

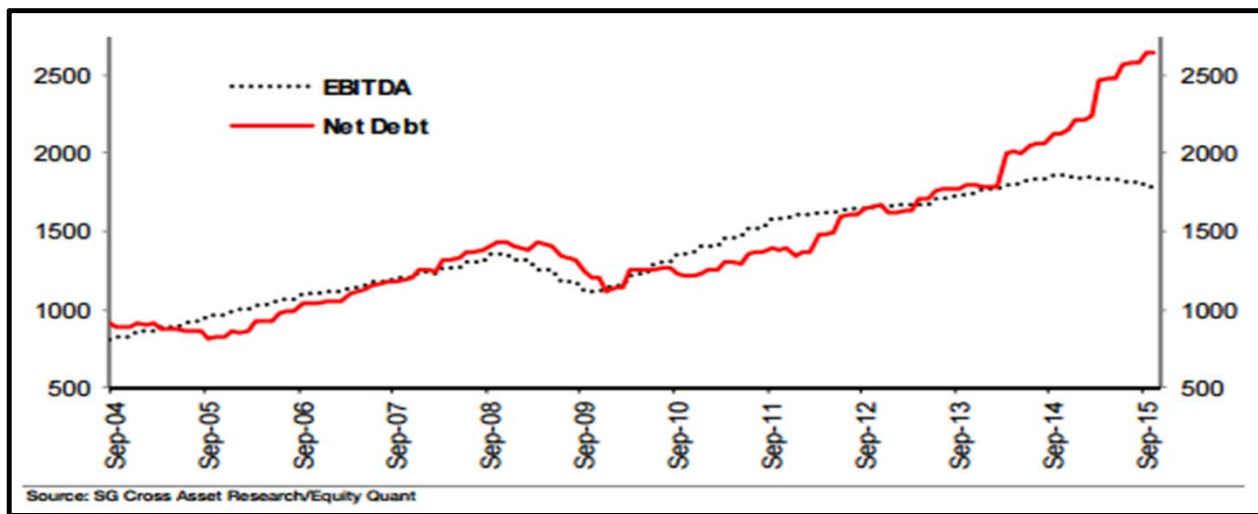
# Hurtling Towards Financial Armageddon

Veneroso Associates

April 18, 2018

# SocGen shows a doubling in net debt for the S&P 1500 ex-financials

**Figure 1: US Corporate Net Debt Has Exploded and Exceeds Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) (in \$ billion, S&P 1500 ex-financials)**



# Federal Reserve data seems to be an outlier

**Table 2: Growth in Nonfinancial Corporate and Business Debt since 2007Q4**

	\$ billions			% Change
	2007Q4	2016Q4	Change	
S&P 1500 ex Financials and GE	1,647	4,089	2,442	148.27
S&P 1500 ex Financials	1,966	4,195	2,229	113.38
Census Bureau: Manufacturing, Wholesale Trade, Retail, and Mining (survey of 11,000 corporations, both public and private)	1,762	3,608	1,846	104.77
S&P's Universe of Nonfinancial Issuers of Debt	3,200	5,800	2,600	81.25
Federal Reserve Flow of Funds: Total Nonfinancial Business	10,100	13,435	3,335	33.02
Federal Reserve Flow of Funds: Nonfinancial Corporations	6,325	8,378	2,053	32.46

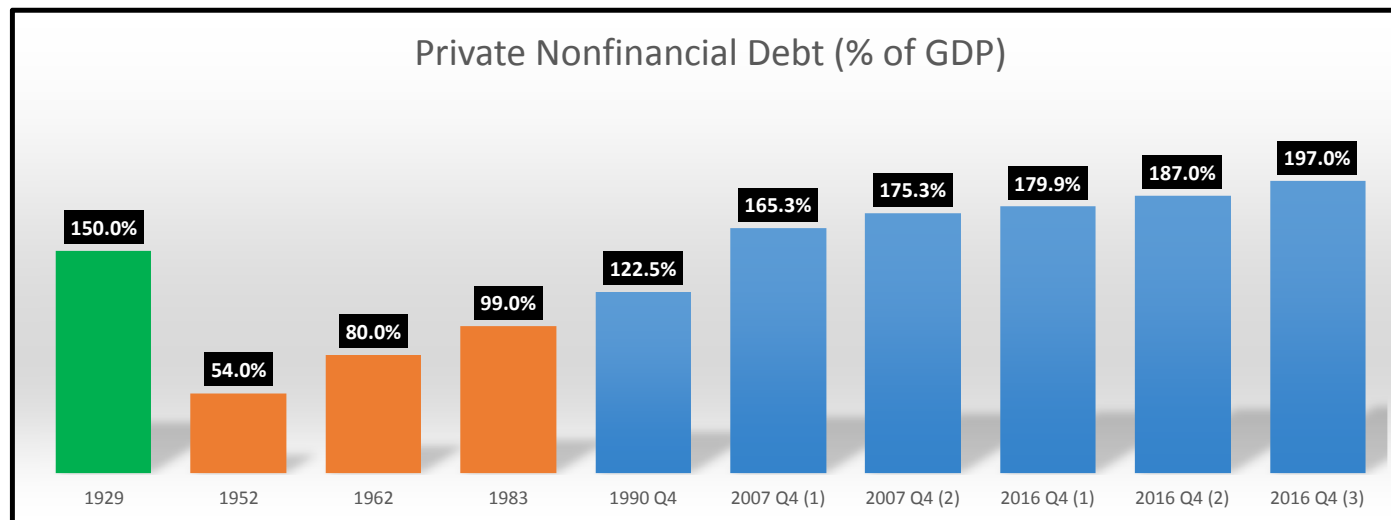
# What would it be if nonfinancial noncorporate debt also grew by 100%?

“Current flow of funds estimates” is the data as currently published in the flow of funds accounts. “Estimates based on revised 2007 debt” assumes the revised nonfinancial corporate debt at year-end 2007 and noncorporate nonfinancial debt at year-end 2007 grows 100 percent from 2008–16. “Estimates based on original 2007 debt” assumes the original data on nonfinancial corporate debt (before a downward revision of \$2.35 trillion) and noncorporate nonfinancial debt at year-end 2007 grows 100 percent from 2008–16. Estimates for “household debt” remain as currently estimated by the flow of funds for 2008–16.

