The Economic Outlook

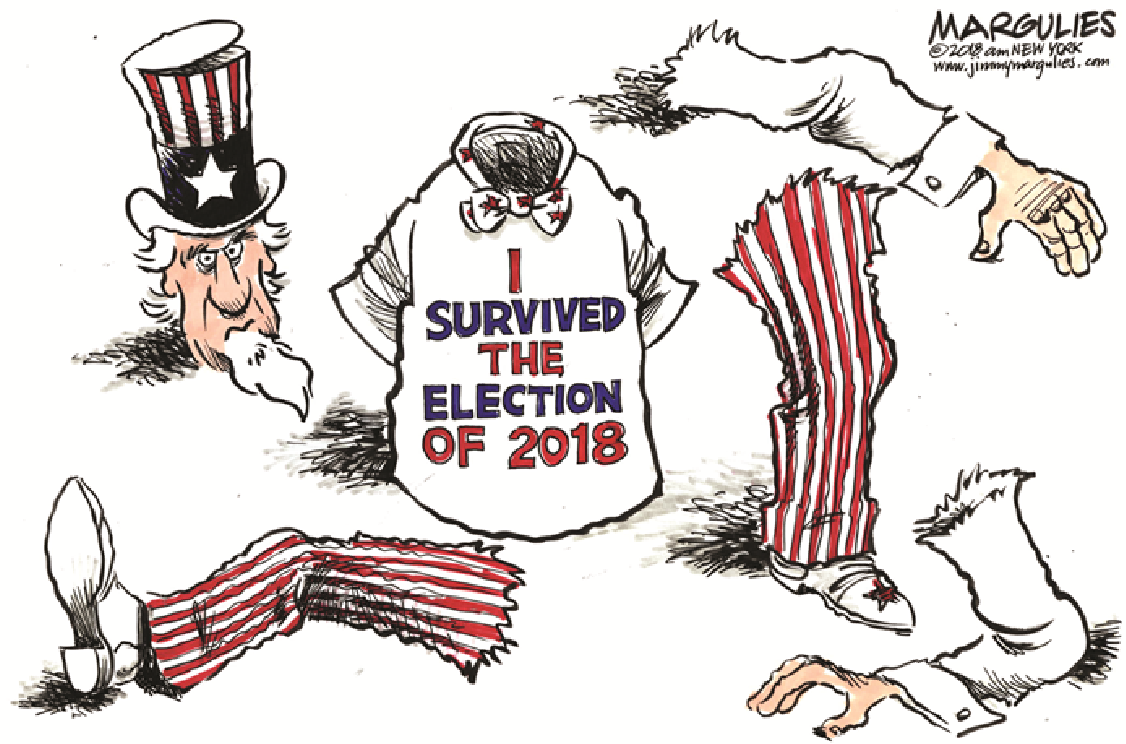
Here we go again…

Focus on Contra Costa County

January 2019

Christopher Thornberg, PhD
Founding Partner, Beacon Economics
Director, UCR SoBA Center for Economic Forecasting and Development

Thank goodness that is behind us…



And a stock market crash chaser…

Market plunge reveals growing investor pessimism in US economy

Dow falls 350 points, bringing decline for the wild week to more tha

U.S. Economy Will Slow in 2019, May Enter Recession in 2020, Economists Forecast. Trump Administration Disagrees

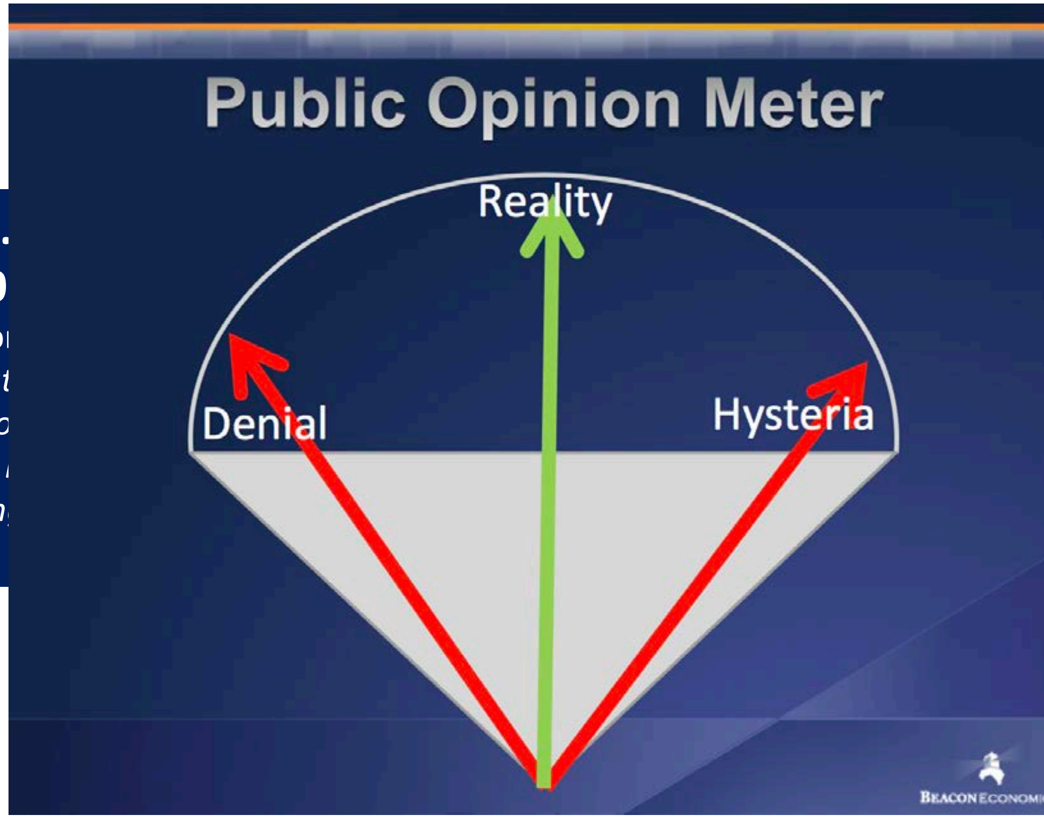
The US economy is strong. Three signs it won't last

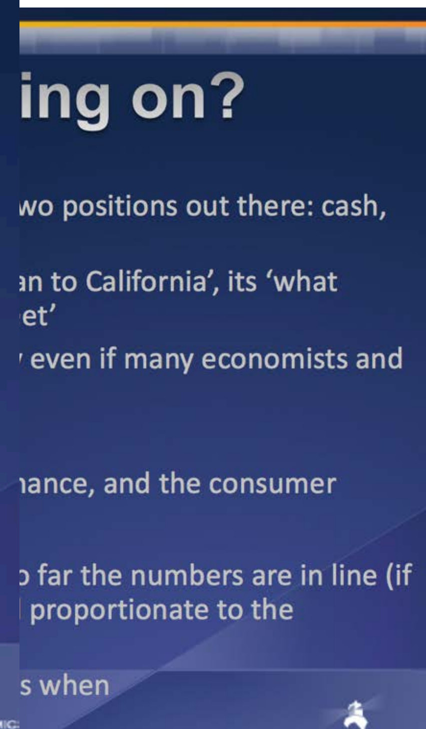
For the U.S. Economy, Storm Clouds on the Horizon

Treasury Market Flashing A Warning For U.S. Economy

A look back

NBER says U.S.
December 200
Mon Dec 1, 12:20 p
WASHINGTON (Reut
slipped into recessio
National Bureau of
business cycle datin
on Monday.

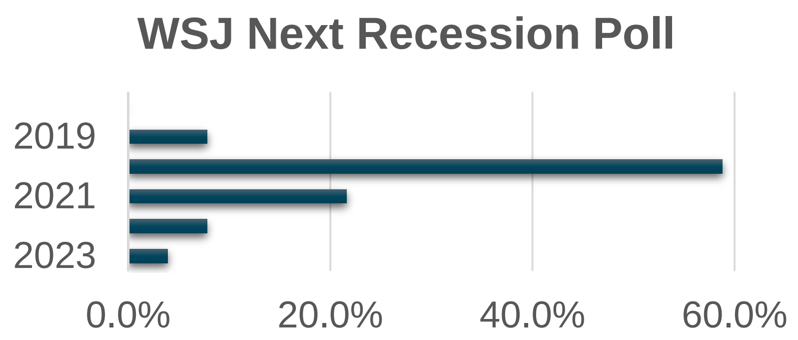



ing on?
wo positions out there: cash,
an to California', its 'what
et'
even if many economists and
ance, and the consumer
far the numbers are in line (if
proportionate to the
s when

Will the Real Economy Please Stand Up?

Why so glum?

- 2018 Growth: 3.2% with .75% fiscal stimulus after-burner
- Labor markets, consumer spending, business investment, wages, exports, energy, debt levels still all on steady sustainable paths
- Interest rates, inflation still constrained
- 2019: back to a solid pace of 2.5% growth
- Still a low chance of recession in next 24 months`
- California: Still out in front



It isn't the 'when', it's the 'why'

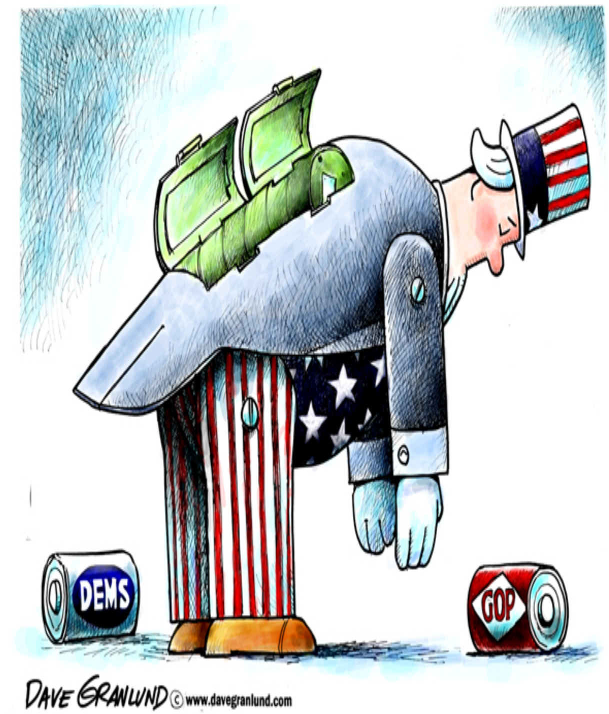
Will the Real Economy Please Stand Up?

Brakes and Imbalances

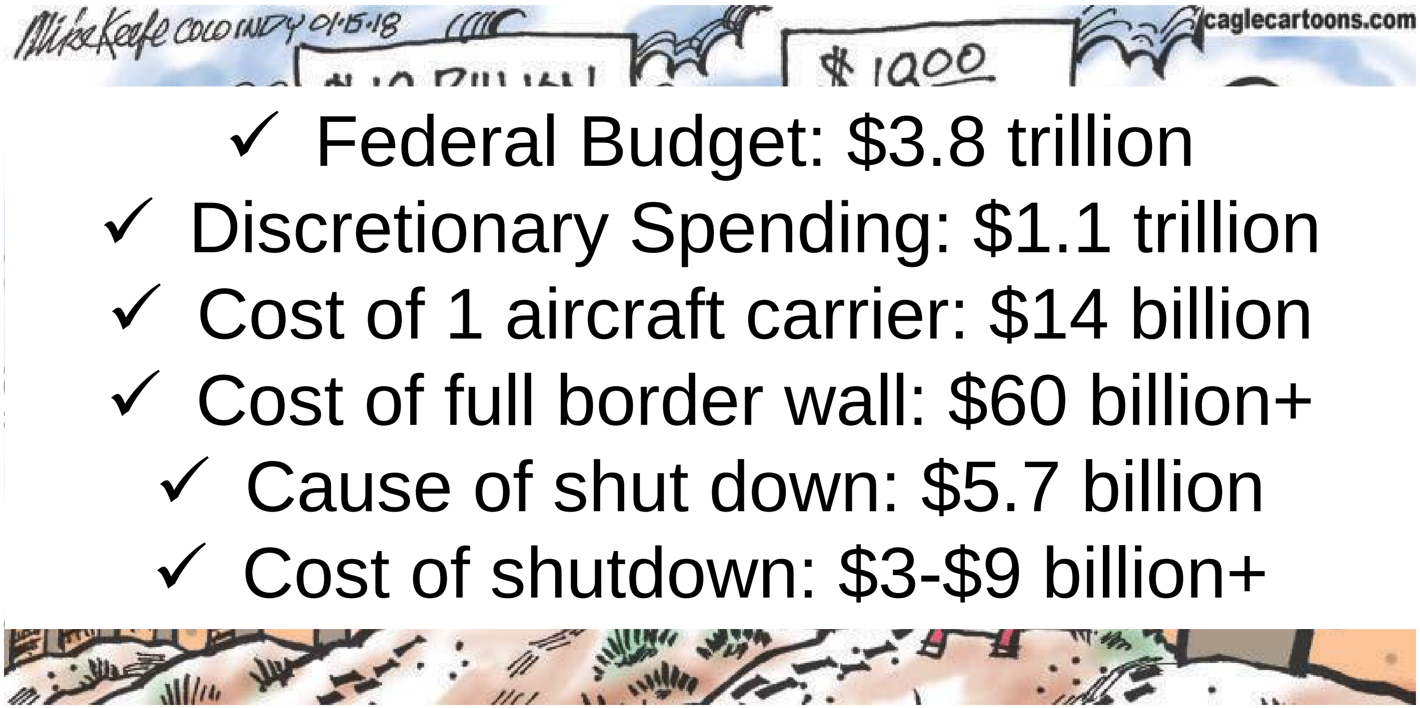
- Labor shortages impacting employers
- Local Housing Shortages
- Recent market volatility / rising long term rates
- Aggressive Fed, flattening yield curves
- Sharp growth in government deficits
- The Federal government shutdown
- Global trade / security worries

Political Dysfunction

- Little effort to deal with underinvestment in infrastructure, rising wealth inequality, healthcare cost inflation, pension and entitlement issues, etc etc etc
- The great disconnect between economic realities and political discourse



A Wall Problem

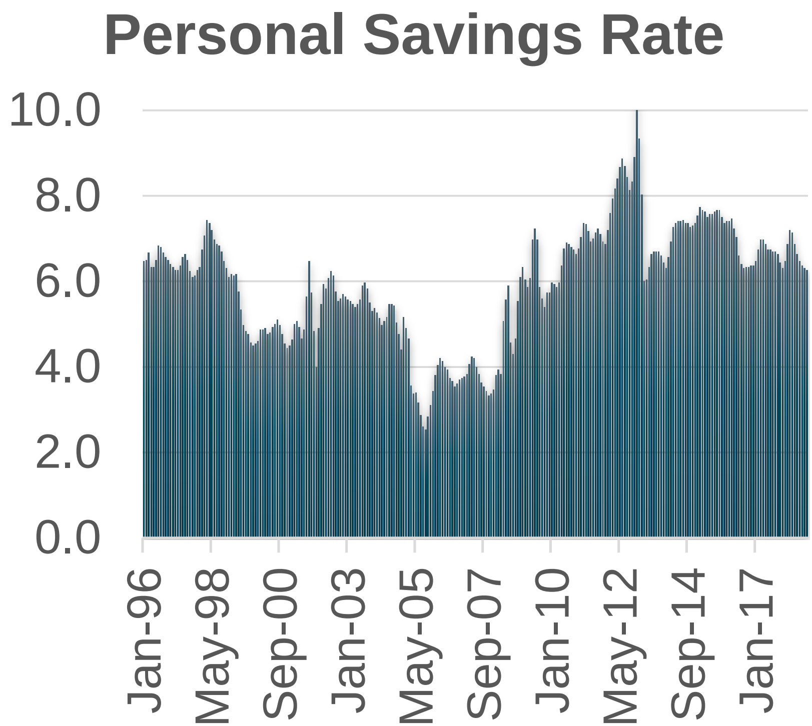


- ✓ Federal Budget: $3.8 trillion
- ✓ Discretionary Spending: $1.1 trillion
- ✓ Cost of 1 aircraft carrier: $14 billion
- ✓ Cost of full border wall: $60 billion+
- ✓ Cause of shut down: $5.7 billion
- ✓ Cost of shutdown: $3-$9 billion+

GDP: Q3 3.5%, Q4 tracking 2.7%

	2016	2017	Q2	Q3
GDP	1.88	2.48	4.20	3.50
Final Demand				
Consumption	**1.87**	**1.83**	**2.57**	**2.69**
Goods	0.75	0.96	1.16	1.20
Services	1.11	0.87	1.42	1.49
Fixed investment	**0.39**	**0.95**	**1.10**	**-0.04**
Structures	0.07	0.08	0.43	-0.26
Equipment	-0.08	0.54	0.27	0.03
Intellectual prop	0.24	0.18	0.45	0.35
Residential	0.16	0.15	-0.05	-0.16
Change inventories	**-0.20**	**-0.11**	**-1.17**	**2.07**
Net exports	**-0.34**	**-0.23**	**1.22**	**-1.78**
Exports	0.09	0.56	1.12	-0.45
Imports	-0.43	-0.79	0.10	-1.34
Government	**0.16**	**0.03**	**0.43**	**0.56**
Federal	0.02	0.09	0.24	0.21
State and local	0.15	-0.06	0.20	0.35

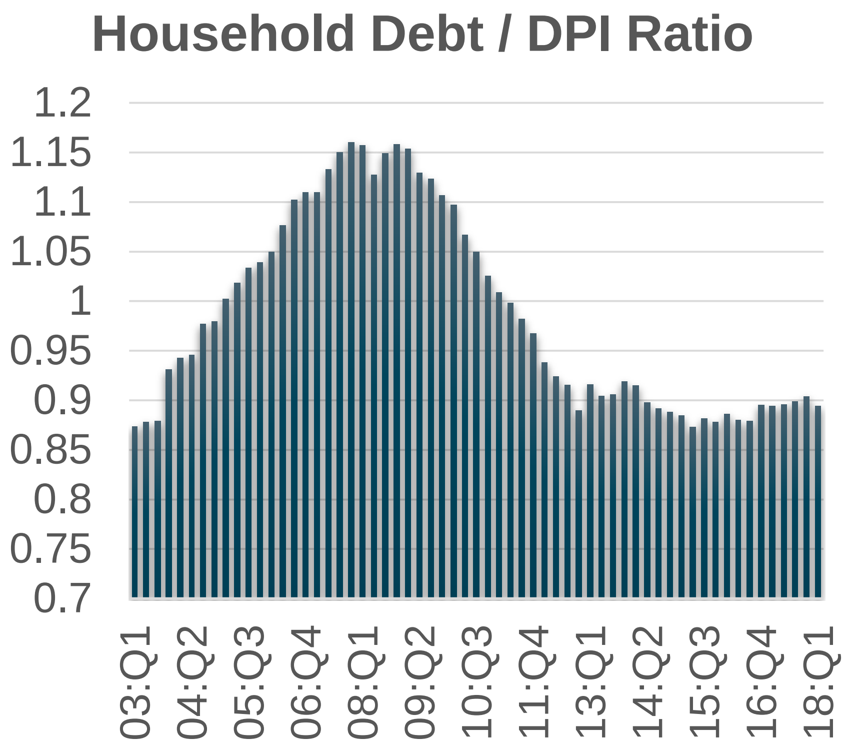
Consumer Spending

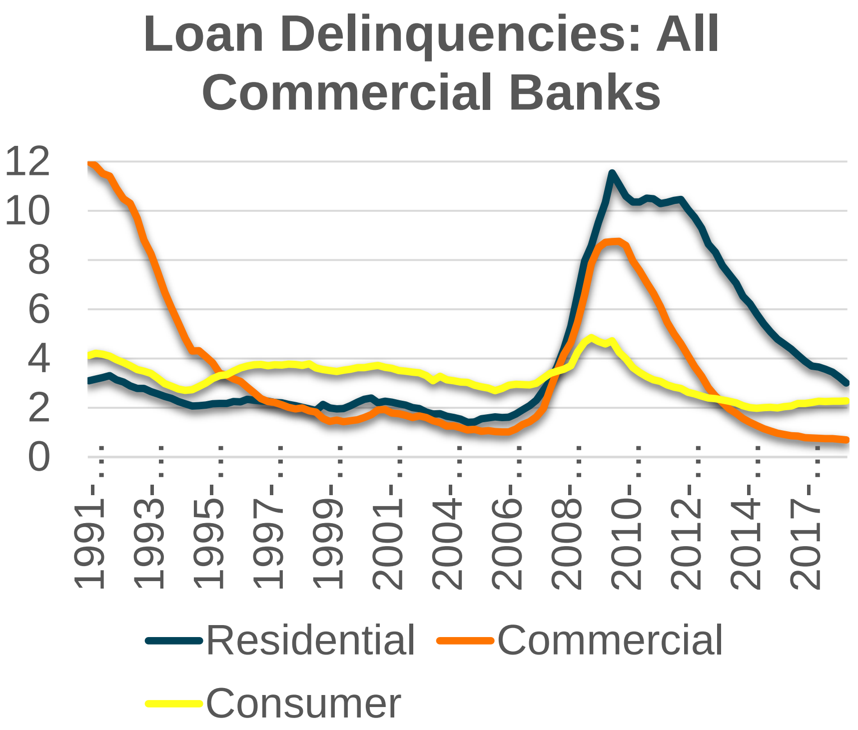


Autos?

