

Automotive Outlook

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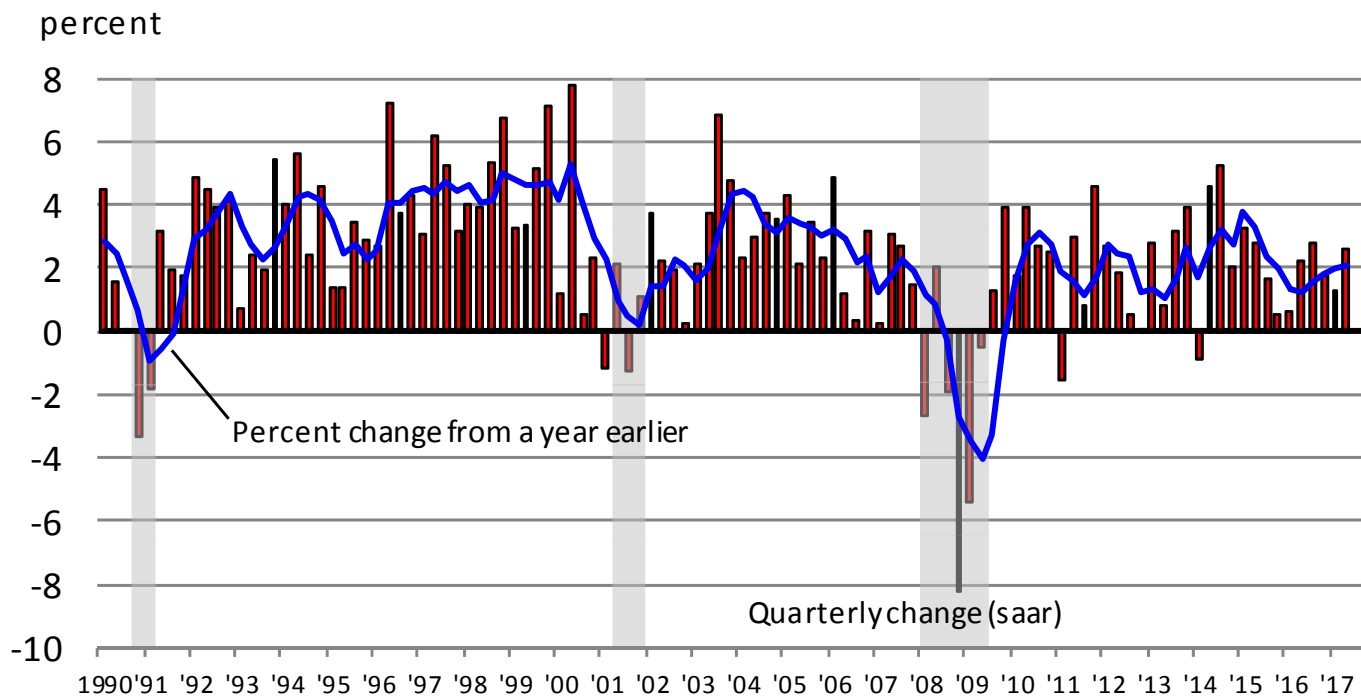


Brief Macro Assessment



GDP expanded by 2.1% over the past year

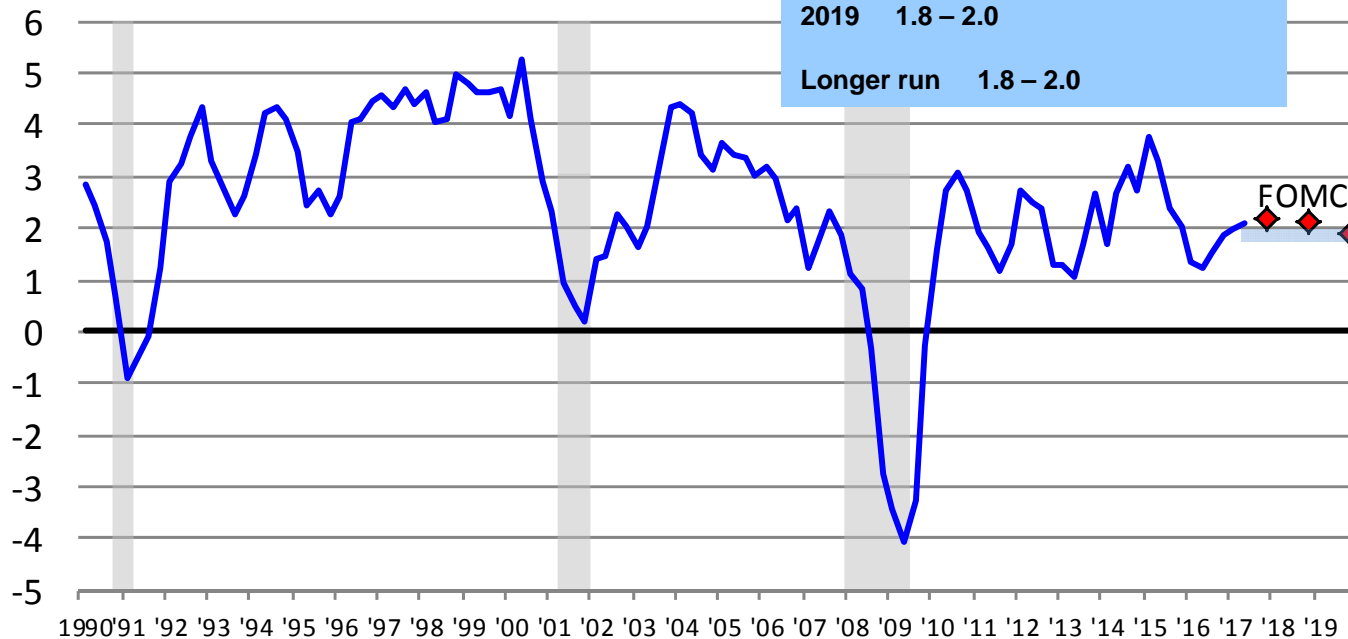
Real gross domestic product



The Federal Open Market Committee (FOMC) expects GDP to grow around trend over the next three years

