Economic Outlook Robert Fry

Robert Fry Economics LLC

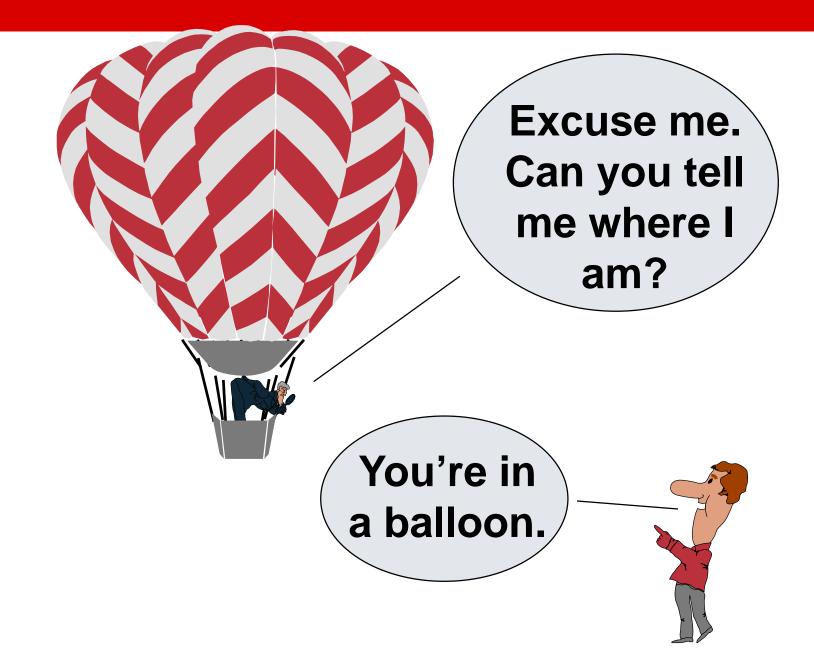
American Wire Producers Association Clearwater, Florida

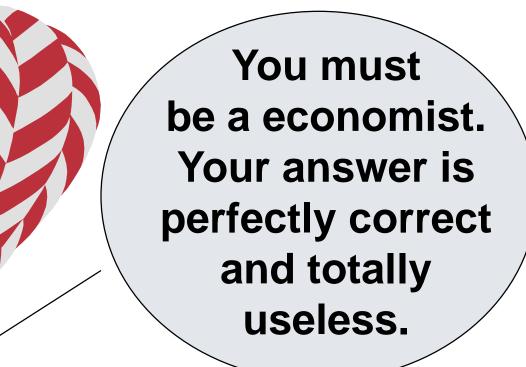
February 21, 2019

RobertFryEconomics.com RobertFryEconomics@gmail.com This presentation contains forward-looking statements based on expectations, estimates and projections that are not guarantees of future performance and involve a number of uncertainties and assumptions.

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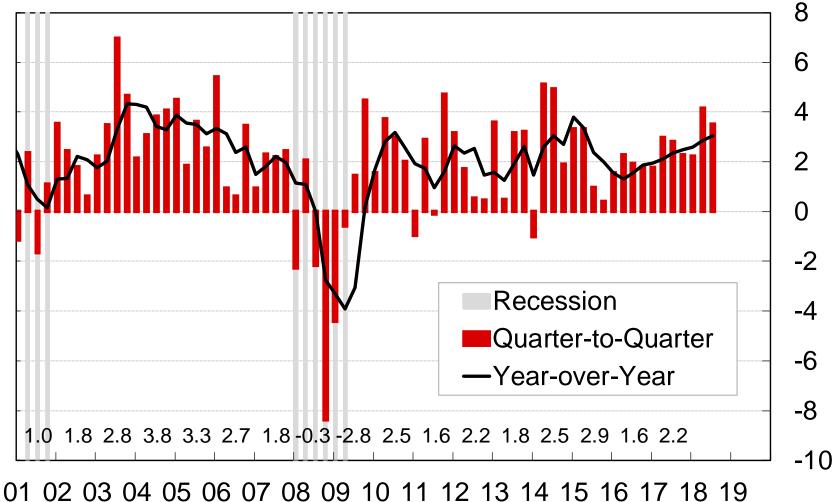




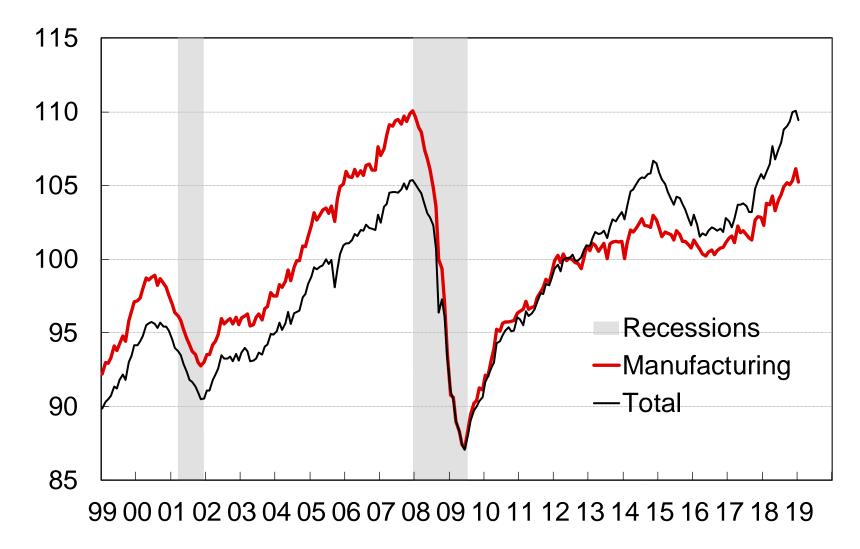
You must be a manager. You have a great view, but don't know where you are.

US Real Gross Domestic Product

Annualized Growth Rates



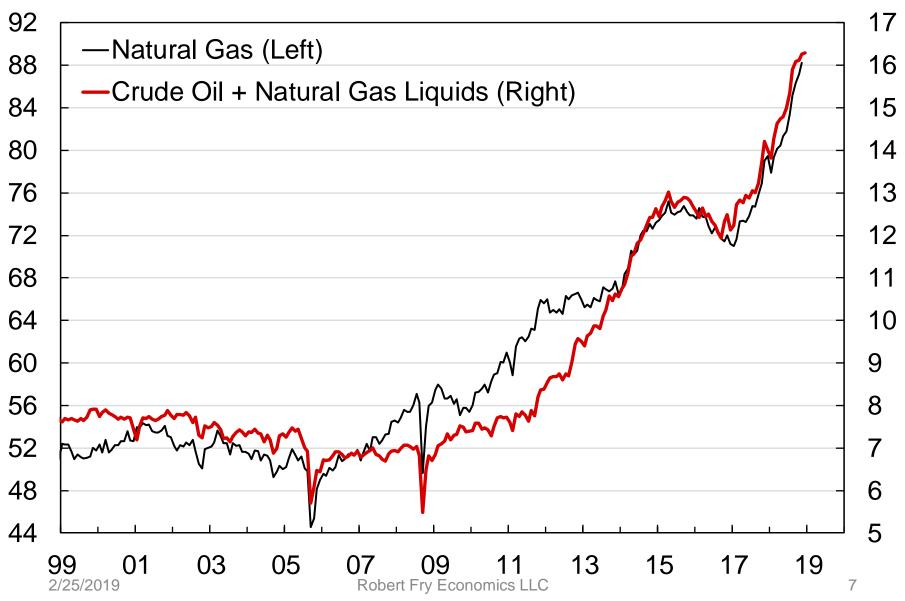
US Industrial Production Indexes, 2012=100



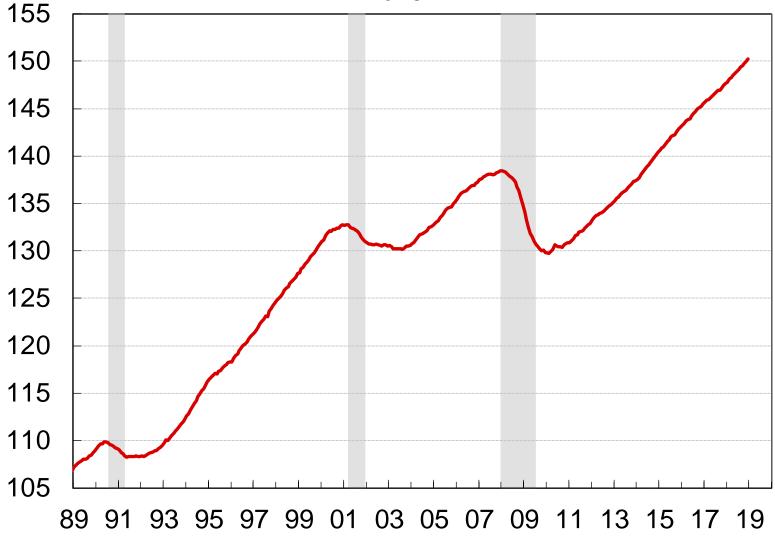
US Oil & Gas Production

Billion Cubic Feet per Day

Million Barrels per Day



US Nonfarm Payroll Employment Millions



US growth accelerated in 2017 and 2018

Real GDP has grown at a 3.0% annual rate since 2017Q1. (From 2010Q4 to 2017Q1, it grew at a 2.0% rate.)

Industrial production accelerated with the election, accelerated again when tax reform started to look likely.