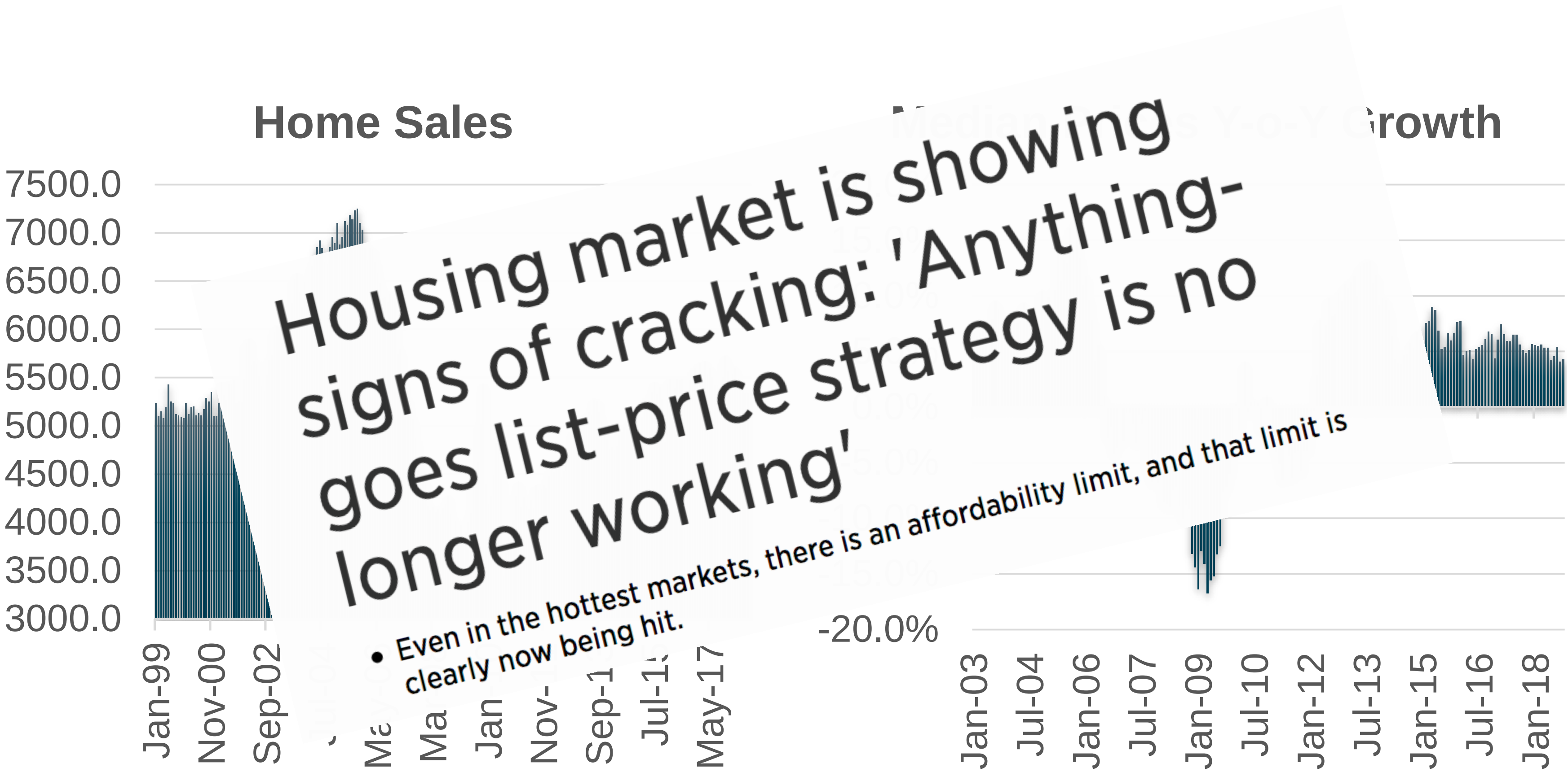

US Auto Light Truck Sales
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
Jan-03
May-04
Jan-15
May-16
Sep-17
GM to slash up to 14,000 jobs in North America; 7 plants could close as part of restructuring
PHOTO GALLERY
40
Jan-03
May-04
Sep-05
Jan-07
May-08
Sep-09
Jan-11
May-12
Sep-13
Jan-15
May-16
Sep-17

Consumer Debt Loads

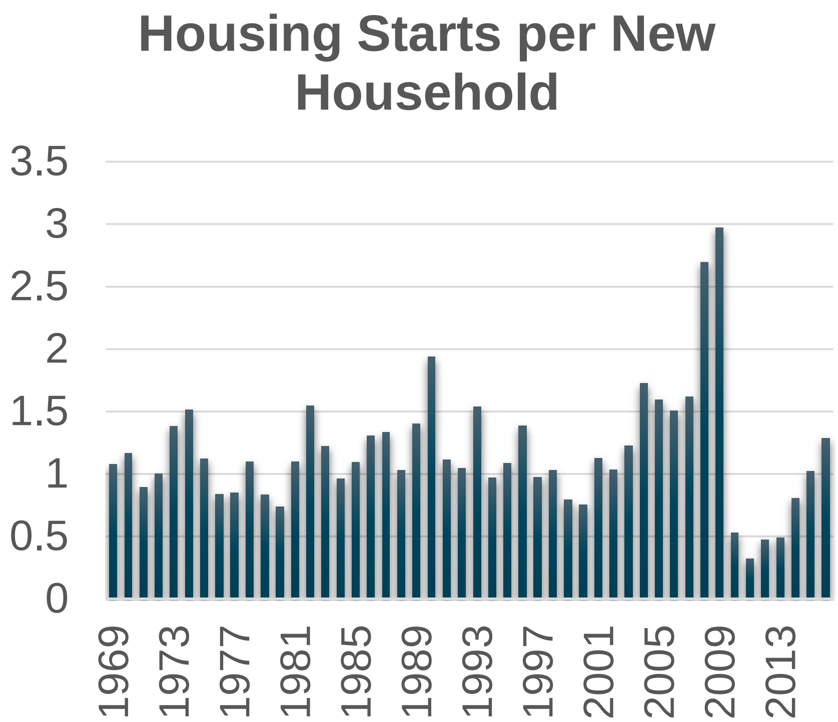


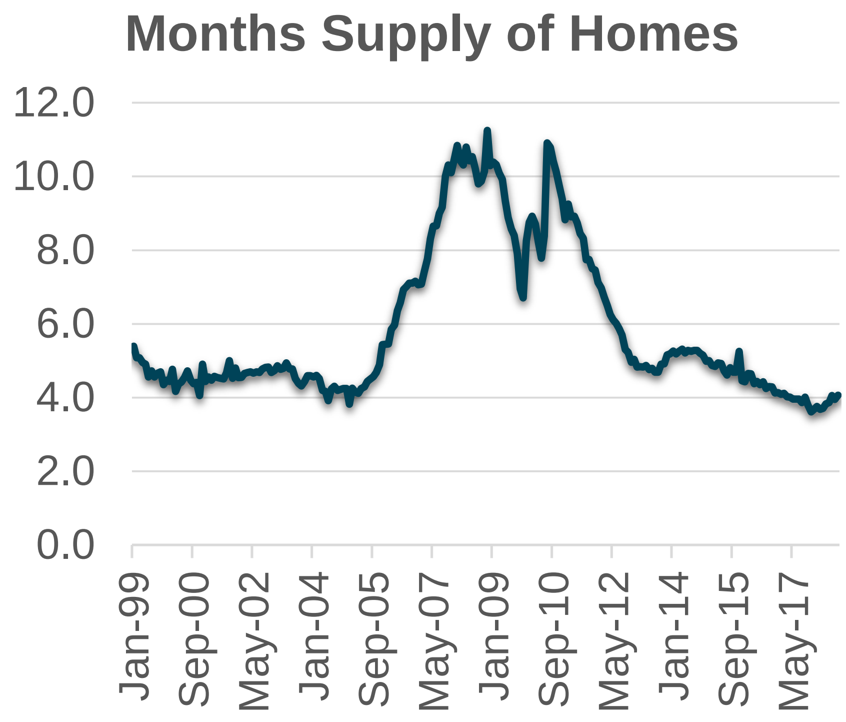


Housing Markets: Slight Slowing

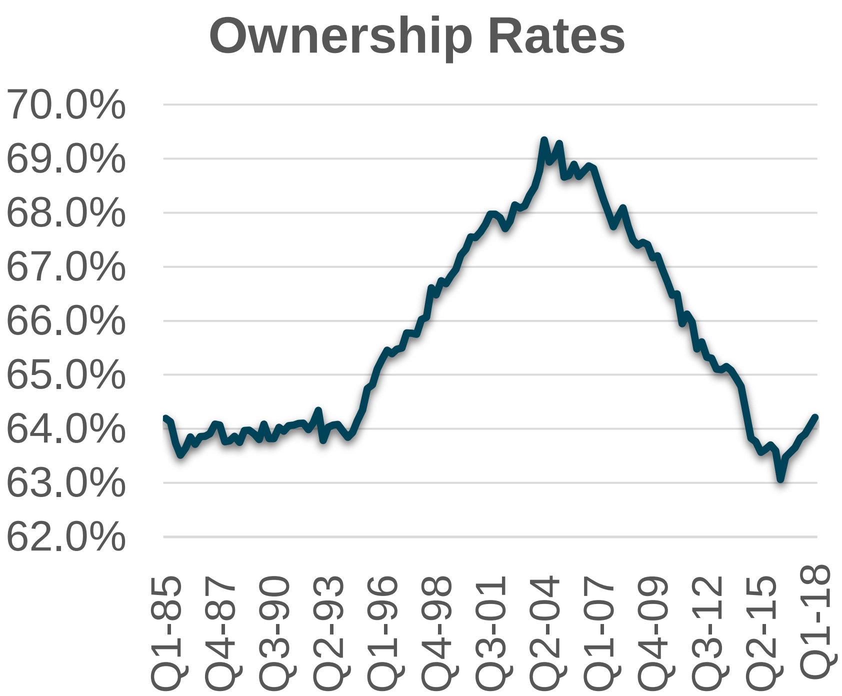


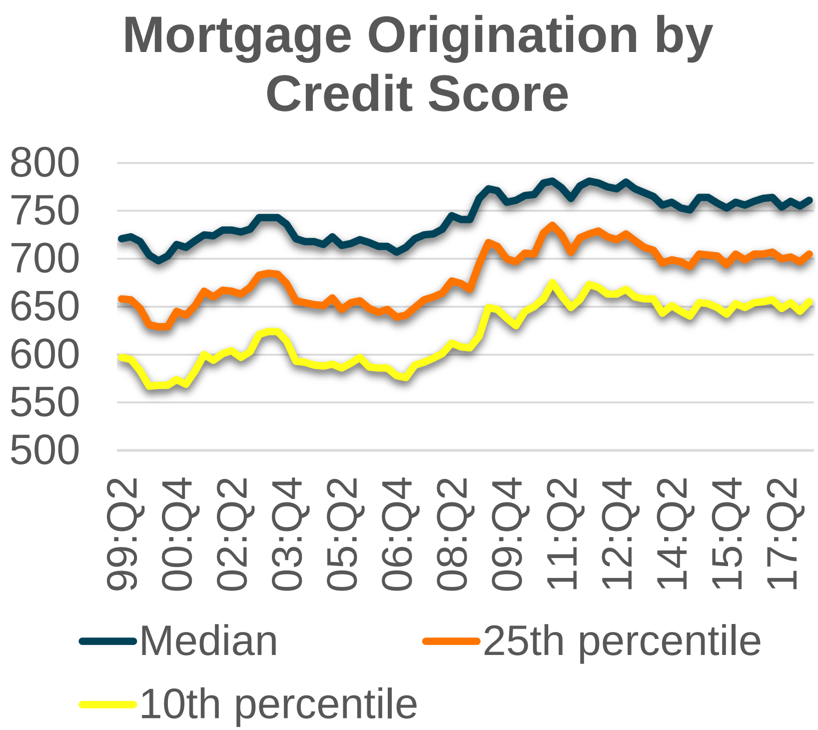
Home Prices / Inventories





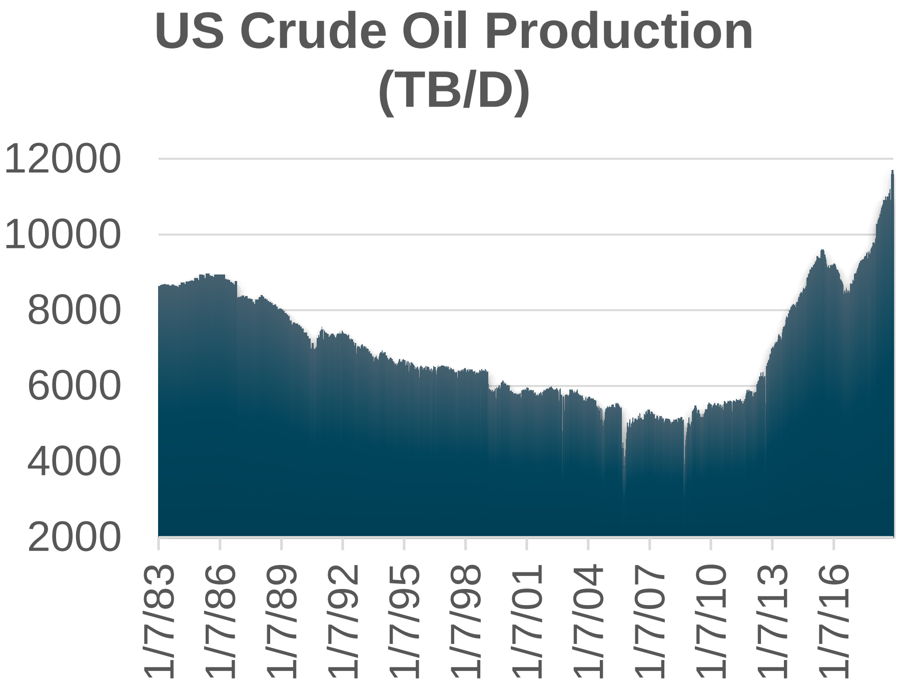
Ownership and Credit Availability

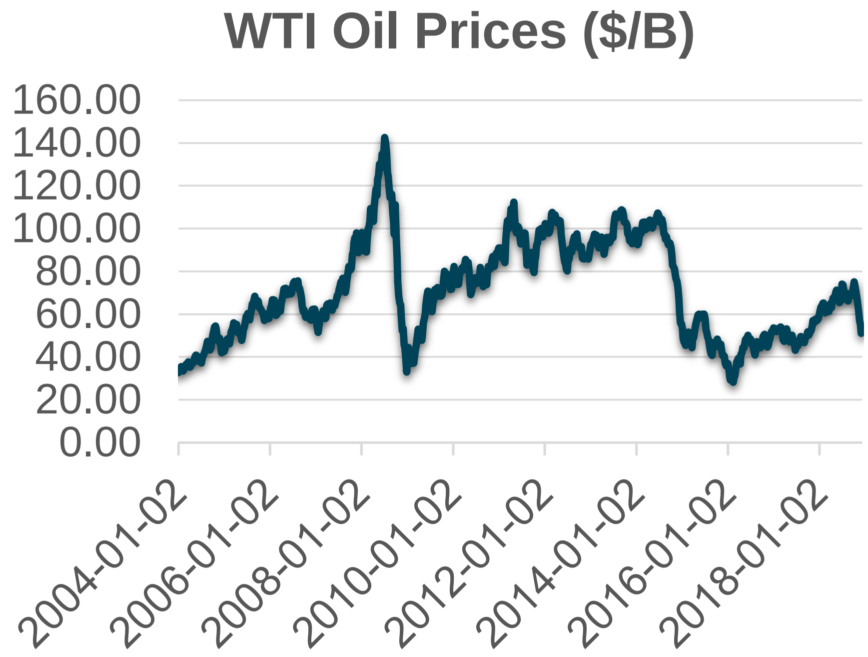




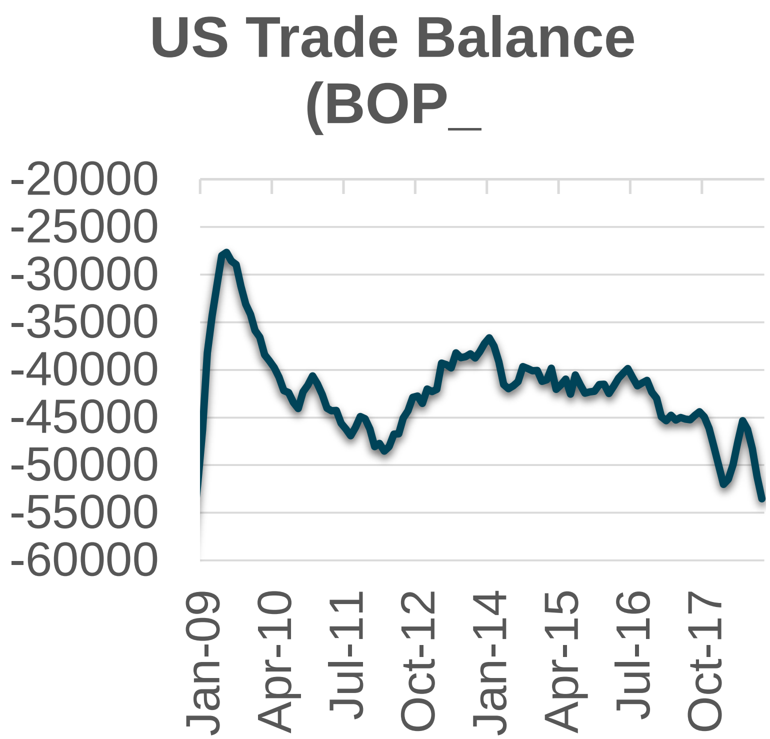
Industrial Production

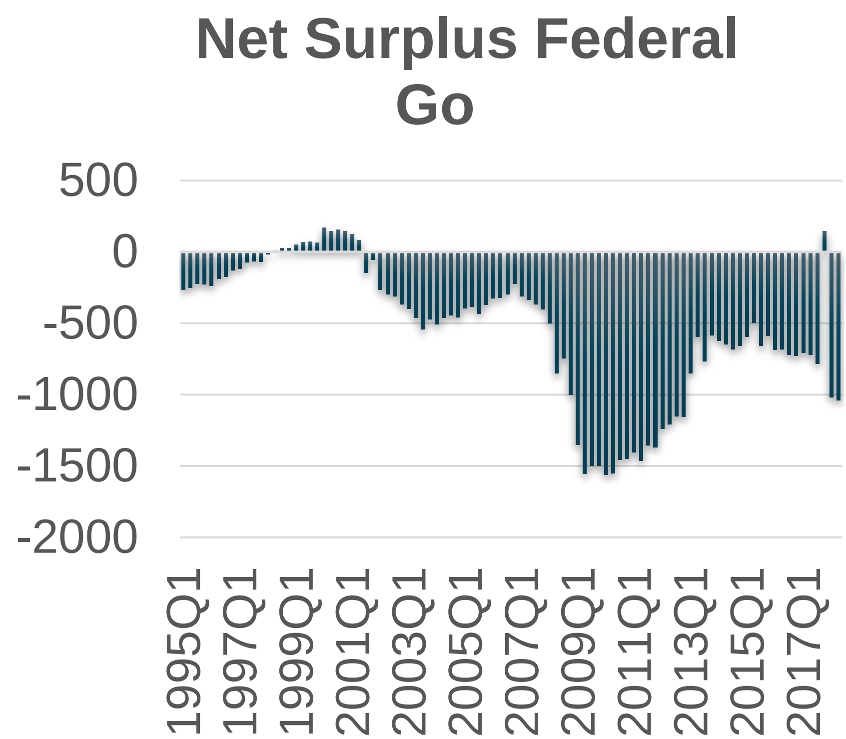
Oil Production / Prices





Twin Deficits





Trump Just Ripped Up Nafta. Here's What's in the New Deal.

Changes for automakers, dairy farmers, labor unions and large corporations headline the renegotiated U.S.M.C.A., which is poised to replace Nafta.

The China Syndrome

Value US Exports to China as % of GDP:

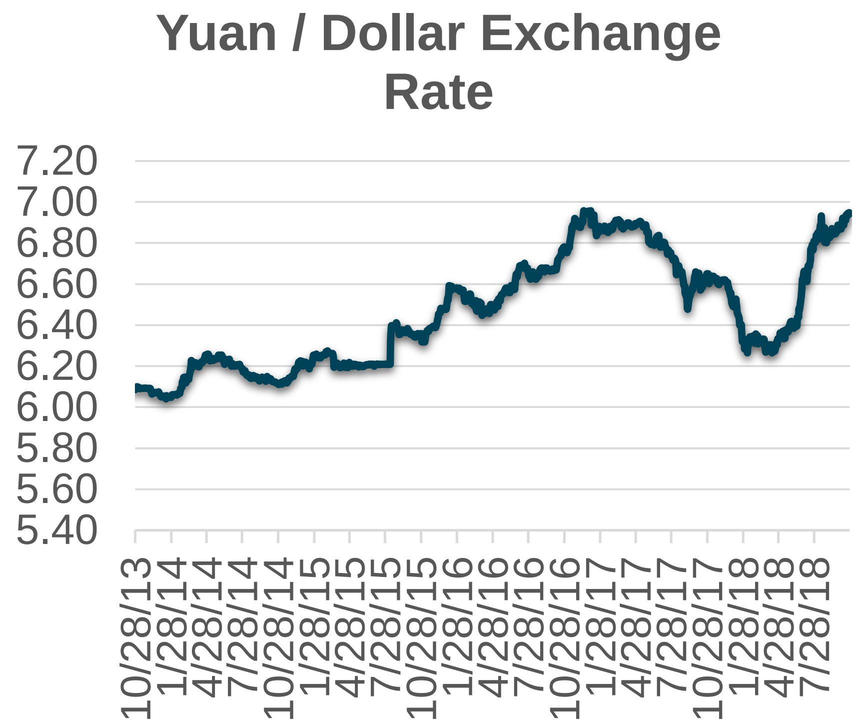
0.75%

Country	Exports		Imports	
Total,	829.8		1233.9	
China	64.0	7.7%	249.7	20.2%
Can				13.0%
Mex				13.7%
Japa				5.7%
Ger				5.0%
Unit				2.4%
Kore				2.9%
France	18.1	2.2%	25.7	2.1%
India	15.5	1.9%	26.8	2.2%
Italy	11.9	1.4%	26.8	2.2%
Taiwan	13.6	1.6%	21.6	1.8%
Netherlands	24.2	2.9%	10.7	0.9%