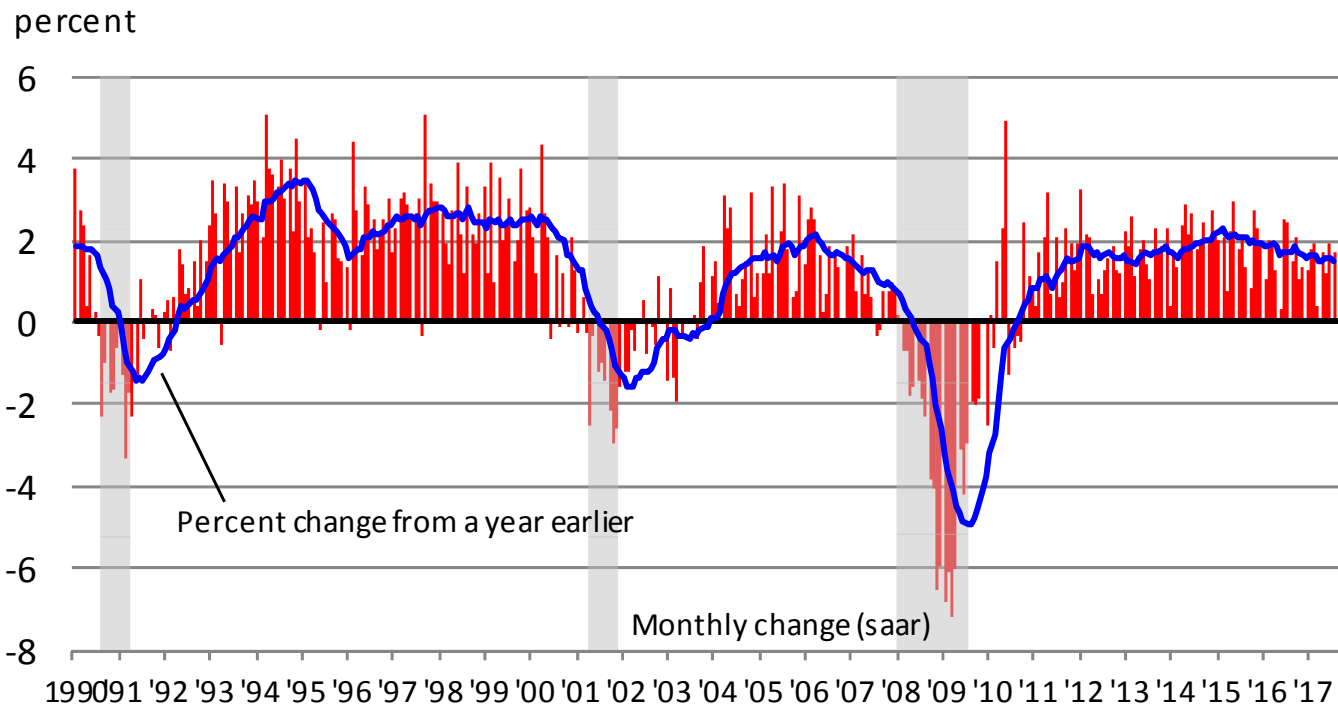
Real gross domestic product

percent change from a year earlier

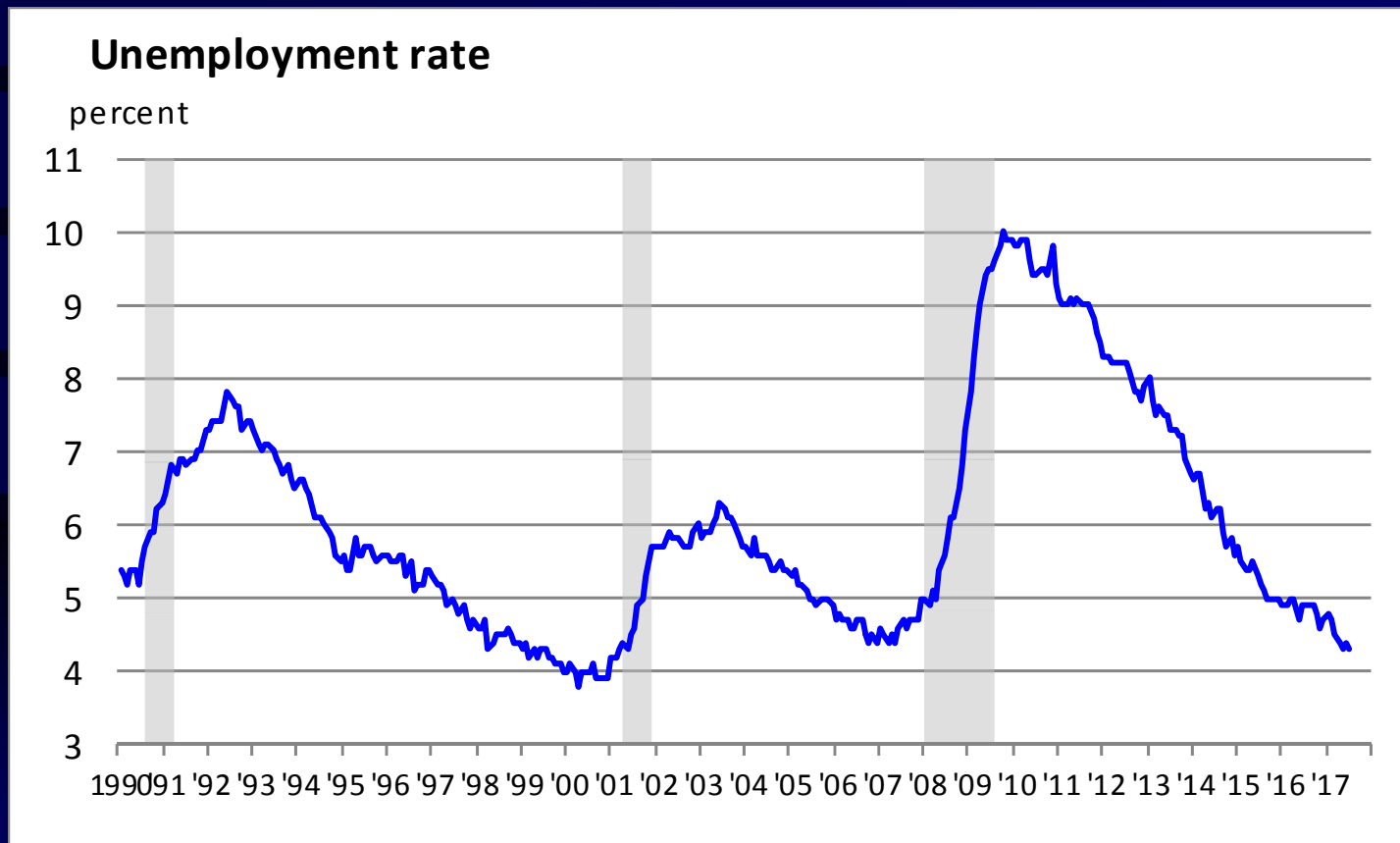


Employment increased by over 2.1 million jobs over the past 12 months

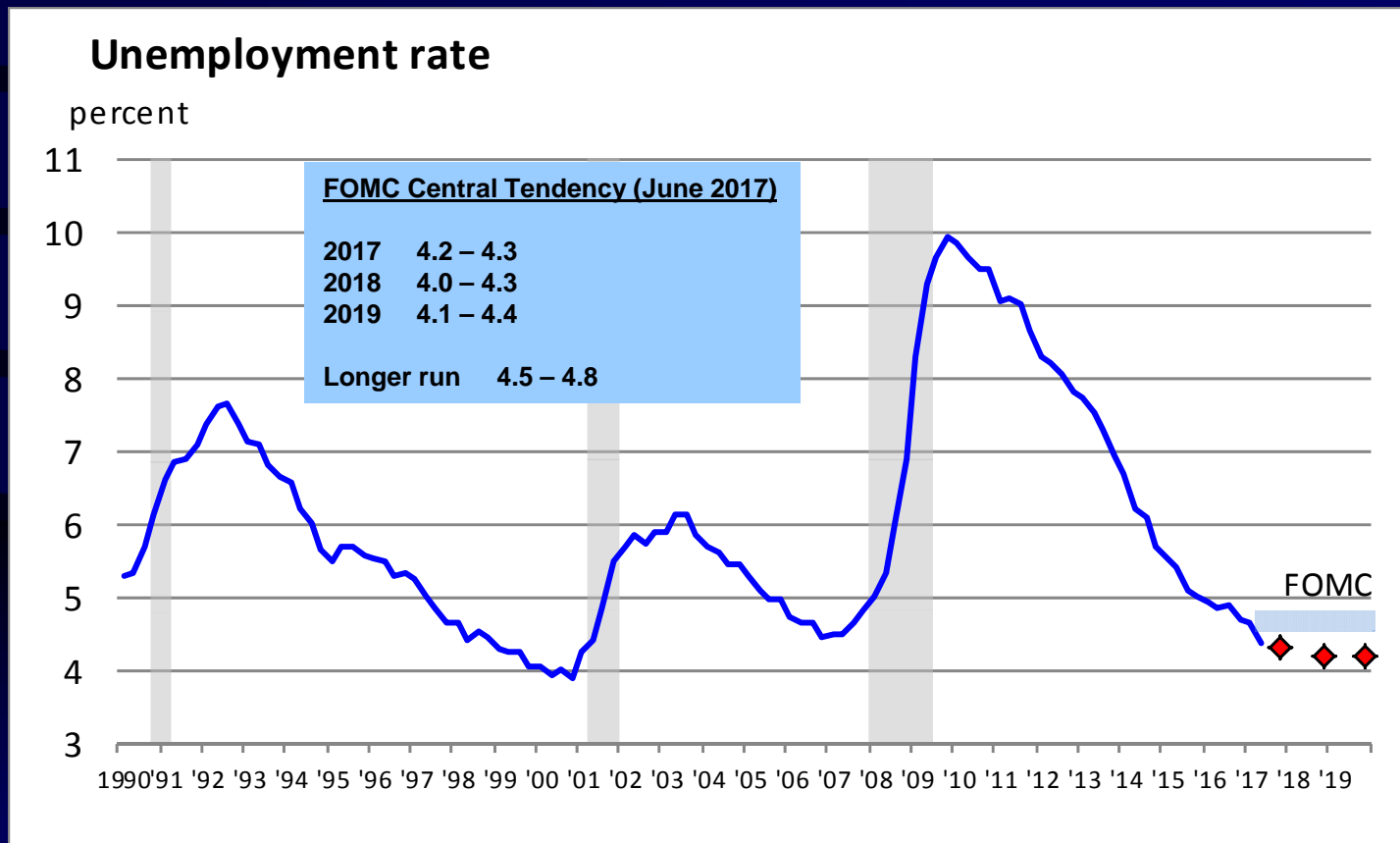
Total employment



The unemployment rate has fallen to 4.3%



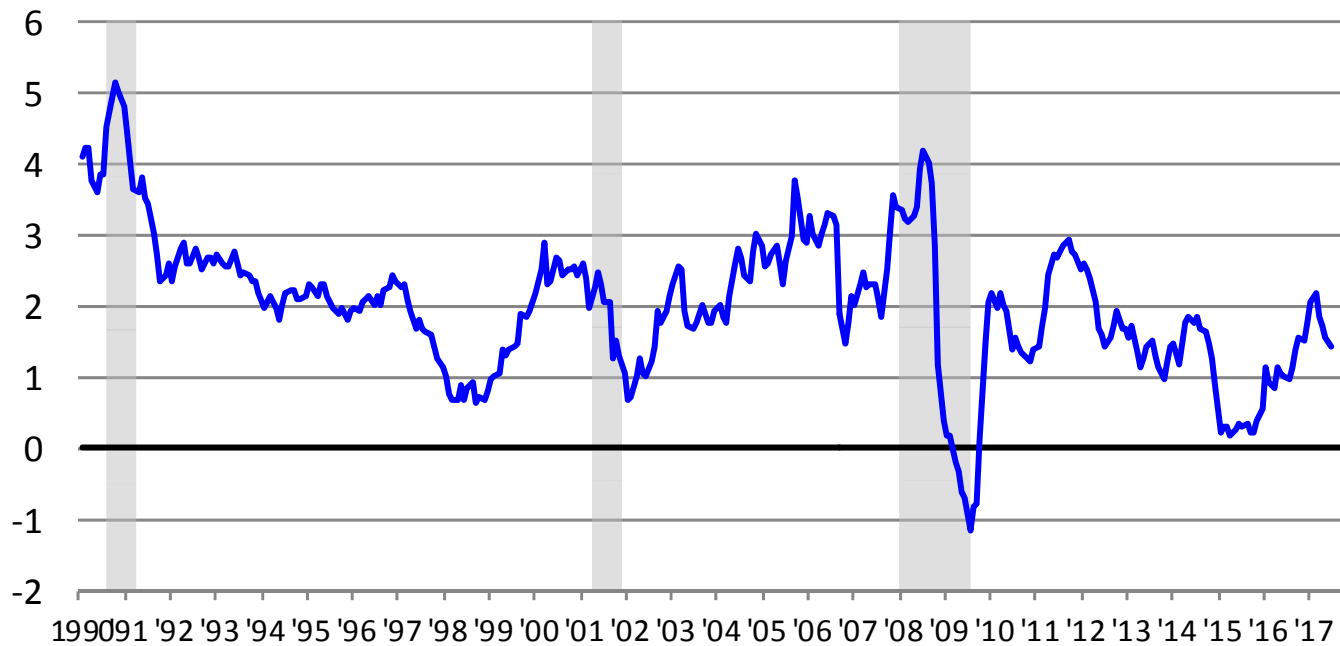
The FOMC forecasts that the unemployment rate will be just below the natural rate through 2019



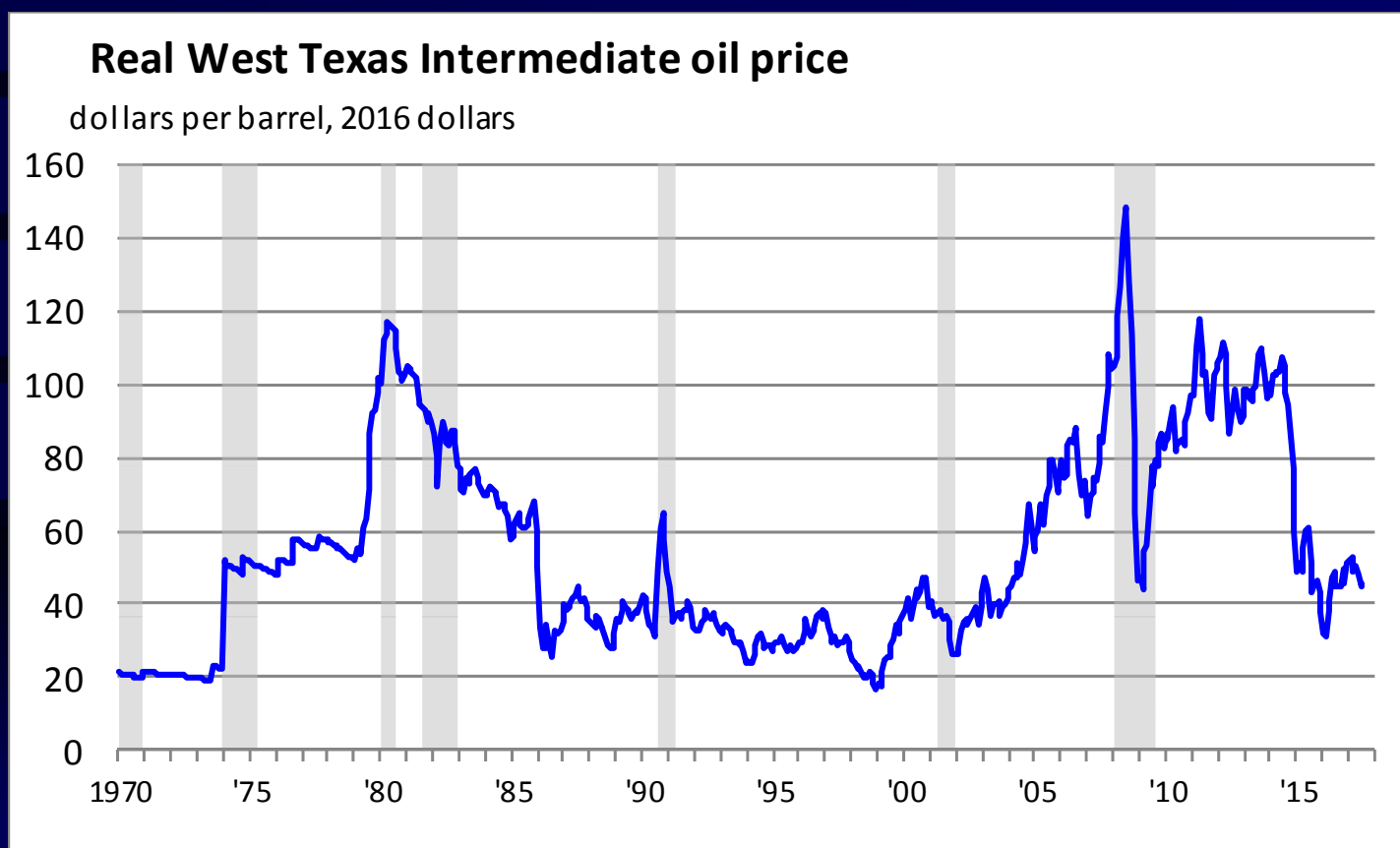
Inflation had been moving higher

Personal consumption expenditure - chain price index

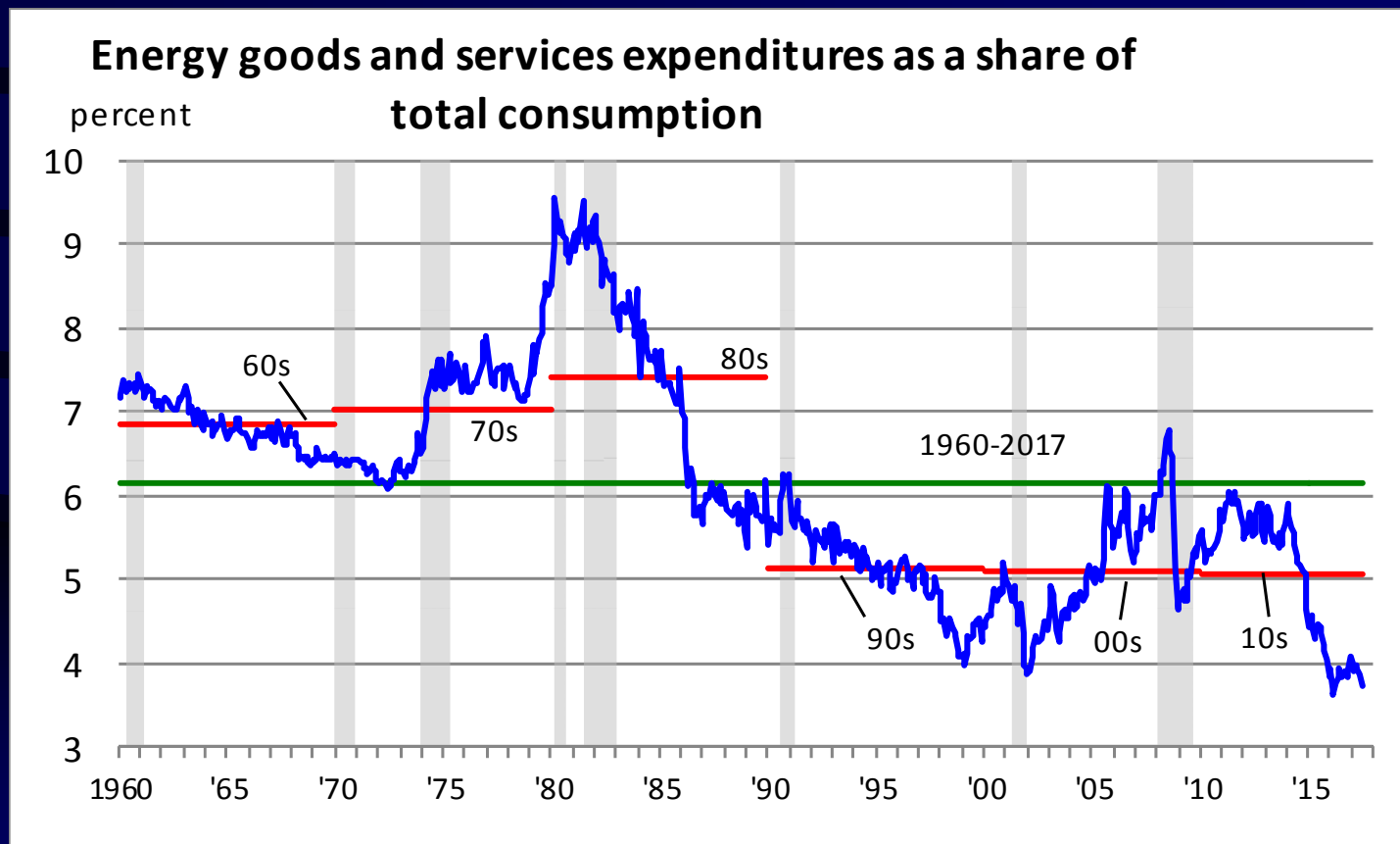
percent change from a year earlier



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



Consumer spending on energy are well below the historical average



The FOMC anticipates that PCE inflation will be around their two percent target in 2018 and 2019

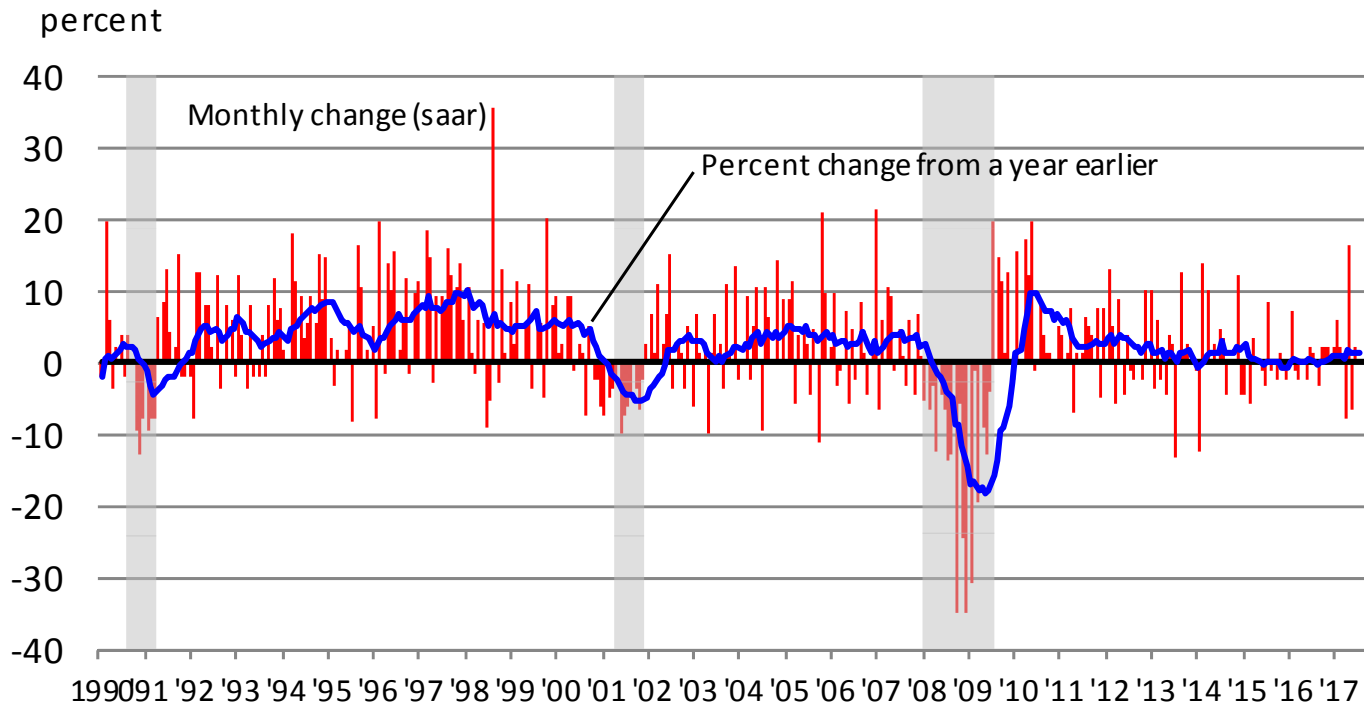
Personal consumption expenditure - chain price index

