

Economic Outlook

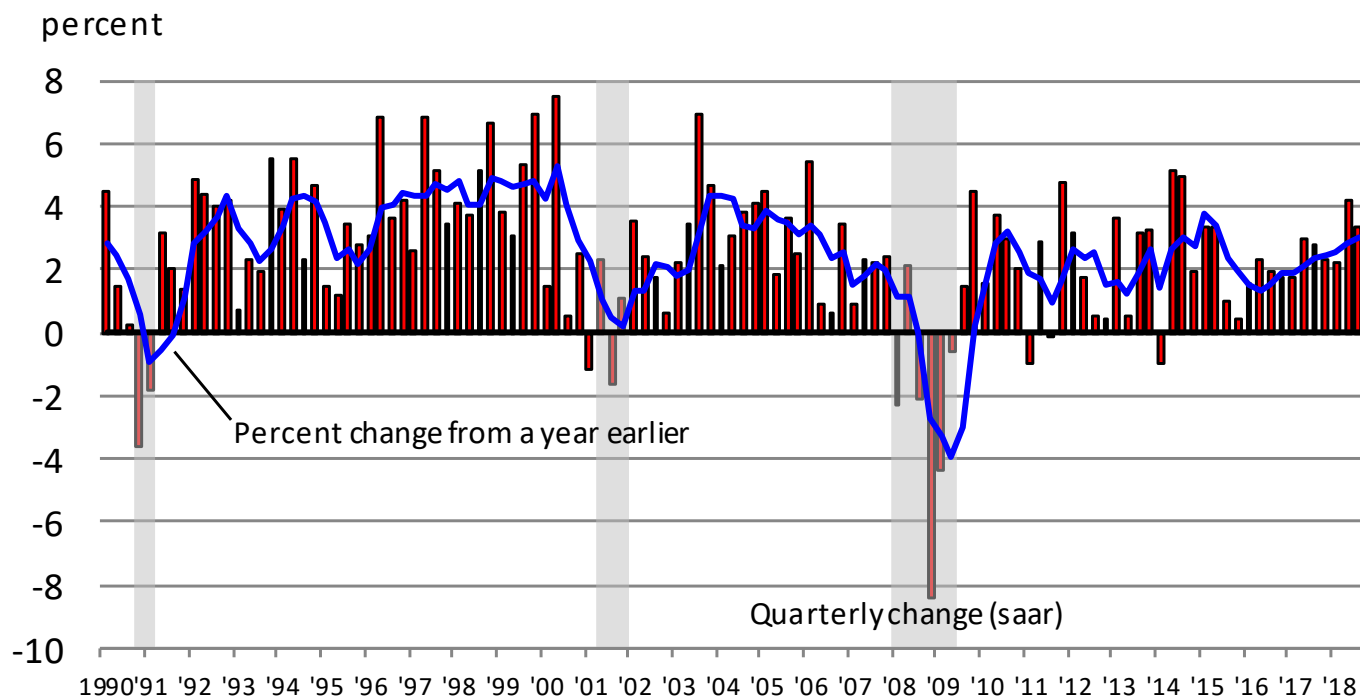
Midwest Association of Rail Shippers
Lombard, IL
January 16, 2019

William Strauss
Senior Economist
and Economic Advisor
Federal Reserve Bank of Chicago

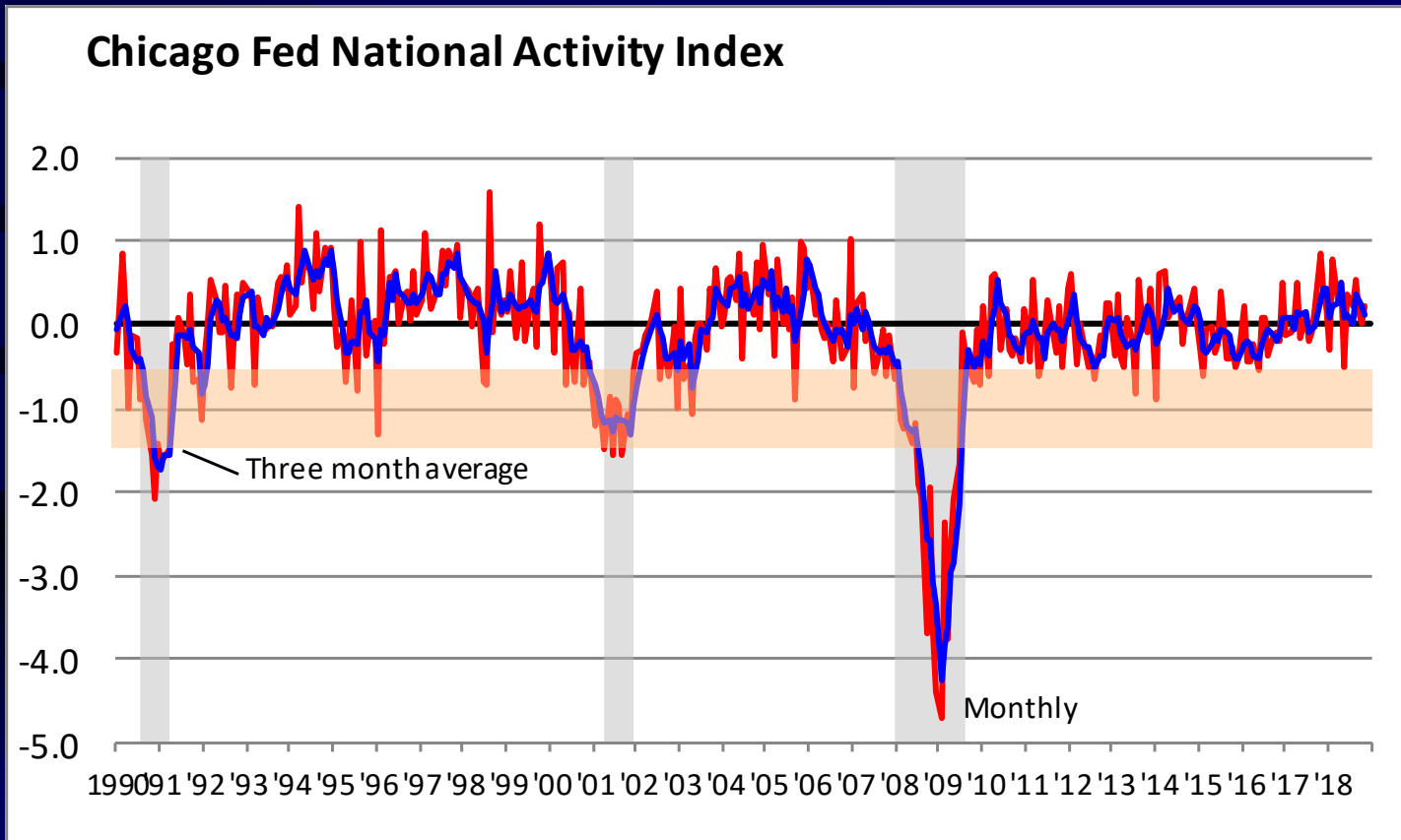


GDP expanded by 3.0% over the past year

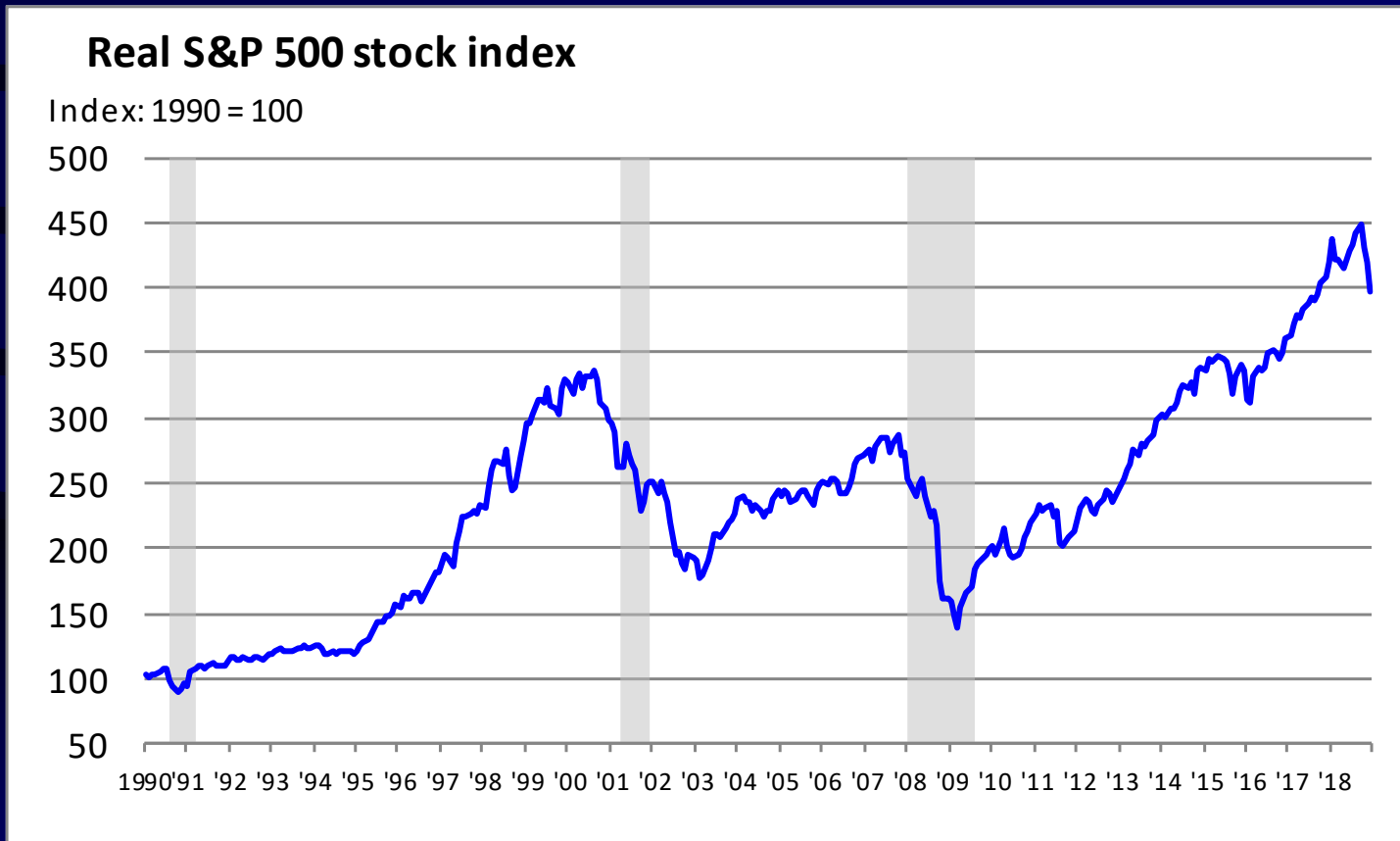
Real gross domestic product



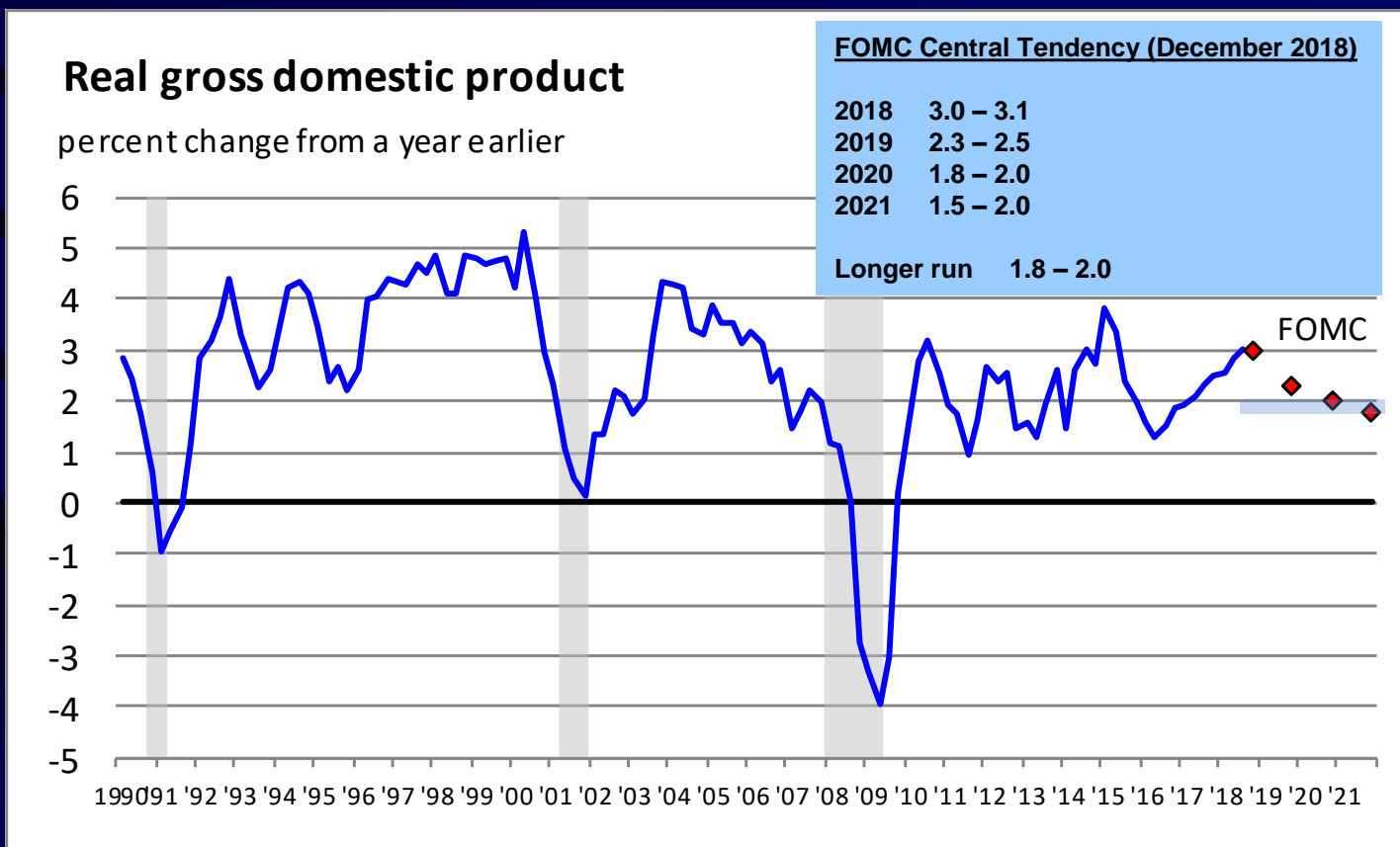
The Chicago Fed National Activity Index 3-month average has been above trend during 2018



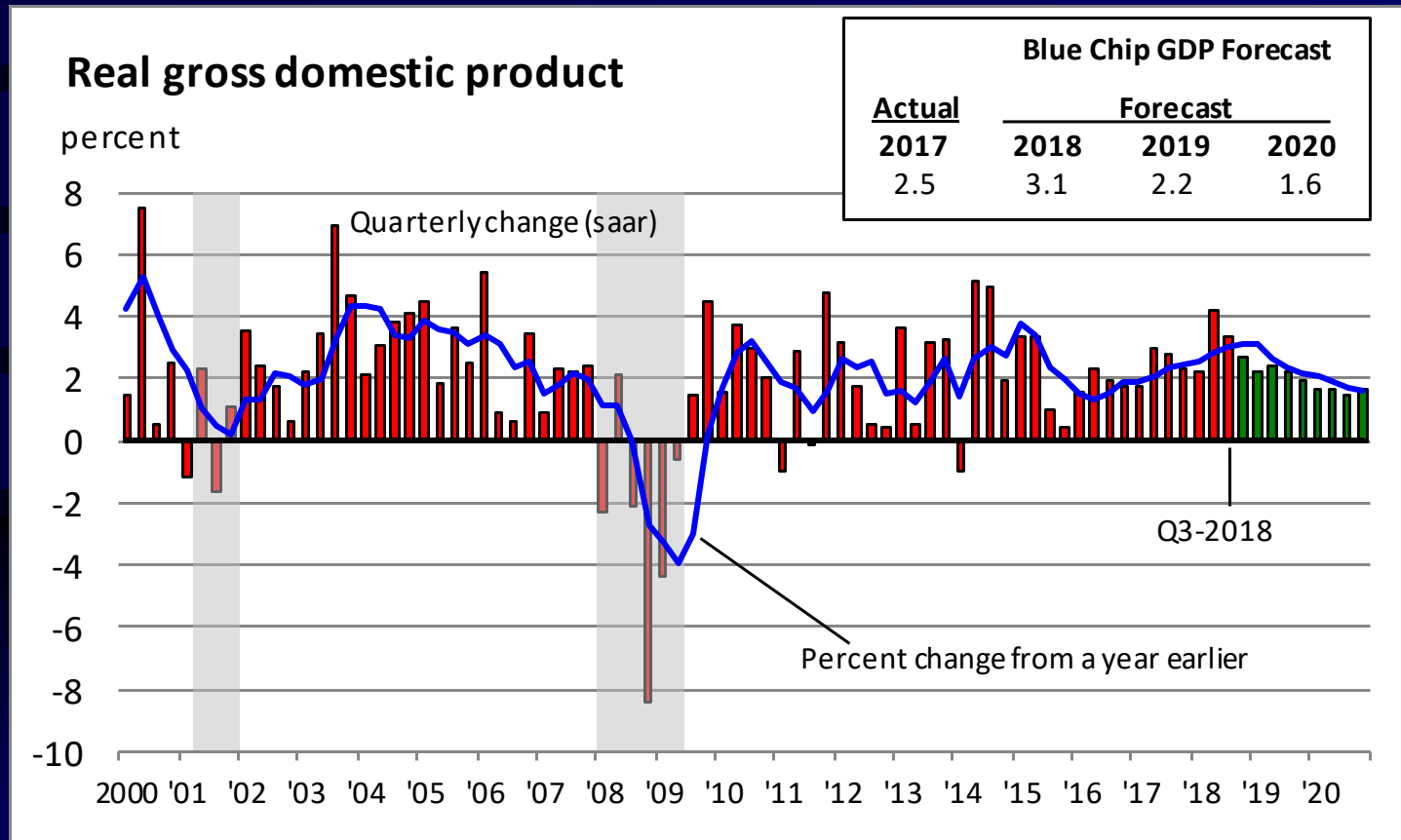
**The real value of the stock market fell
nearly 12% over the past several months
but remains high**



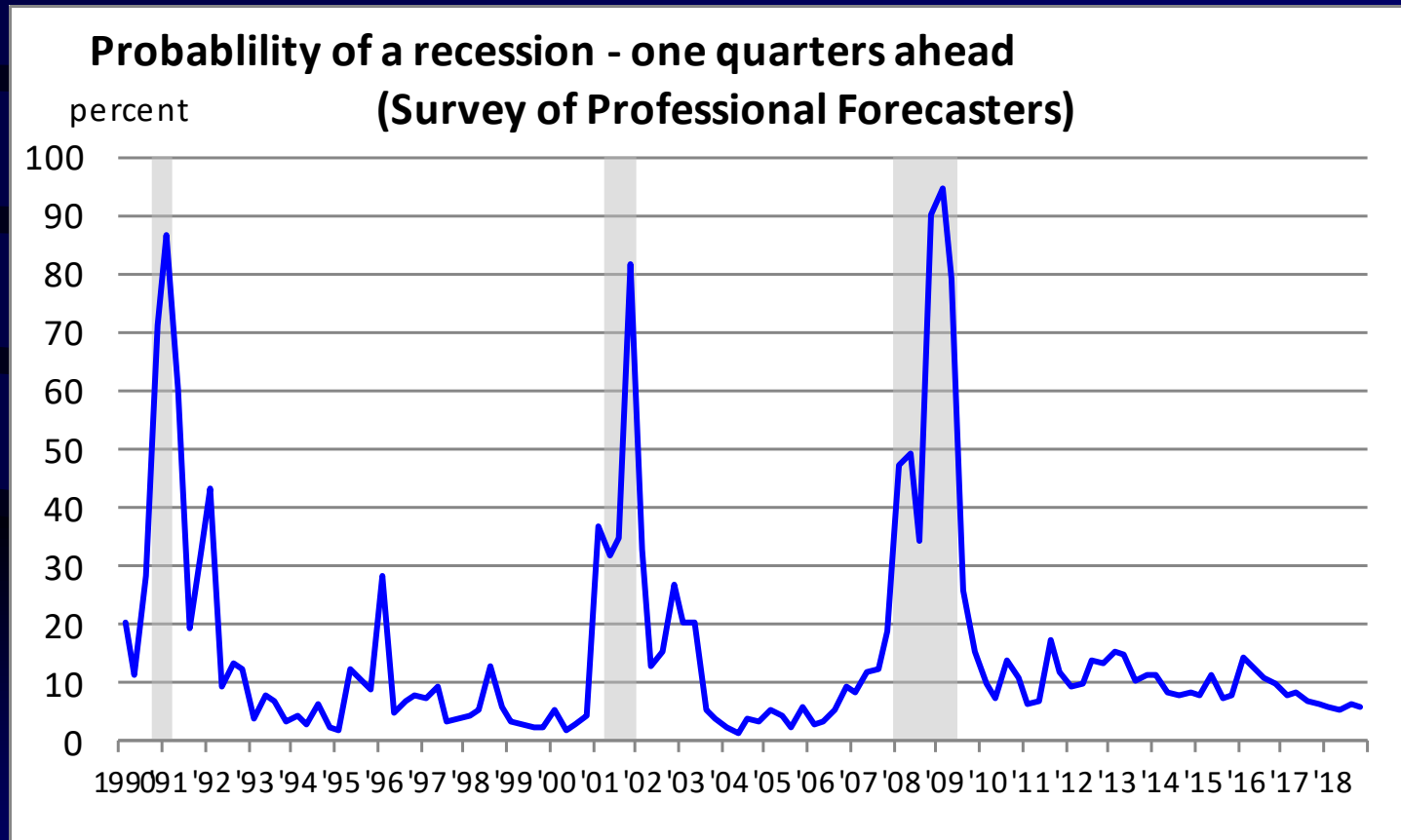
The Federal Open Market Committee (FOMC) expects GDP to grow above trend in 2018 and 2019; and around trend in 2020 and 2021



