

# economics: the 4 s's

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beautiful alisal ranch

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# roadmap for today

- global and national outlook
- recent local trends
- some headwinds

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- drink wine

# roadmap for today

- global and national outlook
- recent local trends
- some headwinds
- drink wine
- drink more wine

it's always something

# it's always something...now what?

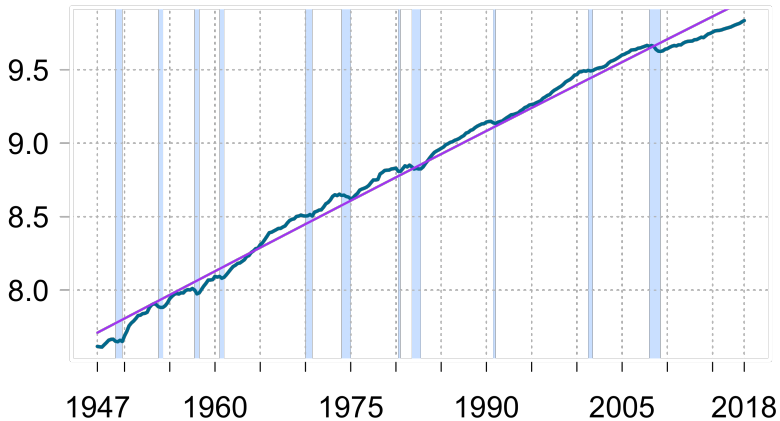
- shutdown: gov't
- slowdown: china, europe (us??)
- smackdown: tariffs/china trade war resumption
- showdown: unfunded pension liabilities

but first...

