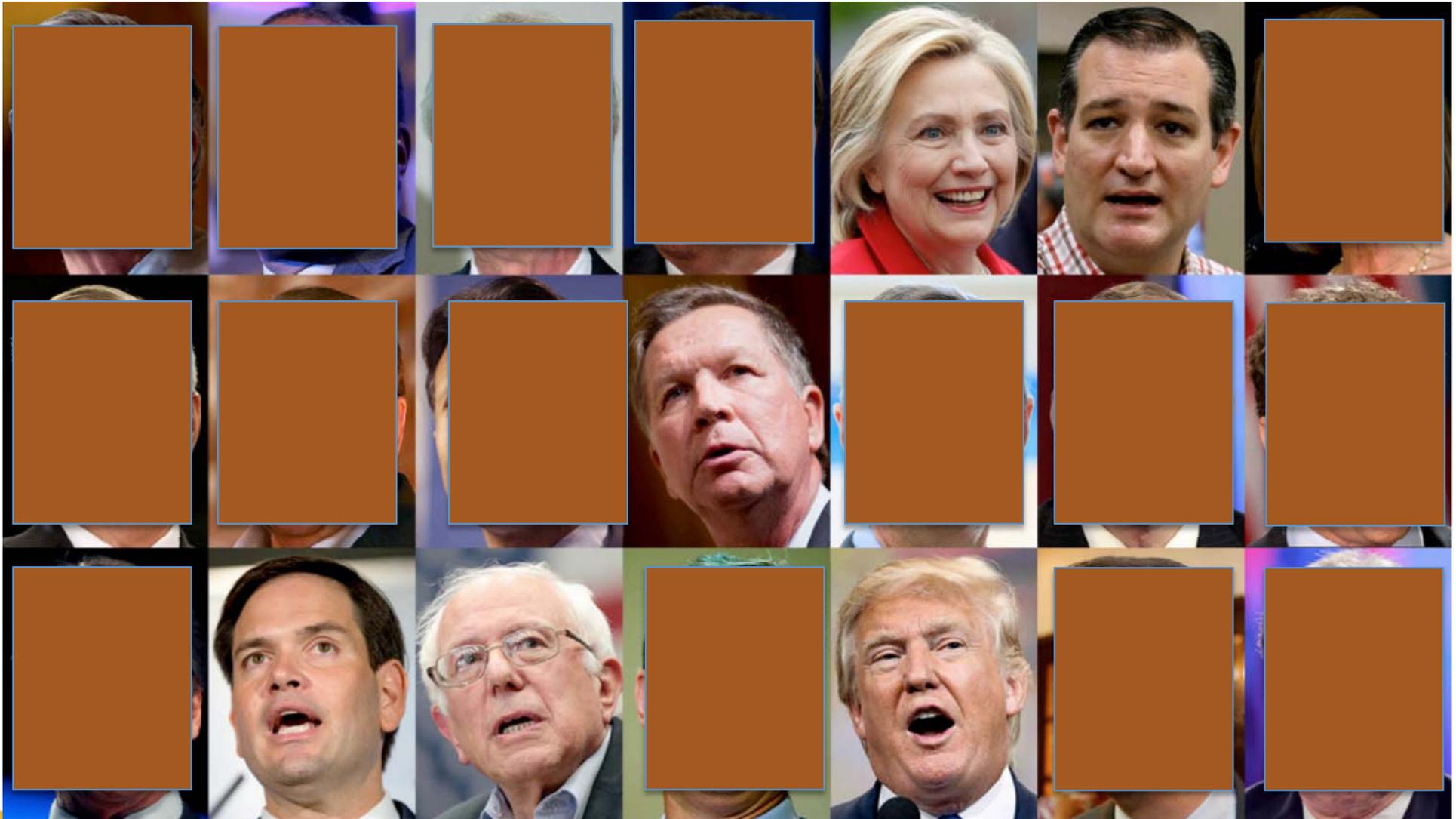


# Economic Outlook *Focus on San Bernardino*

Christopher Thornberg, PhD  
Director of the UCR Forecast Center



# Word of the Day

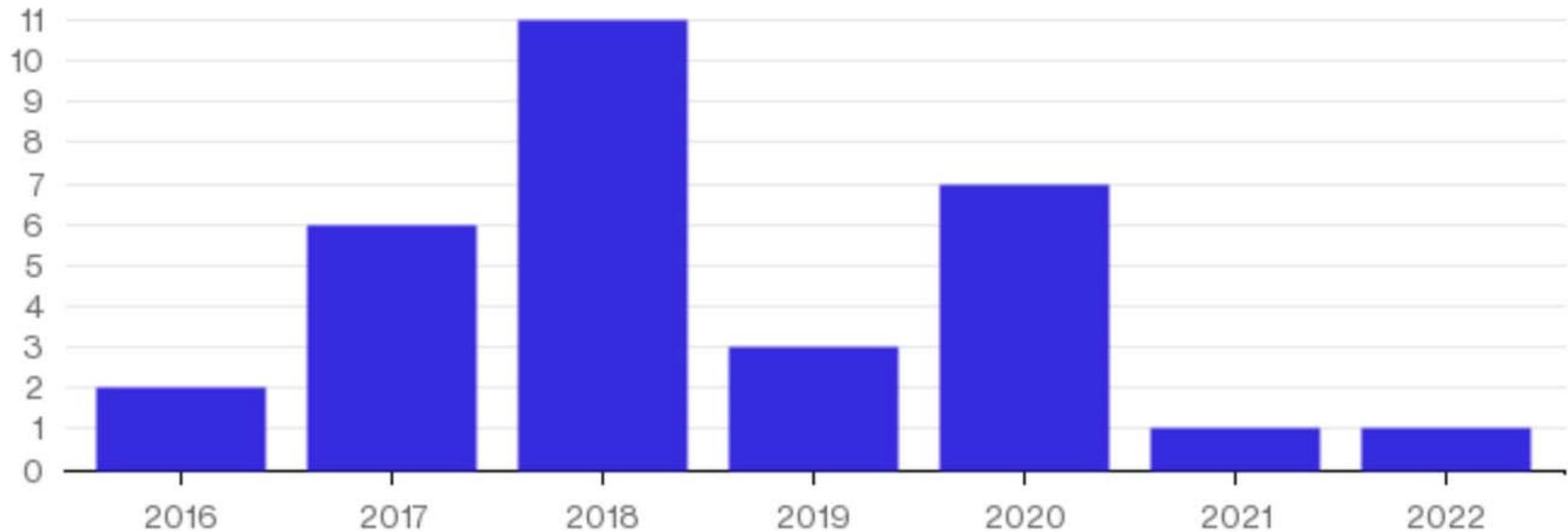


# The Wrong Question

## Coming in 2018: U.S. Recession

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

■ Number of economists

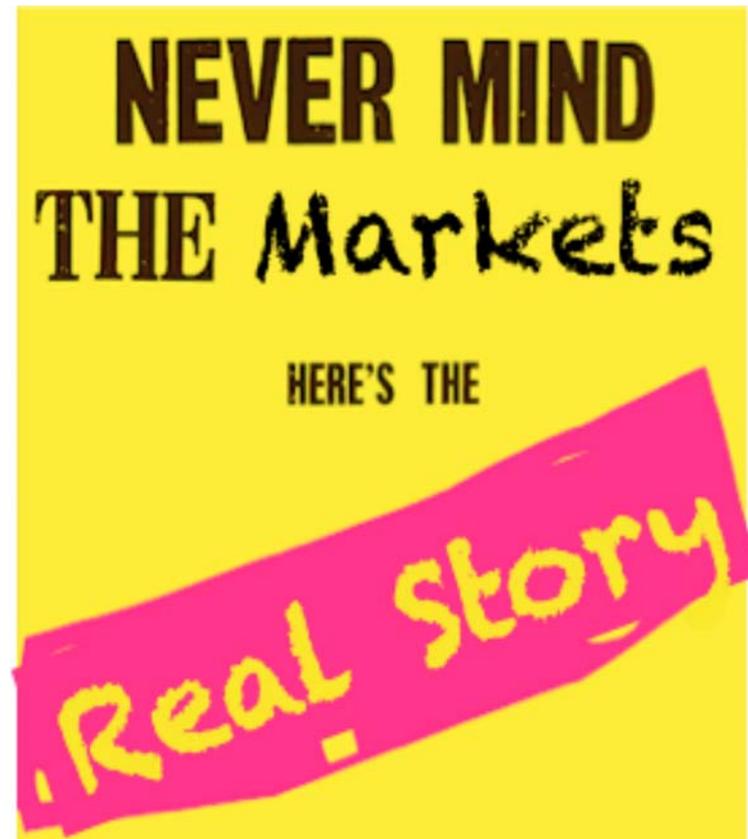


Source: Bloomberg News survey

Bloomberg 

# The Right Answer

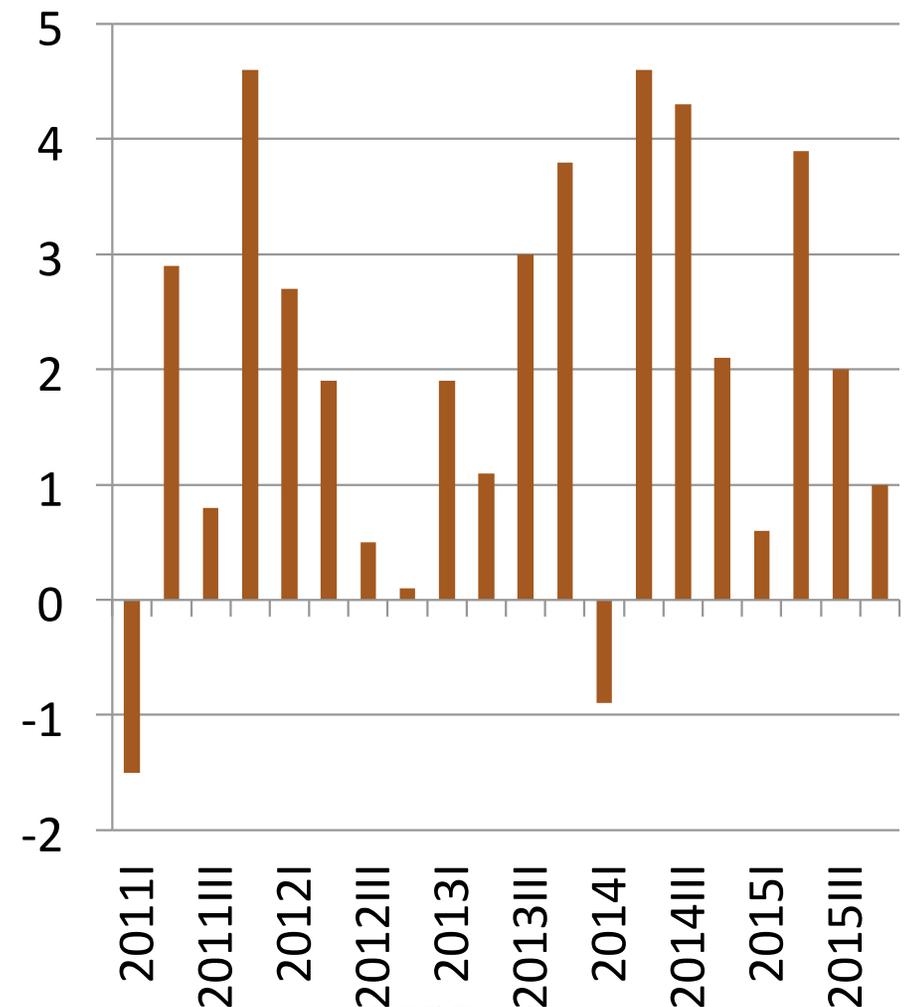
- US Economy Still Moving Along
  - 2015: Better than it looked
  - Labor markets strong
  - Forget the turmoil: there is no bubble
  - Housing still in recovery mode
  - Credit expanding on many levels
  - Commodity prices are down
  - California is leading, not lagging the nation
- Issues? Sure...
  - 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 than it looks

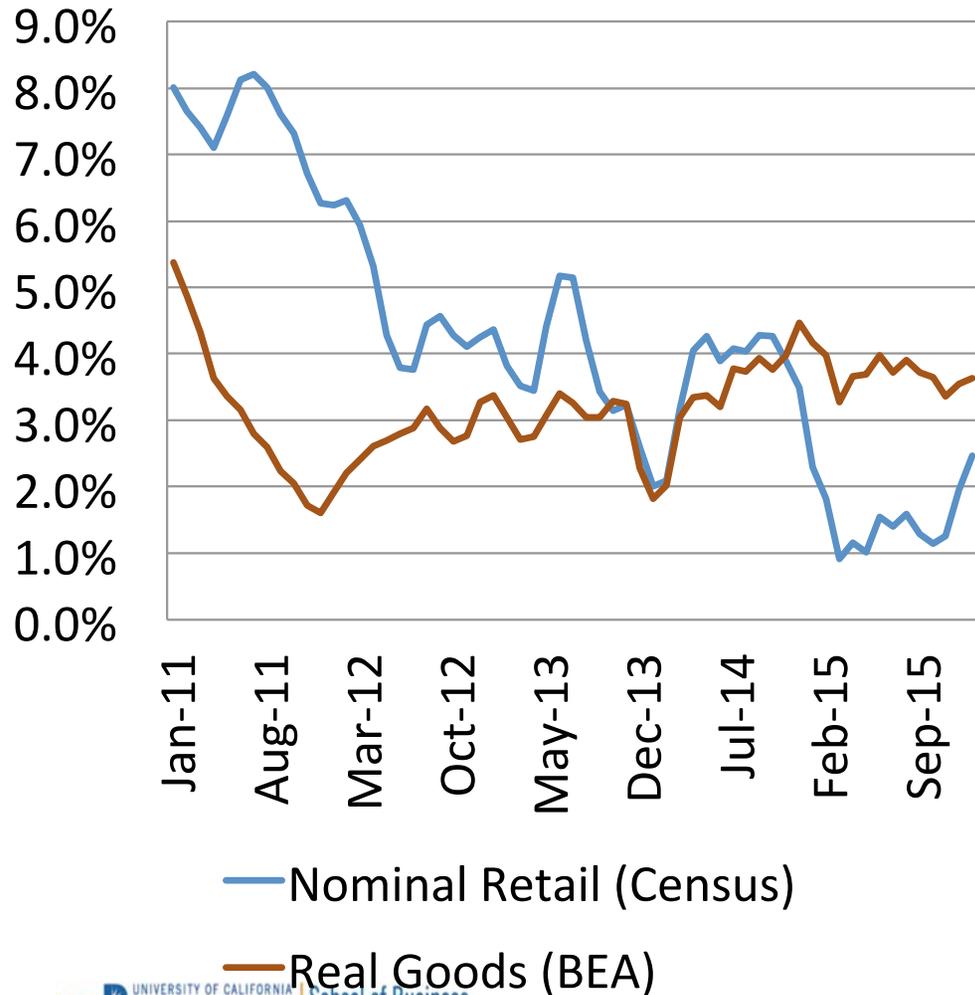
	2013	2014	2015
<b>GDP</b>	1.50	2.40	2.40
<b>Final Demand</b>	1.24	2.53	2.86
<b>Consumption</b>	1.16	1.84	2.09
Goods	0.71	0.75	0.83
Services	0.45	1.09	1.26
<b>Investment</b>	0.70	0.87	0.82
Structures	0.04	0.23	-0.05
Equipment	0.19	0.34	0.18
Intellectual property	0.15	0.20	0.23
Residential	0.27	0.05	0.28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