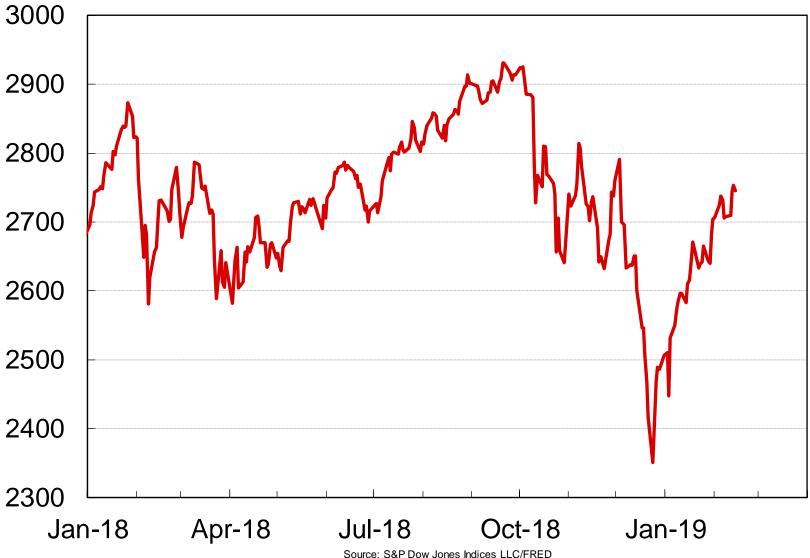
Oil and gas production have surged to record highs, boosting total IP.

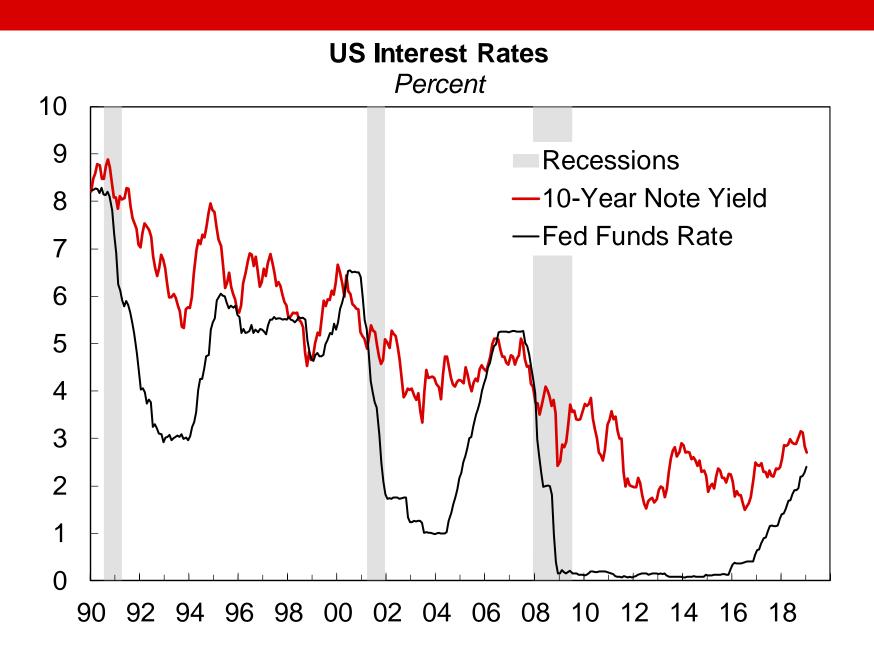
Payroll employment has grown by 206,000 per month over the last 25 months, despite tight labor market.

Productivity growth has accelerated from the extremely slow growth of the 2010Q4-2017Q1 period.

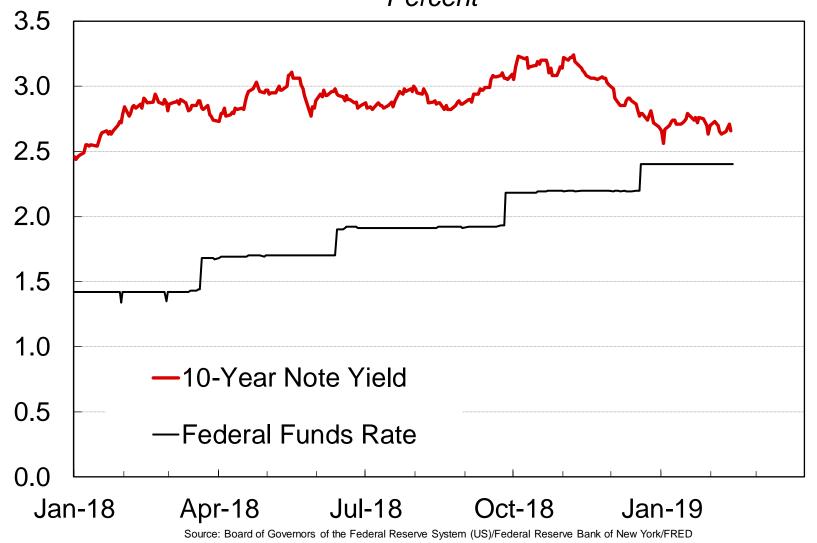
It's hard to deny that change in administration (deregulation and tax cuts) has not played a role in the acceleration. So have oil & gas from shale.

S&P 500 Stock Price Index

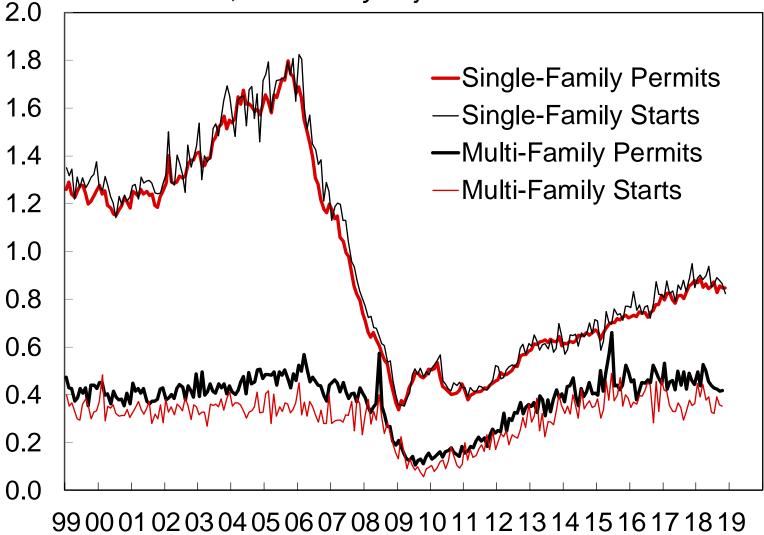




US Interest Rates Percent

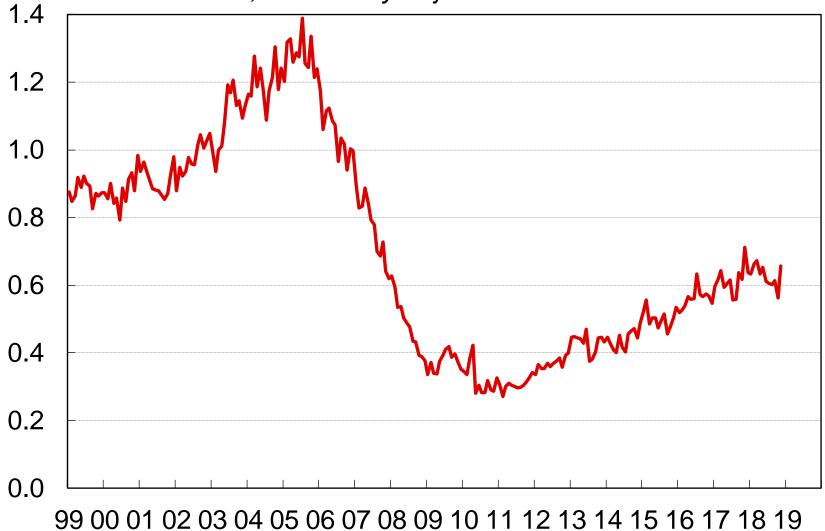


US Housing Starts & Building Permits *Millions, Seasonally Adjusted Annual Rate*

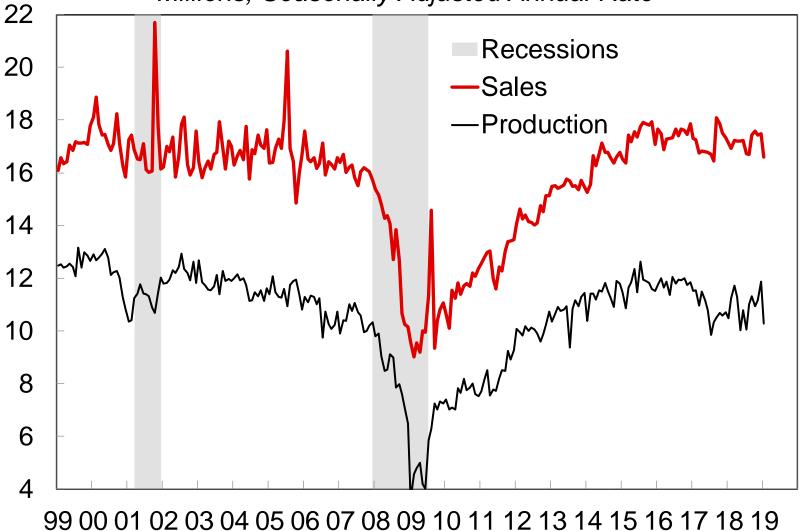


US New Home Sales

Millions, Seasonally Adjusted Annual Rate



US Light Vehicle Sales & Production *Millions, Seasonally Adjusted Annual Rate*



Tariff actions taken by Trump Administration

November 2017: Softwood lumber

February 2018: Washing machines

March 2018: Steel & aluminum (with exemptions)