	Current Flow of Funds Estimates	Estimates Based on Revised 2007 Debt	Estimates Based on Original 2007 Debt
(\$ billions)			
Nonfinancial Corporate Debt 2007 YE	6,324.6	6,324.6	7,201.0
Nonfinancial Corporate Debt 2016 YE	8,378.4	12,649.2	14,402.0
% of GDP	44.3%	66.9%	76.2%
Nonfinancial Noncorporate Debt 2007 YE	3,775.1	3,775.1	3,774.5
Nonfinancial Noncorporate Debt 2016 YE	5,056.1	7,550.2	7,549.0
Total Business Debt 2016 YE	13,434.5	20,199.4	21,951.0
% of GDP	71.1%	106.8%	116.1%
Household Debt 2016 YE	14,673.9	14,673.9	14,673.9
% of GDP	77.6%	77.6%	77.6%
Private Nonfinancial Debt 2016 YE	28,108.4	34,873.3	36,624.9
% of GDP	148.7%	184.5%	193.7%

Source: Federal Reserve, Veneroso Associates calculations

Hy was right to be concerned that successive government bailouts would lead to greater risk taking and financial fragility



Source: Federal Reserve, Veneroso Associates calculations

1929- Irving Fisher "Booms and Depressions"

1952, 1962, 1983, 1990 Q4, 2007 Q4 (1)- Actual Flow of Funds data

2007 Q4 (2) Adds Andrew Smithers estimate of off-balance sheet debt (10% of GDP)

2016 Q4 (1) Assumes nonfinancial corporate debt grows 104% from 2007 Q4 and nonfinancial noncorporate debt grows 69%

2016 Q4 (2) Assumes total nonfinancial business debt grows 104% from 2007 Q4

2016 Q4 (3) Adds 10% of GDP for off-balance sheet debt

# Deleveraging Cycles: Private Debt to GDP ratio of 160% seems to be the “Red Alert” zone

Deleveraging Cycles in Selected Economies			
	Private Debt/ GDP at t0	Deleveraging (% of GDP)	Duration (Years)
Advanced Economies			
Belgium (2001)	179	-20	5
Canada (1992)	150	-12	3
Canada (1997)	151	-17	8
Denmark (1988)	162	-32	10
Finland (1992)	167	-47	9
Ireland (1999)	150	-33	5
Japan (1994)	221	-37	11
Norway (1988)	167	-44	7
Norway (1998)	159	-5	3
Portugal (1983)	157	-63	7
Portugal (2001)	184	-16	4
Sweden (1990)	167	-44	7
Sweden (2001)	180	-17	4
U.S. (1988)	127	-18	10
Emerging Economies			
Korea (1997)	170	-44	8
Thailand (1997)	182	-74	5

Source: IMF Working Paper, “Private Sector Deleveraging and Growth Following Busts”, Sally Chen et al, Feb. 2015

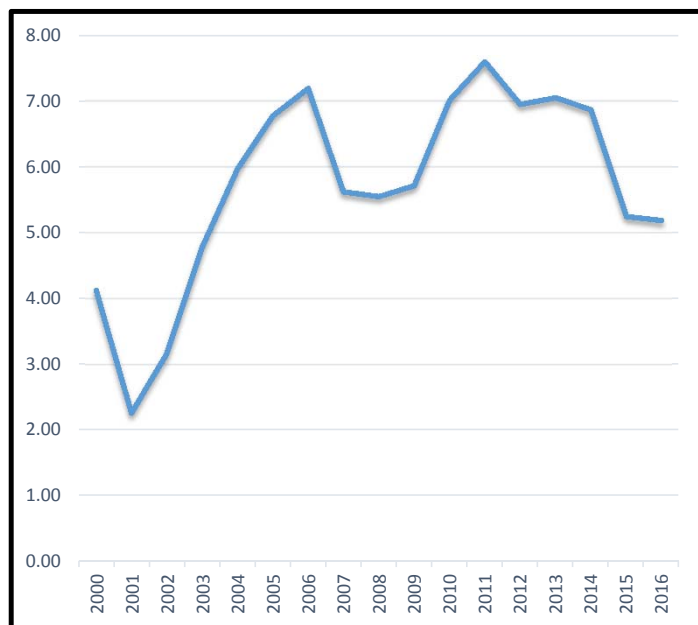
# The number of economies in the “Red Alert” zone is alarming

Countries with Private Non-Financial Debt > 160% of GDP			
(% of GDP)	Credit to the Household Sector	Credit to Non-Financial Corporations	Total
<b>Advanced Economies</b>			
Australia	121.9	77.5	199.4
Belgium	59.8	163.4	223.2
Canada	100.5	116.0	216.5
Switzerland	127.5	85.9	213.4
Denmark	117.2	100.5	217.7
Spain	63.2	100.0	163.2
Finland	66.9	114.1	181.0
France	58.1	133.7	191.8
Ireland	49.9	215.3	265.2
Netherlands	106.8	121.1	227.9
Norway	101.6	148.5	250.1
New Zealand	94.5	82.0	176.5
Portugal	70.8	110.1	180.9
Sweden	85.9	146.5	232.4
<b>Emerging Economies</b>			
China	46.8	163.4	210.2
Korea	93.8	100.1	193.9
Singapore	60.7	121.0	181.7

Source: BIS

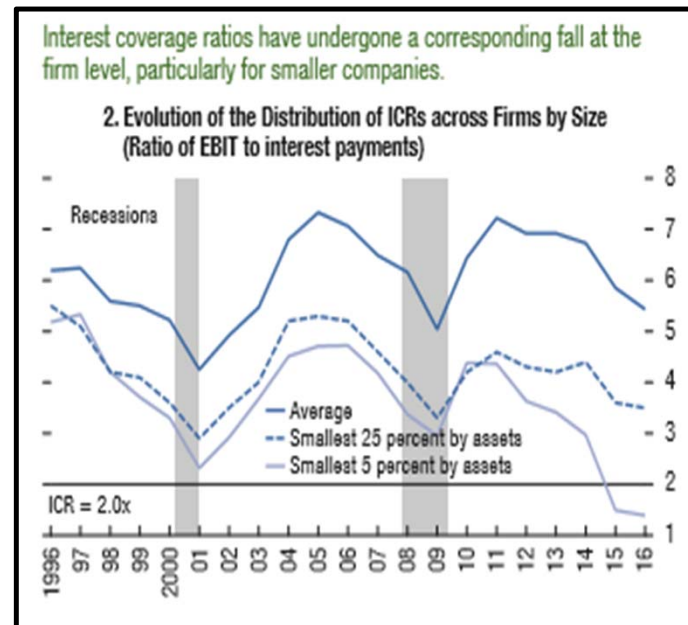
# IMF and BIS show the same decline in interest coverage