## GDP Growth

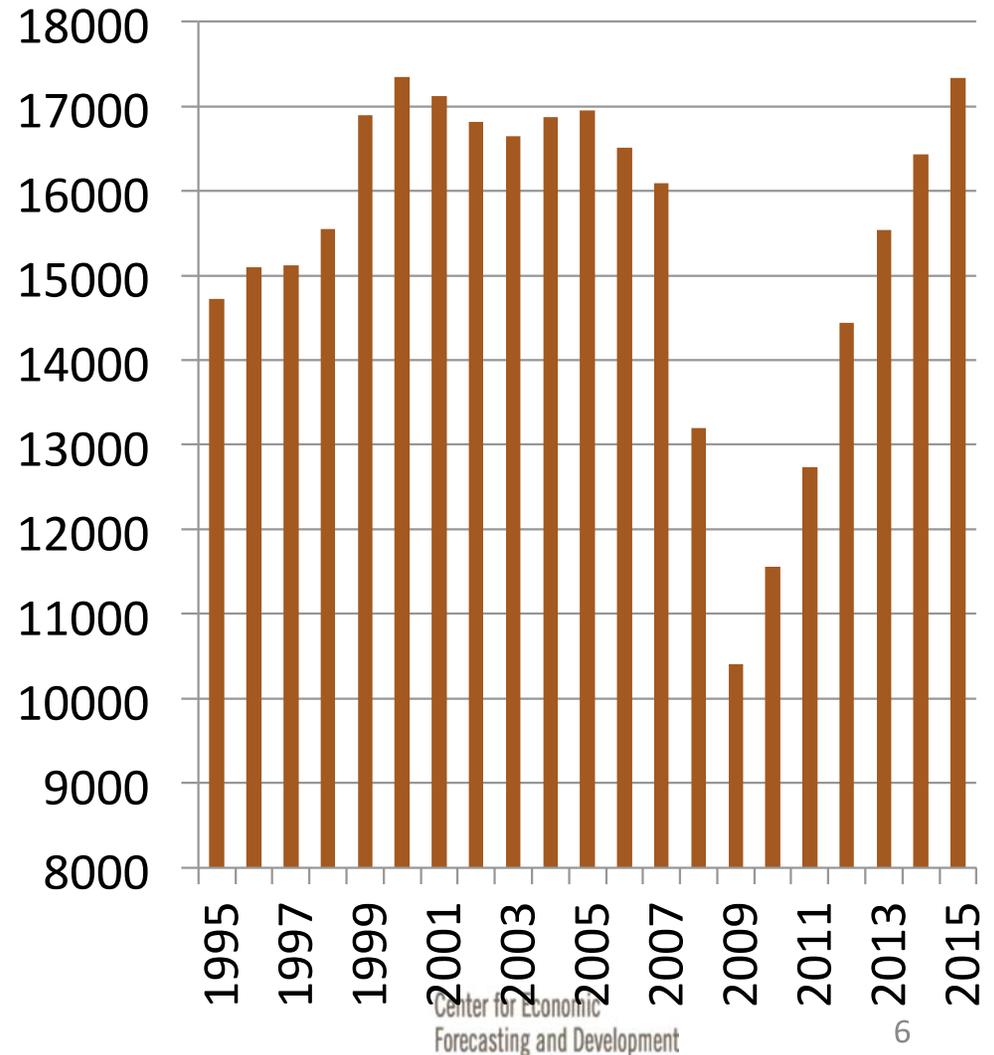


# Consumer Spending

## Real Spending on Goods

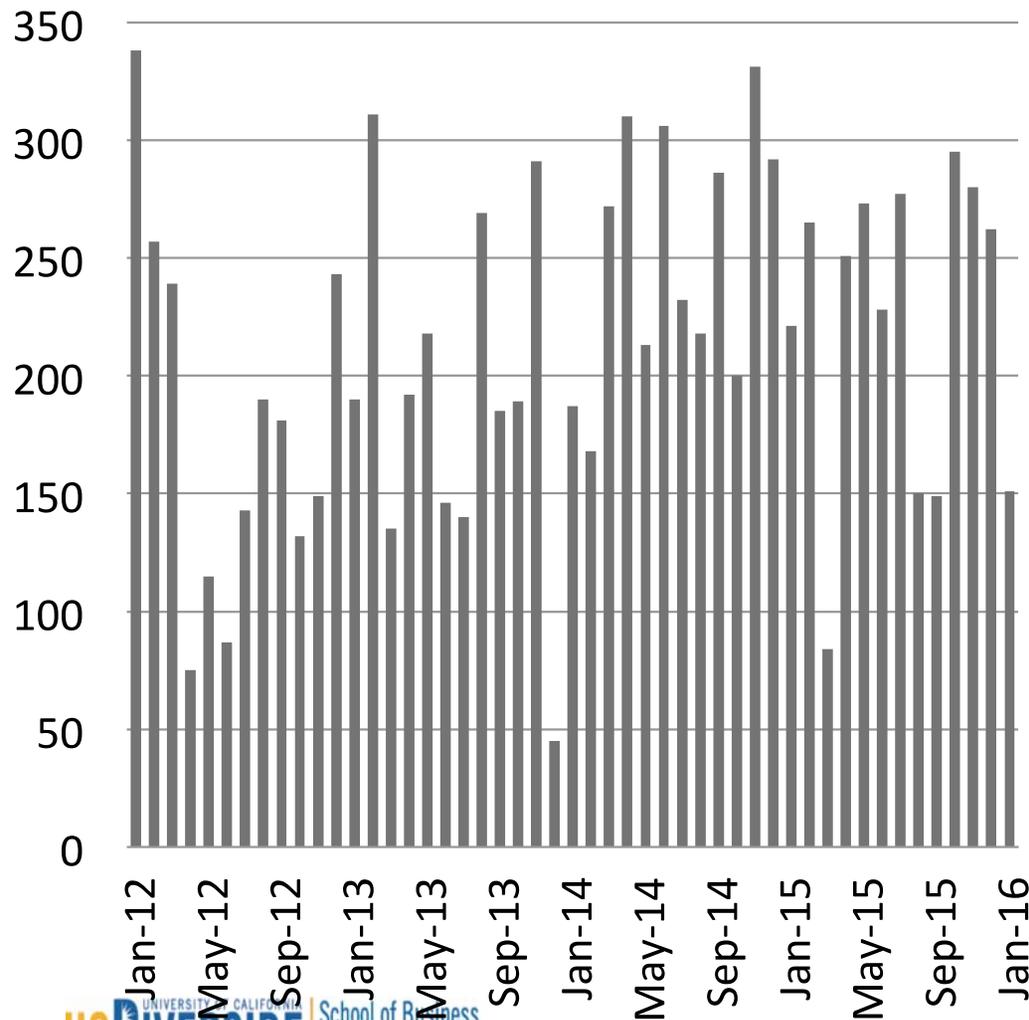


## Annual Auto Light Truck Sales

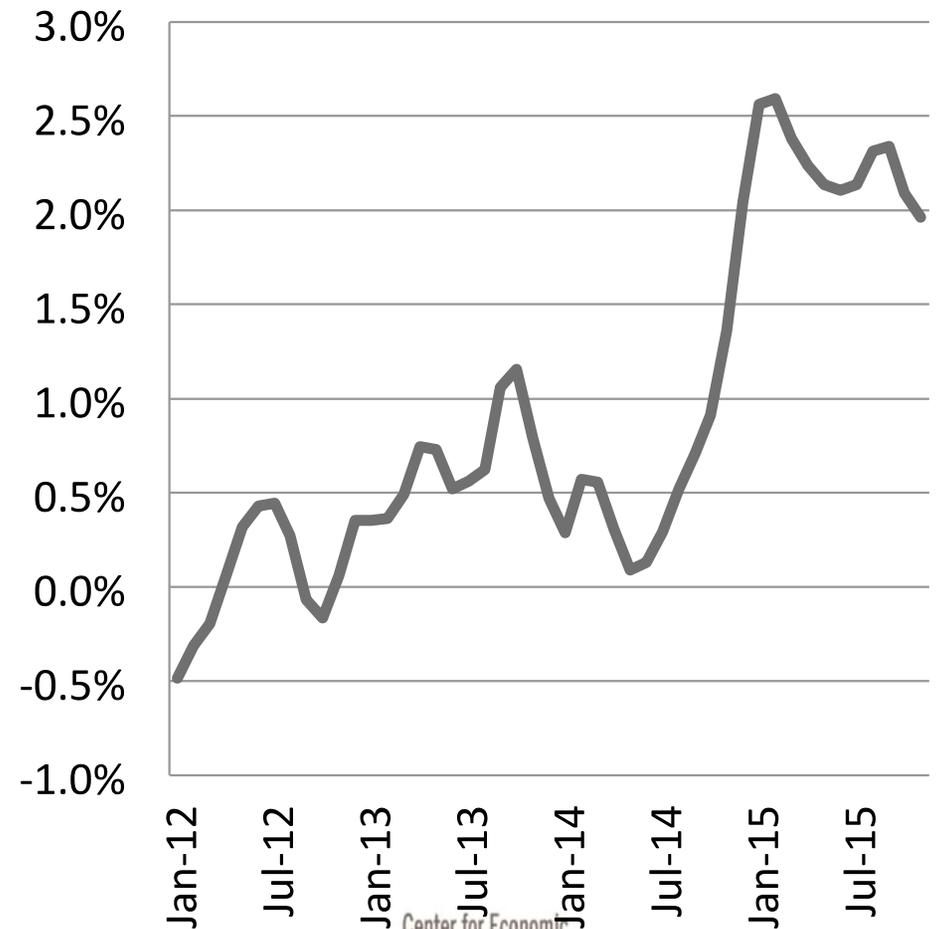


# Employment Growth

## Monthly Change Payrolls

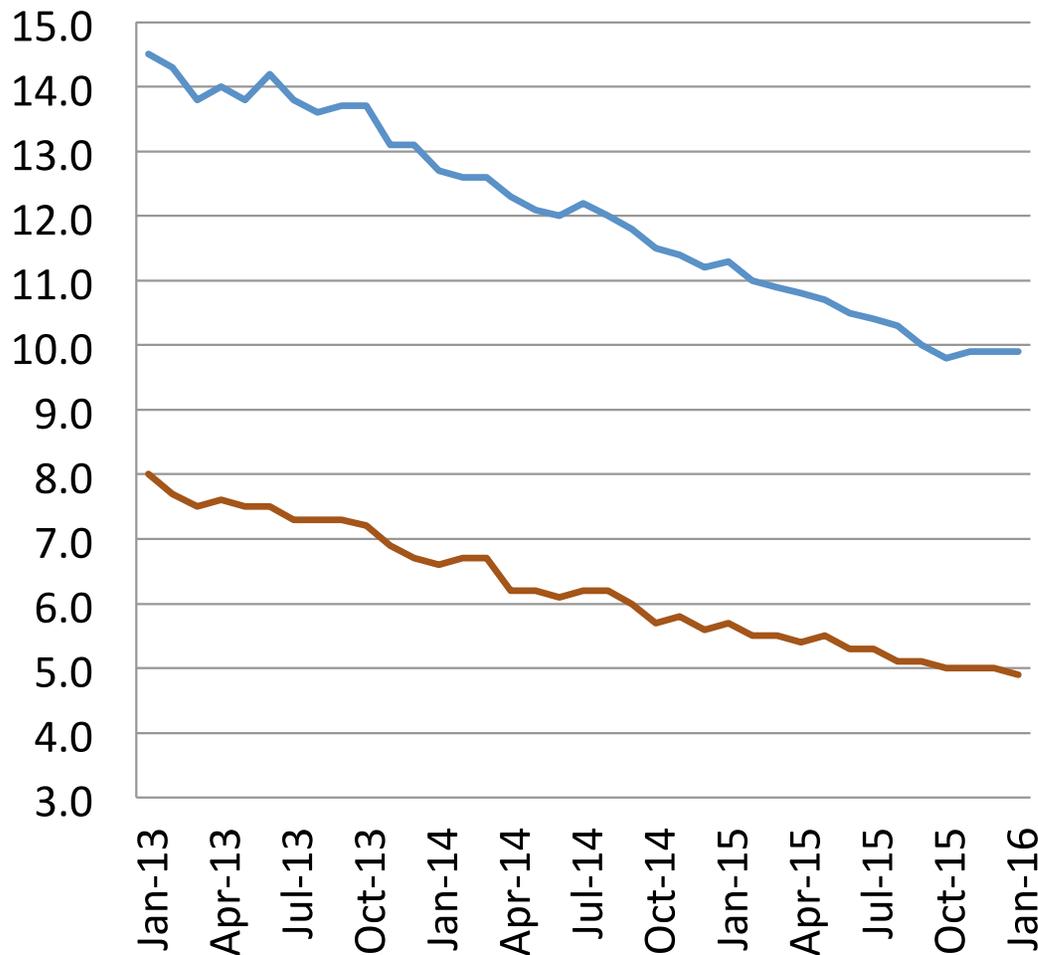


## Y-o-Y Growth Average Weekly Earnings



# Unemployment

## Unemployment Rates



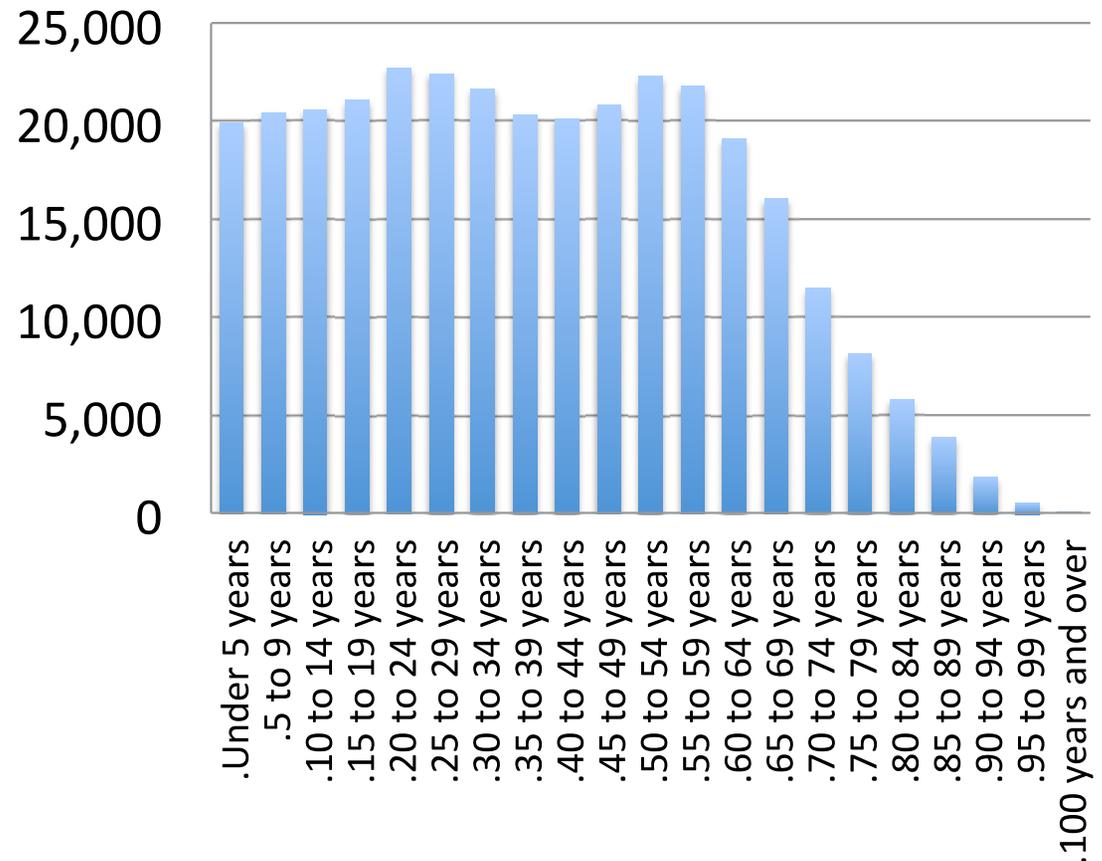
	Pop 16+	Pt. Rt.
2006	228,815.0	66.2
2015	250,801.0	62.7
Raw Missing	8,778.0	
Demo Adj	3,110.5	63.9
	Pt. Rt. 06	Ch. Pop
16 to 24	60.7	4.5
25 to 54	82.9	0.2
55 Plus	38.0	30.0
	Pt. Rt. 15	Missing
16 to 24	55.0	2,419
25 to 54	80.8	2,554
55 Plus	39.9	(1,709)

# The Millennial Myth

## Bigger, Smarter, More Diverse!! Not Really...

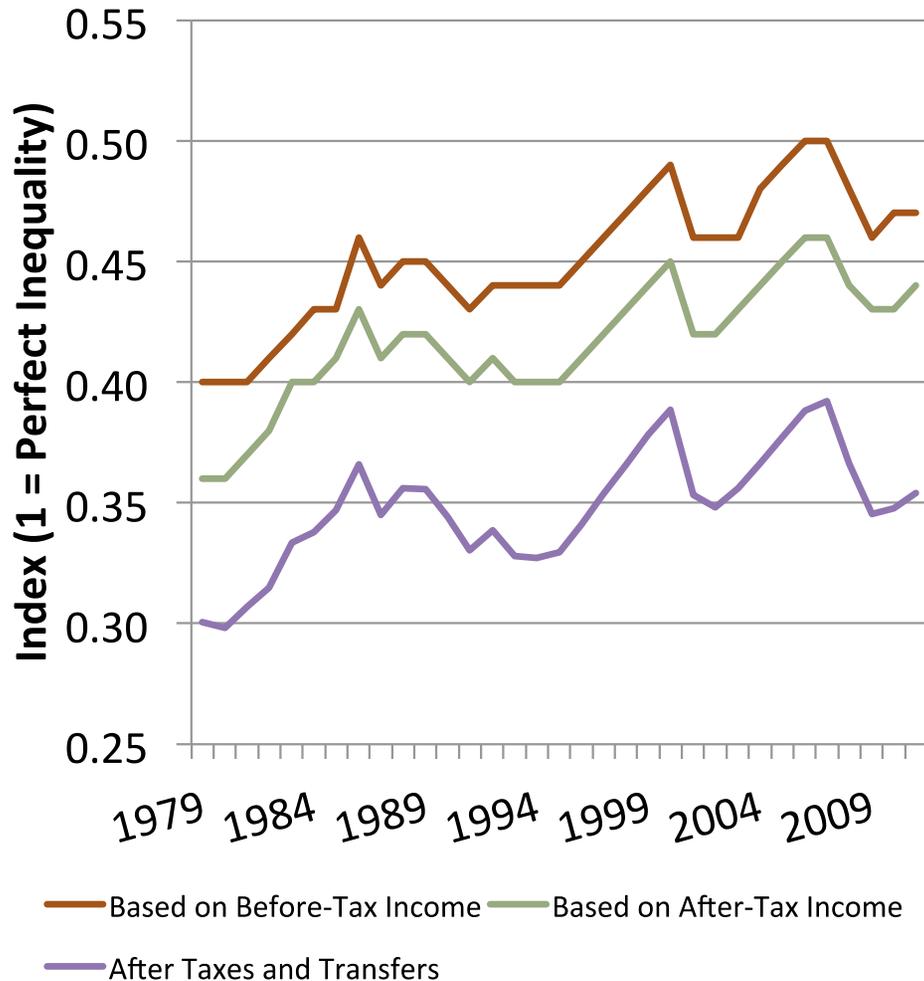
Education	2004	2014
<u>25 to 34 years:</u>		
Bach +	29.9%	33.5%
> High School	59.7%	65.2%
<u>35 to 44 years:</u>		
Bach +	29.5%	33.7%
> High School	58.7%	63.5%
<u>45 to 64 years:</u>		
Bach +	28.6%	29.4%
> High School	57.4%	59.4%
<u>65 years and over:</u>		
Bach +	18.4%	24.8%
> High School	38.4%	49.2%

Population by Age 2015

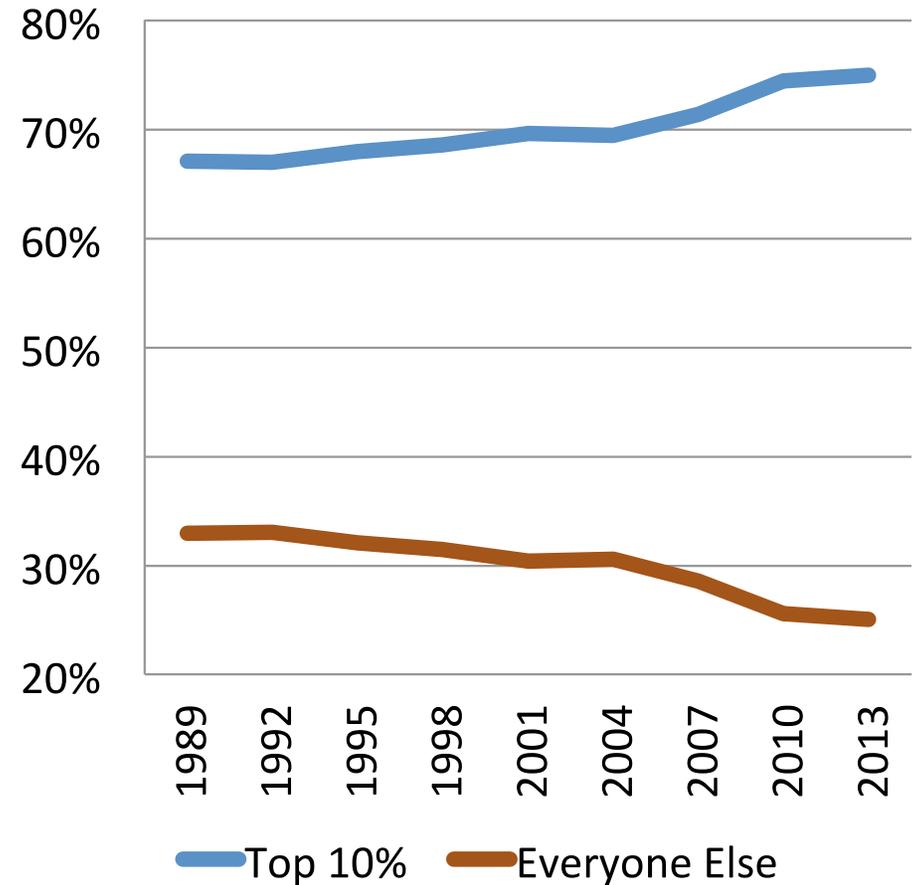


# Growing Inequality

## Gini Index (Inequality)



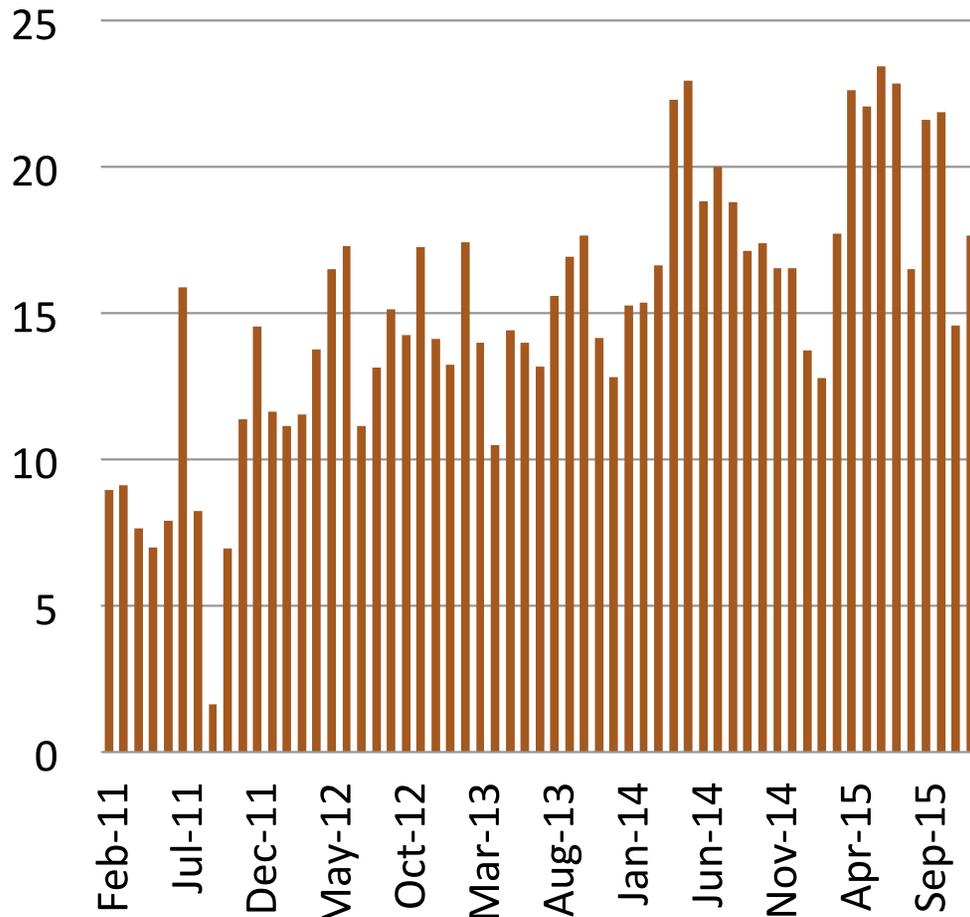
## US Holdings of Wealth



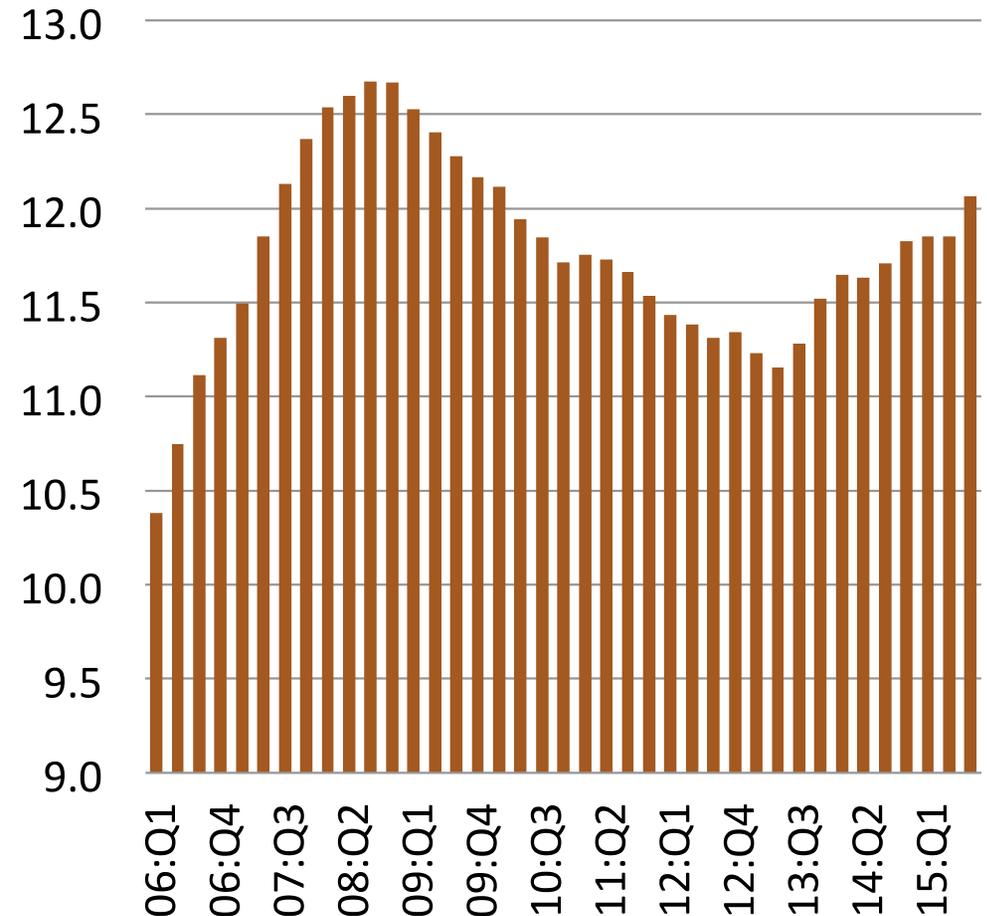
Top 1% own 40% to 50% of all wealth in the world