percent change from a year earlier



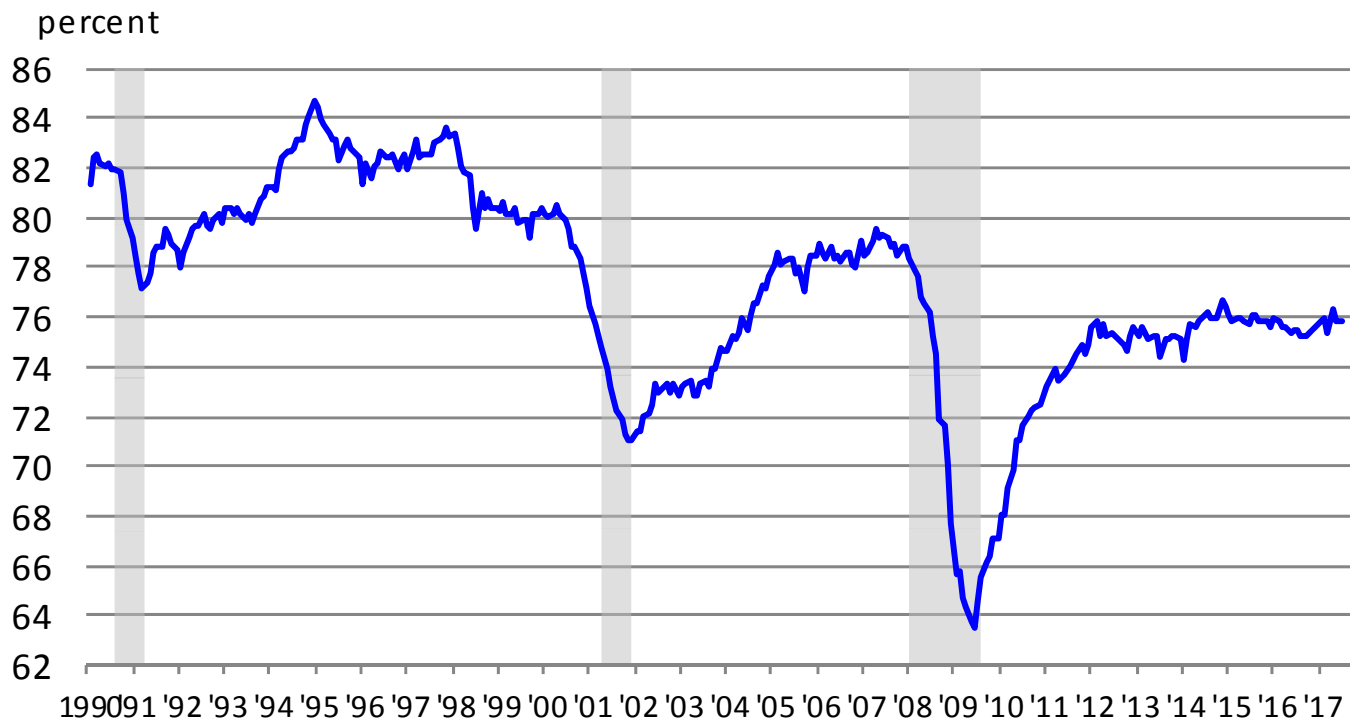
Manufacturing output is starting to increase after being unchanged for over a year

Industrial production - manufacturing

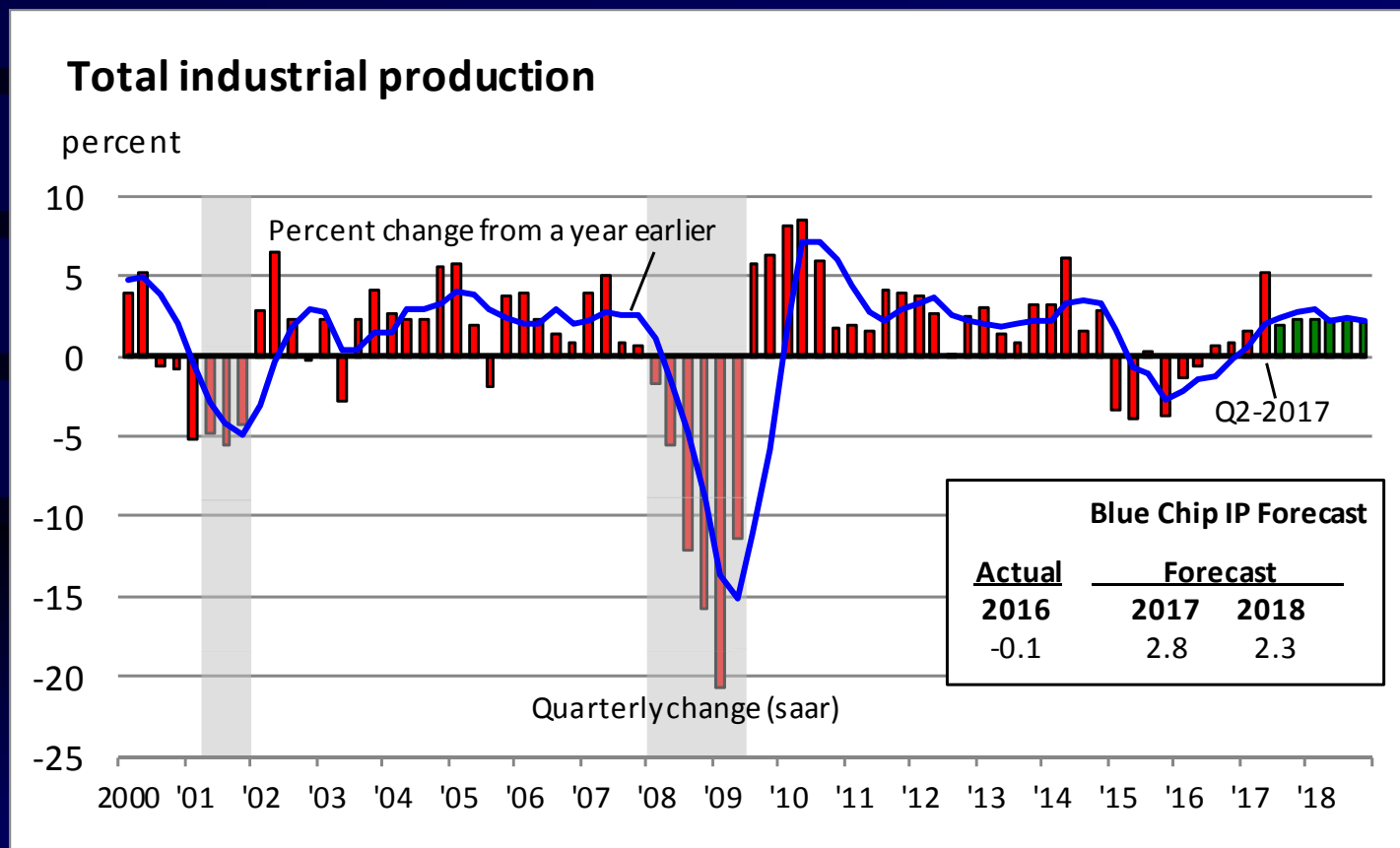


Capacity utilization has been improving

Capacity utilization - manufacturing



Industrial production is forecast to improve but expand at a pace below its historical rate



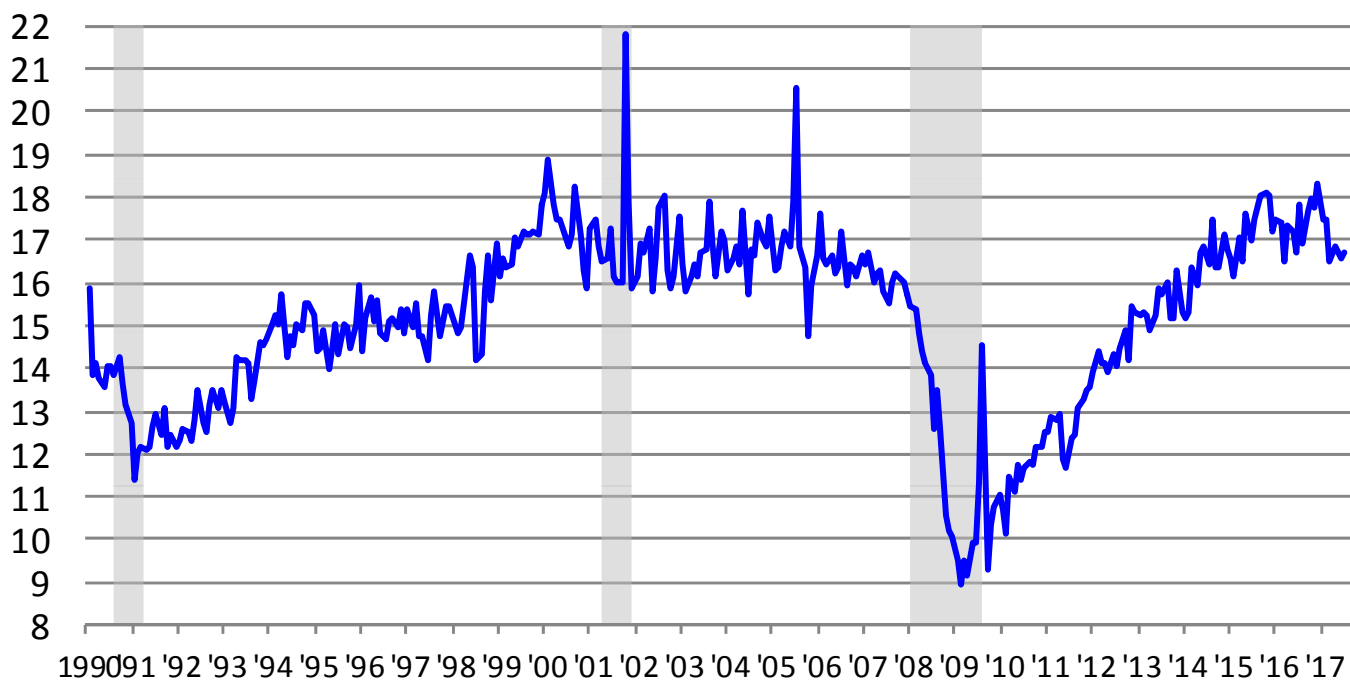
Auto Outlook



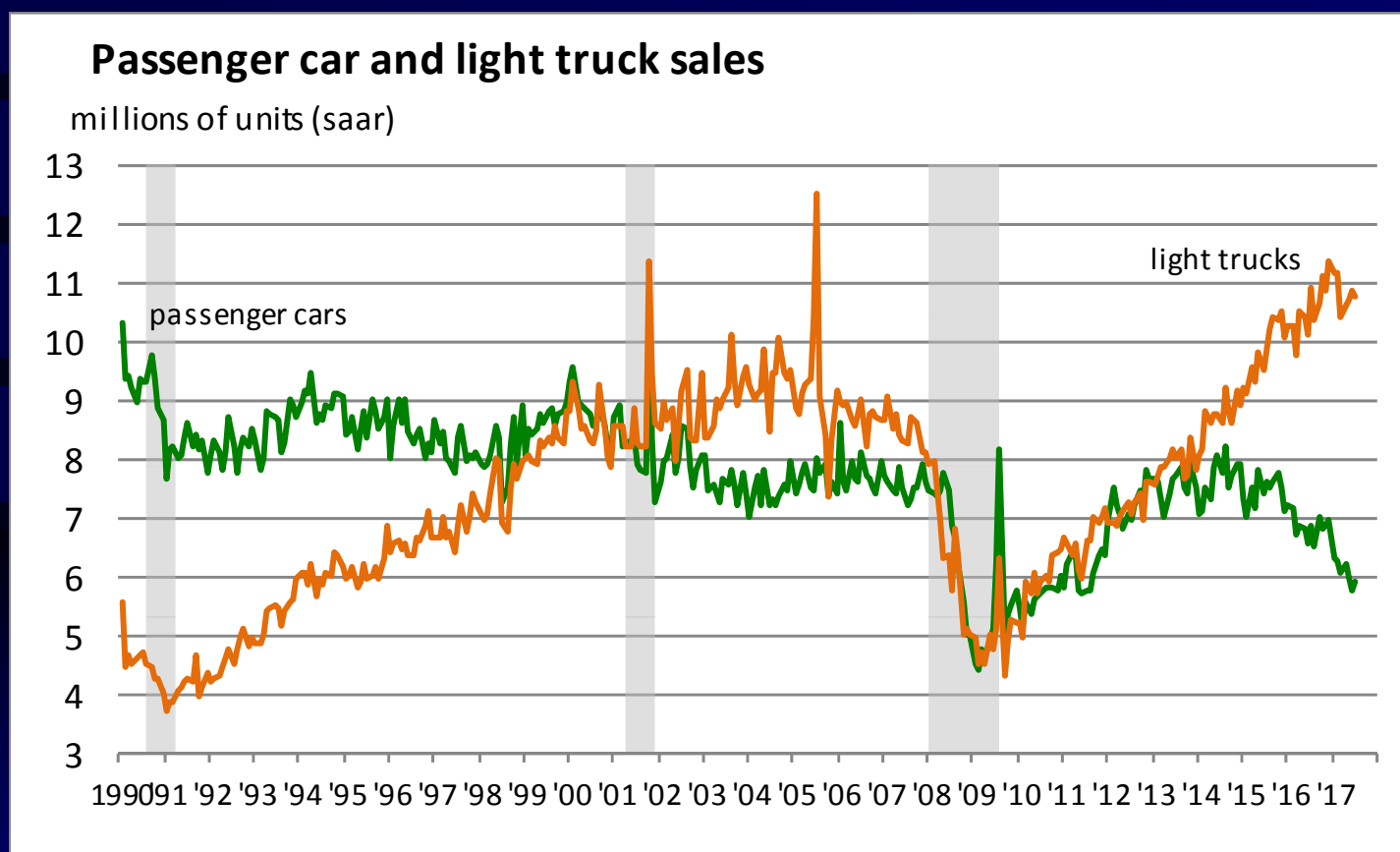
Light vehicles sales set a record in 2016 edging up 0.4% from 2015 – 2017 year-to-date sales were 1.8% lower than a comparable period of year earlier

Light vehicle sales

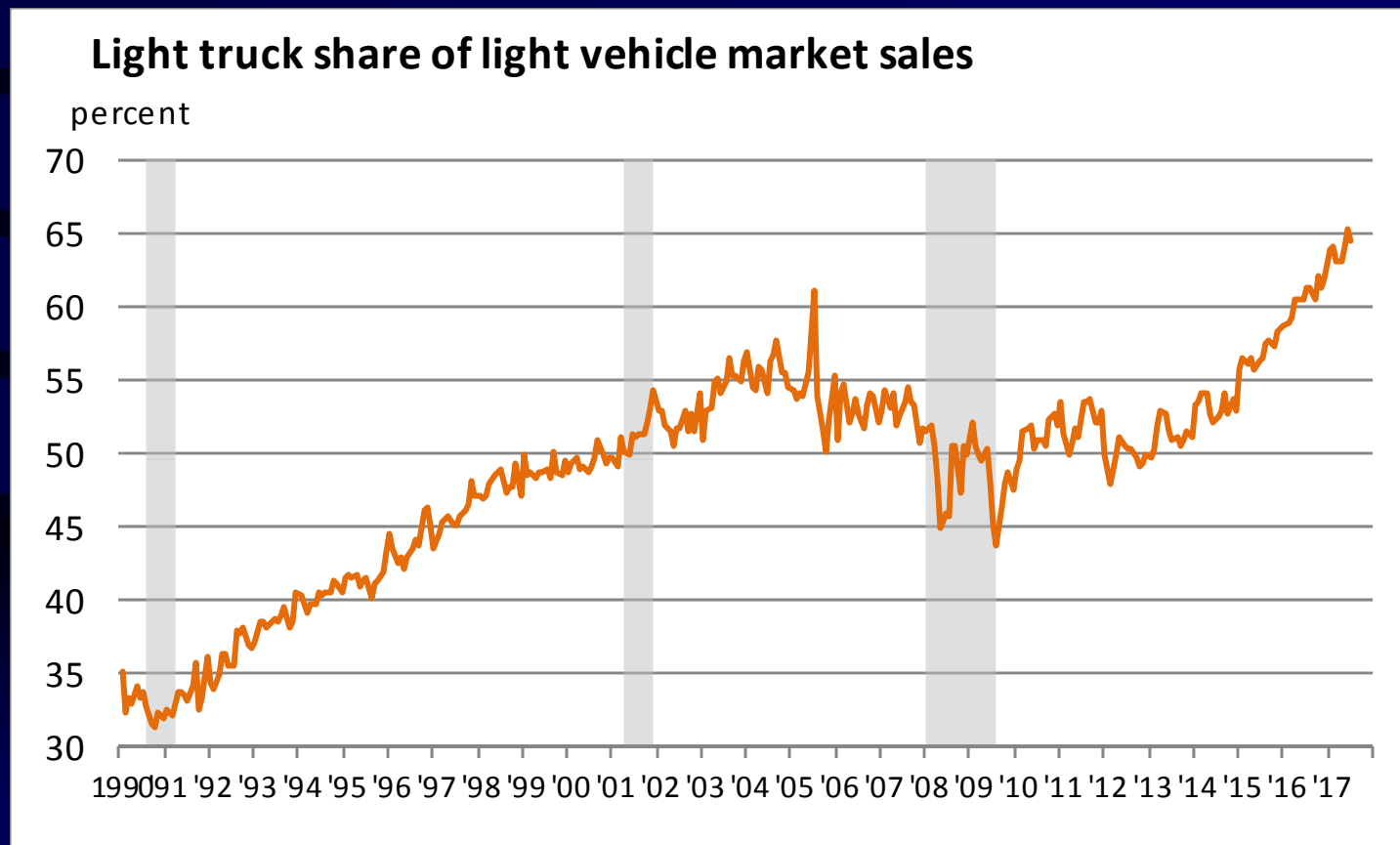
millions of units (saar)