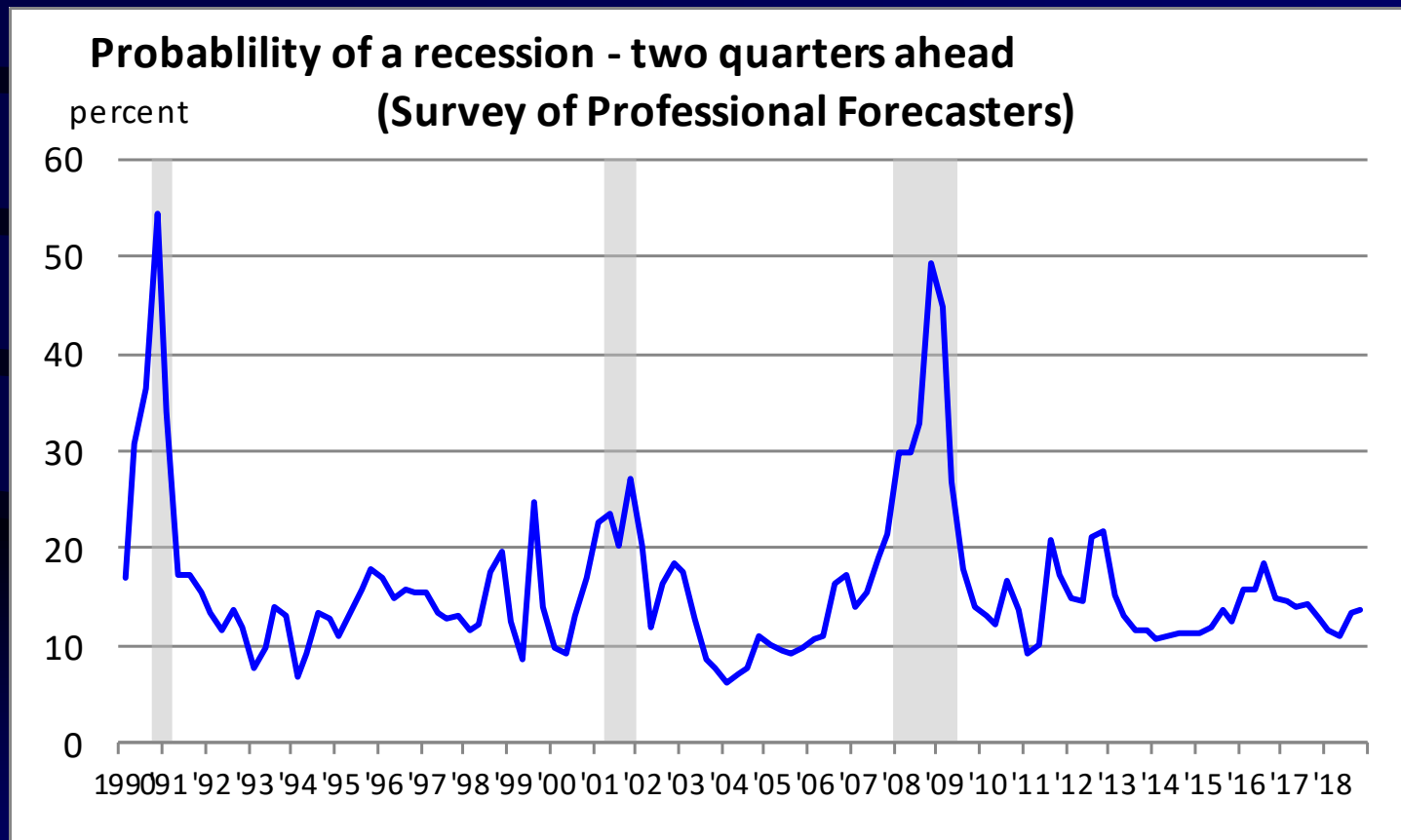
Blue Chip also expects a slowing path for economic growth over the next two years



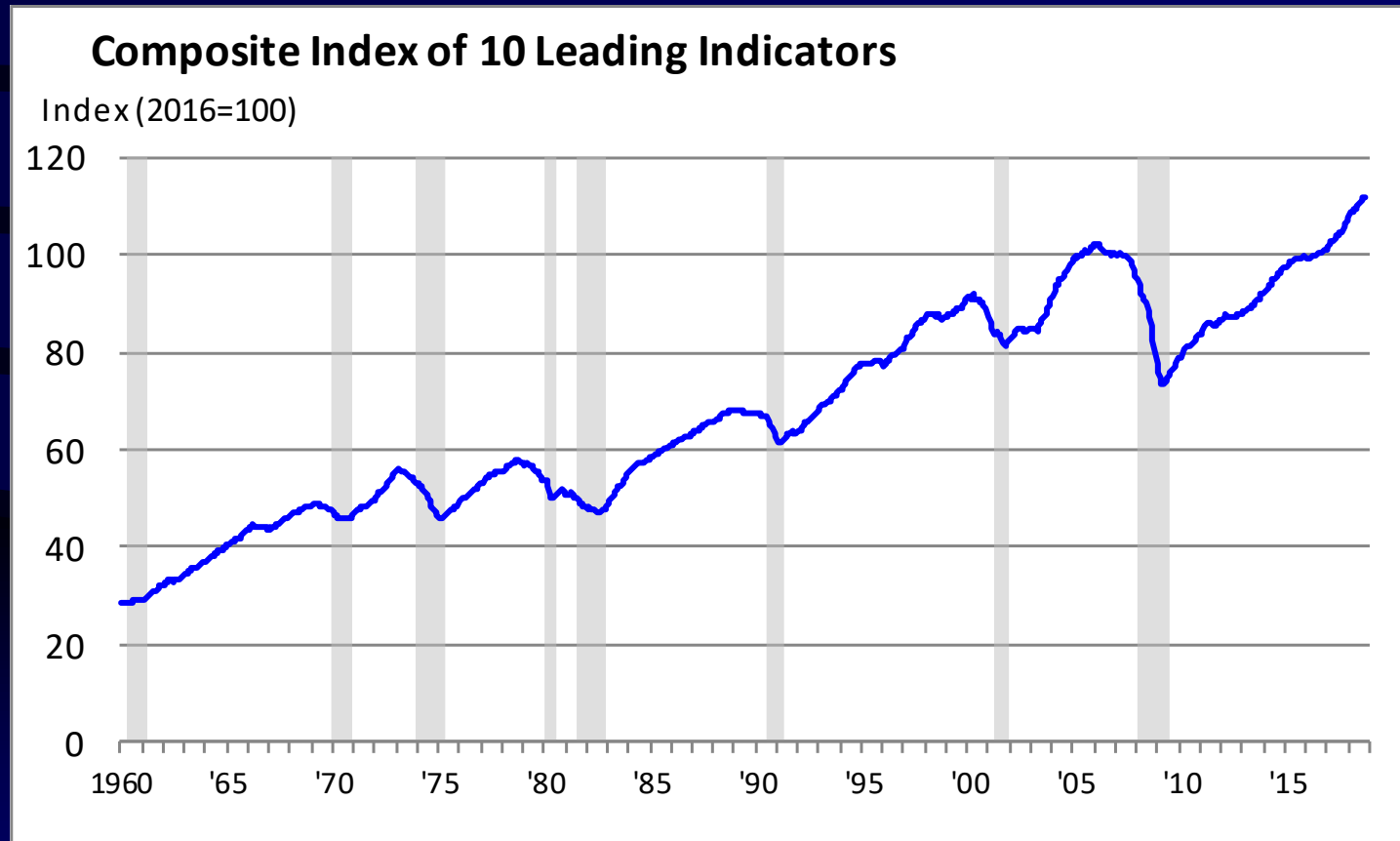
The probability of recession in the next quarter remains low



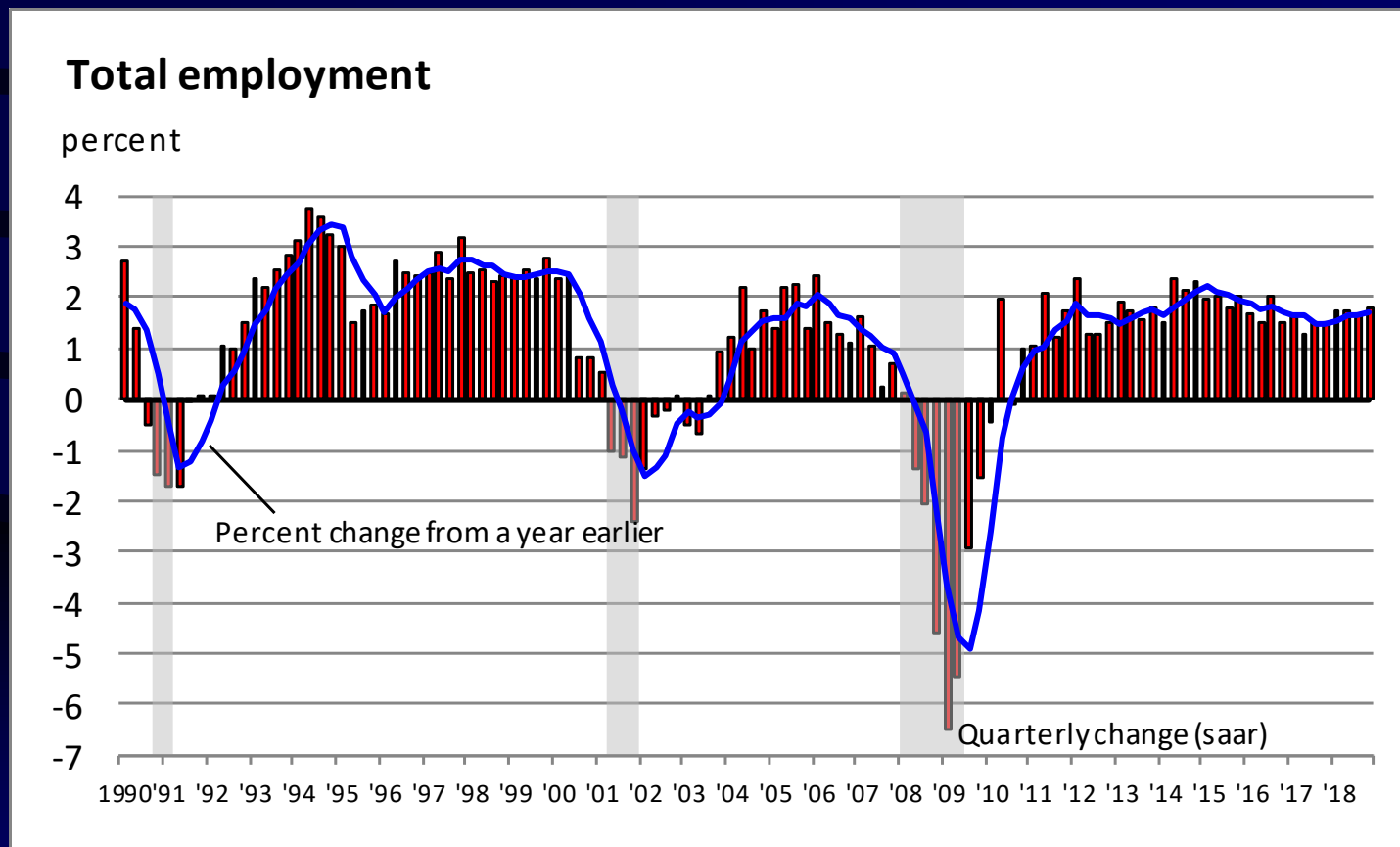
**The same is true for the chances of a recession
over the next two quarters**



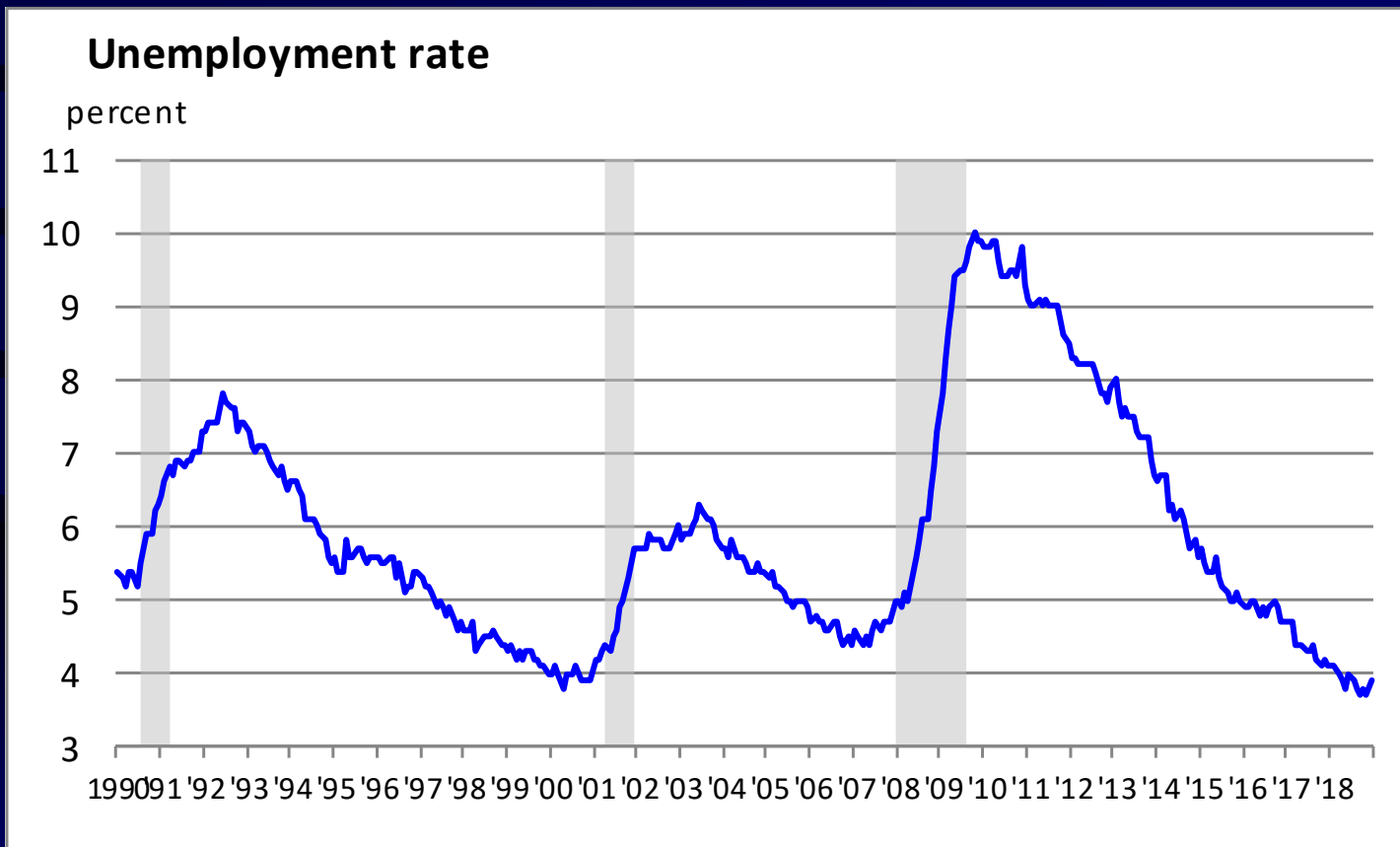
The index of leading indicators continues to rise



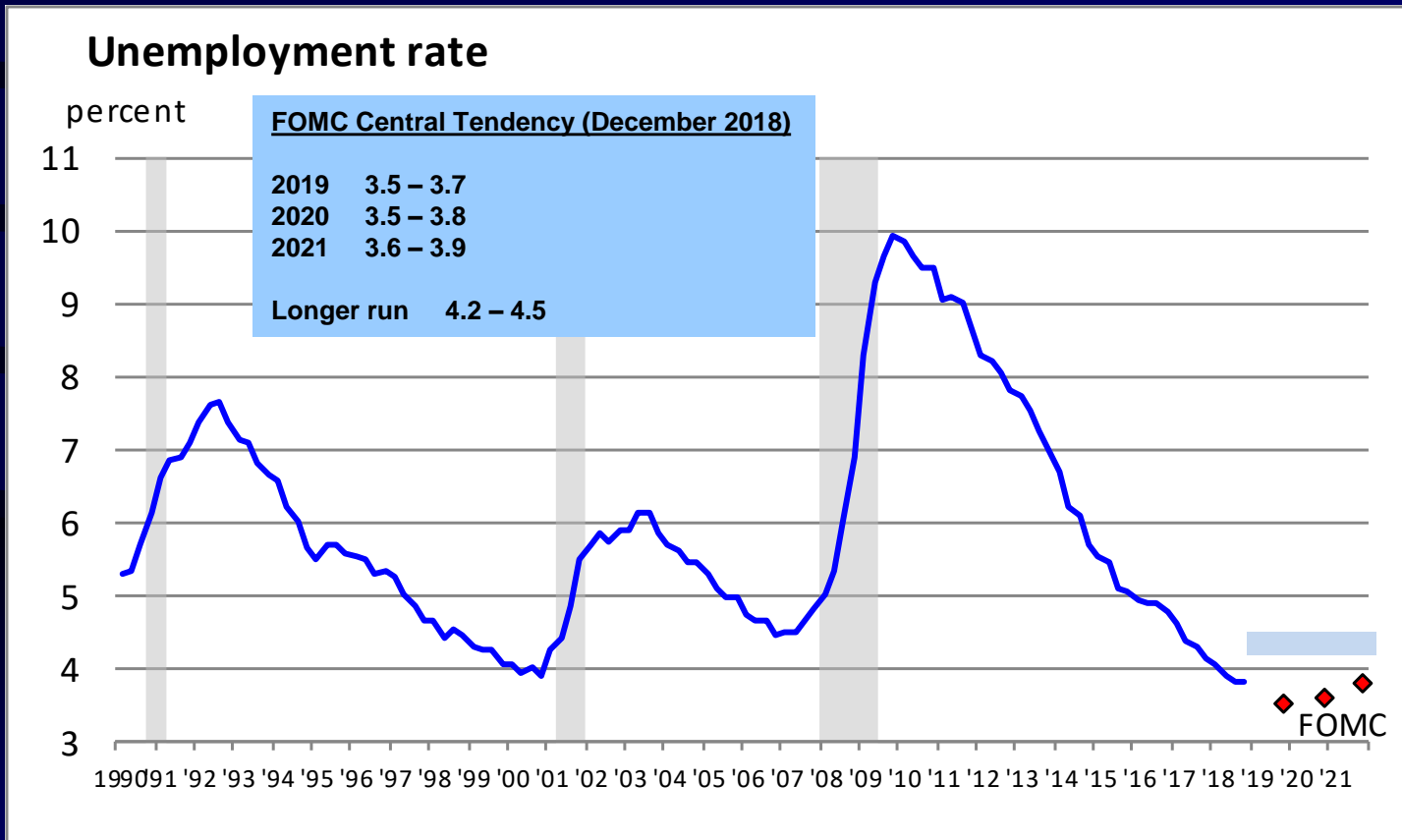
Employment increased by over 2.6 million jobs in 2018



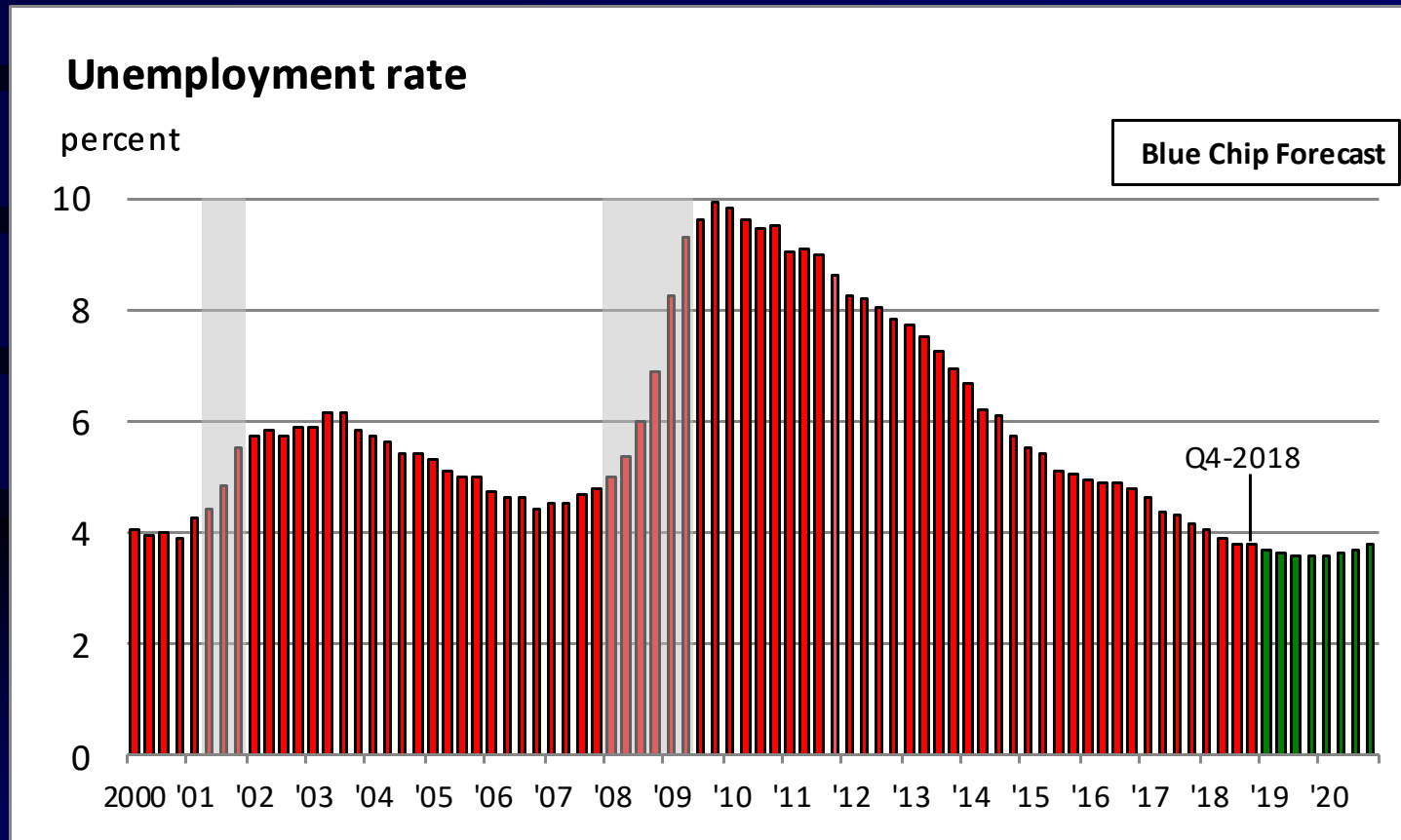
The unemployment rate has fallen to 3.9%



