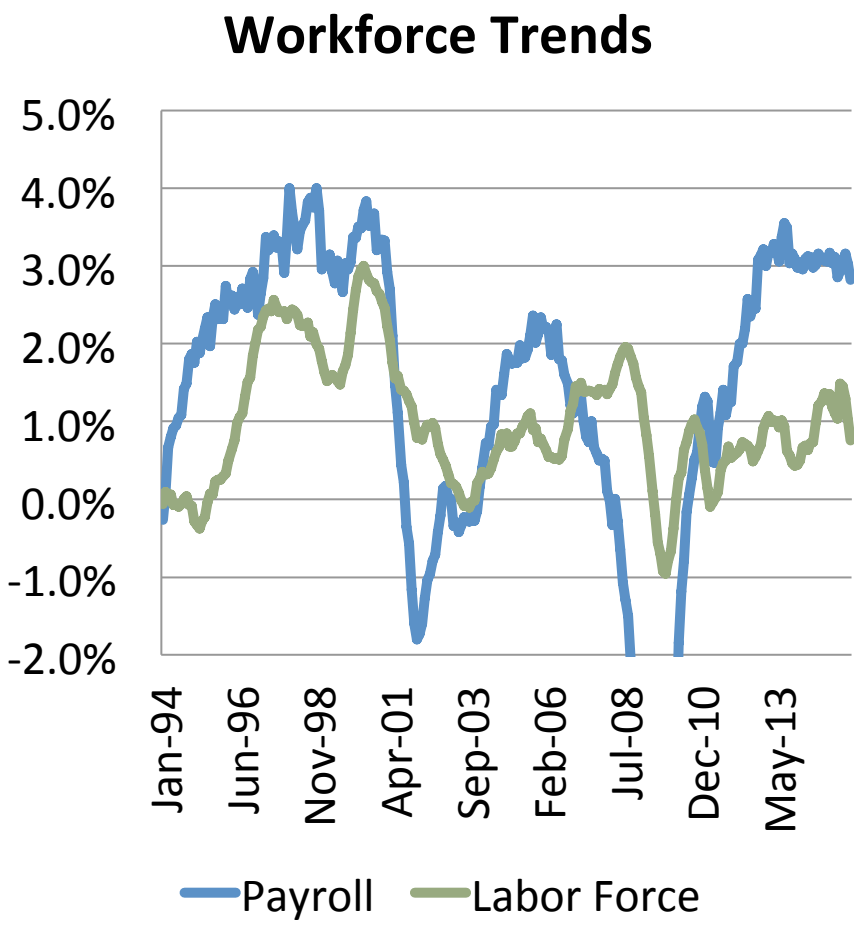
	Alfalfa	Rice	Nuts
$ / Kg	$0.27	$0.79	$7.07

