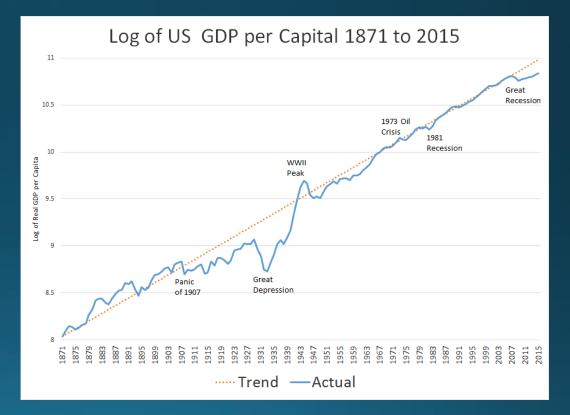
It Ain't Over til It's Over

Bears and Bear Markets

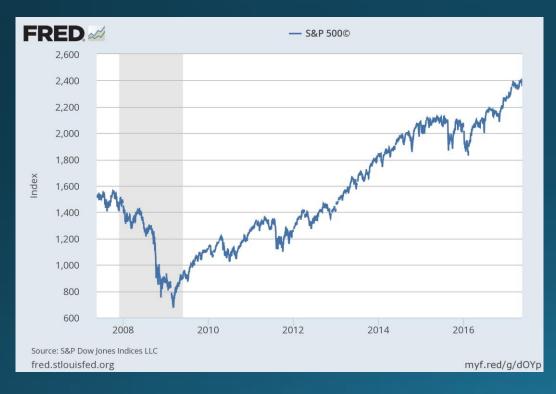
The Mother of All Bear Markets



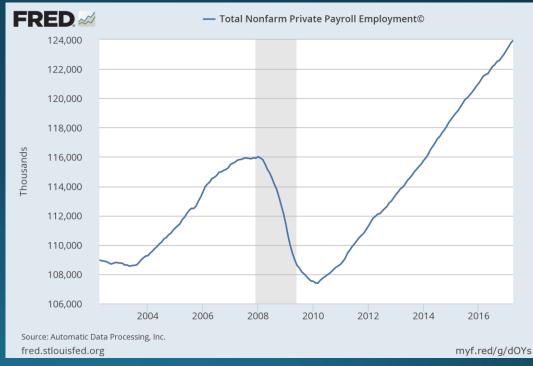


Is It Over?

Stock Market at New Highs



Private Employment at New Highs



S&P Price-Earnings Ratio High





f Share

Current Shiller PE Ratio: 28.43 -0.04 (-0.14%) 10:46 am EST, Mon Feb 6

 Mean:
 16.72

 Median:
 16.09

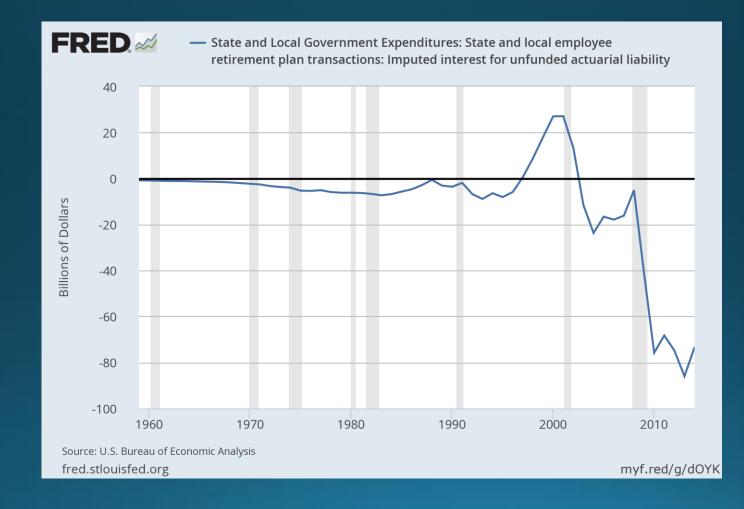
 Min:
 4.78 (Dec 1920)

 Max:
 44.19 (Dec 1999)

Shiller PE ratio for the S&P 500

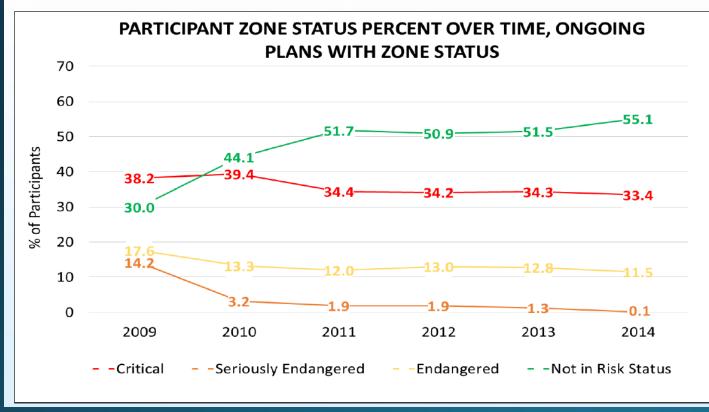
High price-earnings ratios imply that future earnings growth already "baked into" current stock prices.