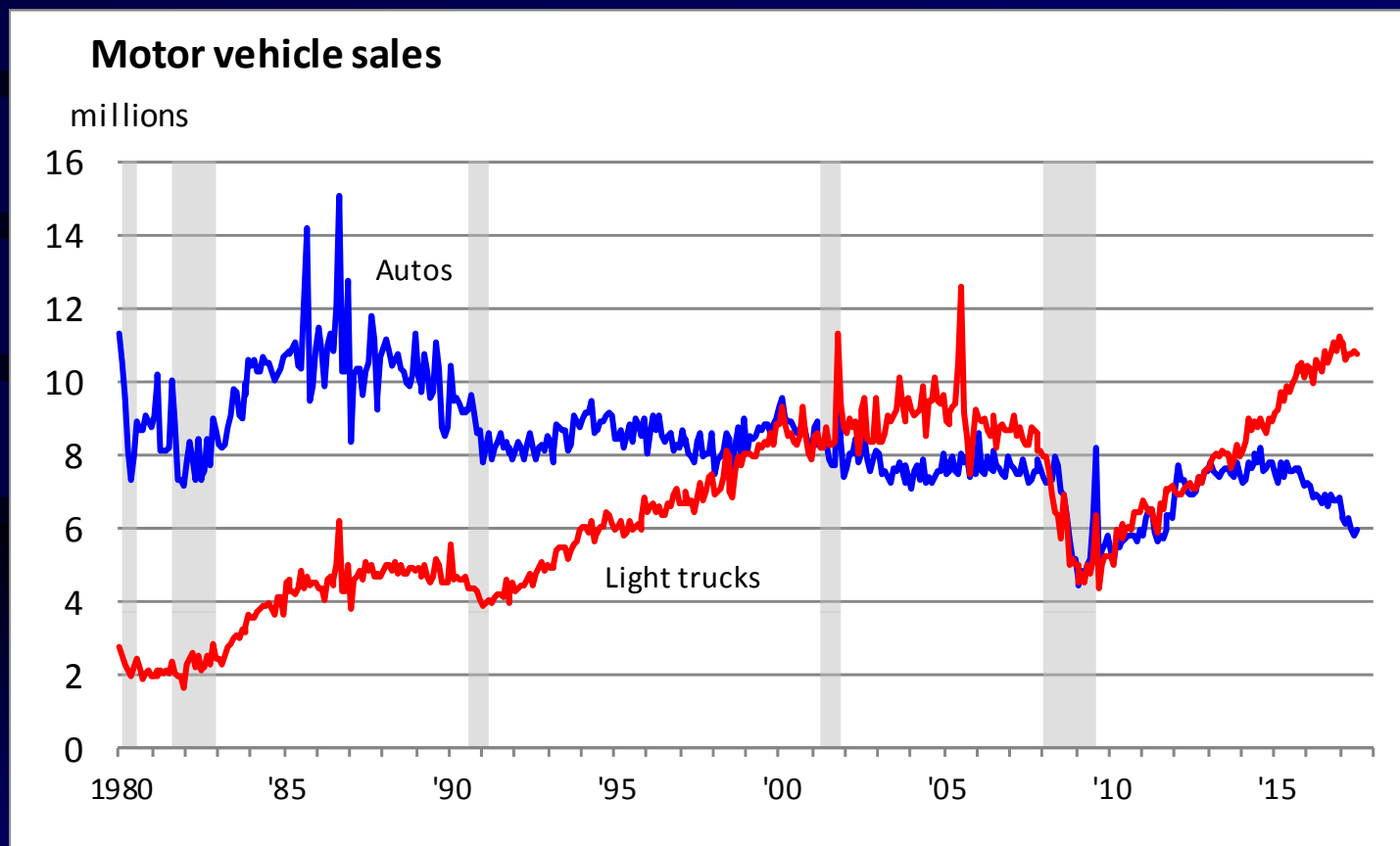
Year-to-date light truck sales are 4.8% higher than a year earlier, while passenger car sales are 11.7% lower



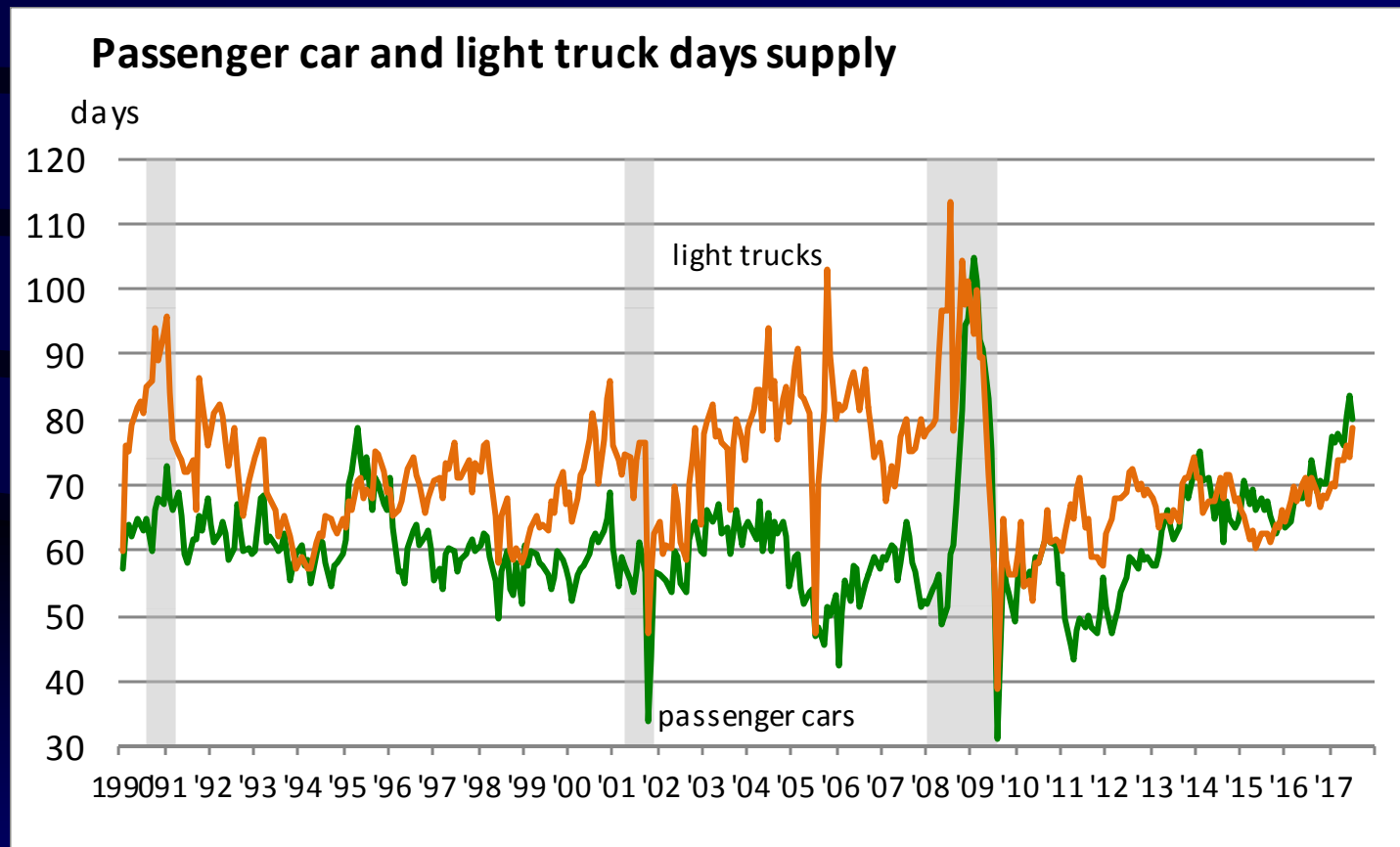
Light truck market share set a record high in June



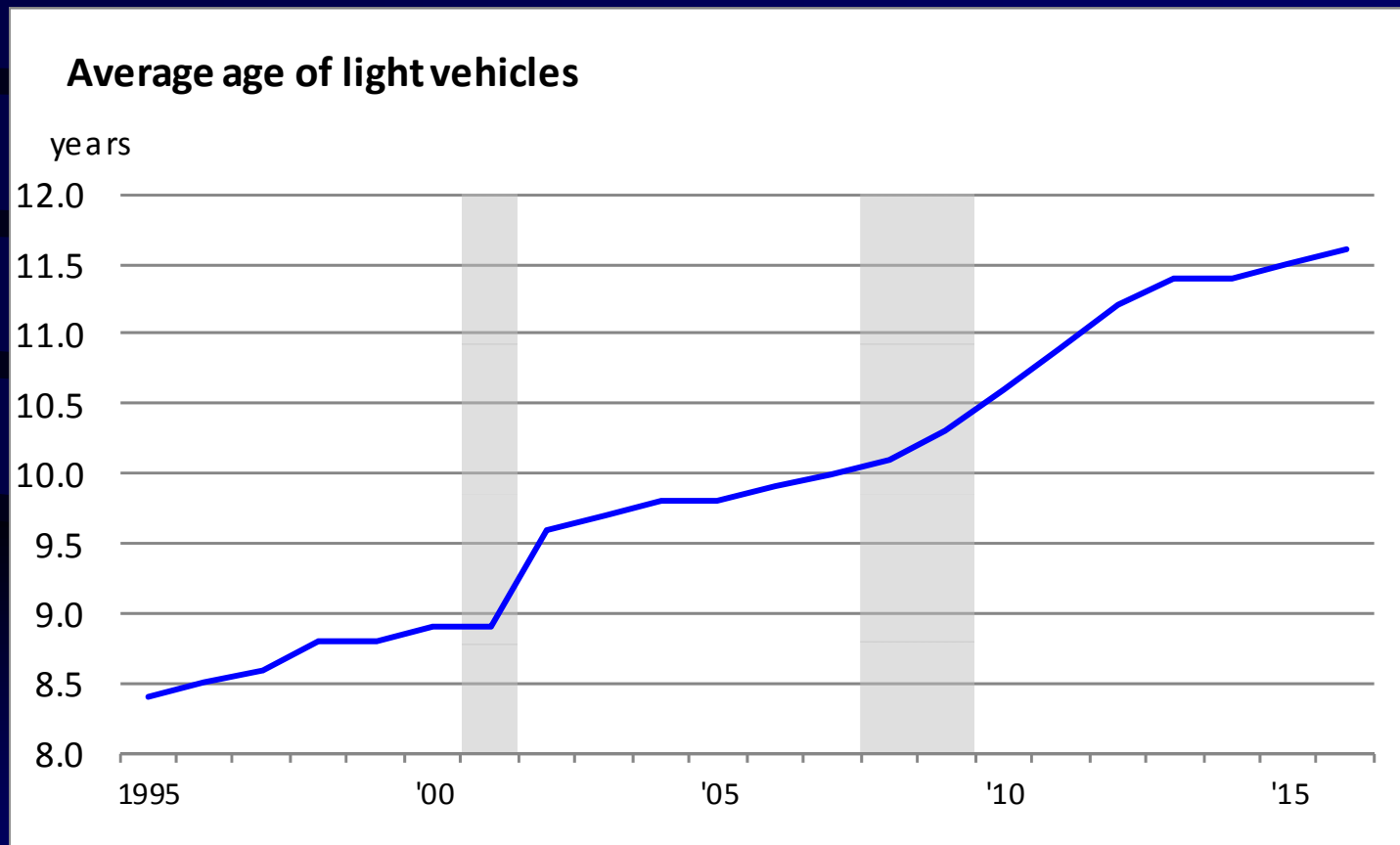
What had been an passenger car market has increasingly become a light truck market



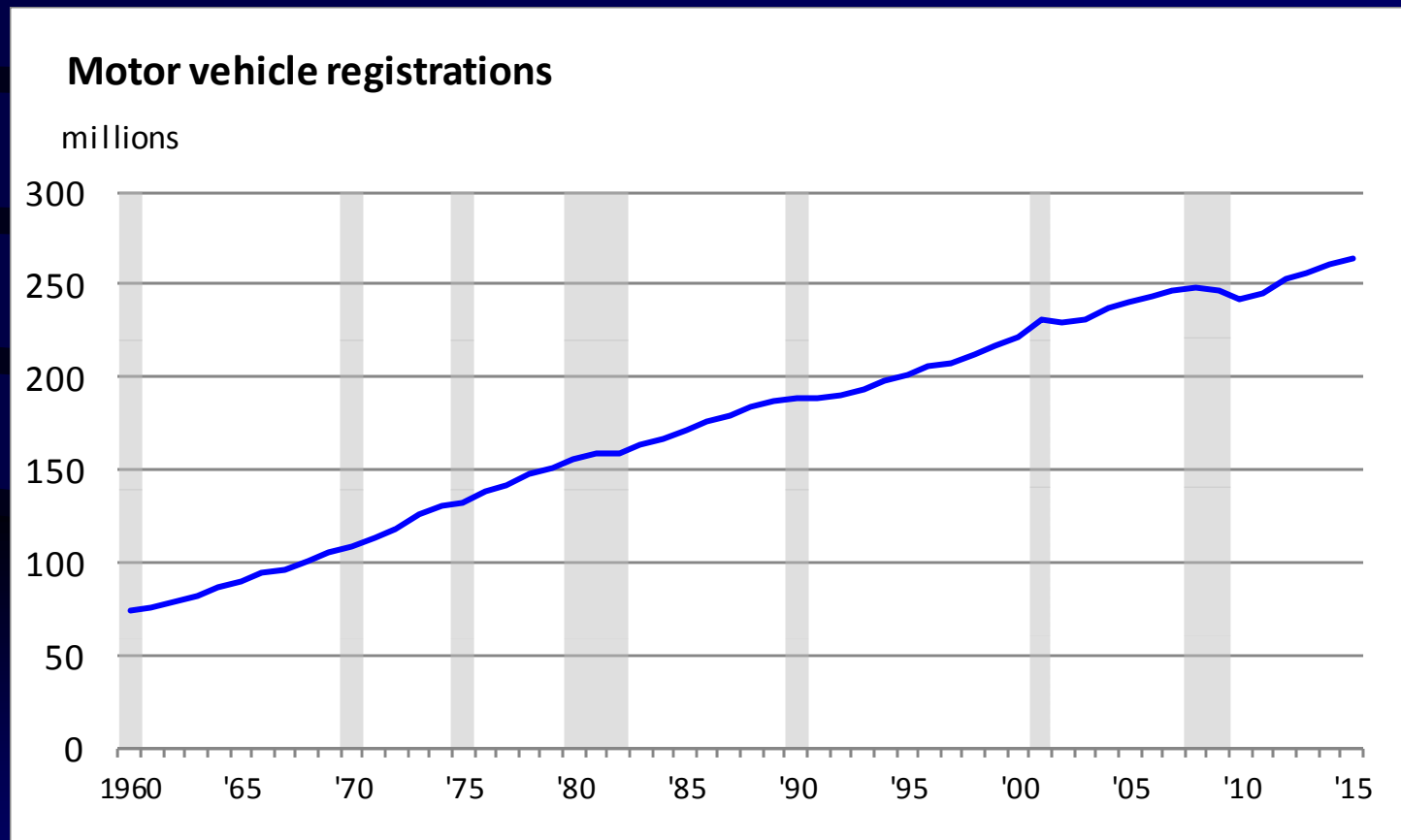
Days supply of vehicles are somewhat higher than desired, especially for passenger cars