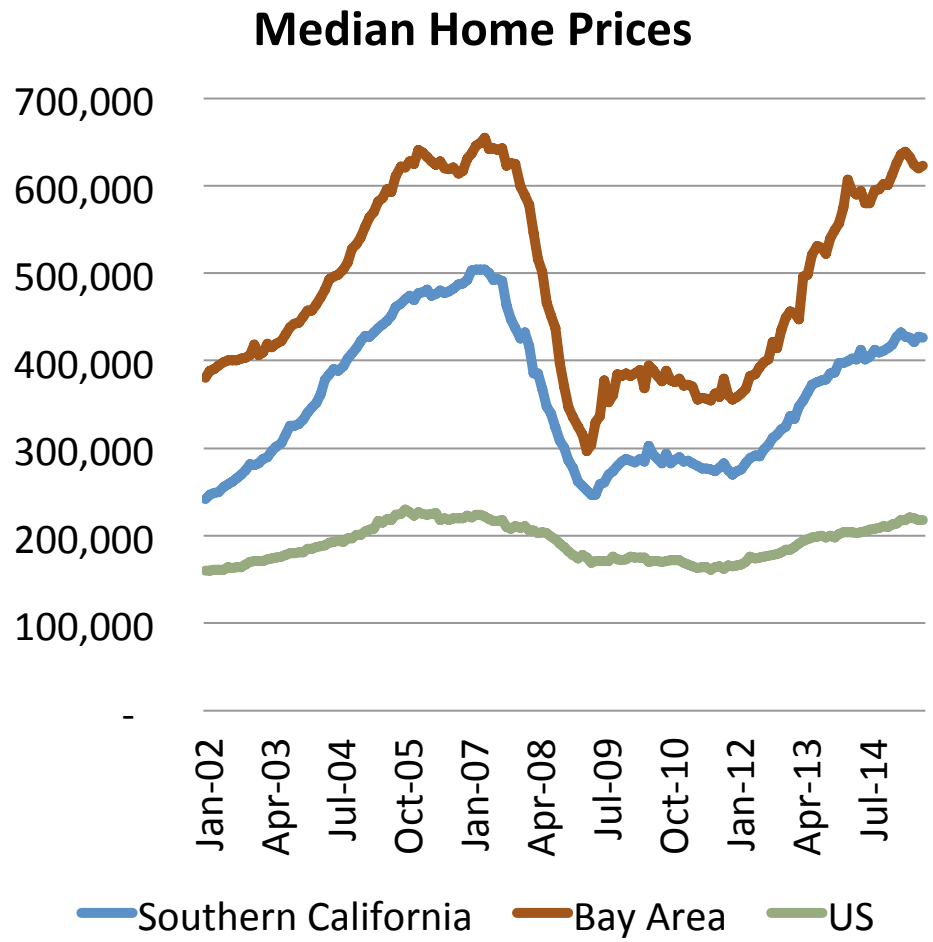
Income tax driving the show



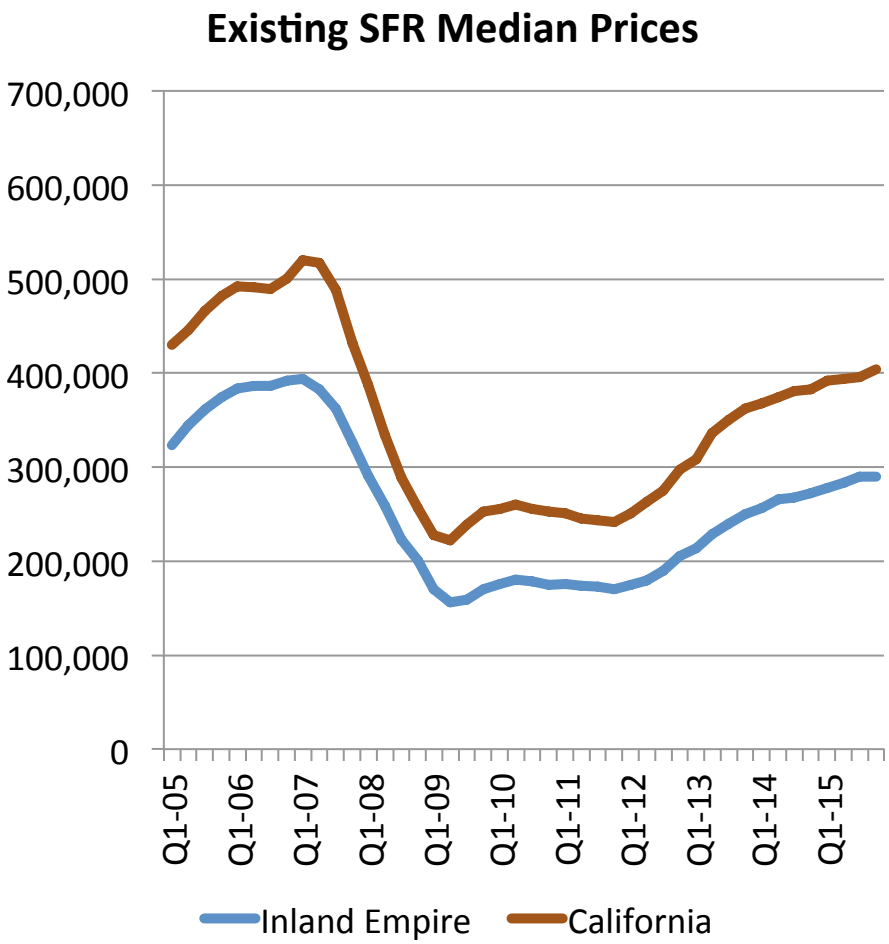