# Consumer Credit

## Change in Consumer Credit (\$Billions)

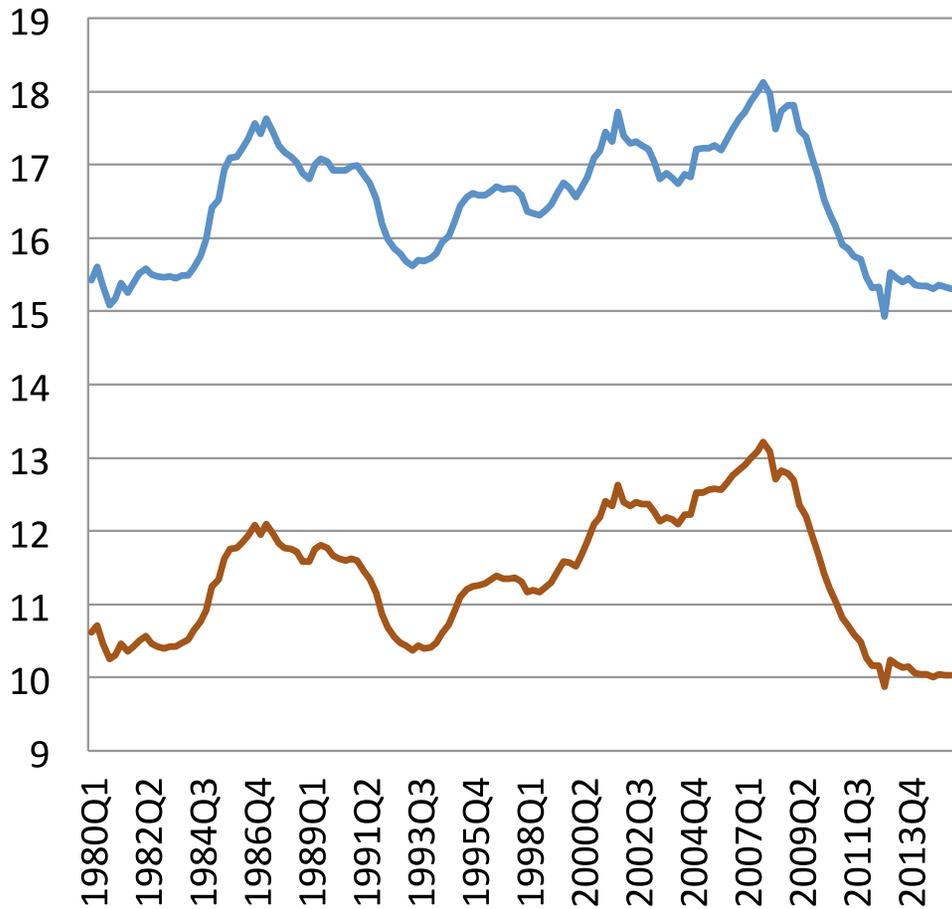


## Outstanding Consumer Debt \$Trillions



# Consumer Credit

## Debt Servicing as Share DPI



— FOB — DSR

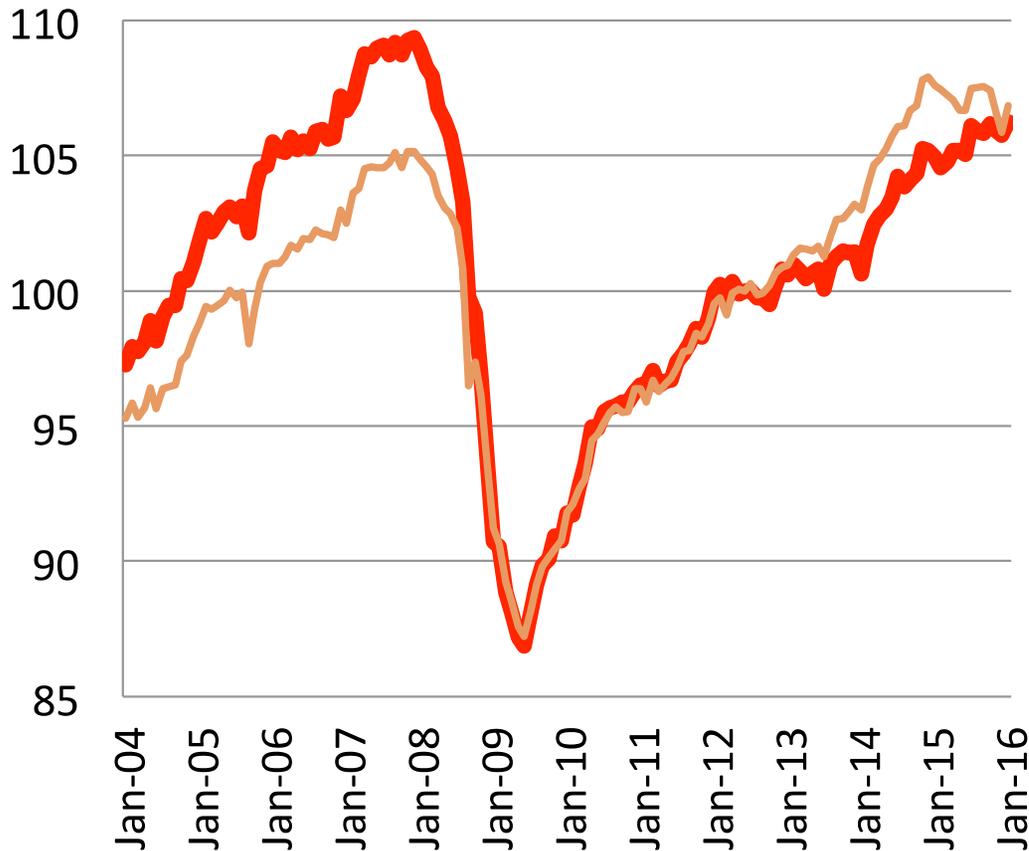
## Credit Score at Origination



— Median — 25th percentile — 10th percentile

# Production

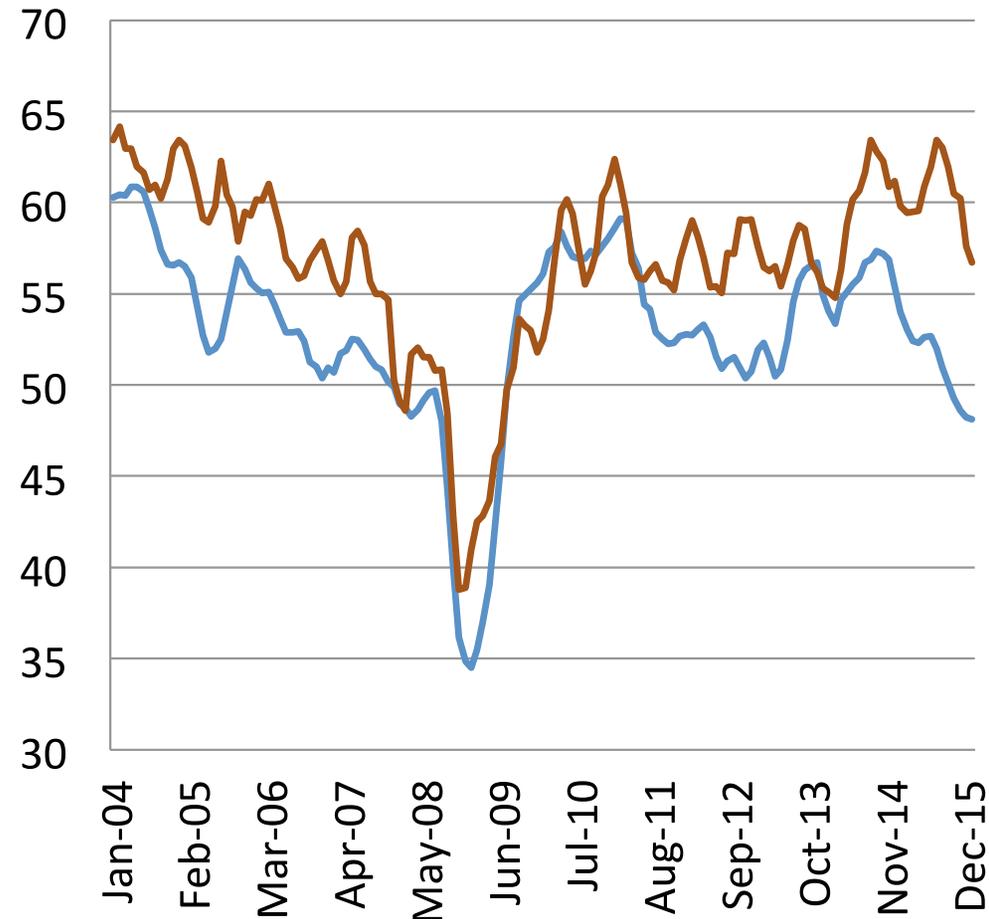
## Industrial Production



Industrial Production: Manufacturing

Industrial Production: Total

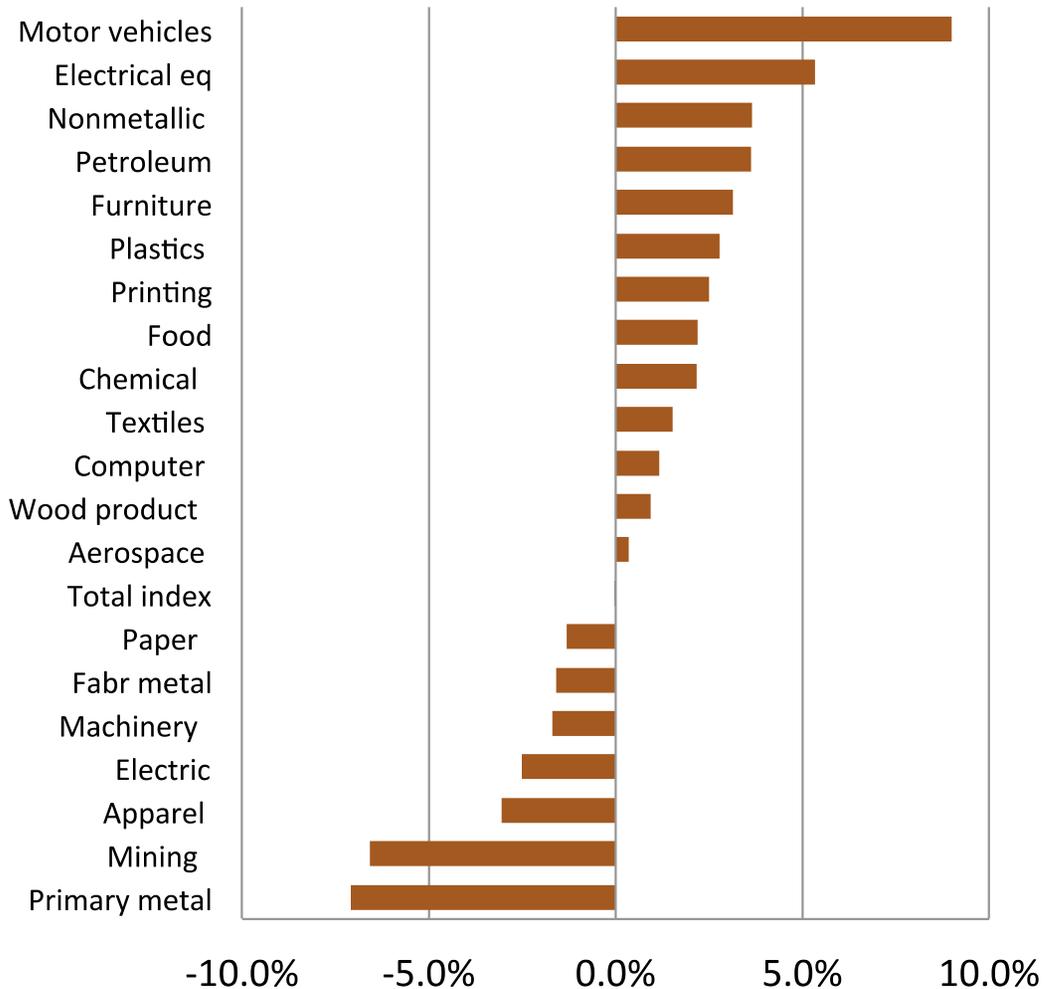
## ISM Surveys



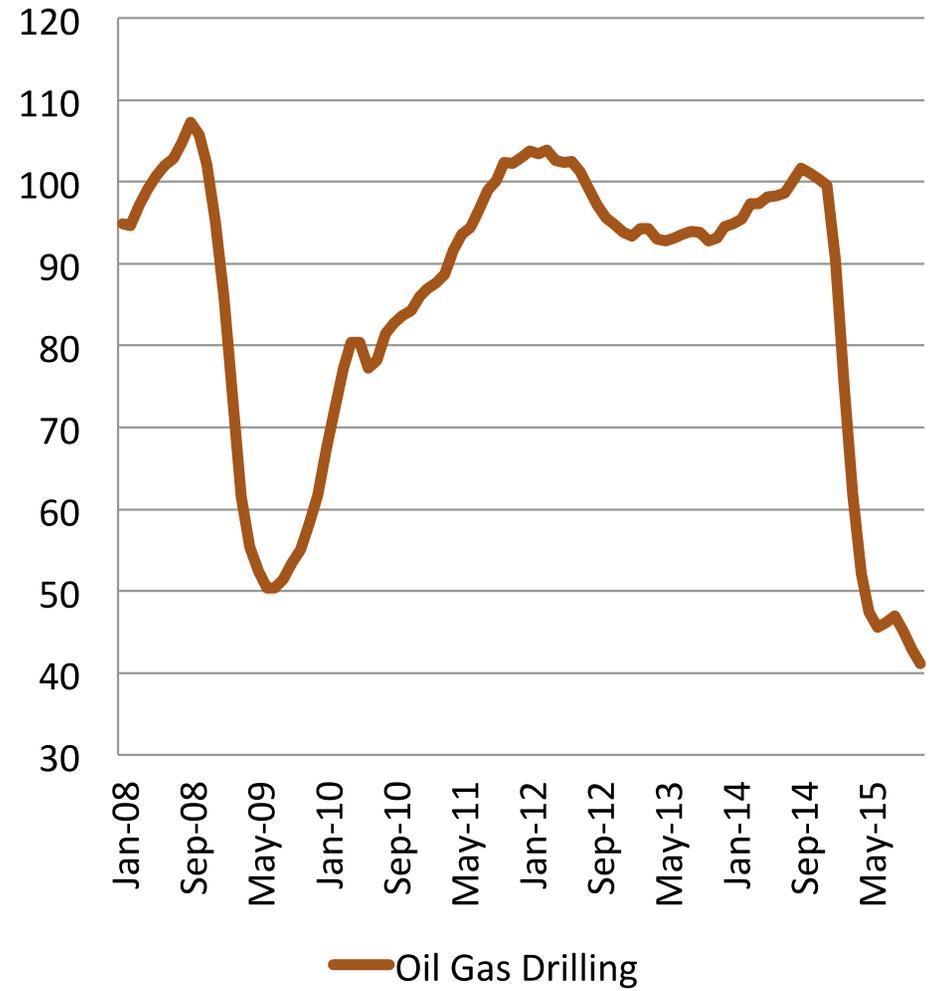
Manufacturing Services

# Production Breakdown

## Y-o-Y Growth by Sector

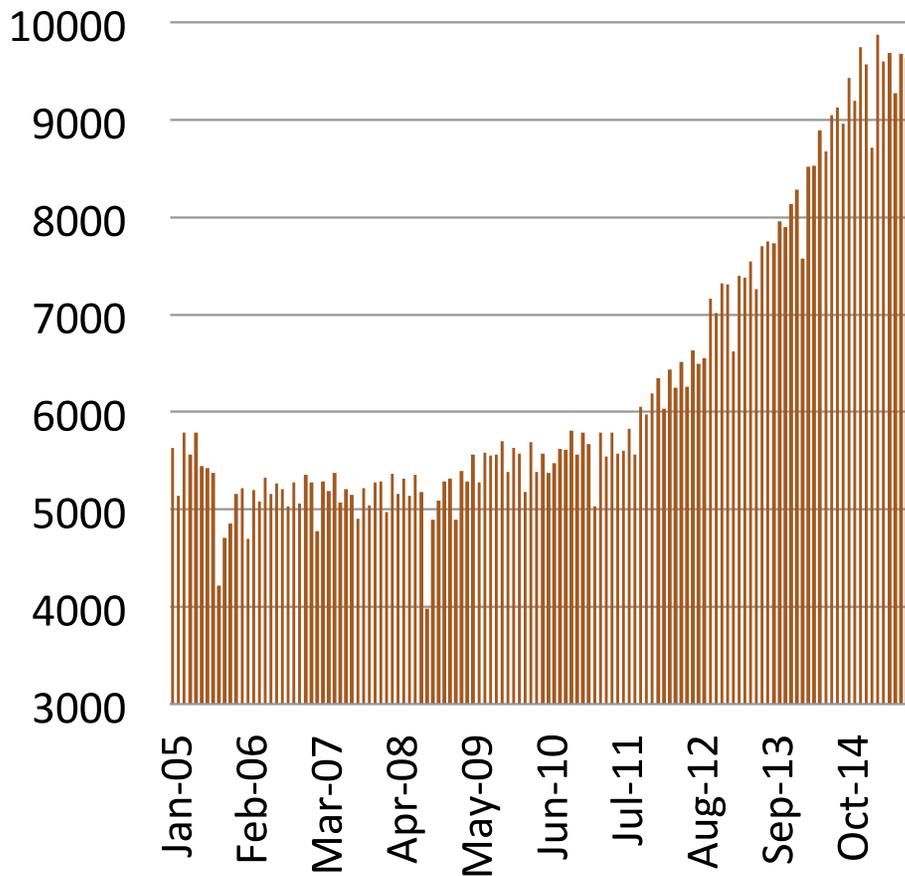


## Industrial Production

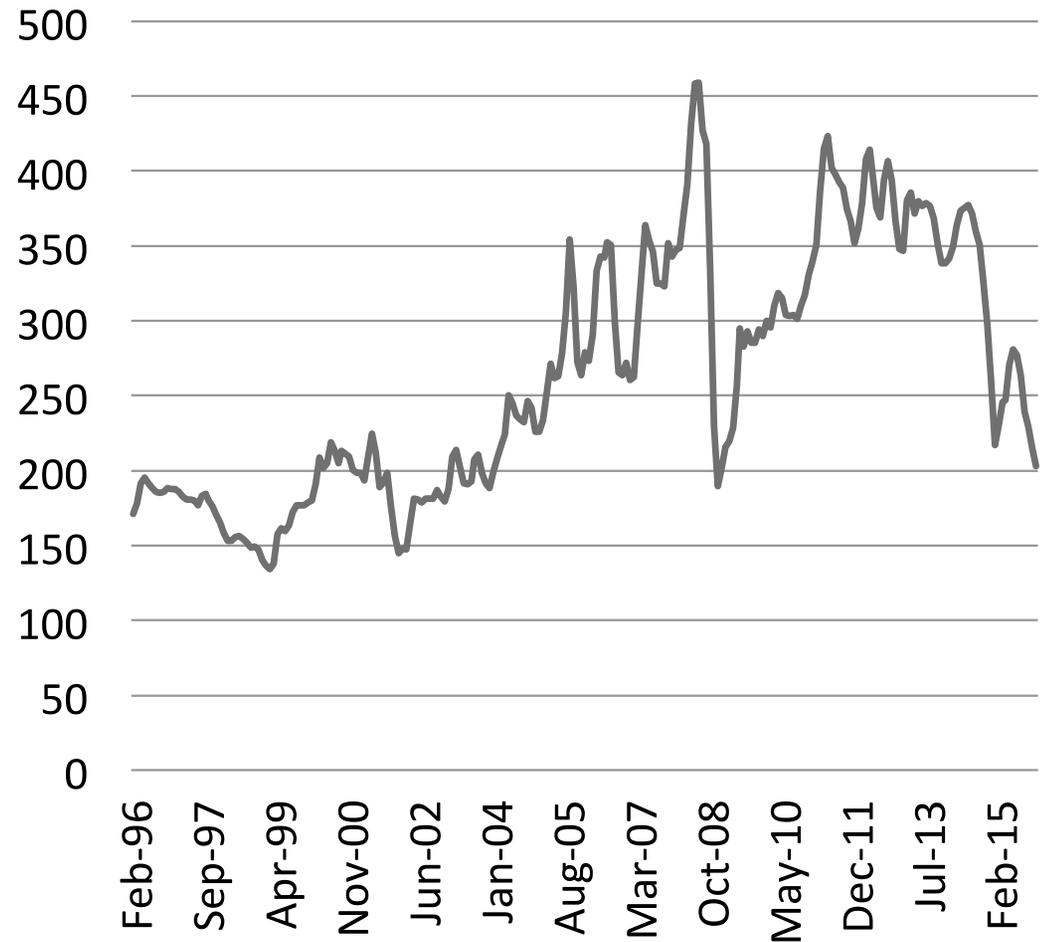


# Oil Activity

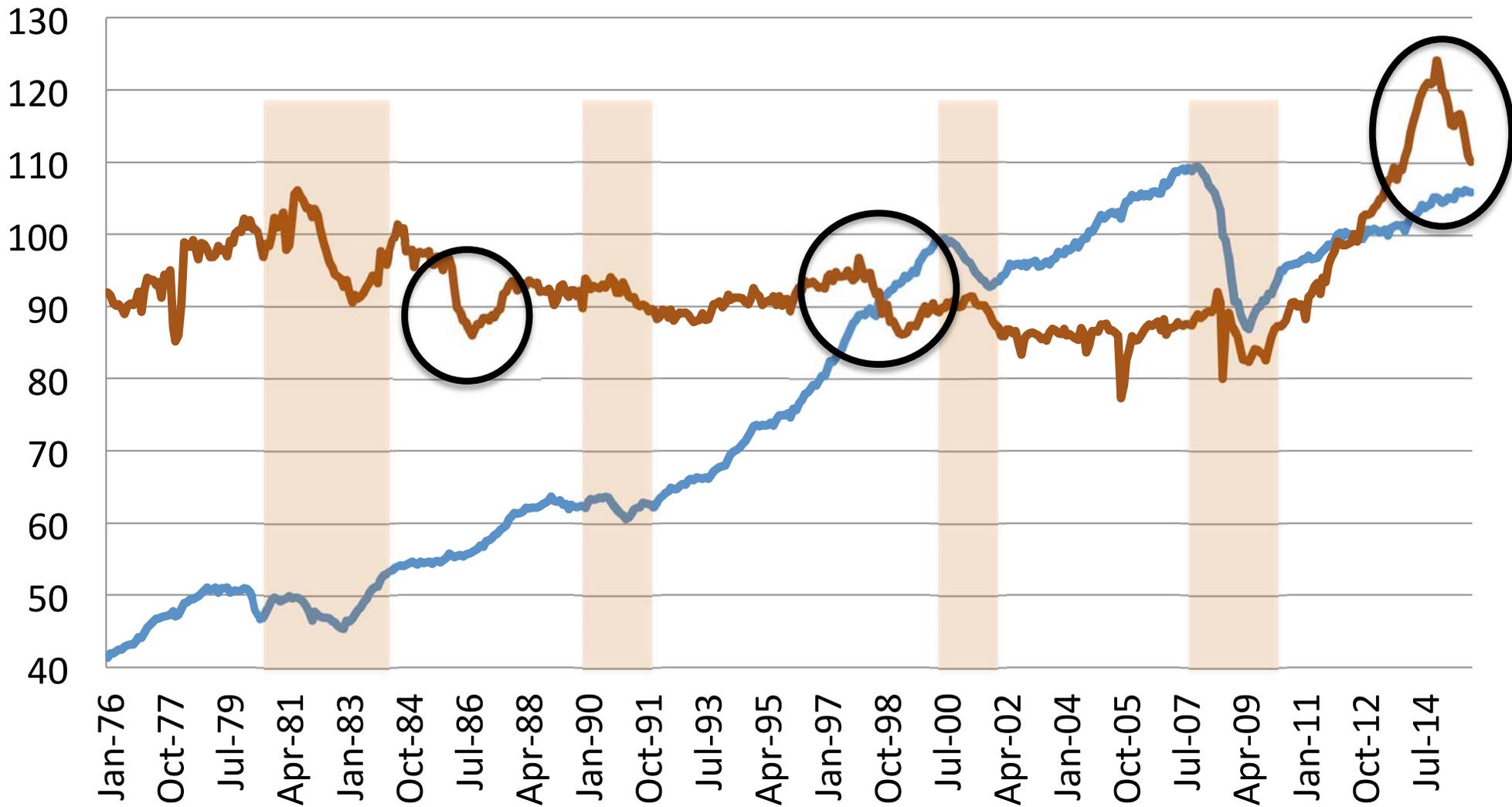
## Oil Production Per Day (000s Barrels)