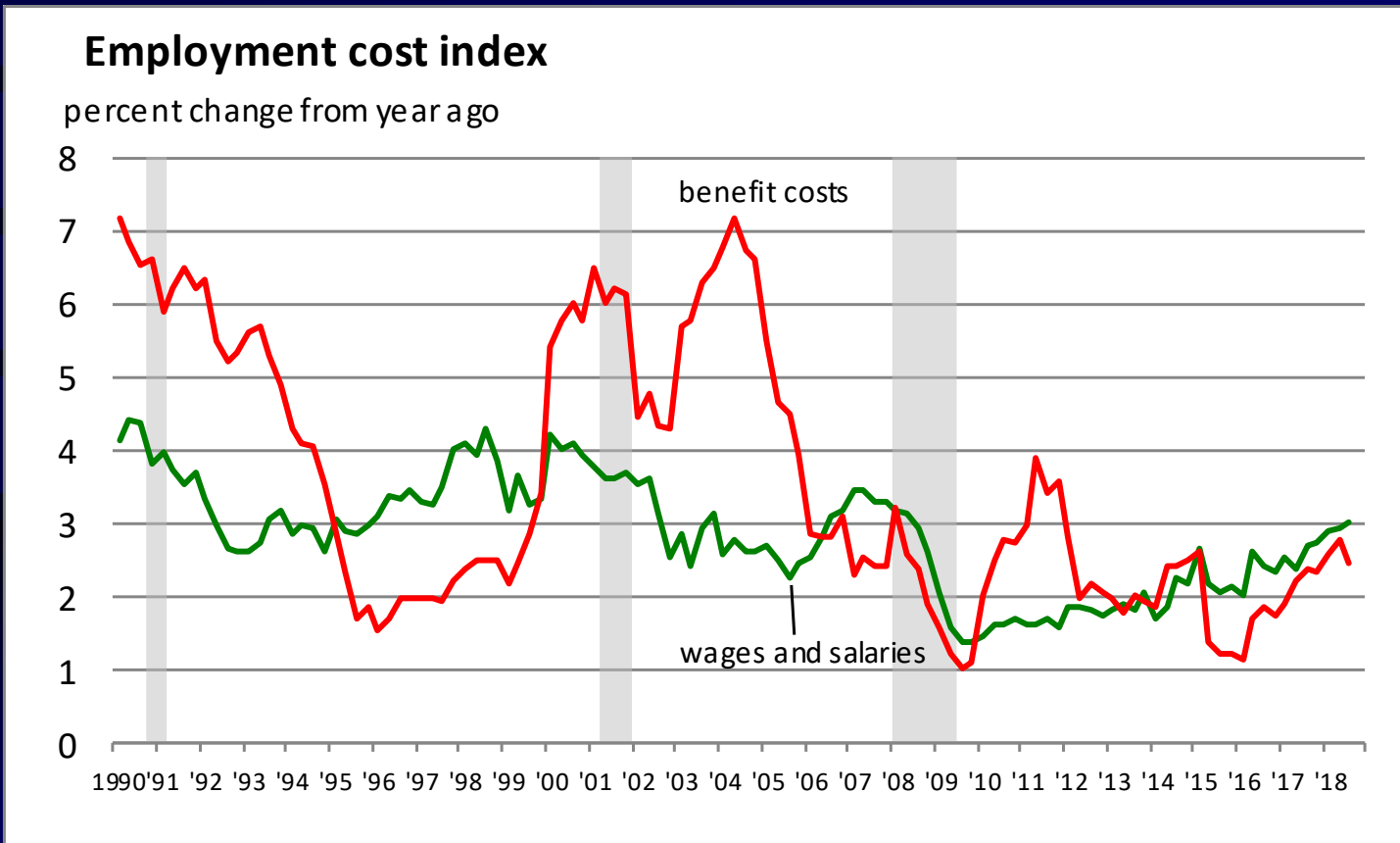
The FOMC forecasts that the unemployment rate will be well below the natural rate through 2021



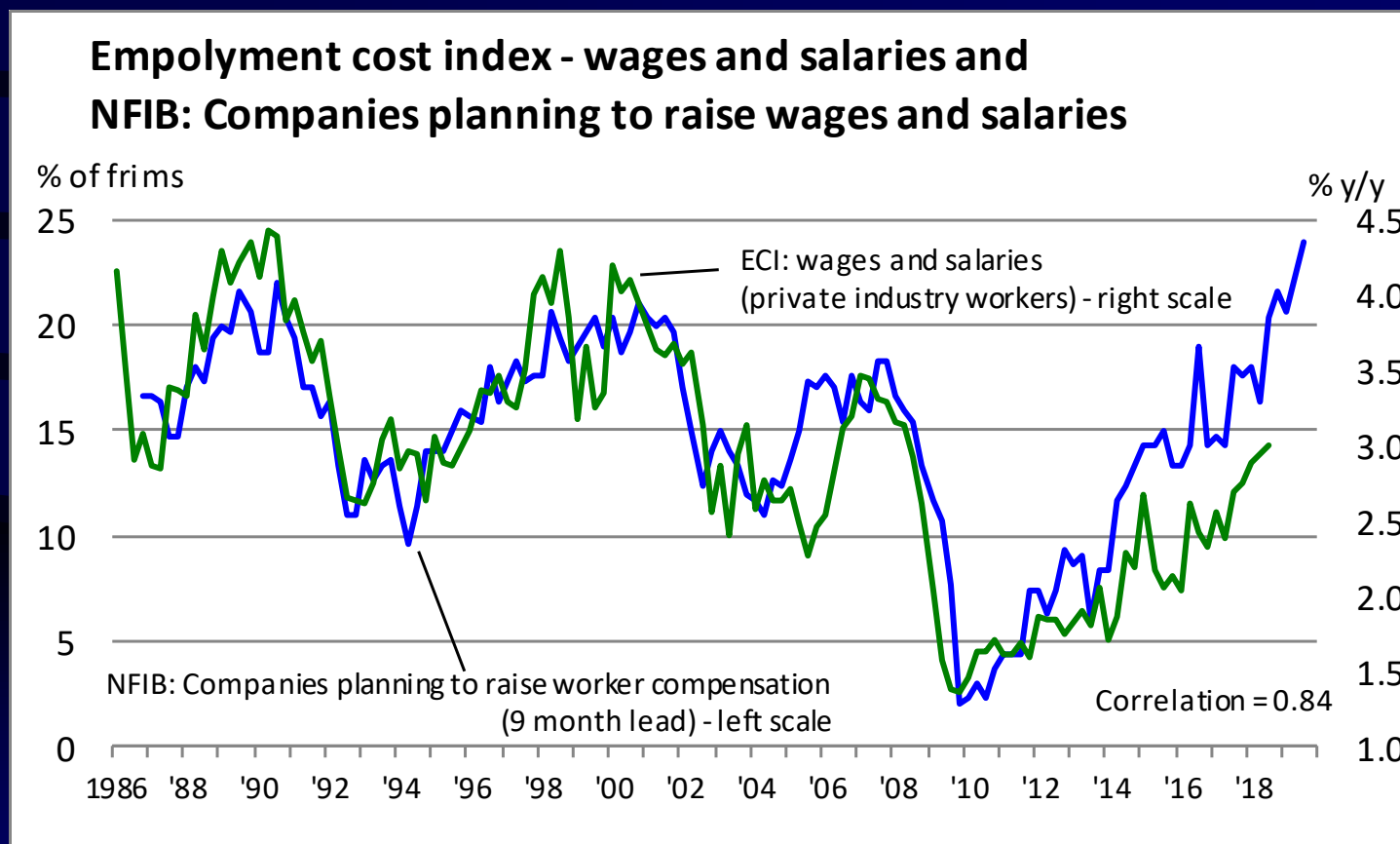
Blue Chip sees the unemployment rate edging down in 2019 and then edging higher in 2020, but still remaining below 4%



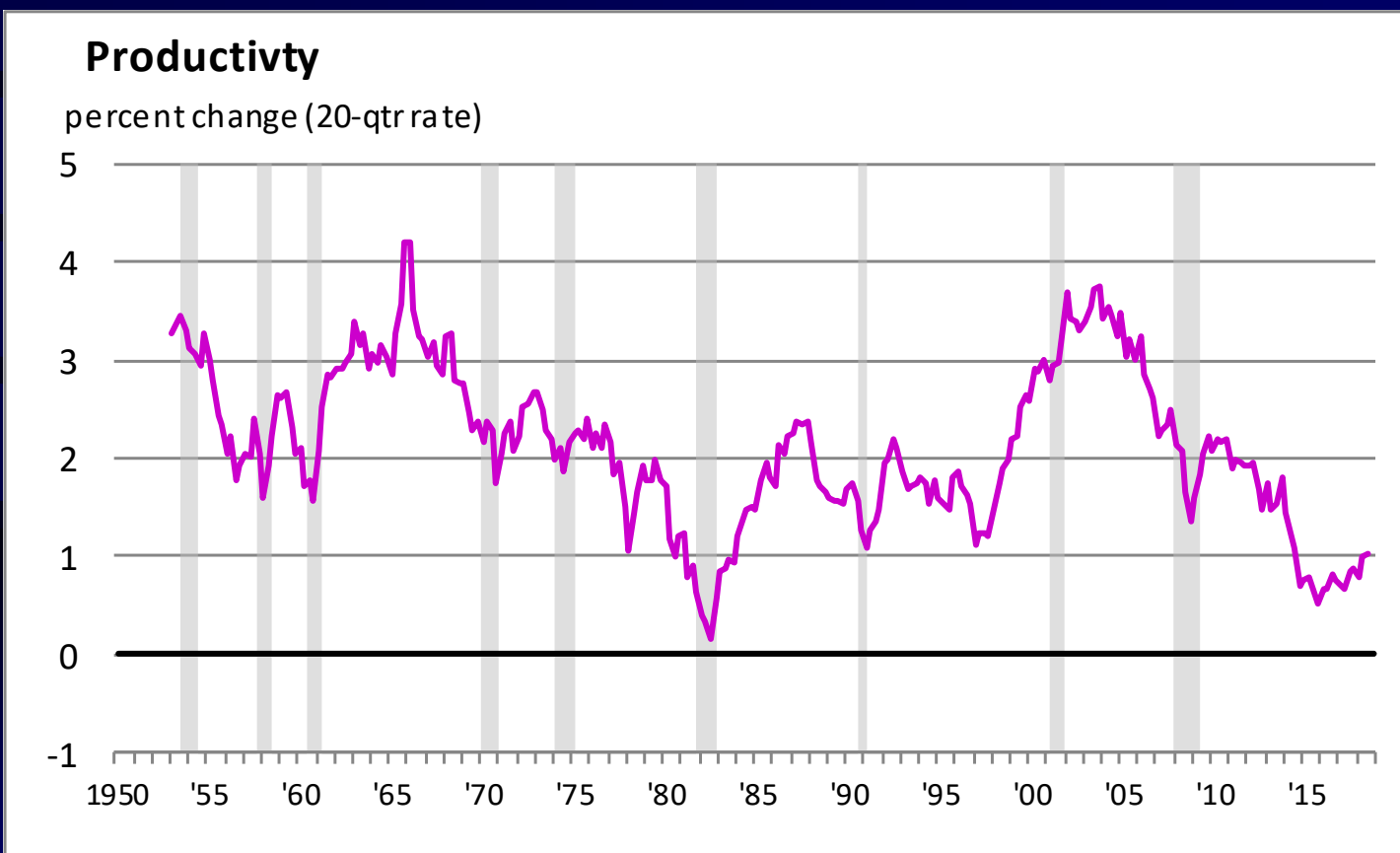
**Wages and benefit costs continue to increase
at a moderate rate,
although it may finally be picking up some its pace**



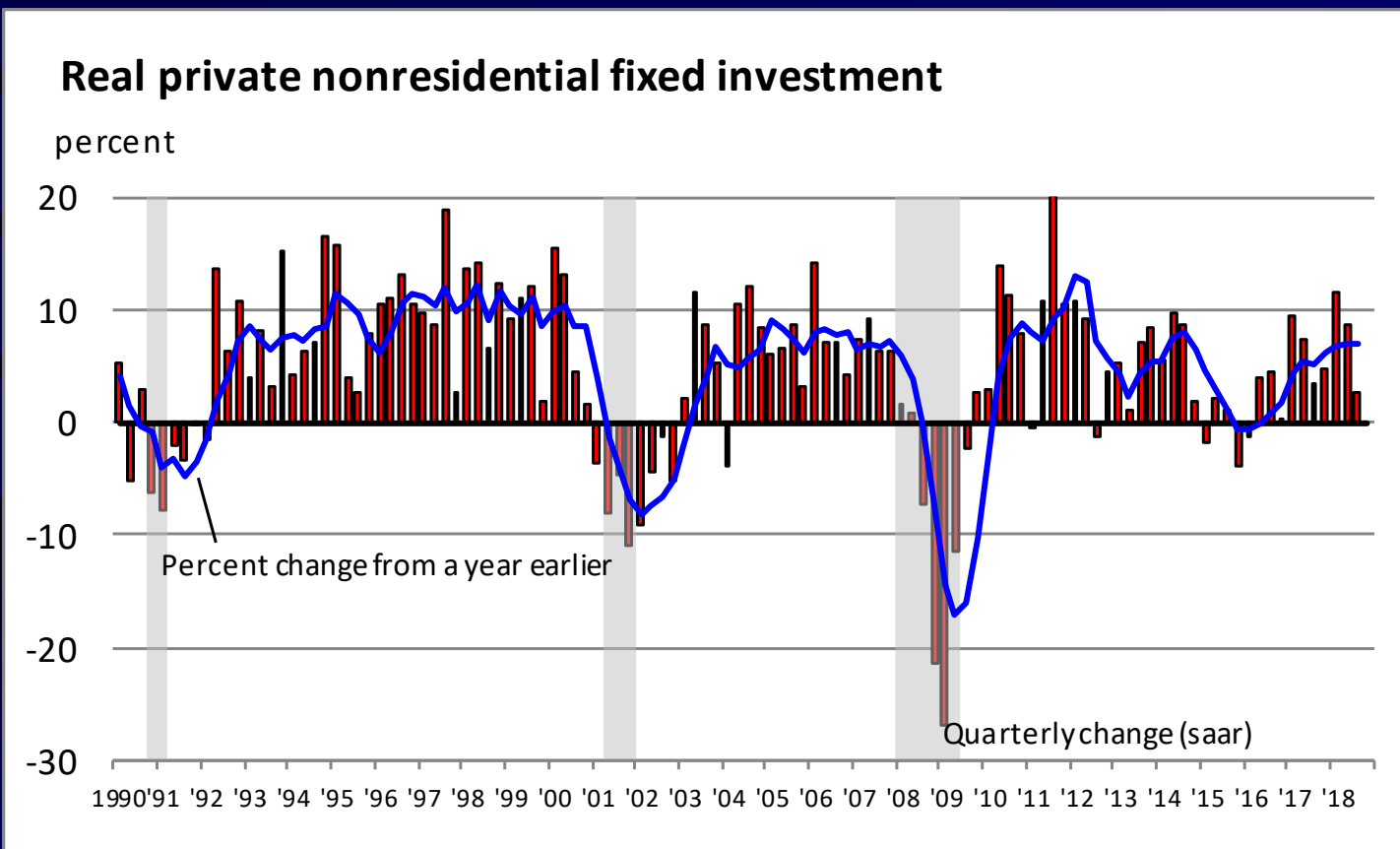
There is a very strong correlation between 9-month lead NFIB: planning to raise compensation and Employment Cost Index: wages and salaries



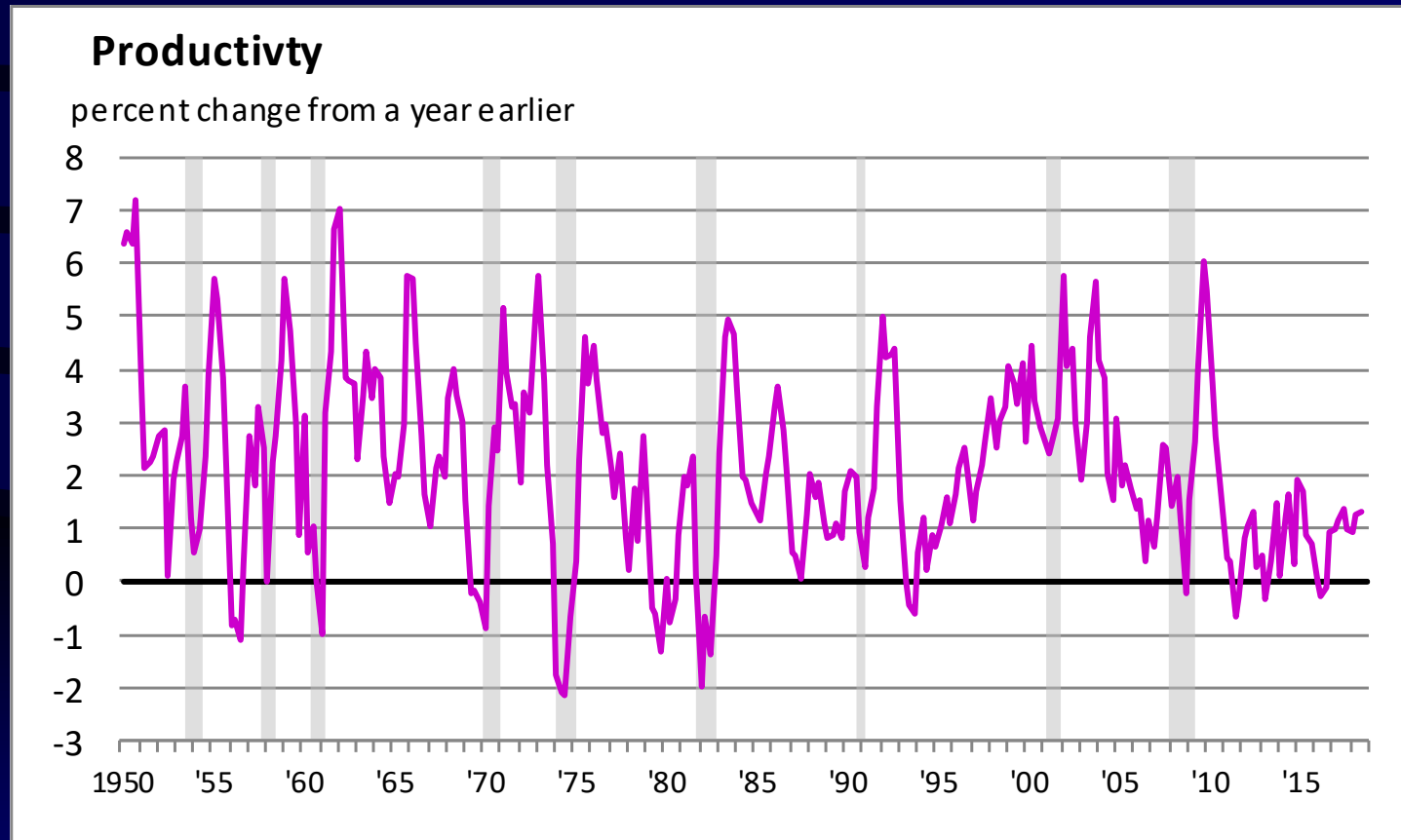
Slow productivity growth over the past nine years helps explain why relatively strong employment growth has not translated into higher wages



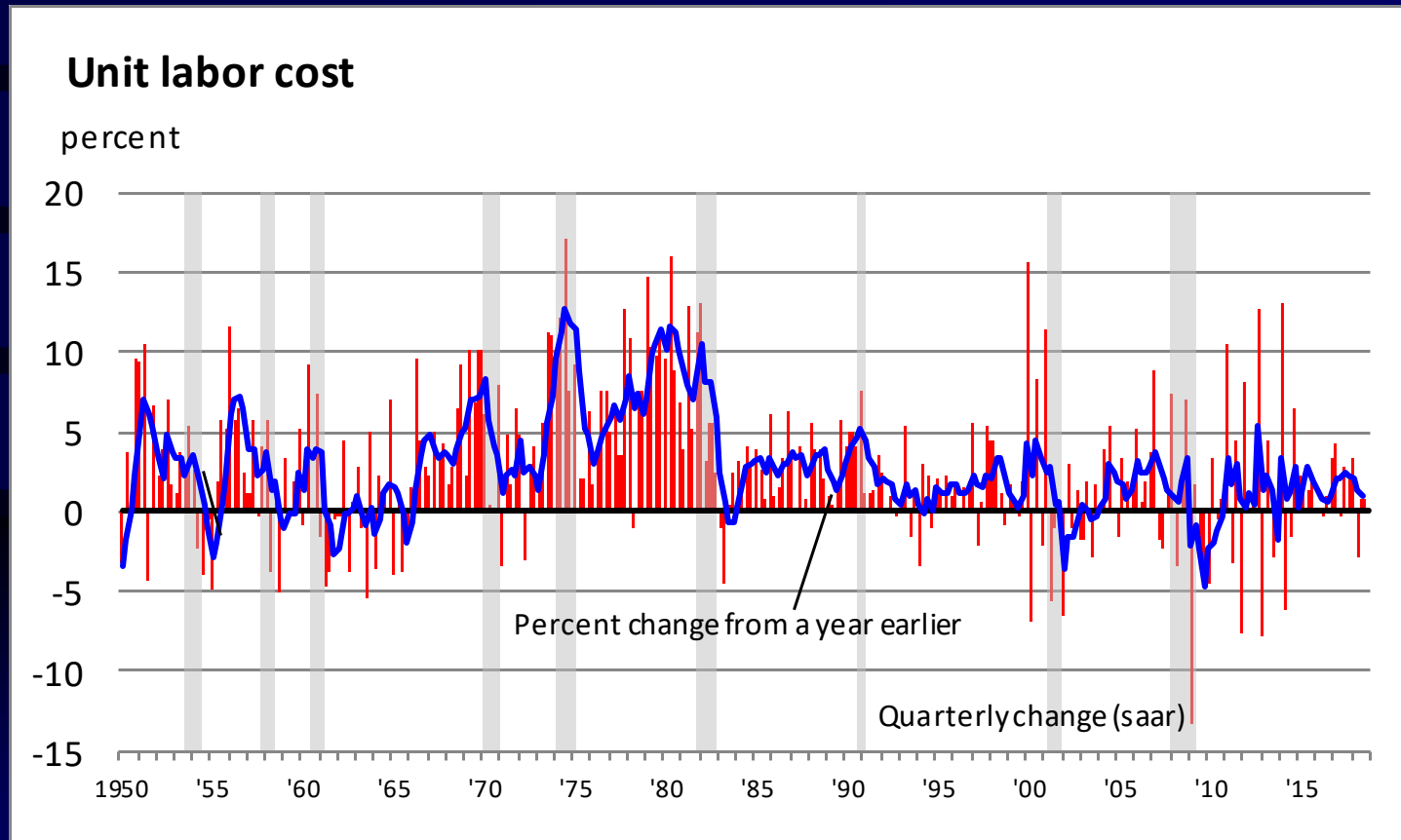
**A large part of the weakness in productivity growth
has been the weak pace of investment,
although it has been increasing at a strong pace
beginning in 2017**