- quick reminder of where we are

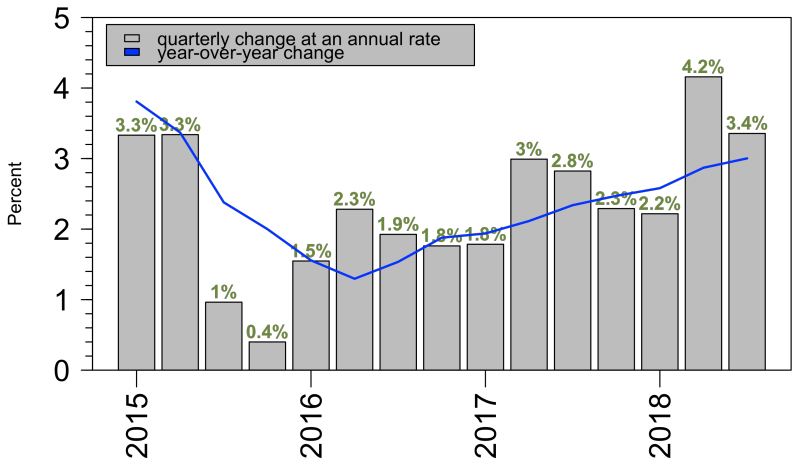
# Real GDP

2012\$, Logged, Linear Filter





## Real GDP

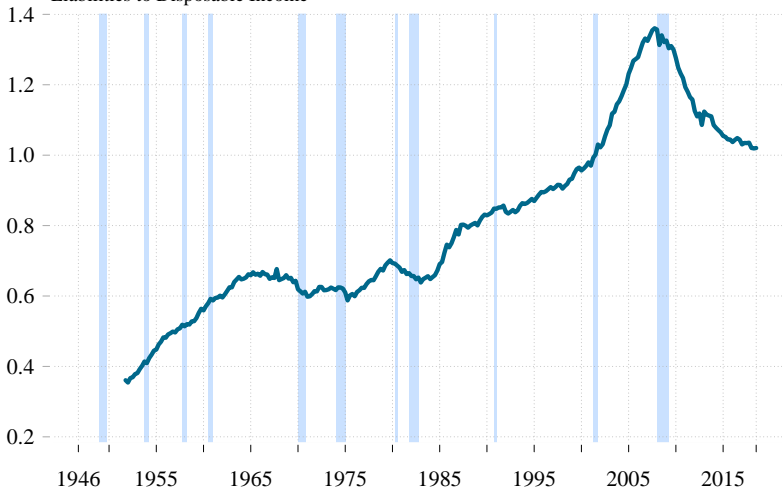


Econsnapshot.com

Source: BEA

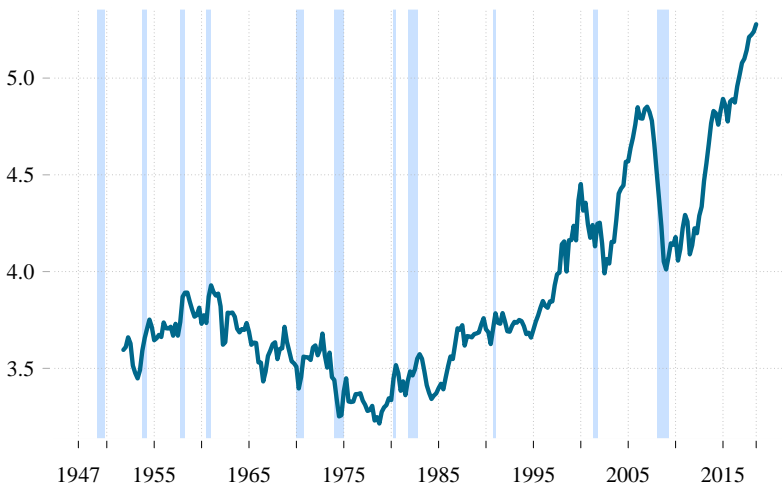
## Household Leverage

Liabilities to Disposable Income



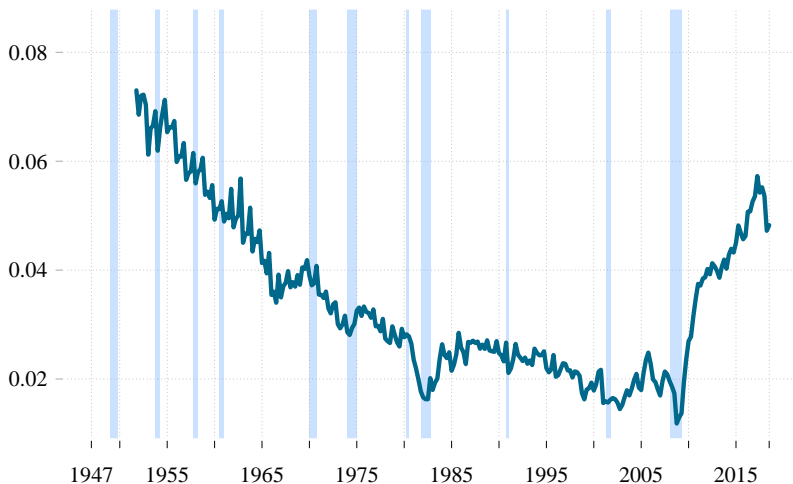
## Household Net Worth (Assets–Liabilities)