## Real Price: Gallon Gasoline

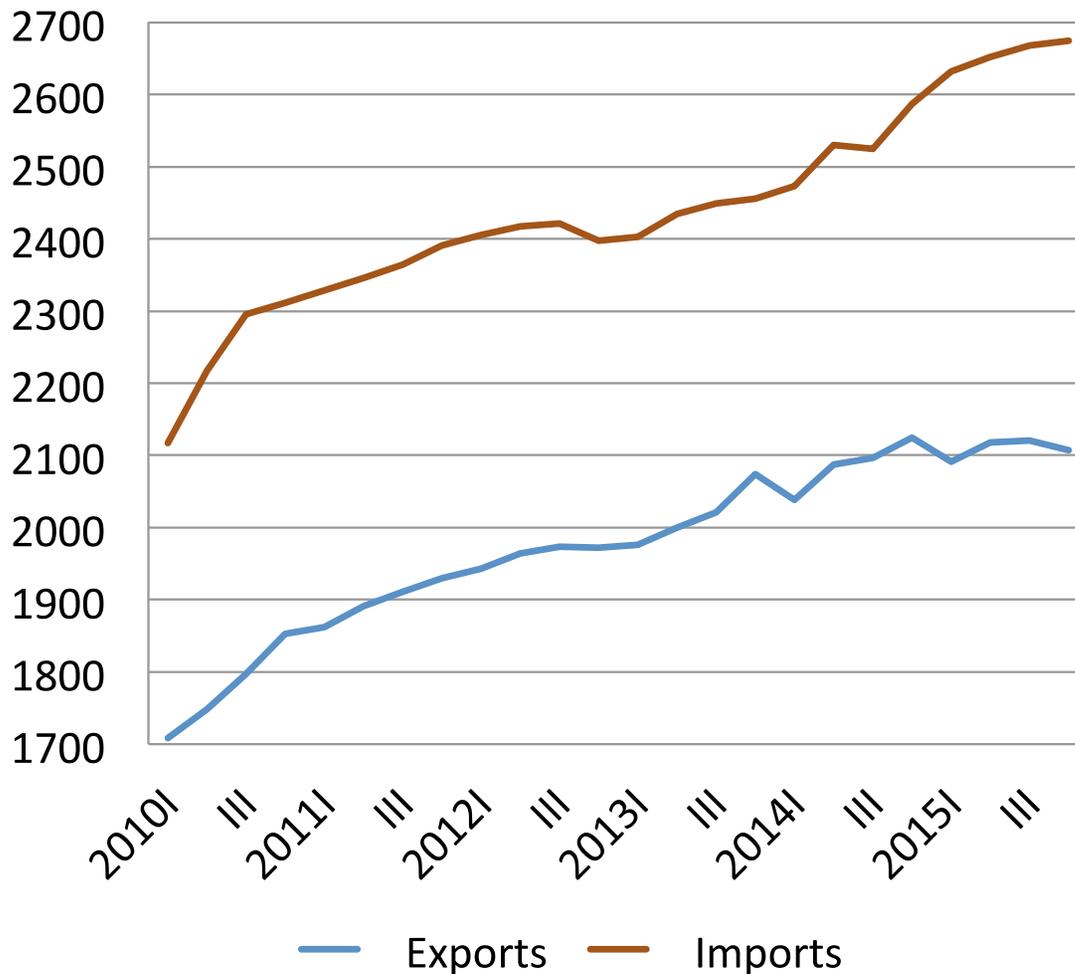


# Mining and Manufacturing: IP



# Trade

## Real Imports and Exports

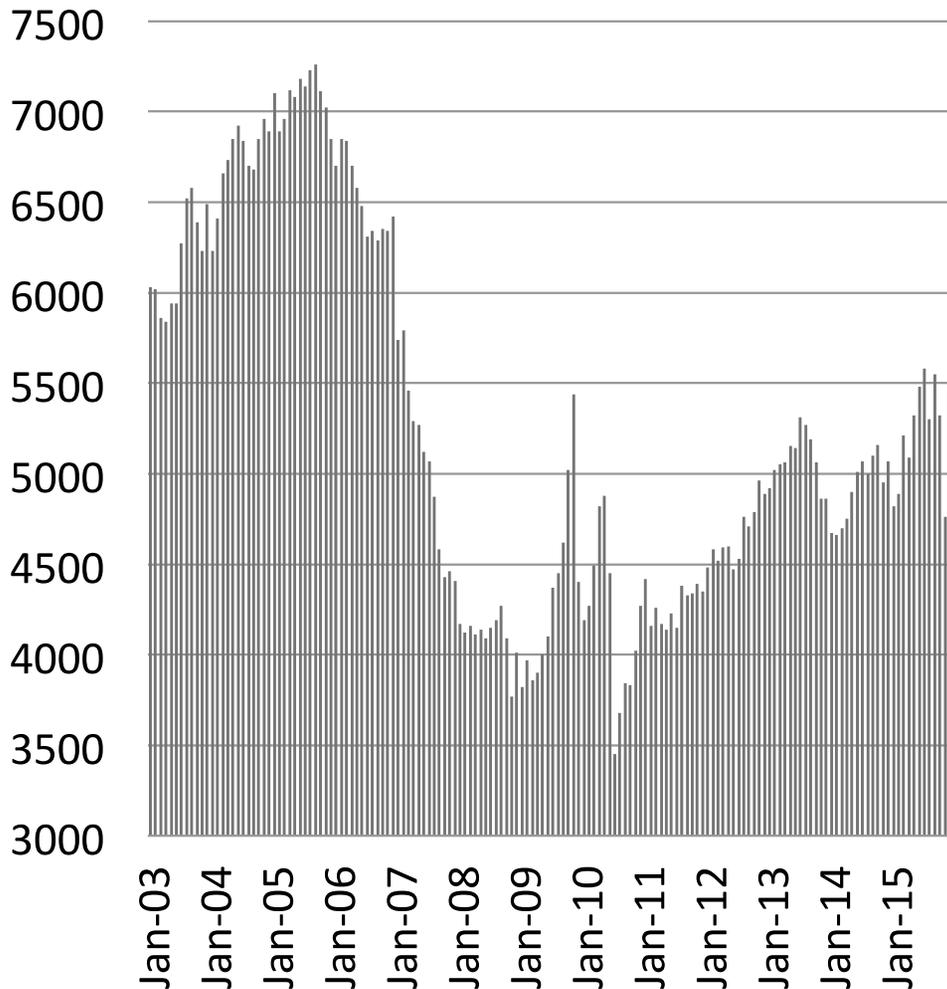


## Change in Nominal Goods Trade 2014 to 2015

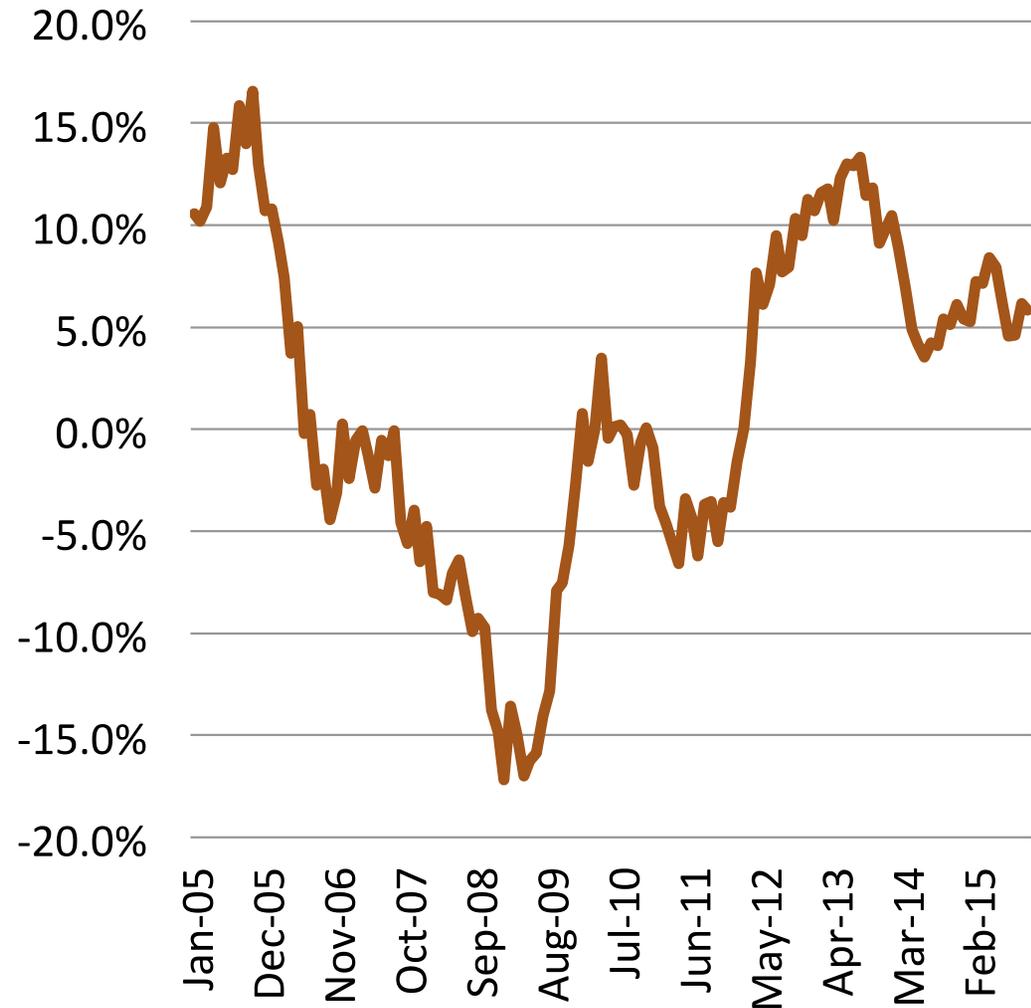
	Exports	Imports	Bal.
Total	-104.4	-87.3	-17.1
Canada	-28.8	-45.8	17
Netherlands	-2.8	-3.9	1.1
Belgium	-0.6	-1.2	0.6
India	0.3	-0.1	0.4
Germany	0.2	0.3	-0.1
Taiwan	-0.5	0.1	-0.6
Japan	-3.5	-2.7	-0.8
France	-1.1	0.6	-1.7
UK	2.8	4.5	-1.7
Italy	-0.9	1.7	-2.6
Korea, South	-0.6	2.8	-3.4
Mexico	-3.6	1.3	-4.9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

# Housing Markets

## Existing Home Sales SAAR



## Median Price Growth (Y-o-Y)



# Case-Shiller Regional Price Trends

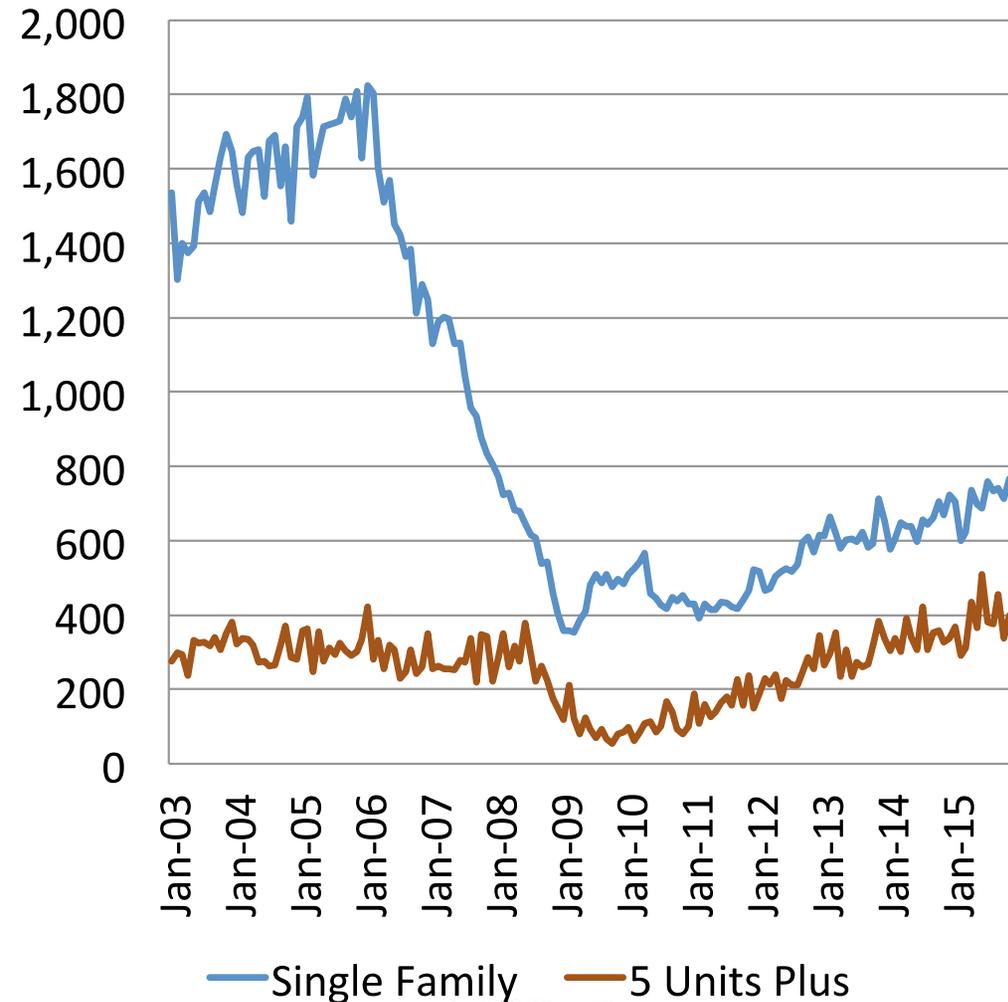
	13-14	14-15	<i>Diff</i>		13-14	14-15	<i>Diff</i>
OR-Portland	6.2%	11.0%	4.8%	AZ-Phoenix	2.2%	5.7%	3.5%
CA-San Francisco	9.5%	10.9%	1.5%	<b>Composite-20</b>	<b>4.4%</b>	<b>5.6%</b>	<b>1.1%</b>
CO-Denver	7.1%	10.9%	3.7%	MI-Detroit	3.6%	5.3%	1.6%
TX-Dallas	7.7%	9.3%	1.6%	MA-Boston	4.3%	5.2%	0.9%
WA-Seattle	6.2%	8.8%	2.6%	<b>National-US</b>	<b>4.6%</b>	<b>5.2%</b>	<b>0.5%</b>
FL-Miami	9.5%	8.0%	-1.5%	NC-Charlotte	2.7%	4.7%	2.0%
FL-Tampa	6.1%	6.4%	0.3%	MN-Minneapolis	2.1%	4.0%	2.0%
CA-San Diego	4.7%	6.3%	1.6%	NY-New York	1.8%	3.1%	1.3%
CA-Los Angeles	4.9%	6.1%	1.3%	OH-Cleveland	0.8%	2.2%	1.5%
GA-Atlanta	4.4%	6.1%	1.6%	DC-Washington	2.0%	1.7%	-0.3%
NV-Las Vegas	7.8%	5.8%	-2.1%	IL-Chicago	1.8%	1.4%	-0.4%

# Affordability And Construction

## US Housing Affordability

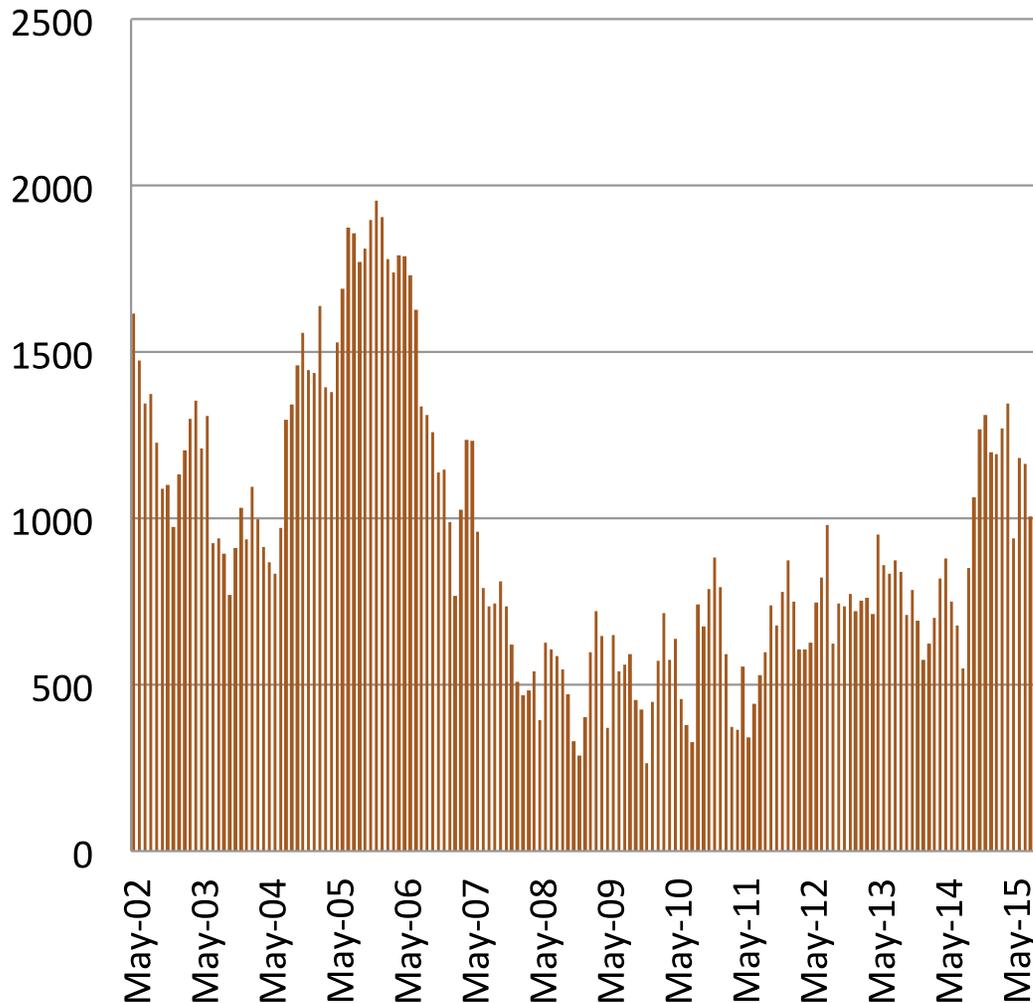


## Housing Starts

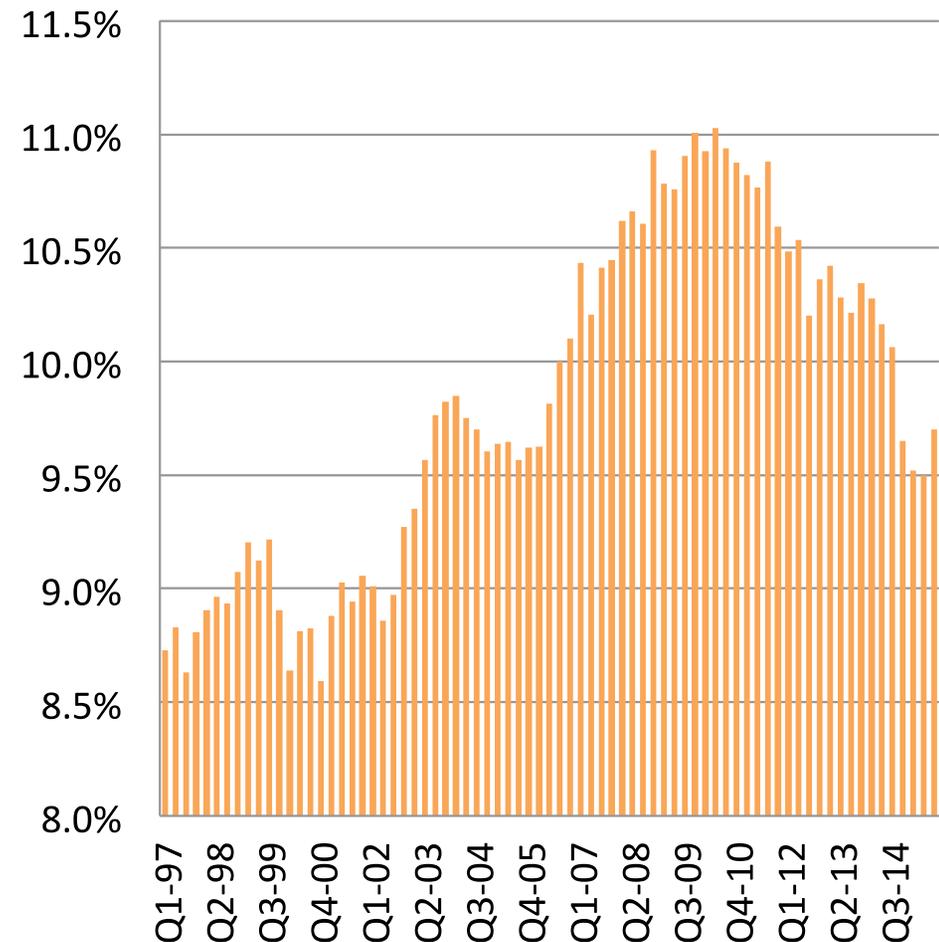


# Improved Outlook

Change in Households (2 year Smoothed)

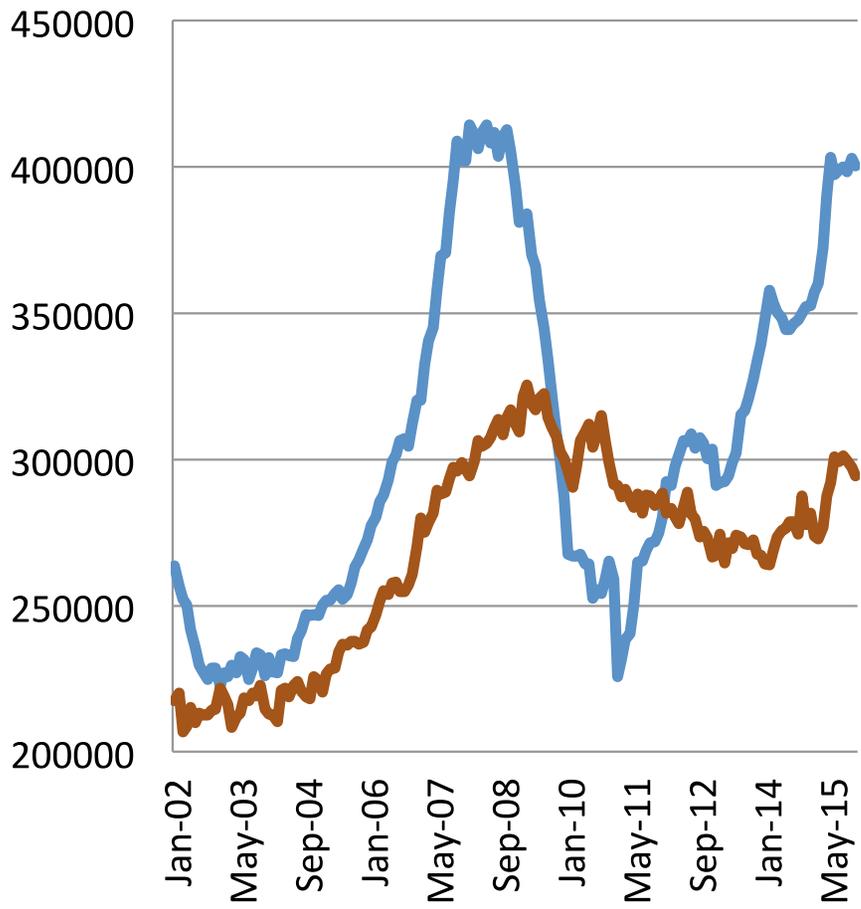


Year Round Vacant as % of Housing Stock to Q3 (Census HVS)



# Non Residential Trends

**Construction Spending**

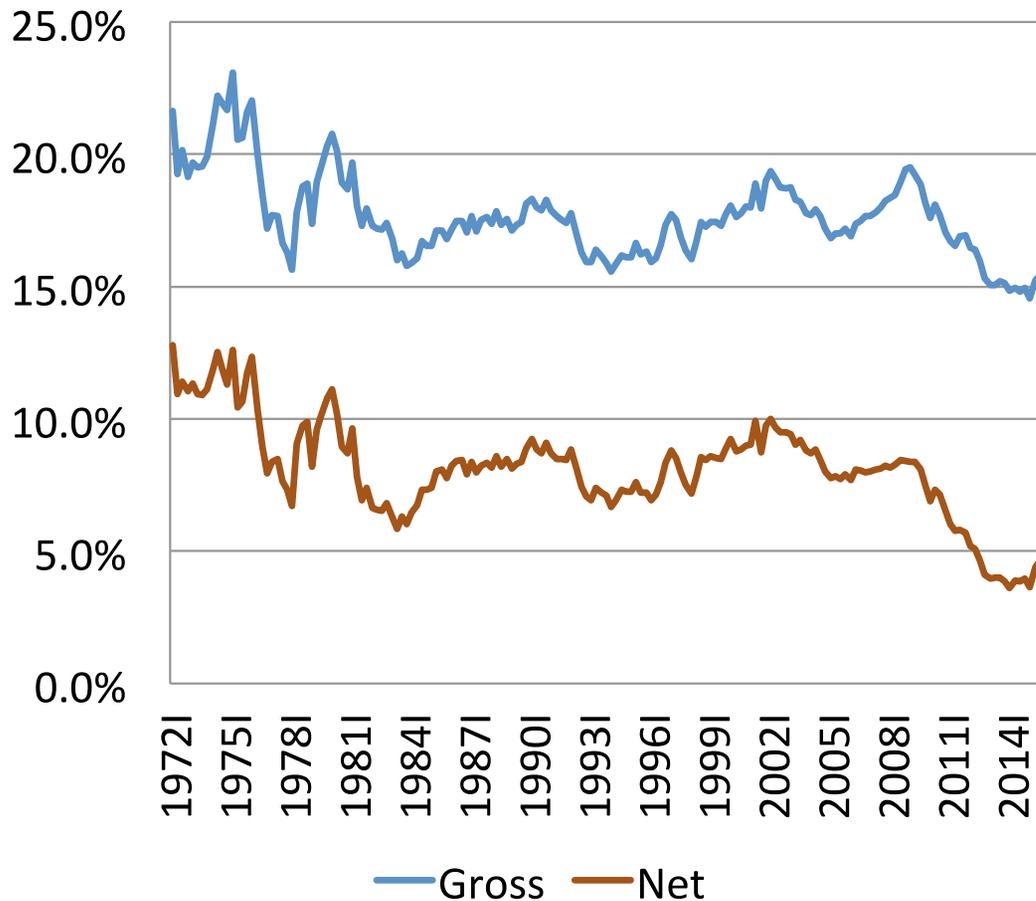


— Non-Residential — Public

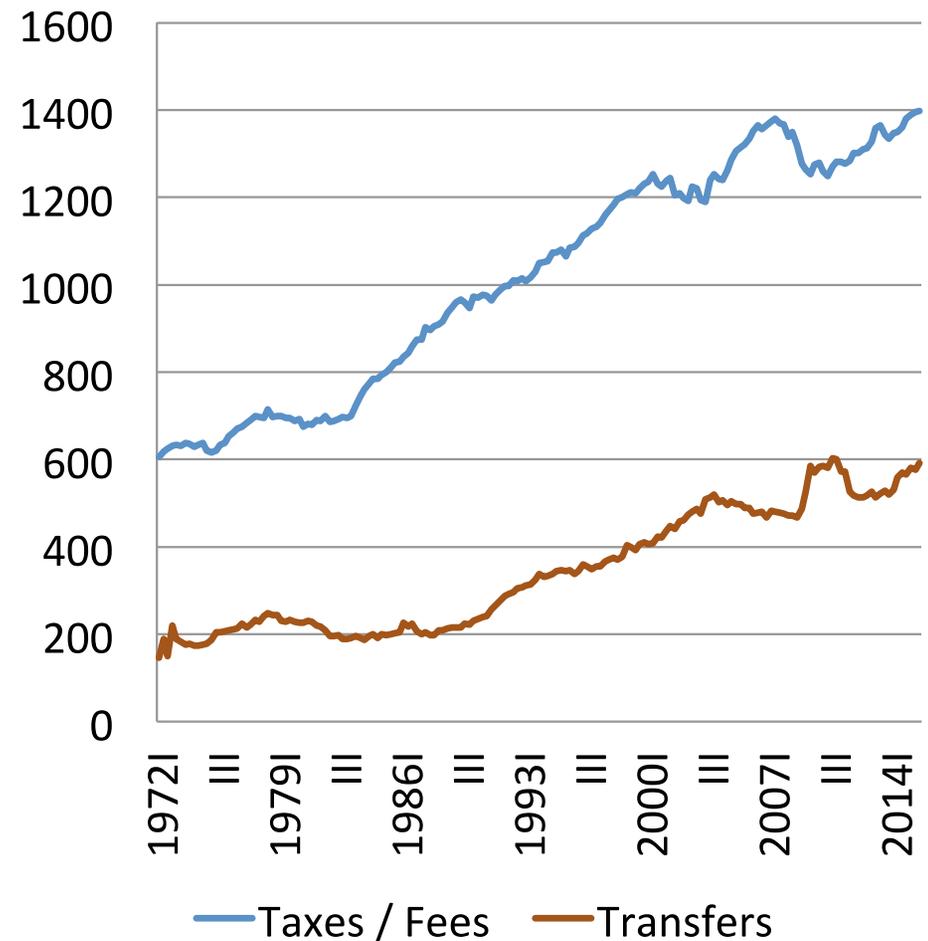
	2013	2014	2015
Lodging	13.0	15.7	20.3
Office	30.1	38.3	47.5
Retail	32.8	37.0	39.3
Warehouse	8.7	13.7	16.3
Medical	29.7	28.6	31.2
Education	16.9	16.7	17.6
Infrastructure	108.1	120.8	109.7
Manufacturing	49.8	57.0	83.5