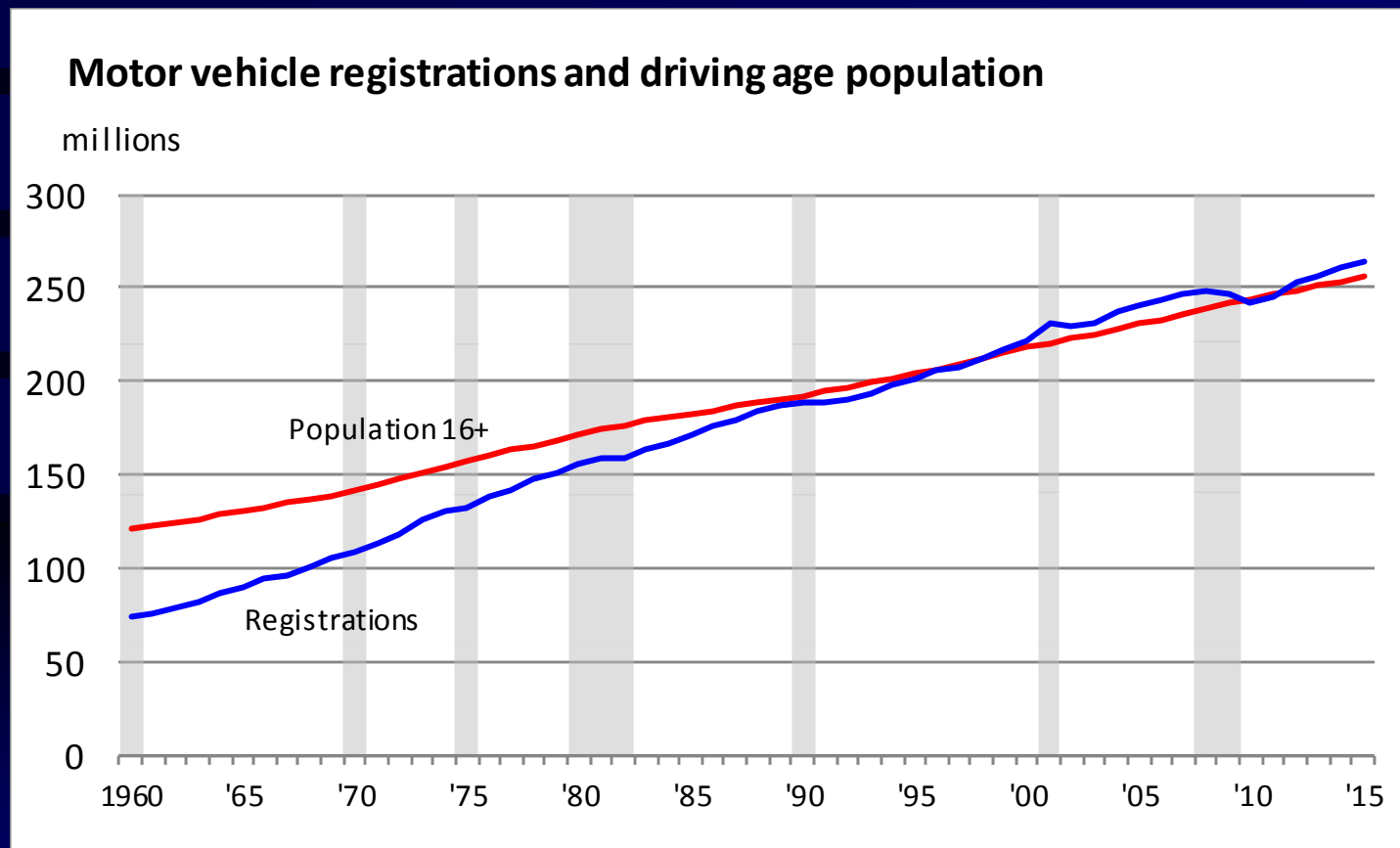
The average age of the fleet has risen substantially



Motor vehicle registrations continue to rise

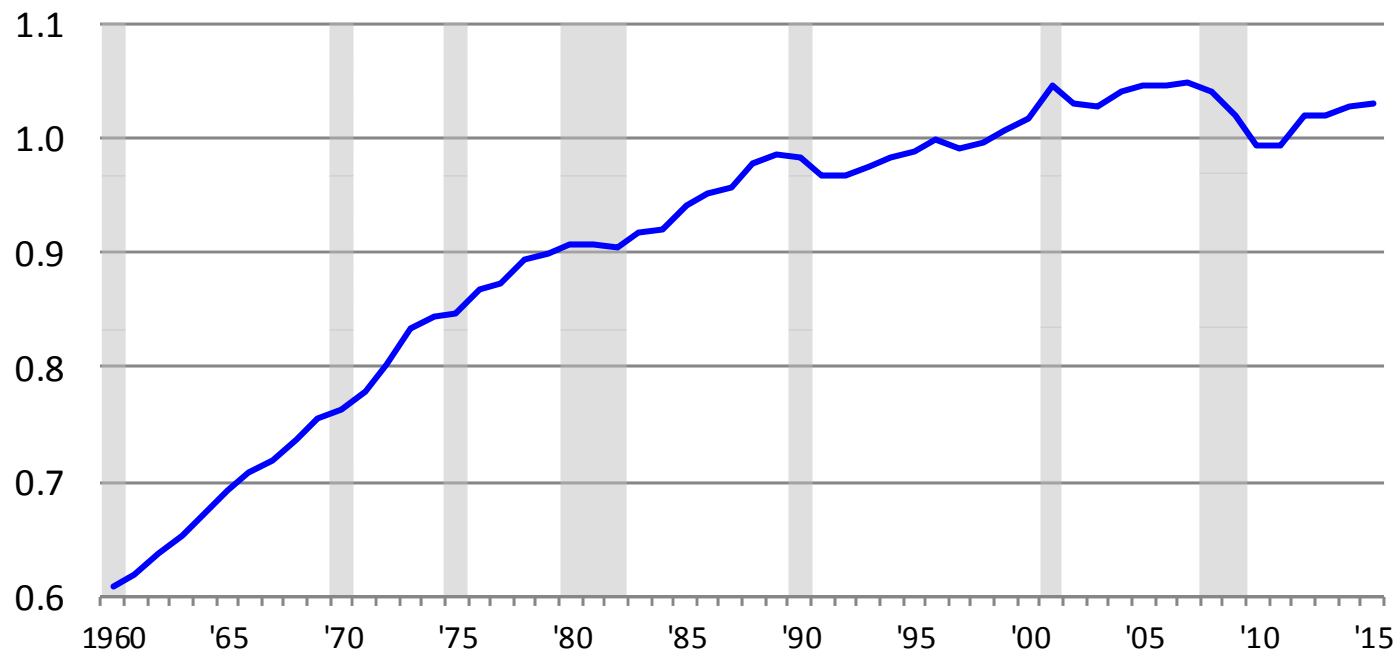


Registrations have been rising at a faster pace than the driving age population

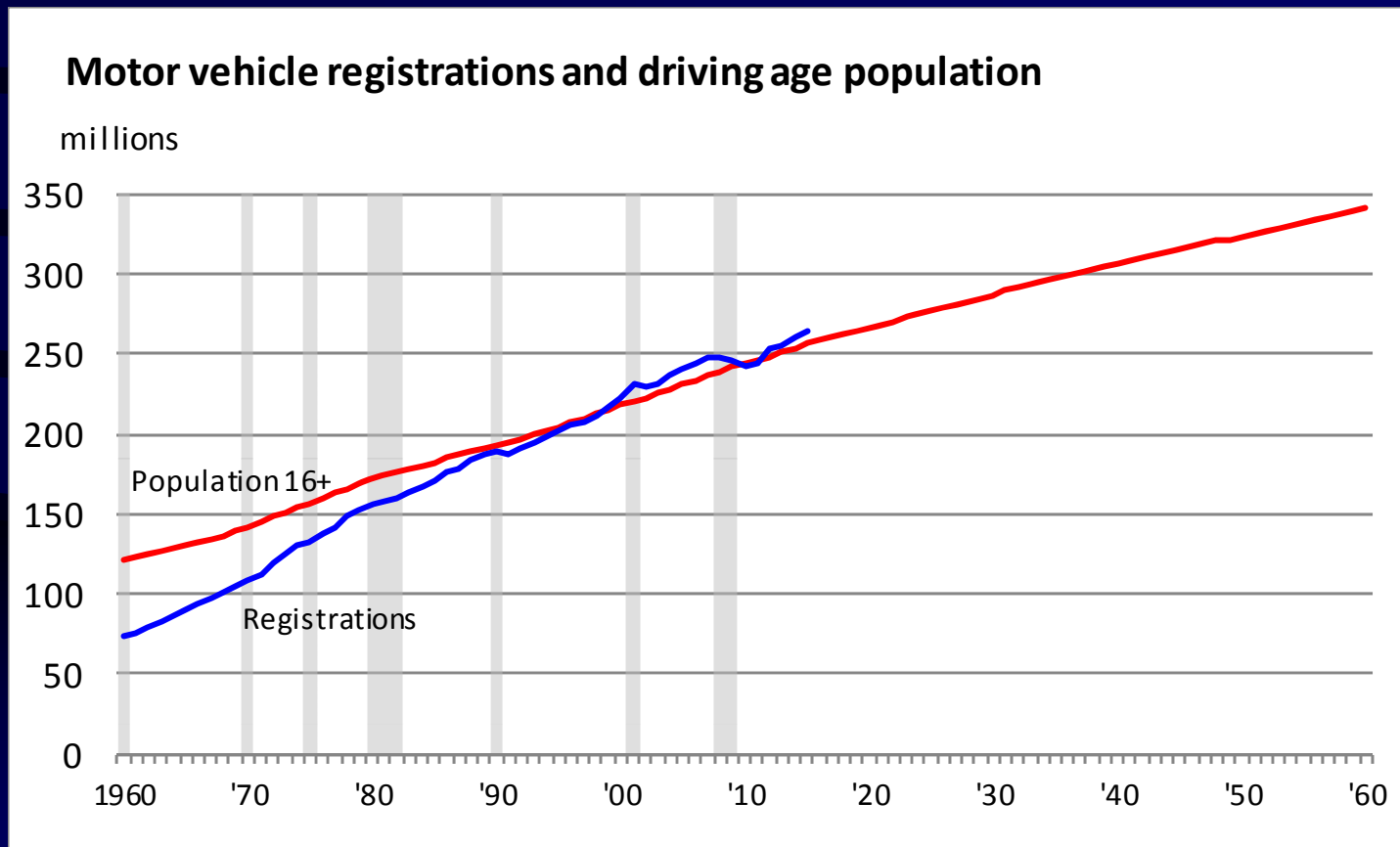


The number of vehicles per driving age adult has been relatively flat for the past 15 years

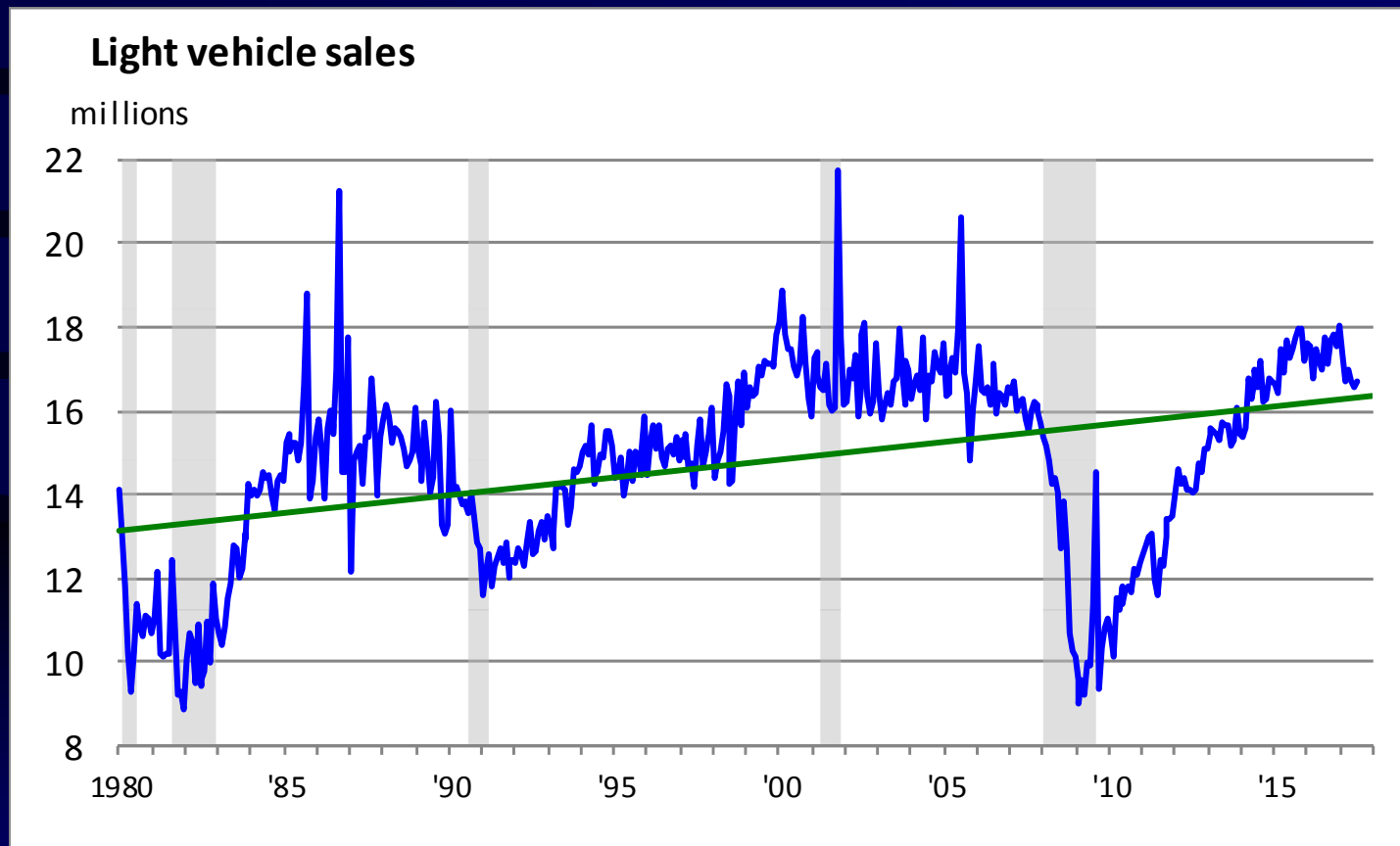
Motor vehicle registrations per person 16 years and over