June 2018: Steel & aluminum (without exemptions)

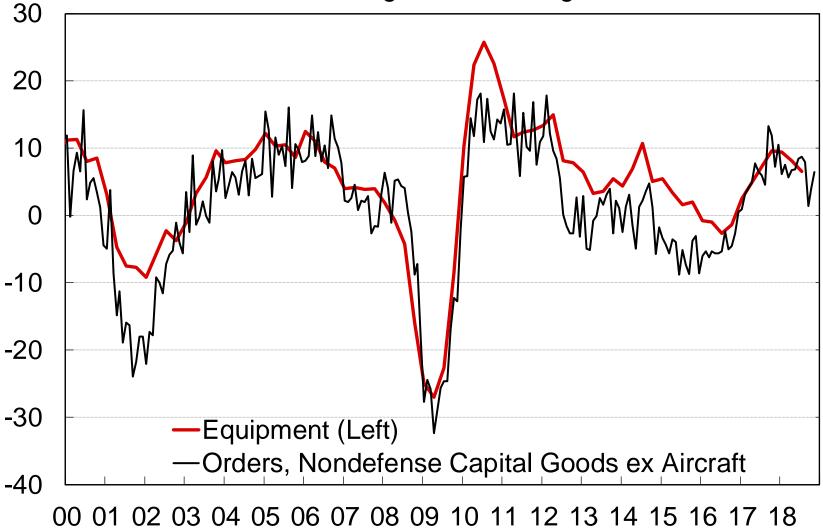
September 2018: 10% on \$200 billion in Chinese exports

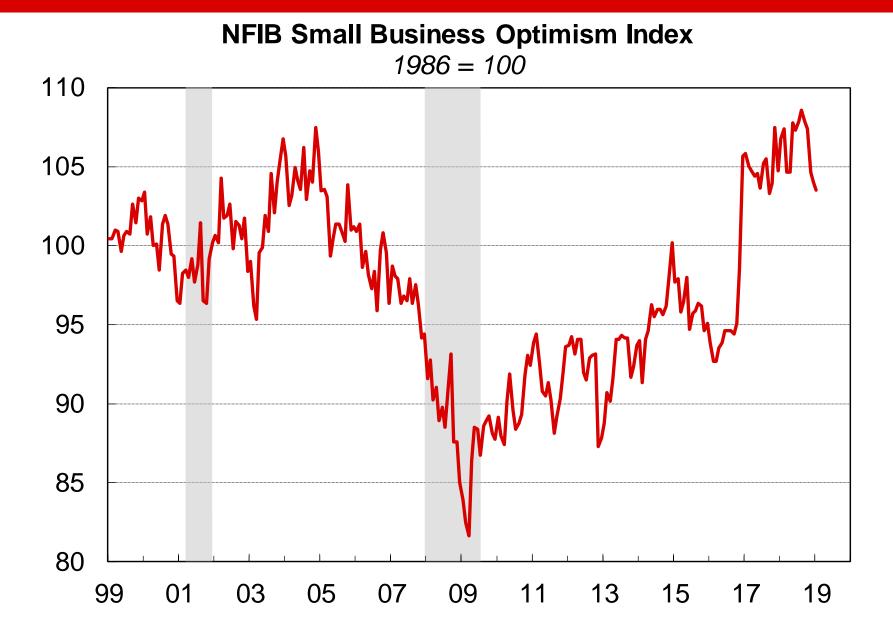
January 2019: Tariffs on Chinese exports scheduled to rise to 15% (delayed)

March 2019: Tariffs on Chinese exports NOW scheduled to rise to 15%

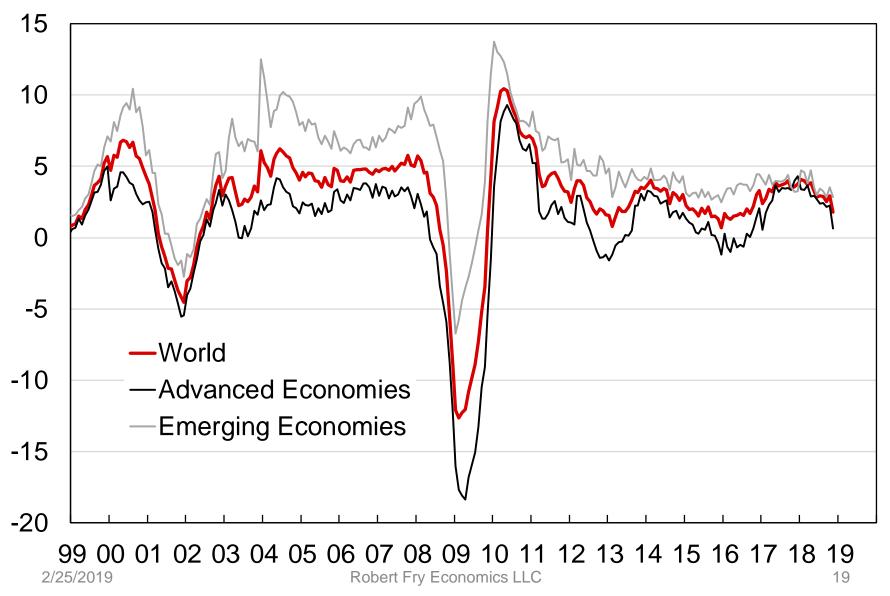
Tariffs have hit stock prices mostly by increasing uncertainty.

Real Investment in Equipment vs Capital Goods Orders Percent Change from Year Ago

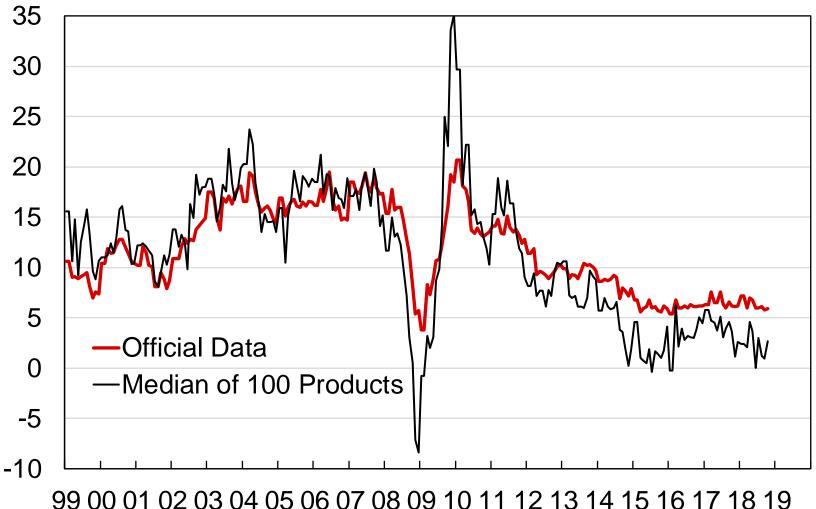




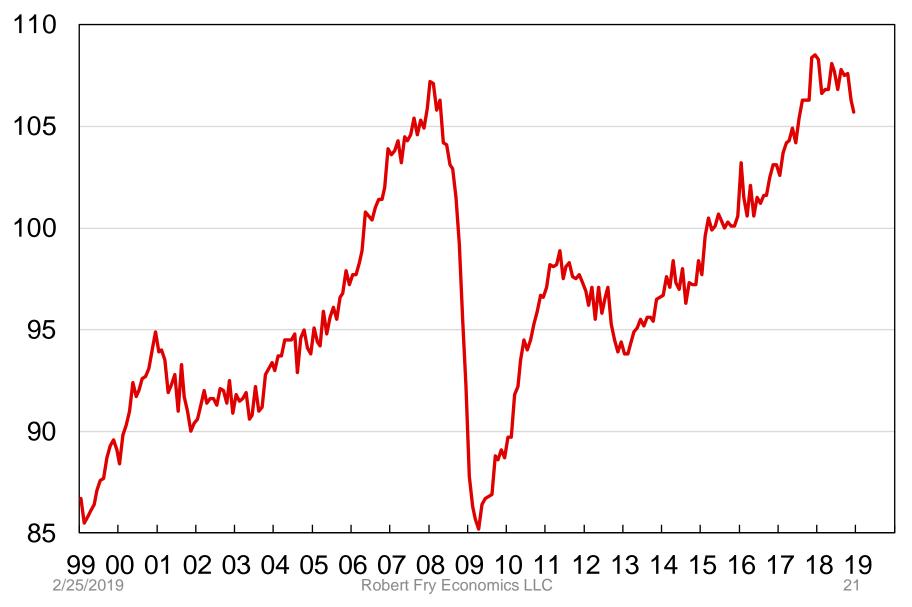
Industrial Production ex Construction Percent Change from Year Ago