# Public Capital Investments

## State & Local Gov. Capital Investments as % Revenues

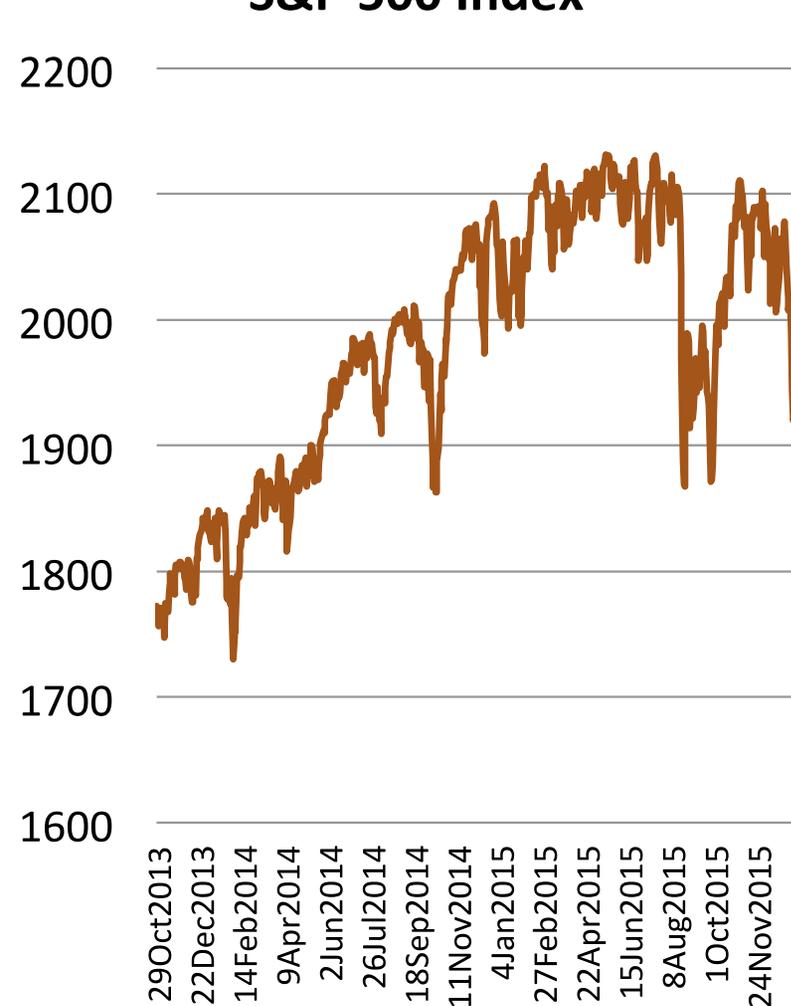


## Real Revenues S&L Gov



# What inning is it?

S&P 500 Index

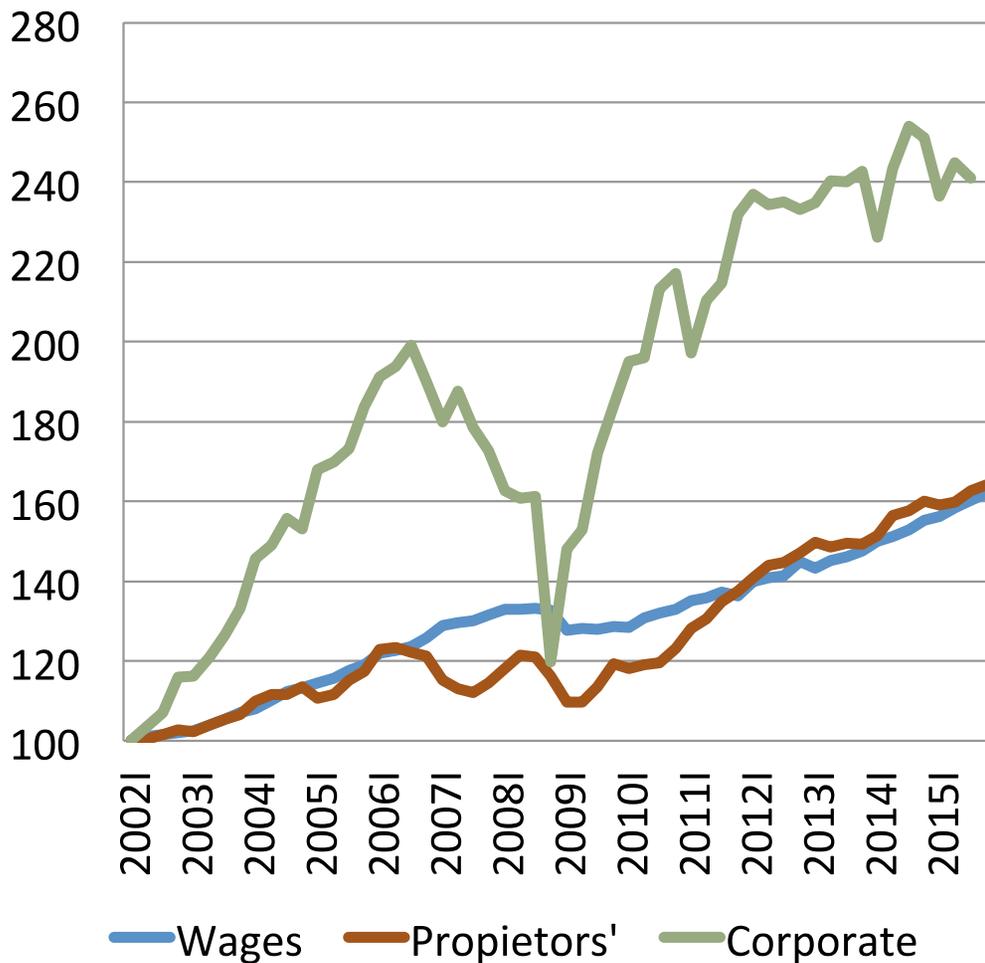


There is no Bubble... (at least not yet) Why?

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

## National Income by Type (Index)

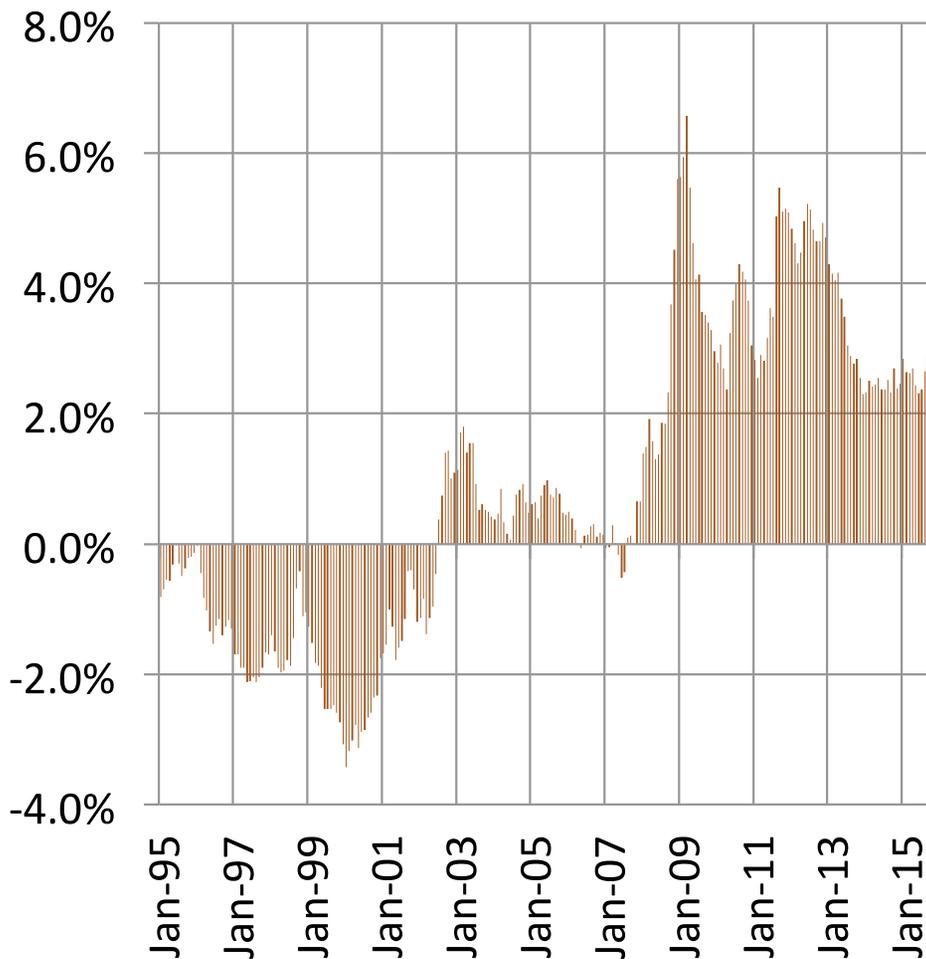


## Forward Looking P/E Ratio

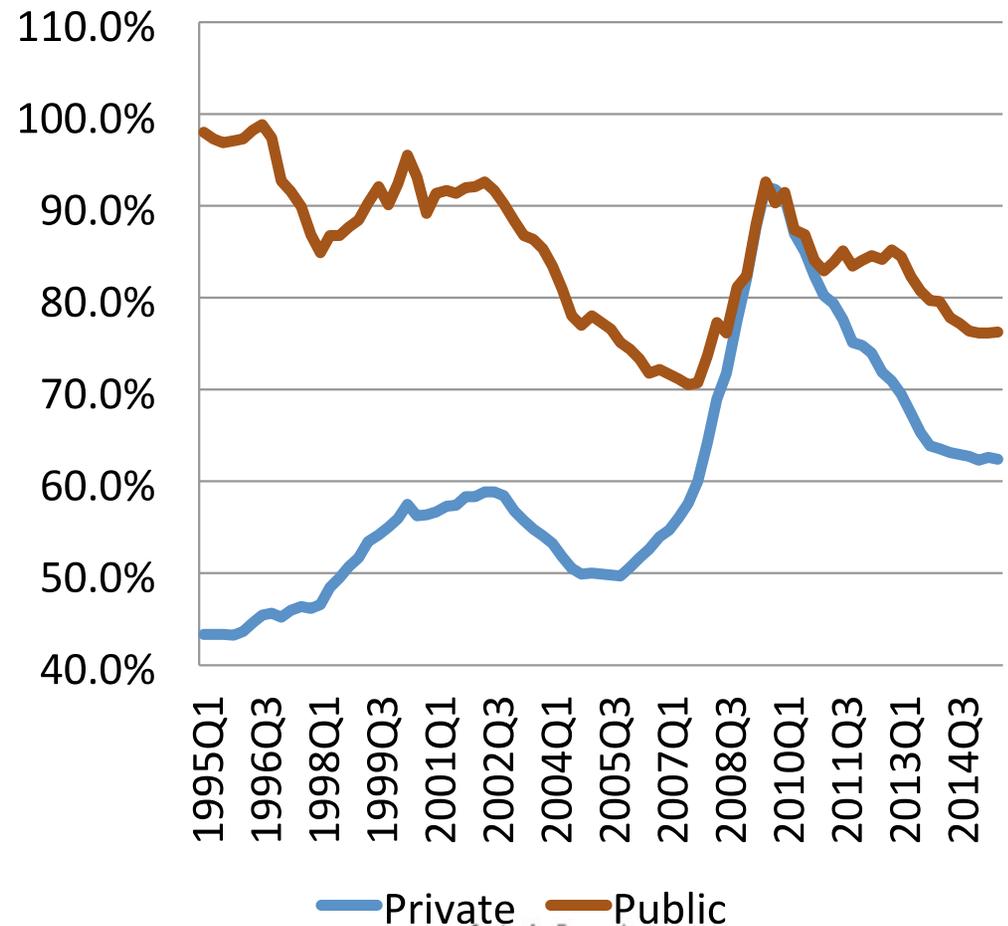


# Equity Fundamentals

## Equity Earnings Spread

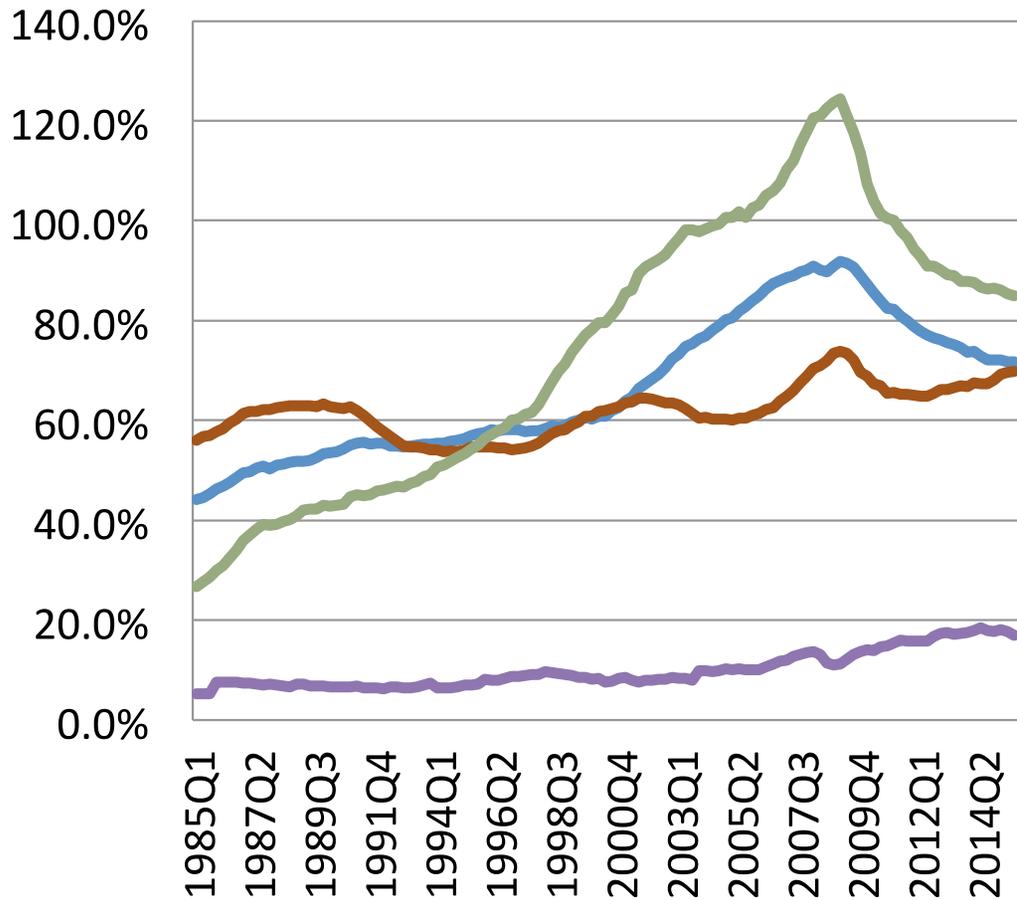


## Debt to Equity Ratios (FoF) Non-Financial Business



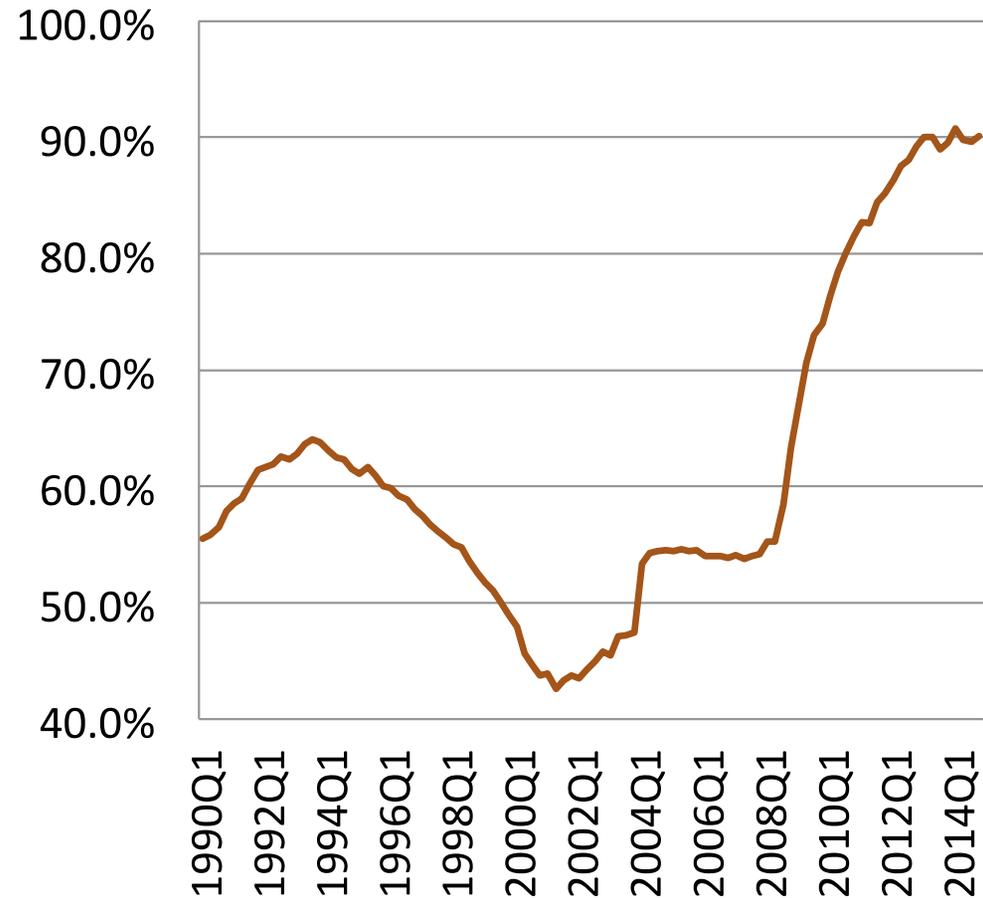
# Risk Factors

## Debt Outstanding as % GDP to Q3



— Household — Business — Finance — Foreign

## Debt Outstanding % GDP



— Public

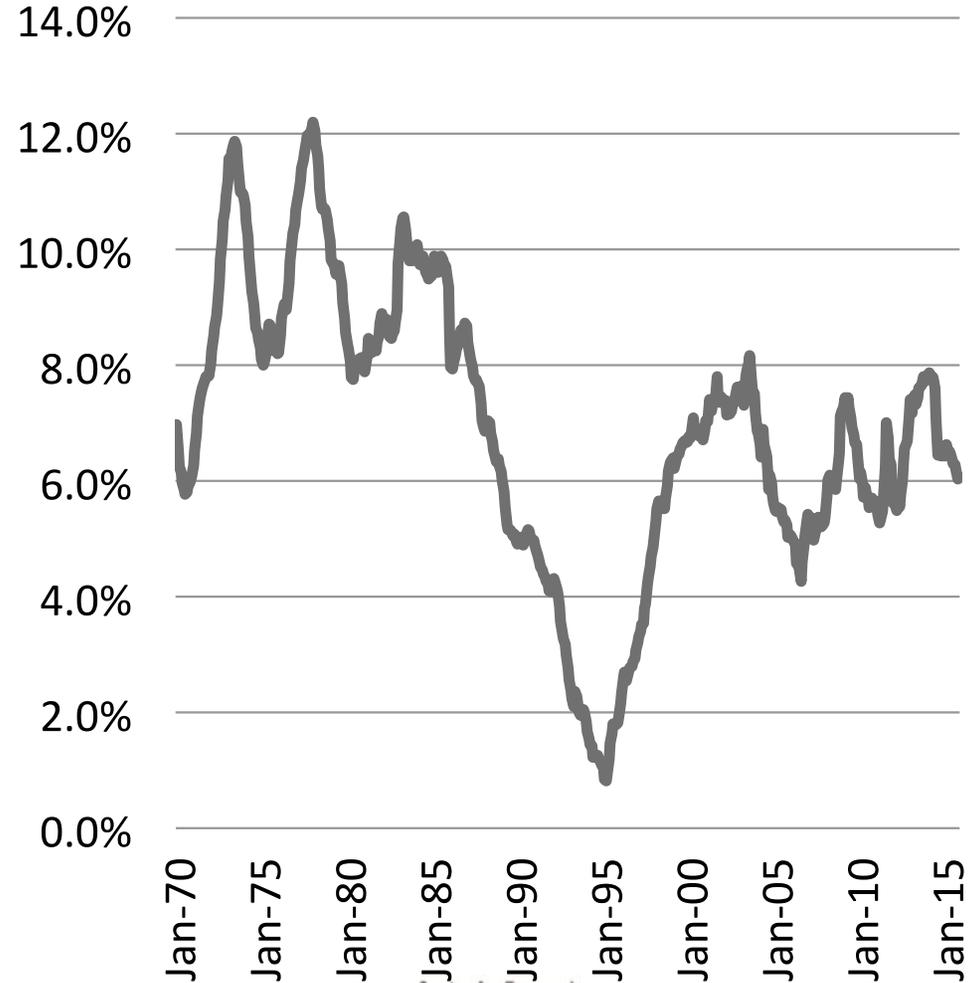
~~When~~

How Fast

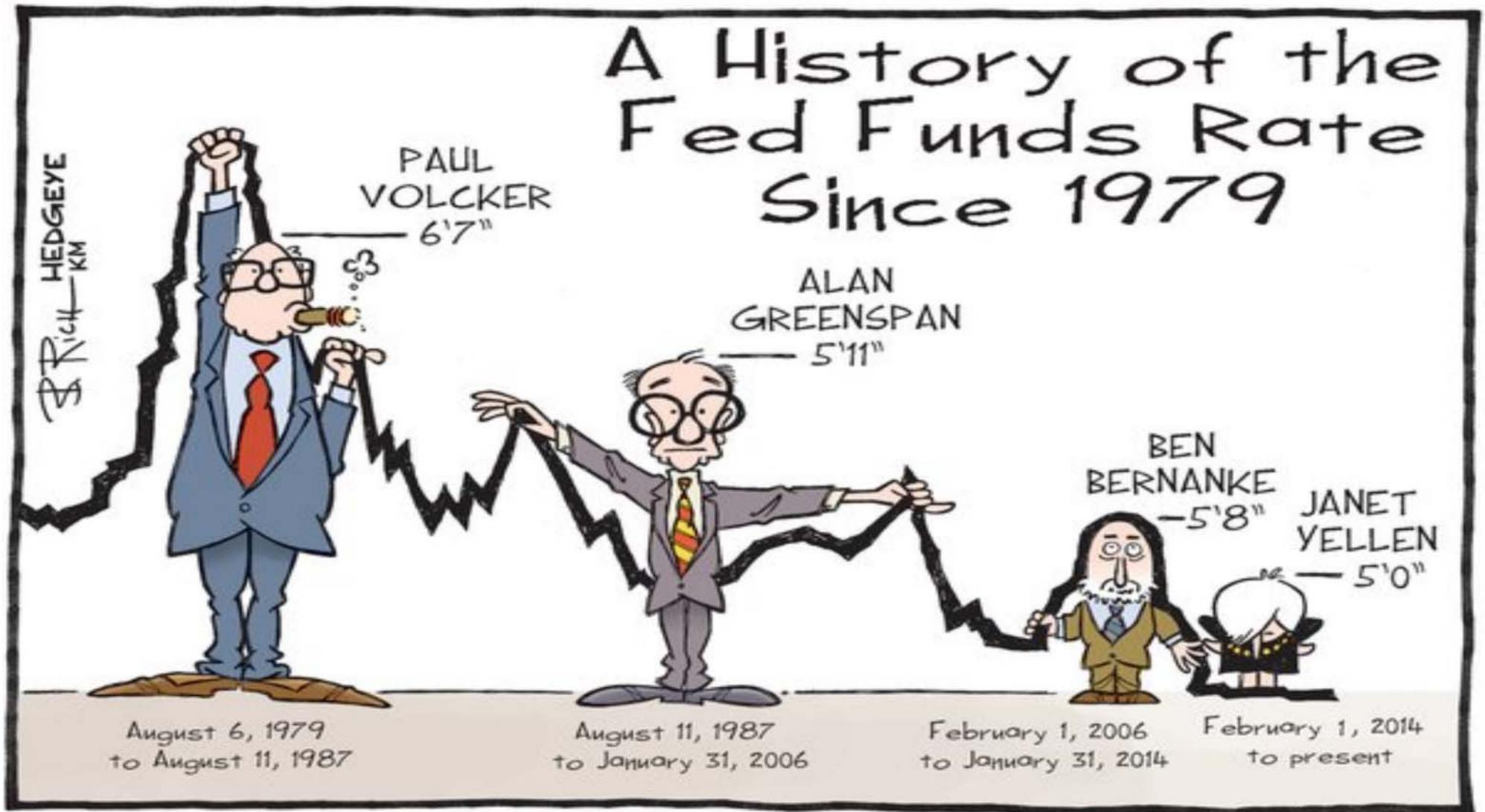
PCE Inflation (Y-o-Y) to Oct



M2 Growth (3 Year)