**Figure 10: US Interest Coverage Ratio, BIS**



Source: BIS

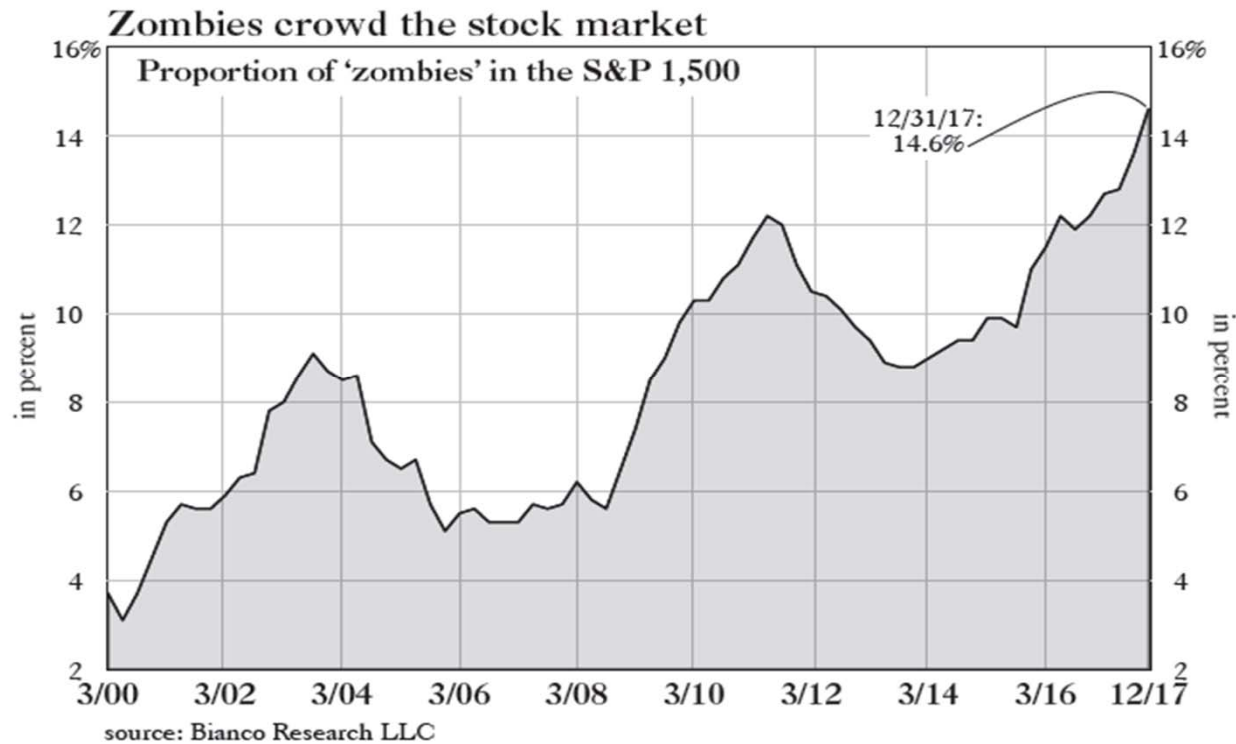
**Figure 11: Interest Coverage Ratios By Firm Size, IMF**



Source: IMF



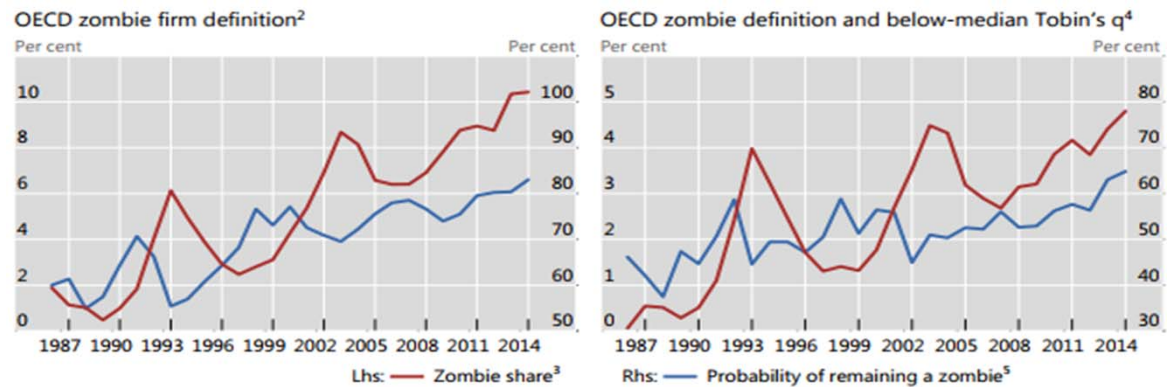
# ...and Bianco Research for the S&P 1500



\* Zombies defined as companies whose interest expense is greater than their 3-year average EBIT

The Rise of the Zombies is not limited to the U.S. It is global. Here is a 14 country composite from the BIS