Unfunded Public Pension Liabilities



Multi-Employer Pension Funds

Zone Status over Time (Participants)

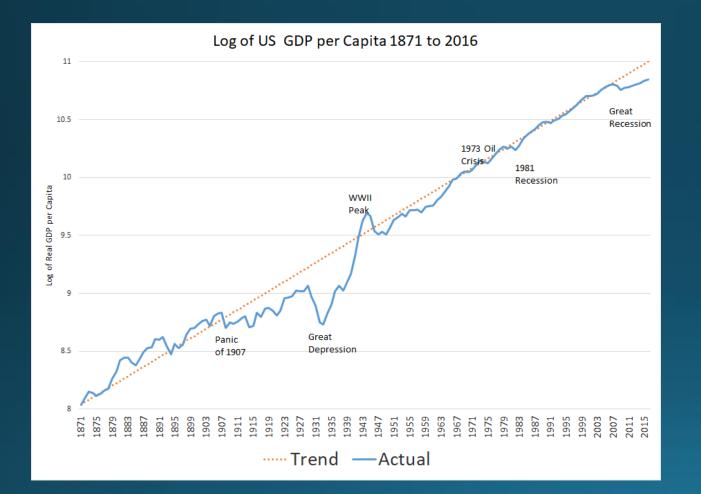


Recent improvements due to stock market recovery.

45% of multiemployer funds at risk under current future returns assumptions.

Will assumed returns of 7% to 8% hold over next several decades?

GDP per Capita below Trend

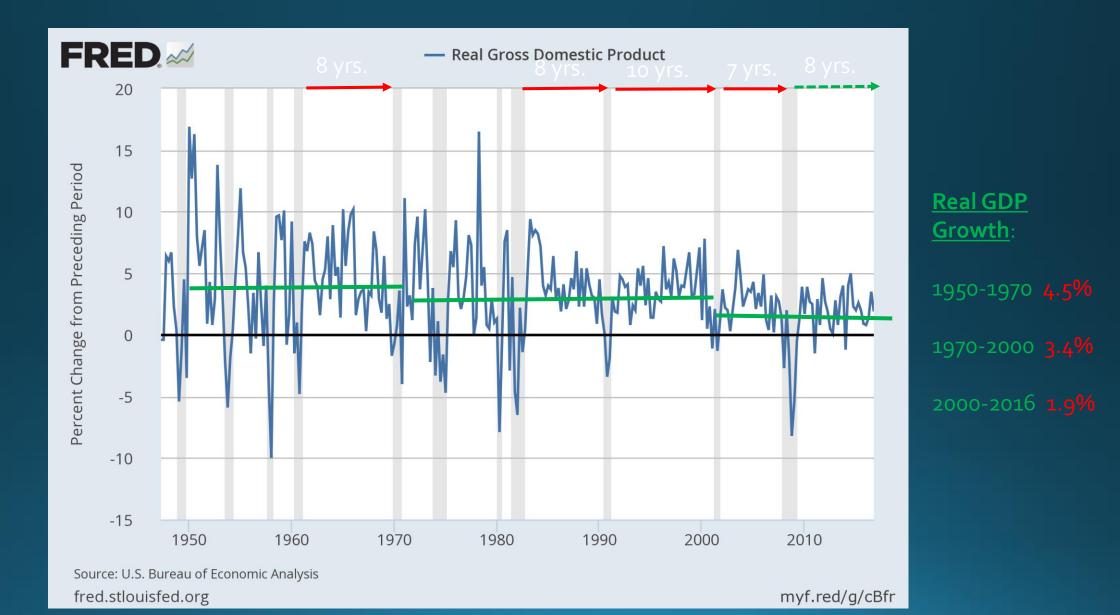


Key question:

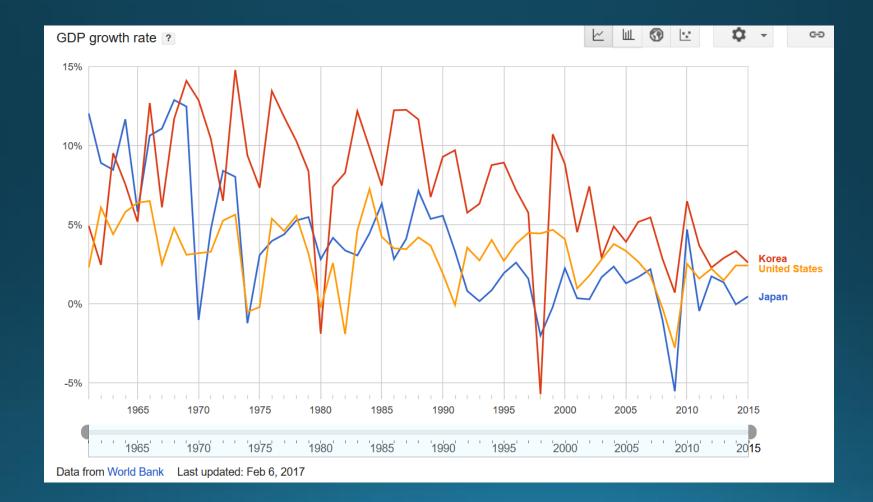
Is the economy geared to rapidly return to trend (with positive implications for both the stock market and the construction industry?

Or are we condemned to slow growth for a long period?

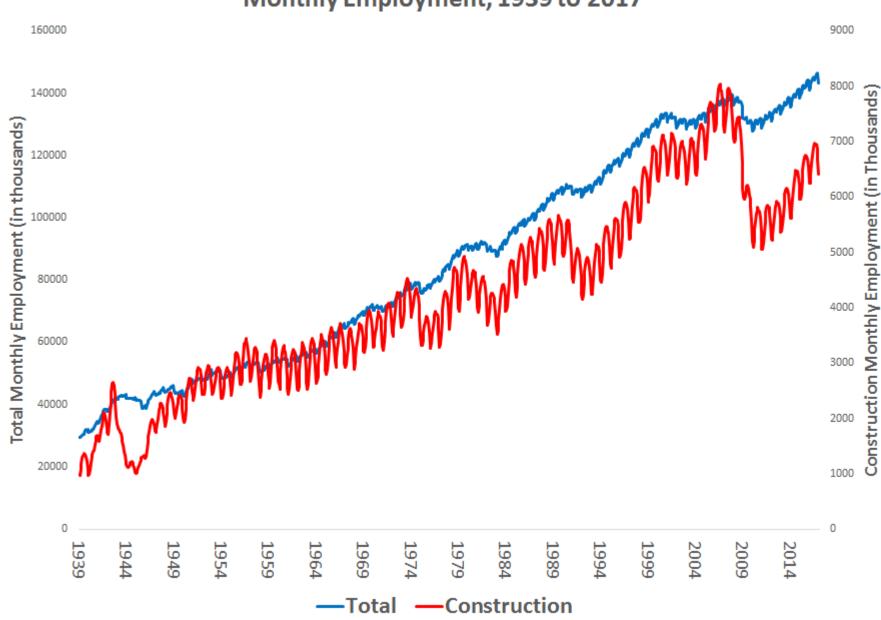
US Slowdown in Growth Long Term Phenomenon



Long Term World-Wide Slowdown



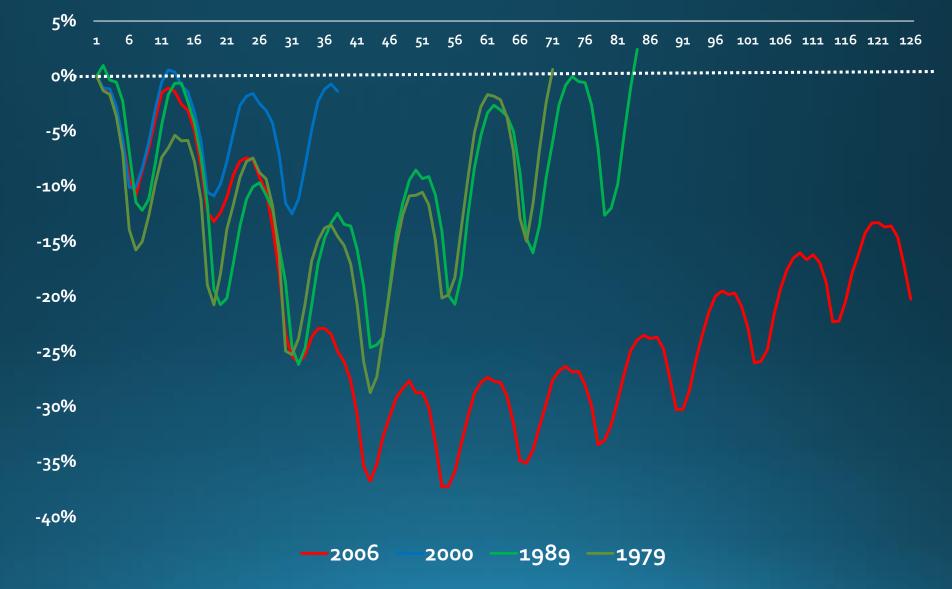
Construction Employment Recovery Lags the Overall Economy