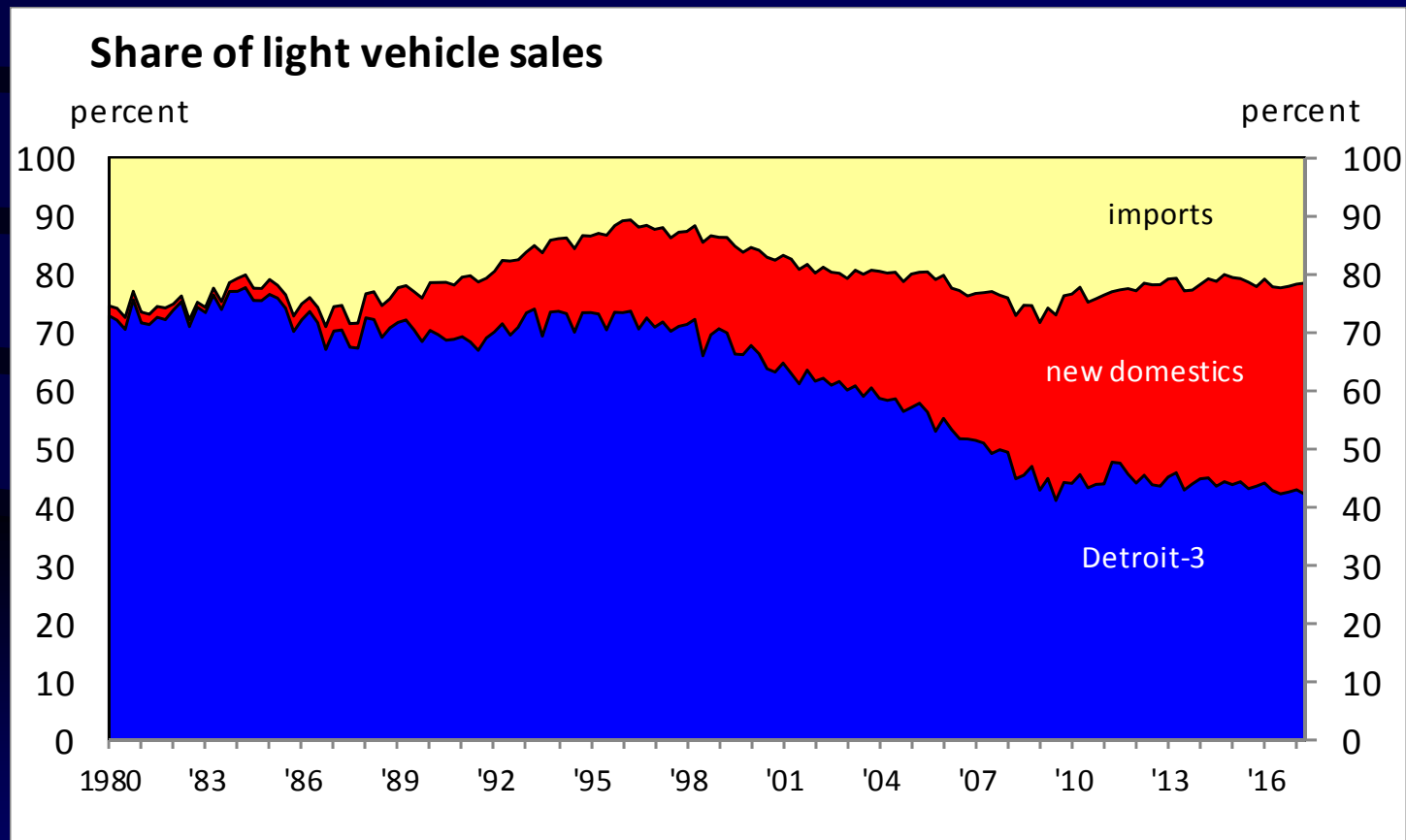
The driving age population is forecast to increase by over 80 million people over the next 45 years



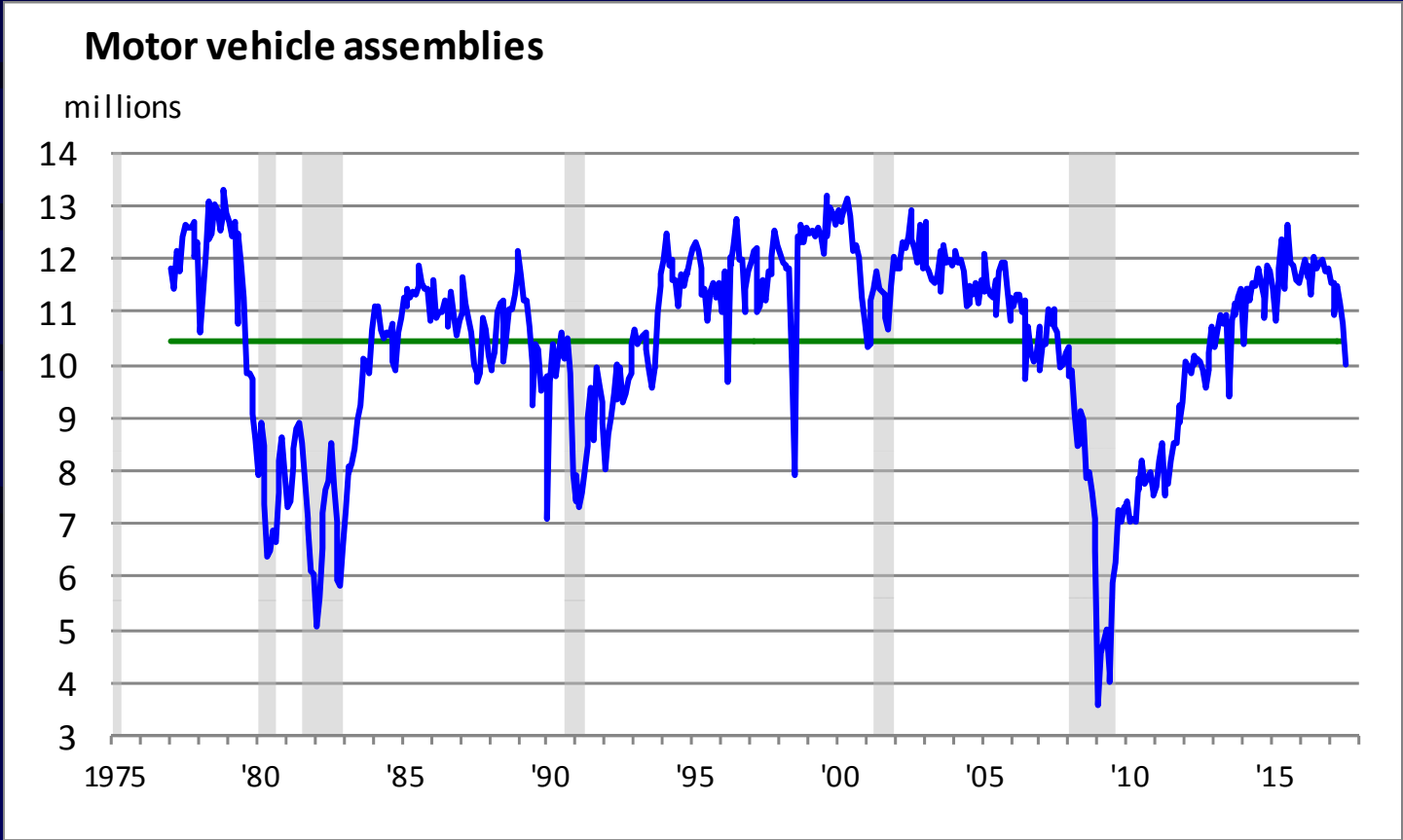
Since 1980 light vehicle sales has averaged growth of 0.4% per year



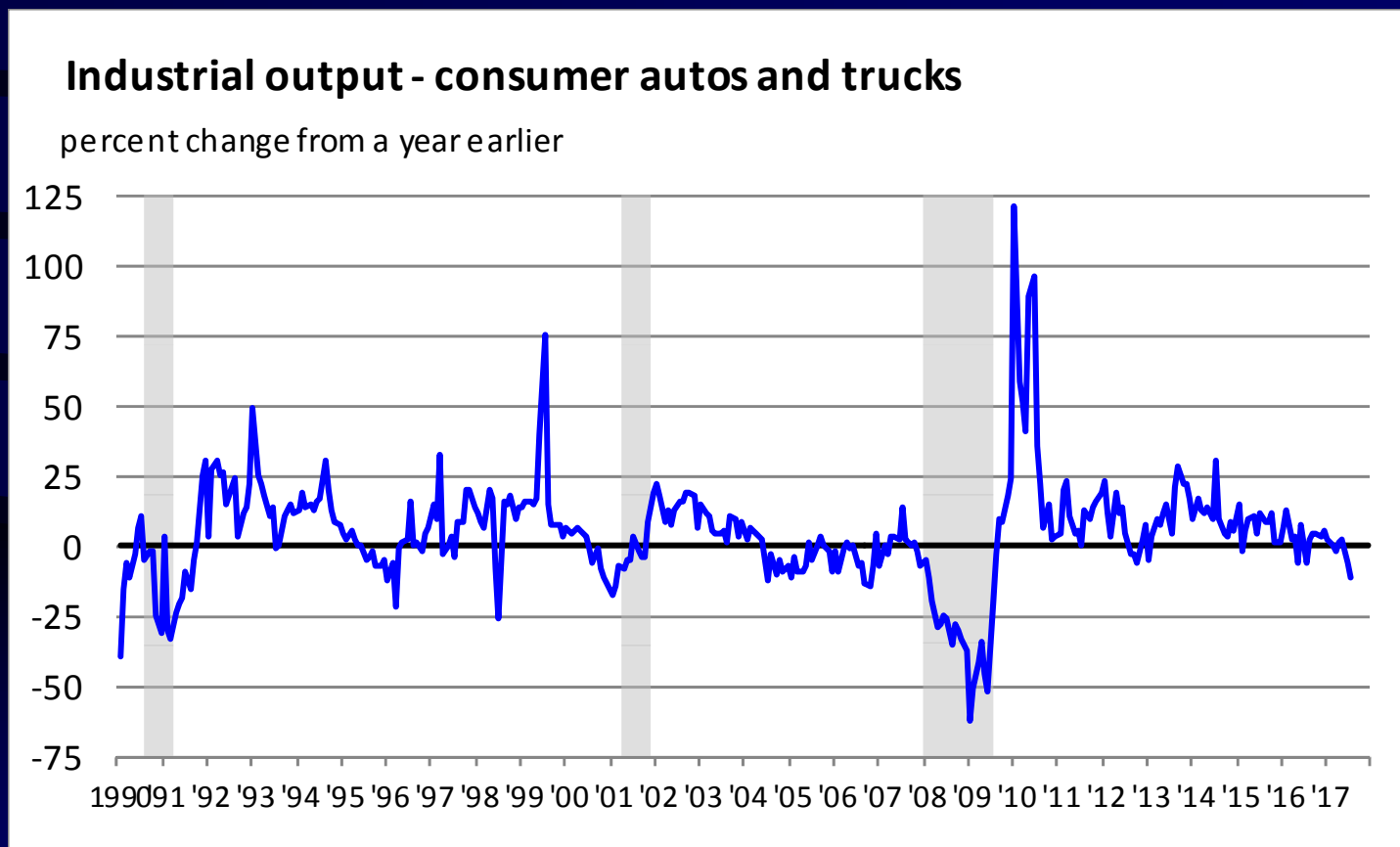
Domestic production has remained at a solid share



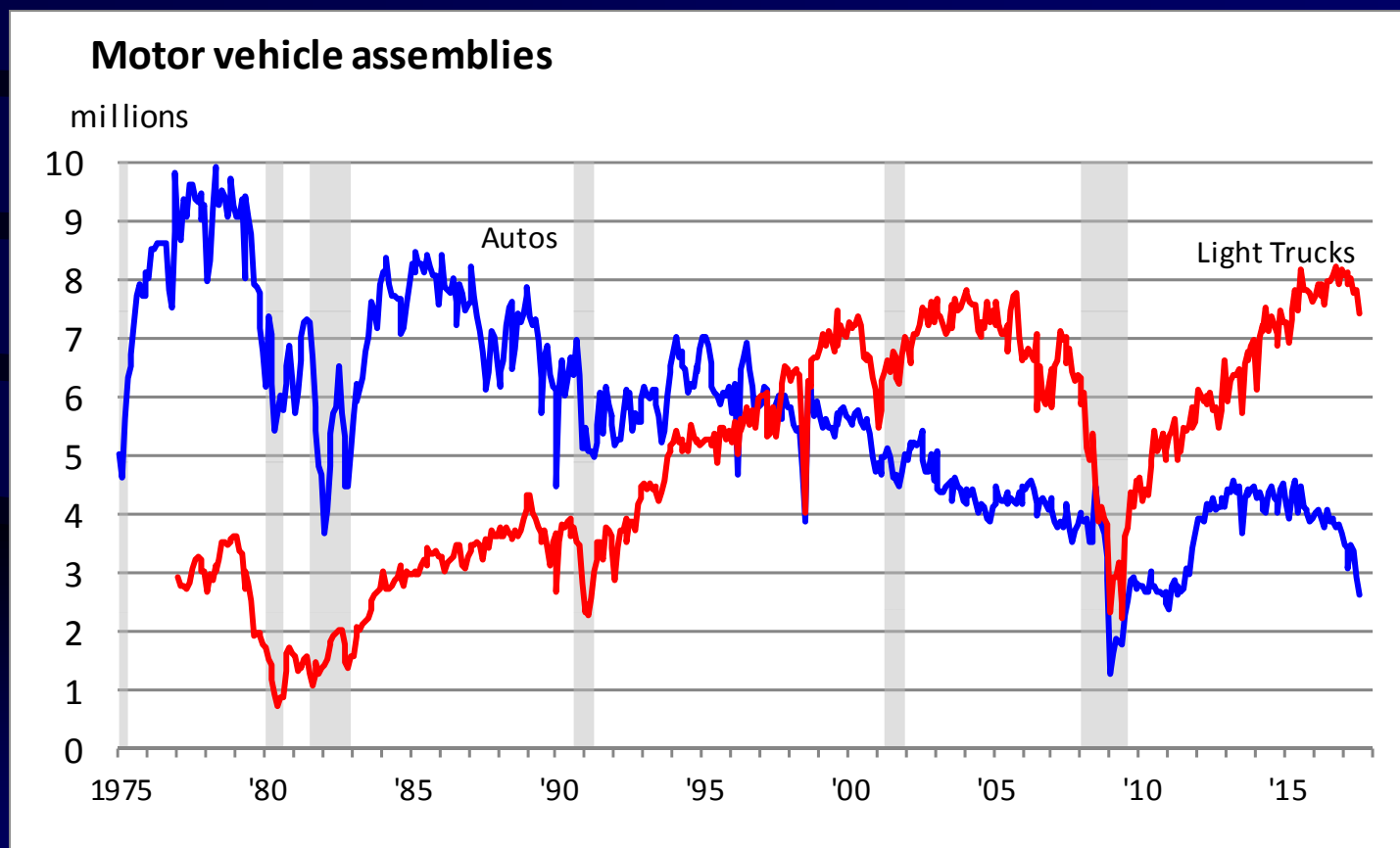
Motor vehicle assemblies has averaged 10.5 million