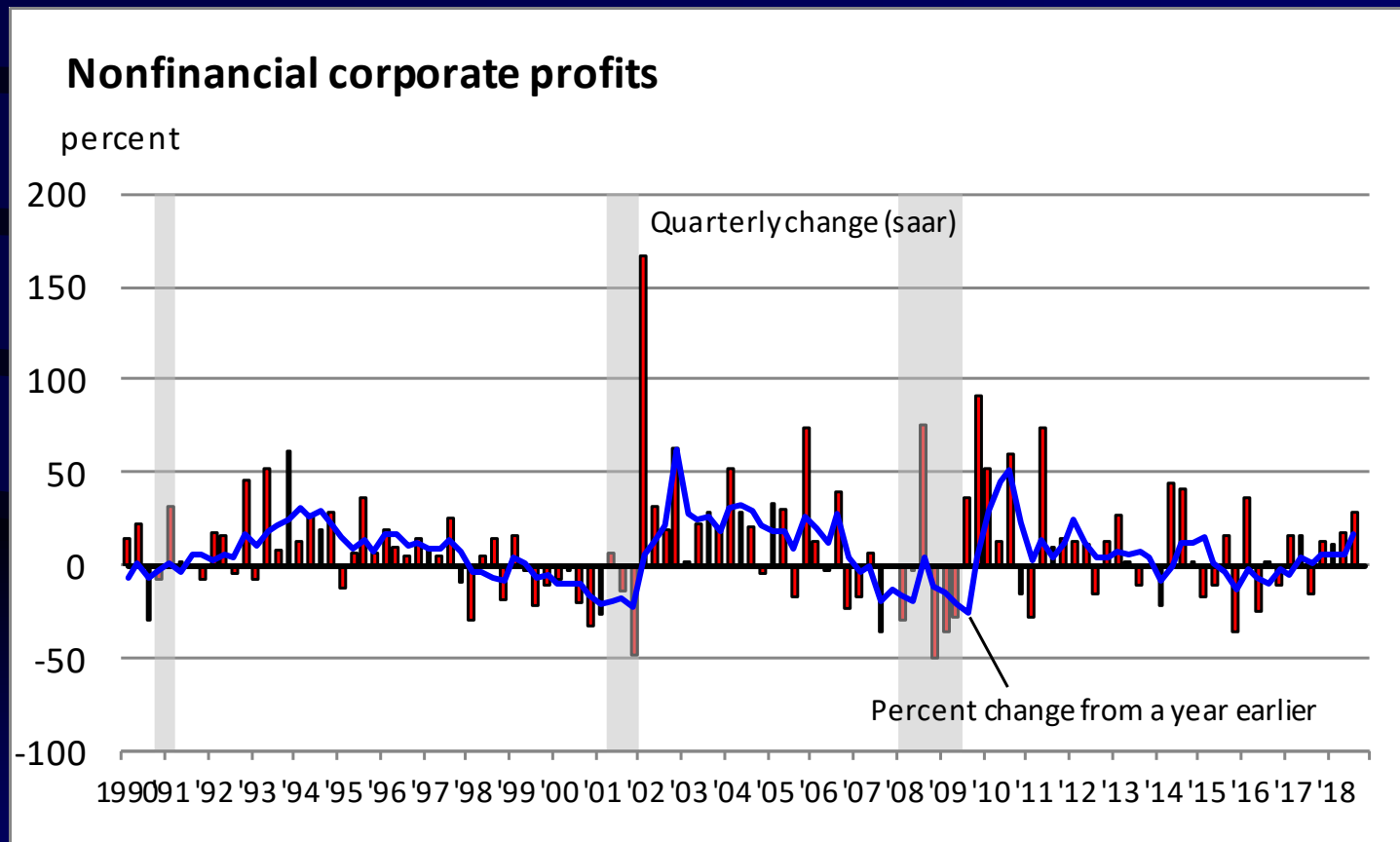
This may help explain the productivity growth improvement over the past year



Improving productivity growth is helping to keep unit labor cost growth down even with rising compensation



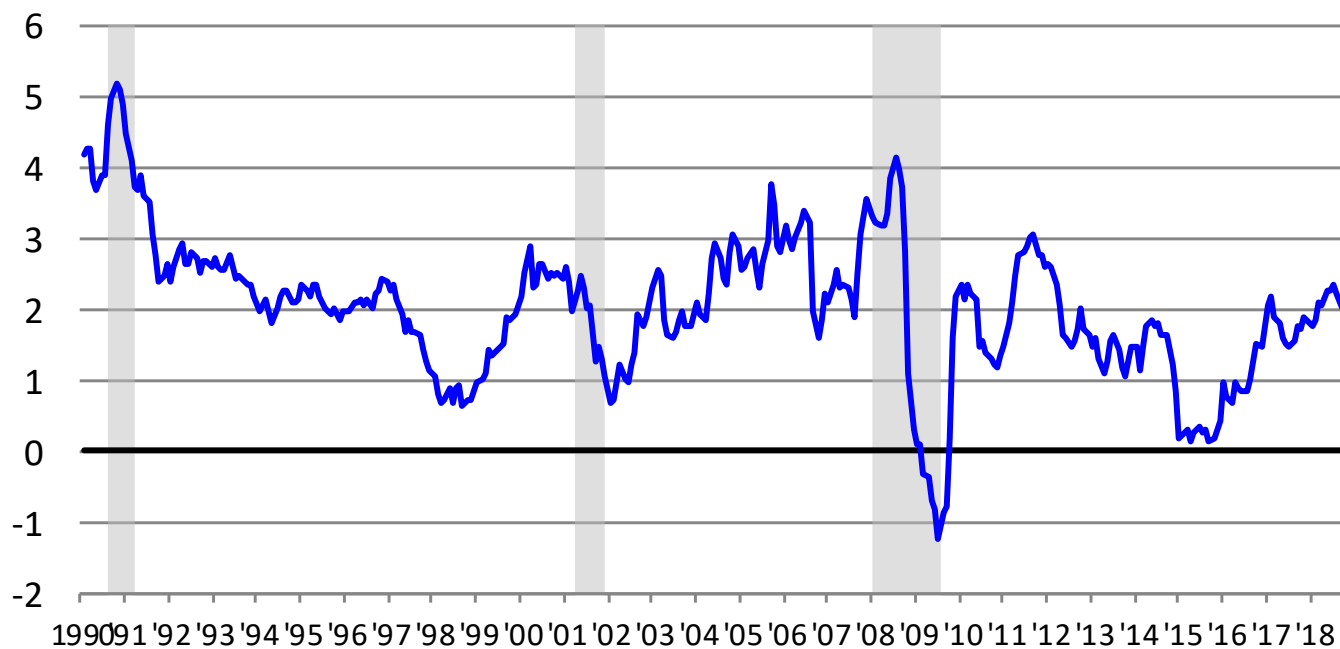
Corporate profits continue to improve



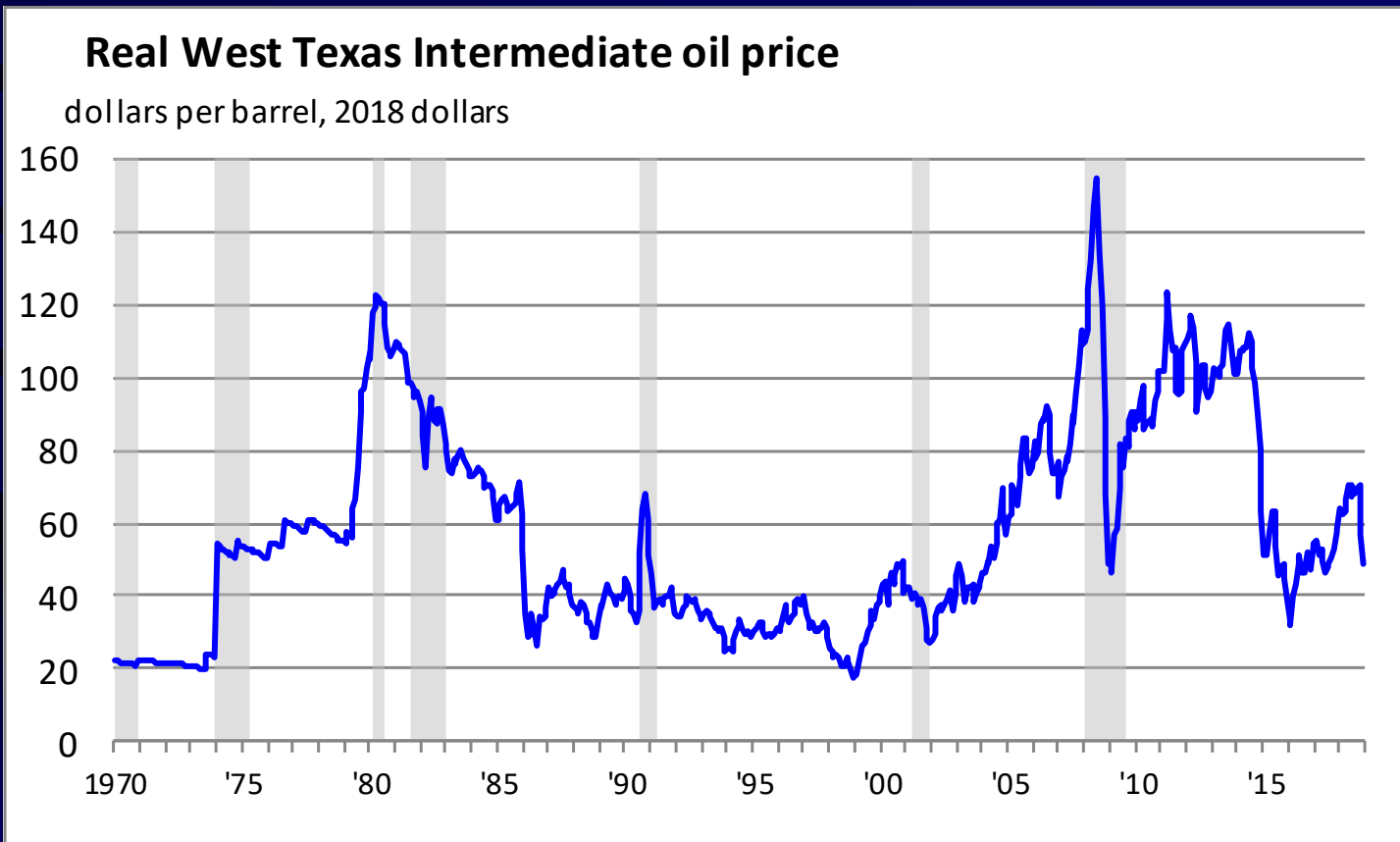
Inflation is just below the Fed target of 2%

Personal consumption expenditure - chain price index

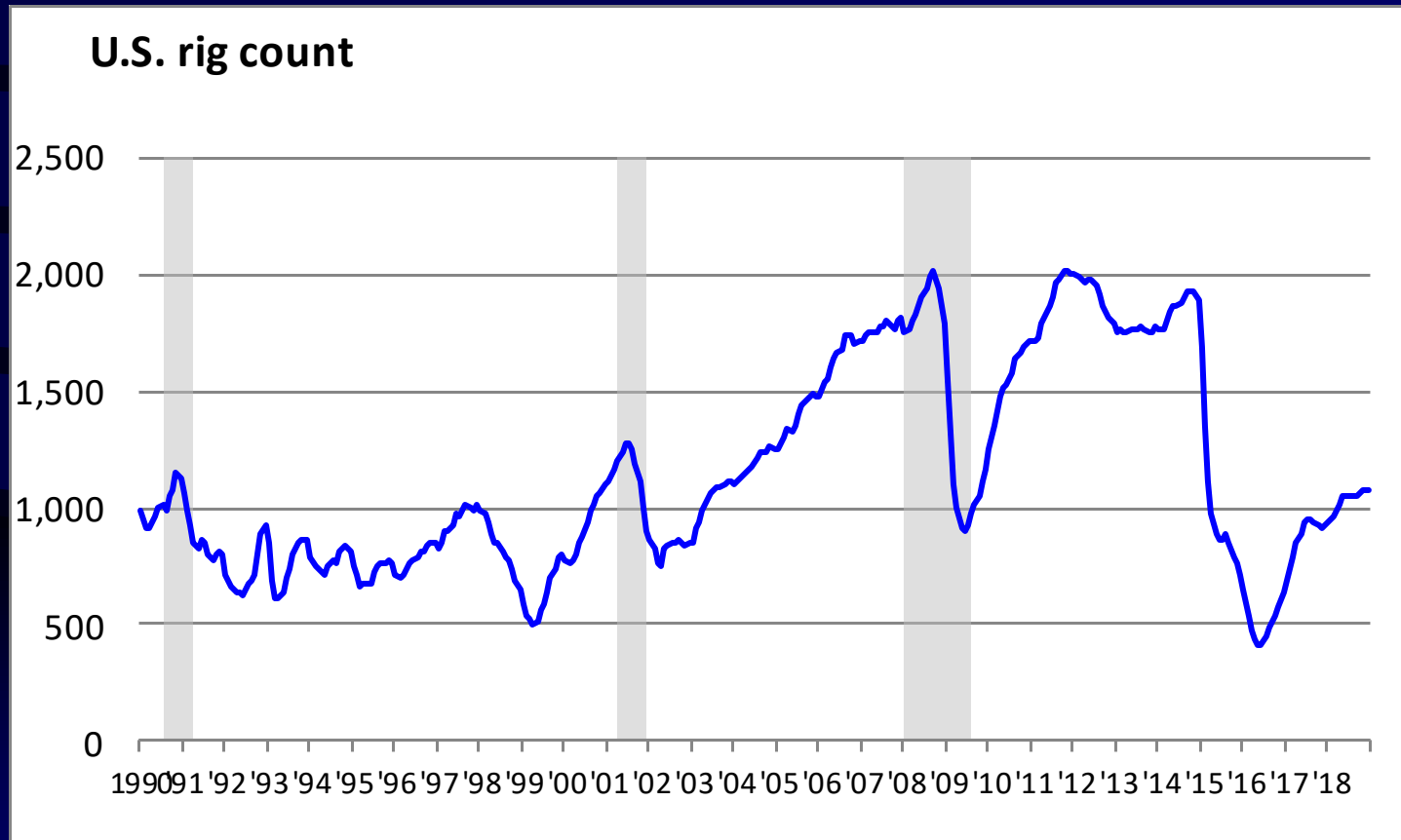
percent change from a year earlier



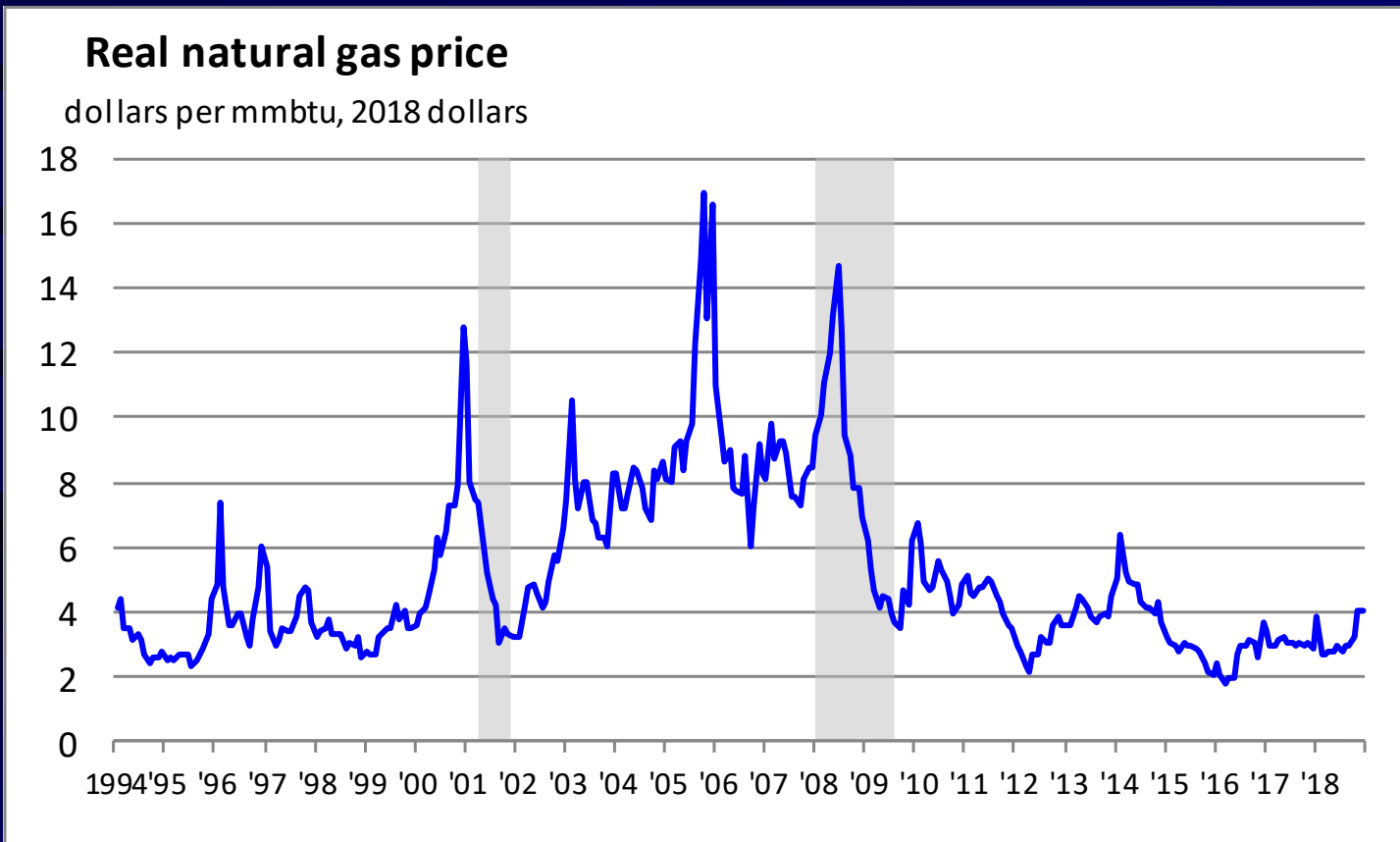
In large part inflation has been following the pattern of energy prices



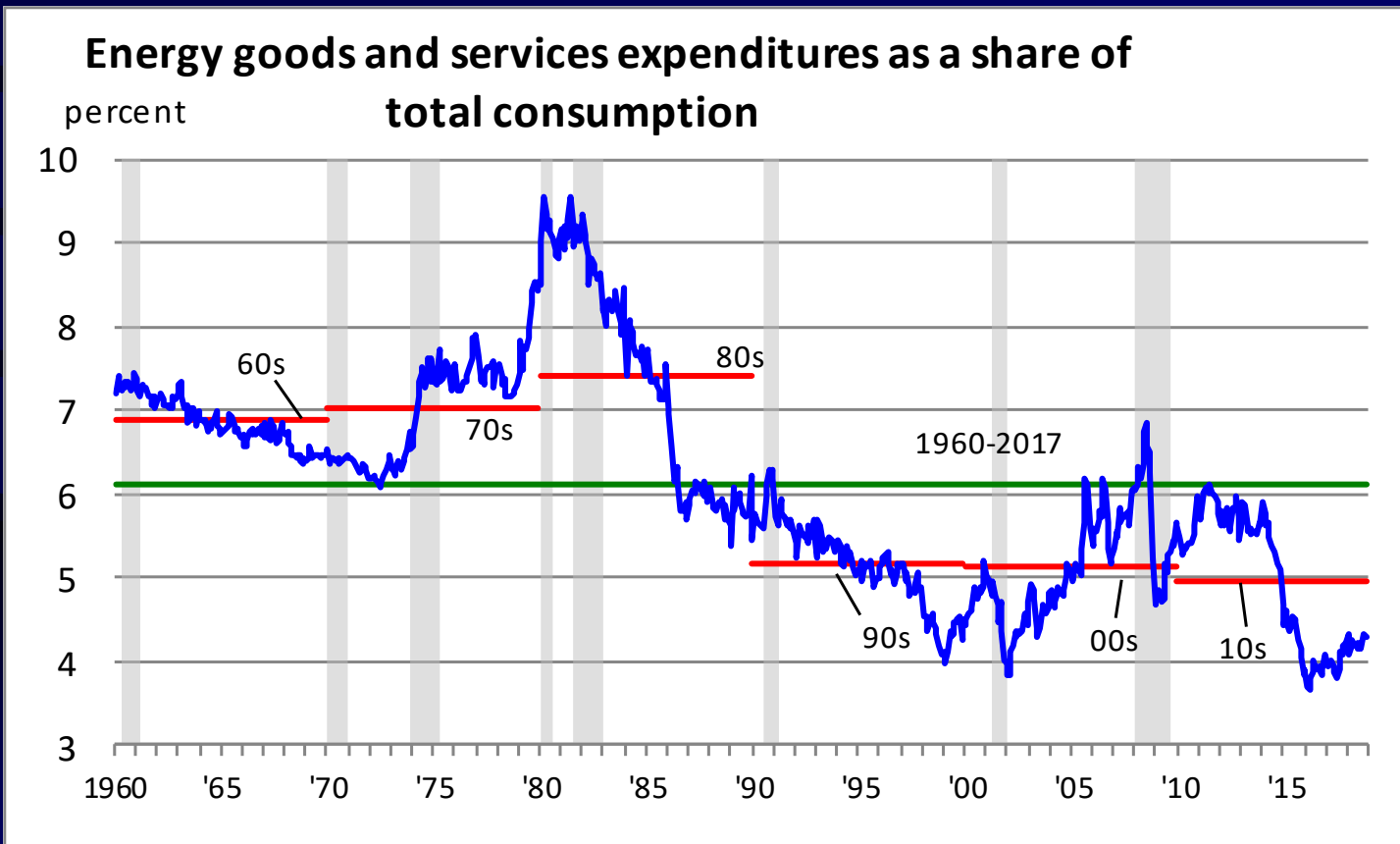
The rig count has been moving higher



Natural gas prices remain low

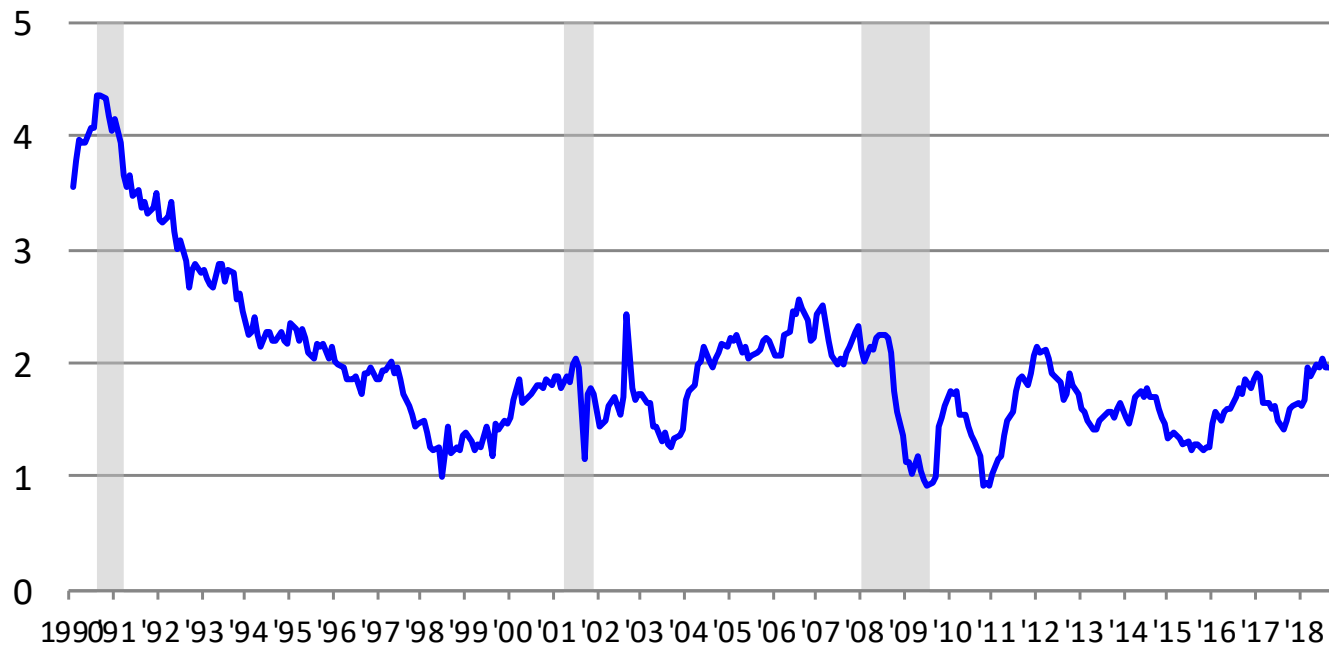


Expenditures on energy remain well below the historical average



Removing the volatile food and energy components from the PCE, “core” inflation is just below 2%