Ratio to GDP

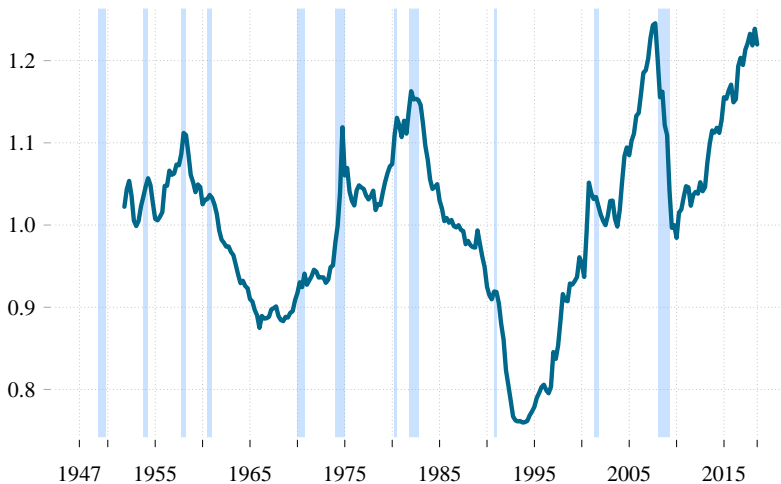


## Checkable Deposits and Currency, Nonfinancial Corporate Business

Ratio to GDP

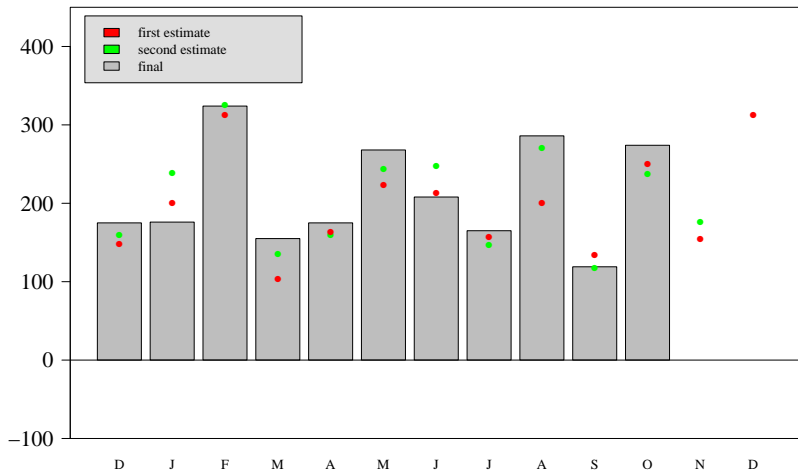


## Net Worth, Nonfinancial Corporate Business Ratio to GDP



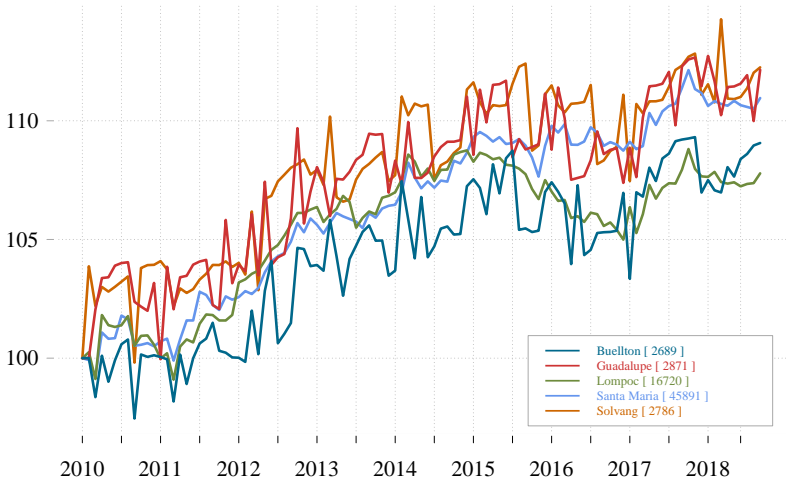
# Net Payroll Employment Change

Thousands, SA

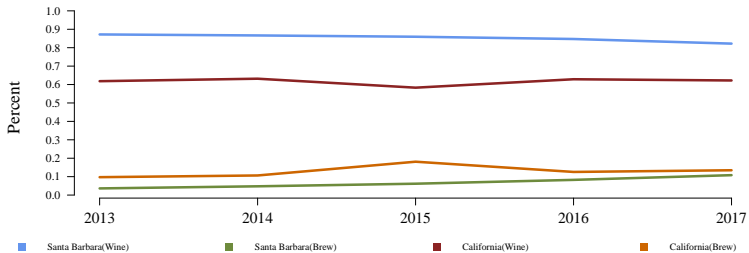


## Total Employment: North County Cities

# of workers



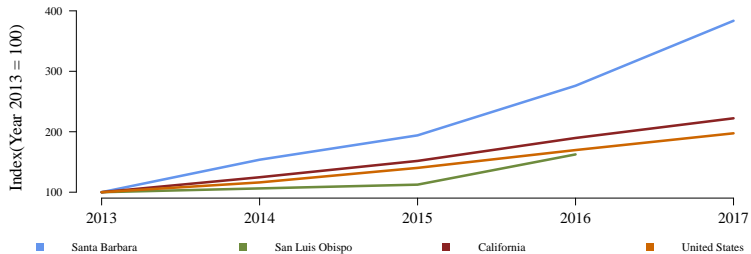
## Share of Beverage Employment: Wineries vs. Breweries