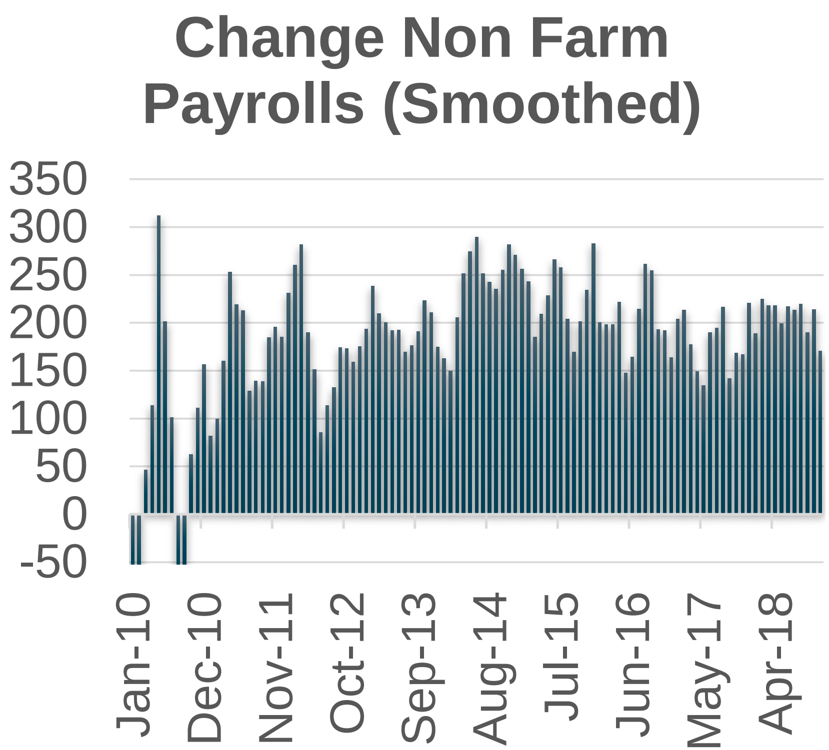
Value China Exports to US as % of GDP:

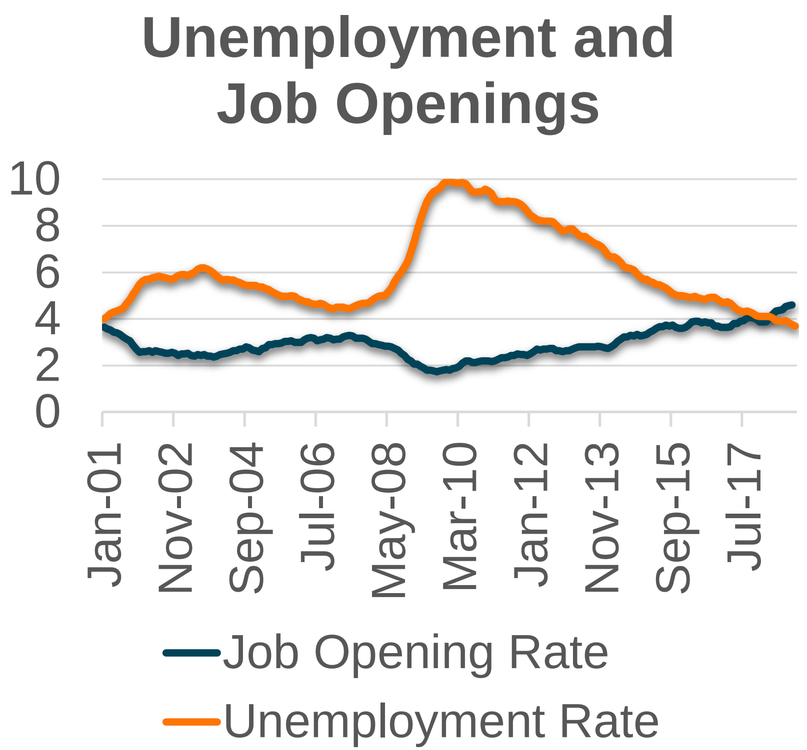
4.0%

The Yuan response

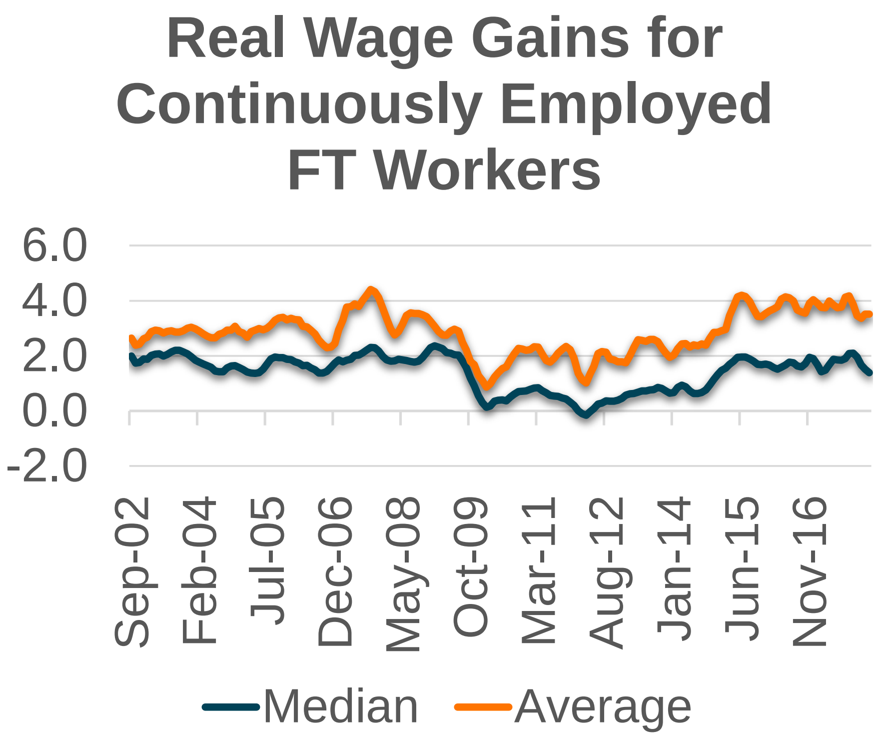


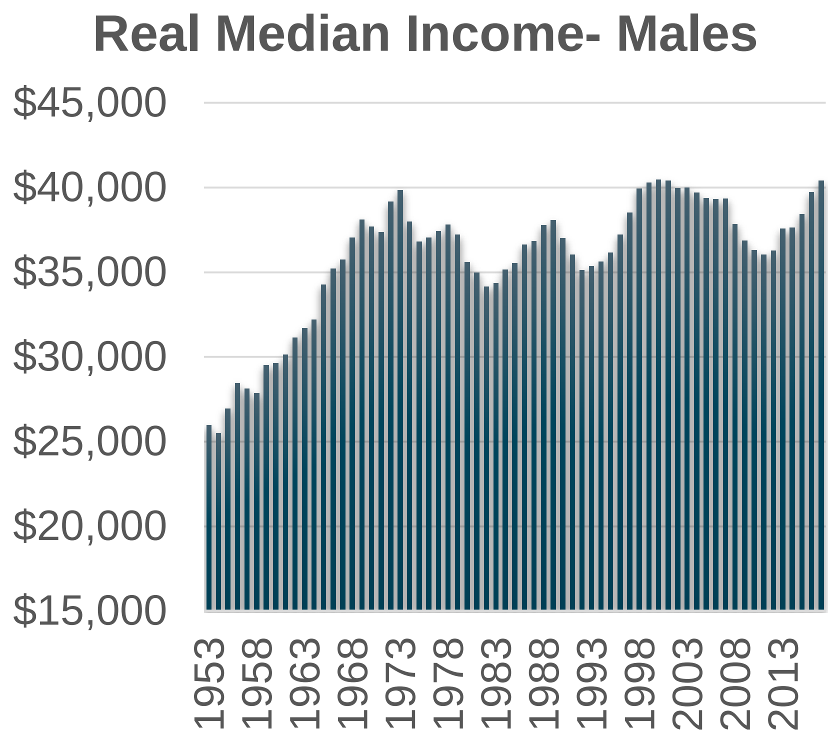
Labor Markets



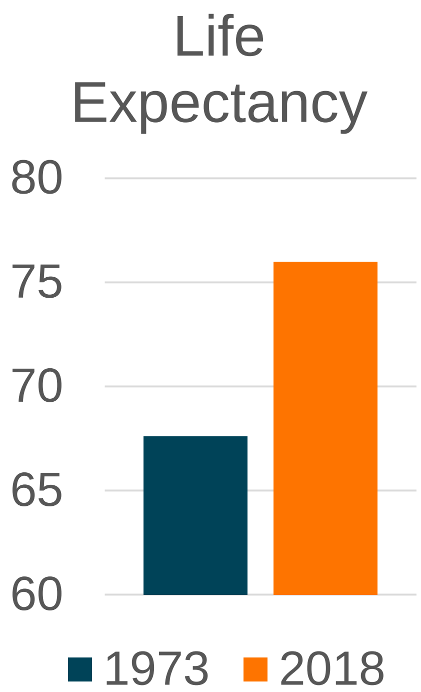


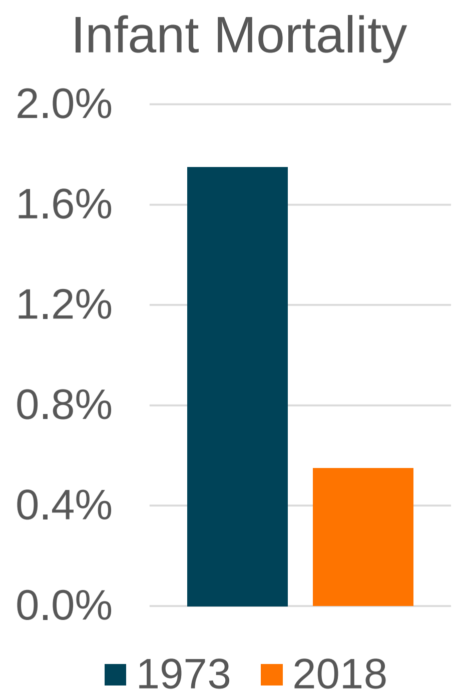
Consequences

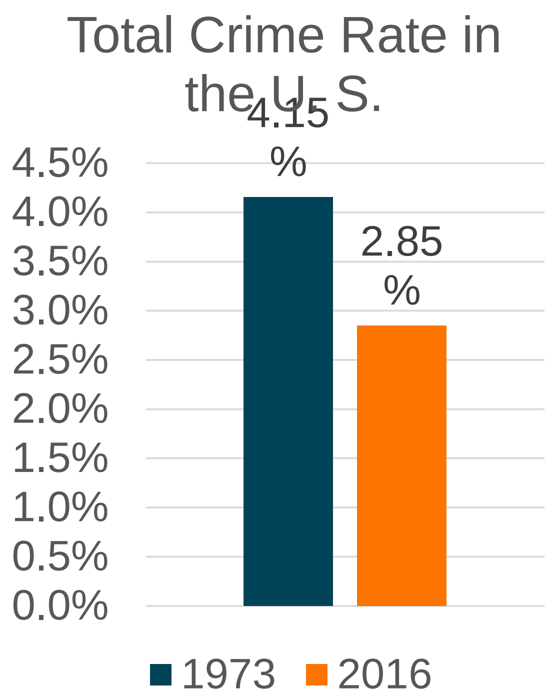




Quality of Life

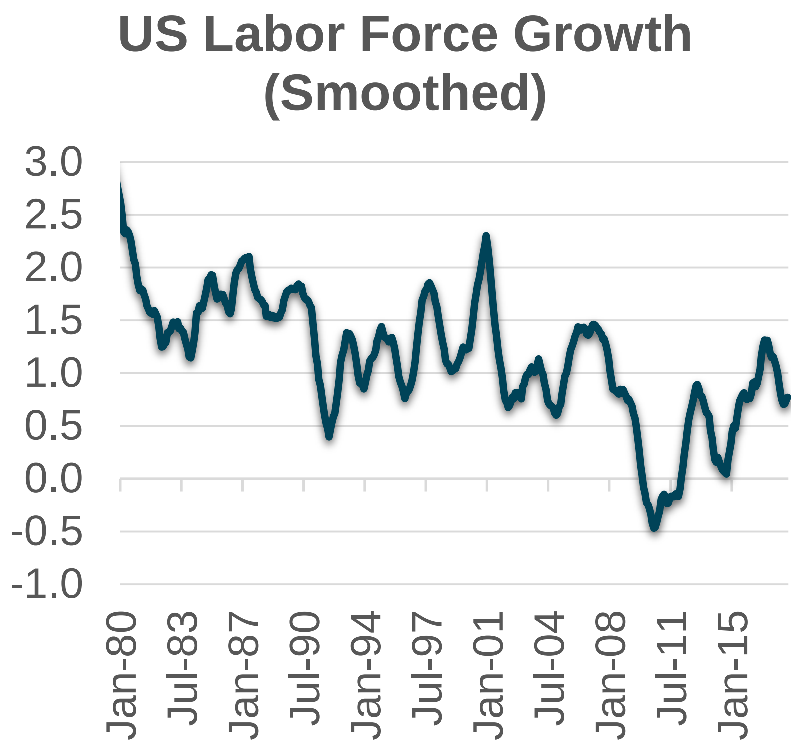


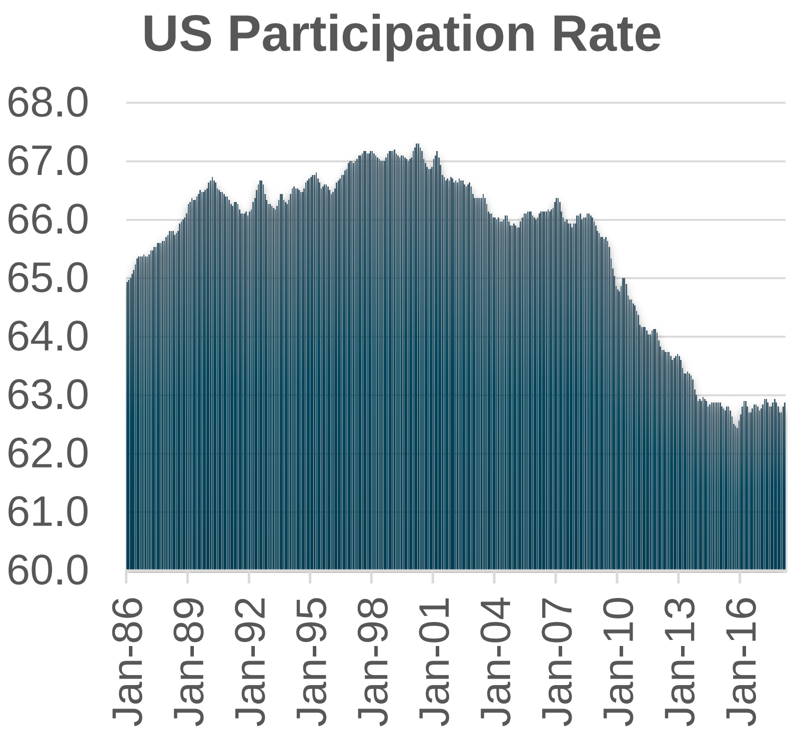




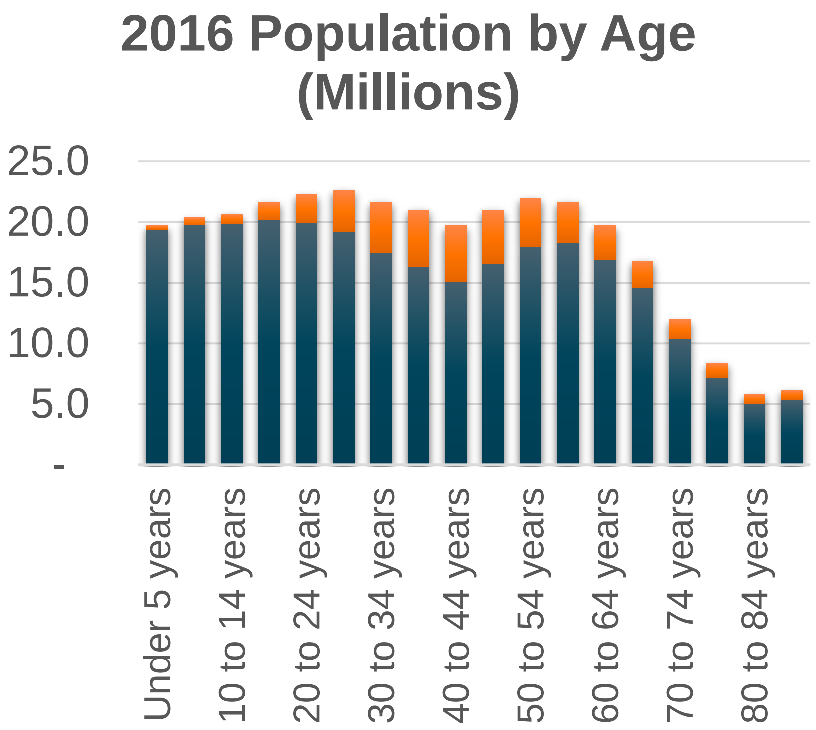
Quality of Life

Workforce Growth





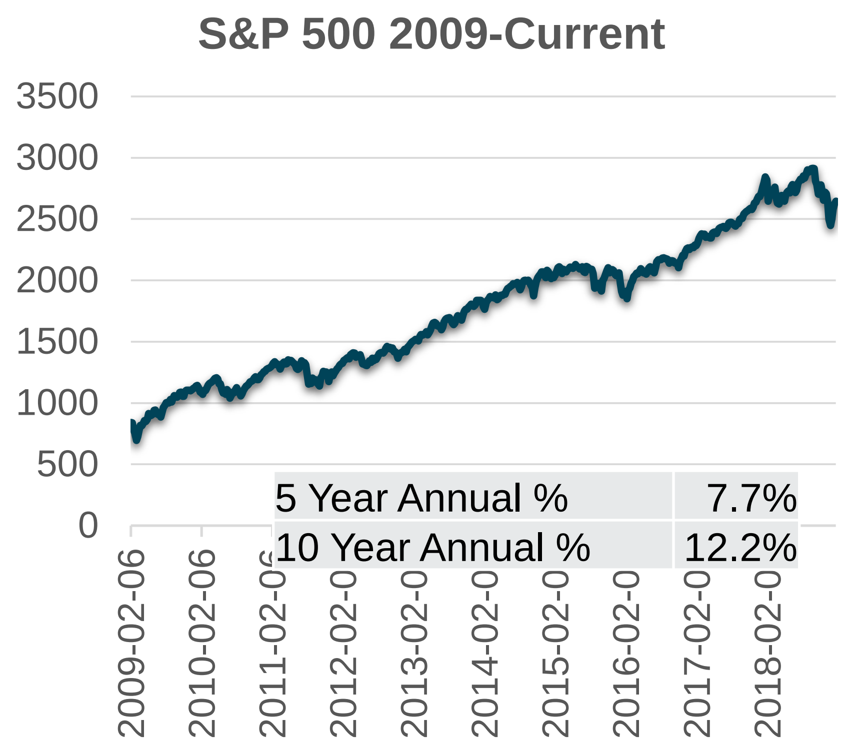
Looking Ahead



US Population Forecast

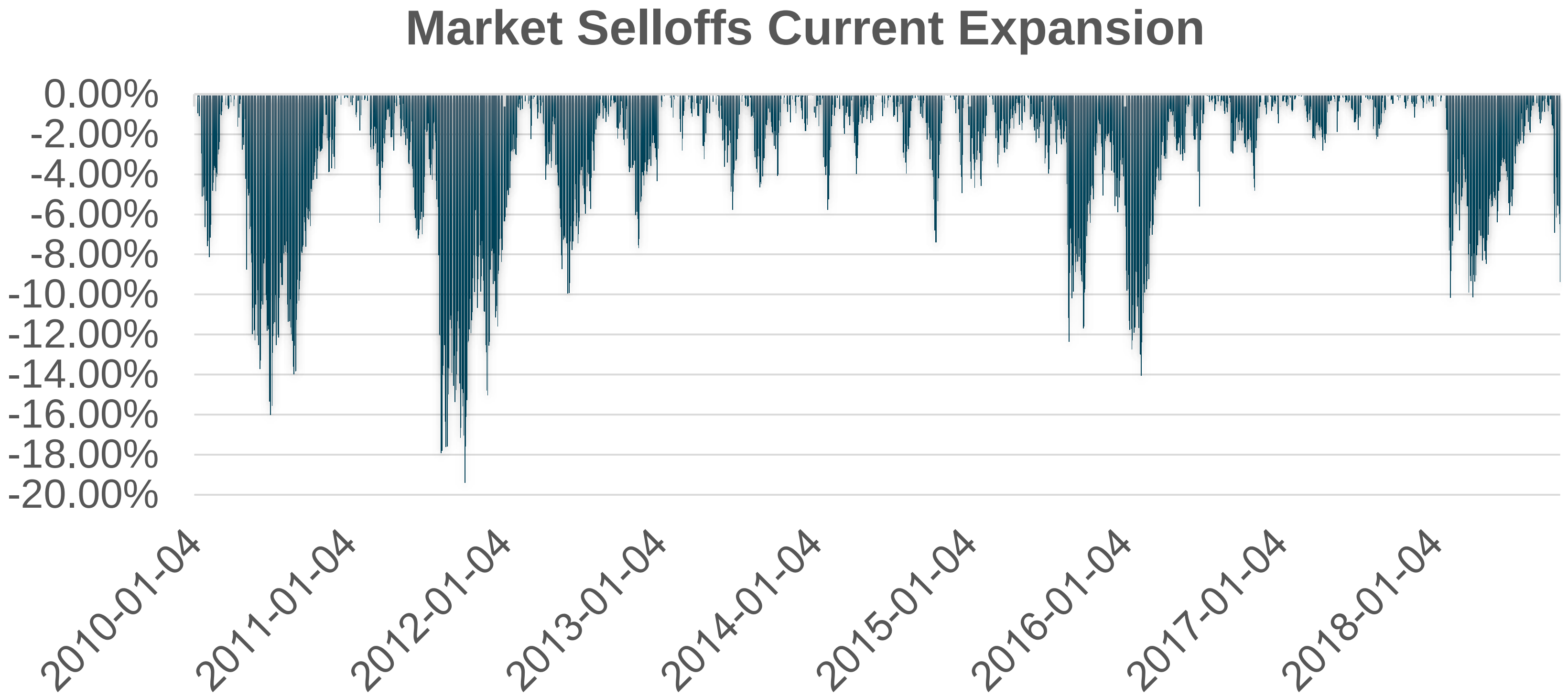
	0-24	25-64	65+
Current	104.5	169.4	49.2
2016-26	0.9	4.7	17.8
2026-36	2.0	6.2	11.9
2036-46	2.3	9.4	4.8
Total	5.3	20.3	34.5