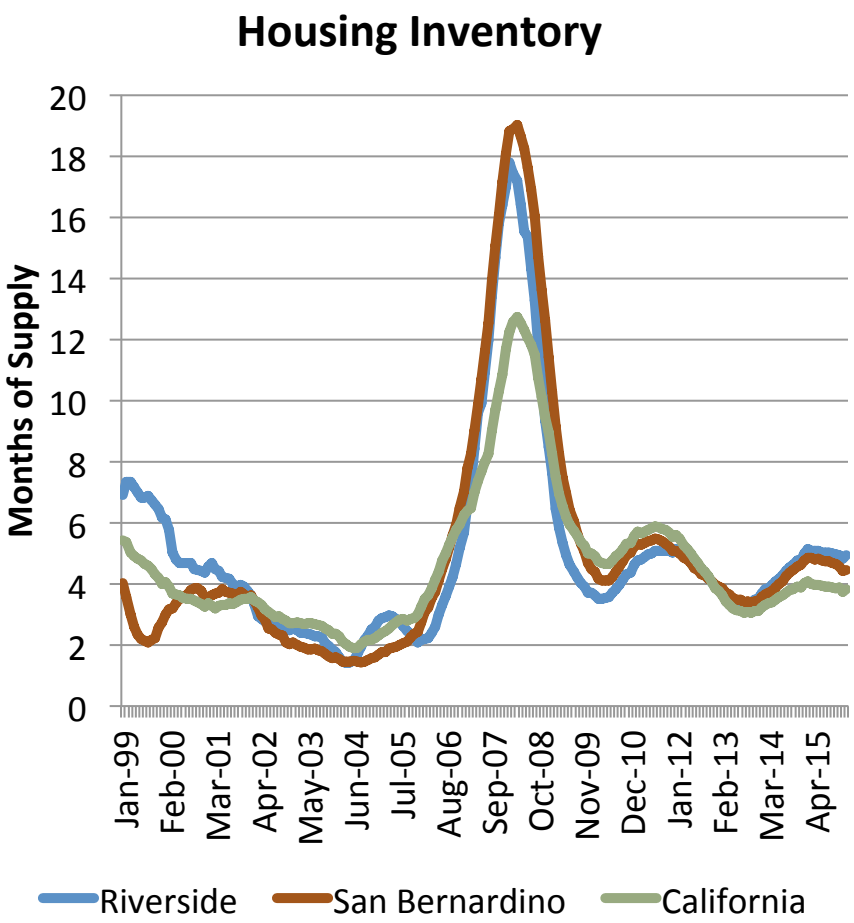
Homes and Workers



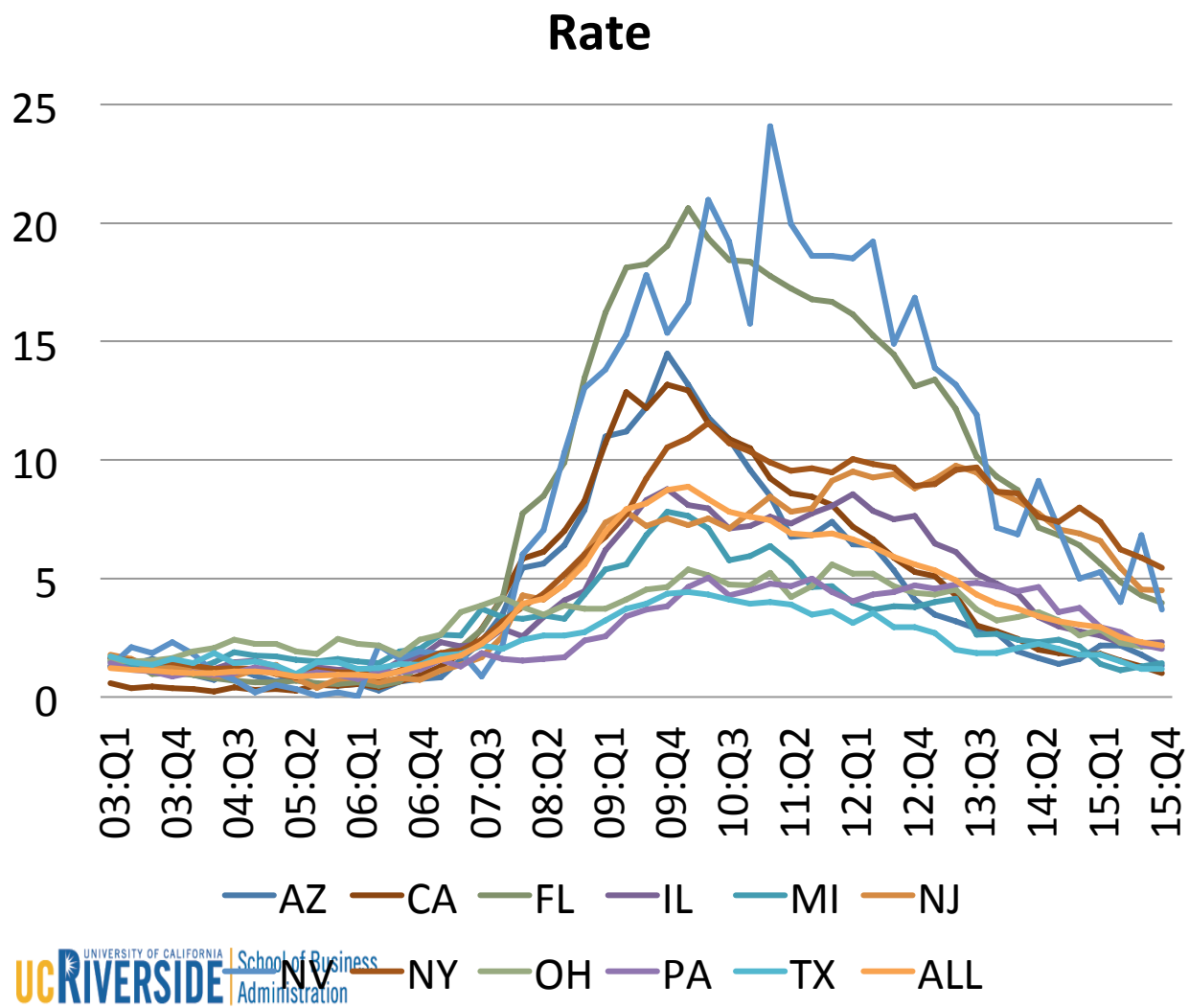


Local Housing