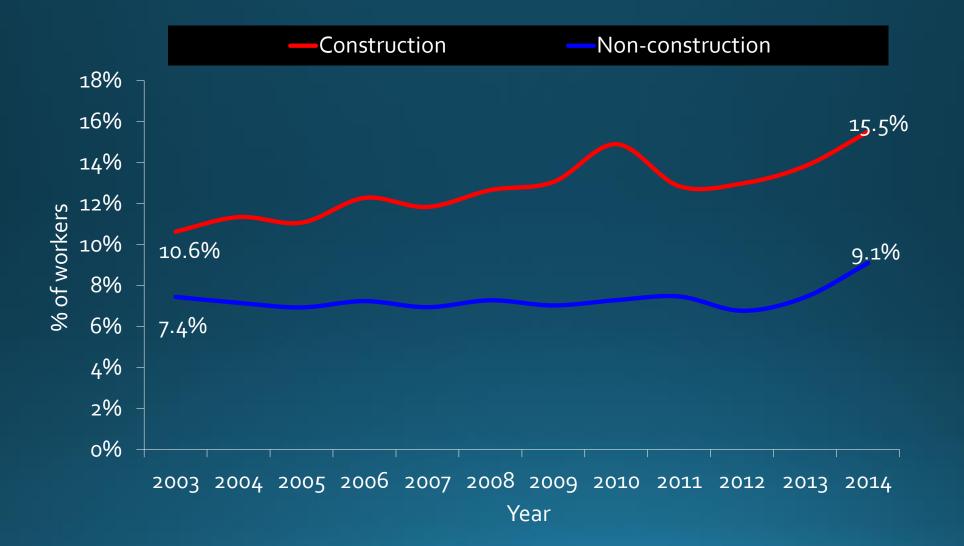
Monthly Employment, 1939 to 2017

Construction Employment Recovery Lags Previous Construction Recoveries

Months Construction Employment Below Previous Peak: Last Four Recessions



21a. Percentage of workers who were temporary workers, construction vs. non-construction, 2003-2014



De-Regulation of Labor Market

- Indiana, Kentucky and West Virginia repeal prevailing wage laws
- Wisconsin weakens law
- Missouri and Michigan fend off repeals
- 22 states restrict PLAs on state projects
- Federal PLAs bounce between Democratic & Republican administrations

Map of PWs & PLAs

PWs (Blue=strong/avg; Red=weak/no; purple/yellow=under attack) PLAs (Blue=promoted; Red=restricted)

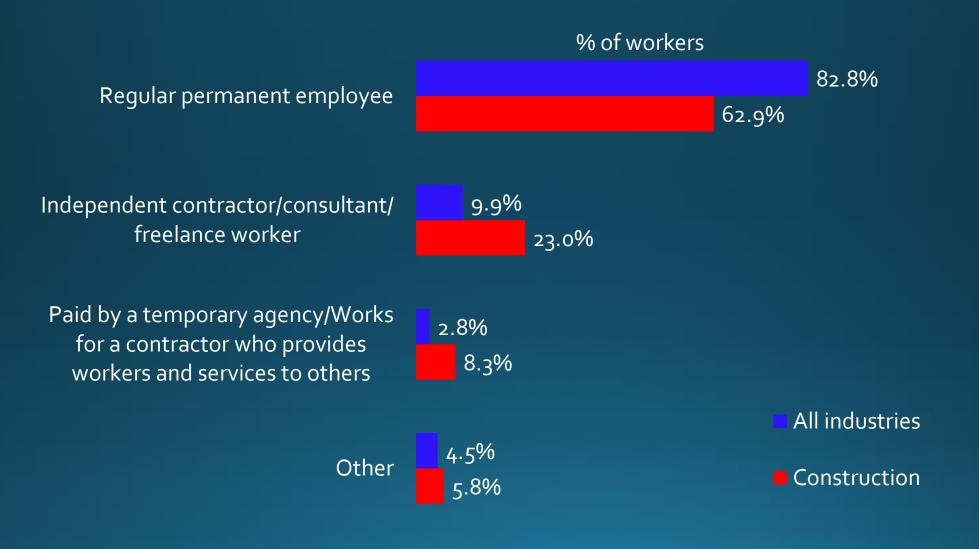




Structural Transformation of Construction Labor Market

- Increase in temporary, contingent, leased and independent contractor labor
- Increase of immigrant labor
- Increase of subcontracting and layers of subcontracting
- Decrease in labor market regulations
 - Prevailing wage laws
 - Project labor agreements
- Decrease in labor quality