**Figure 16: Zombie Firms on the Rise and Surviving for Longer**



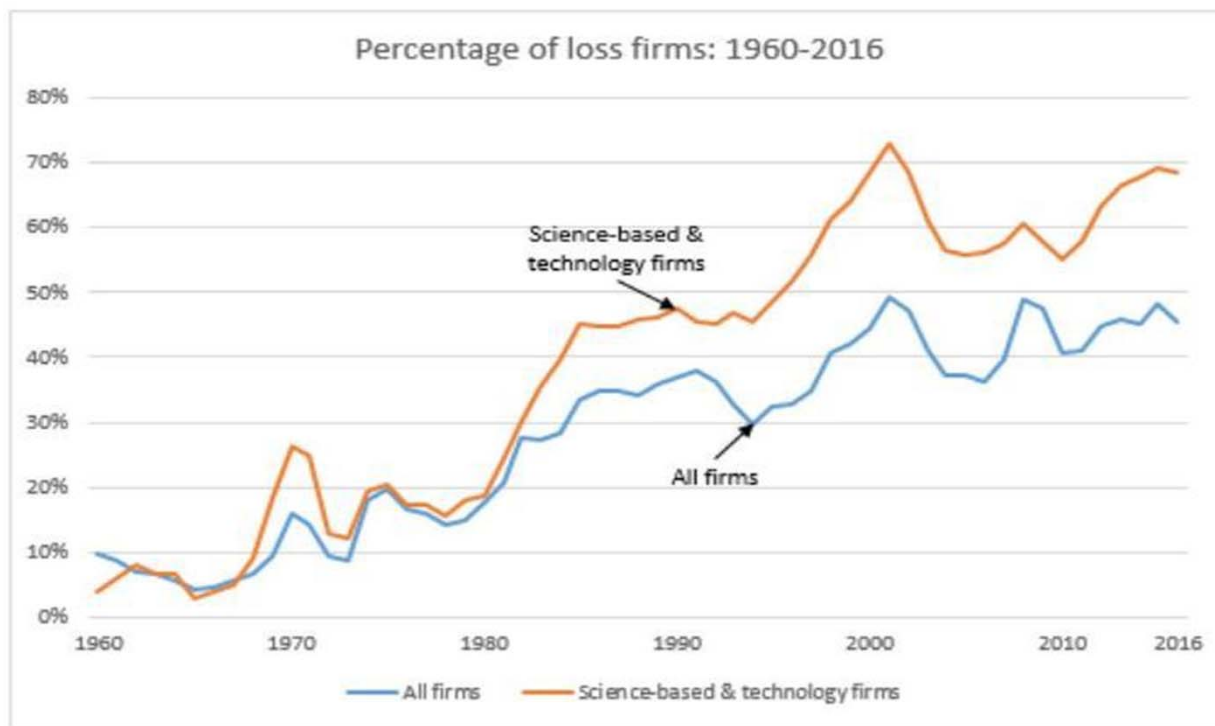
<sup>1</sup> Sample includes listed non-financial firms in Australia, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. <sup>2</sup> Zombie firm defined as a firm whose EBIT is below interest payments and is over 10 years old. <sup>3</sup> Ratio of the number of zombie firms to all listed firms. <sup>4</sup> Zombie firm defined as a firm whose EBIT is below interest payments, is over 10 years old and has below-median Tobin's q in its two-digit SIC sector in a given year. <sup>5</sup> Probability of a firm remaining a zombie in the following year, conditional on it being a zombie in the current year.

Source: Banerjee and Hofmann (2018).

Claudio Borio, "A blind spot in today's macroeconomics"

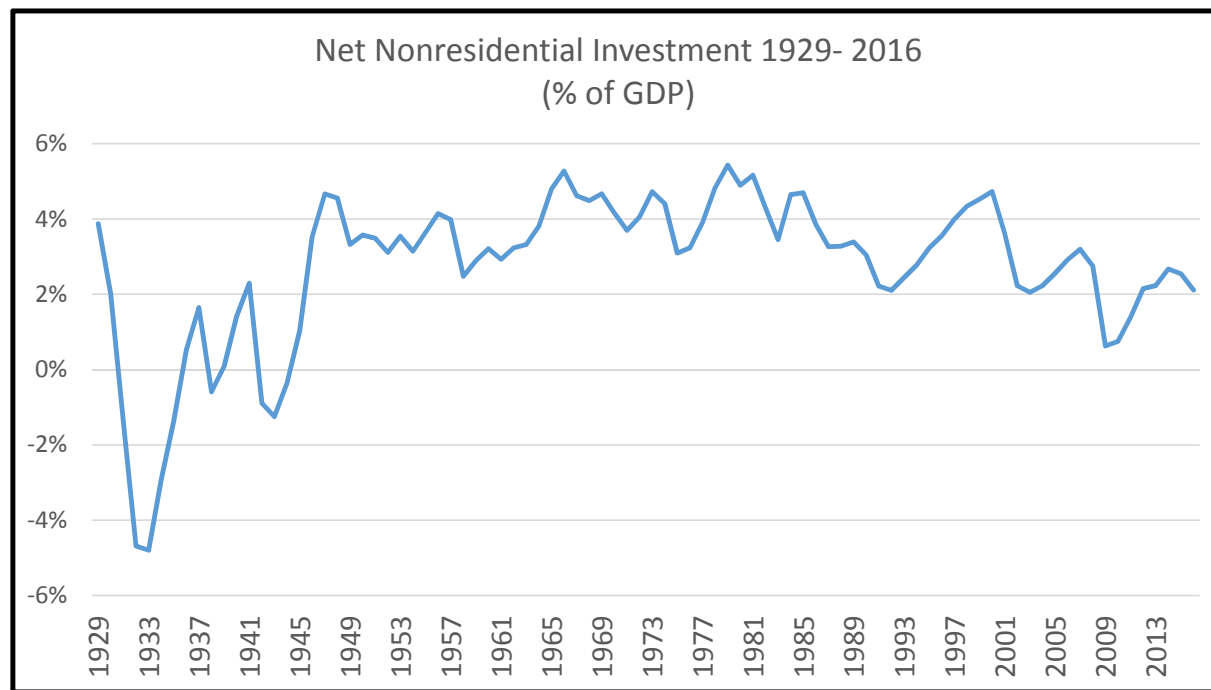
BIS-IMF-OECD Joint Conference on "Weak productivity: the role of financial factors and policies"  
10-11 January 2018