Source: US Bureau of Labor Statistics



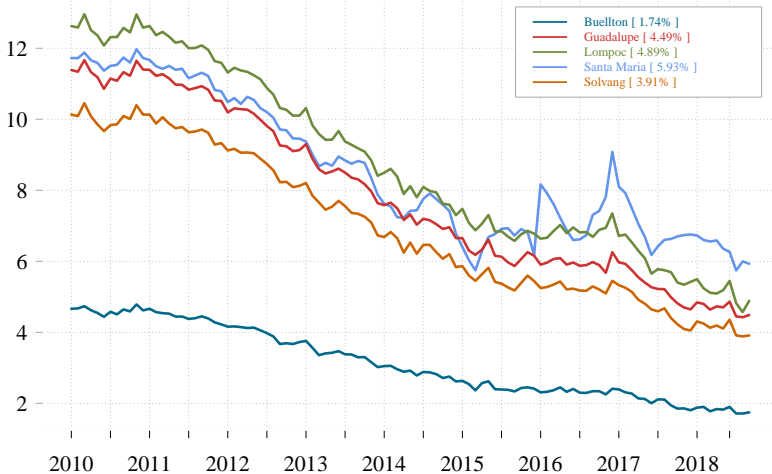
## Brewery Employment: Total Employed



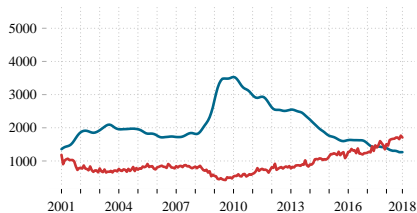
Source: US Bureau of Labor Statistics

## Unemployment Rate: North County Cities

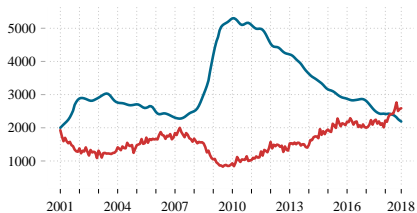
Percent (%)



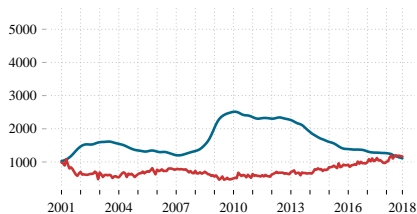
**Midwest**



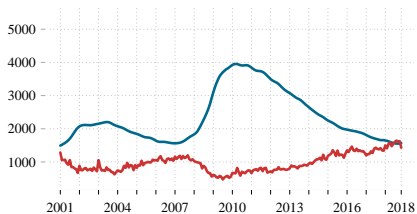
**South**



**Northeast**



**West**

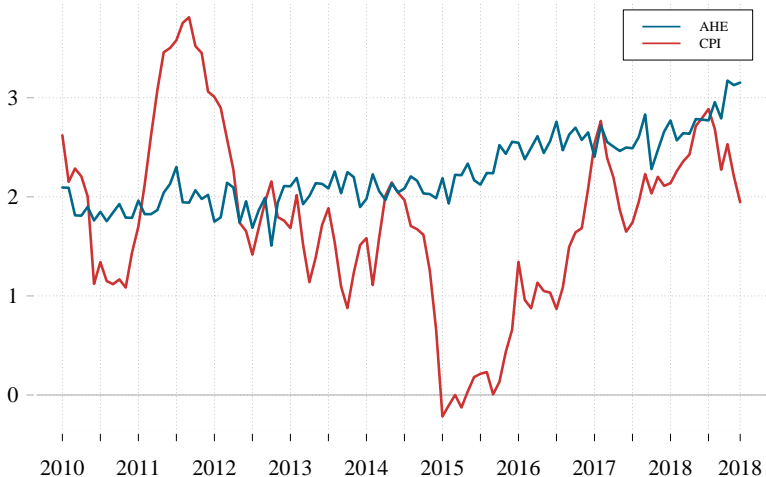


— Unemployed Persons (000's)