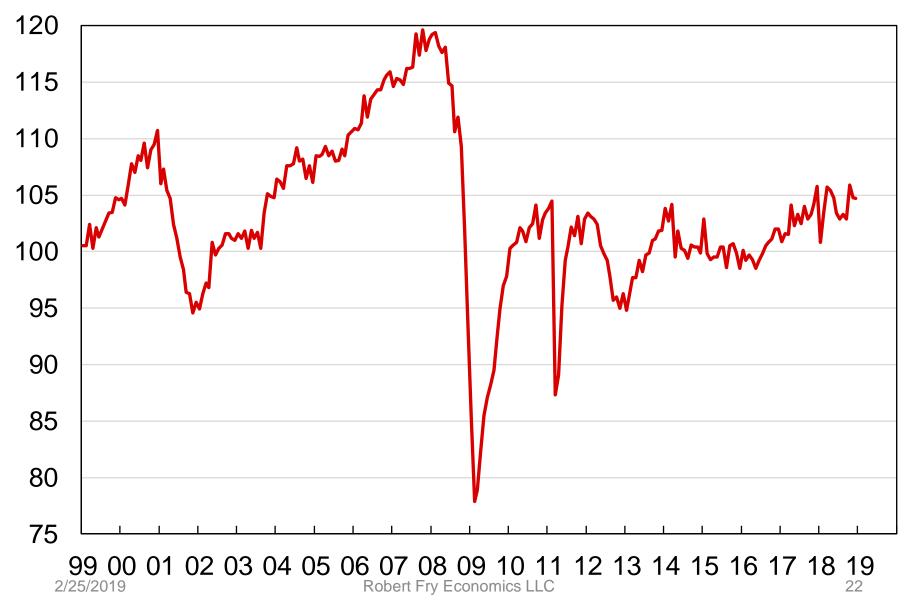
Value Added of Industry (Industrial Production): China Percent Change from Year Ago



Industrial Production, Manufacturing: European Union Index, 2015 = 100



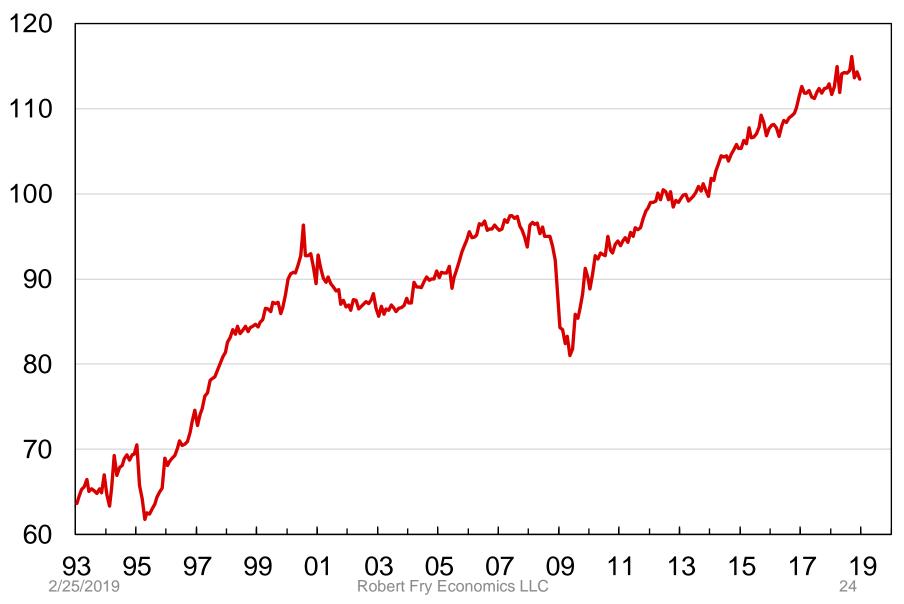
Industrial Production, Manufacturing: Japan Index, 2015 = 100



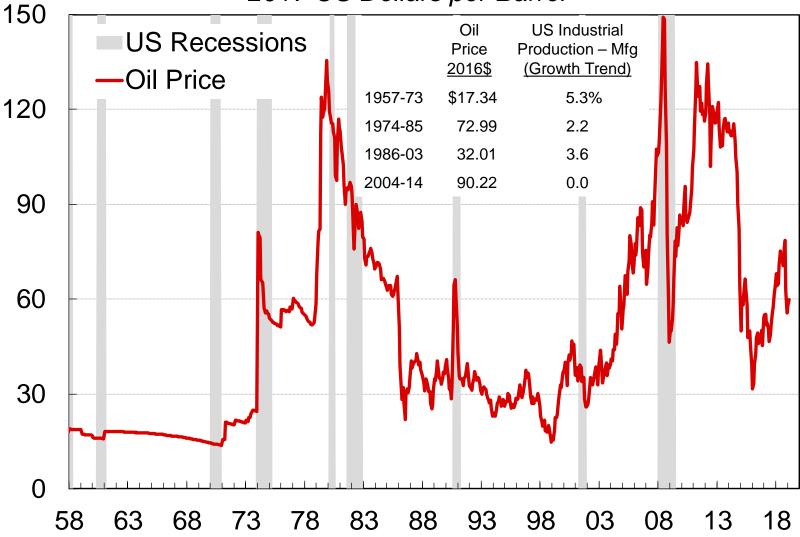
Industrial Production, Manufacturing: Brazil Index, 2012 = 100



Industrial Production, Manufacturing: Mexico Index, 2008 = 100



Brent Blend Oil Price 2017 US Dollars per Barrel



Why did the stock market decline?

It's not what the Fed did; it's what Fed Chair Jerome Powell said

- October 3: "Long way from neutral", 2-3 rate hikes in 2019. (I hate forward guidance.)
- December 19: Shrinking of balance sheet on "auto-pilot."
- December 24: Yield curve came close to inverting.
- Powell changed tune in January 2019.

Threat of escalating trade war caused businesses to put investment on hold.

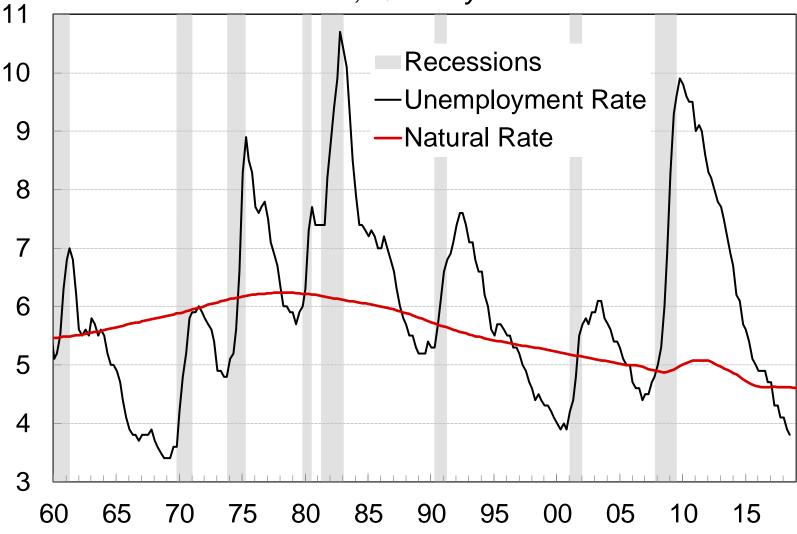
Growth has slowed sharply in rest of world.

- 40-50% of S&P500 earnings come from abroad.
- Slowdown in China predates US tariffs, due mostly to demographics and debt.
- European growth hurt by Brexit, populist politics, reduced demand from China.
- Oil prices got high enough to hurt growth in much of world.
- US tax reform shifted activity to US, as intended.

Is expansion at risk?

US Civilian Unemployment Rate

Percent, Quarterly Data



How fast can the economy grow at "full employment"?

Unemployment fell below CBO estimate of natural rate of unemployment in second quarter of 2017. It's now at 4.0% versus natural rate of 4.6%.

Pessimists believe that low unemployment rate means that growth must soon slow, but . . .

Unemployment fell below natural rate in third quarter of 1996. Real GDP grew at 4.7% annual rate over next 15 quarters.

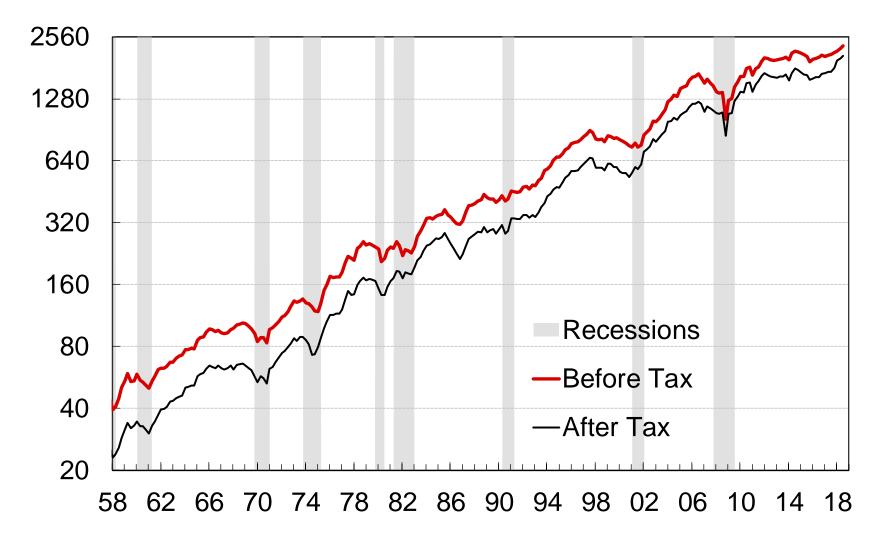
Economy can grow rapidly at "full employment" because:

- Hours/week can be increased. (ACA reform would help here.)
- People who have left the labor force can return. (This is happening.)
- Productivity growth can accelerate. (More investment, lower energy prices, moving workers to higher-productivity jobs, squeezing more output out of existing workers.)
- You allow economy to overheat. (1980s and 1990s expansions worth the cost.)