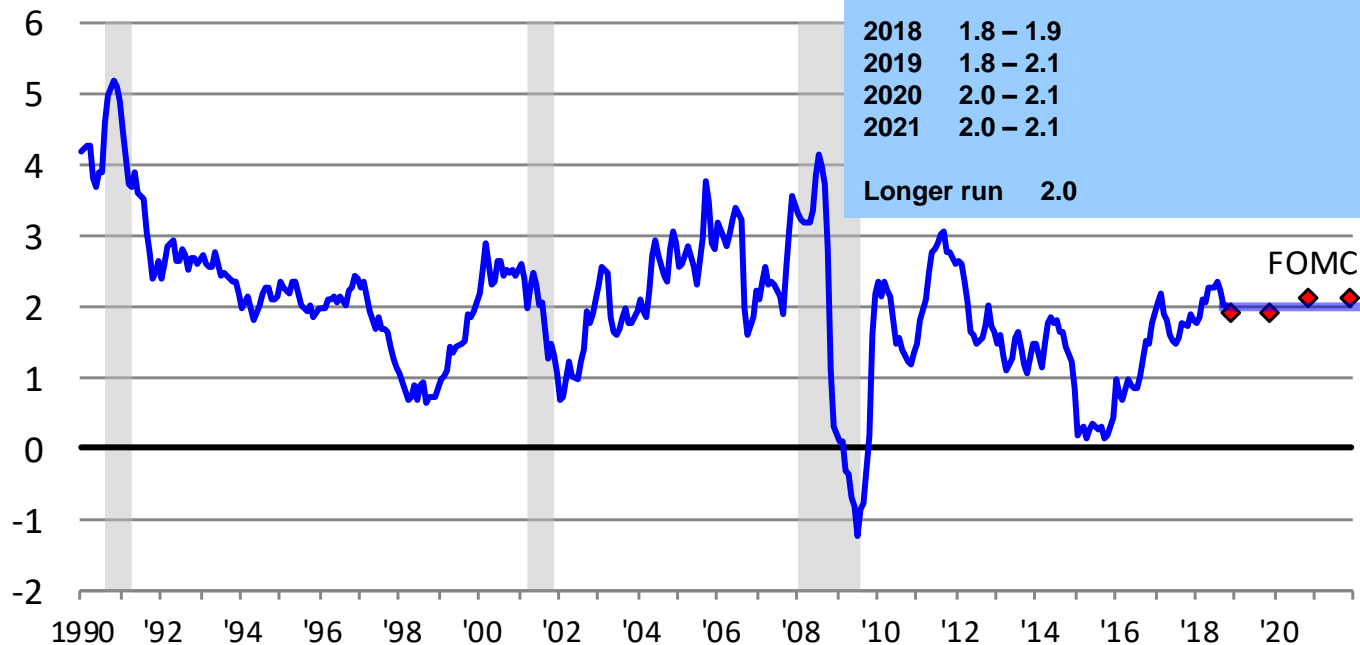
**Personal consumption expenditure - less food and energy -
chain price index**
percent change from a year earlier



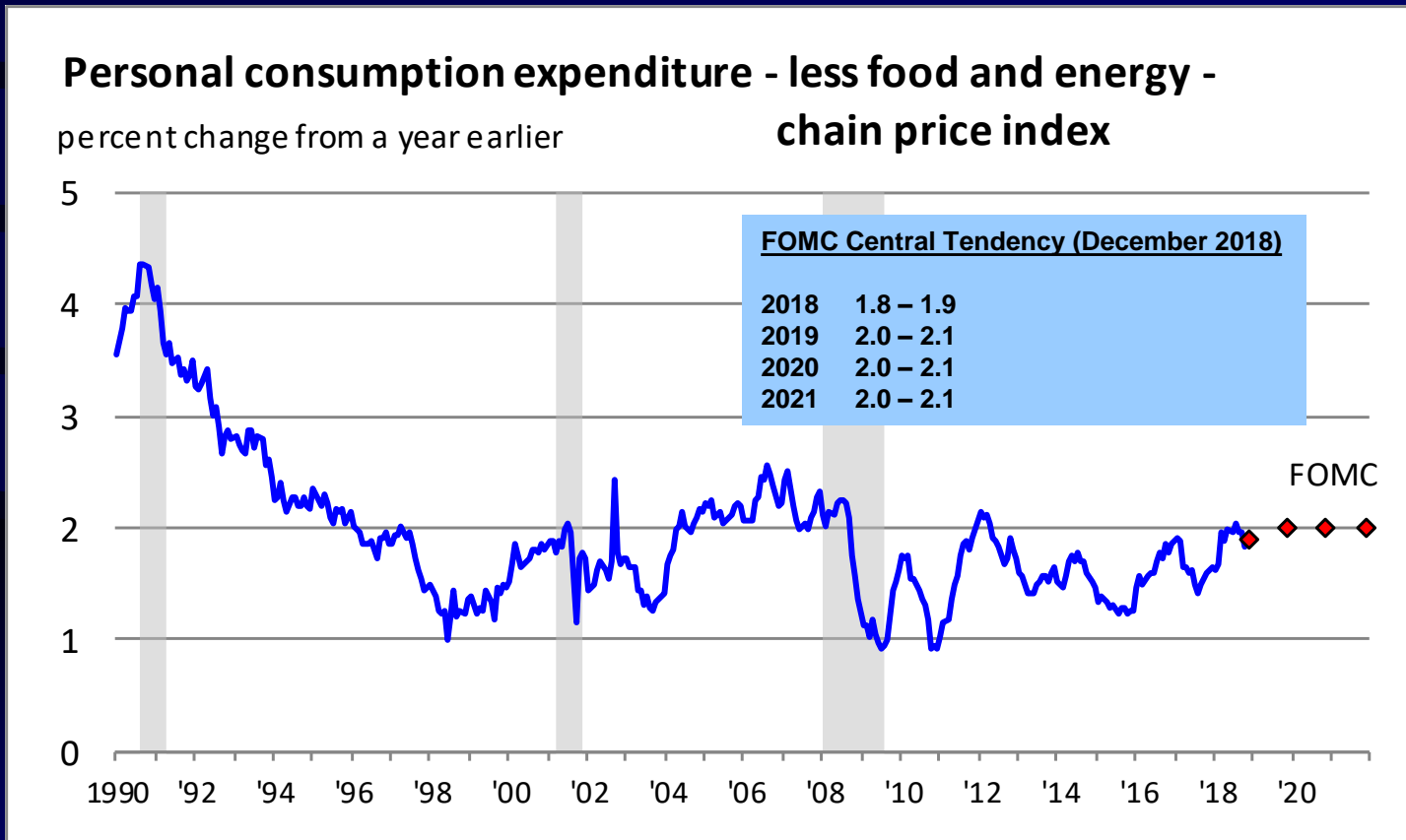
The FOMC anticipates that PCE inflation will be around its two percent target through 2021

Personal consumption expenditure - chain price index

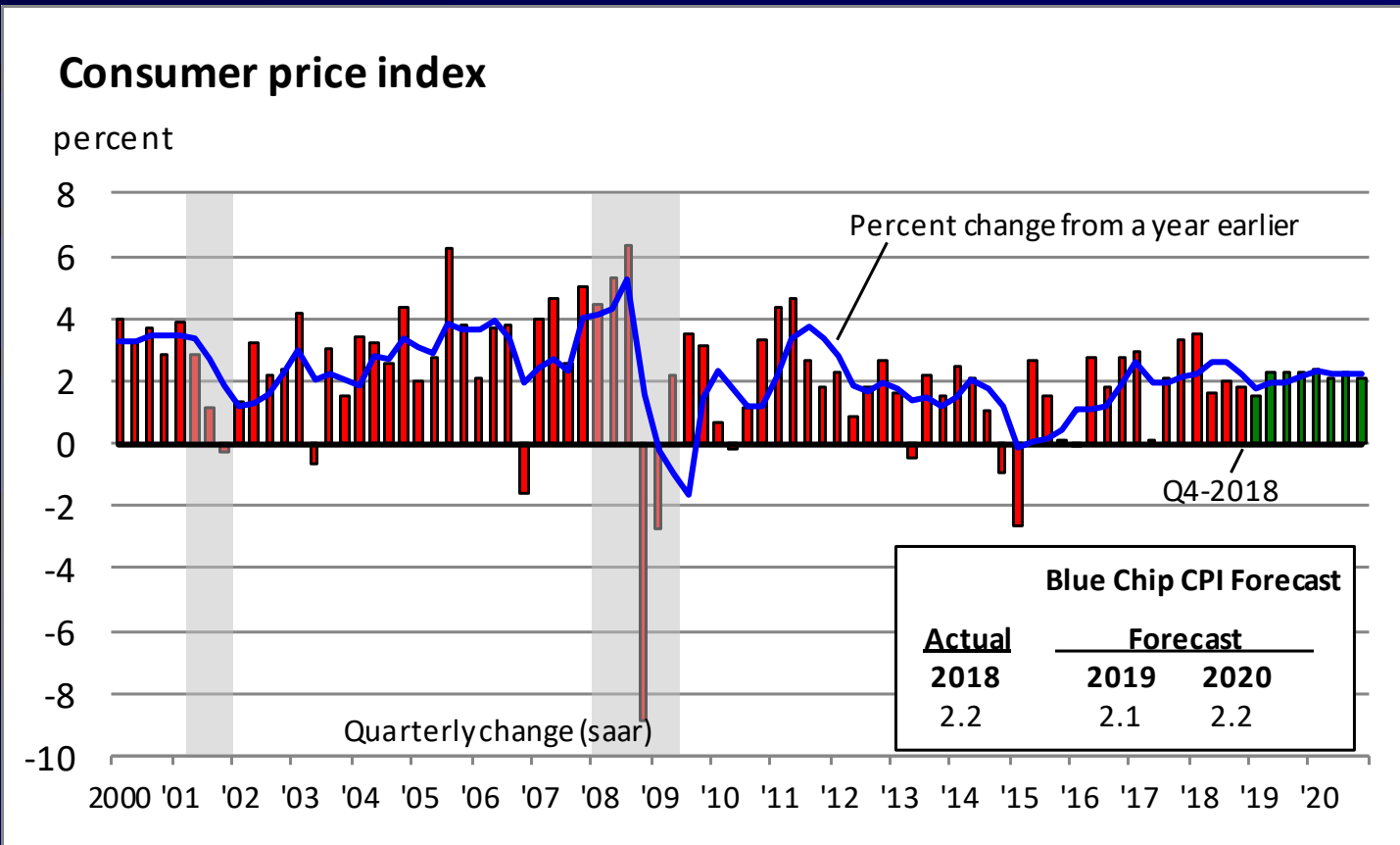
percent change from a year earlier



The FOMC anticipates that “core” PCE inflation will get to also remain around two percent through 2021



Blue Chip expects inflationary to remain flat



Blue Chip International Consensus Forecasts

	Real GDP % change Annual			Inflation % change Annual Consumer Prices			Exchange Rate Against US Dollar End of Year		Interest Rates 3-Month End of Year	
	2018	2019	2020	2018	2019	2020	2019	2020	2019	2020
United States	2.9	2.6	1.9	2.4	1.9	2.2	-	-	2.64	2.83
Canada	2.1	1.9	1.8	2.3	2.0	2.0	1.30	1.28	2.52	2.78
Mexico	2.1	2.0	2.0	4.9	4.2	3.7	20.38	20.12	7.73	7.30
Japan	1.0	1.0	0.6	1.0	1.1	1.3	110.4	108.7	-0.01	0.06
South Korea	2.6	2.6	2.5	1.5	1.8	1.9	1,110	1,094	2.02	2.40
United Kingdom	1.3	1.4	1.5	2.5	2.1	2.1	1.35	1.36	1.07	1.37
Germany	1.7	1.6	1.5	1.9	1.9	1.8	1.18	1.21	0.03	0.29
France	1.6	1.6	1.5	2.1	1.6	1.5	1.18	1.21	0.03	0.29
Euro Zone	1.9	1.7	1.6	1.8	1.6	1.6	1.18	1.21	0.03	0.29
Brazil	1.3	2.4	2.5	3.8	4.1	4.2	3.85	3.79	6.89	8.02
Russia	1.7	1.5	1.8	2.9	4.5	4.1	65.6	63.7	7.21	7.30
China	6.6	6.2	6.1	2.2	2.3	2.4	6.94	6.80	3.40	3.57
India	7.2	7.3	7.2	4.4	4.5	4.9	70.8	71.1	7.07	7.08

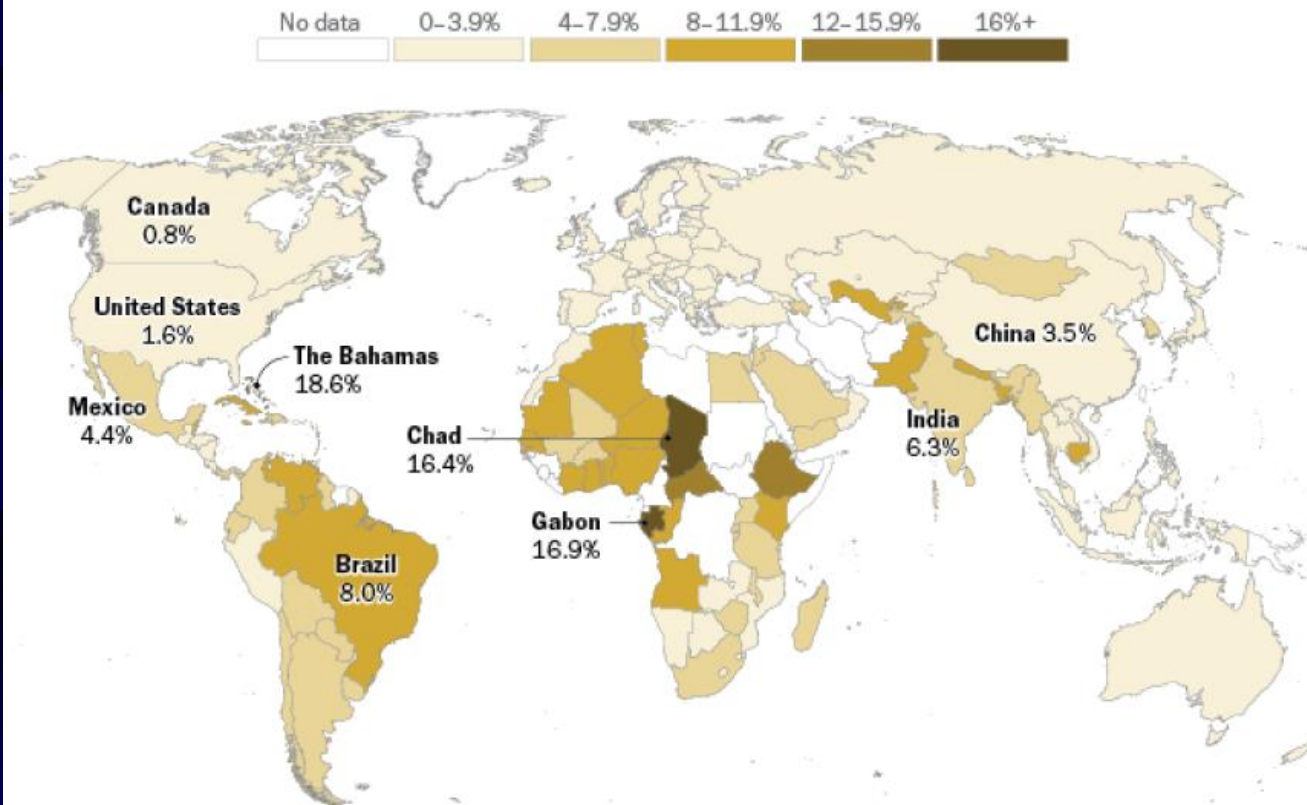
Blue Chip Economic Indicators Forecast January 10, 2019



More open countries have had better growth

Globally, U.S. tariffs rank among the lowest

Tariff rate, applied, weighted mean, all products (2016)



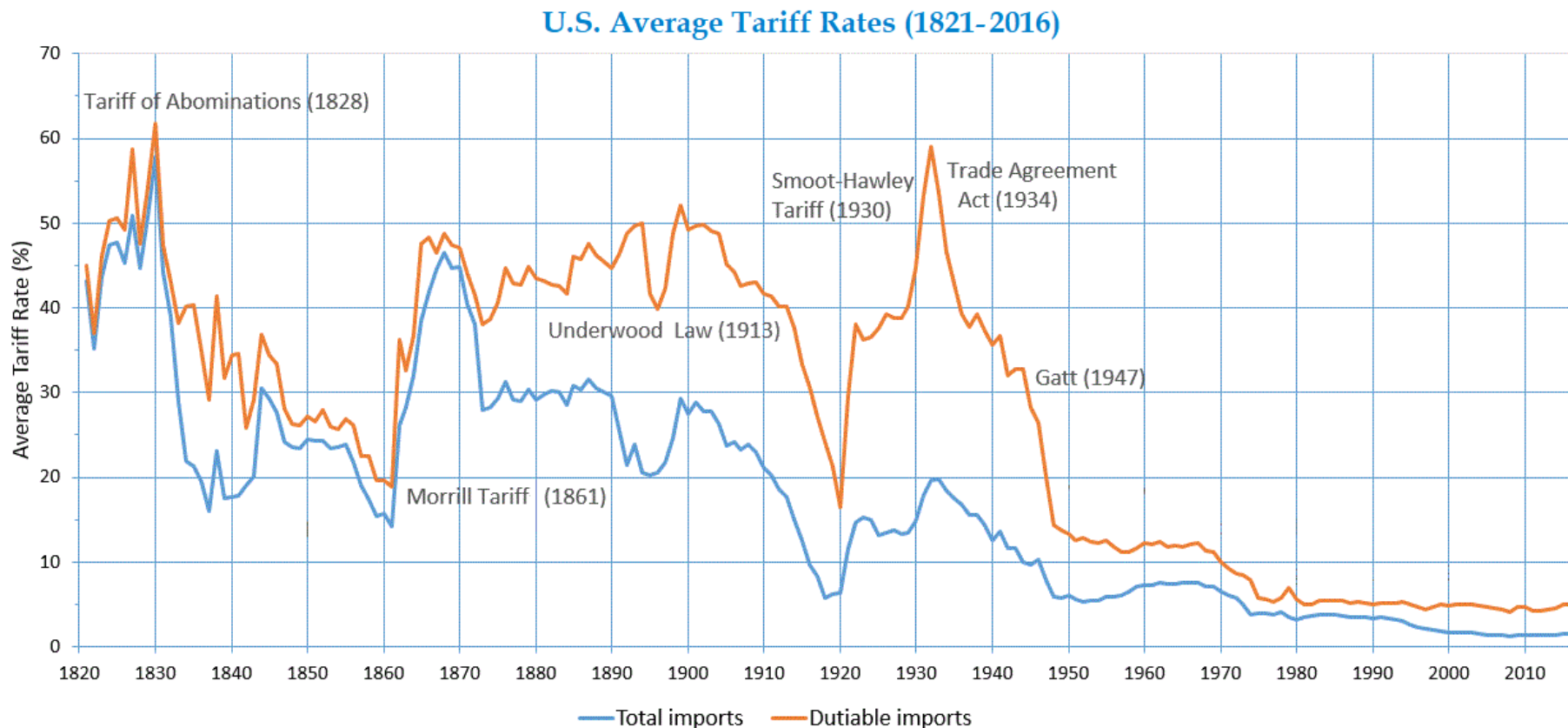
Note: 2015 data for Azerbaijan, Bhutan, Cabo Verde, Comoros, Congo Republic, El Salvador, Ethiopia, Fiji, Guatemala, Honduras, Mauritania, Mongolia, Myanmar, Panama, Peru, Saudi Arabia, Sri Lanka, Thailand and Uzbekistan.

Source: World Development Indicators, World Bank (data as of March 1, 2018).