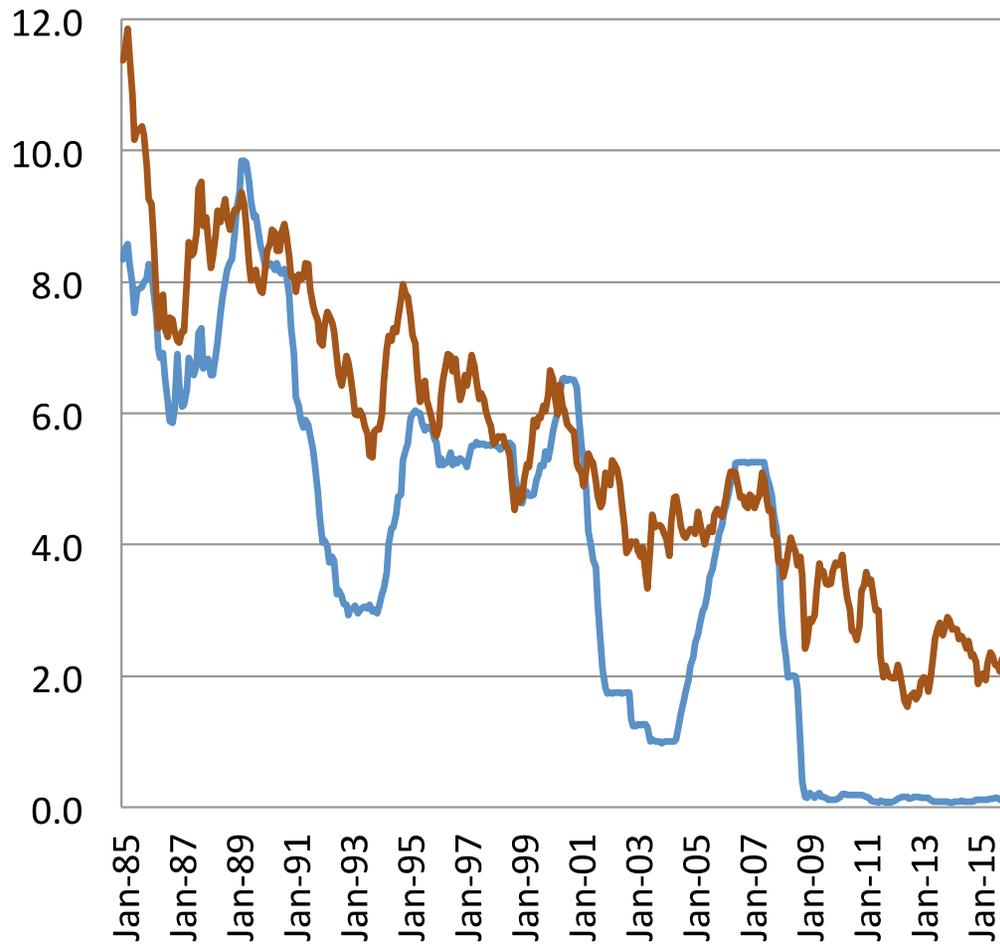


# And the Fed?



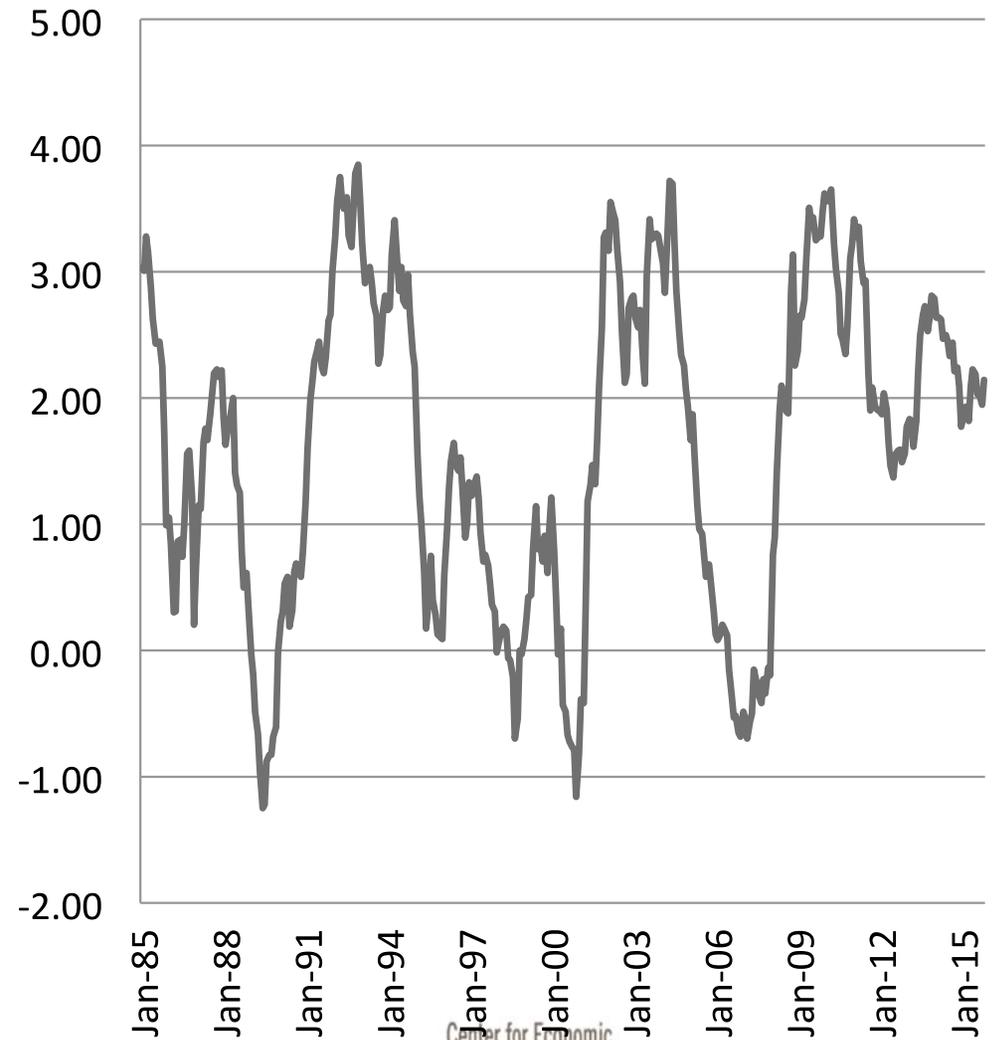
# Limited Space to Turn

## Interest Rates



— FFR — 10 Yr Treasury

## Spread



Center for Economic  
Forecasting and Development

# 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:

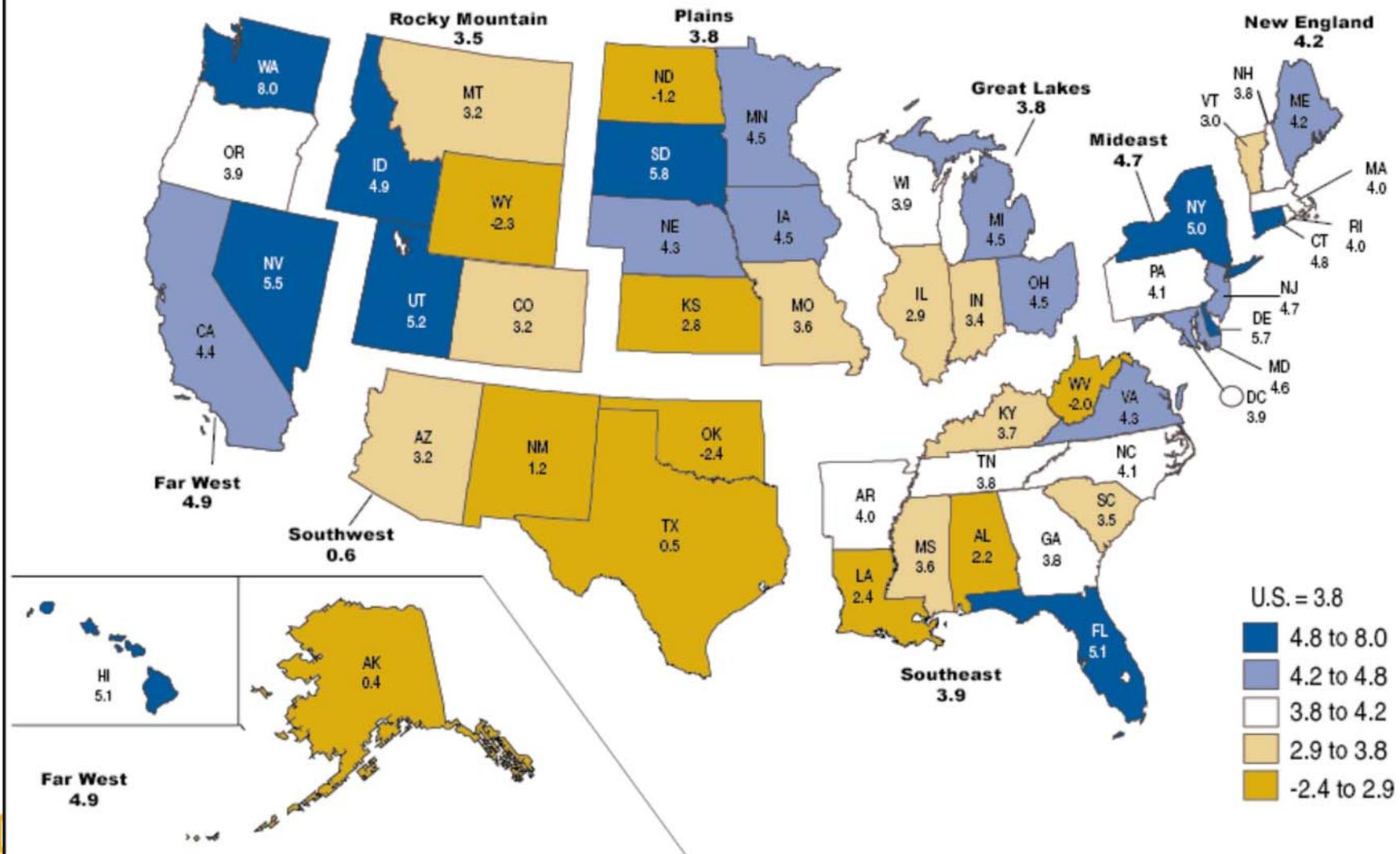
- High taxes, Over regulated
- People/business fleeing

## Reality

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

# Regional Growth

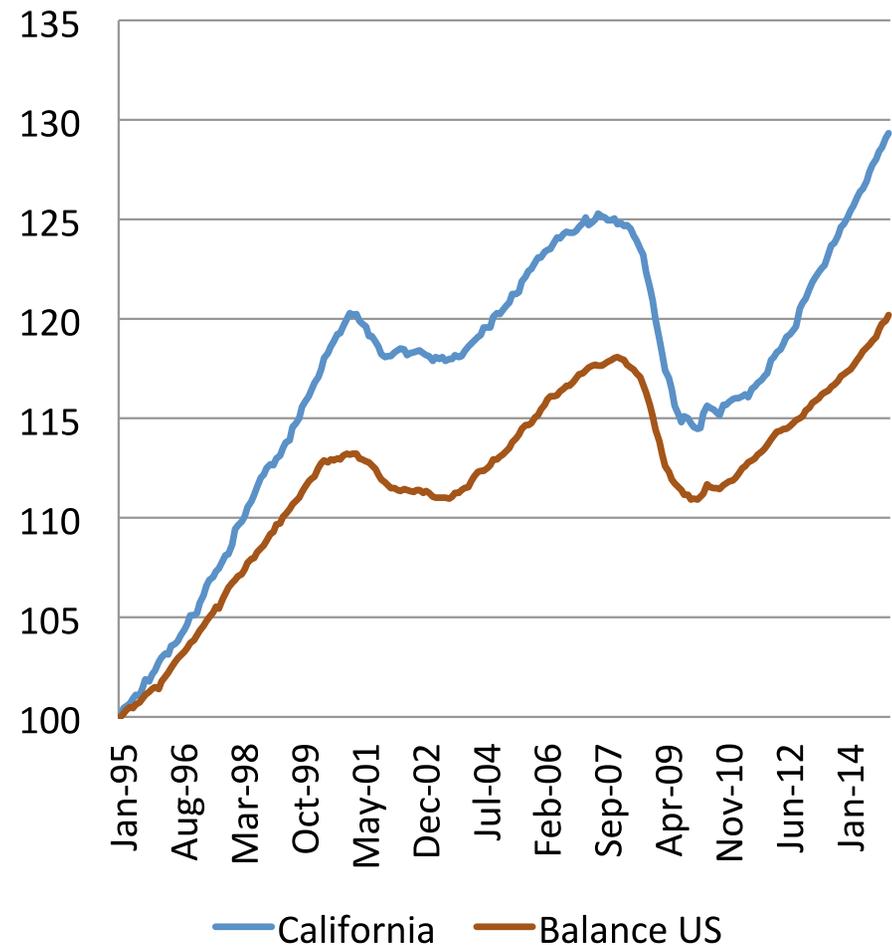
Chart 1. Percent Change in Real GDP by State, 2015:I-2015:II, Seasonally Adjusted at Annual Rates



# 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%
<b>California</b>	<b>2.6%</b>	<b>-0.3%</b>
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%

Index Payroll Employment



# 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%
<b>Inland Empire</b>	<b>1,371,400</b>	<b>3.5%</b>
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%

Per Worker Wages



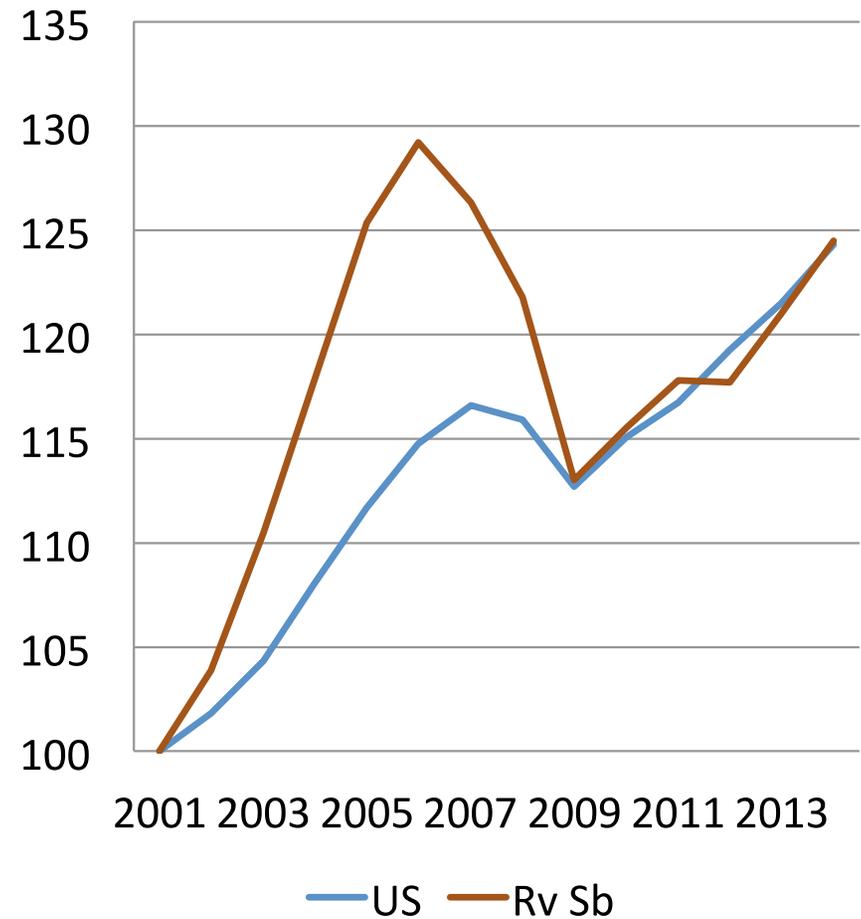
# San Bernardino Payrolls

	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

<u>2014 MSA</u>	<u>MGP</u>	<u>Rank</u>
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
<b>Riverside-San Bernardino</b>	<b>133,983</b>	<b>24</b>
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

Real Economic Output Index

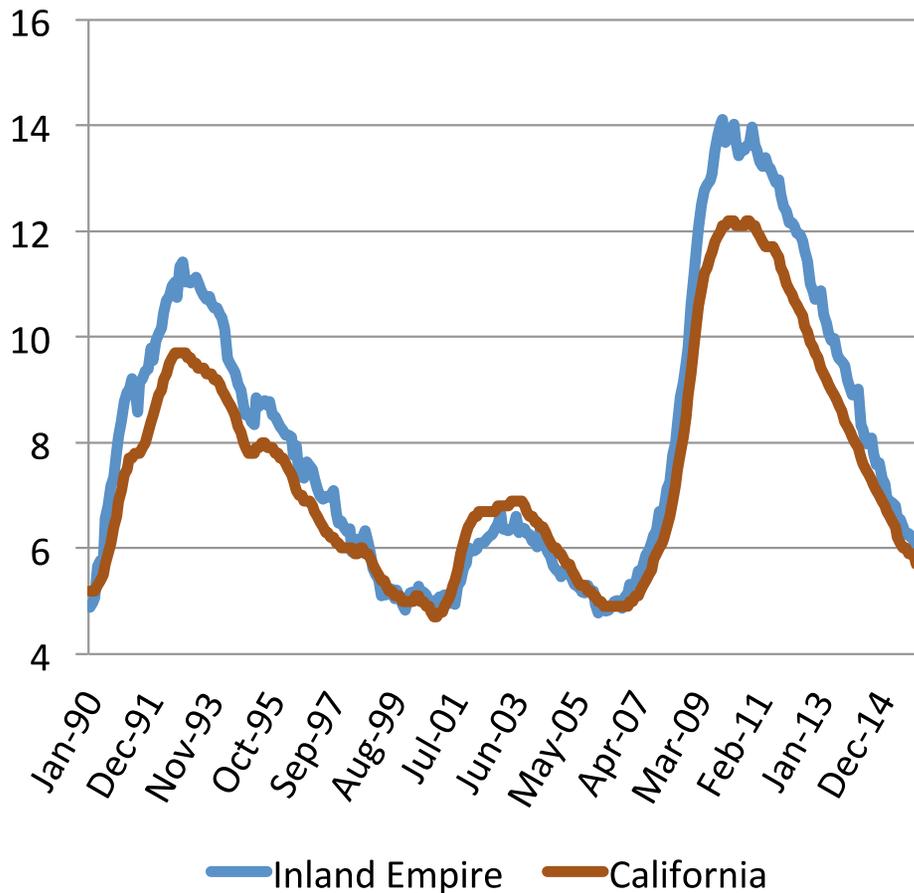


# IE Economic Output

<b>Industry</b>	<b>2014 Output</b>	<b>Cont. to Gr.</b>	<b>Share</b>
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

## Unemployment Rate



## Labor Force

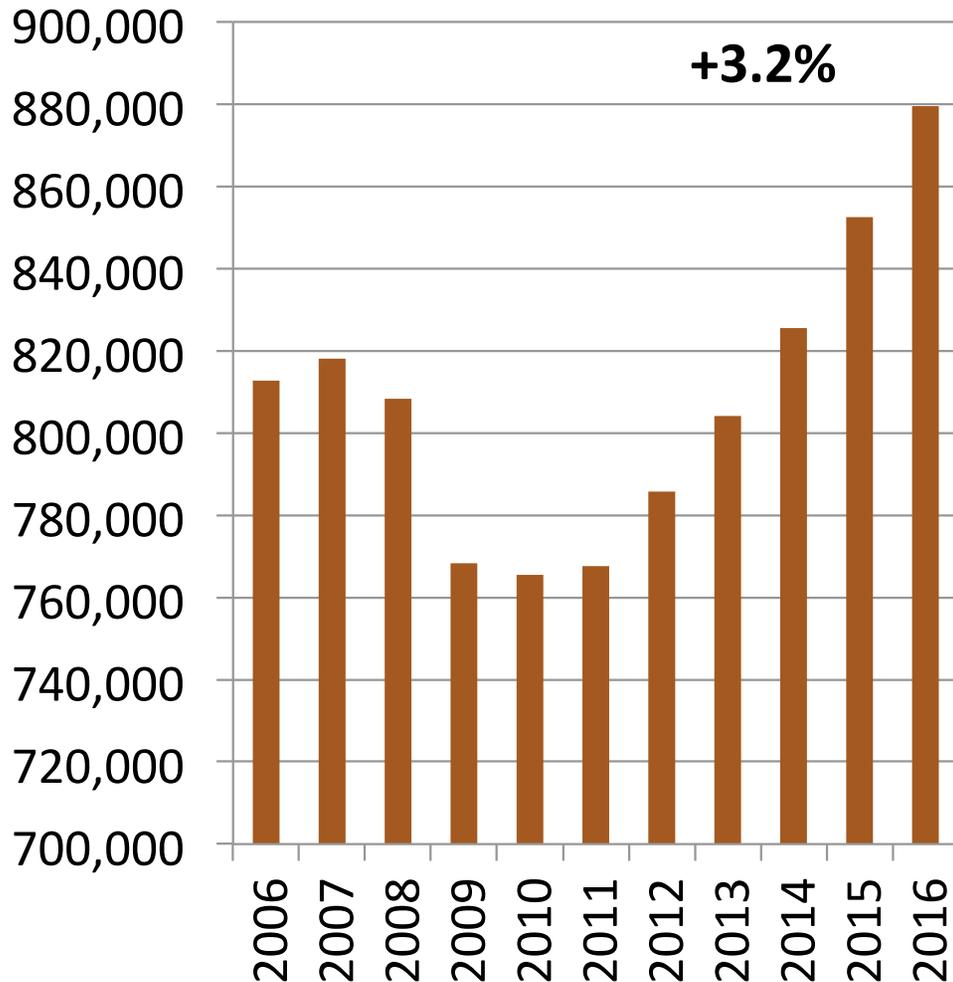
Los Angeles	5,011,706
Inland Empire	1,943,788
Orange Cnty	1,597,216
San Diego	1,564,030
East Bay	1,365,904
San Jose	1,059,842
Sacramento	1,055,713
San Francisco	991,071