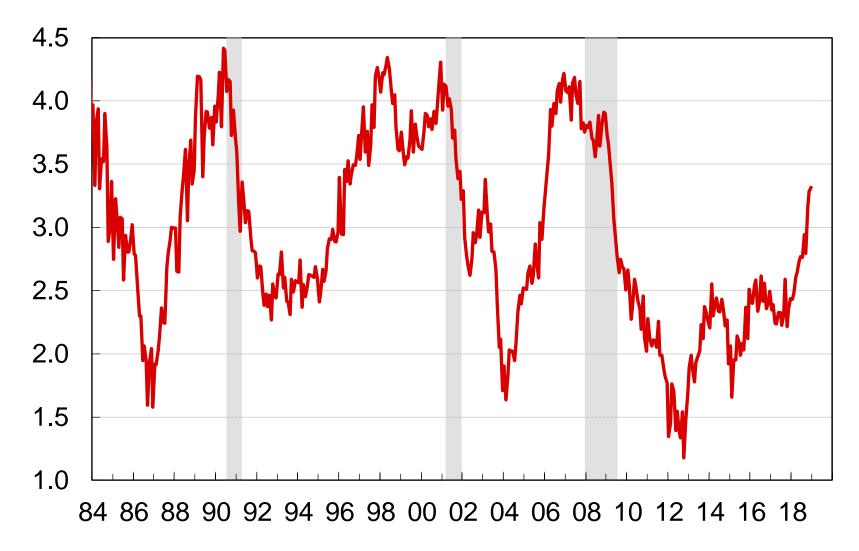


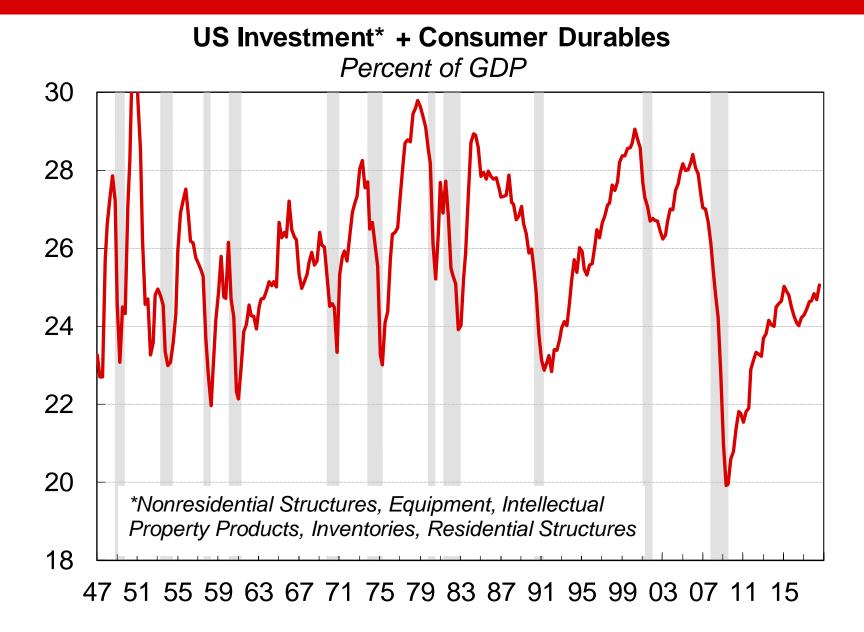
"The accuracy of an economic vision is not always commensurate with the analytical ability of those who hold it. Pessimistic visions about almost anything always strike the public as more erudite than optimistic ones." --Joseph Schumpeter, 1883-1950

Corporate Profits with IVA and CCAdj *Billion* \$

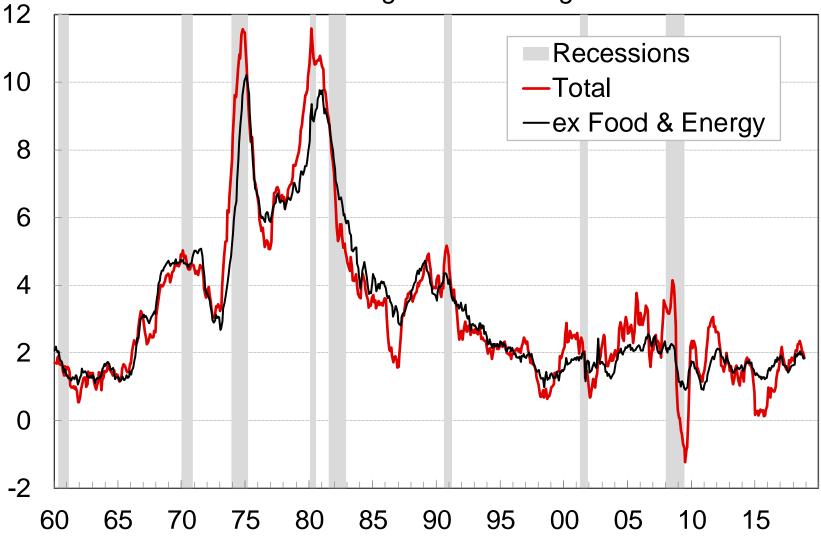


Average Hourly Earnings, Production & Nonsupervisory Percent Change from Year Ago





US Personal Consumption Expenditures Price Index Percent Change from Year Ago



Expansion could last a long time

Expansions end, on average, 2.5 years after cyclical peak in housing starts; starts probably aren't even close to peaking yet.

Expansions end, on average, 2.5 years after cyclical peak in corporate profits; profits were still rising in 2018Q3.

Last three expansions didn't end until growth in average hourly earnings reached 4.3%; just rose above 3% in October.

Expansions don't end until cyclical share of GDP exceeds 28%; it's currently around 25%.

Except for the low unemployment rate, there is little evidence that we are late in the economic expansion.



"The crisis takes a much longer time coming than you think and then it happens much faster than you would have thought." Rudiger Dornbusch, 1942-2002

How fast will the US economy grow? It depends on:

Resolution of trade dispute – 3 Scenarios:

- Special tariffs on Chinese goods go up to 25% => Risk (not certainty) of recession
- Special tariffs on Chinese goods stay at 10% => Growth stays near old 2% trend
- Trade deal eliminates special tariffs => Growth near 2.5% after stronger surge.

This assumes USMCA is approved.

The distortion caused by a tax is proportional to the square of the tax rate.

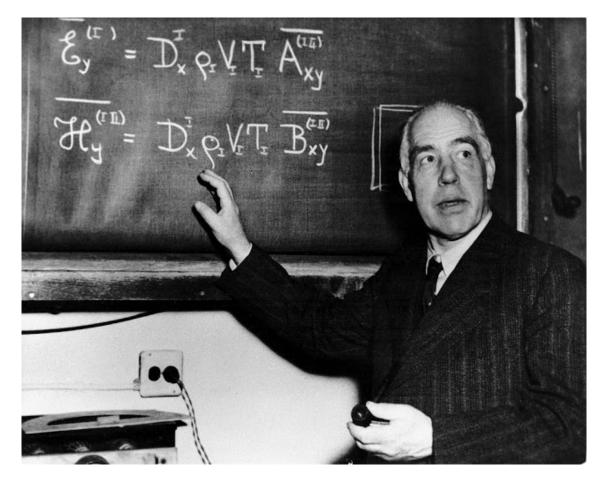
Response of business investment to tax reform

• Without more investment, productivity growth remains in doldrums.

Immigration policy

• Without more immigration, employment growth will slow to about 0.5%/year.

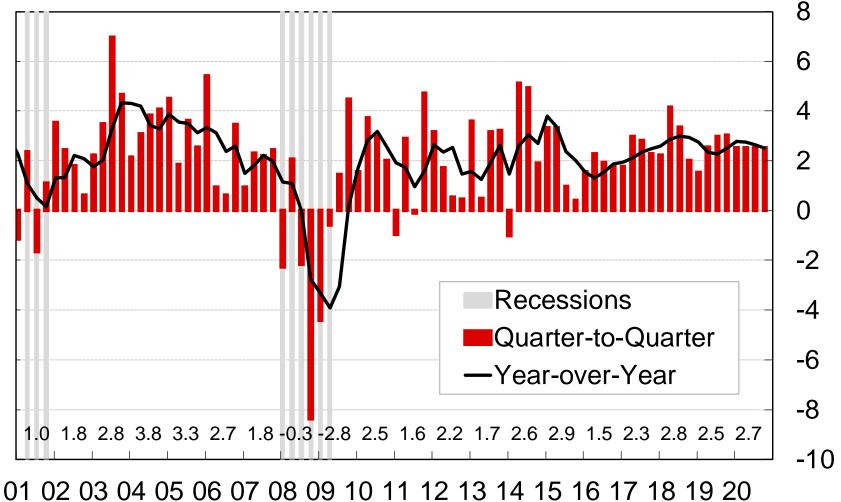




"Prediction is very difficult, especially about the future." --Niels Bohr, 1885-1962 Nobel Laureate, 1922

US Real Gross Domestic Product

Annualized Growth Rates



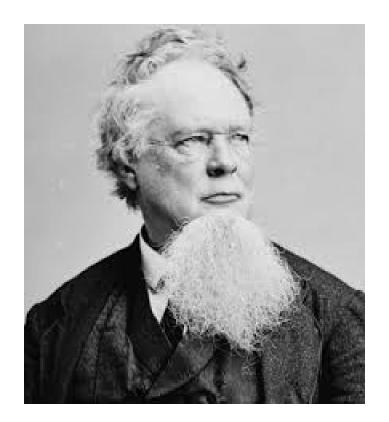


	<u>2016</u>	<u>2017</u>	2018	<u>2019</u>	2020
World	2.5	3.2	3.0	2.8	3.0
North America	1.5	2.3	2.8	2.4	2.6
Latin America (x Mex)	-2.0	1.0	0.9	1.6	2.6
Western Europe	1.9	2.3	1.8	1.3	1.5
C & E Europe	1.8	4.0	3.1	2.0	2.6
Middle East & Africa	3.2	1.7	2.3	2.8	3.2
Asia/Pacific	4.4	4.8	4.6	4.4	4.4
China	6.7	6.9	6.6	6.0	6.0
Japan	0.6	1.9	0.8	1.0	0.4
India	7.1	6.7	7.3	7.4	7.7