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U.S. tariffs used to be much higher

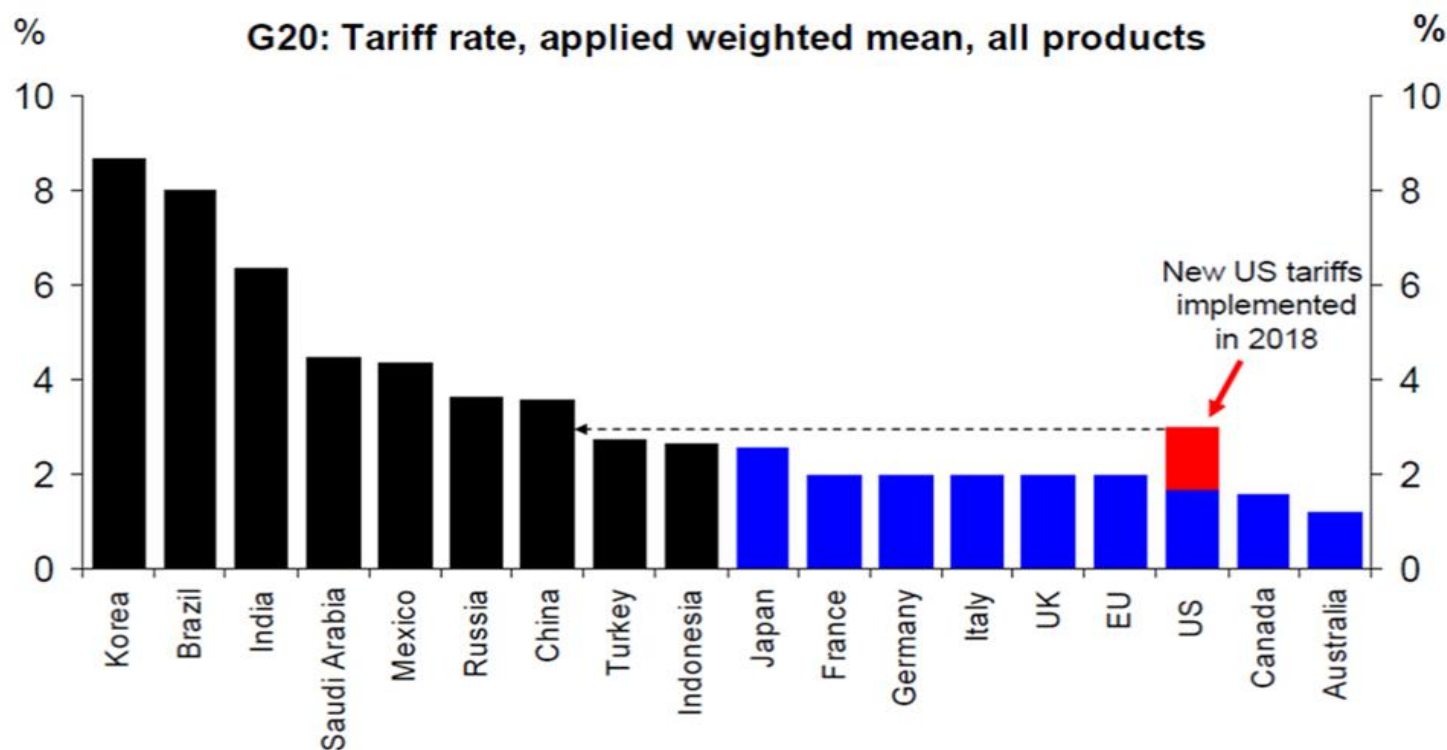


Source: US Department of Commerce, Bureau of the Census, Historical Statistics of the United States 1789-1945, U.S. International Trade Commission, dataweb.usitc.gov



Tariffs: U.S. versus other countries

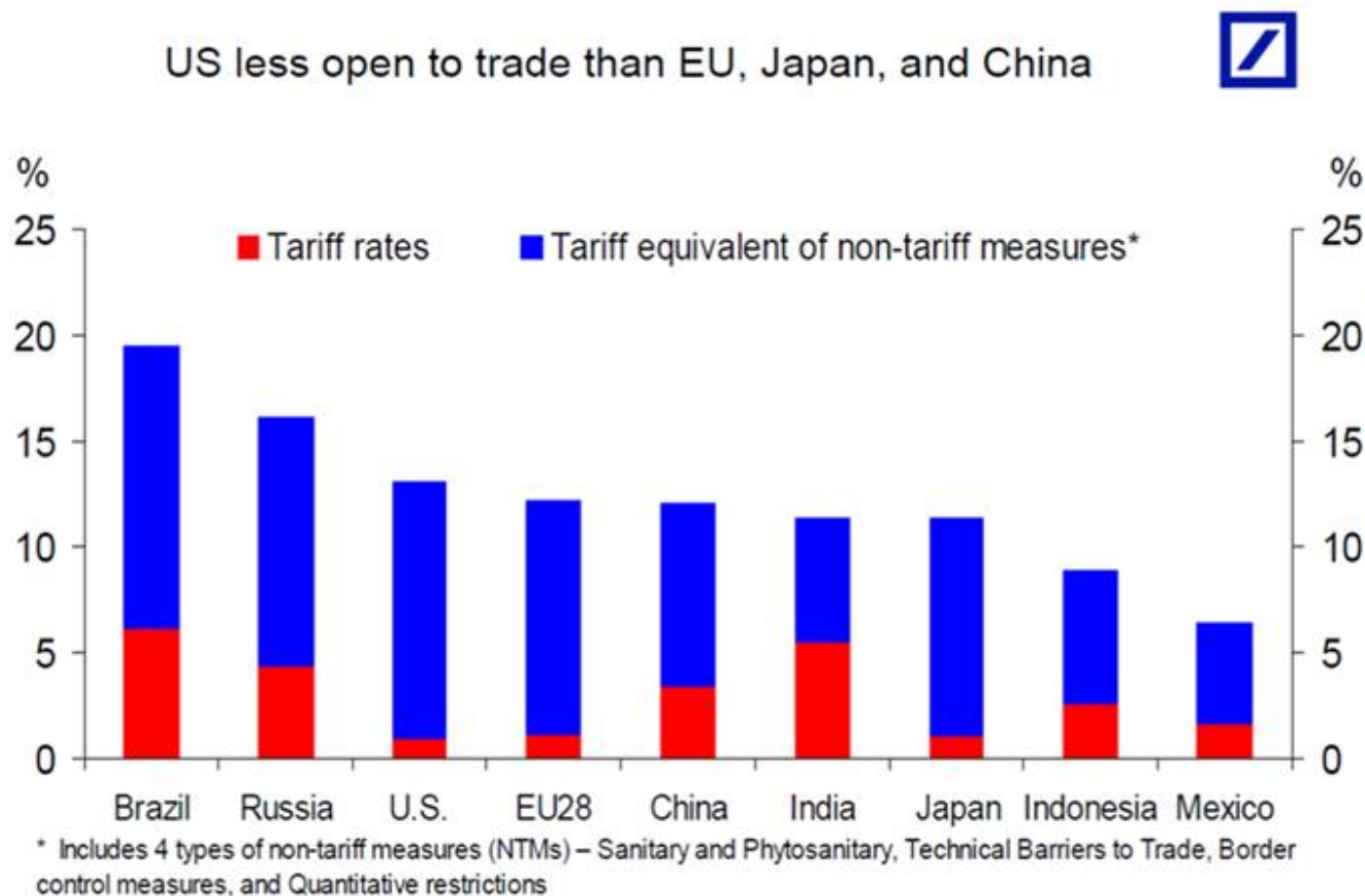
US tariffs now at EM levels



Source: World Bank data from 2016, Justin Weidner, Haver Analytics, DB Global Research



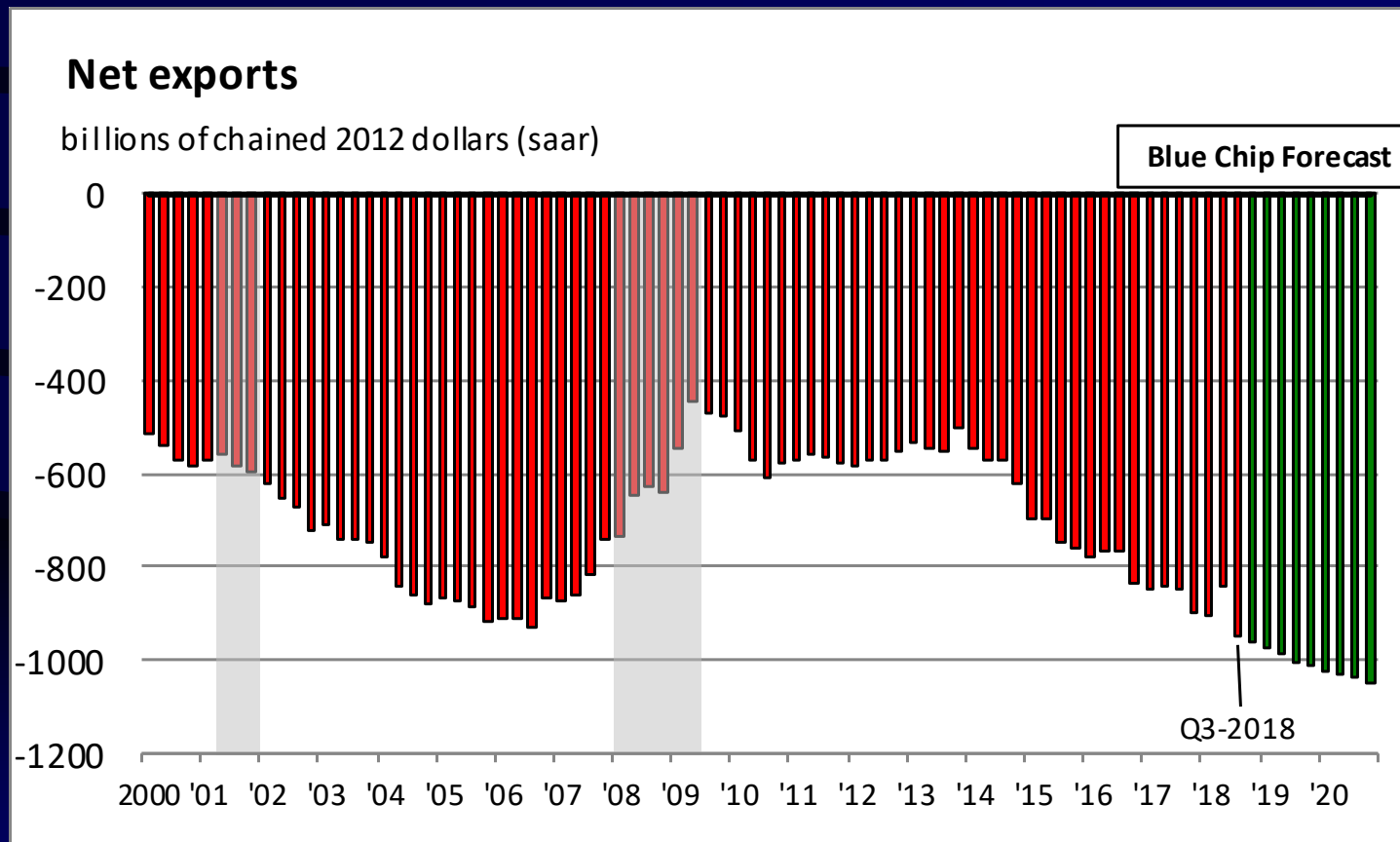
Tariffs: U.S. versus other countries



Source: OECD, Haver Analytics, DB Global Research



The Blue Chip forecast projects a continuing deterioration in the balance of trade



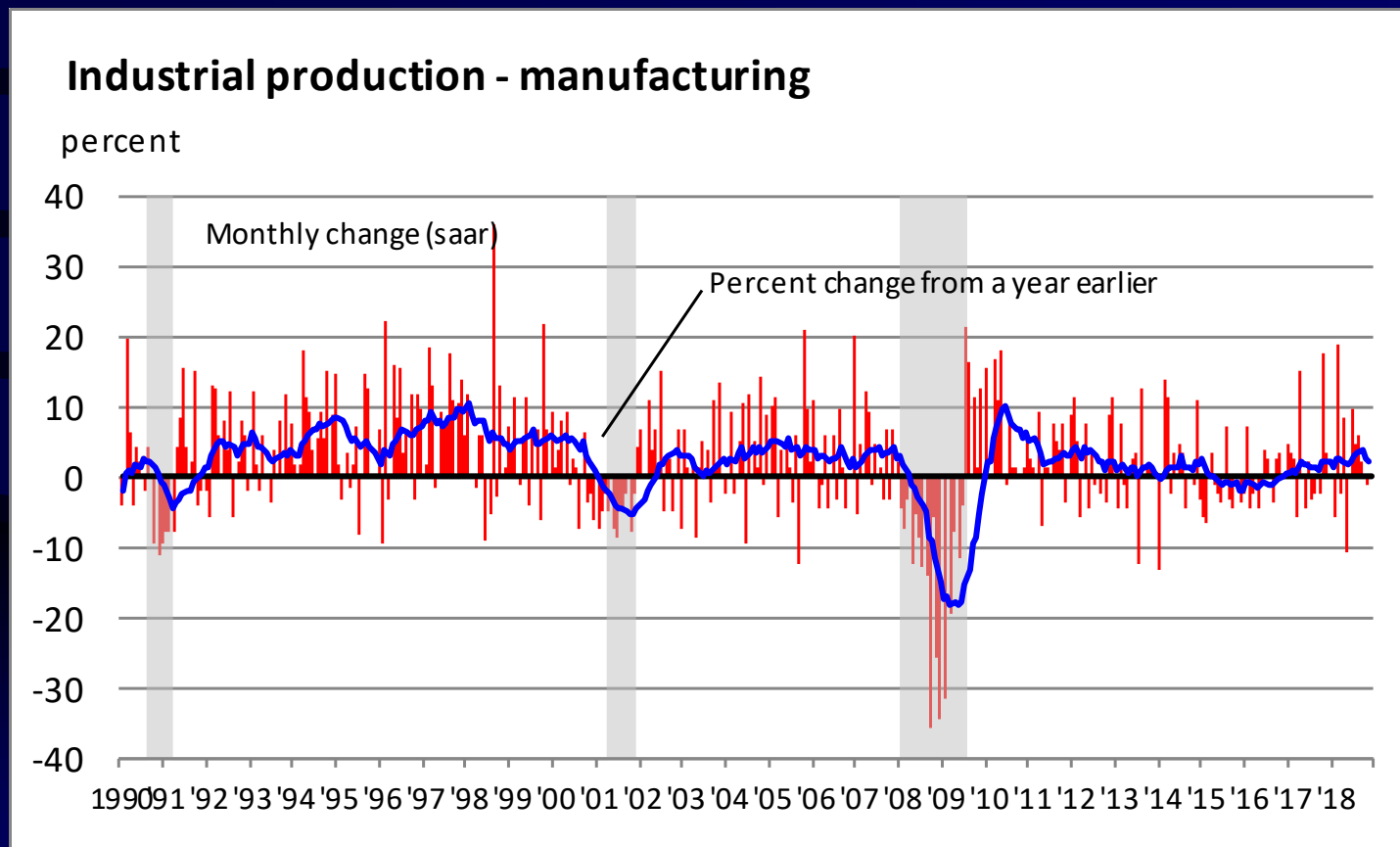
Manufacturers' Purchasing Managers Indexes

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Global	54.4	54.1	53.3	53.5	53.1	53.0	52.8	52.6	53.2	52.0	52.0	51.5
United States	55.5	55.3	55.6	56.5	56.4	55.4	55.3	54.7	55.6	55.7	55.3	53.8
Canada	55.9	55.6	55.7	55.5	56.2	57.1	56.9	56.8	54.8	53.9	54.9	53.6
Mexico	52.6	51.6	52.4	51.6	51.0	52.1	52.1	50.7	51.7	50.7	49.7	49.7
Eurozone	59.6	58.6	56.6	56.2	55.5	54.9	55.1	54.6	53.2	52.0	51.8	51.4
Germany	61.1	60.6	58.2	58.1	56.9	55.9	56.9	55.9	53.7	52.2	51.8	51.5
France	58.4	55.9	53.7	53.8	54.4	52.5	53.3	53.5	52.5	51.2	50.8	49.7
Italy	59.0	56.8	55.1	53.5	52.7	53.3	51.5	50.1	50.0	49.2	48.6	49.2
Spain	55.2	56.0	54.8	54.4	53.4	53.4	52.9	53.0	51.4	51.8	52.6	51.1
UK	55.3	55.0	54.9	53.9	54.4	54.4	53.8	53.0	53.6	51.1	53.6	54.2
Russia	52.1	50.2	50.6	51.3	49.8	49.5	48.1	48.9	50.0	51.3	52.6	51.7
Japan	54.8	54.1	53.1	53.8	52.8	53.0	52.3	52.5	52.5	52.9	52.2	52.6
China	51.5	51.6	51.0	51.1	51.1	51.0	50.8	50.6	50.0	50.1	50.2	49.7
India	52.4	52.1	51.0	51.6	51.2	53.1	52.3	51.7	52.2	53.1	54.0	53.2
Brazil	51.2	53.2	53.4	52.3	50.7	49.8	50.5	51.1	50.9	51.1	52.7	52.6

>54	51-54	45-51	<45
Above Trend	Trend	Flat	Recession



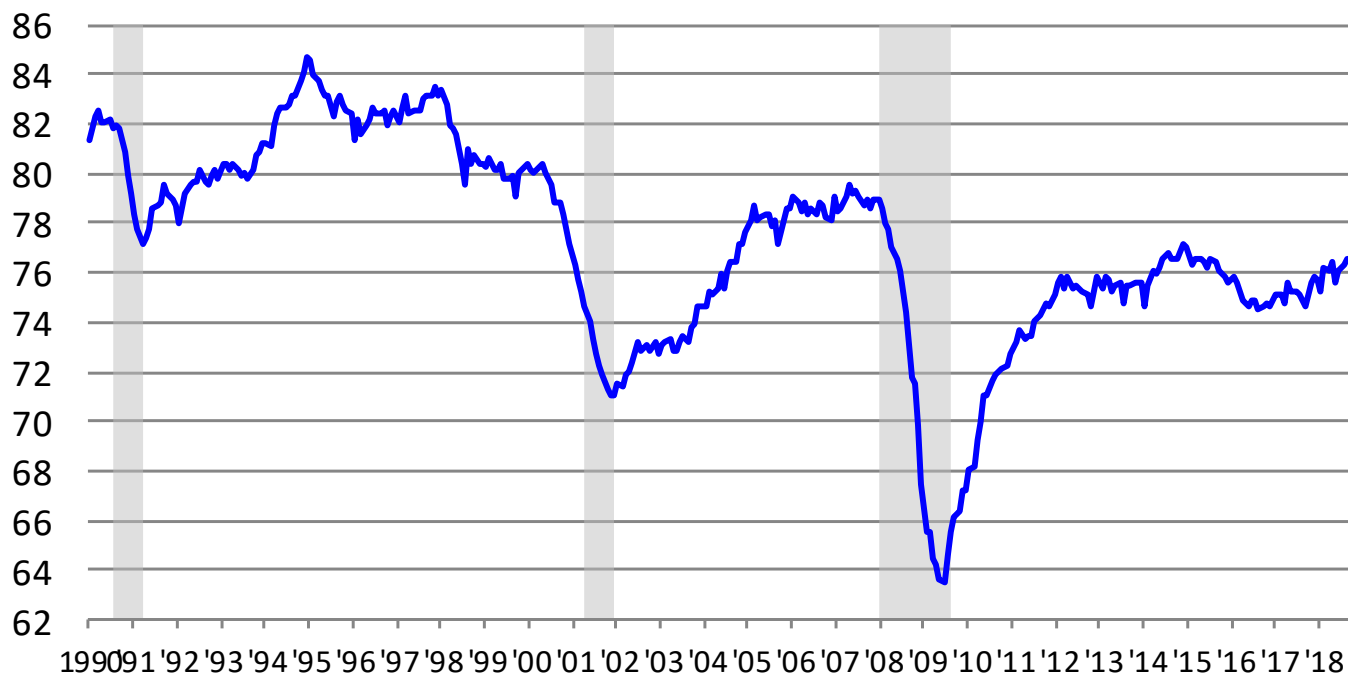
Manufacturing output growth slowed at the end of 2018



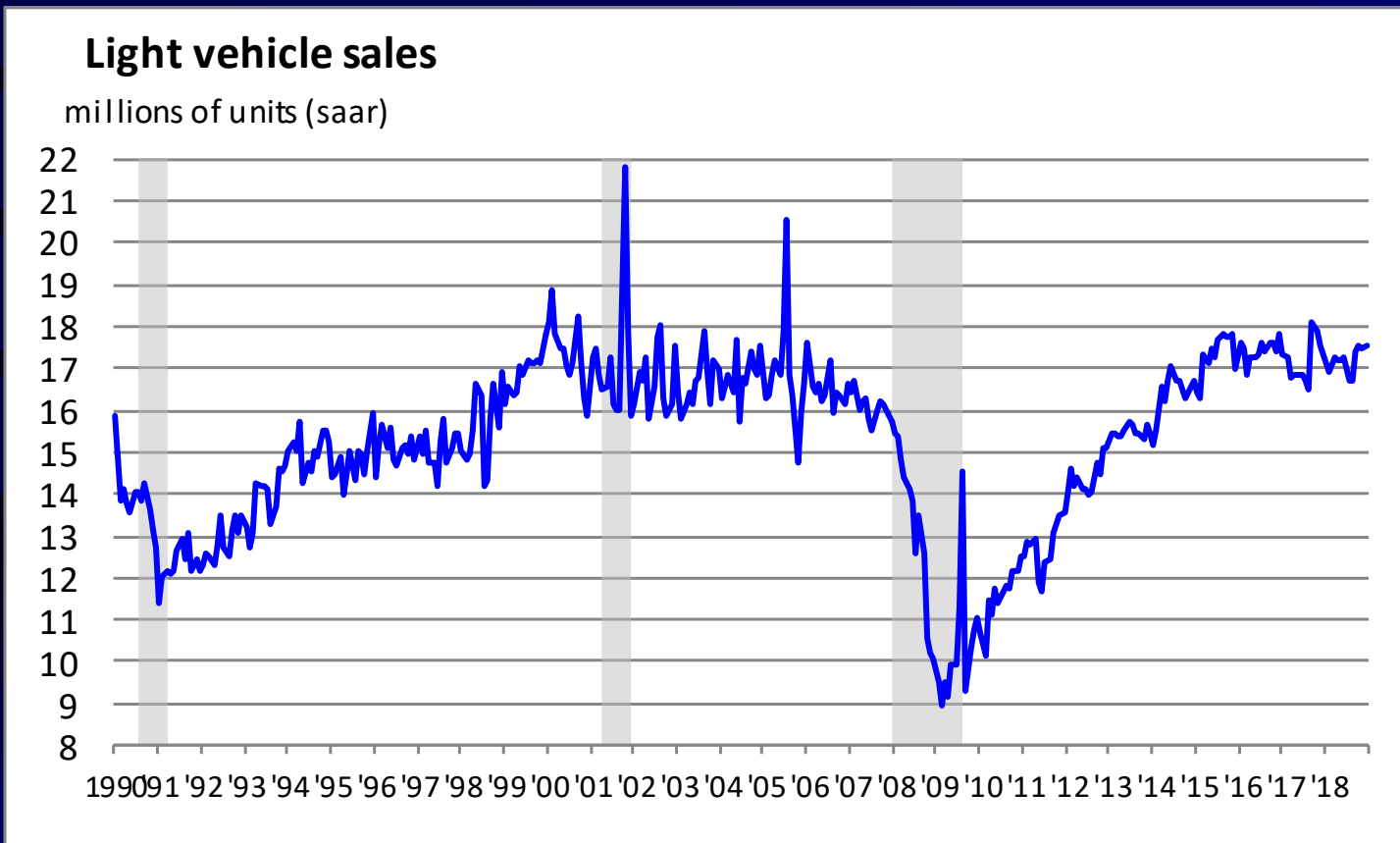
**Capacity utilization has been moving
higher over the past year,
but is still below full utilization**