## Personal Income

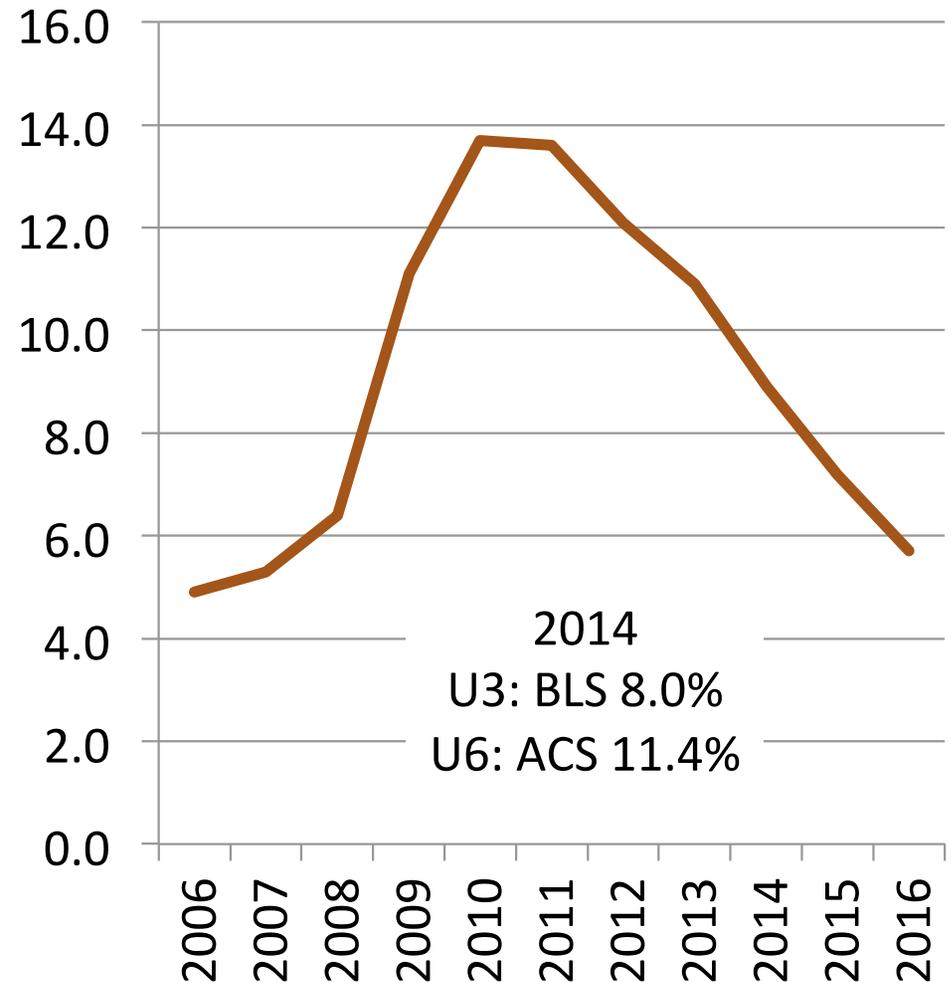
	<u>2014</u>	<u>Rank</u>
San Diego	\$167,931,419	16
Baltimore	\$149,573,086	17
Denver	\$148,684,245	18
Riverside-San Bernardino	\$147,727,265	19
San Jose	\$144,290,968	20
St. Louis	\$132,988,974	21

# San Bernardino

## Jan HH Employment



## Unemployment

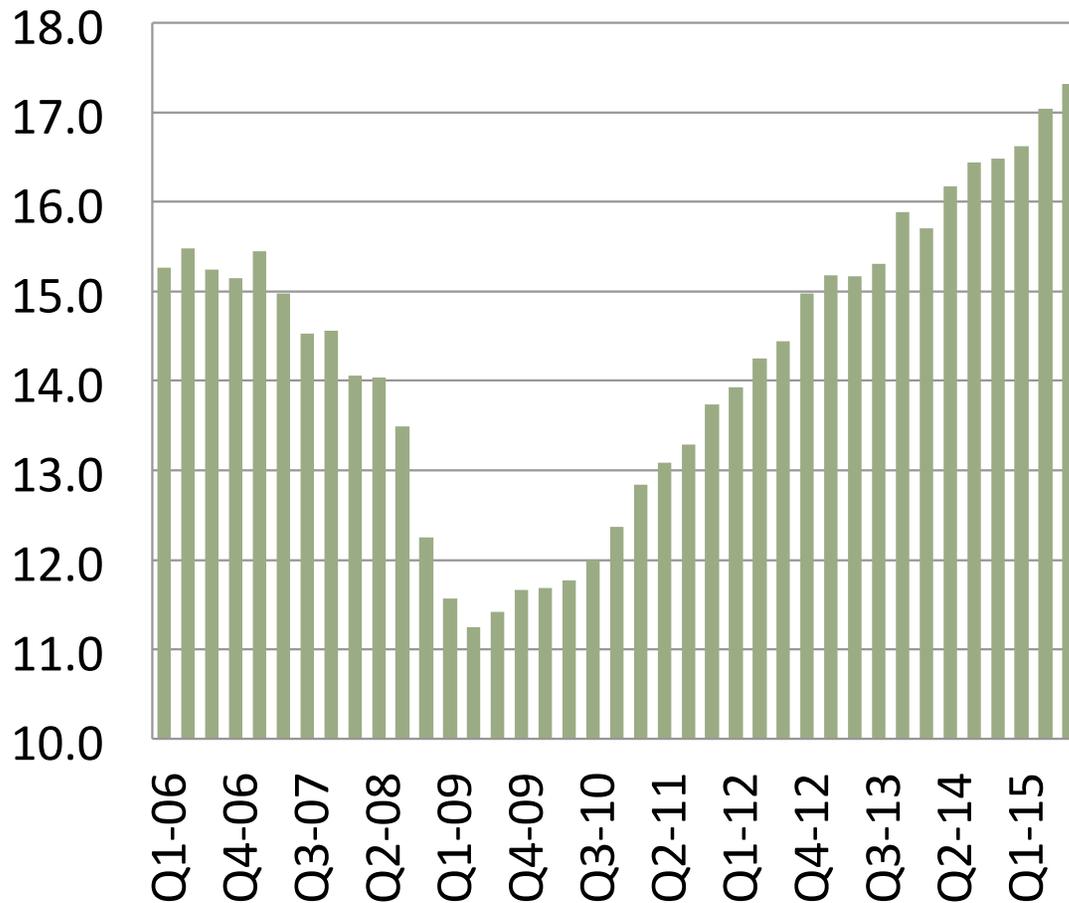


# City Stats (5 Yr ACS)

	HH Emp	% Bach		HH Emp	% Bach
Fontana	83,282	20.5%	Yucaipa	21,382	23.2%
Rancho Cucamonga	82,296	36.7%	Highland	21,291	23.8%
Ontario	73,154	16.0%	Colton	21,035	13.8%
San Bernardino	72,399	14.5%	Montclair	15,897	16.3%
Rialto	38,282	11.5%	Loma Linda	10,699	53.4%
Victorville	38,047	14.2%	Barstow	7,769	14.9%
Chino Hills	37,200	48.6%	Adelanto	7,256	9.4%
Upland	34,726	32.2%	Yucca Valley	6,900	16.1%
Chino	33,486	29.1%	Grand Terrace	5,767	30.9%
Hesperia	30,504	12.5%	Twentynine Palms	5,741	25.4%
Redlands	30,343	44.5%	Big Bear Lake	2,103	26.3%
Apple Valley	24,310	20.5%	Needles	1,802	10.7%

# Local Sales

**Taxable Sales: IE**



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
<b>RSB Total</b>	<b>50,245,338</b>	<b>5.5</b>

# Local Households

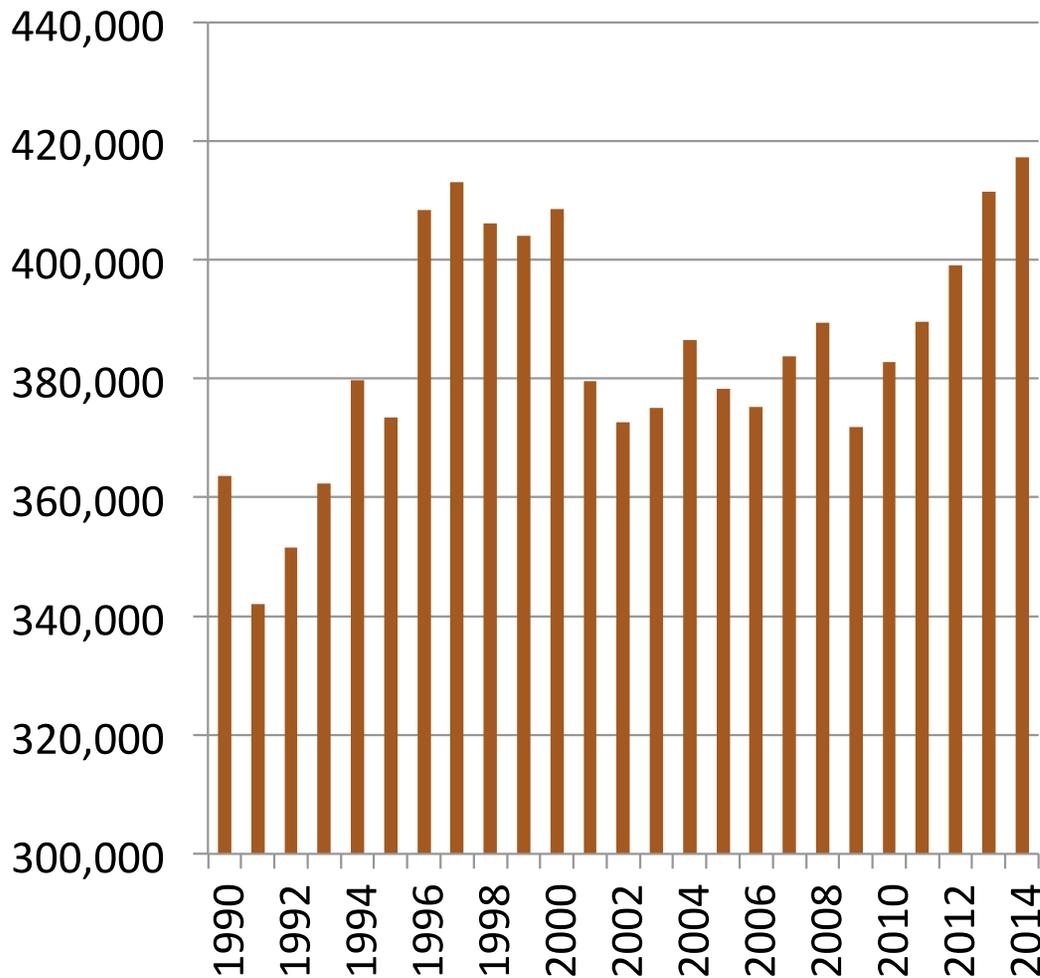
	<u>US</u>	<u>CA</u>	<u>Riverside</u>	<u>San Bern.</u>
HH	117,259	12,759	701	617
Gr 06-14	5.1%	5.0%	8.9%	4.1%
<b>2006</b>				
Share < \$50k	51.3%	44.4%	46.7%	47.0%
\$50-\$100k	30.8%	31.0%	32.5%	34.2%
Share > \$100k	17.9%	24.6%	20.7%	18.9%
Median	48,451	56,645	53,508	52,941
<b>2014</b>				
Share < \$50k	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

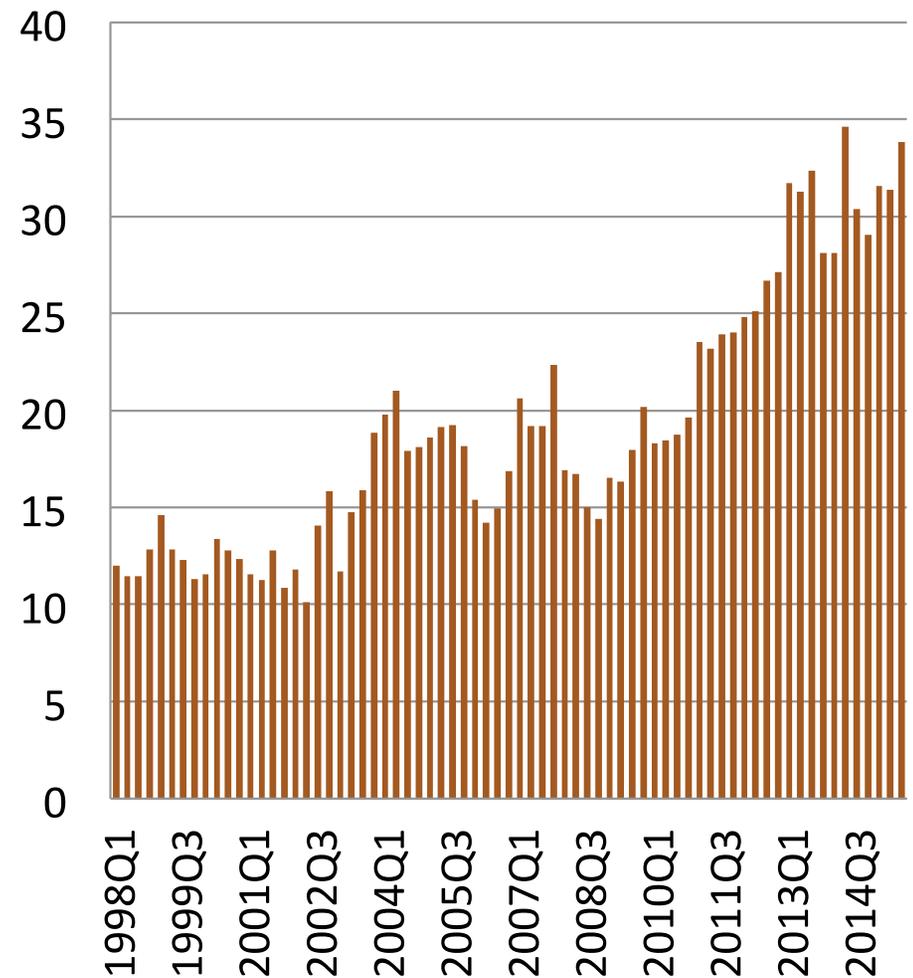
	US	CA	Diff
All industry total	2.7%	4.3%	1.6%
Agriculture, forestry, fishing, and hunting	4.1%	28.2%	24.1%
Construction	4.2%	7.9%	3.7%
Professional, scientific, and technical services	5.7%	9.4%	3.6%
Management of companies and enterprises	6.7%	10.2%	3.5%
Accommodation and food services	1.6%	5.0%	3.4%
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

## Total CA Farm Employment



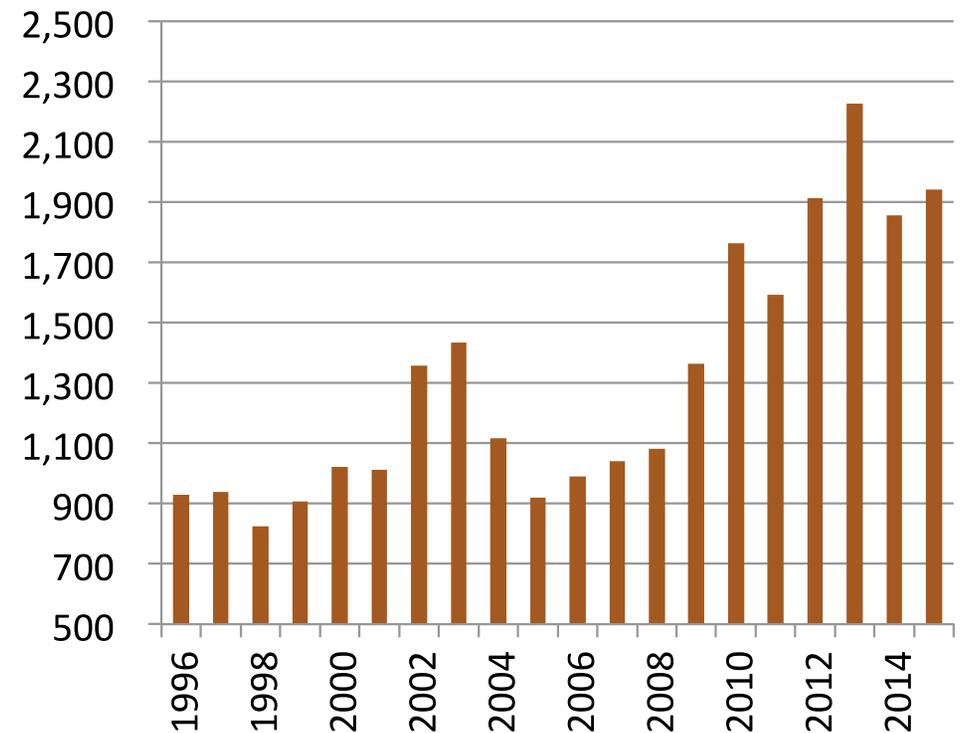
## Total CA Farm Earnings (\$Bil)