21c. Work arrangements, construction versus all industries, 2015

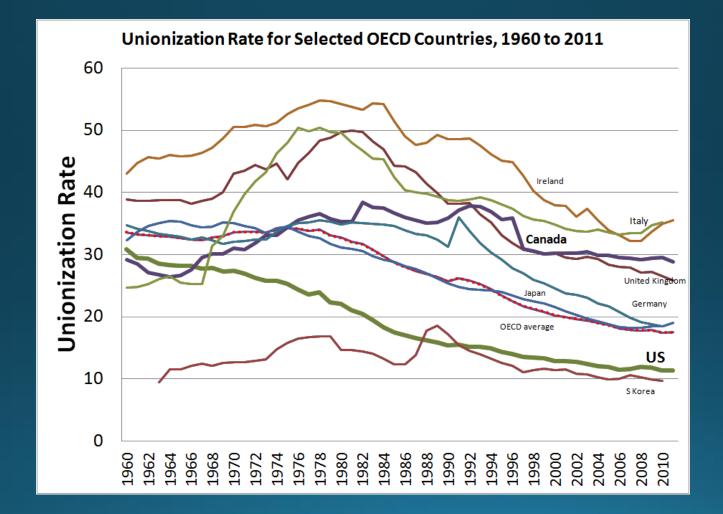


15a. Percentage of foreign-born workers, by industry, 2015 (All employment)

% of workers

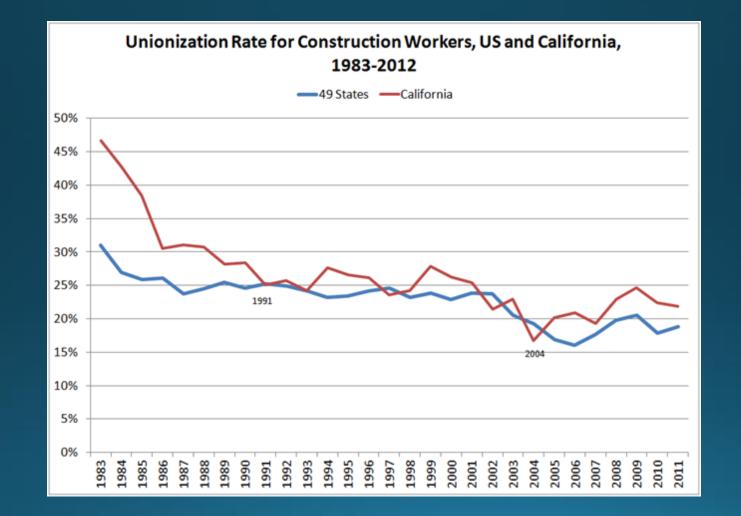
Agriculture		29.4%
Construction	24	4.7%
Transportation	19.0%	
Manufacturing	18.7%	
Wholesale	17.0%	
Services	17.5%	
Retail	14.0%	
Finance	12.9%	
Mining	11.4%	
Public admin	9.0%	
All industries	17.1%	

Decline of Unions Worldwide



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Construction Union Decline



Where's the Good News?

PW	Value of Tr	Blue Collar				
Status		Construction				
		Workers				
	Nonunion	Union	Total	Total		
no law	\$61,641,982	\$367,812,075	\$429,454,057	1,363,994		
law	\$180,304,484	\$2,289,733,506	\$2,470,037,990	2,866,720		
Total	\$241,946,466	\$2,657,545,581	\$2,899,492,047	4,230,714		
no law	2%	13%	15%	32%		
law	6%	79%	85%	68%		
Total	8%	92%	100%	100%		



Technology and Public Investment

- Infrastructure investment may speed recovery
- Energy infrastructure transformation favors electrical industry
- Futuristic technologies favors adaptive apprenticeship systems
 - Construction robotics
 - Smart roads
- Left/right populism may stall deregulation
- Everybody loves training (but everyone can't do it)
 - Job training through apprenticeships is a priority for Trump, Labor secretary says (LA Times May 19, 2017)

Bears and Bear Markets