Automotive production is lower than a year earlier



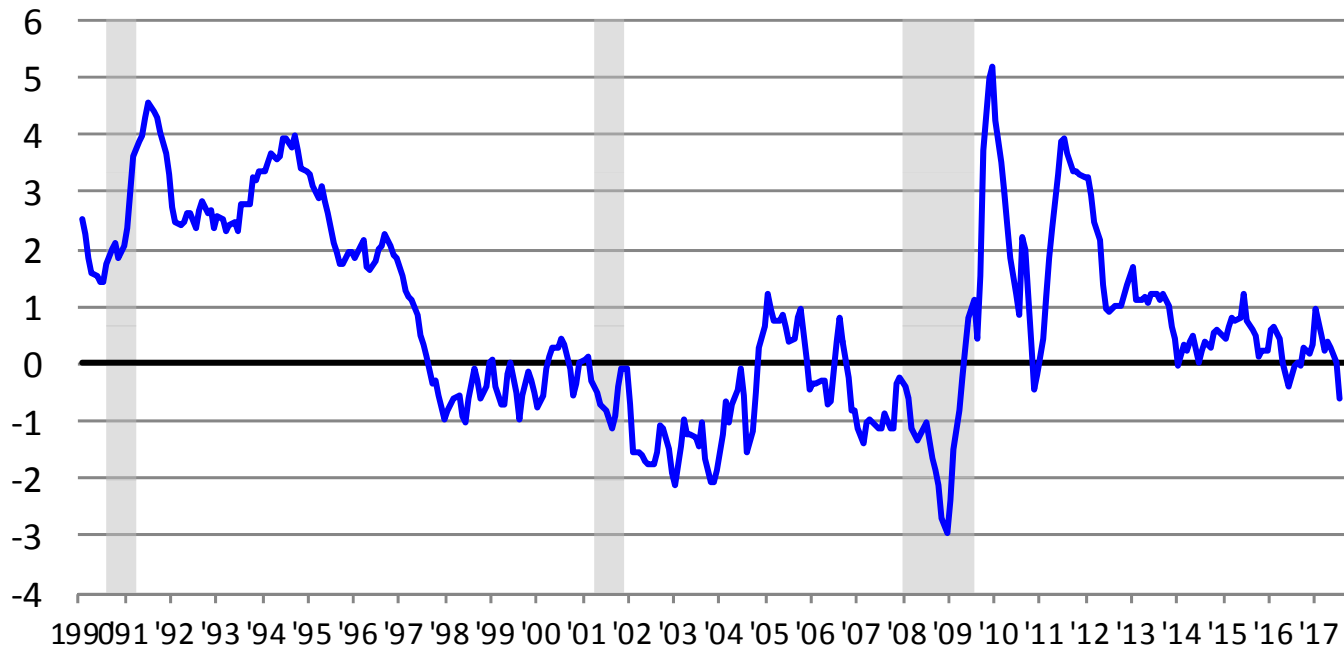
Since the mid-1980s the number of auto assemblies has been slipping, while light trucks has been rising



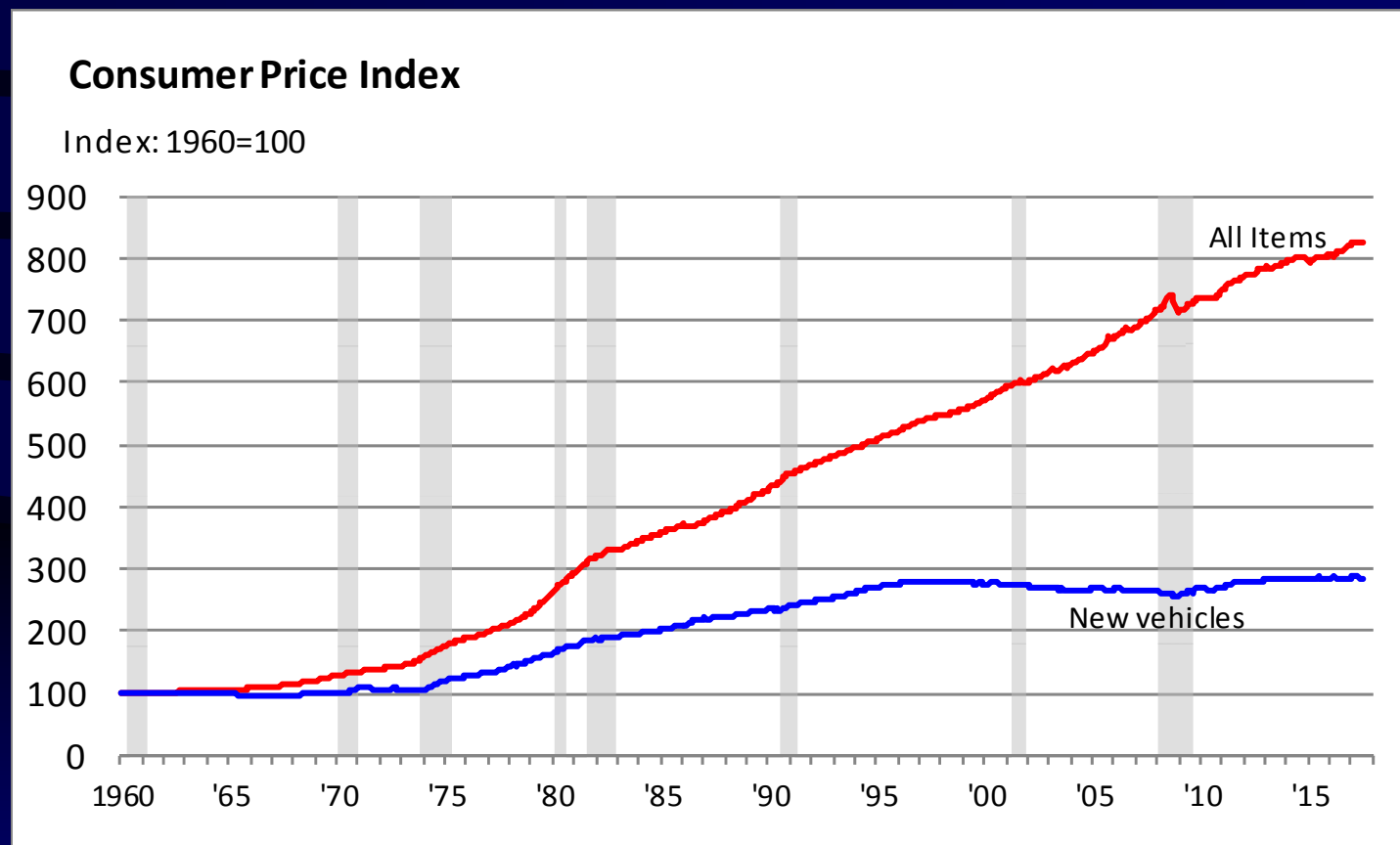
New vehicle prices are falling

Consumer price index - new vehicles

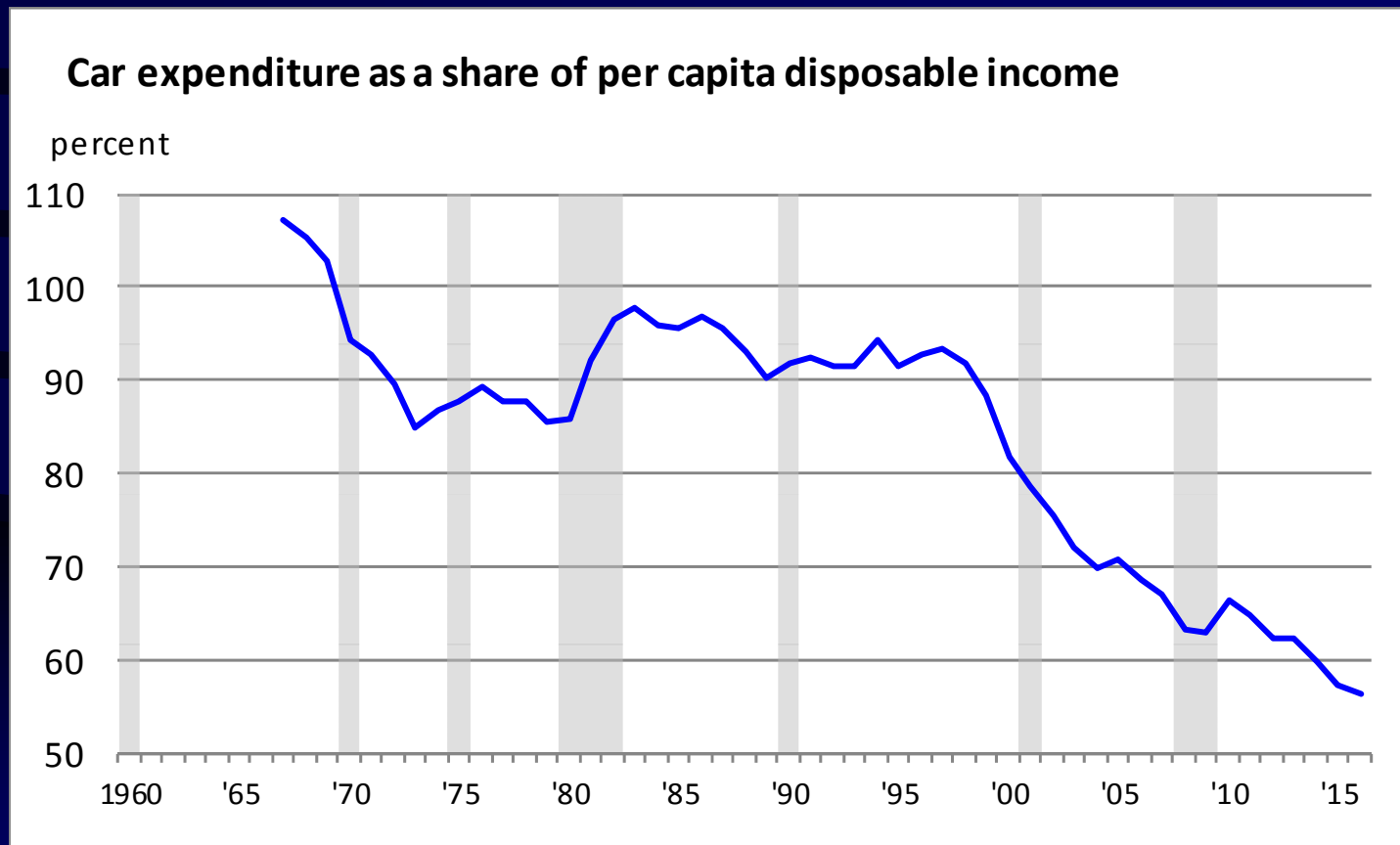
percent change from a year earlier



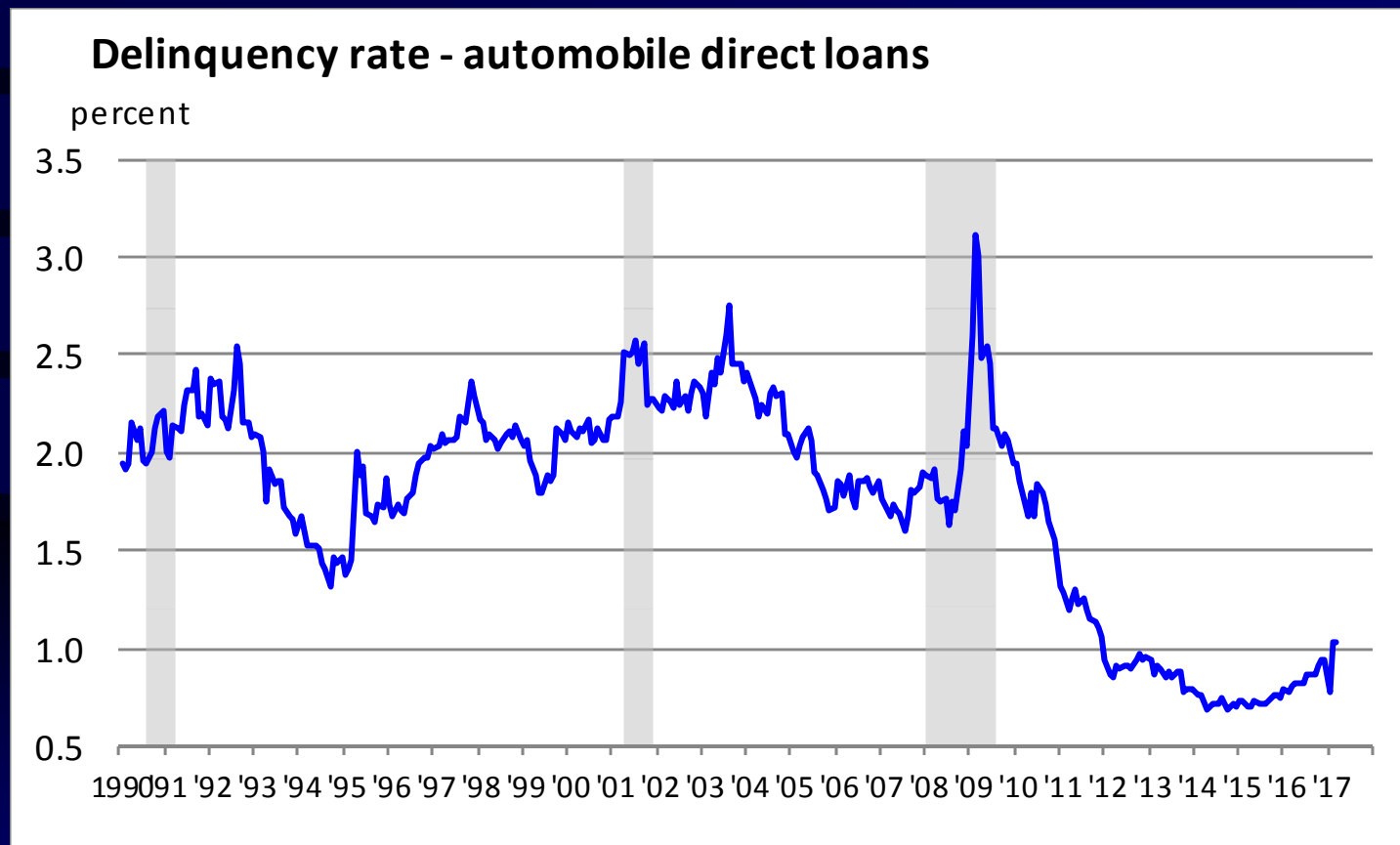
New vehicle prices have risen at a much smaller rate than overall prices in the economy