# 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

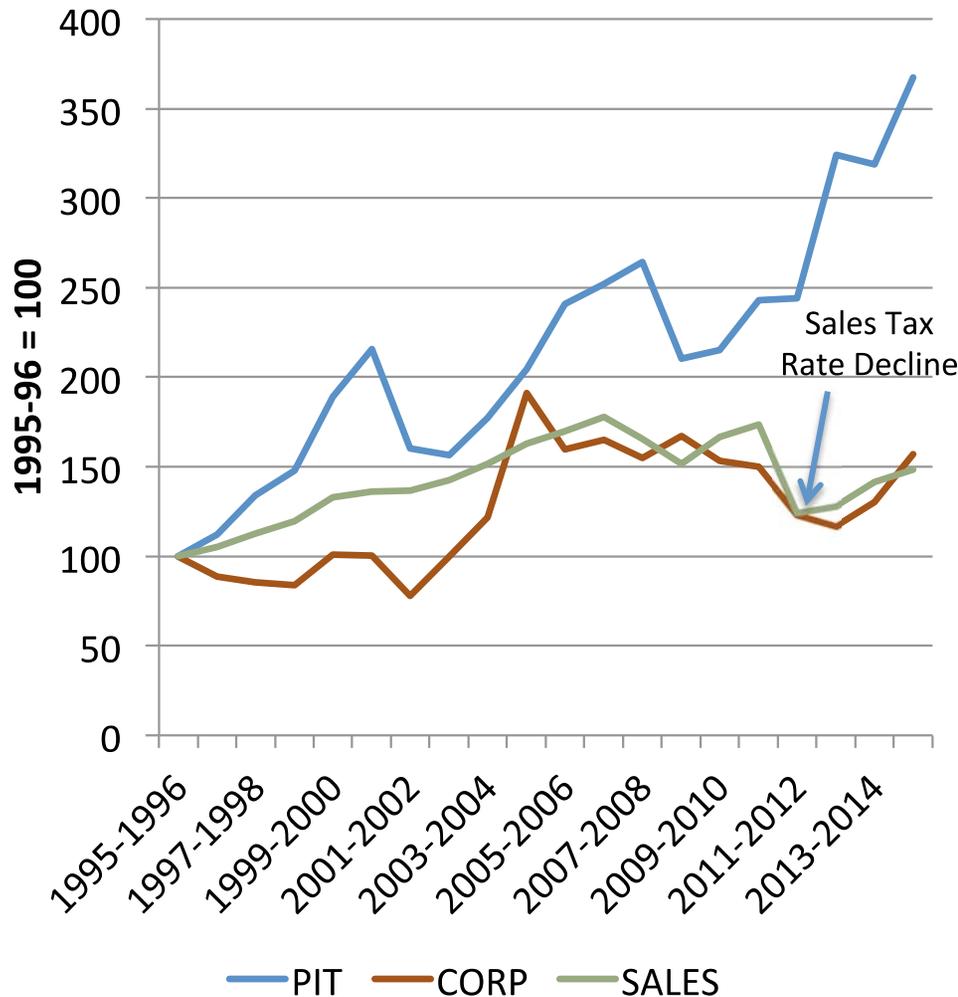


\$ / Kg

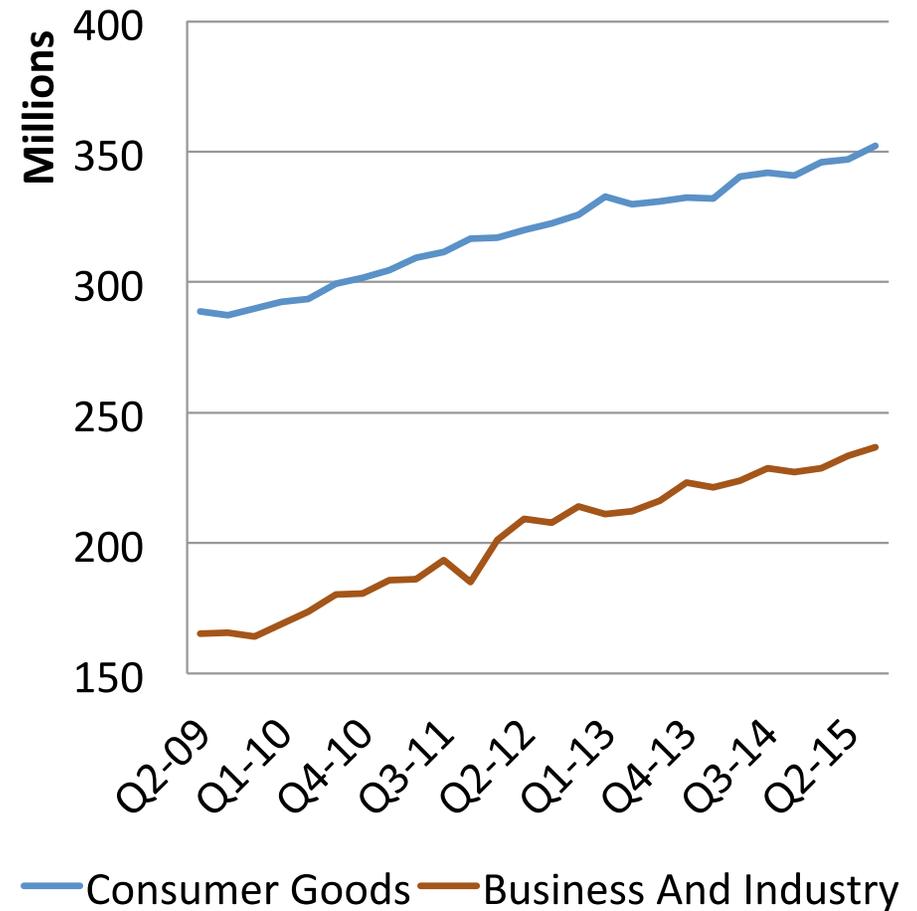
Alfalfa	Rice	Nuts
\$0.27	\$0.79	\$7.07

# Income tax driving the show

## Index

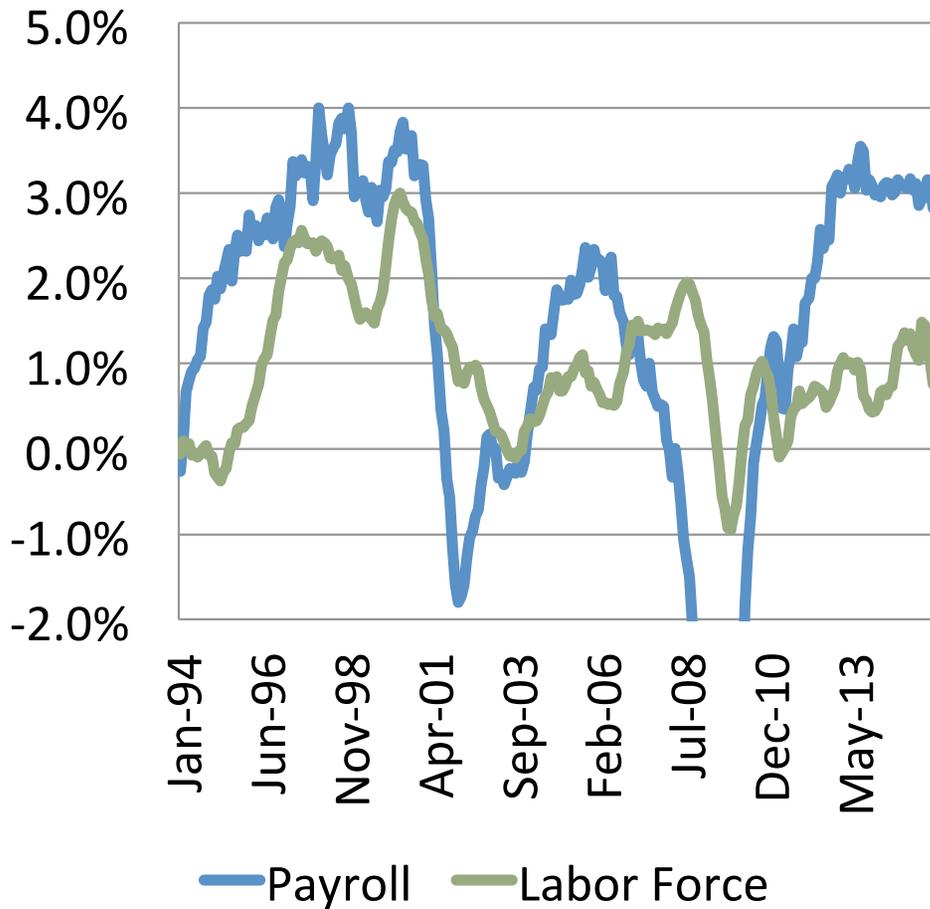


## Taxable Sales by Type

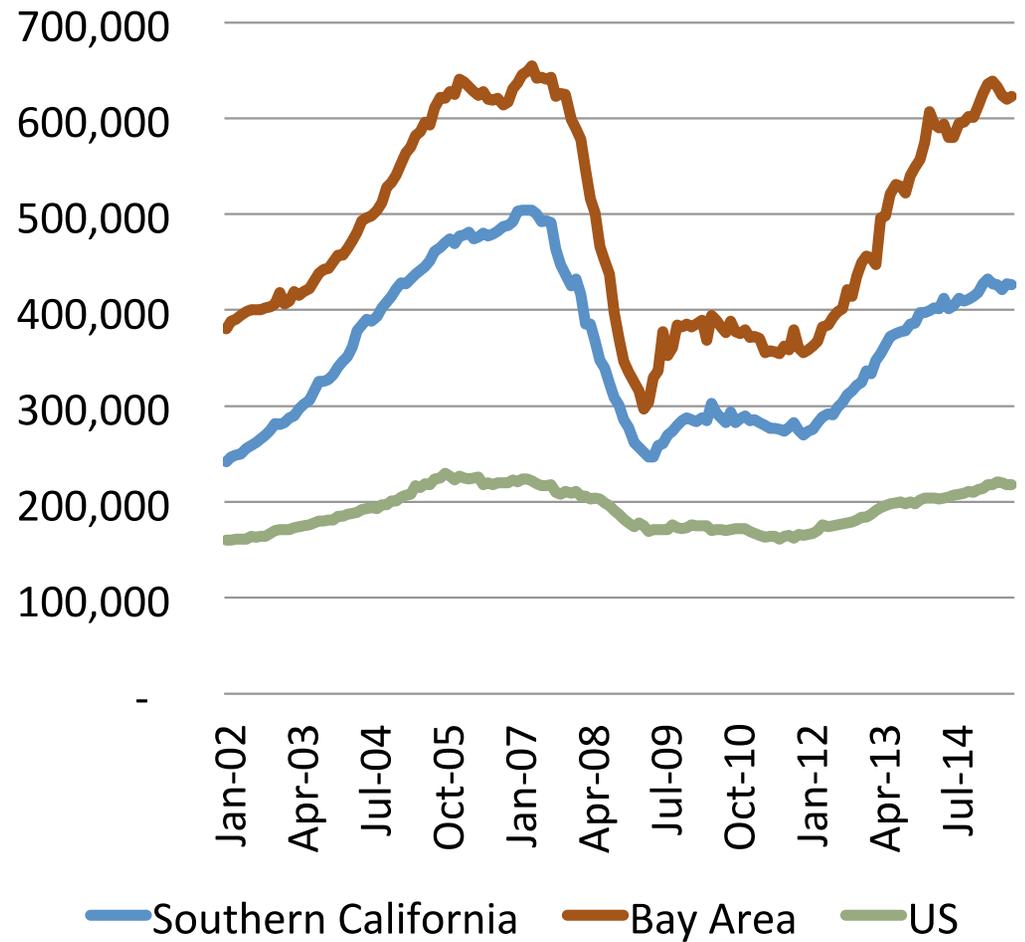


# Homes and Workers

## Workforce Trends

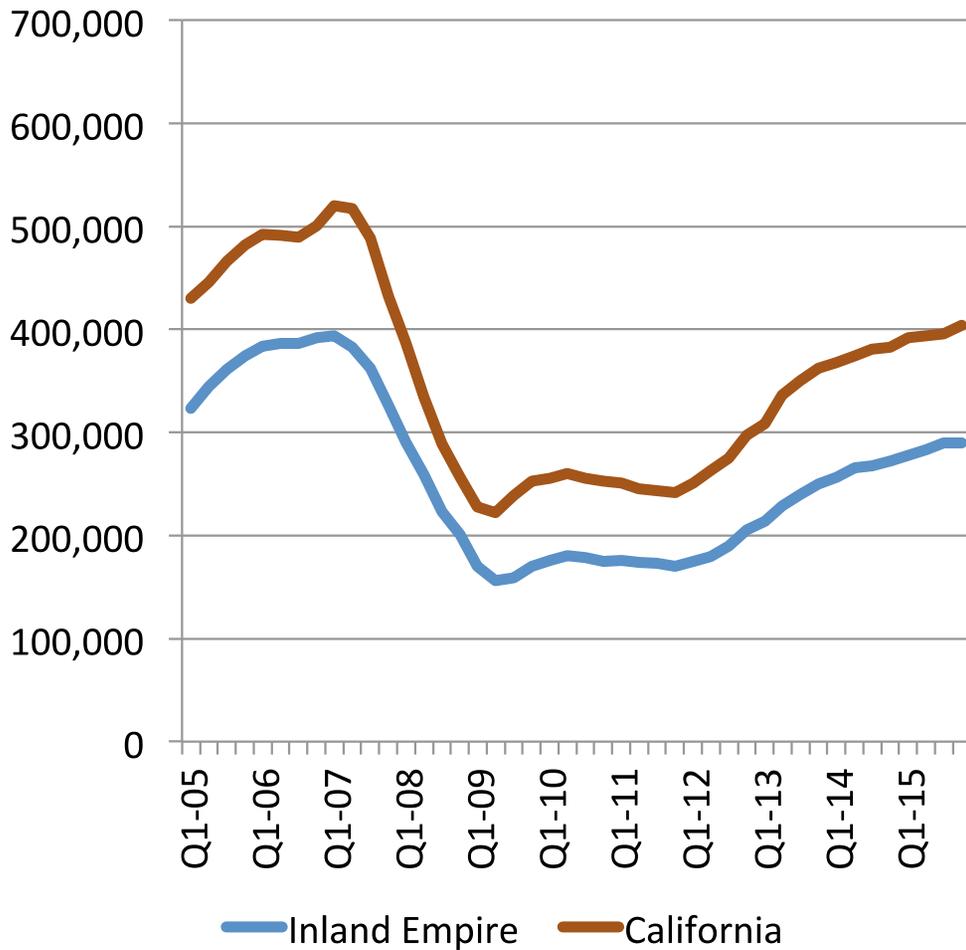


## Median Home Prices

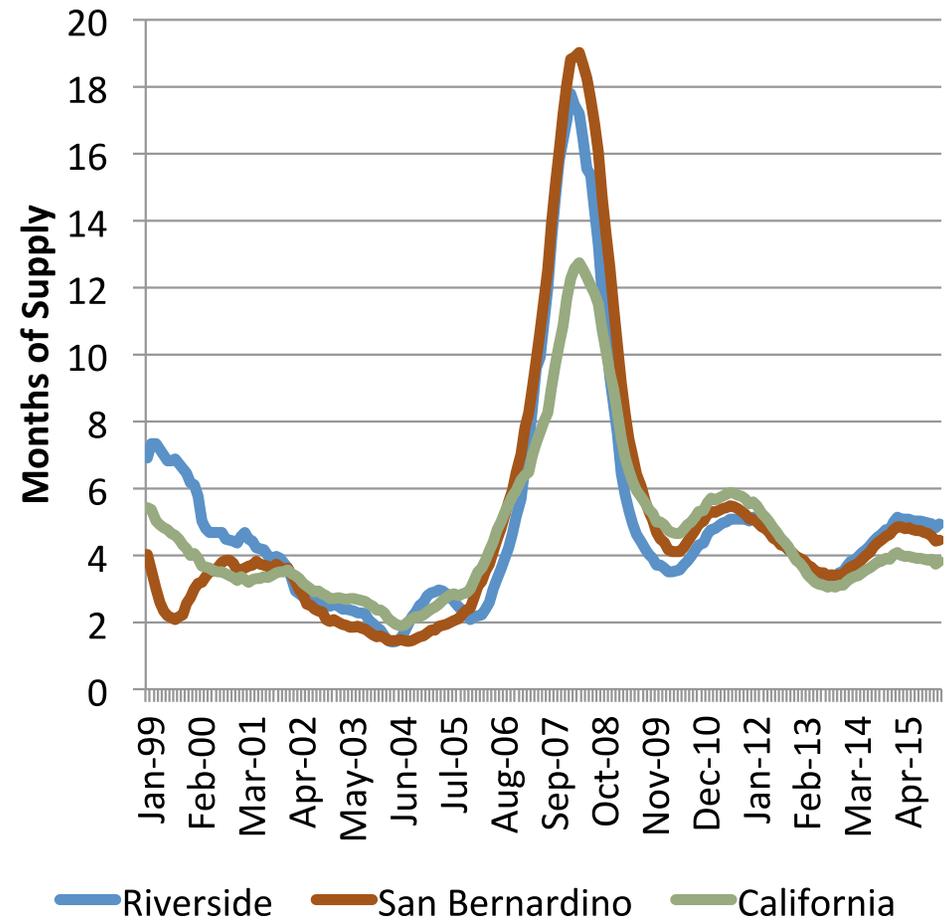


# Local Housing

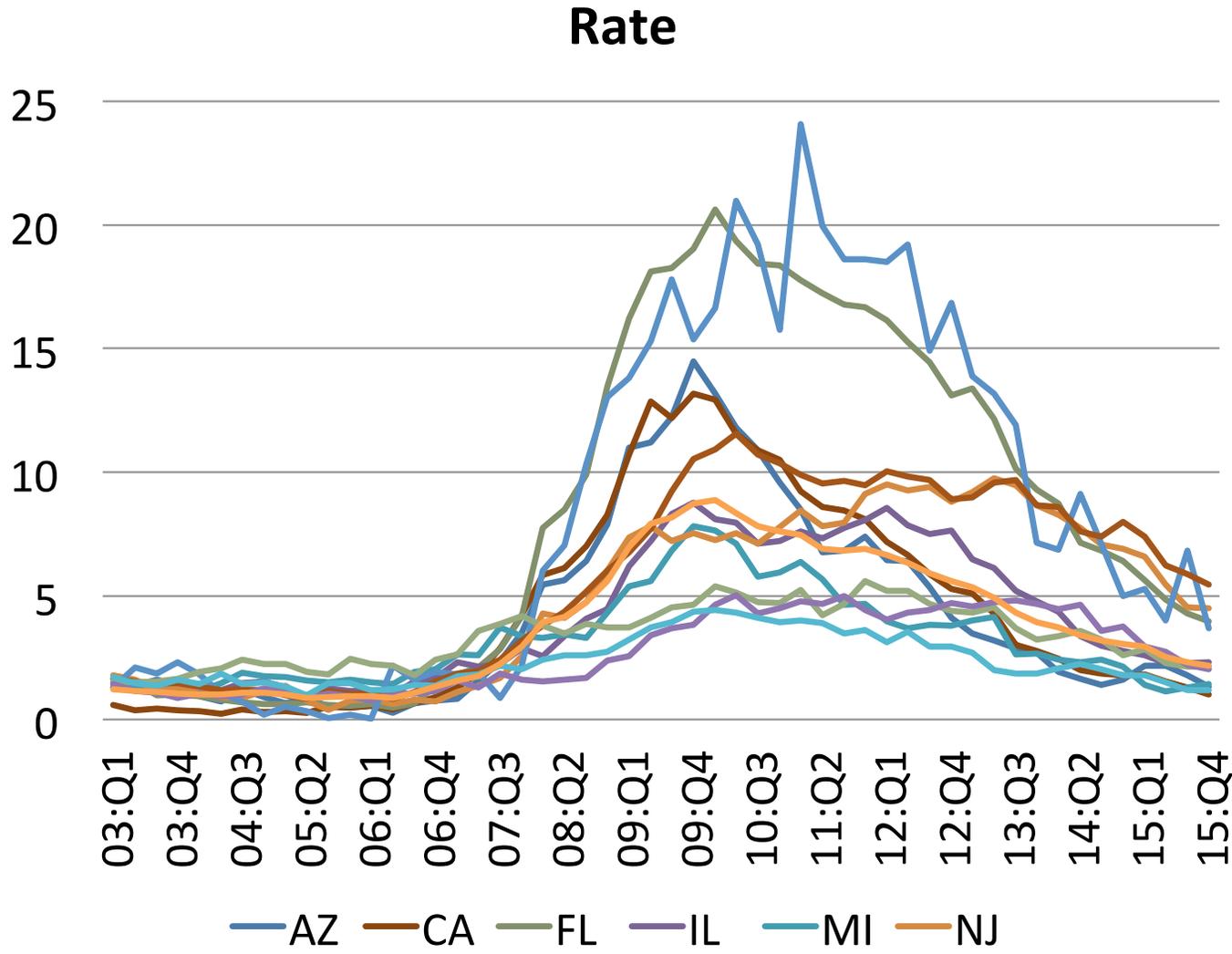
## Existing SFR Median Prices



## Housing Inventory



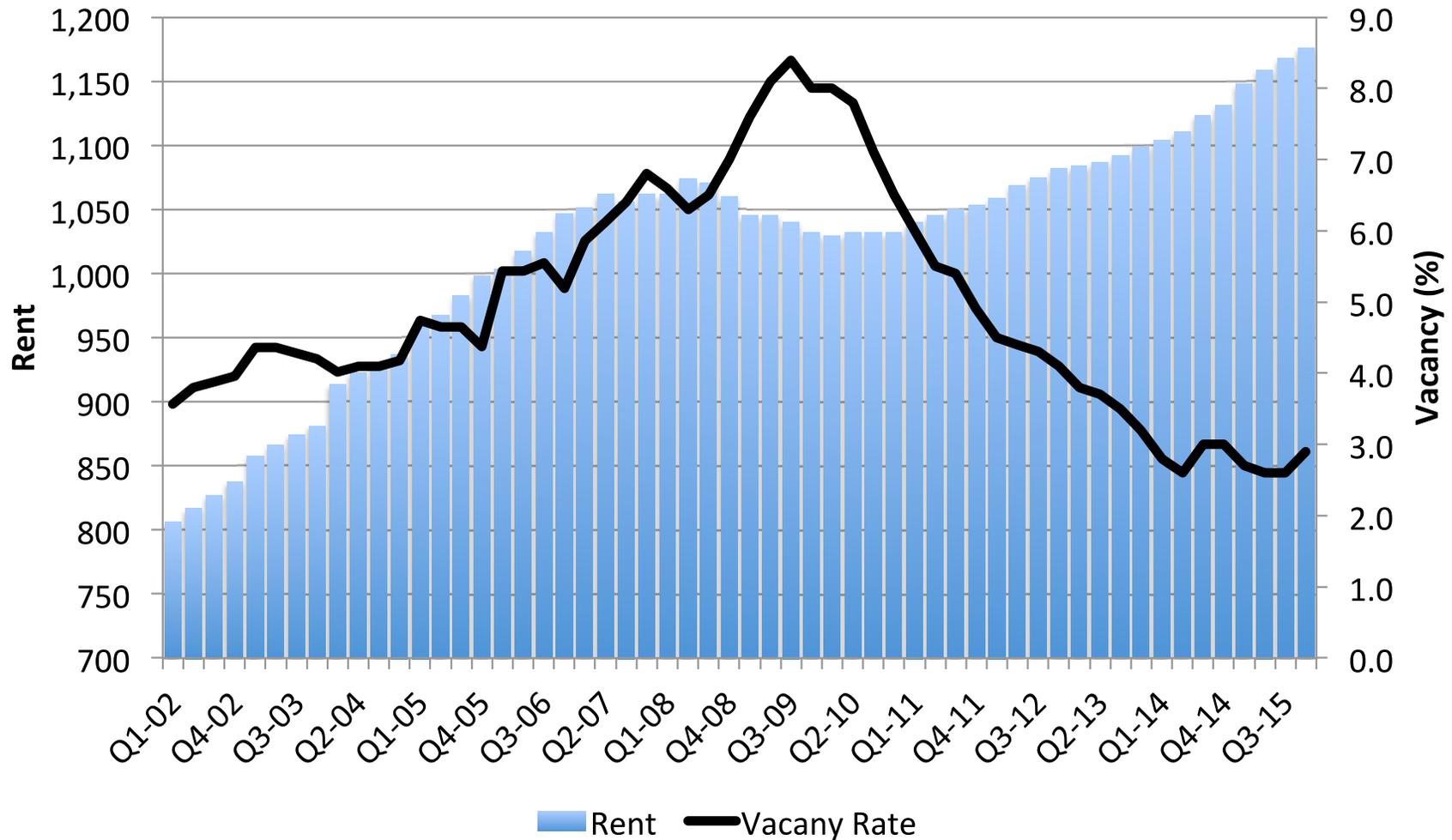
# Delinquent by State



	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



# Bubble? No...

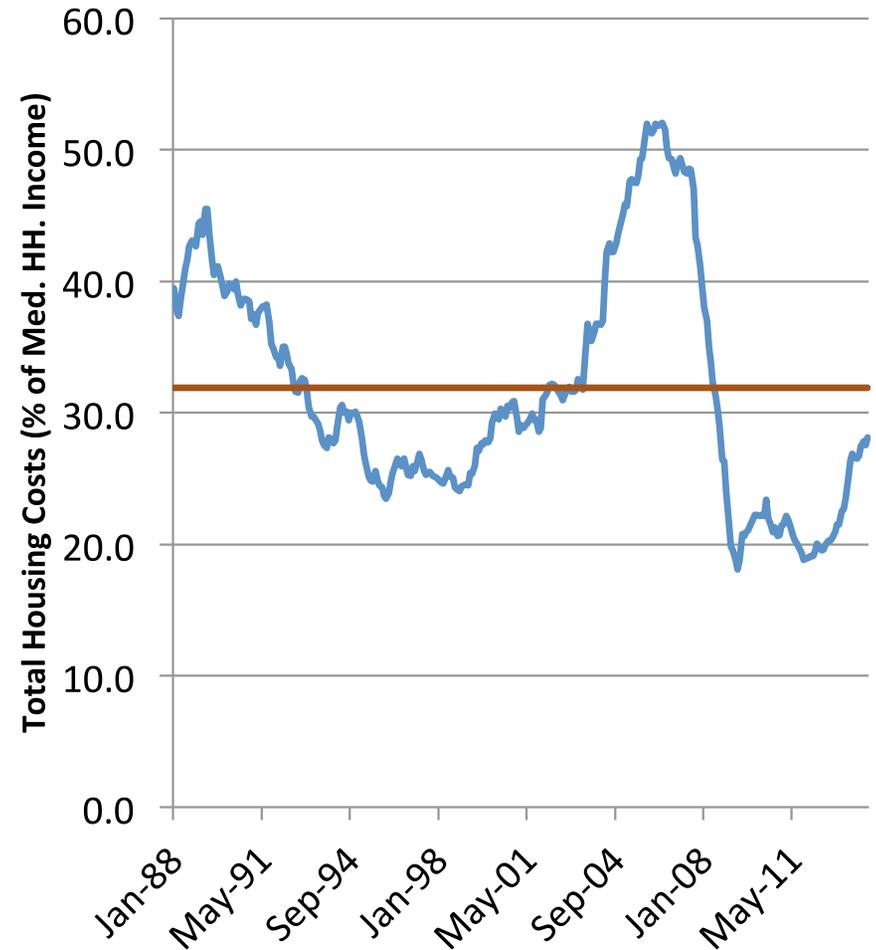
## % Over Crowded

Hawaii	8.6%
<b>California</b>	<b>8.2%</b>
Alaska	6.5%
New York	5.0%
Texas	4.8%
Arizona	4.5%
Nevada	4.2%
New Mexico	3.6%
District of Columbia	3.3%
Utah	3.3%
Oregon	3.3%
Washington	3.1%
Florida	3.0%

## % Vacant

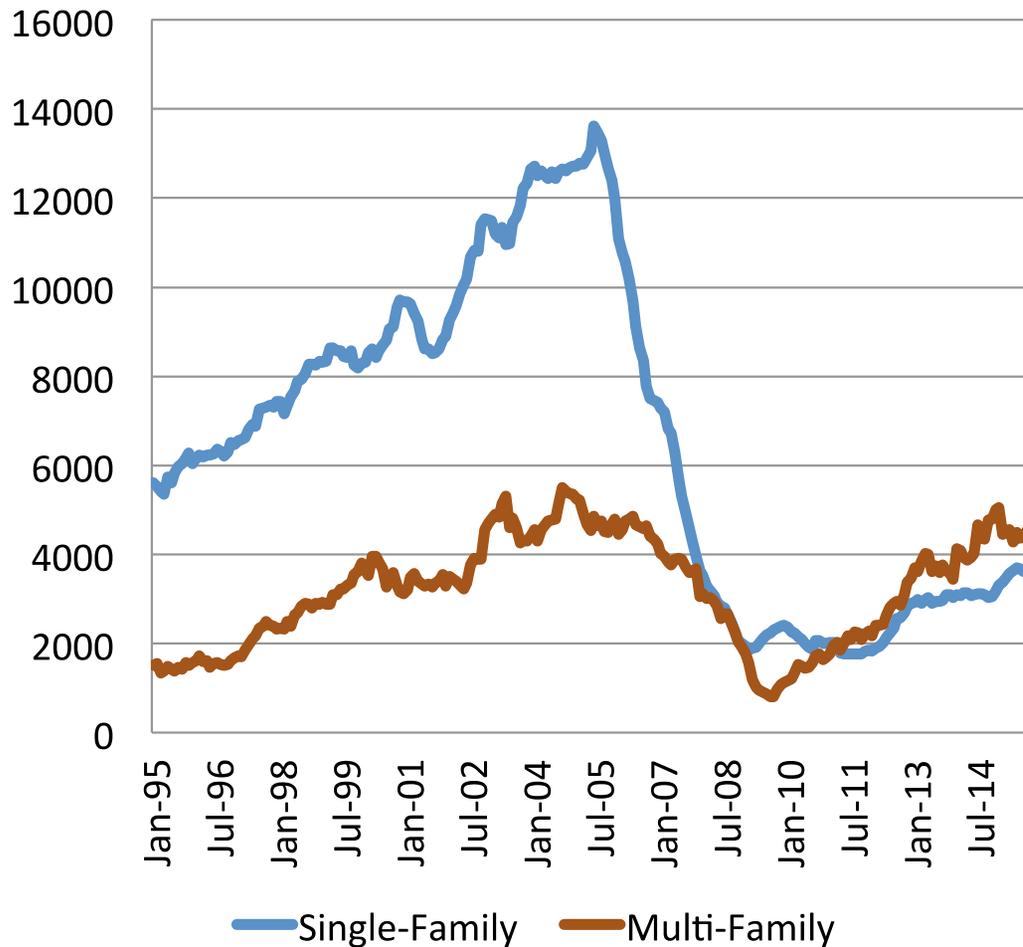
Utah	5.1%
Minnesota	5.2%
<b>California</b>	<b>5.3%</b>
Vermont	5.4%
Colorado	5.5%
Massachusetts	5.6%
New Hampshire	5.6%
Wisconsin	5.8%
Oregon	6.0%
Washington	6.4%
Idaho	6.4%
Delaware	6.9%
Maine	7.0%

## California Housing Affordability



# Pace of Construction

## California Permits



## 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
<b>San Bernardino</b>	<b>5.0</b>	Orange	2.8
Solano	4.6	Placer	2.1
<b>Riverside</b>	<b>4.5</b>	San Francisco	2.1
San Diego	4.2	Sacramento	0.7

# Why the Shortage?

CEQA Prop-13