Capacity utilization - manufacturing

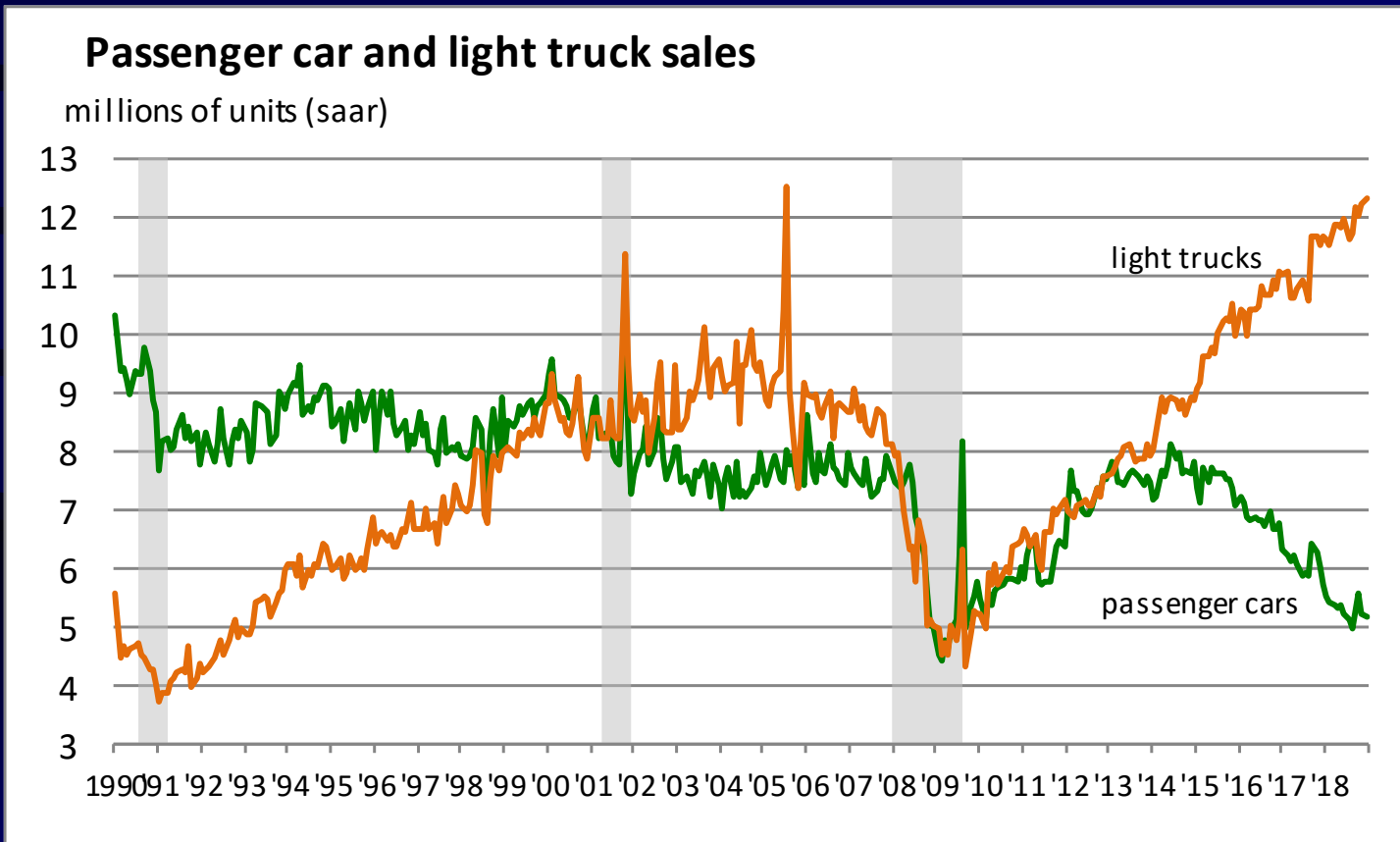
percent



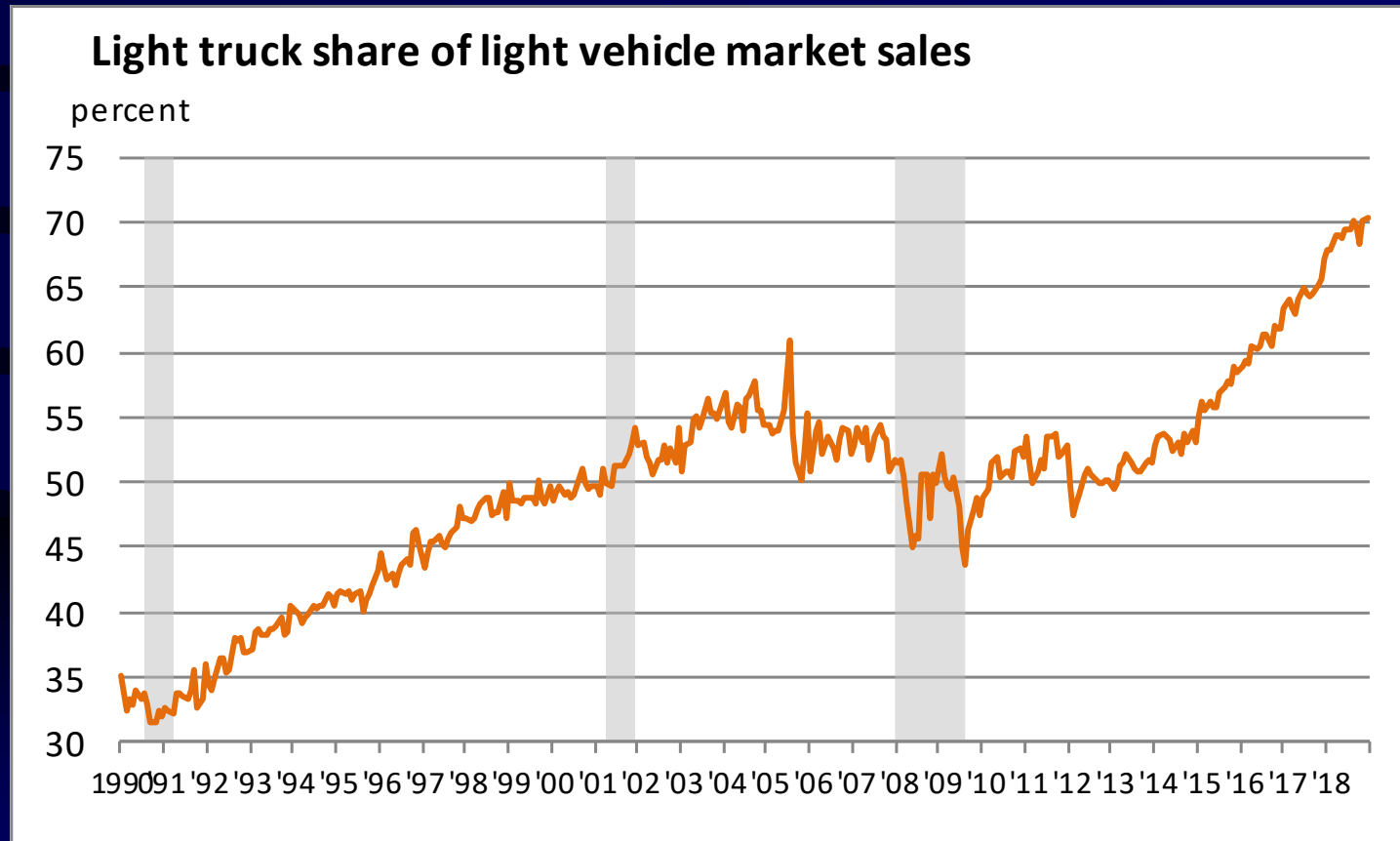
**Light vehicle sales were 17.2 million units in 2018,
0.5% higher than the previous year**



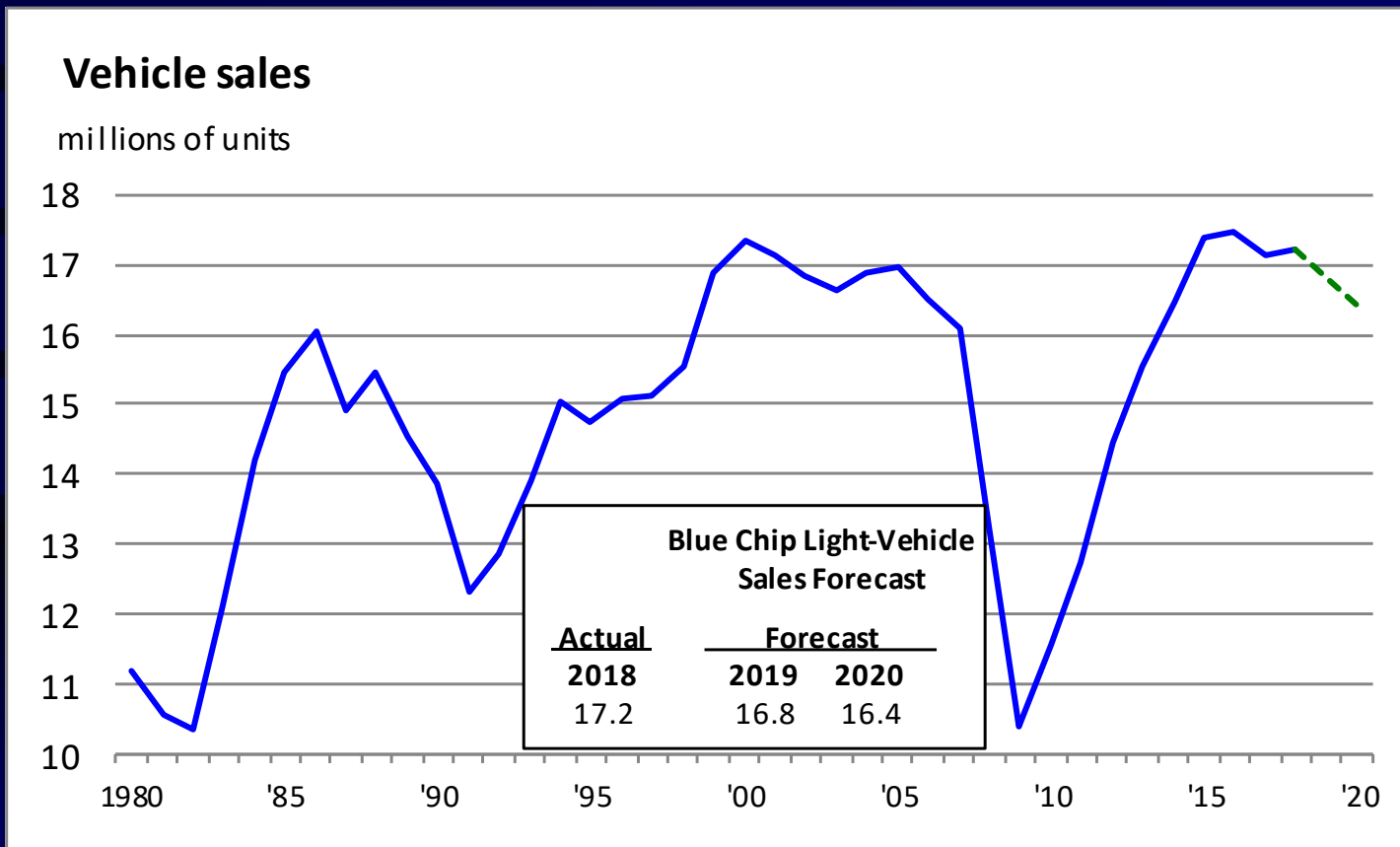
**2018 light truck sales were 7.4% higher,
while 2018 passenger car sales are 13.0% lower**



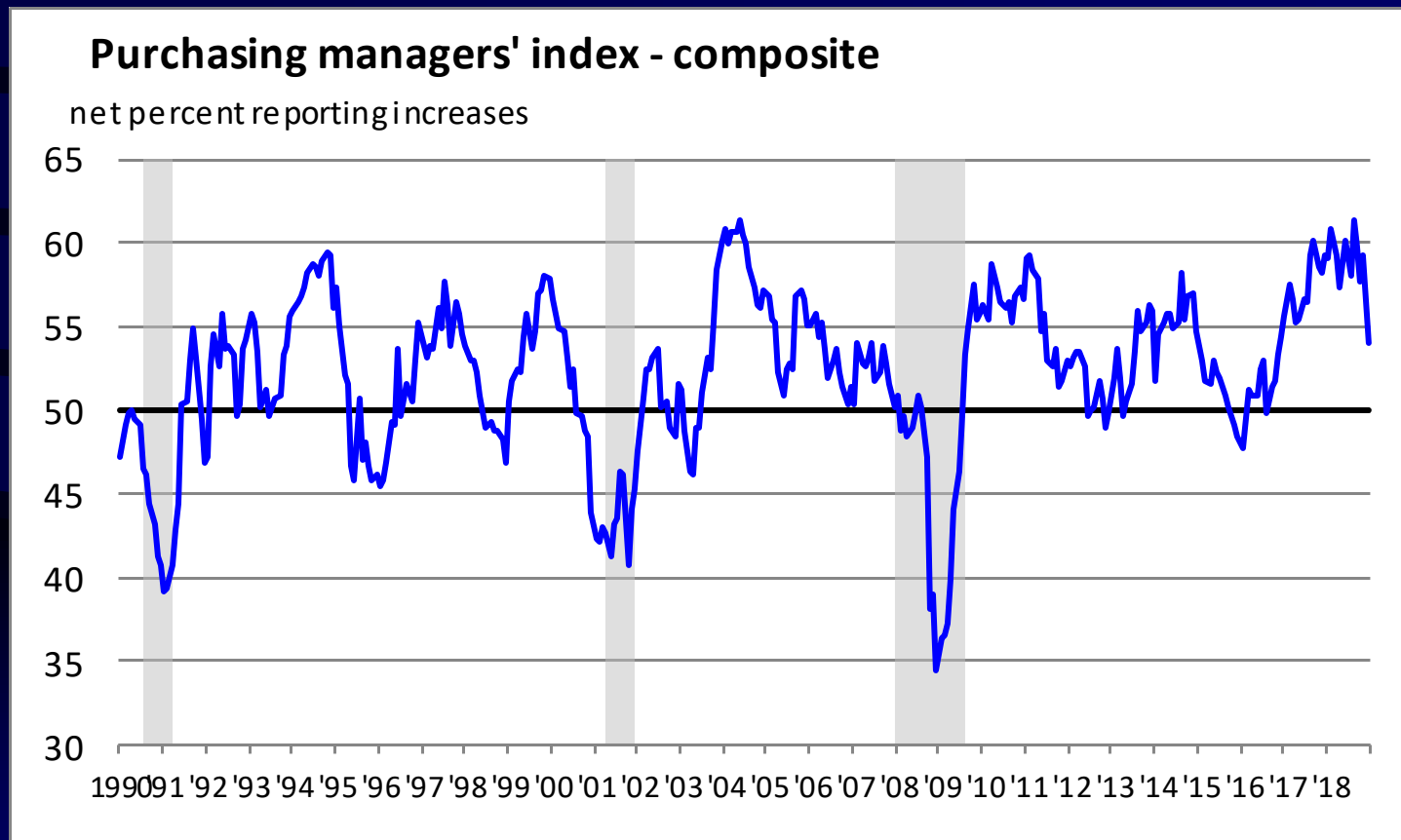
Light truck market share is over 70 percent



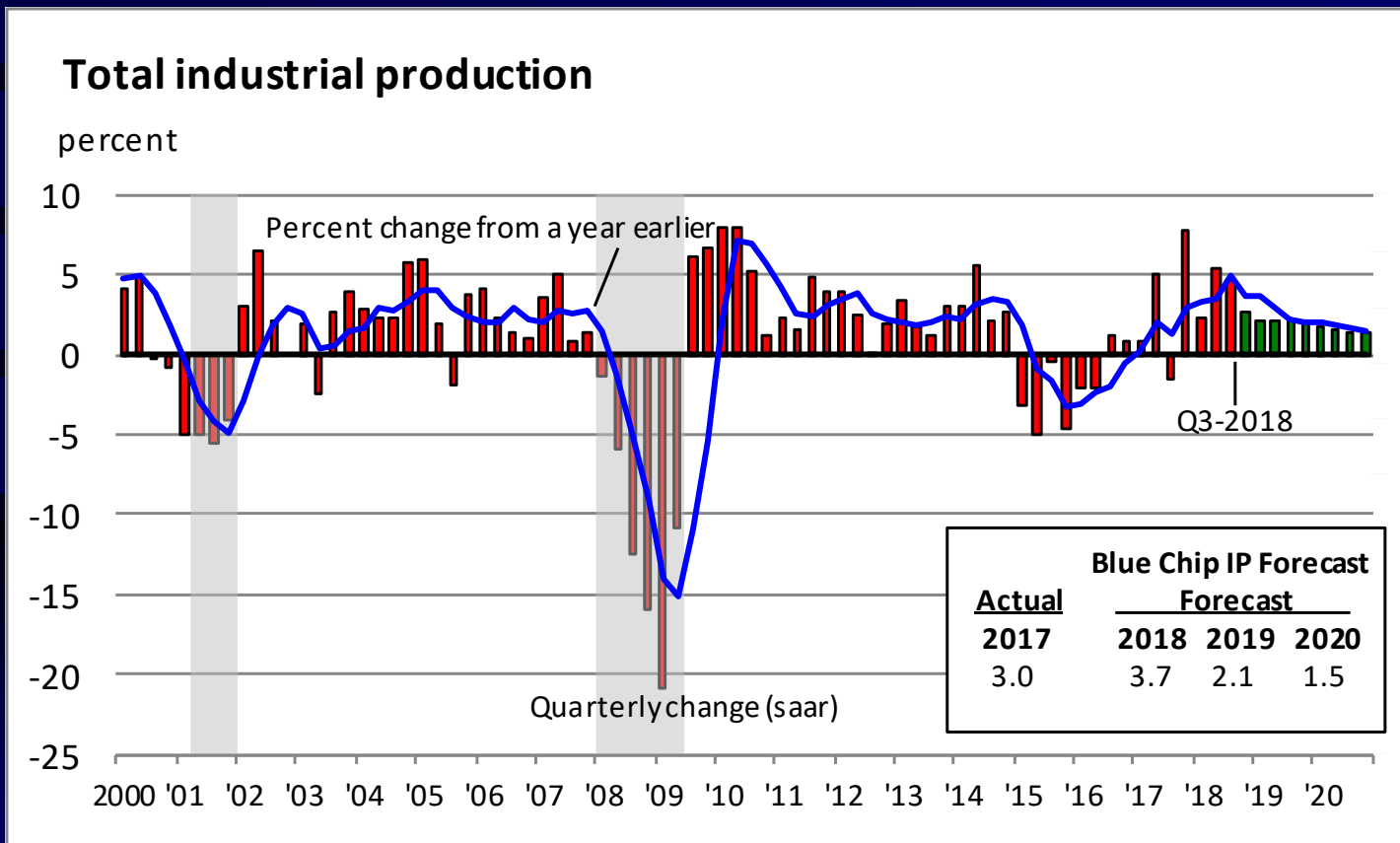
Blue Chip Forecasts vehicle sales to move lower this year and in 2020



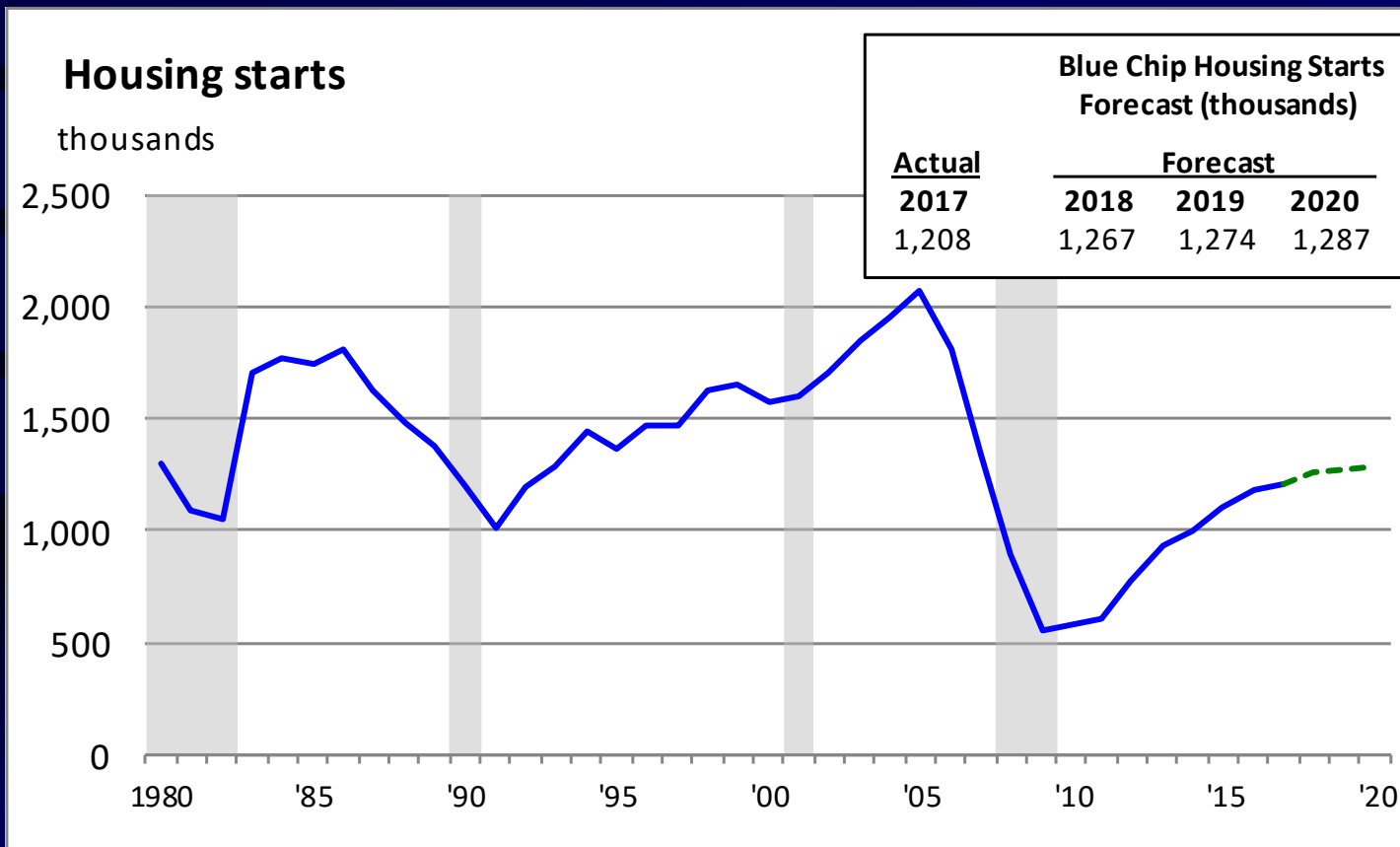
The purchasing managers' composite index has moderated to a still relatively solid level