# Long Term Zombie Trend: Share of public companies with losses up more than 5X in 5 decades



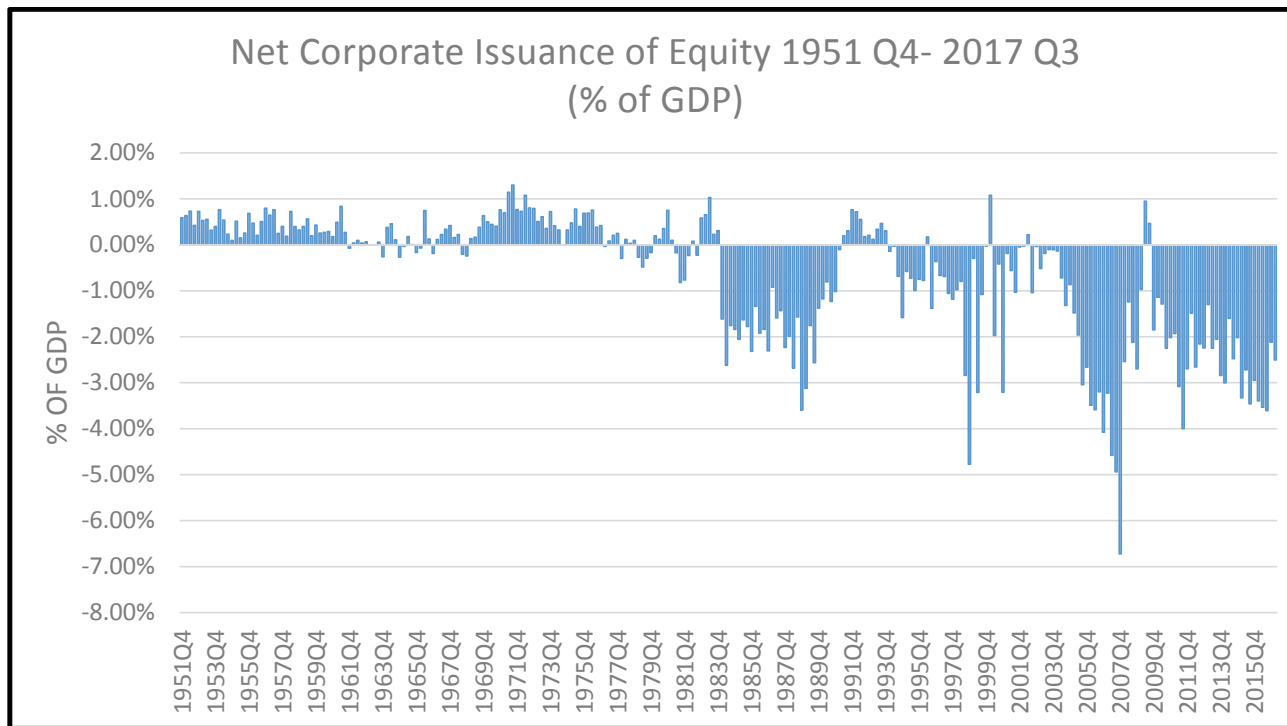
Source: Baruch Lev, Philip Bardes Professor of Accounting and Finance at the Stern School of Business, NYU

Why is private nonfinancial corporate debt so high? It is not excessive investment.....