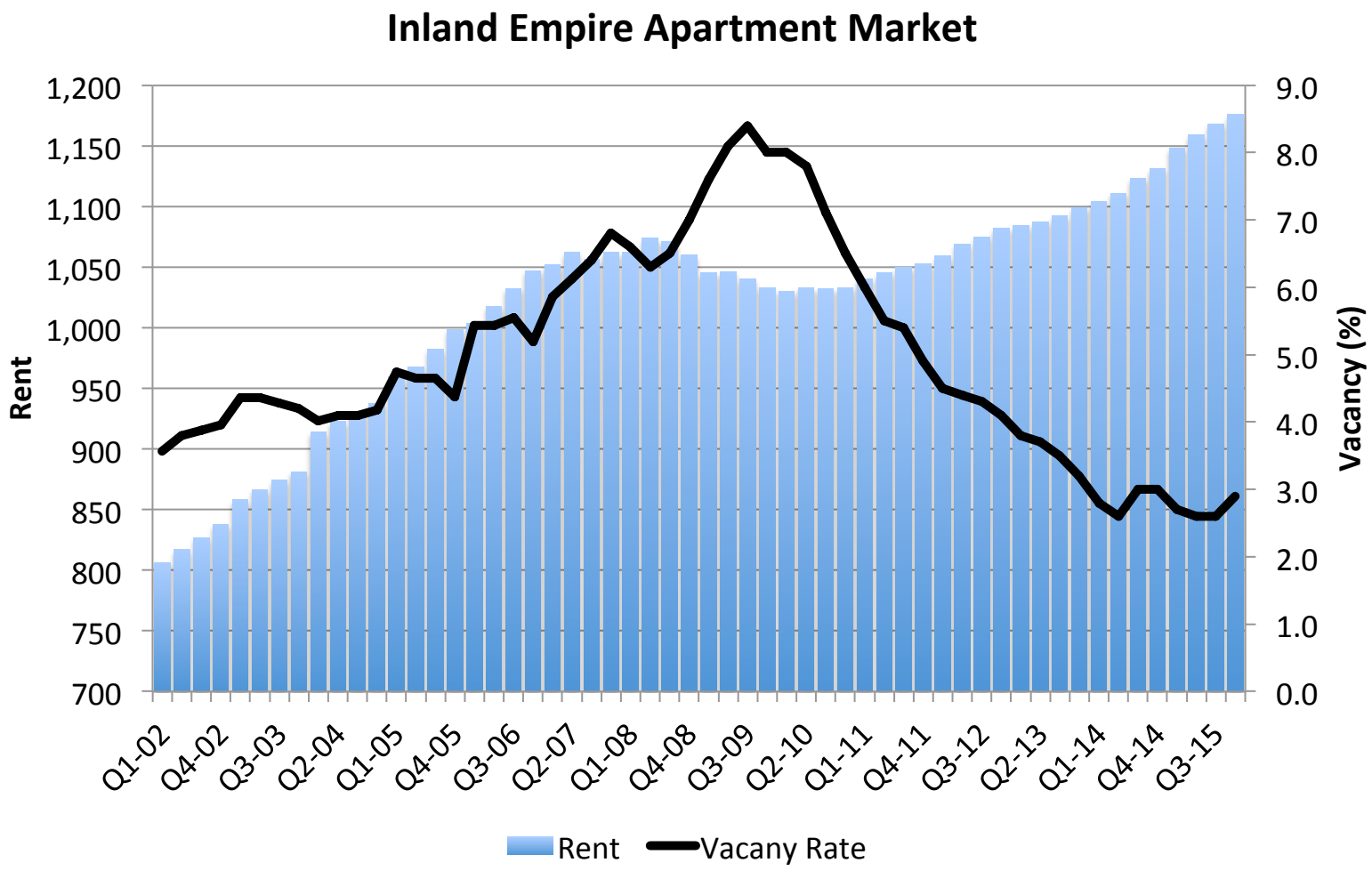


Delinquent by State



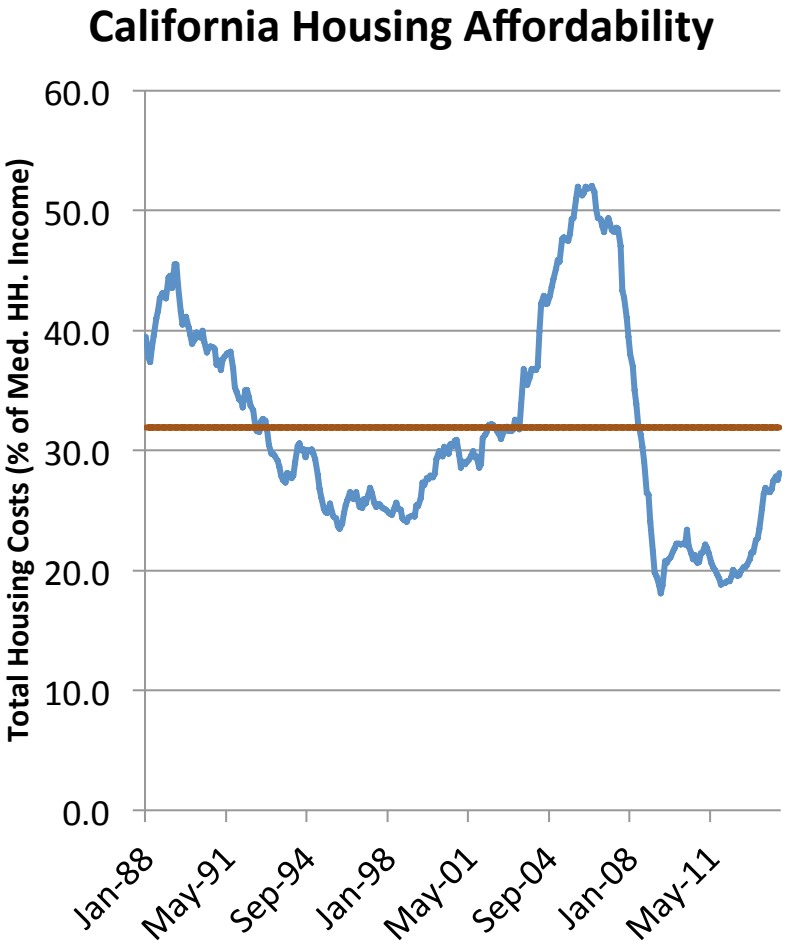
	09:Q4	15:Q4
NY	10.6	5.5
NJ	7.5	4.5
FL	19.0	4.0
NV	15.4	3.7
IL	8.8	2.3
ALL	8.8	2.2
OH	4.6	2.2
PA	3.8	2.0
MI	7.8	1.4
AZ	14.5	1.3
TX	4.4	1.2
CA	13.2	1.0