— Vacancies, (000's)

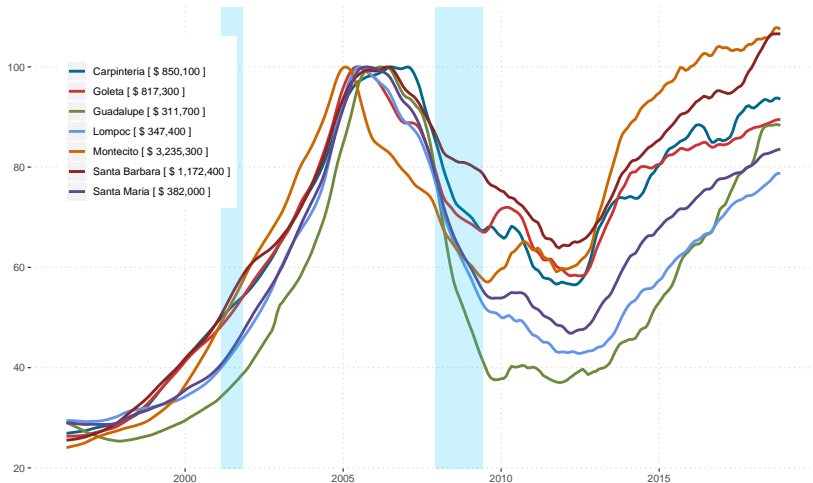
## Inflation and Average Hourly Earnings

Percent change from a year ago



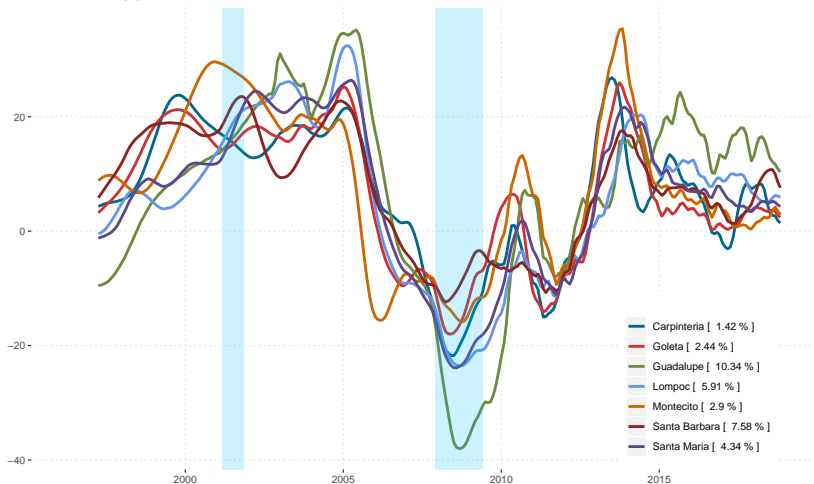
## Zillow Home Value Index (ZHVI)

Index (100 = Pre-Recession Maximum Value)



## Zillow Home Value Index (ZHVI)

YoY Growth Rate (%)



it's always something

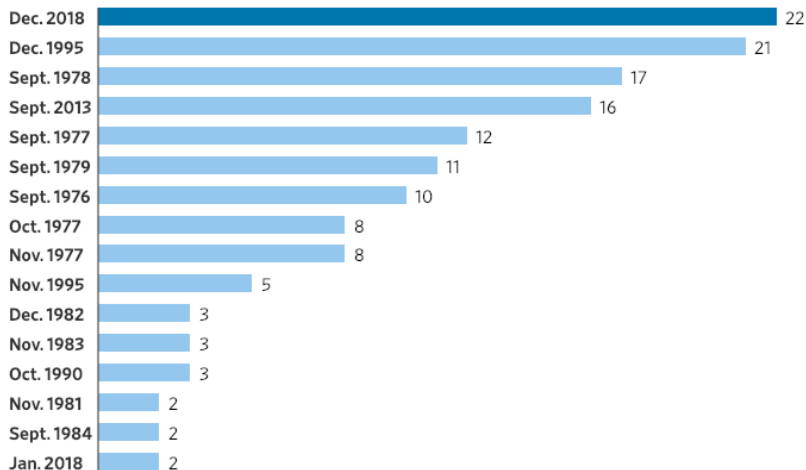
# shutdown

- longest shutdown since like forever



## Shutdown

Federal funding gaps of more than one day, and the number of full days they lasted