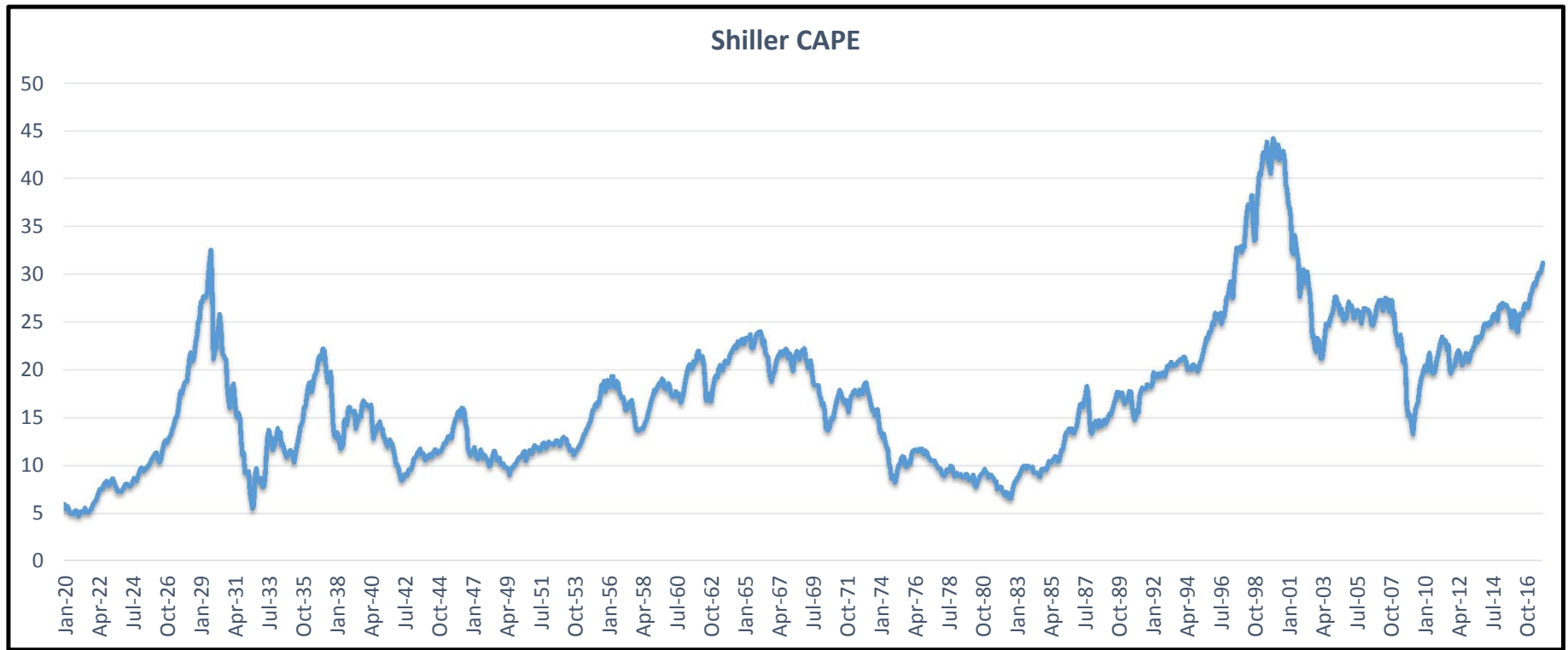


Source: BEA

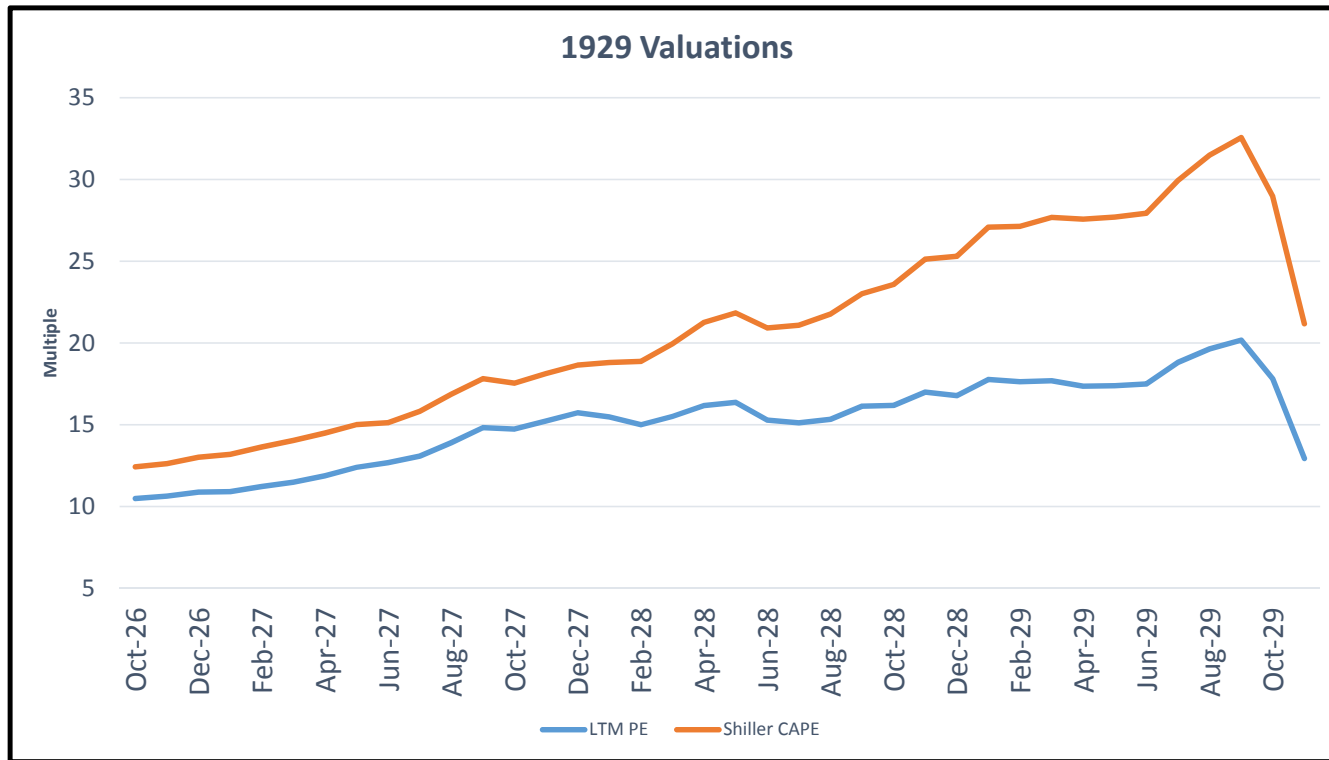
....but rather a large and sustained corporate bid for equities