Industrial Production

(Annual % Change)

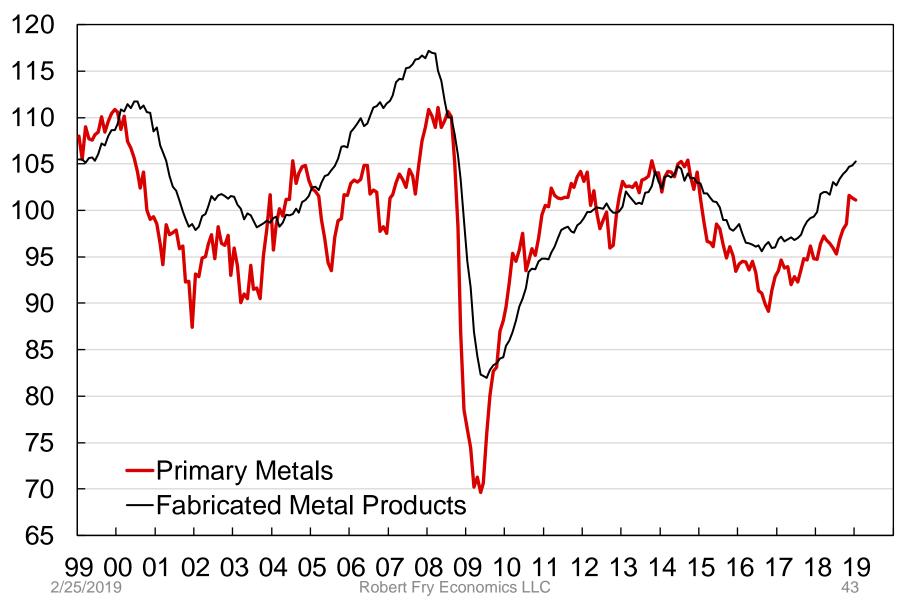
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
World	1.8	3.4	2.7	2.4	3.0
Advanced economies	0.1	3.0	2.5	1.9	2.1
United States	-1.9	1.6	4.0	3.0	2.6
Japan	-0.4	4.3	1.2	1.0	1.0
Euro Area	1.7	3.1	1.4	1.0	1.5
Other advanced	1.5	4.2	2.6	2.0	3.0
Emerging economies	3.6	3.9	3.0	3.0	3.9
Emerging Asia	5.4	5.6	5.3	4.5	5.0
C & E Europe	1.9	2.9	2.8	2.0	2.0
Latin America	-3.5	-0.8	-2.5	0.0	2.0
Middle East & Africa	3.6	0.7	1.3	1.5	3.0

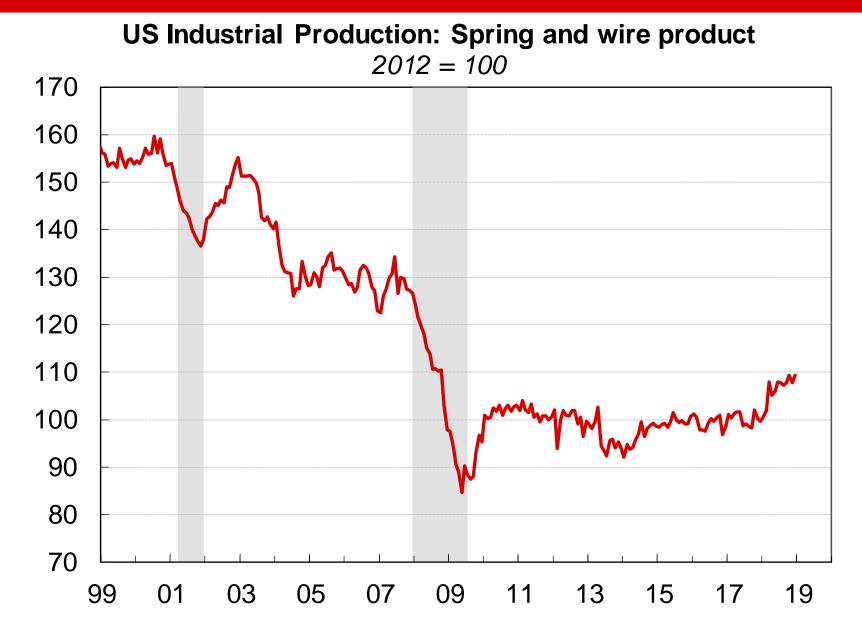


"Economists put decimal points in their forecast to show they have a sense of humor."

William Gilmore Simms, 1806-1870

US Industrial Production: Metals Index, 2012=100

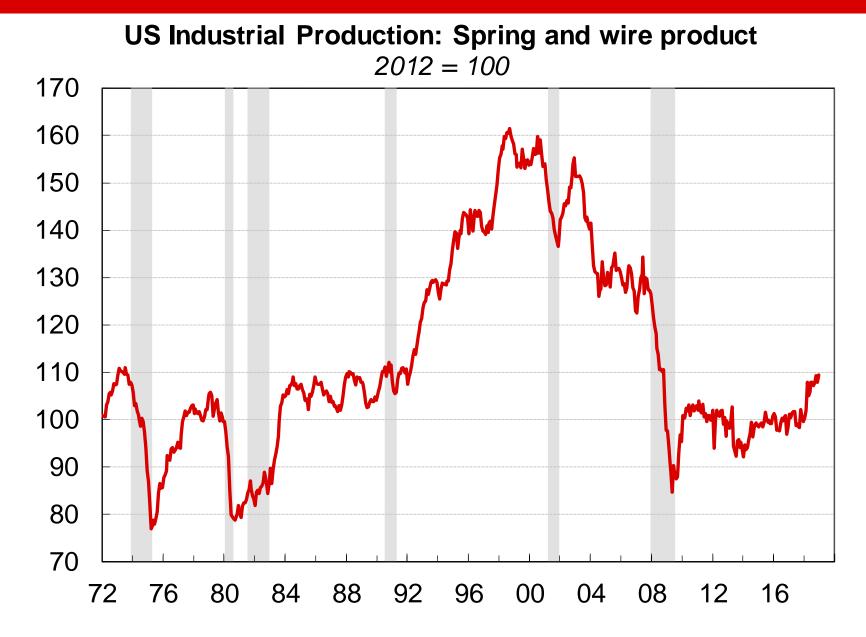




Source: Board of Governors of the Federal Reserve System (US)/FRED

2/25/2019

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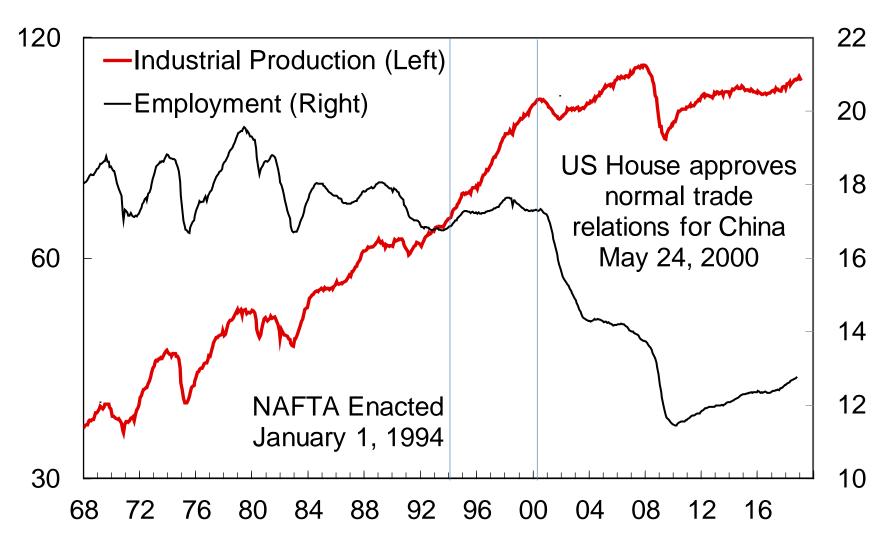