The Markets



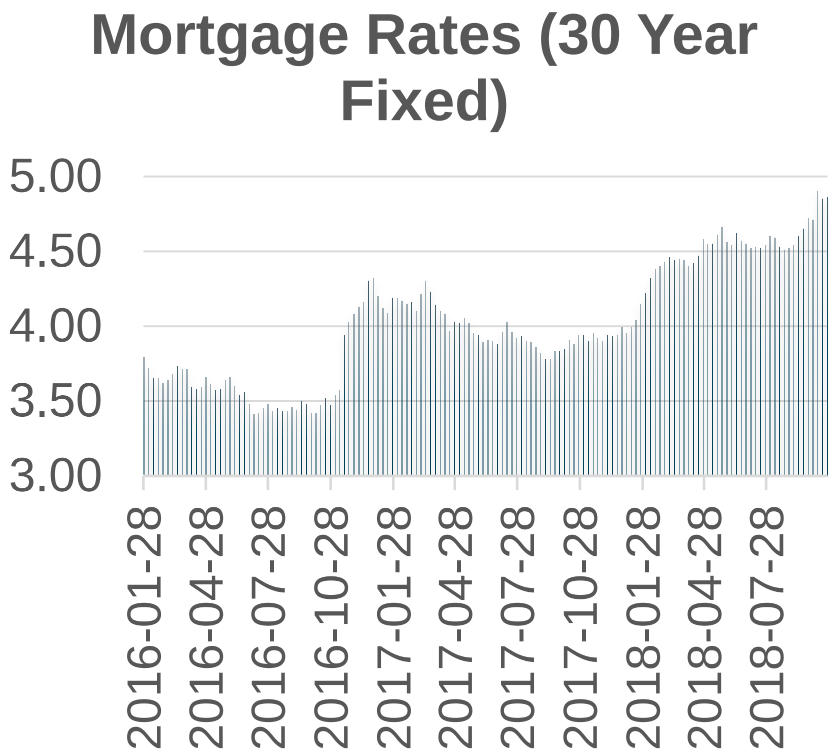
5 Year Annual %	7.7%
10 Year Annual %	12.2%

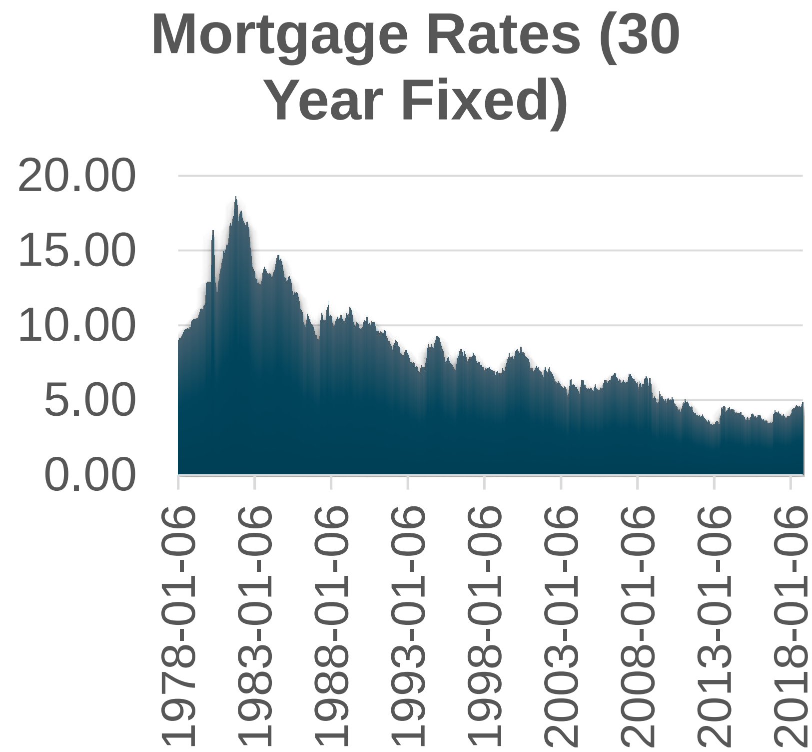
The Markets



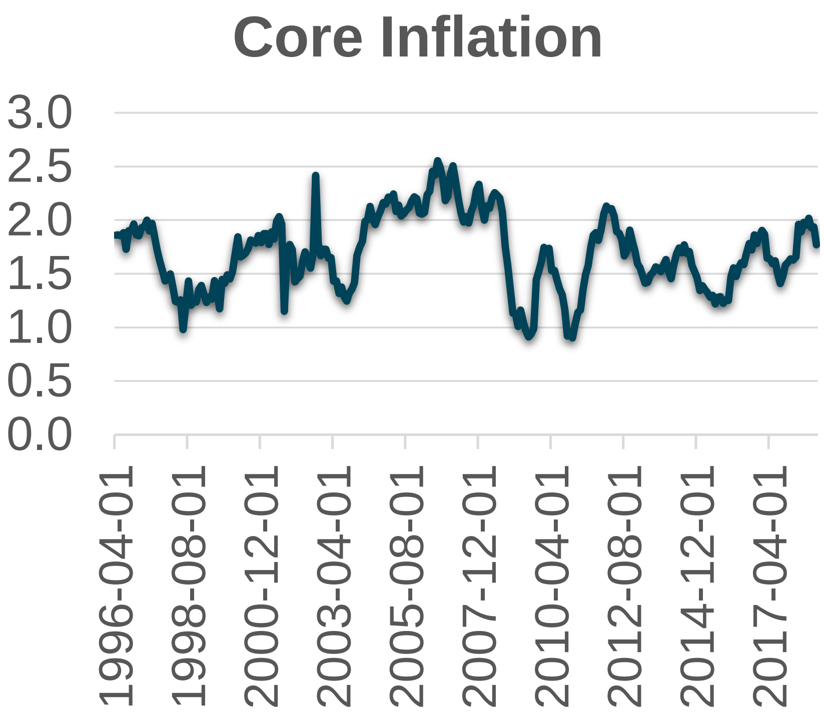
Market Selloffs Current Expansion
0.00%
-2.00%
-4.00%
-6.00%
-8.00%
-10.00%
-12.00%
-14.00%
-16.00%
-18.00%
-20.00%
2010-01-04
2011-01-04
2012-01-04
2013-01-04
2014-01-04
2015-01-04
2016-01-04
2017-01-04
2018-01-04

A Rising Rate Trigger?

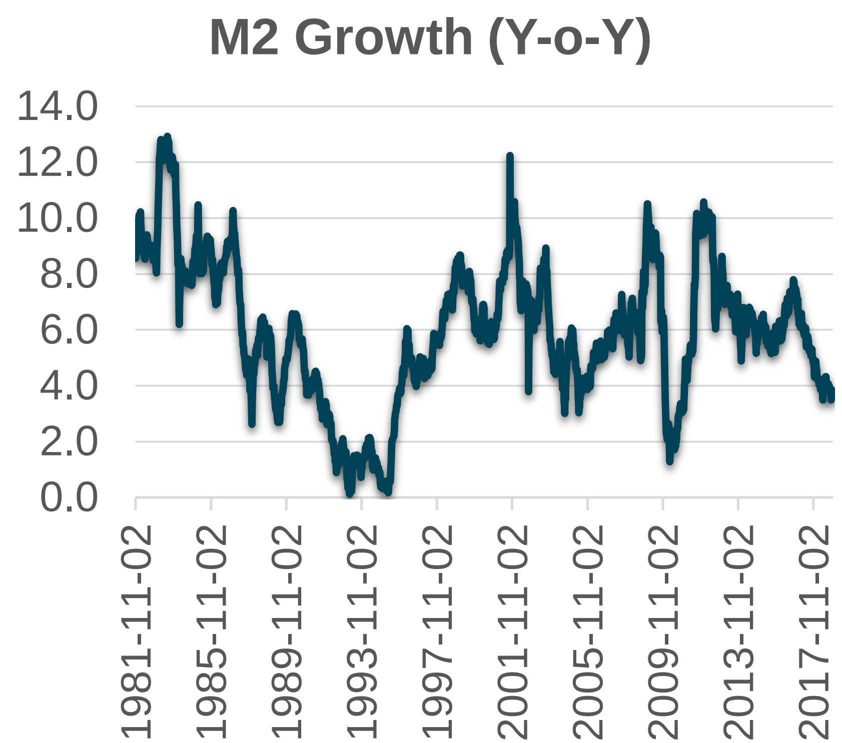




Inflation?

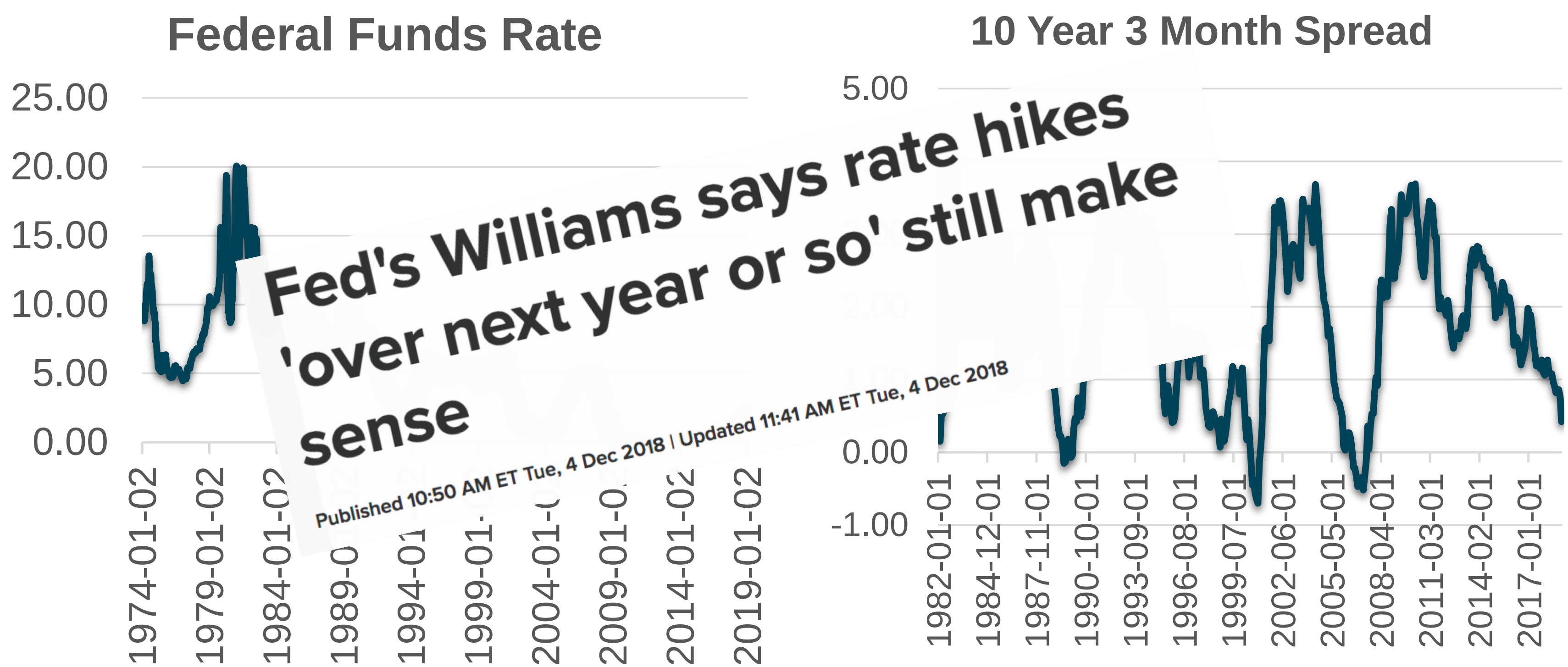


Core Inflation
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1996-04-01
1998-08-01
2000-12-01
2003-04-01
2005-08-01
2007-12-01
2010-04-01
2012-08-01
2014-12-01
2017-04-01



M2 Growth (Y-o-Y)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1981-11-02
1985-11-02
1989-11-02
1993-11-02
1997-11-02
2001-11-02
2005-11-02
2009-11-02
2013-11-02
2017-11-02

Federal Reserve Policy: Normalization?



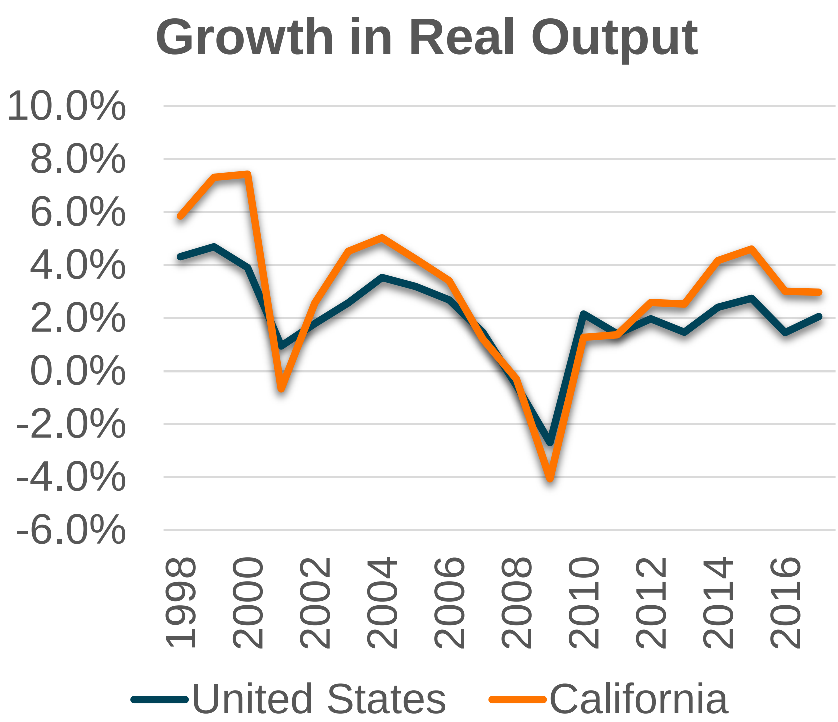
California fact versus fiction

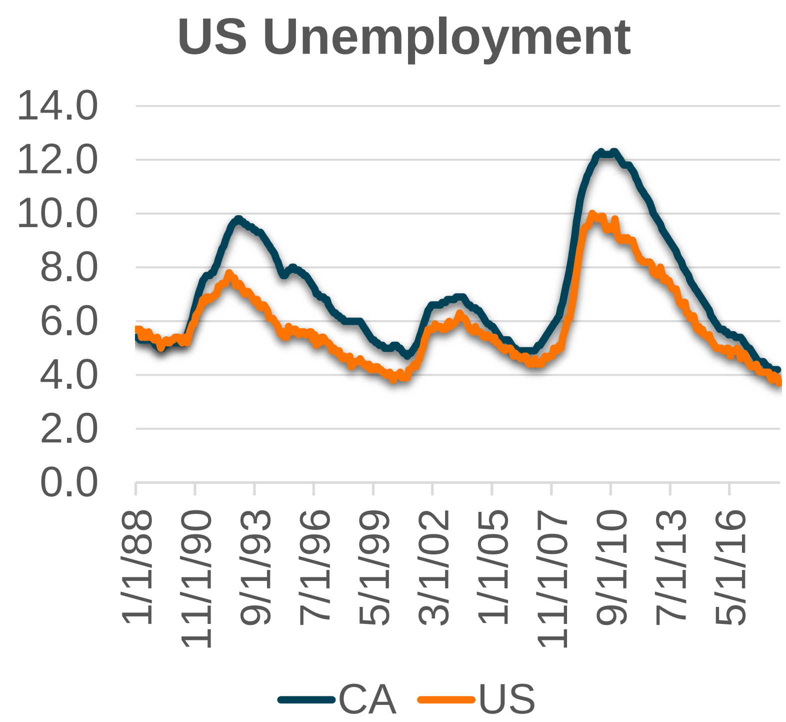
Chief Executive NETWORK | CONTINUOUS IMPROVEMENT FOR YOU - THE CEO

2016 Best & Worst States For Business

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

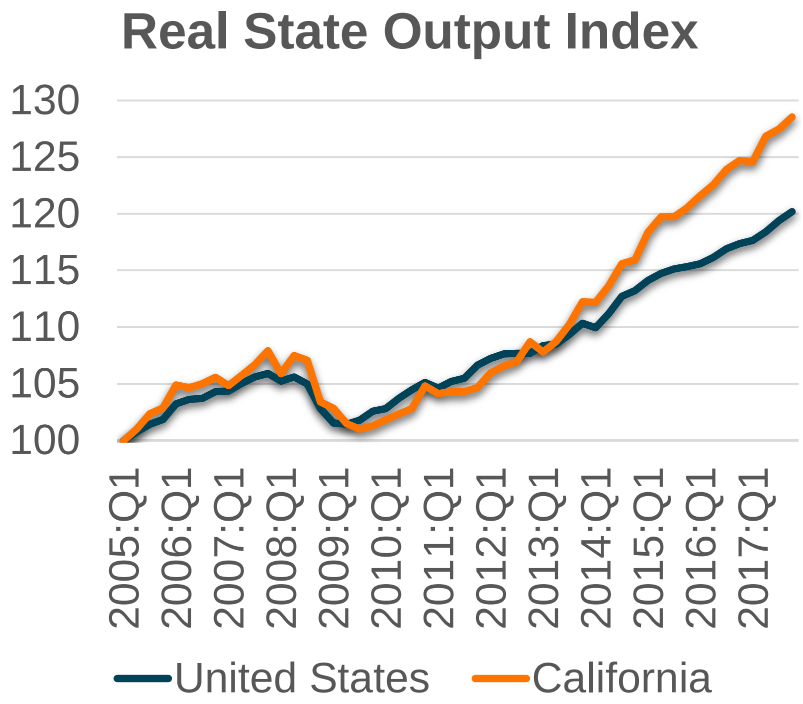
Booms and Busts





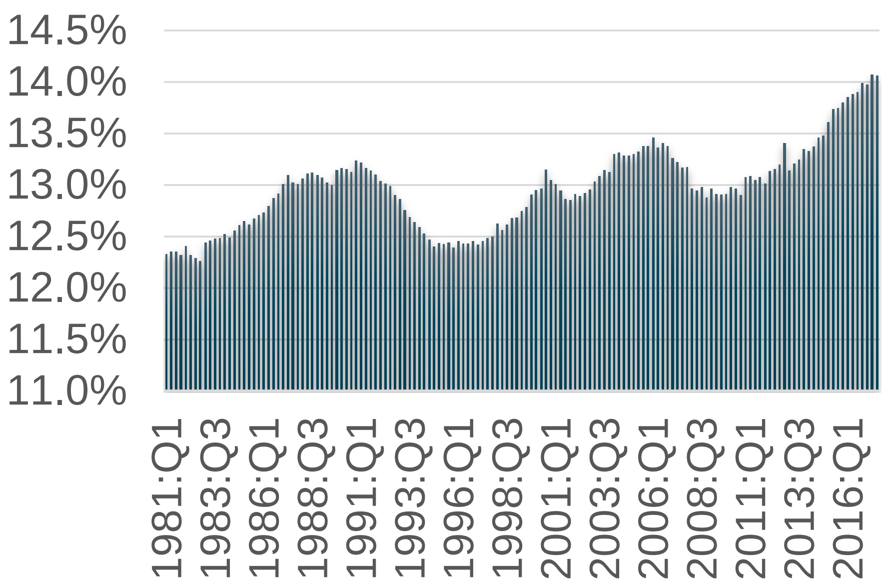
California Economic Engine

Q1 2018	1 Year	5 Year
Washington	**4.3%**	**3.7%**
California	**3.5%**	**3.7%**
Utah	**3.7%**	**3.4%**
Colorado	**4.5%**	**3.4%**
Oregon	**3.4%**	**2.9%**
Florida	2.3%	2.8%
Texas	4.2%	2.8%
Idaho	3.2%	2.8%
Georgia	2.5%	2.8%
Nevada	**4.0%**	2.7%



California Economic Engine

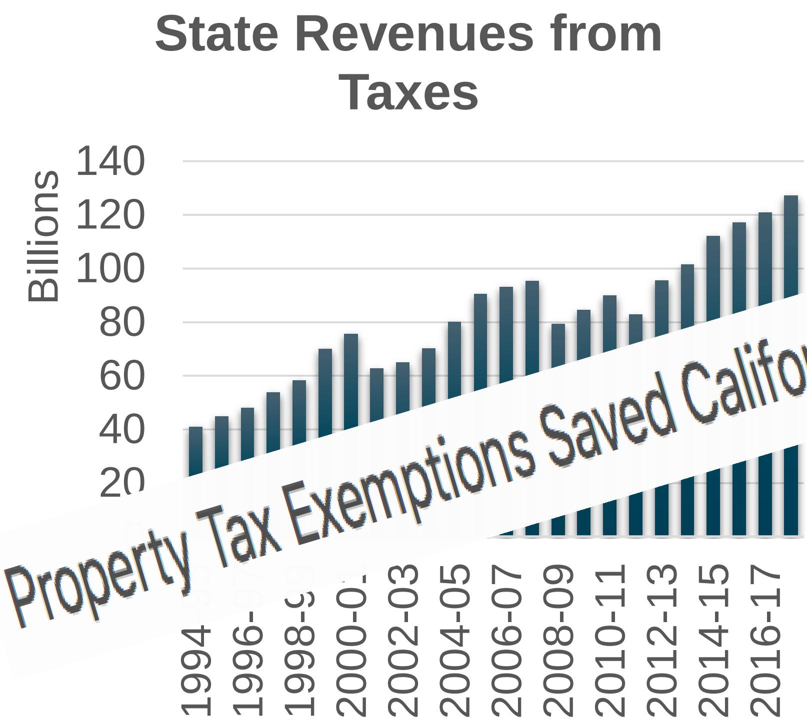
California Share National Personal Income



Employment

Rk	State	#	Ann Gr	Share US
1	**Nevada**	**211.2**	**3.4%**	**1.7%**
2	**Utah**	**218.3**	**3.2%**	**1.7%**
3	Florida	1238.2	3.1%	9.8%
4	**Oregon**	**252.1**	**2.9%**	**2.0%**
5	Idaho	92.1	2.8%	0.7%
6	**Colorado**	**328.7**	**2.7%**	**2.6%**
7	**Washington**	**413.1**	**2.7%**	**3.3%**
8	**California**	**2051**	**2.6%**	**16.3%**
9	Georgia	537.9	2.6%	4.3%
10	South Carolina	237.6	2.4%	1.9%