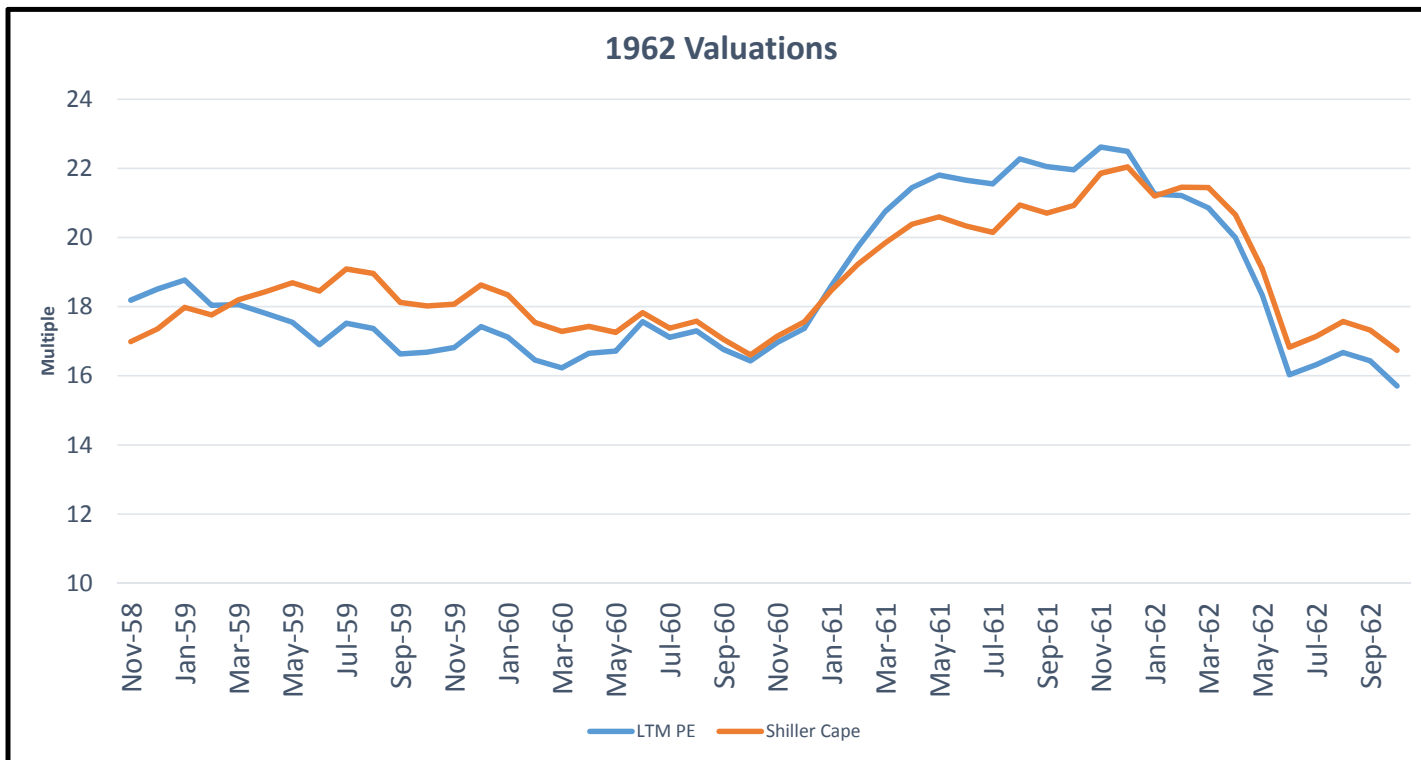
Source: Federal Reserve, BEA



Source: Robert Shiller Online Data

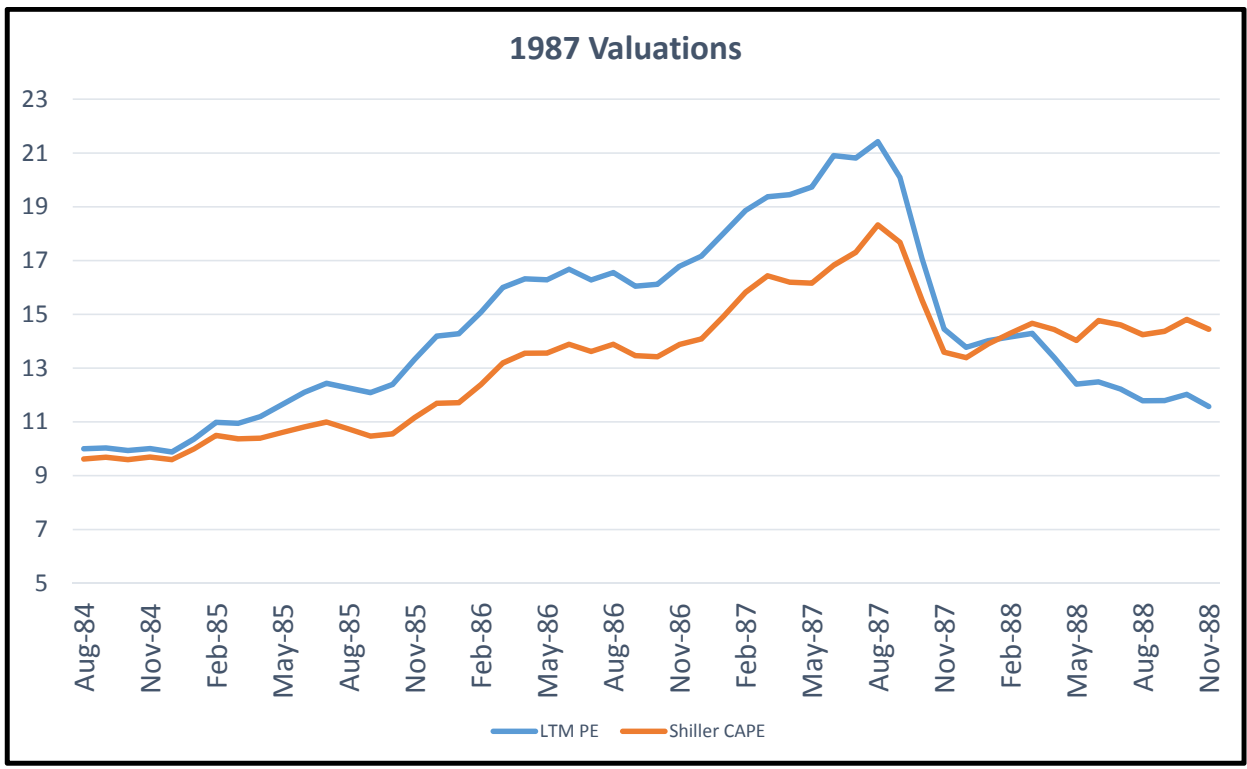


Source: Robert Shiller Online Data

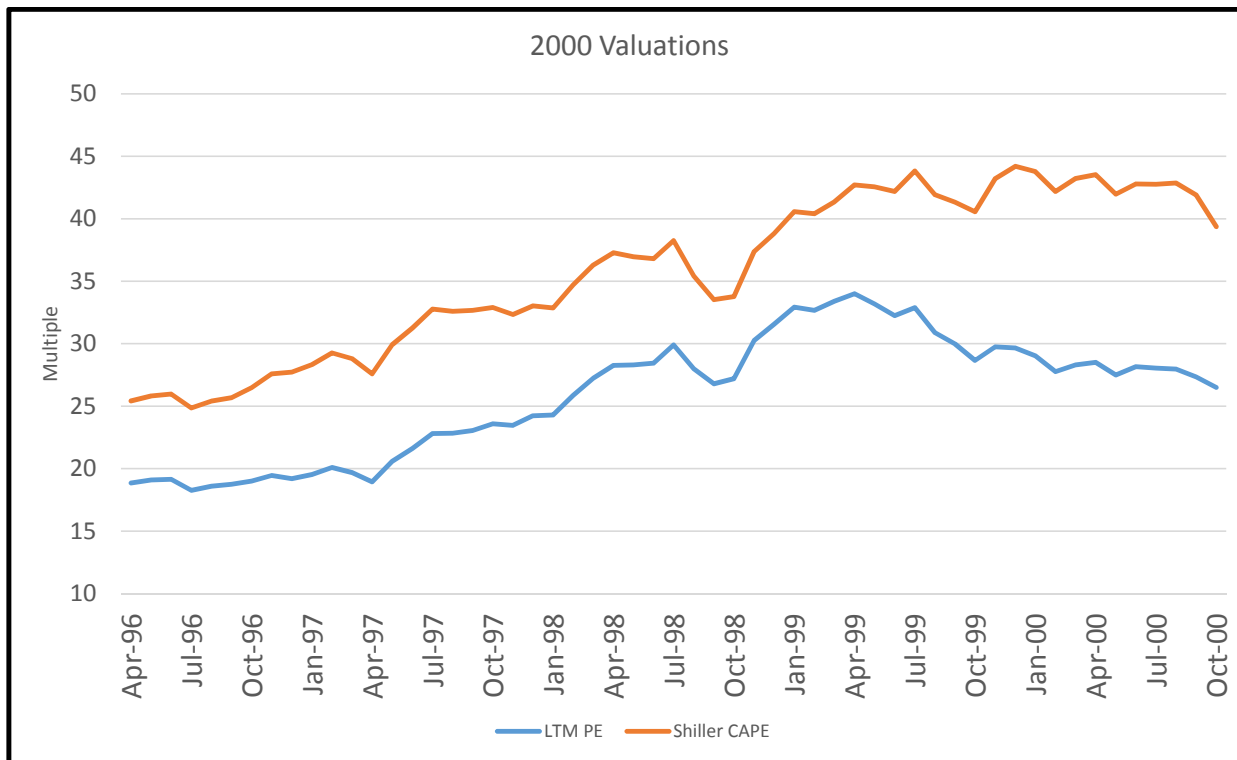