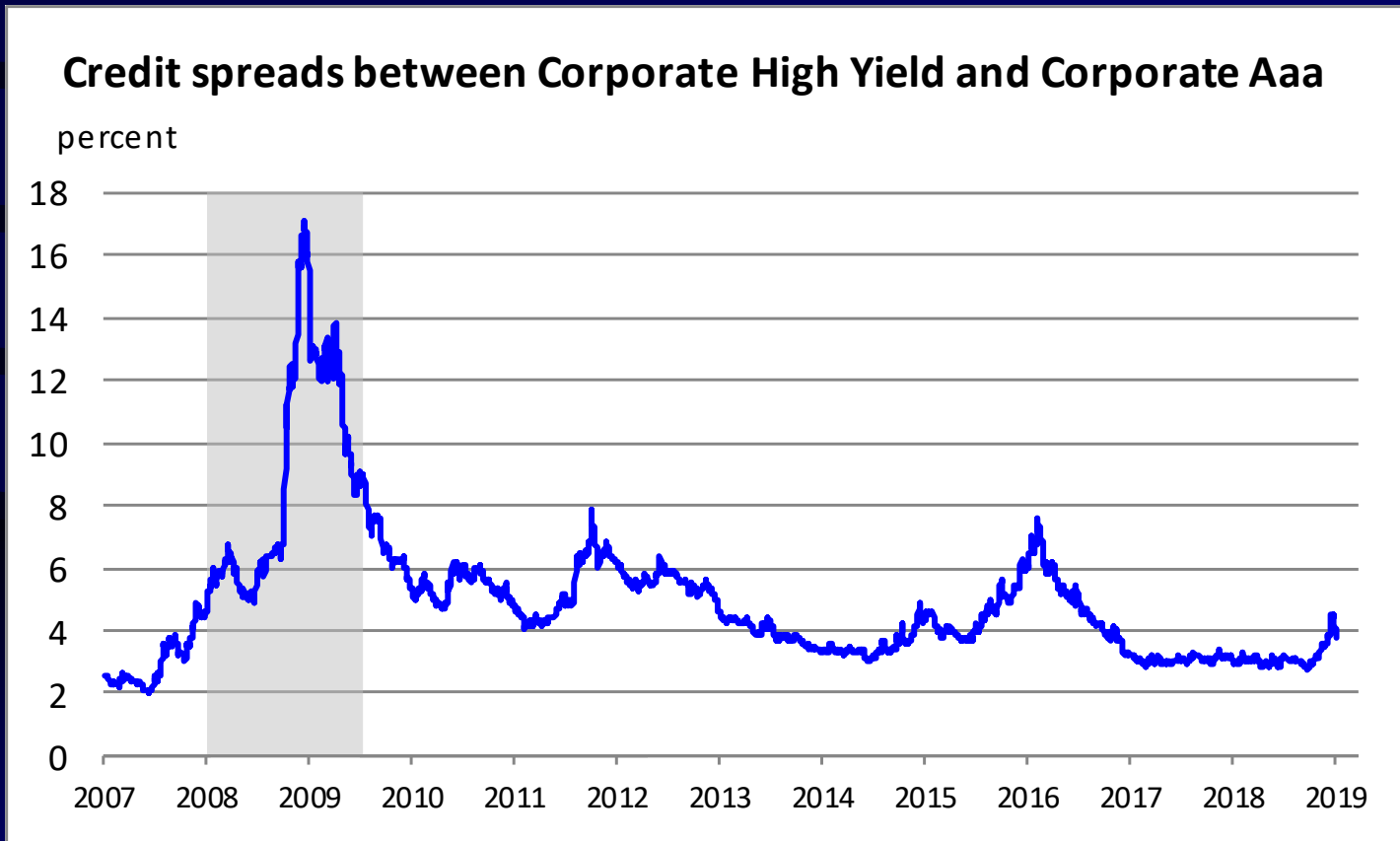
Industrial production is forecast to rise at a slower pace this year and moderate further in 2020



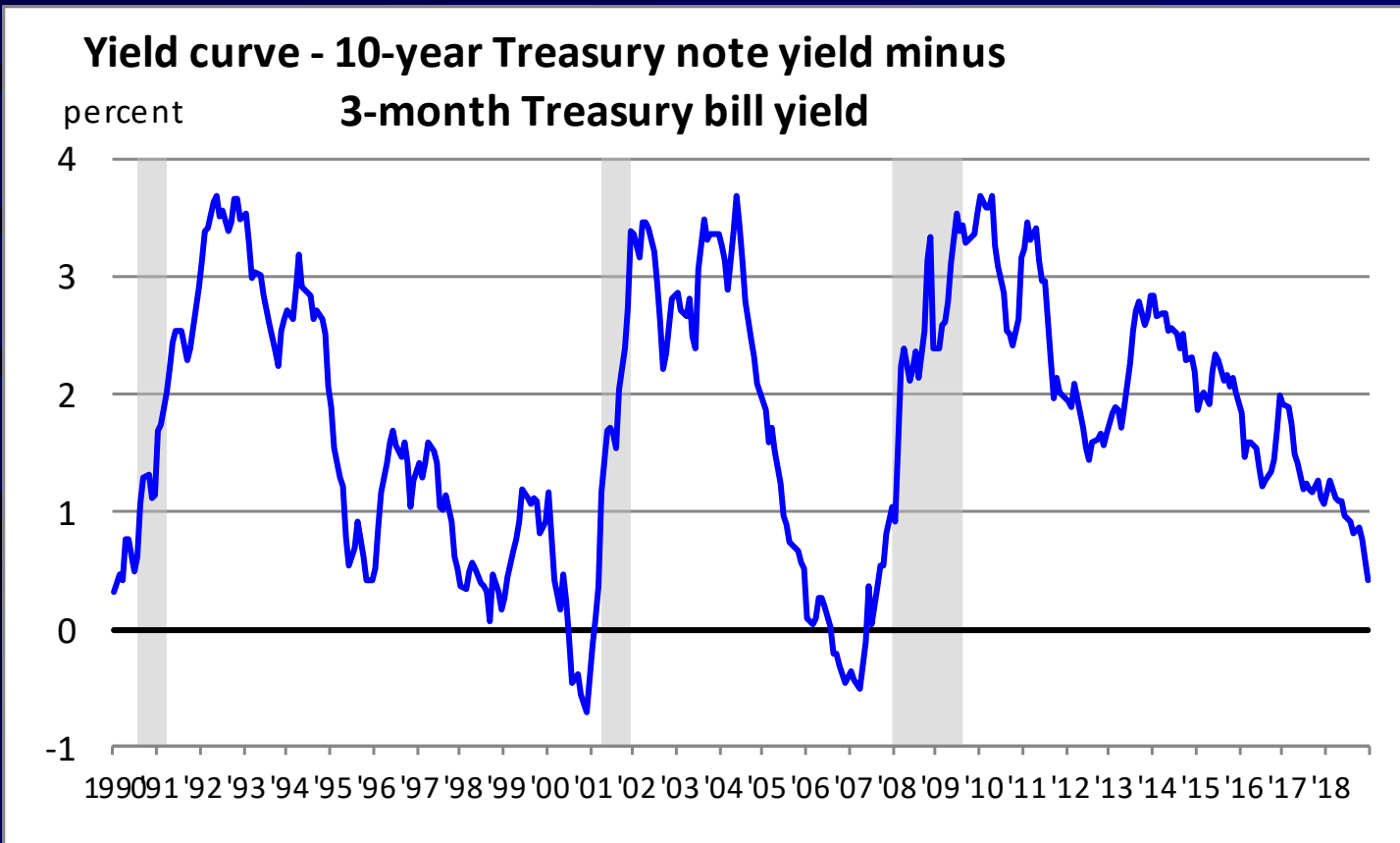
The Blue Chip Forecast calls for a continuation of the very gradual recovery in housing



Credit spreads between Corporate High Yield securities and Corporate Aaa securities has increased over the past couple of months



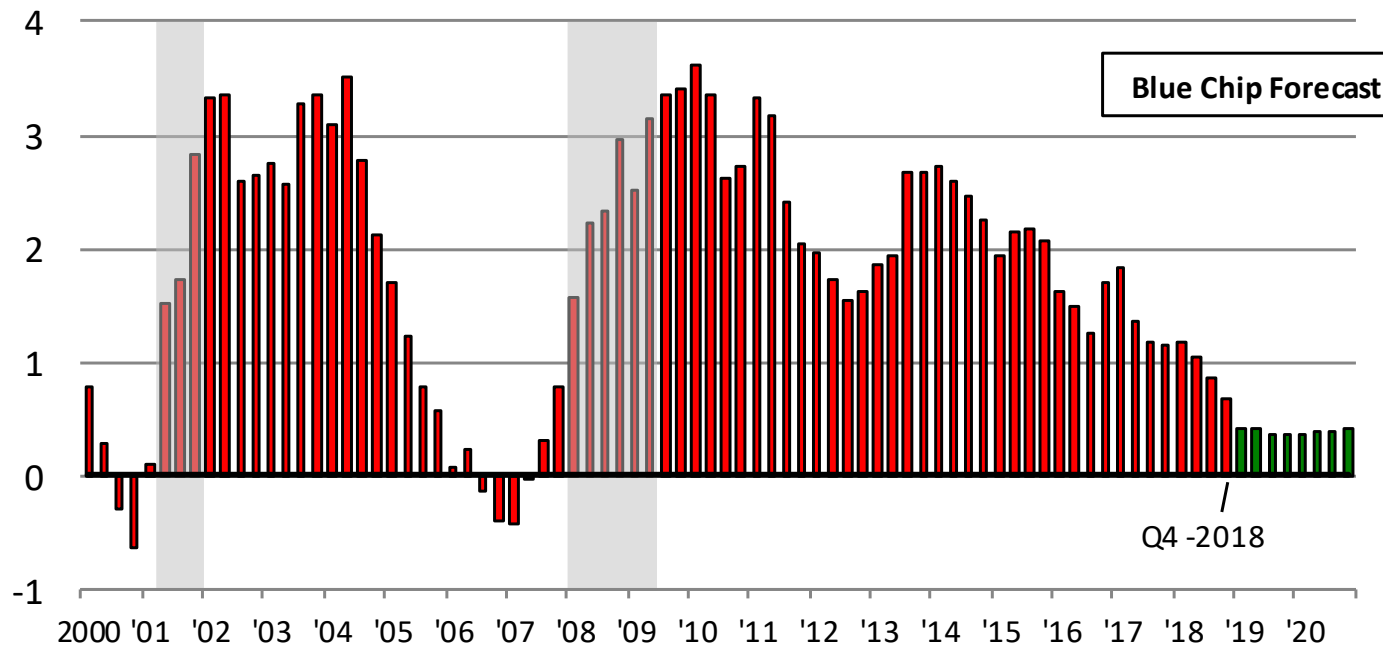
The yield curve has continued to flatten but remains above zero



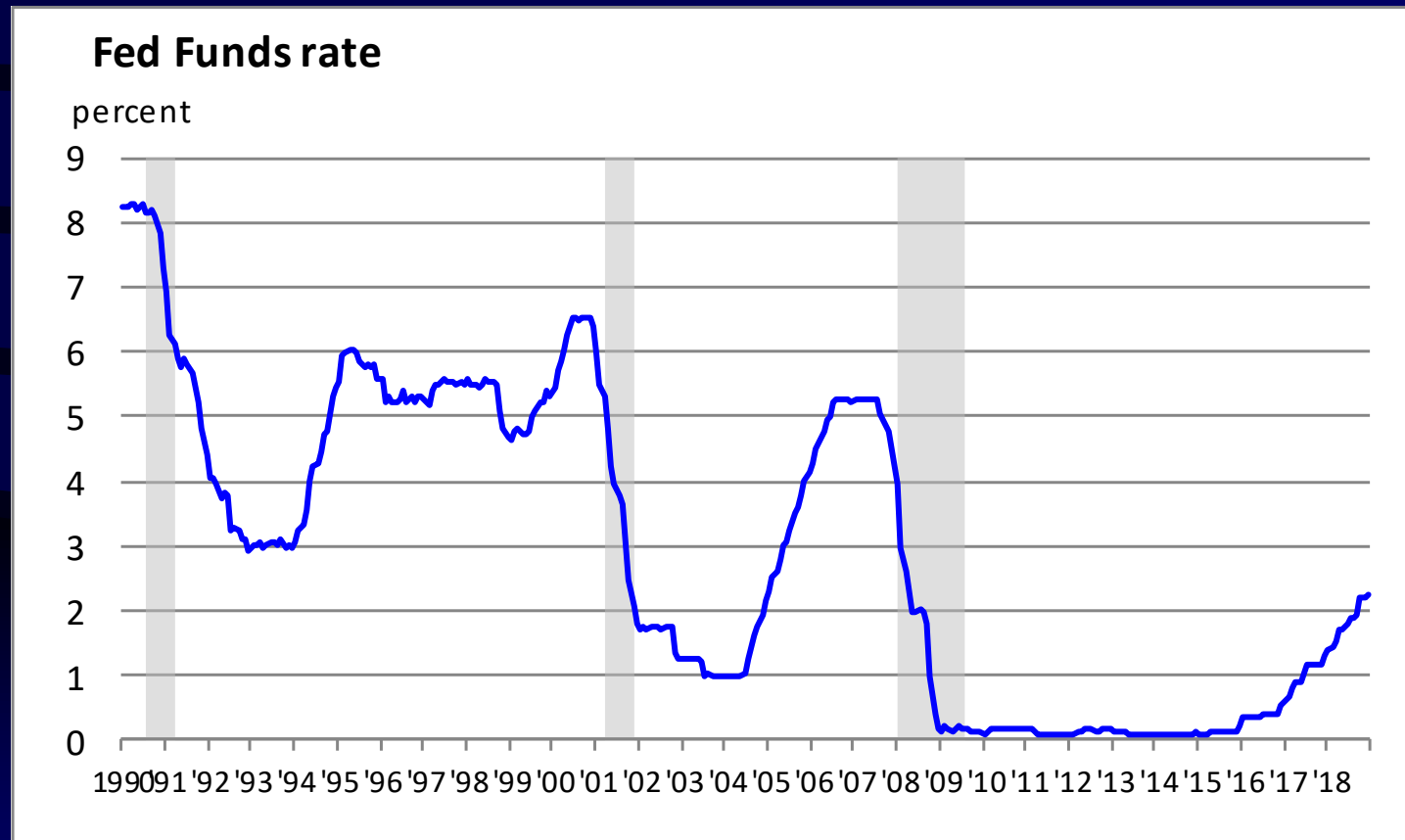
Blue Chip expects the yield curve to continue to flatten slightly more this year, but not invert

10-year T-Note to 3-month T-Bill spread

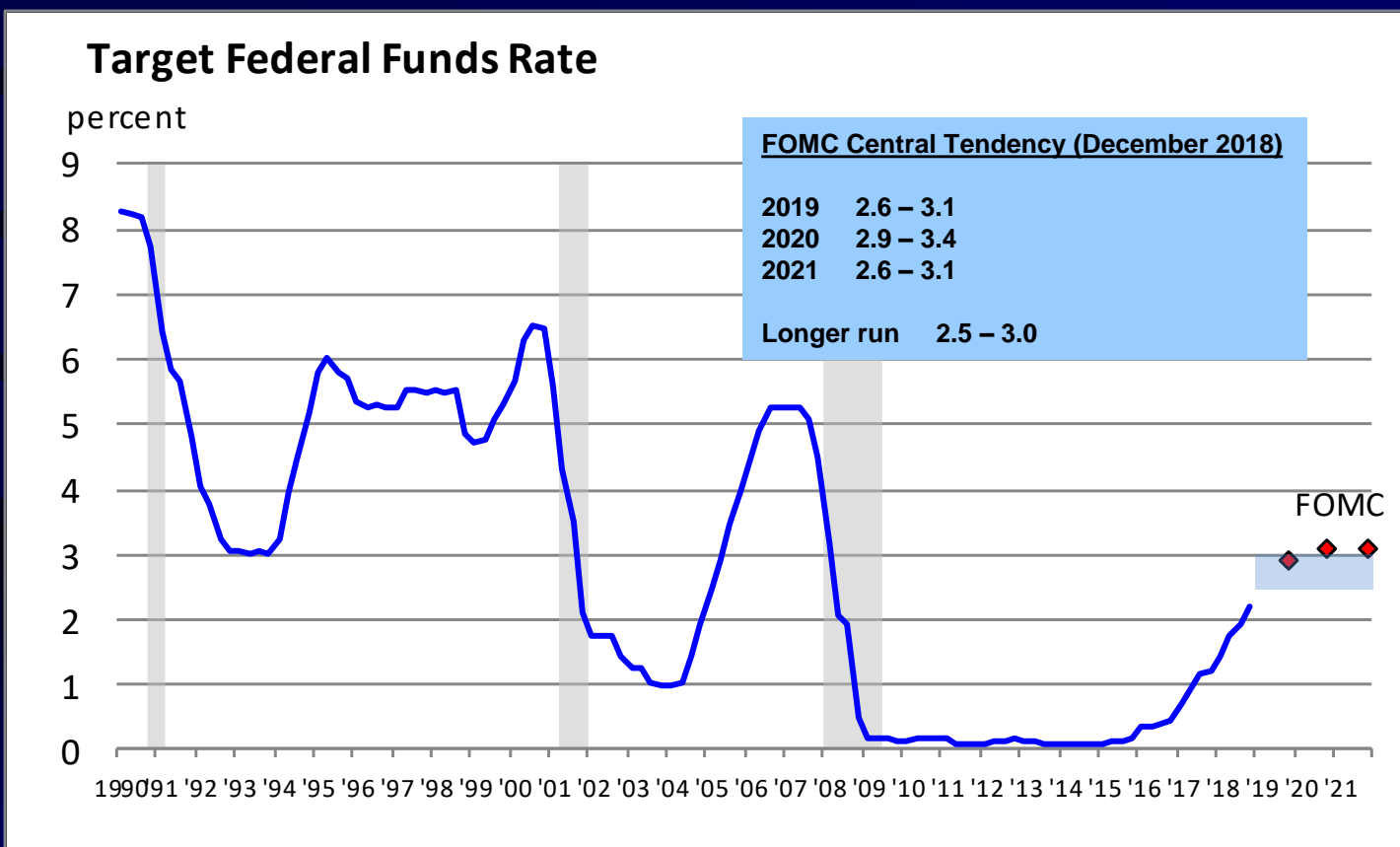
percent



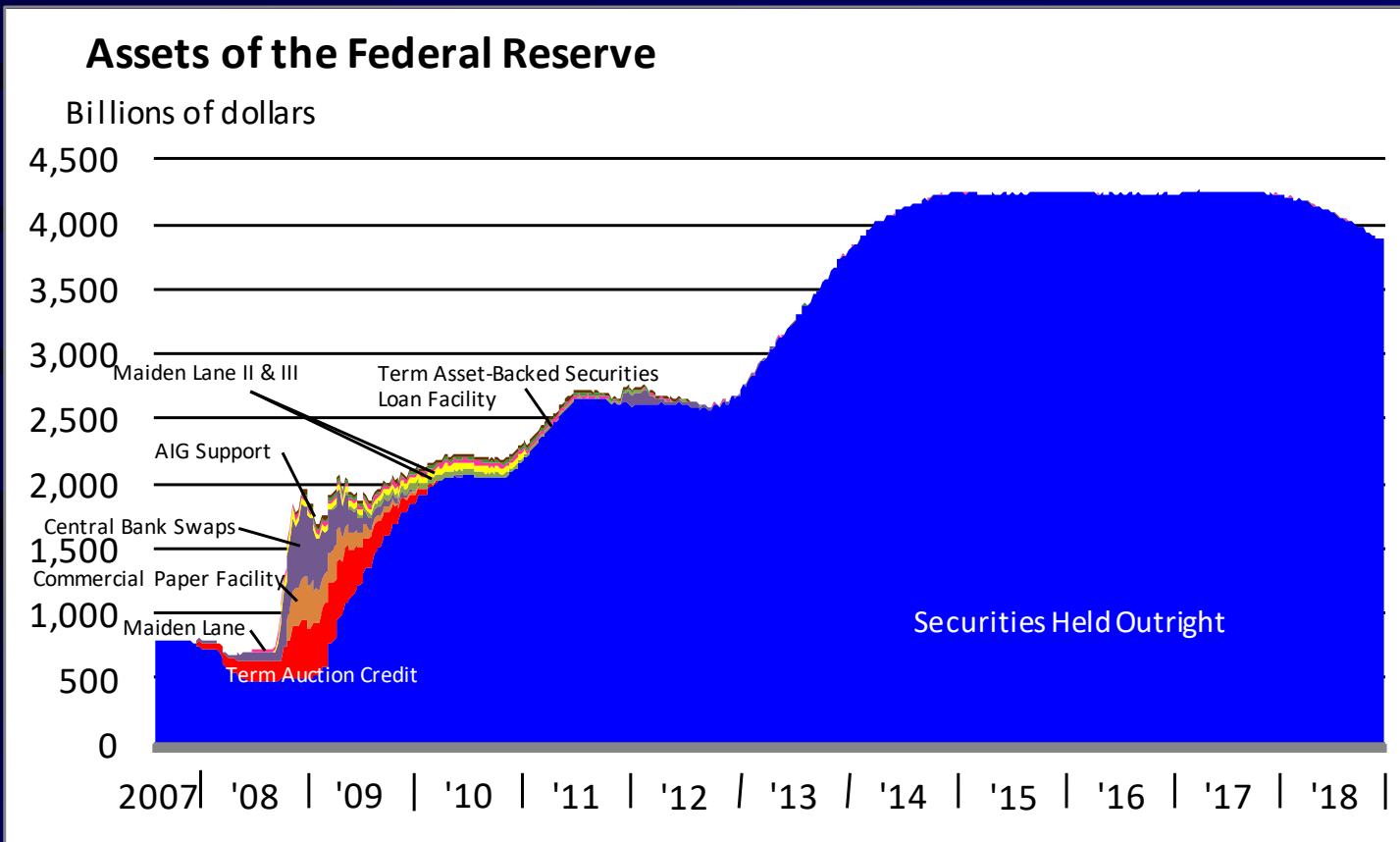
The Federal Reserve increased the Federal Funds rate by 2.25% since December 2015



The Federal Funds Rate is expected to be at the top of the neutral range by the end of 2019 and slightly above neutral in 2020 and 2021



The Fed's balance sheet has been falling since October 2017



Summary

- The outlook is for the U.S. economy to expand at a pace above trend in 2018 and 2019 and close to trend in 2020 and 2021
- Employment is expected to rise moderately with the unemployment rate remaining very low
- Inflation is forecast be at the Fed's Inflation target through 2021
- Housing is predicted to improve at a modest pace
- Vehicle sales are anticipated to move lower this year
- Manufacturing output is expected to increase at a slower pace in 2019



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