Apartments

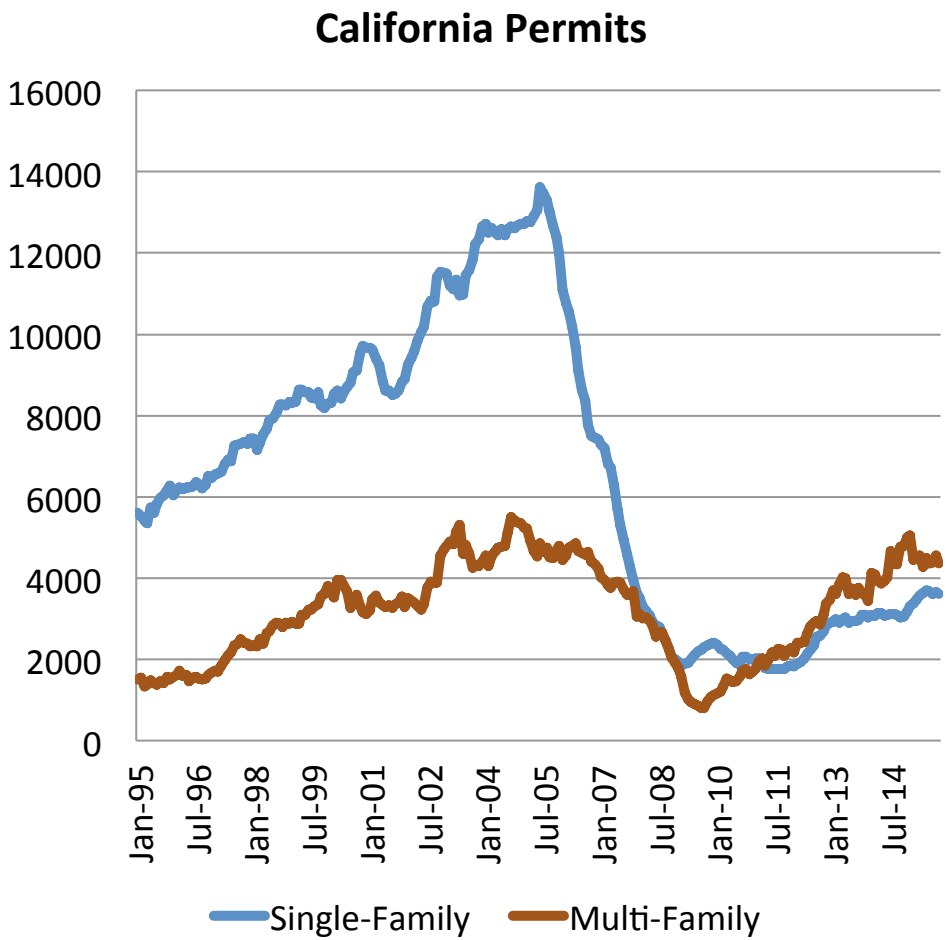

Inland Empire Apartment Market
Rent
Vacancy (%)
1,200
1,150
1,100
1,050
1,000
950
900
850
800
750
700
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Q1-02
Q4-02
Q3-03
Q2-04
Q1-05
Q4-05
Q3-06
Q2-07
Q1-08
Q4-08
Q3-09
Q2-10
Q1-11
Q4-11
Q3-12
Q2-13
Q1-14
Q4-14
Q3-15
Rent
Vacany Rate

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?