A (Temporary) Revenue Glut

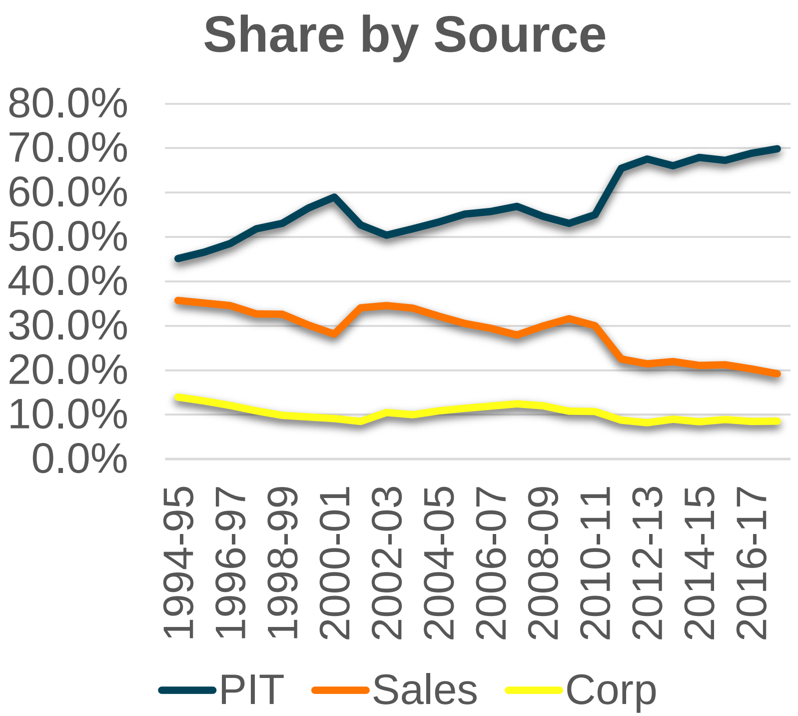


Tax Revenues as % GSP

1	Mississippi	24.8%	14	[illegible]	[illegible]
2	West Virginia	23.1%	[illegible]	[illegible]	[illegible]
3	New Mexico	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	North Dakota	17.7%
[illegible]	[illegible]	[illegible]	18	Iowa	17.5%
[illegible]	[illegible]	21.9%	19	Michigan	17.5%
[illegible]	[illegible]	20.6%	20	Louisiana	17.2%
8	Maine	20.1%	21	Minnesota	17.2%
9	Hawaii	19.2%	22	Idaho	16.8%
10	New York	19.1%	23	California	16.7%
11	Oregon	19.0%	24	Ohio	16.7%
12	Kentucky	18.9%	25	New Jersey	16.6%
13	South Carolina	18.8%	26	Oklahoma	16.5%

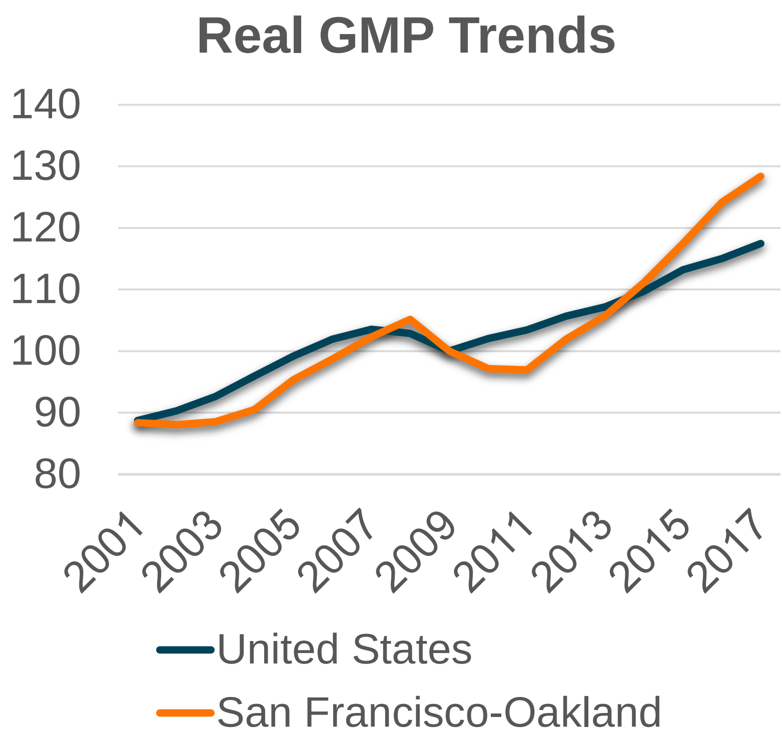
Property Tax Exemptions Saved Californians $30 Billion in 2018 - Zillow Research

A (Temporary) Revenue Glut



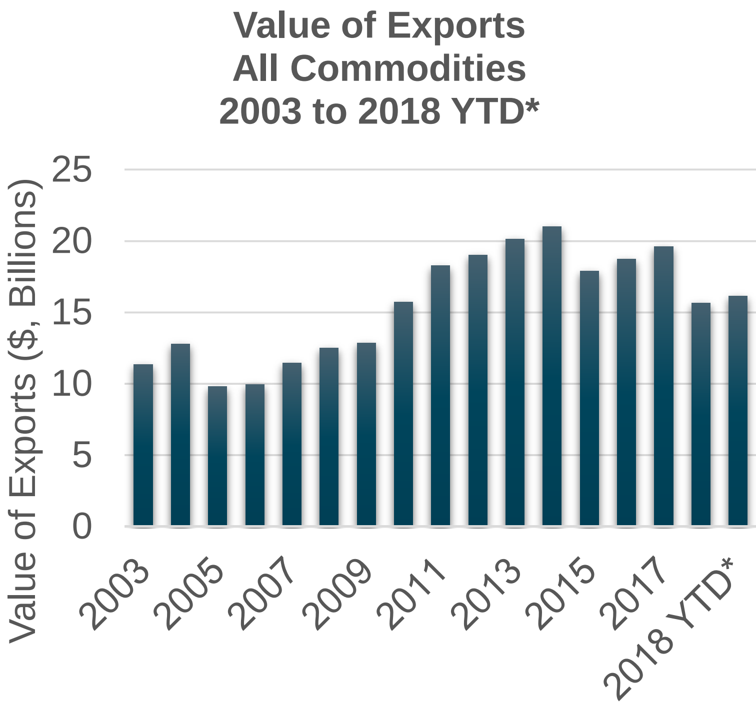
- Hyper-Cyclical
- Progressive / Regressive
- Tax on Effort vs Tax on Wealth
- Inflation for Goods relative to Inflation for Services
- Evolutionary vs revolutionary reform

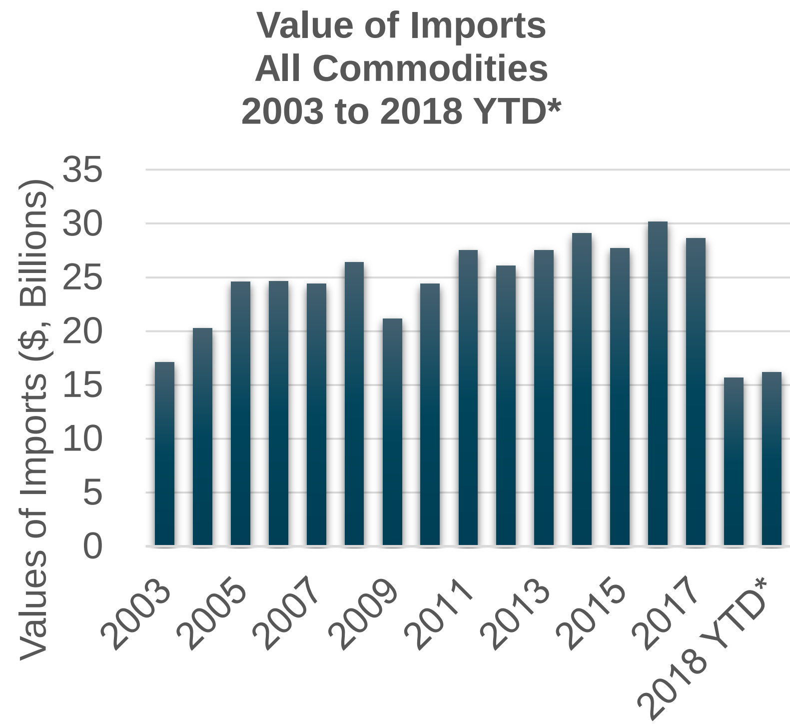
Local Growth (GMP for SF / Oak MSA)



Description	2017	
All industry total	425358.1	15.5%
Information	49876.6	50.1%
Durable goods manufacturing	19009.4	34.7%
Wholesale trade	20690.5	21.5%
Administrative and support	12839.6	20.4%
Manufacturing	38882.1	18.8%
Construction	15424.3	18.3%
Professional, scientific	61670.5	17.5%
Professional and business services	87728.1	16.1%
Health care and social assistance	23843.9	14.4%
Retail trade	21793.8	13.8%
Nondurable goods manufacturing	22227.6	11.1%
Accommodation and food services	11355.9	10.5%
Arts, entertainment, and recreation	4763.2	9.7%
Government	37095.6	7.2%
Other services	7698.1	6.3%
Real estate and rental and leasing	64268.3	6.1%
Management of companies	13110.3	5.6%
Finance and insurance	25420.9	5.4%
Educational services	3479.9	2.4%

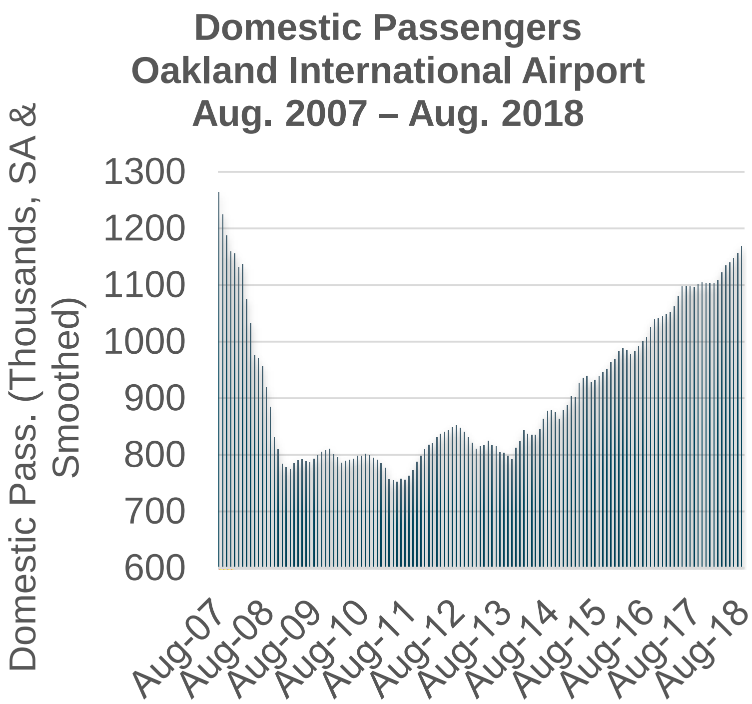
Port of Oakland





*Through October

Air Traffic

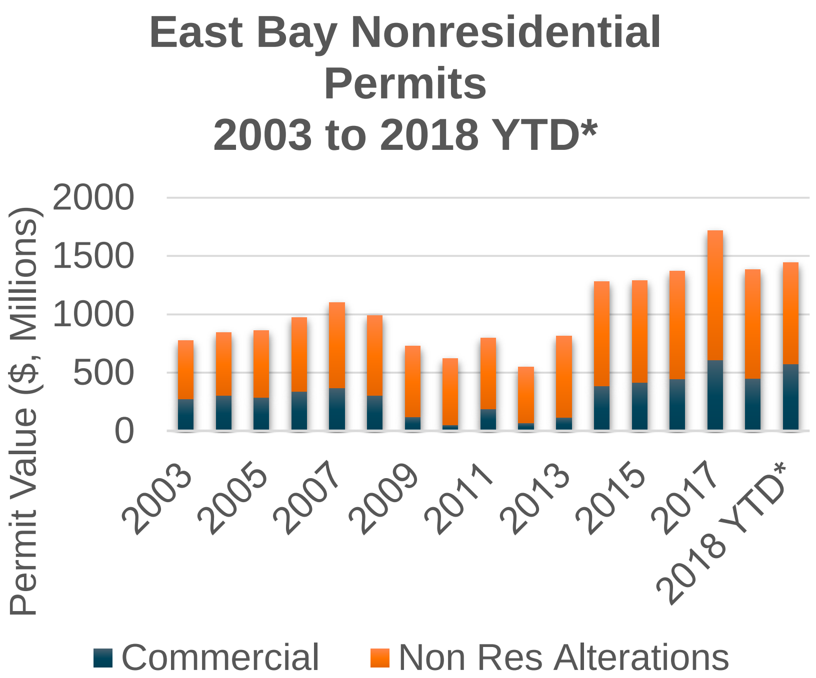


Airport	Domestic Pass. (000’s) Aug. 2018	Year over Year % Change	Five Year % Change
OAK	**1,168.8**	**6.6%**	**45.4%**
SFO	3,665.8	1.8%	26.9%
SJC	1,132.6	19.9%	62.8%

Hotels

	AVERAGE DAILY ROOM RATE			OCCUPANCY PERCENT		
	2018	2017	VAR	2018	2017	VAR
SAN FRANCISCO	$299.19	$282.82	5.8%	86.6%	87.0%	-0.5%
SAN FRANCISCO AIRPORT	210.48	204.44	3.0%	88.1%	87.4%	0.8%
SAN JOSE/PENINSULA	224.46	212.59	5.6%	82.4%	81.7%	0.9%
OAKLAND/EAST BAY	173.16	164.80	5.1%	81.0%	81.4%	-0.4%
MONTEREY/CARMEL	322.18	308.85	4.3%	78.4%	76.7%	2.2%
CENTRAL VALLEY	107.56	103.30	4.1%	75.6%	76.3%	-1.0%
SACRAMENTO	137.01	131.82	3.9%	80.2%	81.2%	-1.2%
MARIN COUNTY	185.69	181.60	2.3%	81.1%	82.4%	-1.5%

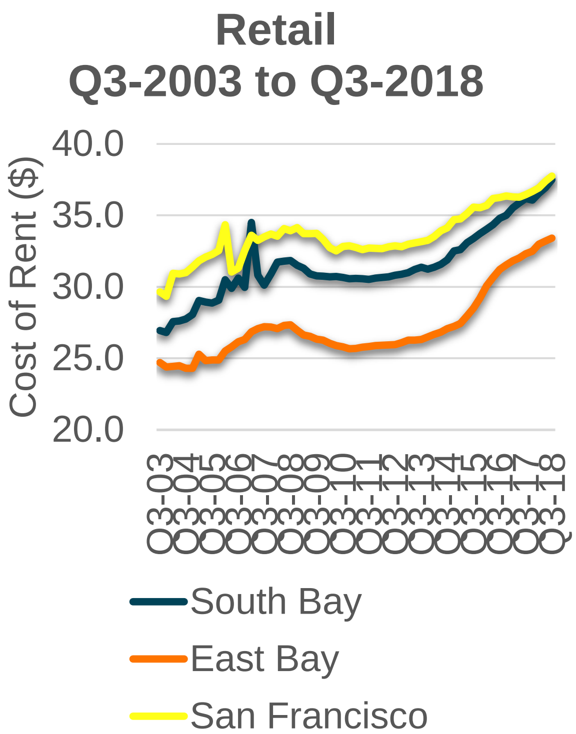
Nonresidential Real Estate Permits

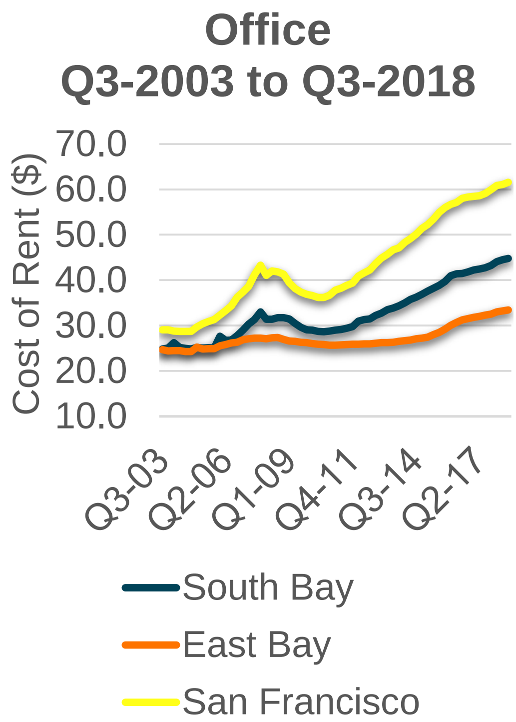


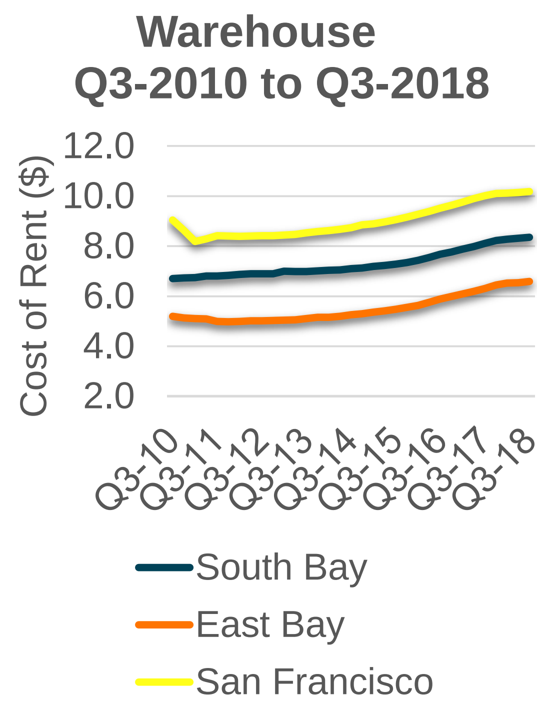
*through the third quarter

Region	Value of Permits 2018 YTD* ($, Millions)		YTD Year over Year % Growth	
	Comm.	Alts.	Comm.	Alts.
East Bay	574.9	866.4	28.1%	-7.5%
San Francisco	1,622.2	1,842.3	-7.5%	-36.8%
South Bay	1,221.8	1,506.9	67.9%	25.6%