Note: Dec. 2018 gap is through end of day Jan. 12, 2019

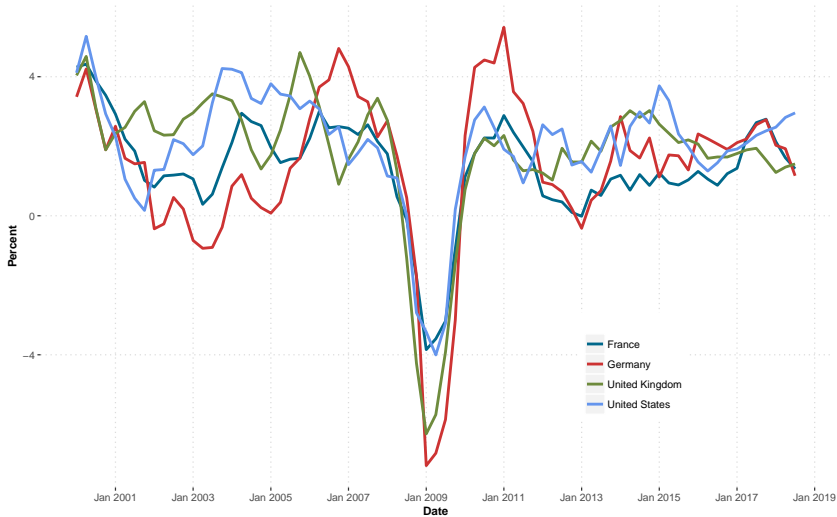
Source: Congressional Research Service (through 2017); staff reports (2018)

## ...shutdown

- missed first paycheck: hundreds of thousands
- tsa sick calls up 137%
- gdp growth cut by ??
- employment growth: 200k or -150k?

slowdown

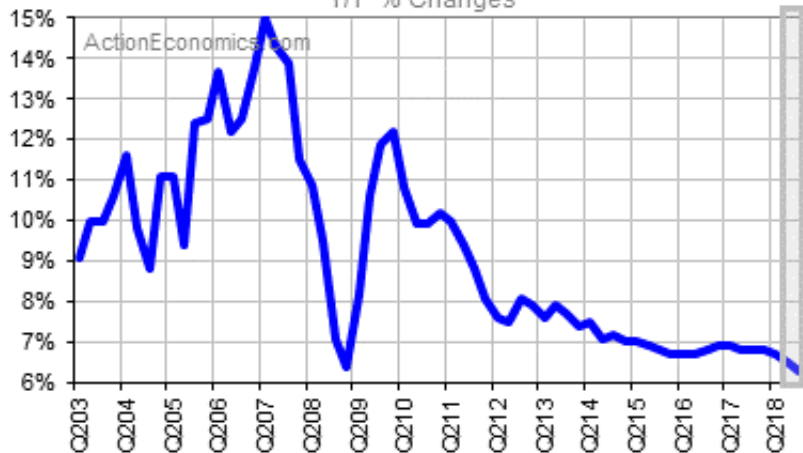
## YoY Real GDP Growth Rate



slowdown

## China GDP

Y/Y % Changes

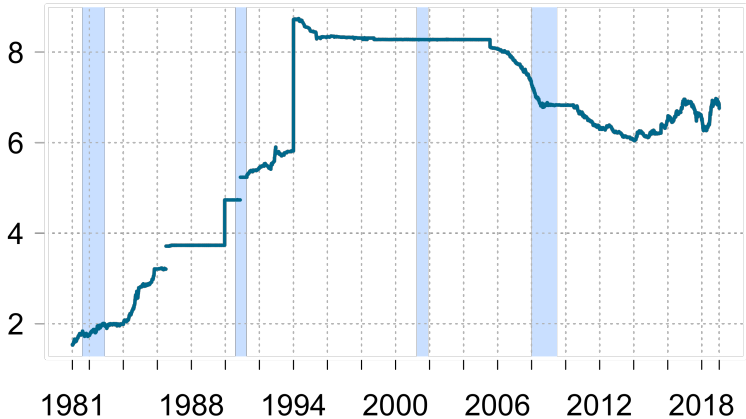


# smackdown

- will the tariff war resume?
- it is not an ez war to win
- china has a weapon we don't have