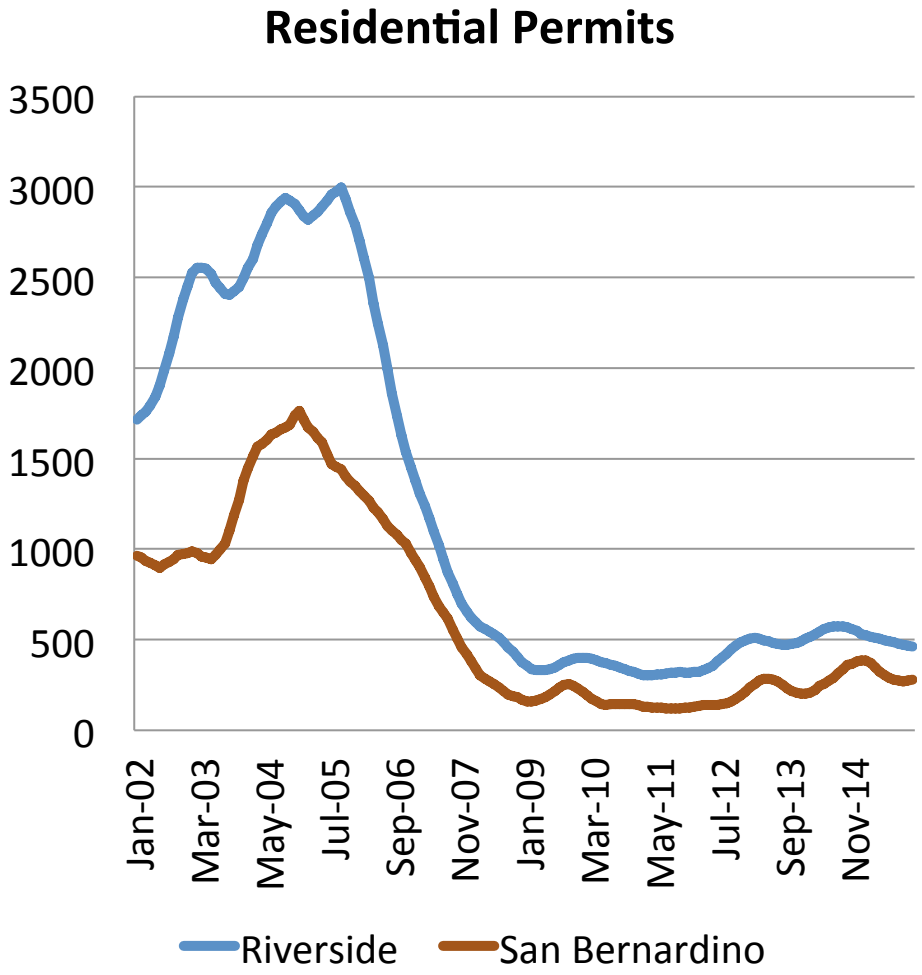
CEQA Prop-13

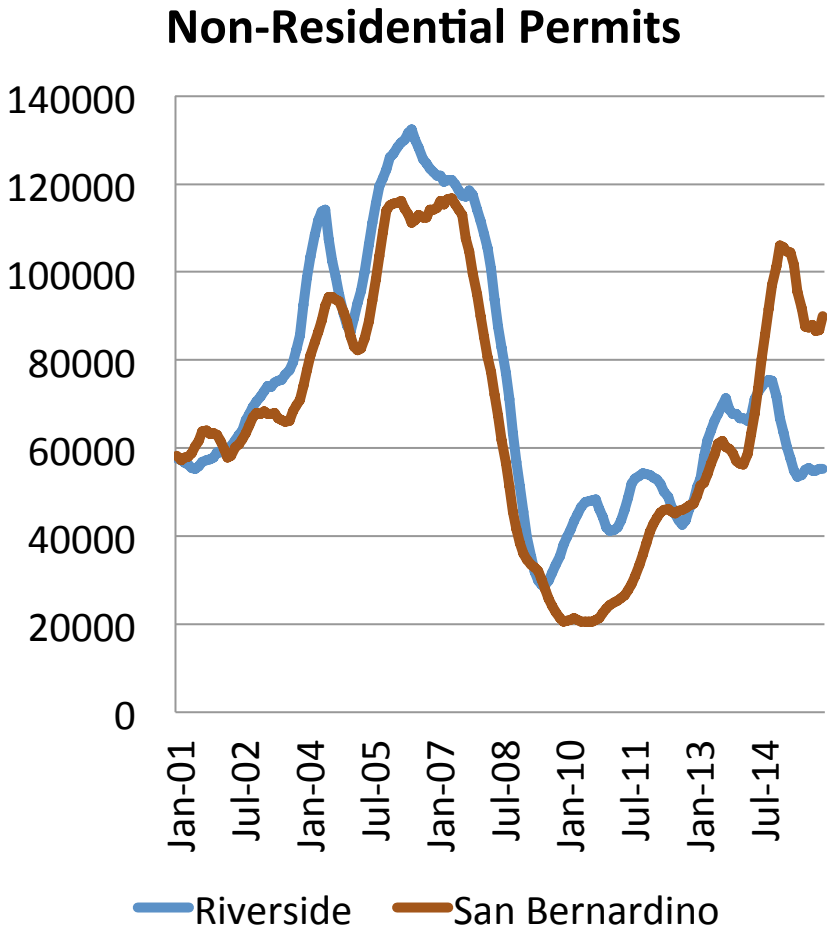
Total Domestic Net Migration by Income 08-13