Source: Board of Governors of the Federal Reserve System (US)/FRED

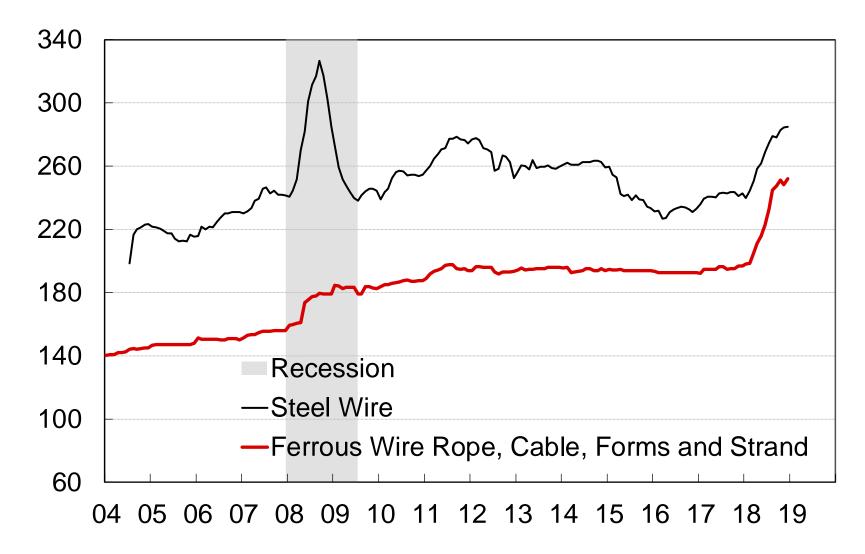
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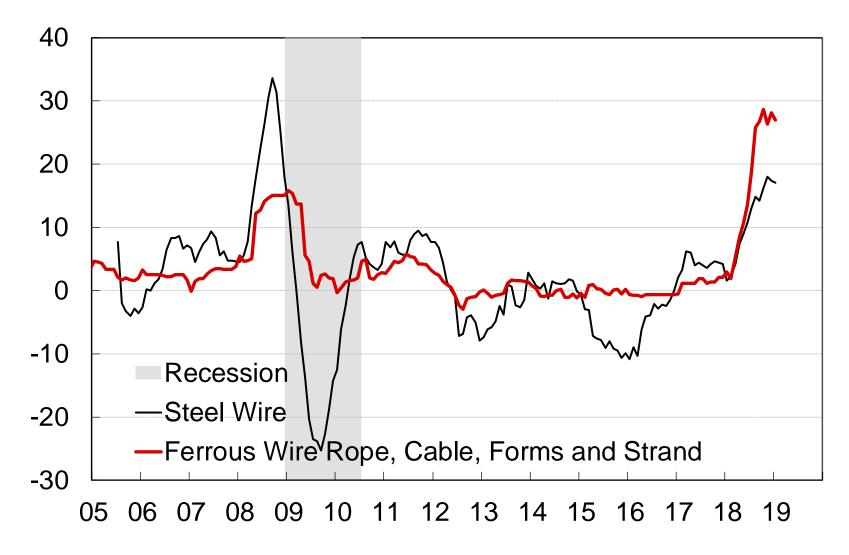
US Industrial Production & Employment: Manufacturing Index, 2012=100 Millions



US Producer Price Indexes June 1982 = 100



US Producer Price Indexes *Percent Change from Year Ago*



Key takeaways

US economic growth accelerated in 2018 in response to deregulation, tax reform, and moderate oil prices, but trade policy concerns will suppress growth in first half of 2019.

Growth slowed sharply in the rest of the world, more than offsetting the US acceleration.

With Fed on hold, US growth reaccelerates if trade concerns ease.

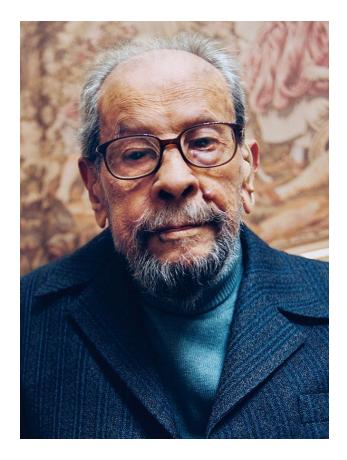
US expansion could last a long time.

- Slow expansions are long expansions.
- Can't have a housing bust without first having a housing boom.
- Increased investment in response to tax reform would ease inflationary pressures & extend the recovery. It is necessary for stronger trend growth.

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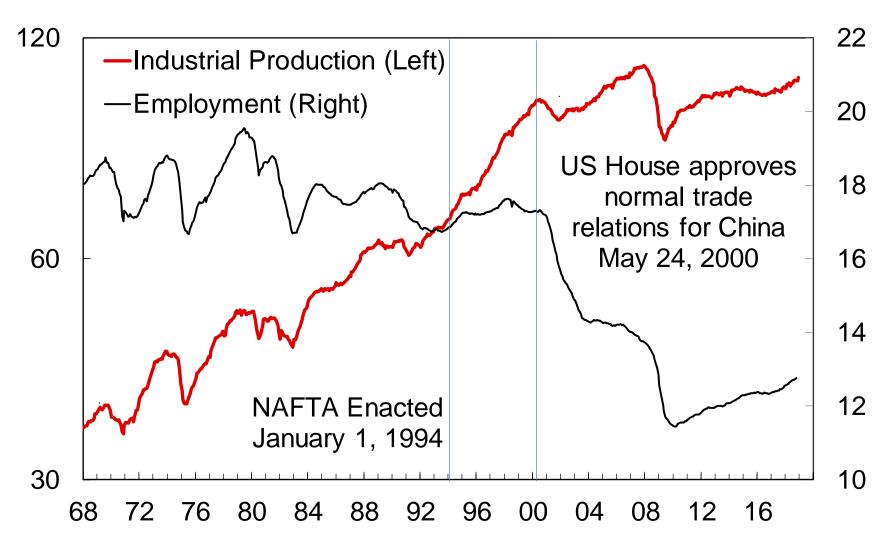
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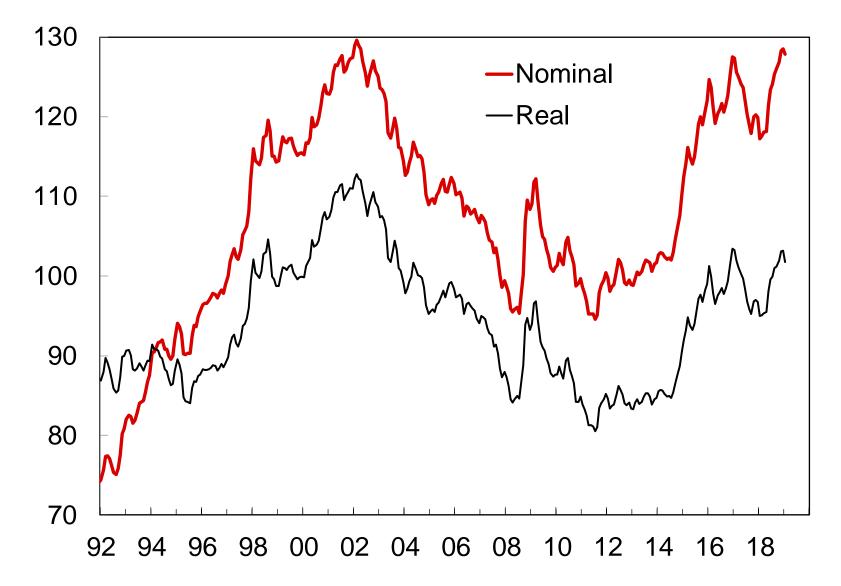


You can tell whether a man is clever by his answers. You can tell whether a man is wise by his questions. --Naguib Mahfouz Nobel Laureate, 1988

US Industrial Production & Employment: Manufacturing Index, 2012=100 Millions



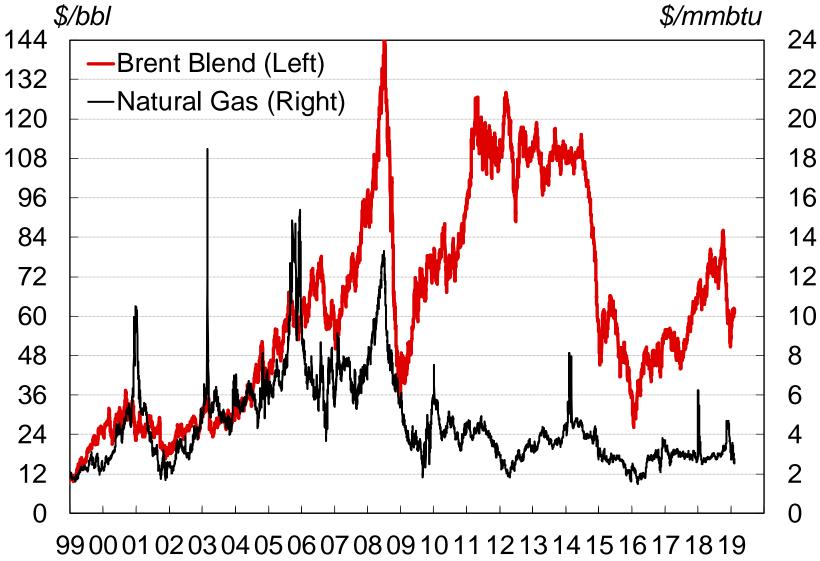
Federal Reserve Broad Dollar Index

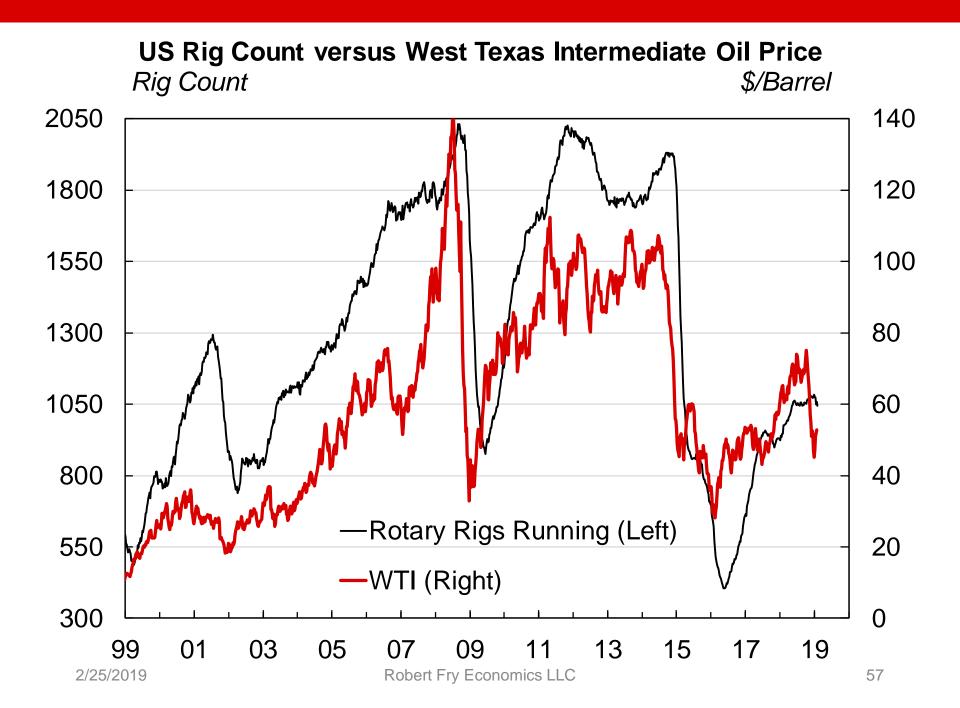


Free trade, one of the greatest blessings that a government can confer on a people, is unfortunately in every country unpopular.