# China/US exchange rates

Yuan to one US dollar



## China/US exchange rates

Yuan to one US dollar





# showdown

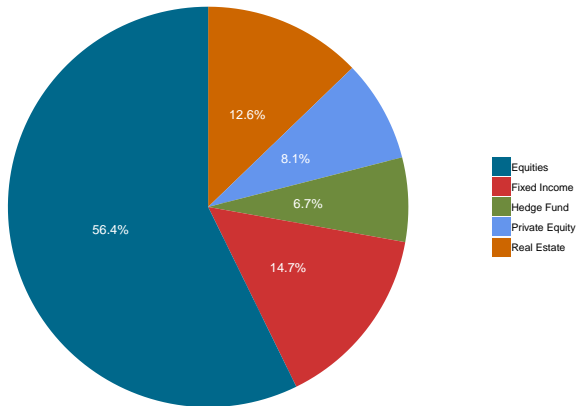
- defined benefit pension liabilities
  - how are we doing?
- we will look at perf, ca teachers and UC
- what is a pension?
  - in this case, a **promise** to pay
- so what is the problem?

# showdown

- underfunded pensions
- ok, but how much?
  - how to value pension liabilities?
  - it is a debt owed by the government
  - like any other debt (treasuries)!
  - pension promises: not riskless!

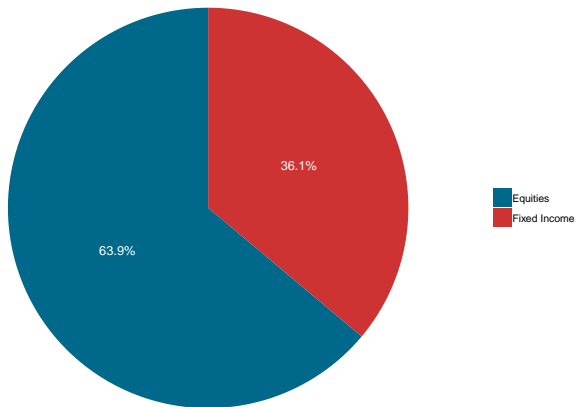
## Portfolio Allocation: California Teachers

2017 Fiscal Year End Holdings



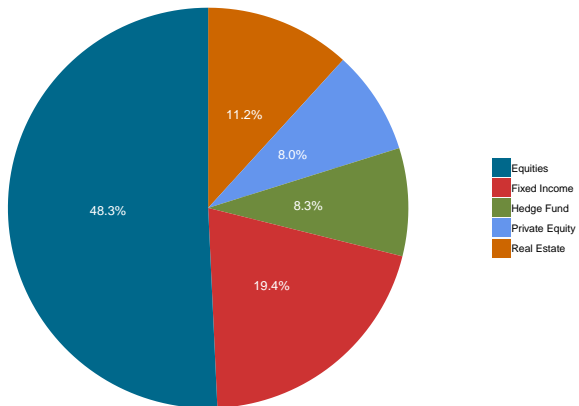
## Portfolio Allocation: University of California