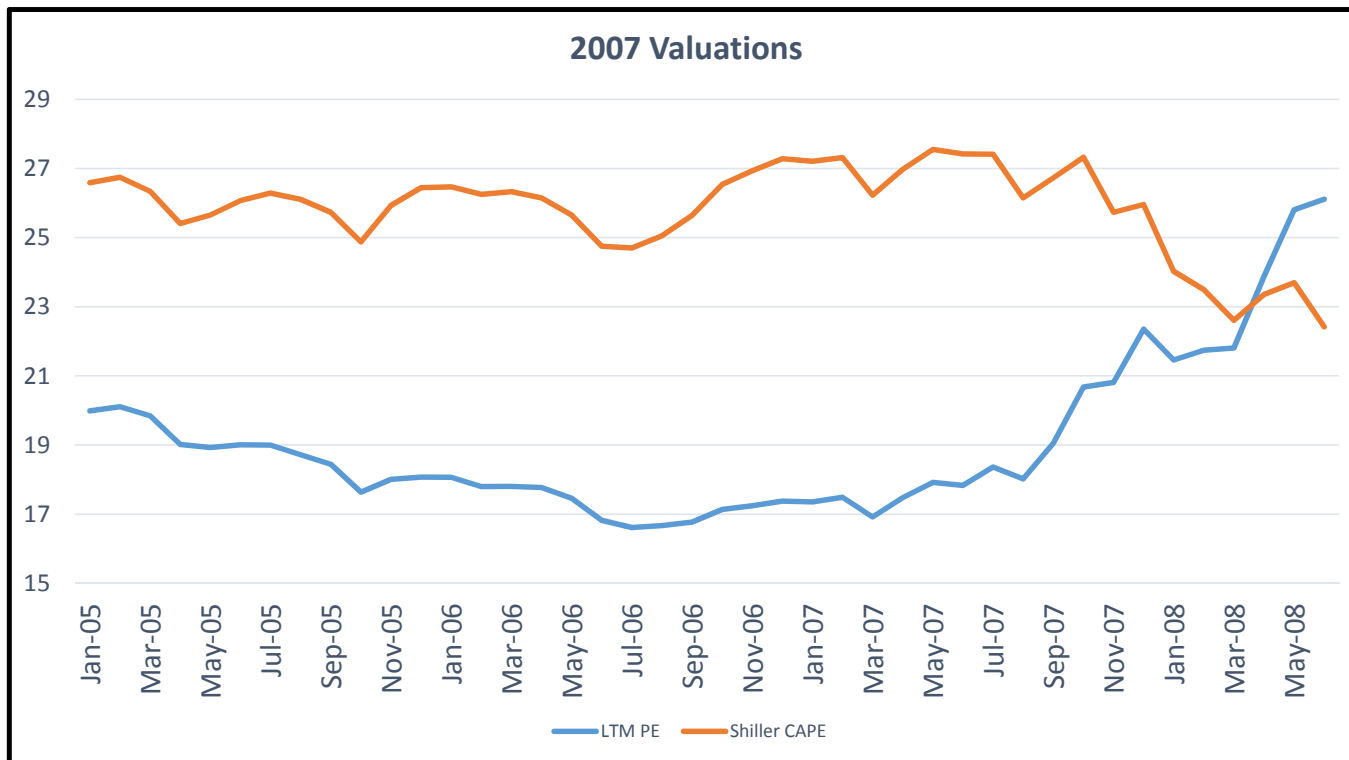
Source: Robert Shiller Online Data



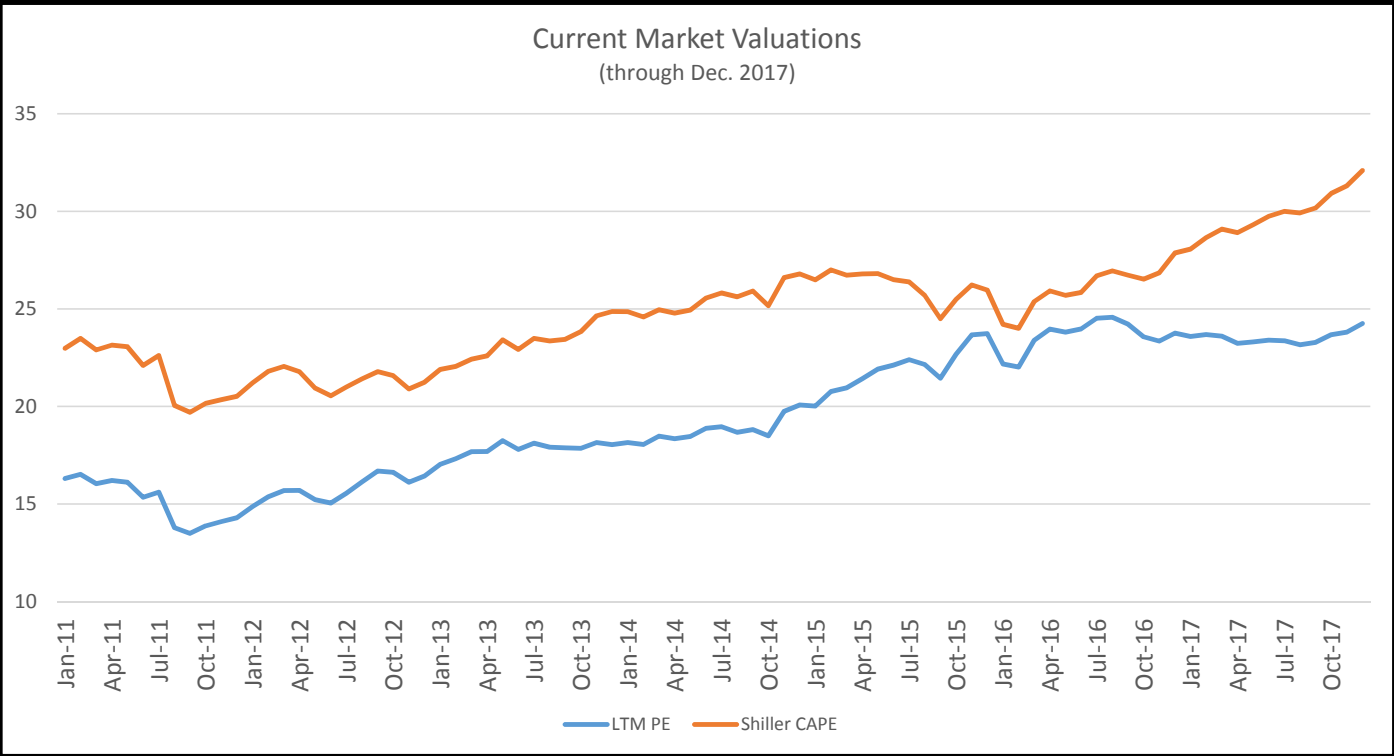


Source: Robert Shiller Online Data





Source: Robert Shiller Online Data



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