Rents

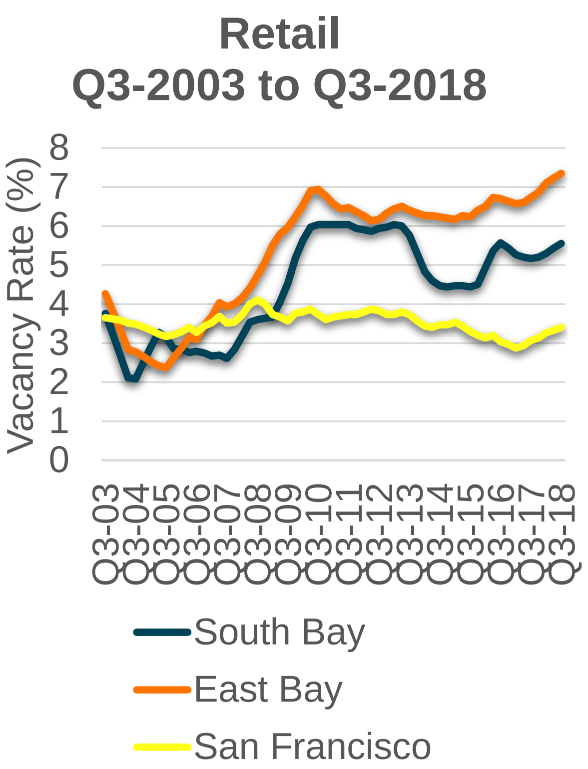


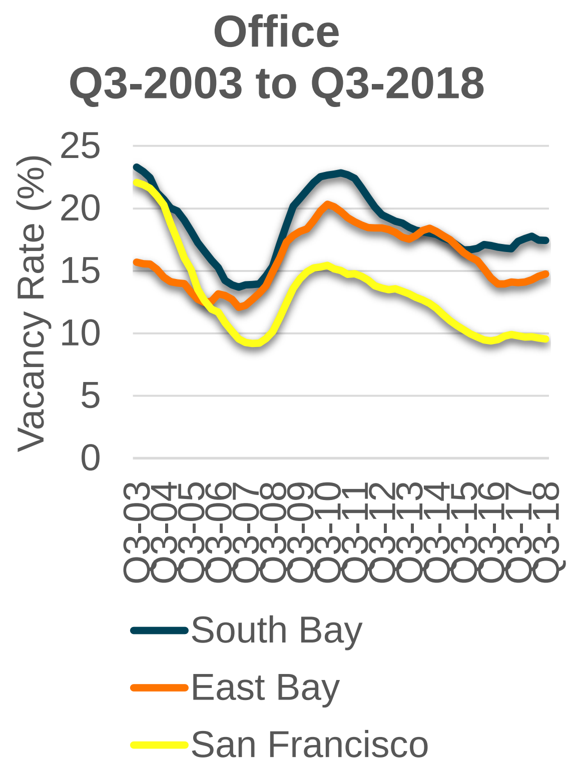


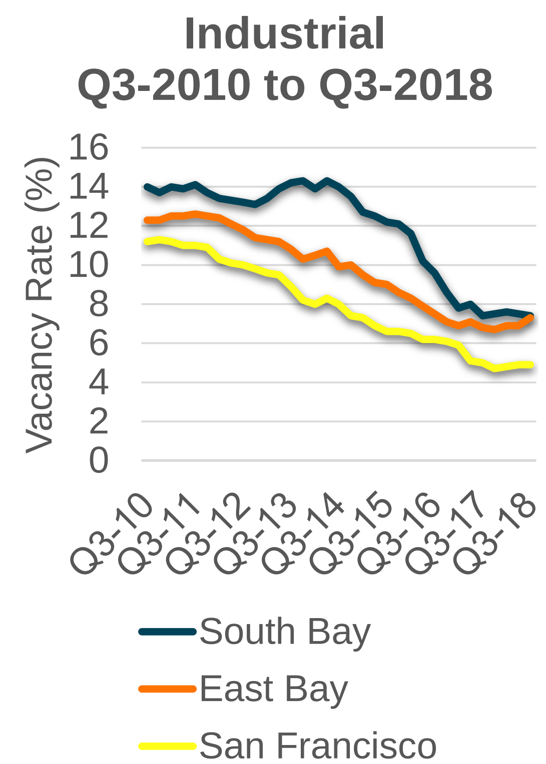


Source: REIS

Vacancy Rates

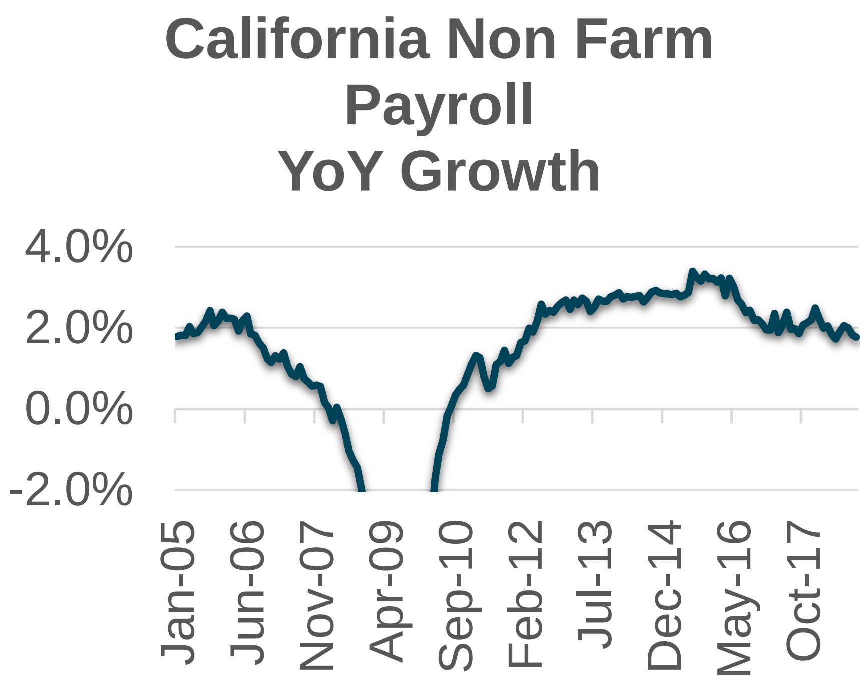






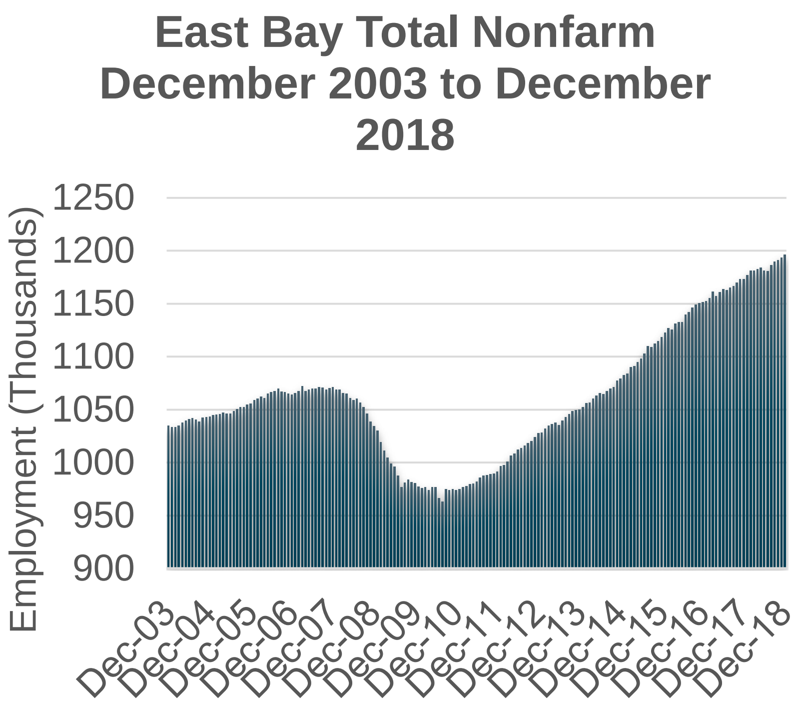
Source: REIS

State Job Growth



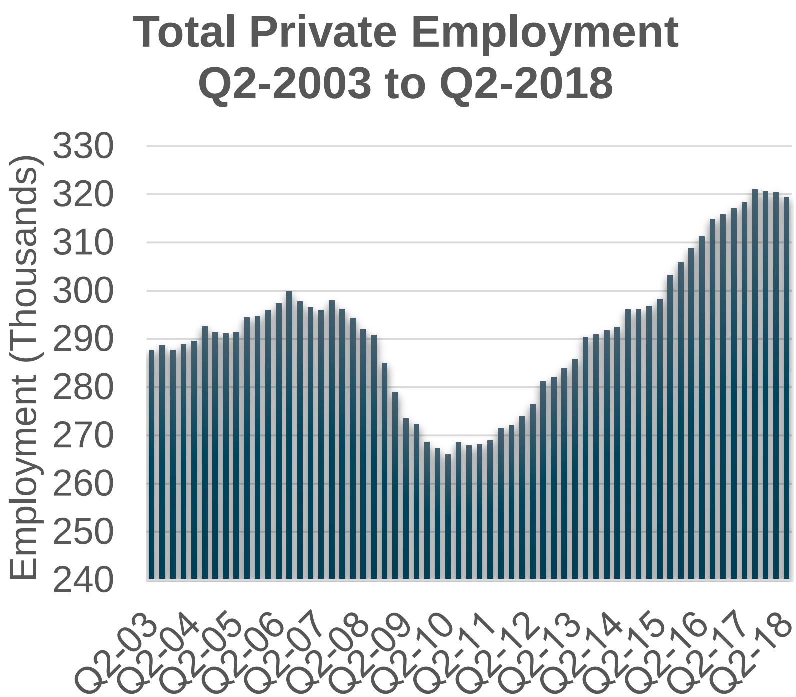
	Nov-18		
San Jose	1,147,800	2.6%	3.4%
Stockton	246,000	3.8%	3.1%
Santa Rosa	211,500	2.0%	2.3%
Riverside	1,509,100	4.2%	2.3%
Fresno	357,600	3.1%	2.1%
Oakland	1,194,800	2.0%	1.9%
San Francisco	1,146,000	1.9%	1.9%
Bakersfield	264,800	1.5%	1.8%
San Diego	1,490,500	1.8%	1.8%
Oxnard	309,400	1.1%	1.6%
Sacramento	993,500	2.6%	1.3%
Los Angeles	4,523,400	1.4%	1.3%
Orange	1,635,300	1.7%	0.4%

Employment Comparisons



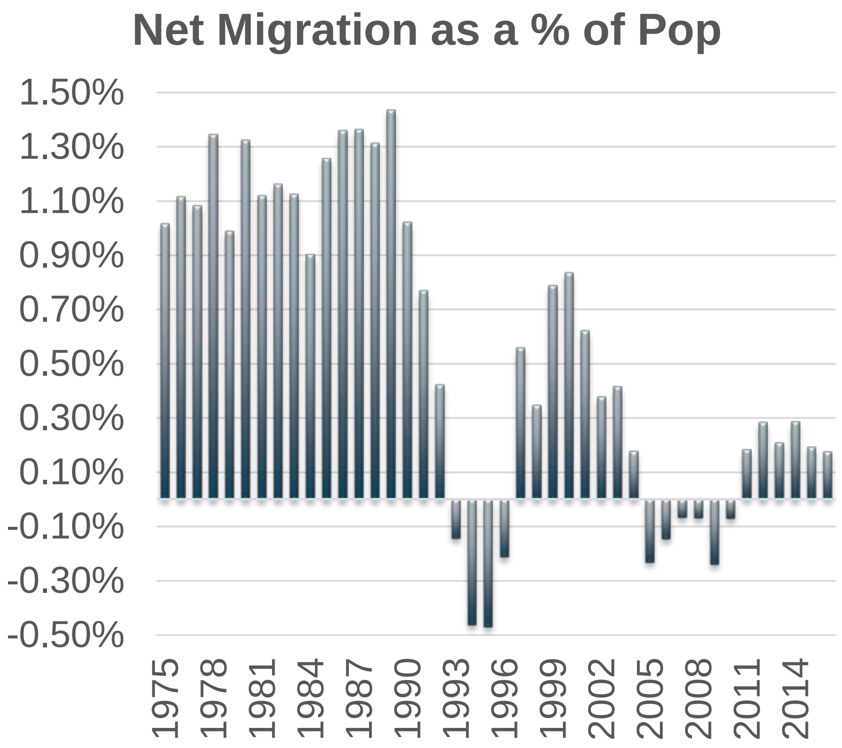
Industry	East Bay		California
	Emp	% Gr	% Gr
Total Nonfarm	**1,196**	**2.0**	**1.7**
Admin Support	72	10.7	2.8
Construction	76	4.0	2.6
Professional	100	2.4	4.1
Other Services	41	2.3	-0.7
Education/Health	198	2.0	2.5
Logistics	210	1.7	0.4
Retail Trade	117	1.3	-0.5
Manufacturing	98	1.2	0.4
Hospitality	117	0.5	2.8
Information	27	0.4	1.5
Government	176	0.3	1.2
Financial Activities	57	-0.9	0.5
Wholesale Trade	48	-3.0	-0.7

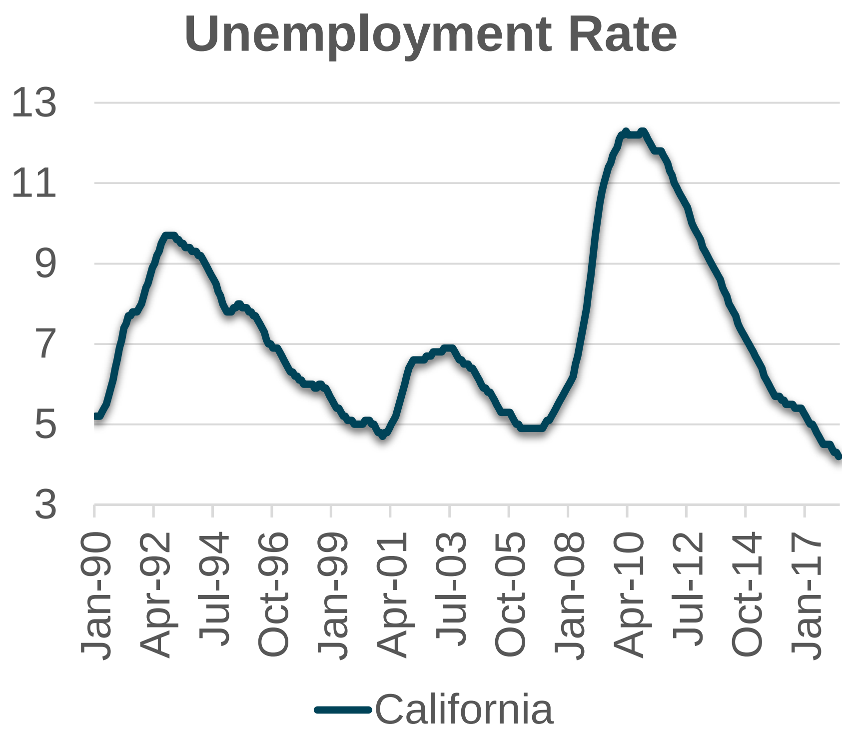
Employment Comparisons



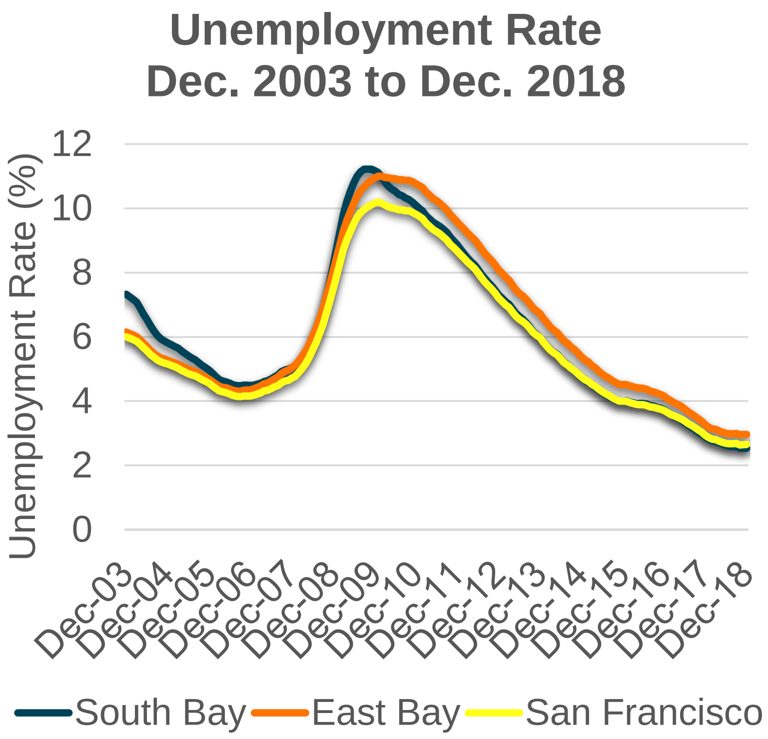
Industry	Employment Q2-2018	Year over Year % Change
Total Private	**321,060**	**0.6**
Other Scvs.	12,824	3.7
Education	7,623	2.7
Health Care	62,111	1.9
Professional	15,774	0.7
FIRE	27,312	0.0
Hospitality	41,322	0.0
Manufacturiing	15,495	-0.5
Information	7,958	-0.9
Retail Trade	42,116	-1.0
Admin Support	22,790	-1.4
Wholesale Trade	9,728	-7.9
NR/Construction	838	-14.3

California Labor Markets





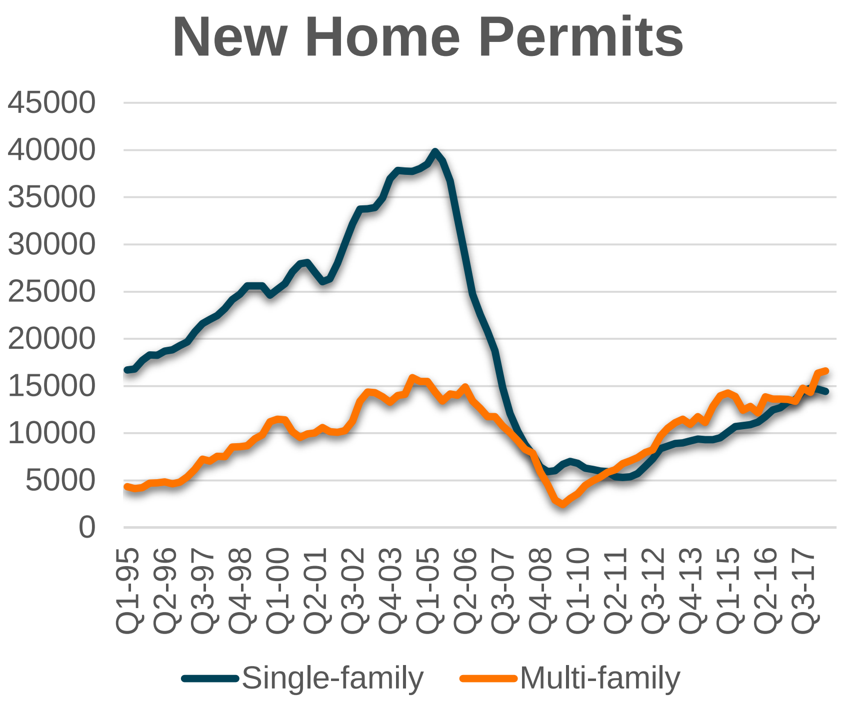
Local Labor Force– December 2018



City	2018 Population (000's)	Year % Change	Five Year % Change
County Total	**1,149.4**	**0.9**	**6.0**
Concord	129.2	0.7	3.5
Antioch	113.1	0.7	5.1
Richmond	111.0	0.8	3.9
San Ramon	82.6	1.6	8.1
Pittsburg	72.6	1.8	9.2
Walnut Creek	70.7	0.2	6.5
Brentwood	63.0	2.7	16.7
Danville	44.4	0.8	4.7
Oakley	41.7	1.5	10.7
Martinez	38.1	0.7	4.2

Source: California EDD

New Housing Supply



How Much Housing Needed?
Housing Needed to maintain 2% State Job Growth

Method 1	
Total	722,022
Per Year	206,674
Current	111,185
Shortfall	100,489
Method 2	
Total	911,001
Per Year	263,667
Current	111,185
Shortfall	157,482

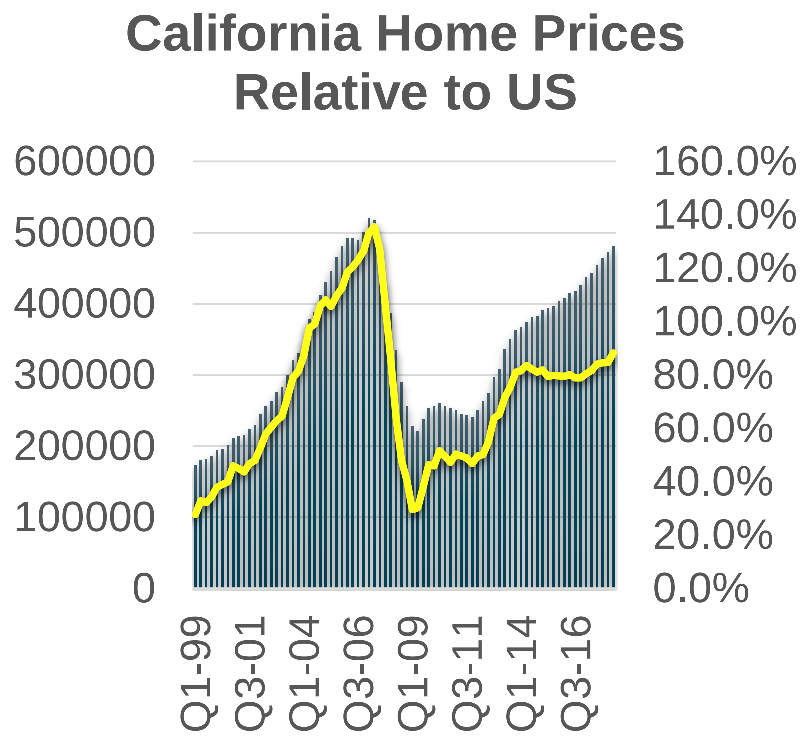
Source: CIRB

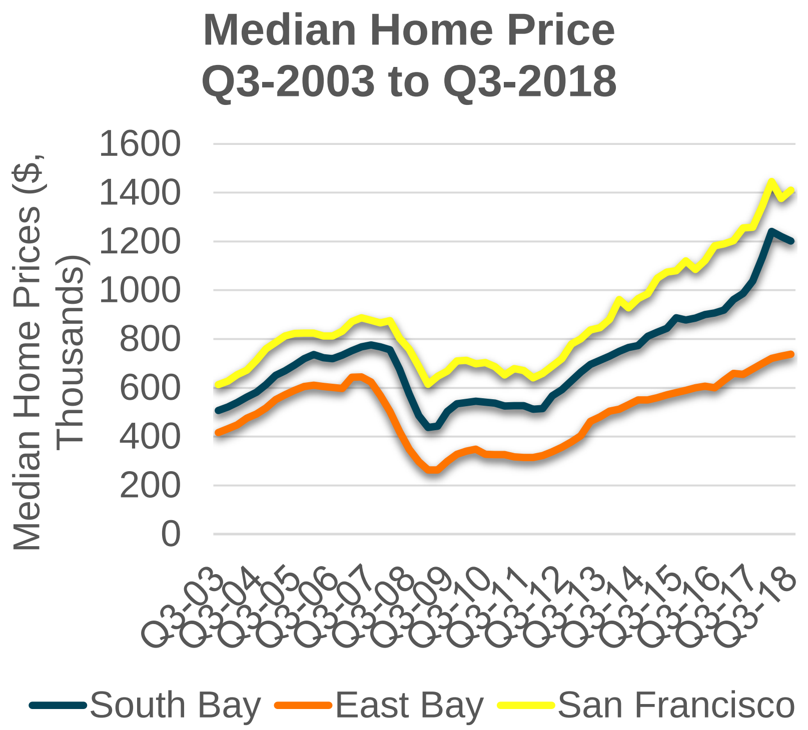
How Much of a Backlog?