2017 Fiscal Year End Holdings



## Portfolio Allocation: California PERF

2017 Fiscal Year End Holdings



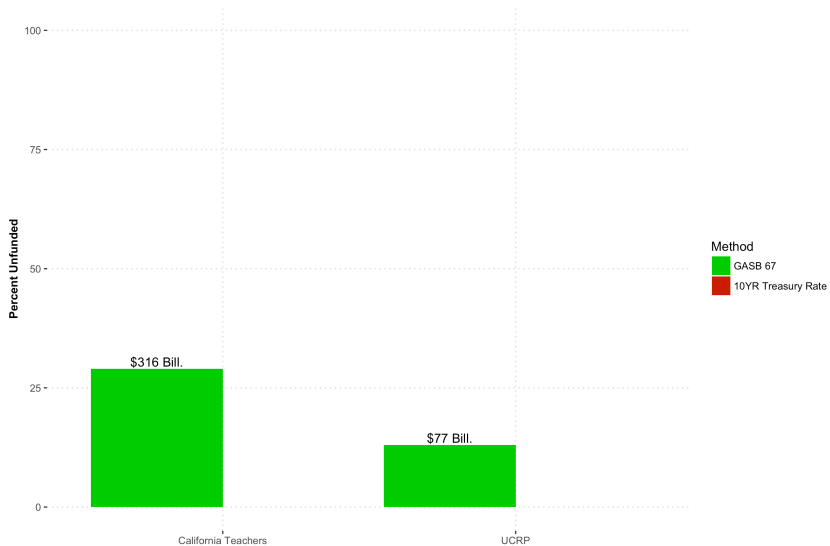
# how to value

- should use risk-free rate from yield curve
- current practice: 7.3%
  - recall rule of 70
  - doubles in about 9.5 years
- so, if owe \$100k in 10 years
  - then \$50k in assets is “fully funded” (gasb 67)

**Table 1: Summary Table**

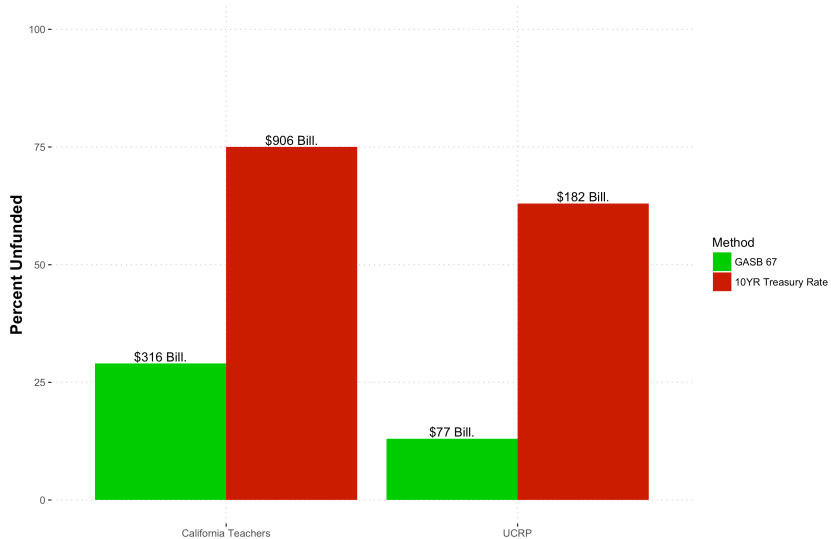
\$ Amounts in Billions			
Number of Plans Total	State Pensions 263	Local Pensions 386	State & Local Pensions 649
<b>I. Assets and Liabilities</b>			
<i>GASB 67 Standards</i>			
Total Pension Liability (TPL)	\$4,160	\$807	\$4,967
Assets	\$3,034	\$555	\$3,589
Net Pension Liability (NPL)	\$1,126	\$252	\$1,378
Funding Ratio	72.9%	68.8%	72.3%
<i>Market Value Standards</i>			
Accumulated Benefits Obligation (ABO)	\$6,228	\$1,206	\$7,435
Assets	\$3,034	\$555	\$3,589
Unfunded Market Value Liability (UMVL)	<b>\$3,194</b>	<b>\$651</b>	<b>\$3,846</b>
Funding Ratio	<b>48.7%</b>	<b>46.0%</b>	<b>48.3%</b>

## Pension Liabilities





# Pension Liabilities



# final remarks

- economy continues strong growth
- signs of slowing?
  - always some signs of slowing
- recession coming? yes

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- economy continues strong growth
- signs of slowing?
  - always some signs of slowing
- recession coming? yes
  - when? don't know, sorry