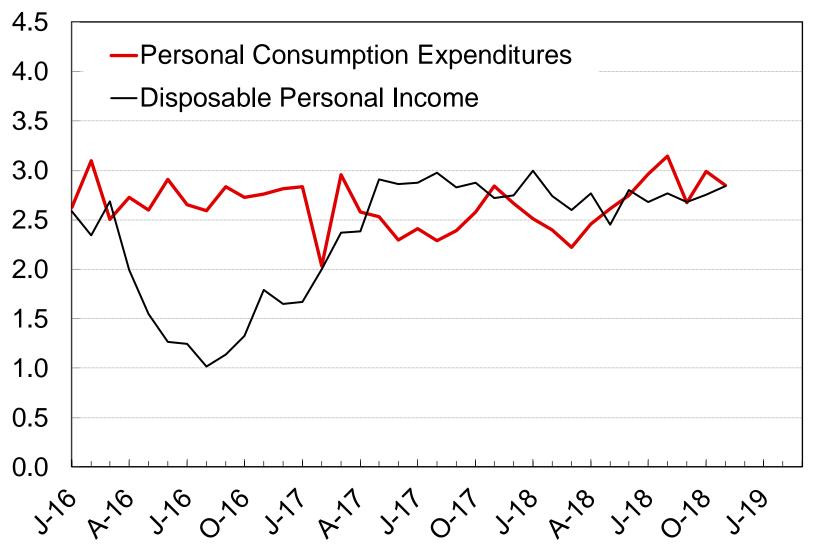
-- Thomas McCauley, 1824

Global Crude Oil and US Natural Gas Prices

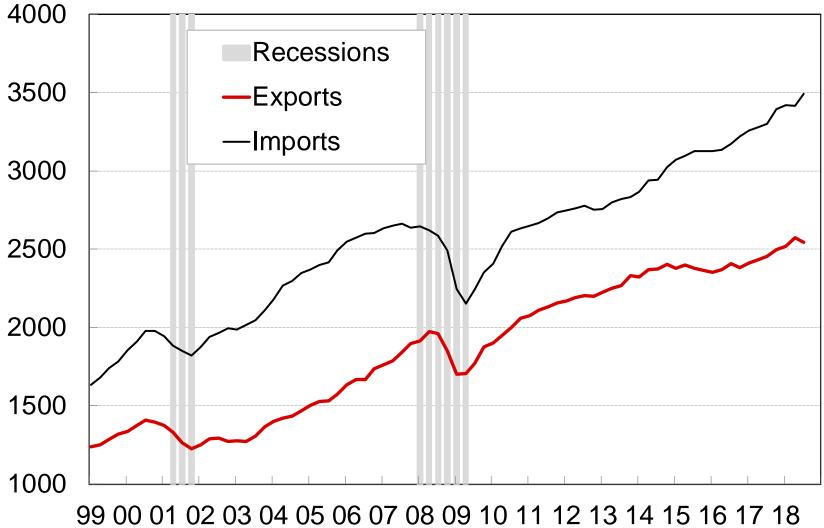




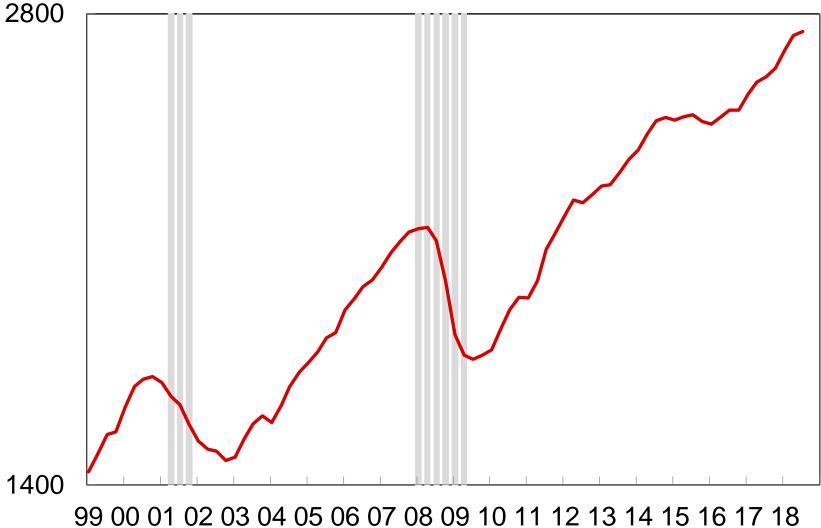
US Real Consumer Spending & Disposable Income *Percent Change from Year Ago, Chained 2012 Dollars*



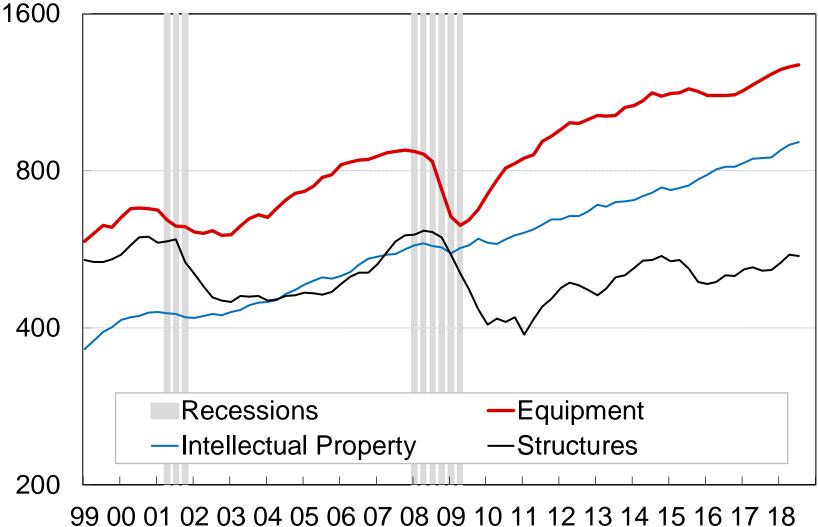
US Exports & Imports *Billion Chained 2012 Dollars*



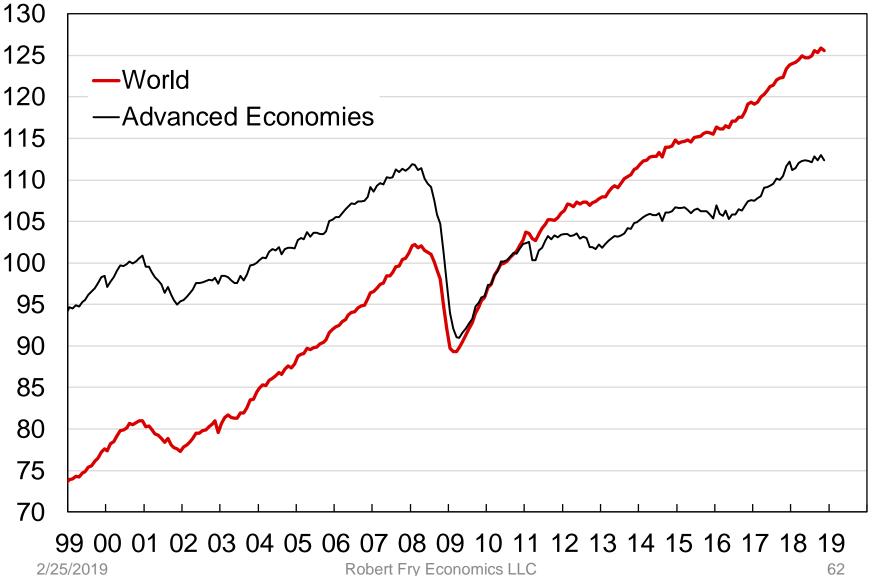
US Nonresidential Fixed Investment Billion Chained 2012 Dollars



US Nonresidential Fixed Investment Billion Chained 2012 Dollars



Industrial Production ex Construction Index, 2010 = 100



Publications by Robert Fry

Low Interest Rates Are Hurting Growth:

https://www.forbes.com/sites/realspin/2016/10/04/low-interest-ratesare-hurting-growth/#58cff2edb605

Put An Economist on Your Board:

http://media.wix.com/ugd/d2d439_73ba8ec9866a4c5c859d79effe7c60 e1.pdf

10 Things To Look For In A Fed Governor:

https://www.forbes.com/sites/realspin/2017/01/20/10-things-to-lookfor-in-a-fed-governor/#17c4c41b27ee