	Units	Vacancy	Rk	00-17 Gr%	Rk	00-17 Ch
Texas	10,933	9.4%	28	34%	4	2,776
Florida	9,442	13.2%	6	29%	6	2,139
California	14,177	5.8%	52	16%	21	1,963
N Carolina	4,623	11.1%	17	31%	8	1,099
Georgia	4,282	8.4%	34	30%	9	1,001
Arizona	2,999	13.1%	7	37%	3	810
Washington	3,103	7.3%	44	27%	10	652
New York	8,328	8.1%	39	8%	44	648
Virginia	3,513	7.1%	46	21%	15	609
Colorado	2,385	8.3%	35	32%	7	577

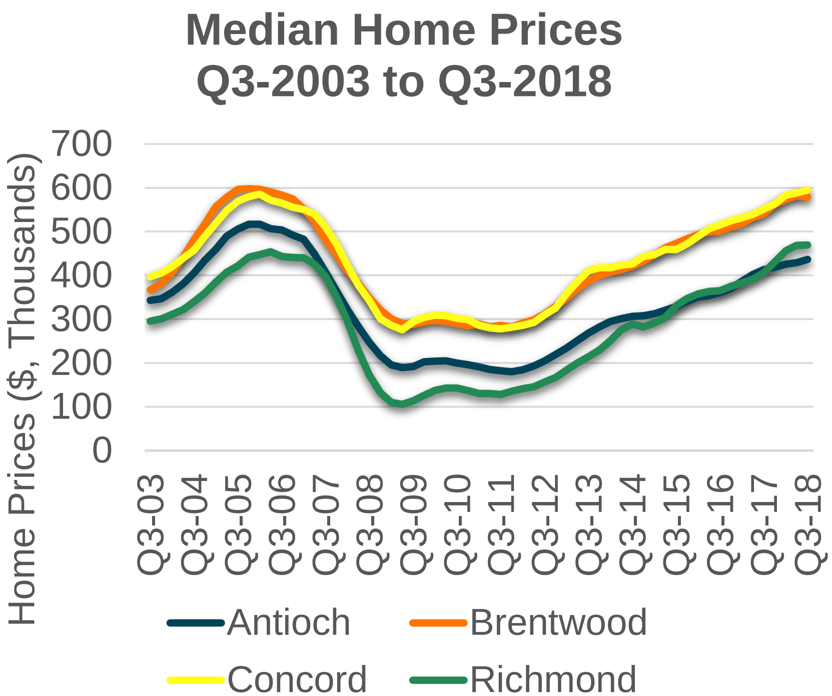
	Backlog
Avg Growth	291
Avg Vacancy	676
Total	**967**
High Growth	1,408
Avg Vacancy	676
Total	**2,084**
Texas Growth	1,849
Avg Vacancy	676
Total	**2,525**

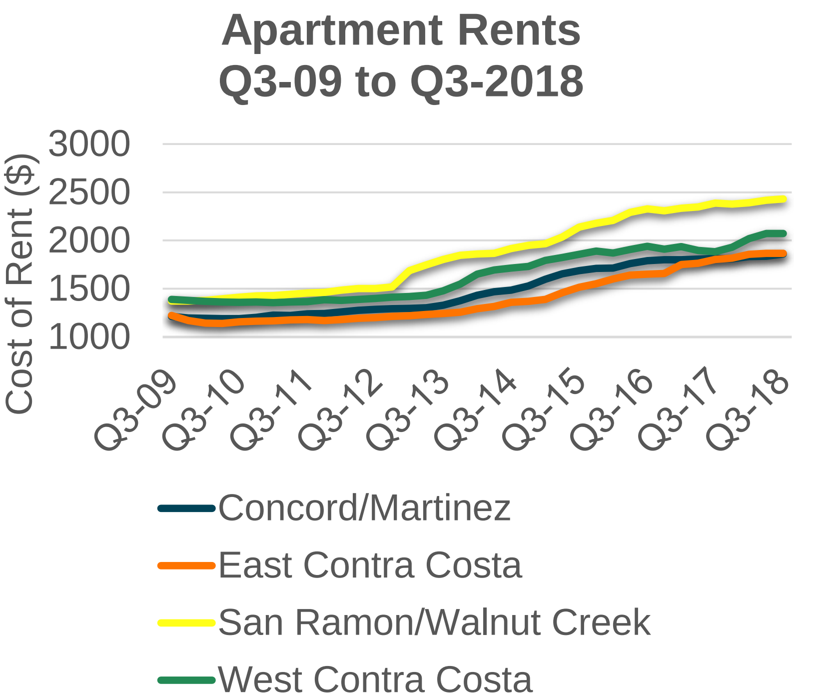
The Housing Exodus





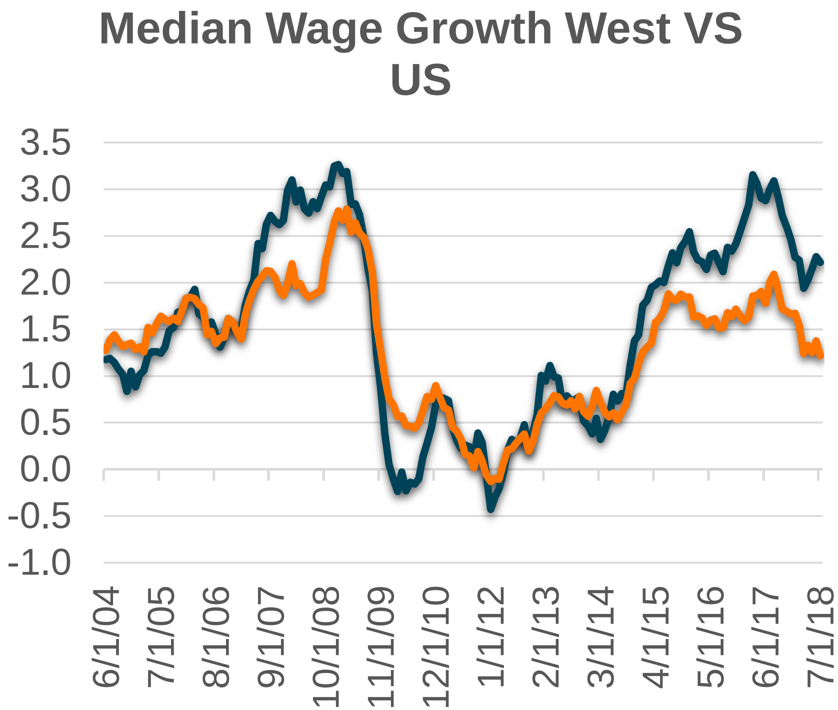
Residential Real Estate - Local



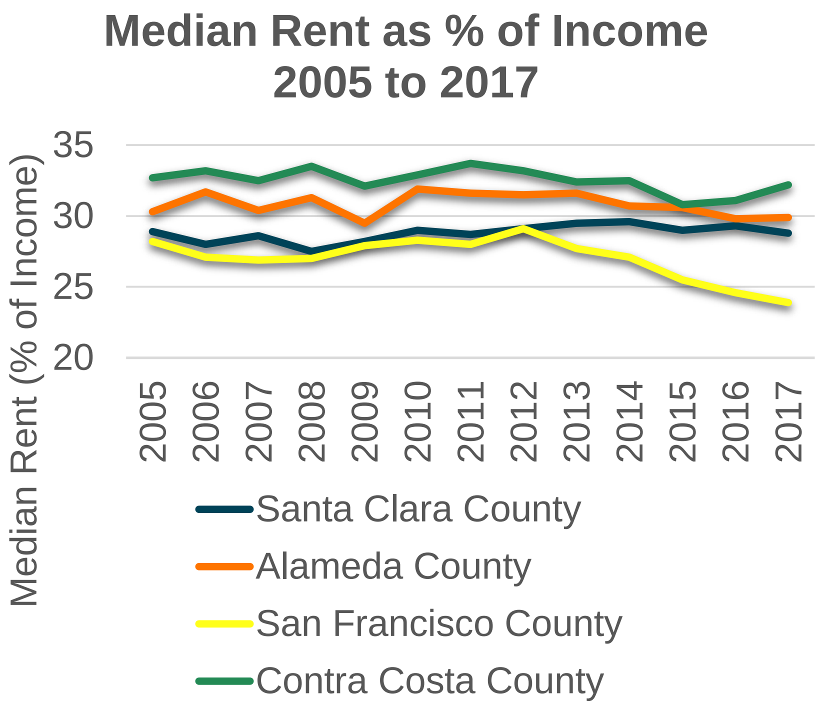


The Upside of Labor Shortages

	Number (Mil)	Median Income 2016	Change 13-16	Unemp 2016	Change 13-16
Total	20.96	40,005	10.2%	5.5%	-3.0%
No High School	3.52	21,558	13.1%	8.2%	-3.7%
High School	4.26	30,231	10.9%	7.0%	-4.0%
Some College	6.14	36,985	3.1%	5.5%	-3.4%
Bachelor plus	7.03	60,121	9.4%	3.6%	-1.6%



Don’t Just Focus on Affordable Rentals



Share Households > 30% Income

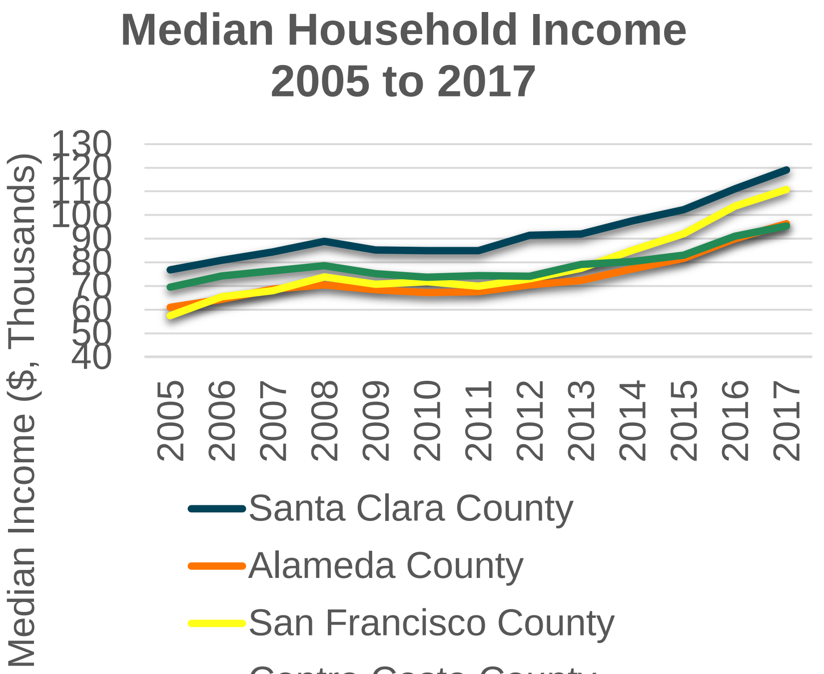
	Renter		
	2013	2016	Ch
Fresno	54.8%	57.5%	2.7%
Los Angeles	57.0%	55.4%	-1.6%
San Bernardino	54.7%	55.4%	0.7%
Riverside	58.8%	54.8%	-4.0%
San Diego	53.7%	54.7%	1.0%
Orange	55.5%	54.1%	-1.4%
Sacramento	52.9%	52.1%	-0.9%
Alameda	50.8%	47.2%	-3.6%
Santa Clara	47.2%	46.2%	-1.1%
San Francisco	42.8%	36.8%	-6.0%

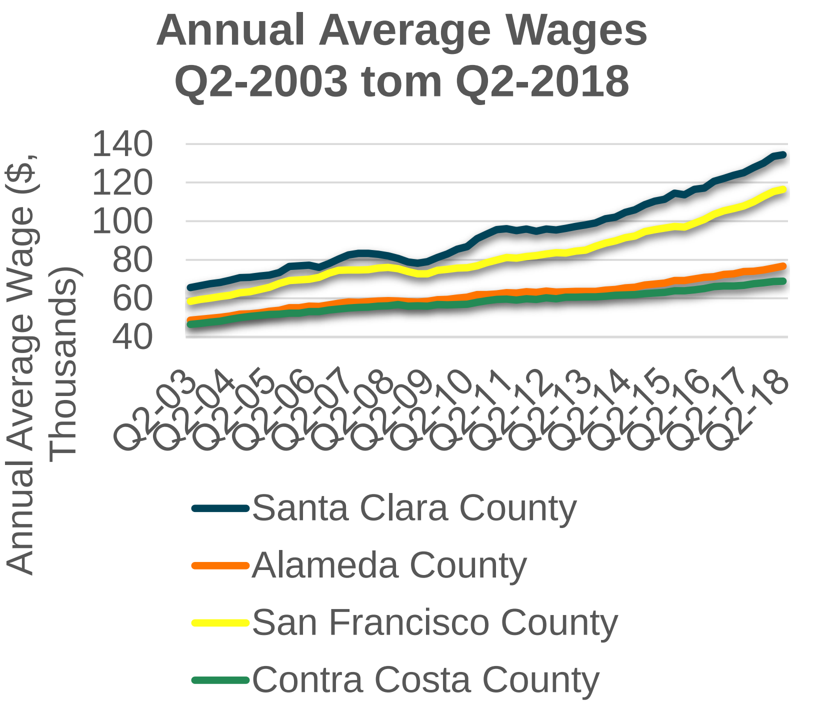
What's up with the CC economy?

- Local employers unable to compete for local housing with external (west bay) businesses
  - —Lower paid jobs
  - —More expensive prices

- The problem / solution?
  - —Land Use
  - —Land Use
  - —Land Use

Households vs Payrolls

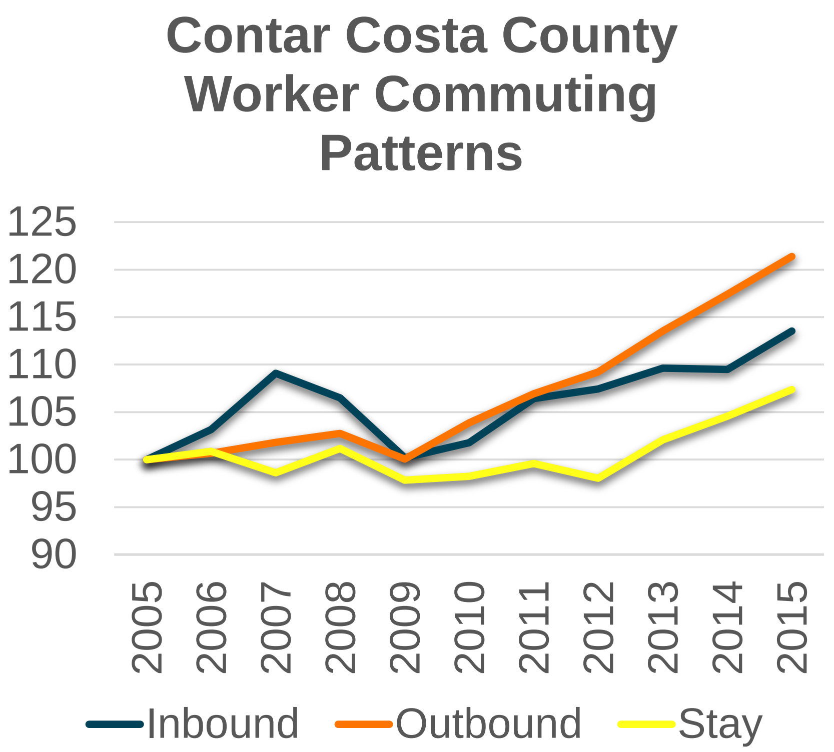


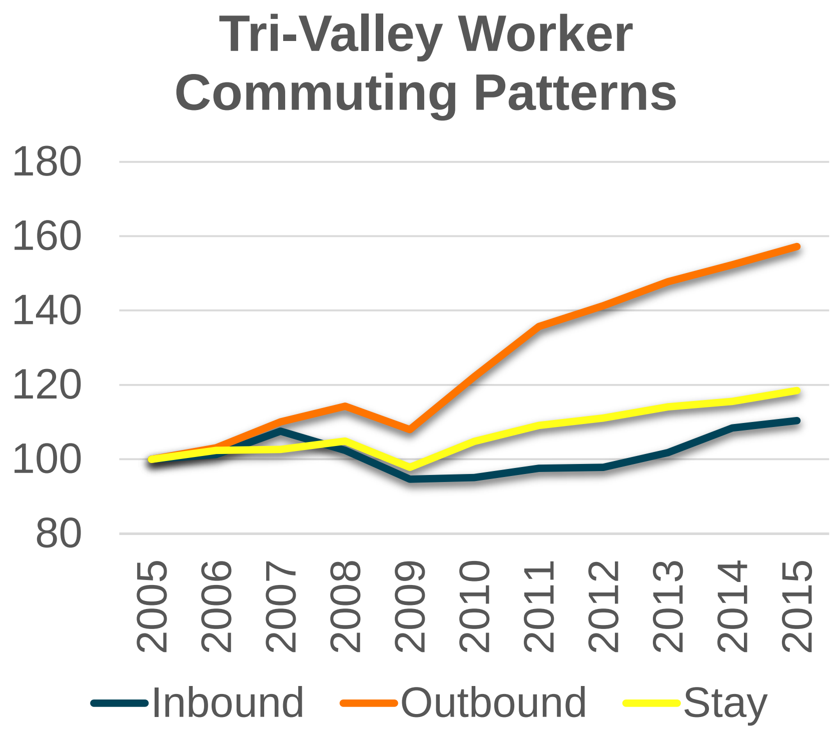


The Commute Impact

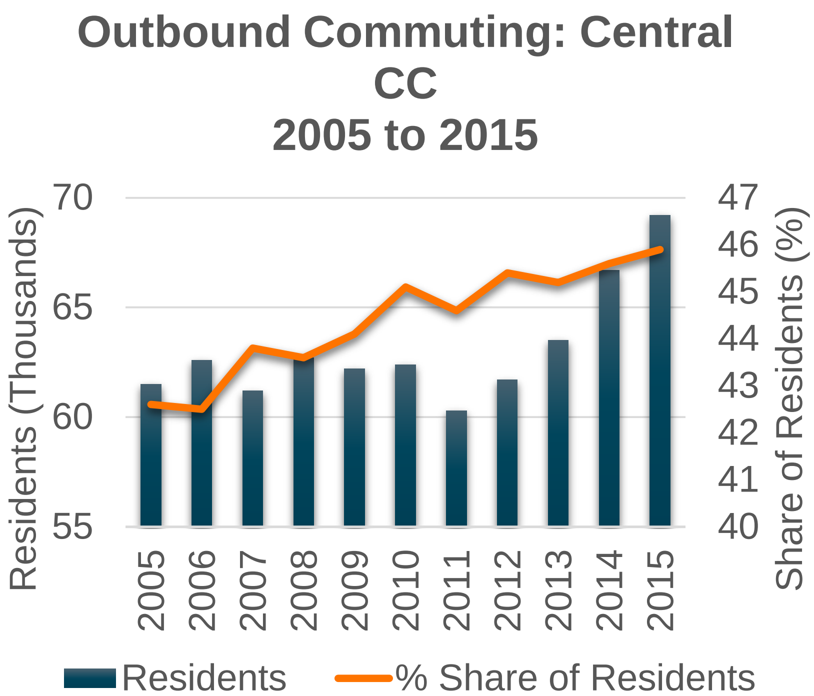
	Res Emp	Ch 12-17	Gr	Out Cnty	Sh
Alameda	**770234**	**76444**	**9.9%**	**36005**	**47.1%**
San Bernardino	890998	101571	11.4%	32113	31.6%
Contra Costa	**543260**	**60182**	**11.1%**	**29556**	**49.1%**
Riverside	1014984	150692	14.8%	28079	18.6%
Santa Clara	971960	109719	11.3%	25227	23.0%
Sacramento	689495	91152	13.2%	22646	24.8%
San Mateo	409921	39283	9.6%	21653	55.1%
San Joaquin	303851	45701	15.0%	19831	43.4%
Solano	204776	24954	12.2%	14919	59.8%
Stanislaus	230328	33644	14.6%	12592	37.4%
Madera	57028	15310	26.8%	9532	62.3%
Ventura	409760	23567	5.8%	7912	33.6%
Placer	177146	21908	12.4%	7596	34.7%

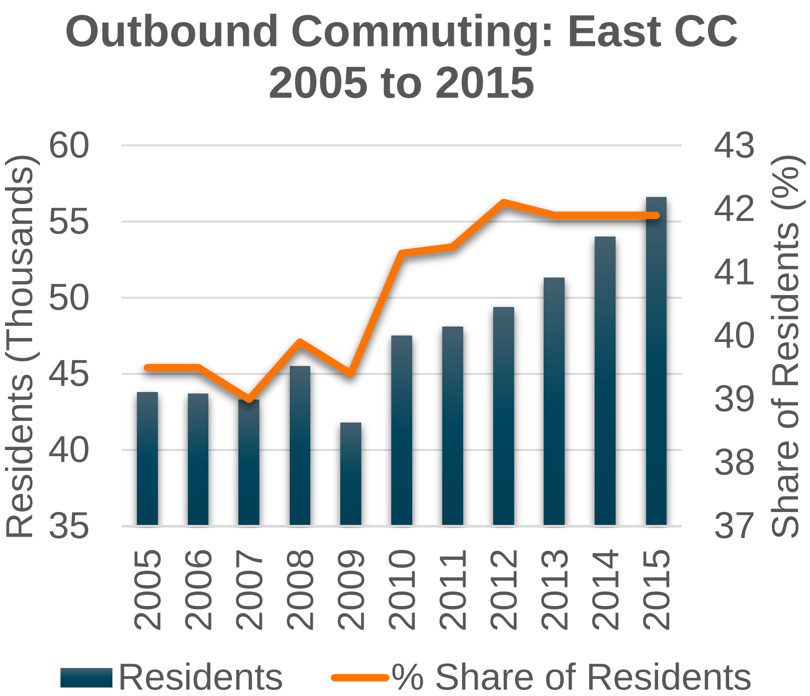
Contra Costa Commuting



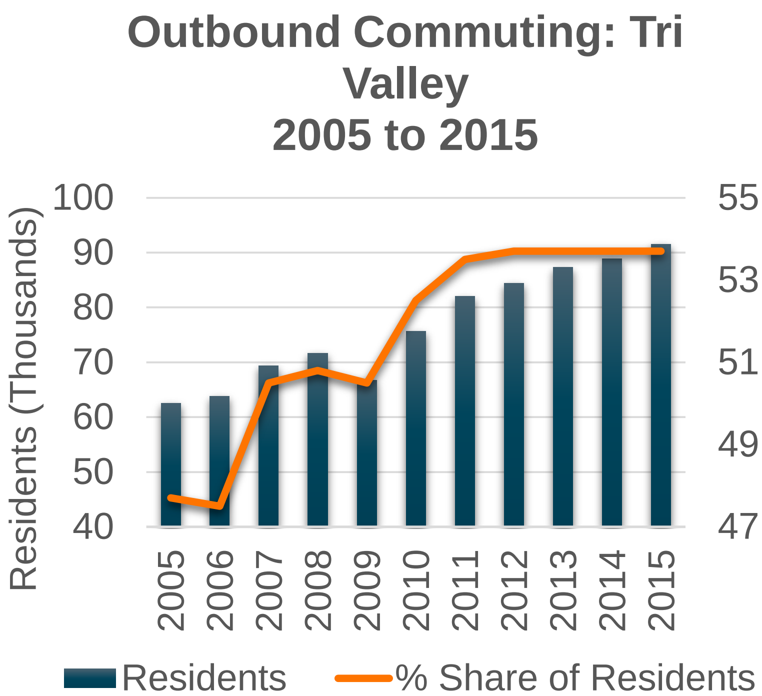


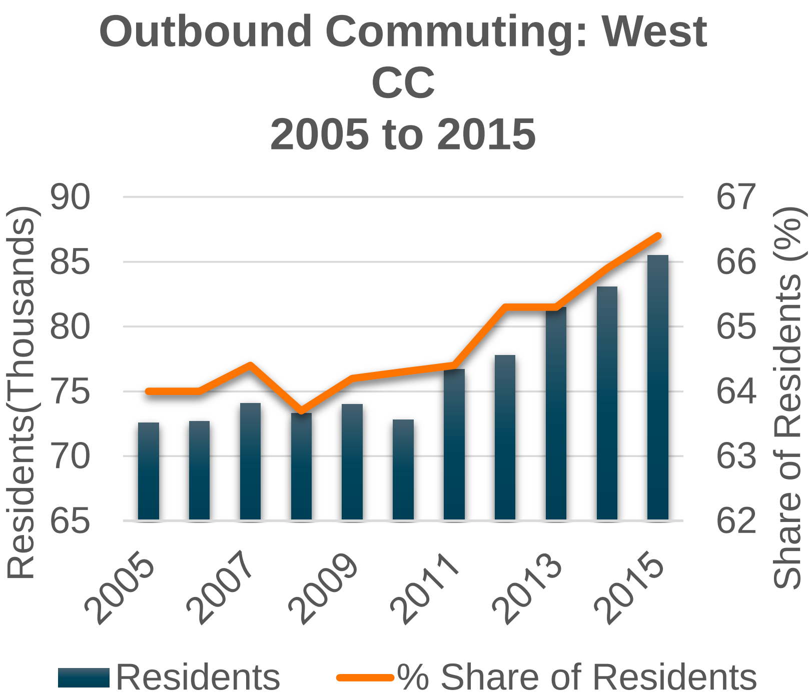
Commuting Patterns - Central Contra Costa