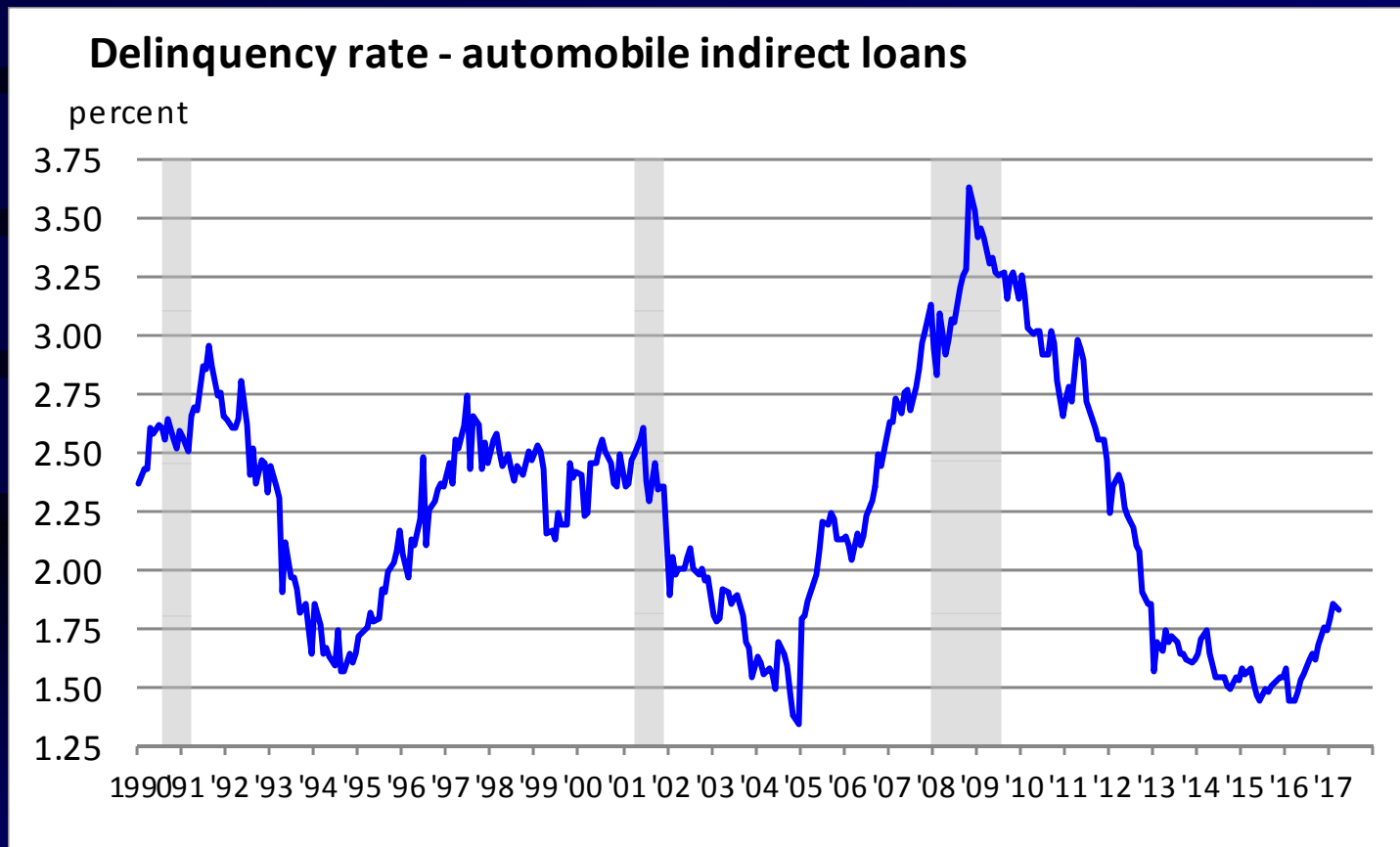
What had been more than a year's worth of income to purchase a vehicle has fallen to less than 8 months



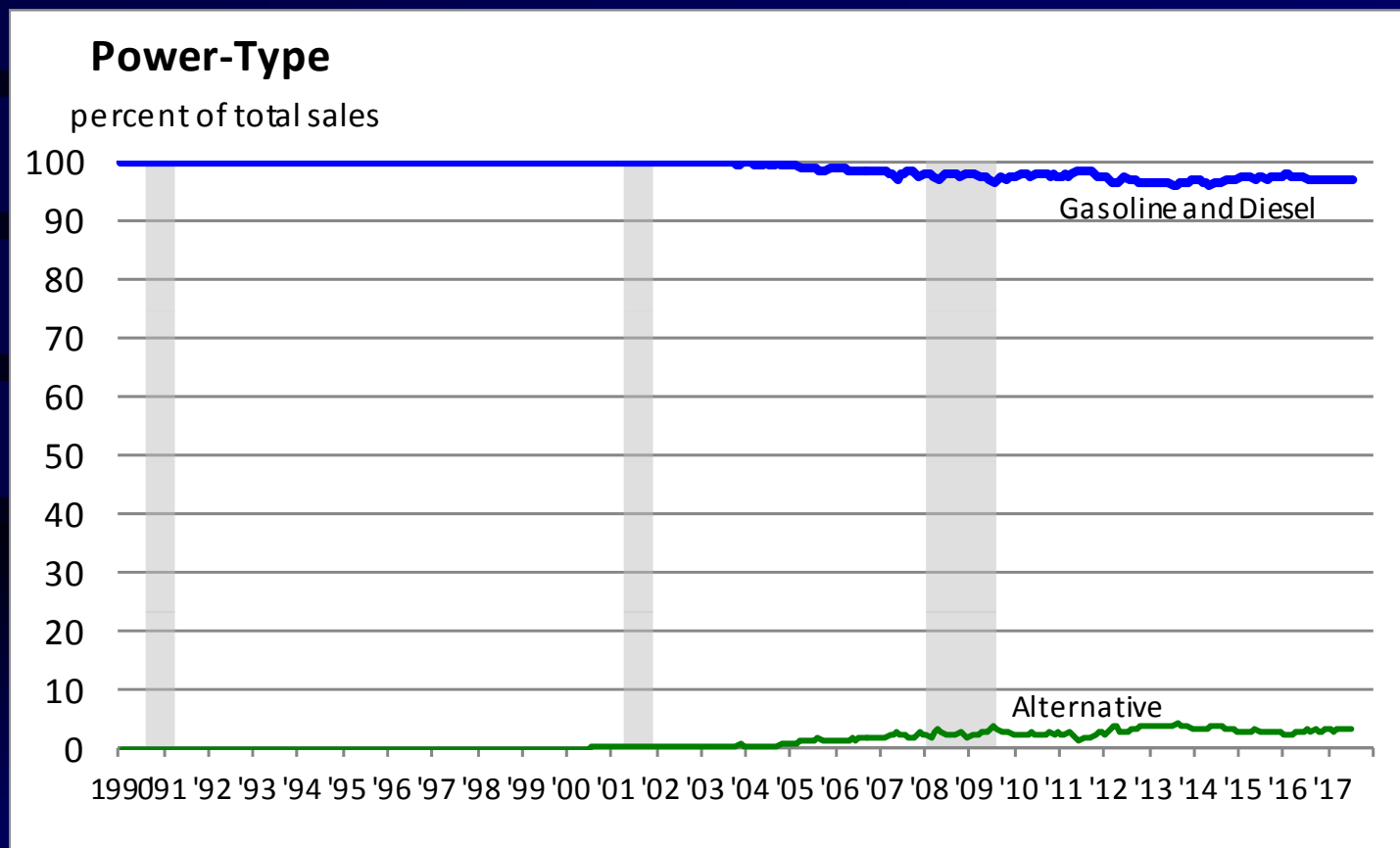
The automobile delinquency rate from direct loans are rising, but remain very low



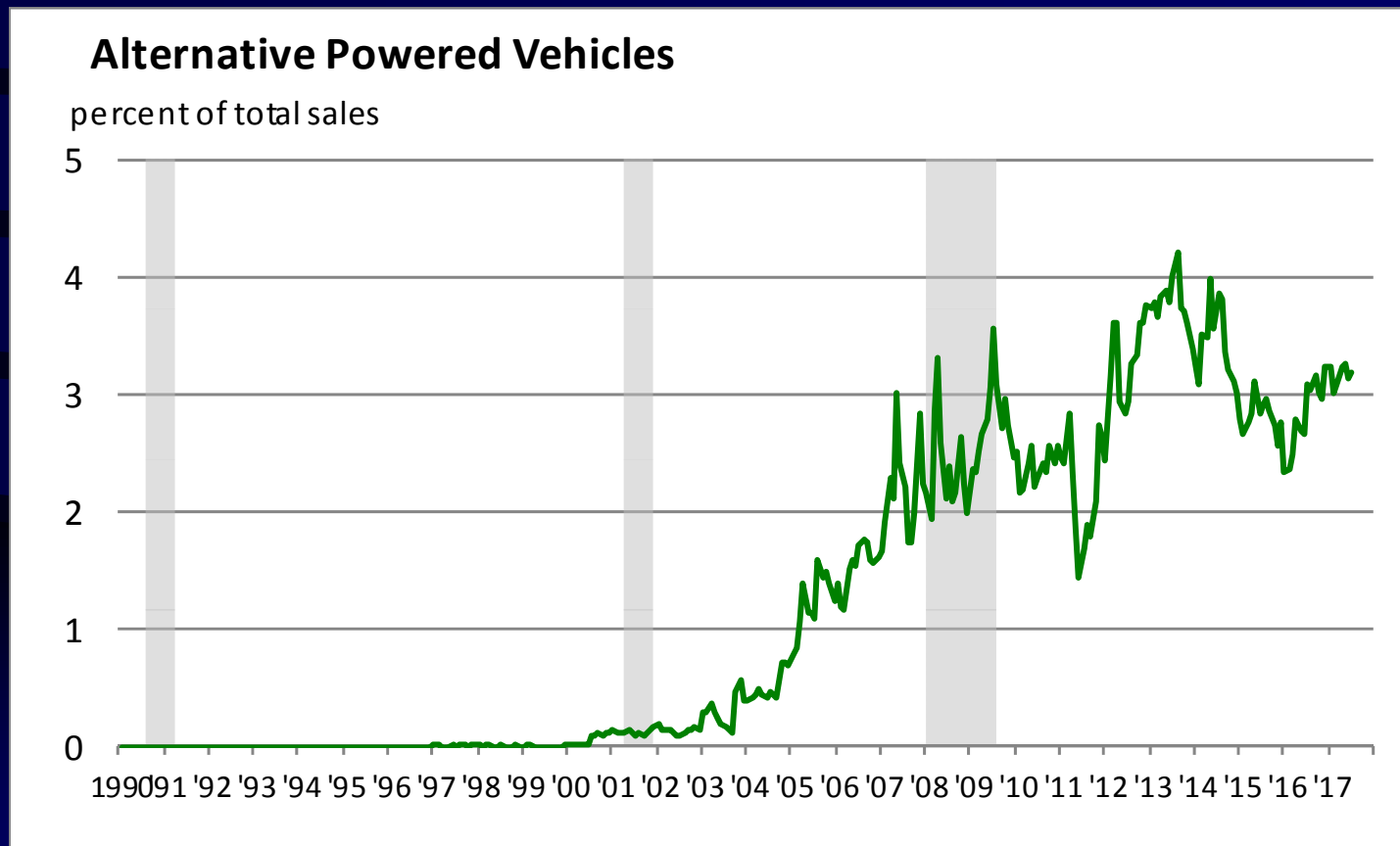
The automobile delinquency rate from indirect loans have also been rising, but also remain low



Alternative powered vehicles (including hybrids) are a very small fraction of total vehicle sales























**Alternative powered vehicles (including hybrids)
market share barely exceeded 4%
and have been declining over the past two years**



Economic indicators for the automotive industry are very positive

Key Economic Indicators for the Automotive Industry

	From 1990 through 2007:Q4	During the Great Recession ¹	Since the end of the Great Recession ²	Latest Data ³	
Real GDP Average Q/Q% @ AR	3.0	-2.8	2.2	2.6	
Real Consumption Average Q/Q% @ AR	3.3	-1.8	2.4	2.8	
Index of Consumer Sentiment Average Index	91.2 	63.6 	81.0	93.4	
Employment Growth Average change in jobs (thous.)	136.9	-410.7	160.8	209.0	
Unemployment rate Average %	5.4 	6.8 	7.1	4.3	
Corporate Profits Average Q/Q% @ AR	10.7	-8.4	12.1	1.3	
ISM-Manufacturing Index Average Index	 51.7 	43.3 	54.0	56.3	
New and Existing Home Sales Average, Thousands	5,192	4,059	4,629	5,490	
Real Oil Prices - West Texas Intermediate Average \$/bbl (2016 prices)	42.00	93.11	79.65	45.90	
PCE Inflation Average Y/Y% Change	2.3	2.0	1.4	1.4	
Fed Funds Rate Average %	4.38 	1.35 	0.21	1.16	

Notes:

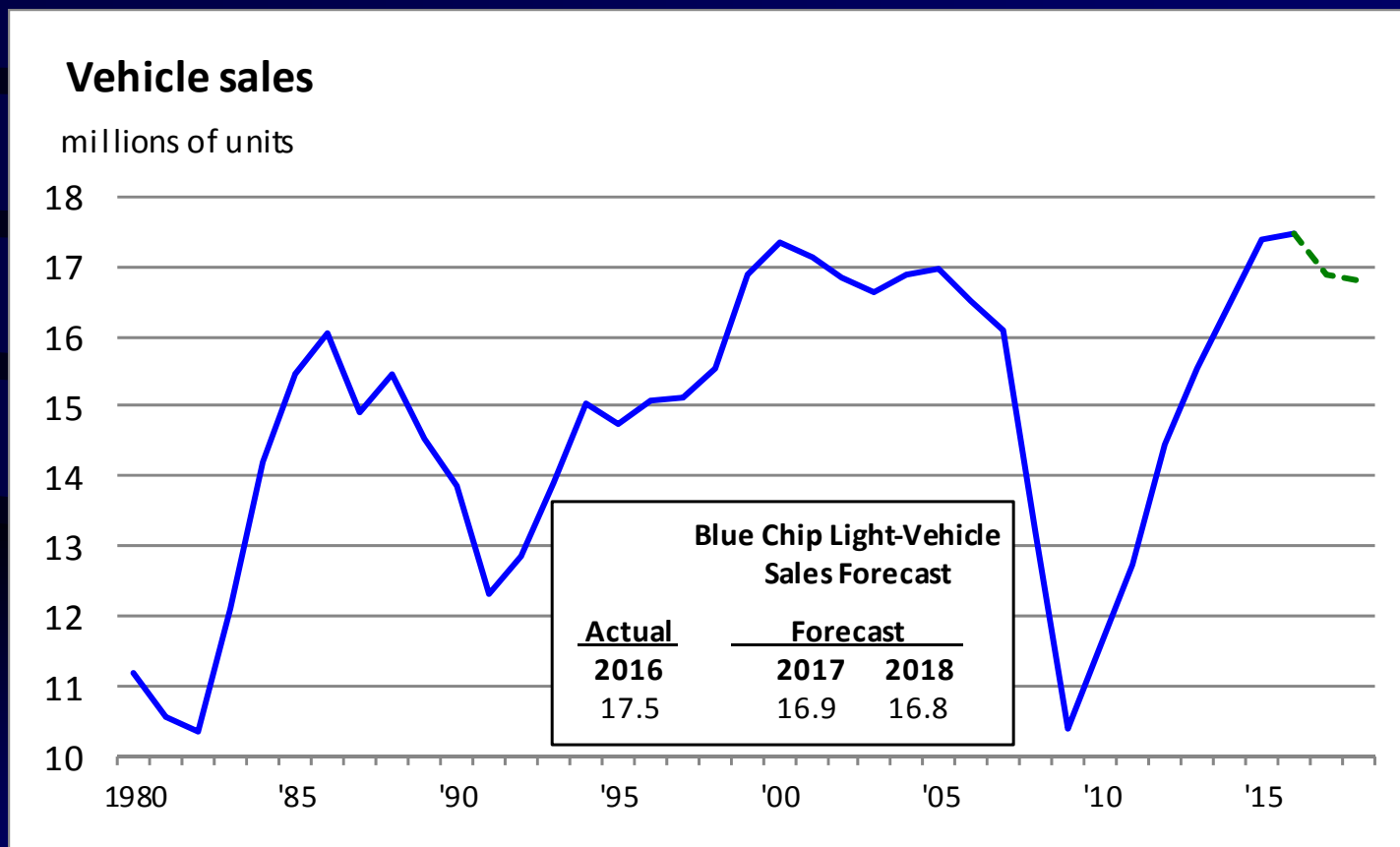
¹ January 2008 through June 2009

² Beginning in July 2009 for monthly data or 2009:Q3 for quarterly data

³ Latest month or quarter



Vehicle sales are anticipated to edge lower over the next two years



Summary

- The outlook is for the U.S. economy to expand at a pace around trend through 2019
- Employment is expected to rise moderately with the unemployment rate remaining very low
- Inflation is forecast rise to the Fed's Inflation target next year
- Vehicle sales are anticipated to edge lower through 2018
- Long-term outlook for vehicle production remains very positive



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