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

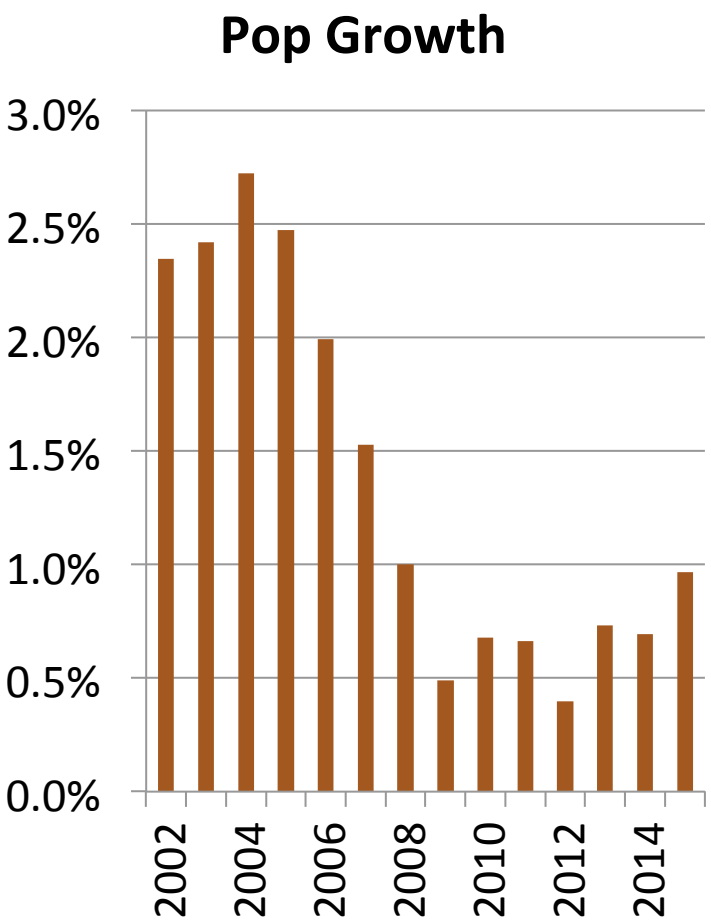
	Texas
Under $25,000	-40070
$25,000 to $50,000	-23741
$50,000 to $99,999	-3433
Over $100,000	599

Local Permits





Population Growth



San Bernardino

County Total	34,485	0.8%	Upland	1,126	0.8%
Chino	4,837	3.0%	Hesperia	1,079	0.6%
Fontana	3,984	1.0%	Redlands	809	0.6%
Rancho Cucamonga	3,544	1.0%	Colton	604	0.6%
Balance Of County	3,302	0.6%	Highland	587	0.5%
Ontario	2,451	0.7%	Yucaipa	569	0.5%
San Bernardino	1,939	0.5%	Yucca Valley	396	0.9%
Adelanto	1,902	3.0%	Loma Linda	352	0.7%
Chino Hills	1,816	1.2%	Barstow	317	0.7%
Montclair	1,273	1.7%	Grand Terrace	123	0.5%
Apple Valley	1,191	0.8%	Big Bear Lake	73	0.7%
Victorville	1,176	0.5%	Needles	44	0.4%
Rialto	1,152	0.6%	Twentynine Palms	-161	-0.3%

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

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