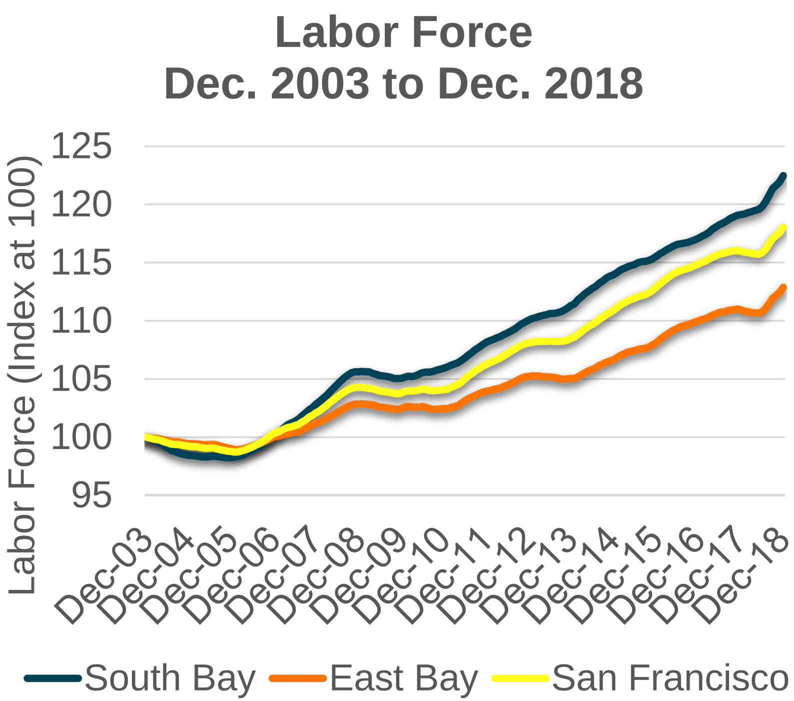


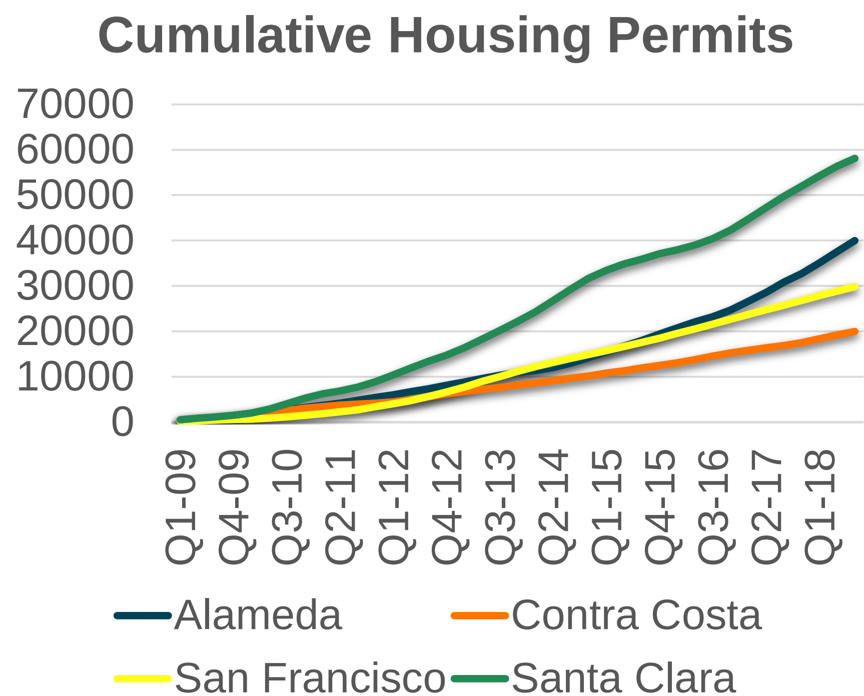
Commuting Patterns – Tri-Valley Region



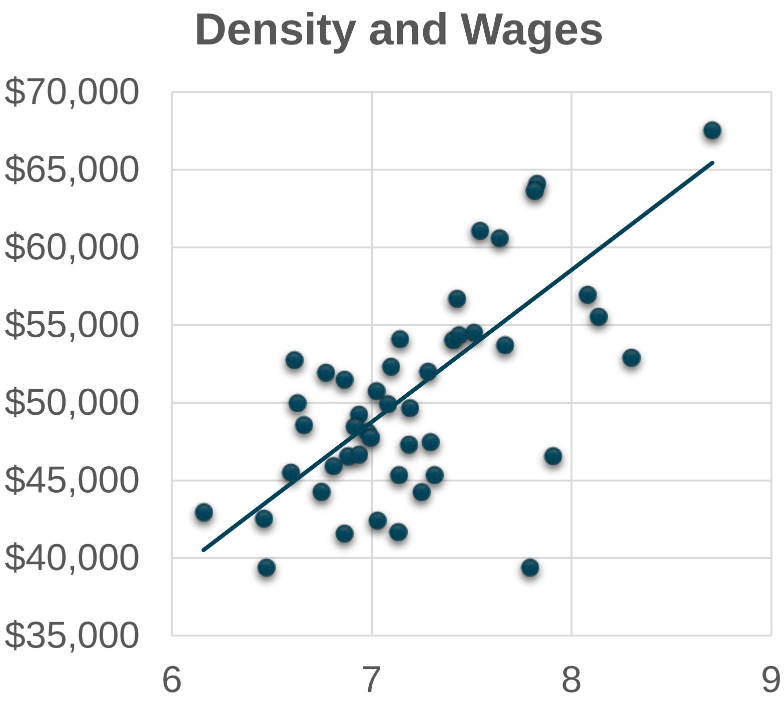


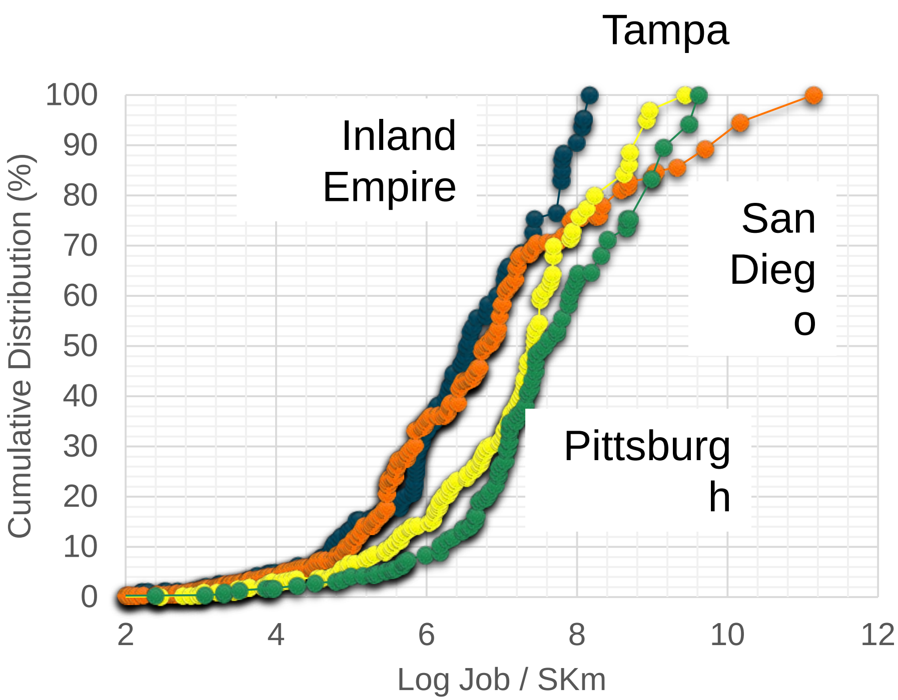
Labor Force and Housing





Job Density Distributions

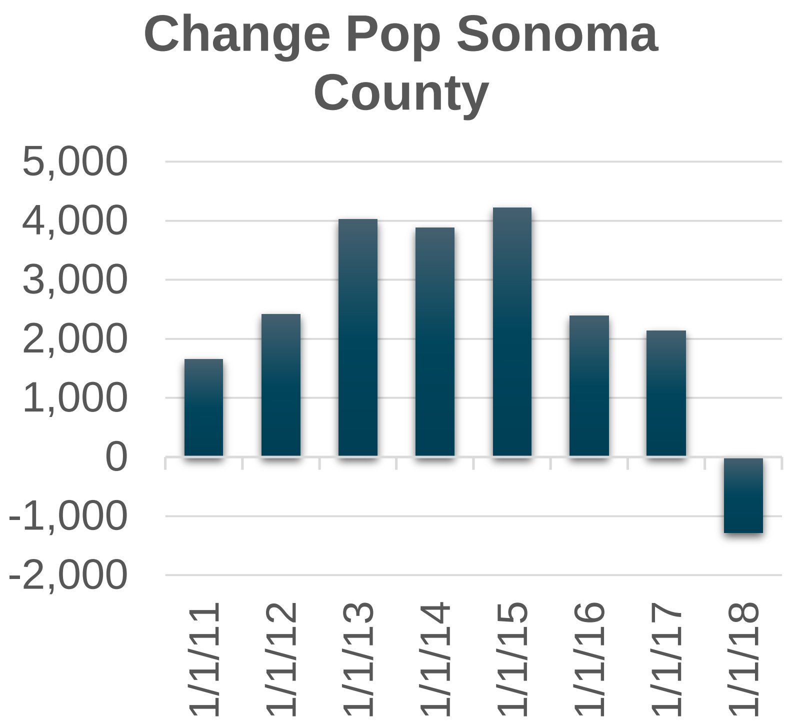


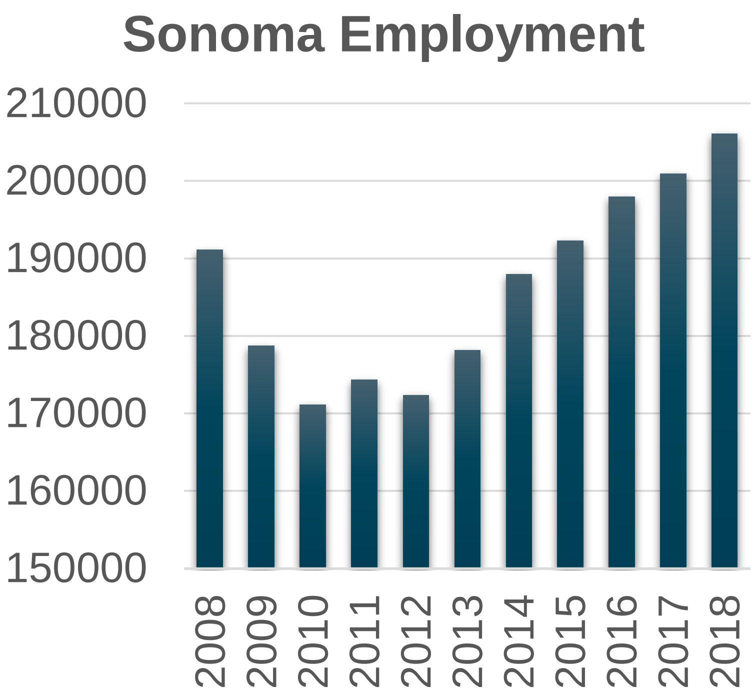


A Year Ago


WINE COUNTRY
WILDFIRES
Northern California Fires Destroy More Than 8,000 Structures: A Breakdown of the Damage
More than 70 percent of the buildings that burned were homes
L.A. NOW
LOCAL
Death toll rises to 40 as firefighters continue to battle massive California wildfires

Local Population, Sonoma County

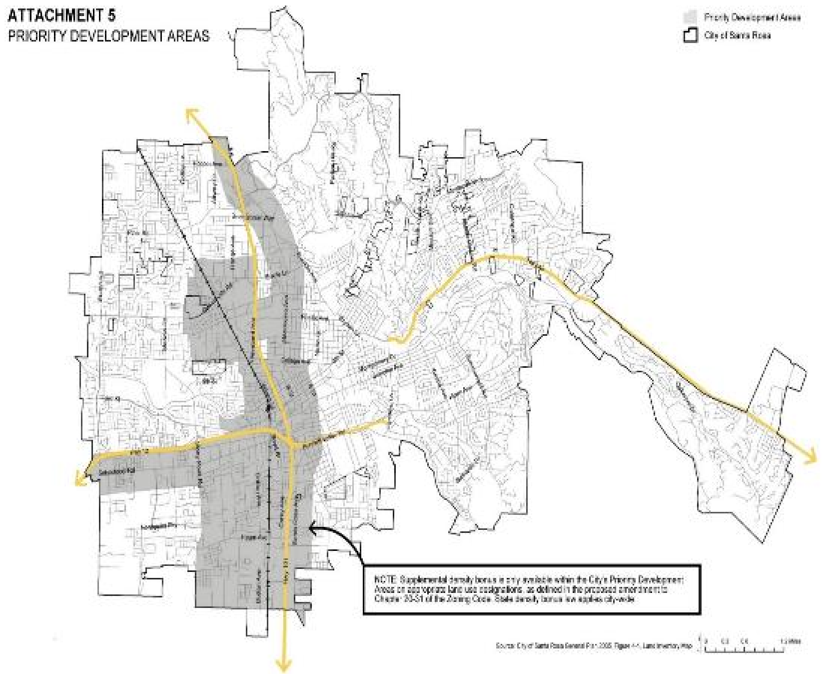




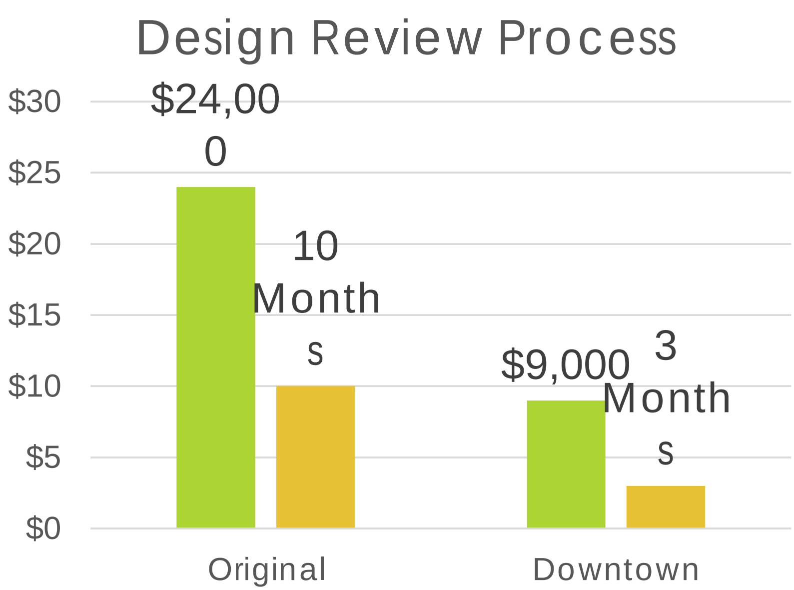
Source: DOF

SUPPLEMENTAL DENSITY BONUS
Allow up to 100% Bonus

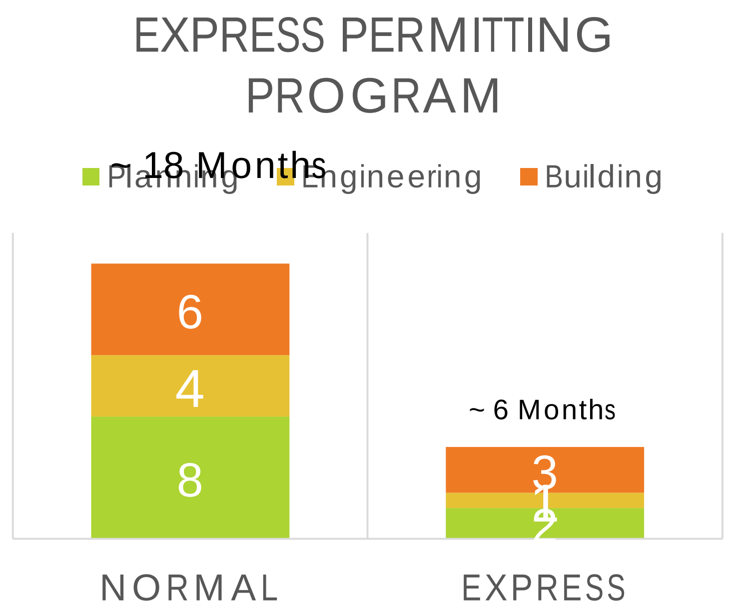
- Project Eligibility Requirements:
  - ✓Achieves 35% State Bonus and
  - ✓Located within a Priority Development Area or Station Area and
  - ✓Located within appropriate General Plan Land Use Designation
- Density above 35% granted for:
  - ✓Affordable Housing or
  - ✓Affordable Housing and Community Benefits



Programmatic and Policy Updates



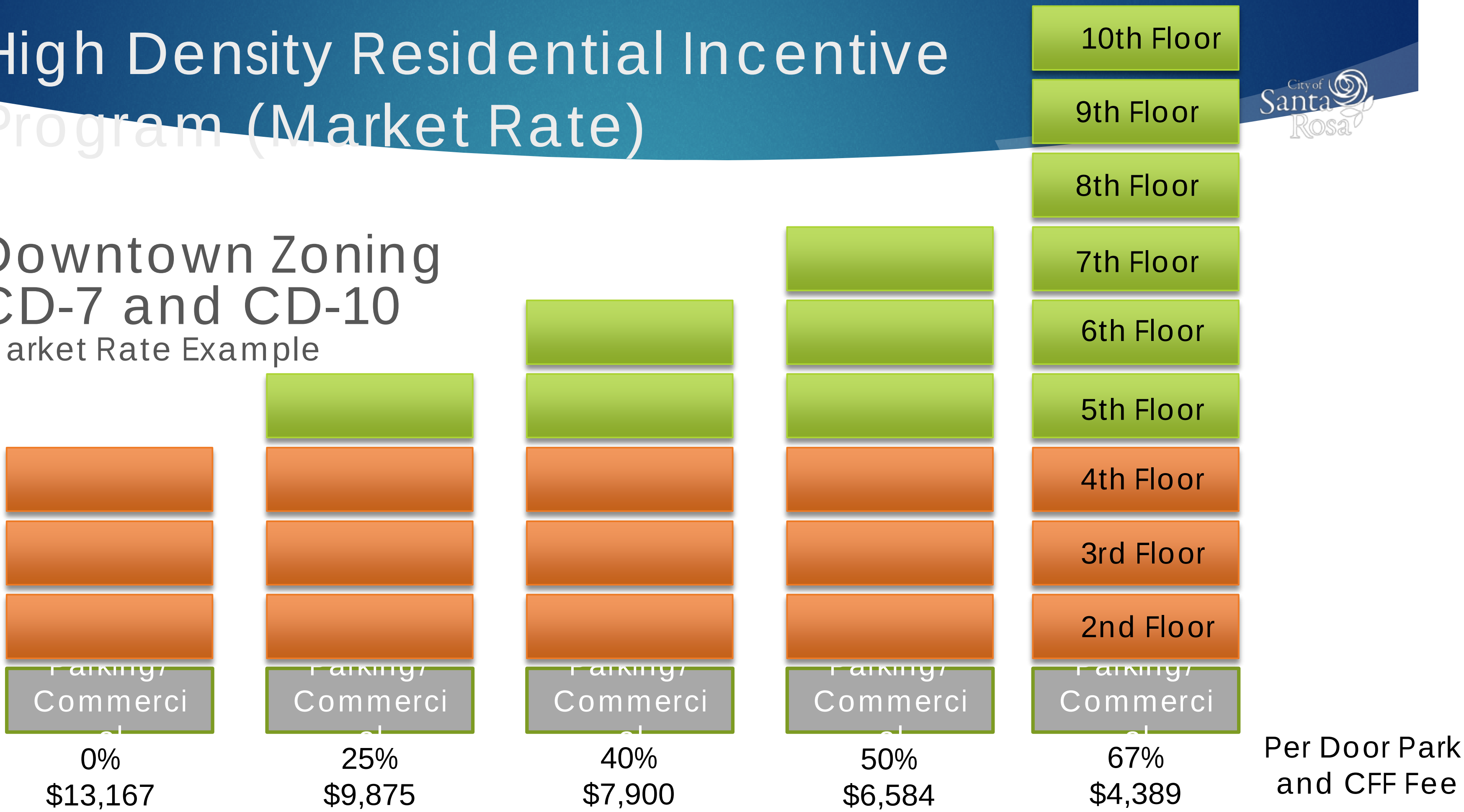
City Council Ordinance ORD-2018-012,
May 22, 2018



High Density Residential Incentive Program (Market Rate)

Downtown Zoning CD-7 and CD-10

Market Rate Example



Why the problem? Incentives

	Hypothetical City		Full Service - with 6% UUT	
	Single-family Residential	Multi-family Residential	Industrial	Retail
CITY EXPENDITURES				
Police Department	9,000	42,750	4,950	14,063
Fire Department	6,040	28,690	3,322	9,438
Public Works	1,200	5,700	1,320	3,750
Planning & Community Devlpmt	800	3,800	880	2,500
Parks & Community Services	2,600	12,350	429	1,219
Library	1,500	7,125	n/a	n/a
General Government	2,540	12,065	1,298	3,688
TOTAL EXPENDITURES	$ 23,680	$ 112,480	$ 12,199	$ 34,656
NET	$ 11,520	$ (37,258)	$ 12,704	$ 81,465

The Big Picture

- Positives: It will be a good year
  - —GDP Growth Outlook for 2019: 2%+
  - —State revenues will look positive
  - —Labor markets to remain tight
  - —Rising wages to put pressure on profits
  - —Exports, business investment continue to grow
  - —Inflation to remain constrained
  - —Interest Rates Still Low
  - —Debt Levels still safe
  - —California: Still a top performer
- Negatives: Problems Growing
  - —Labor shortages will be an issue
  - —Local housing supply tightening
  - —Fed will continue to tighten, yield curve flattening
  - —Markets behaving oddly
  - —Federal deficit widening sharply
  - —Political uncertainty to dominate headlines
  - —Critical Policy Issues Remain Undiscussed
  - —Miserabilism warping our sense of reality / creating a crisis atmosphere

Thank You

Chris@BeaconEcon.com | www.BeaconEcon.com