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Daily Data Analysis and Assessment of the Global Economy

GDP Growth Falters In G-7 Ex-United States—It Is More Than The Weather

- Carl Weinberg, Chief International Economist

United States: Declining Slack To Keep Fed Tightening

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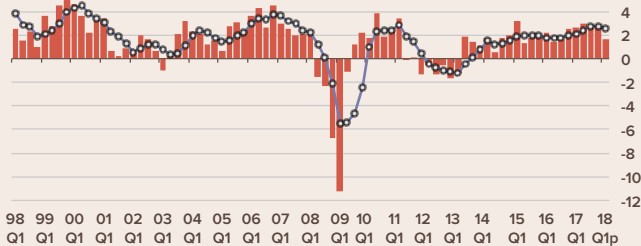
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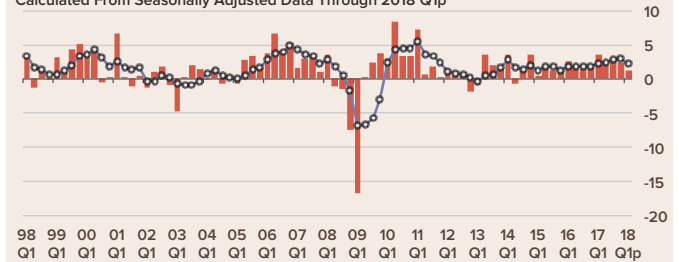
Euro Zone: GDP

Seasonally Adjusted Annual Rate (Bar) and Percent Change Year Ago (Line)
Calculated From Seasonally Adjusted Data Through 2018 Q1p



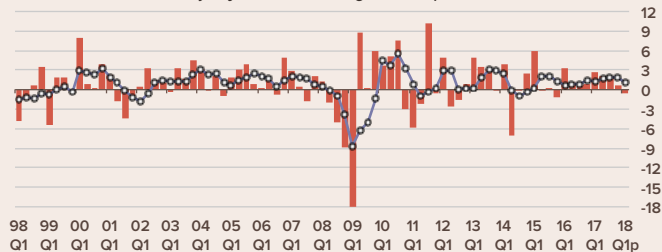
Germany: GDP

Seasonally Adjusted Annual Rate (Bar) and Percent Change Year Ago (Line)
Calculated From Seasonally Adjusted Data Through 2018 Q1p



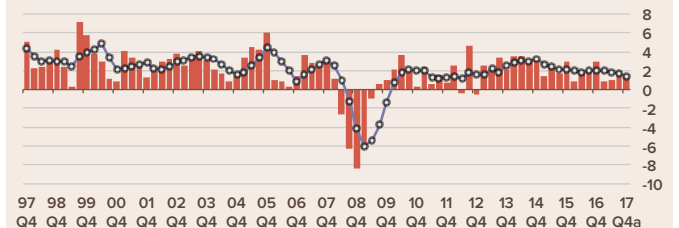
Japan: GDP

Seasonally Adjusted Annual Rate (Bar) and Percent Change Year Ago (Line)
Calculated From Seasonally Adjusted Data Through 2018 Q1p



United Kingdom: GDP

Seasonally Adjusted Annual Rate (Bar) and Percent Change Year Ago (Line)
Calculated From Seasonally Adjusted Data Through 2017 Q4a





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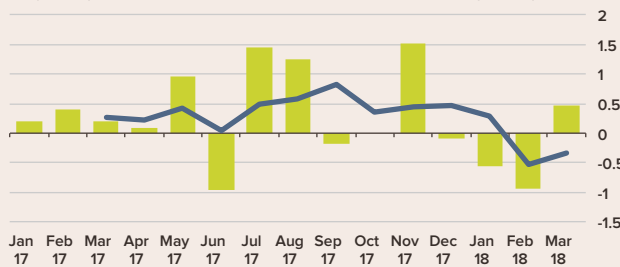
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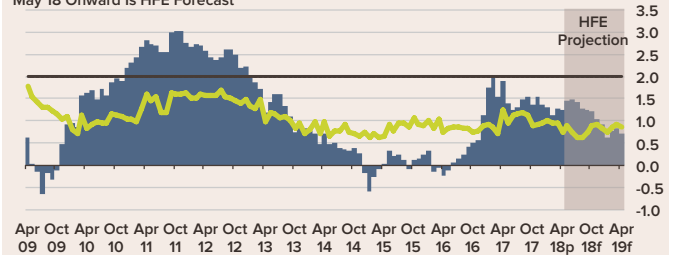
Euro Zone: Industrial Production Over Five Recent Quarters

Monthly Changes In Industrial Production, Blue Line Is 3-Month Moving Average



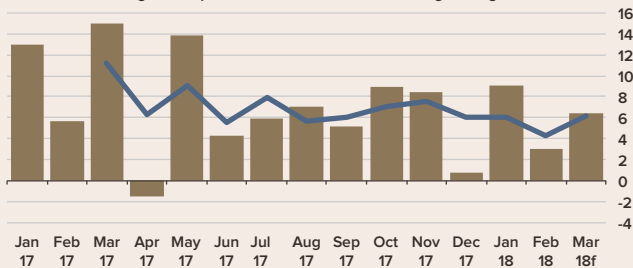
Euro Zone: CPI, Percent Change Year Ago

Blue Bars Are CPI, Green Line Is Core CPI, Black Line Is ECB Inflation Target
May 18 Onward Is HFE Forecast



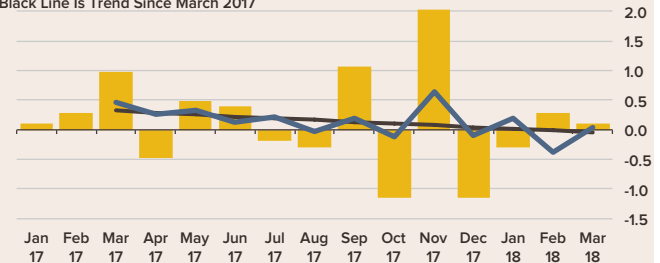
Euro Zone: Exports Over Five Recent Quarters

Year-Over-Year Changes In Exports, Blue Line Is 3-Month Moving Average



Euro Zone: Retail Sales Over Five Recent Quarters

Monthly Changes In Retail Sales, Blue Line Is 3-Month Moving Average
Black Line Is Trend Since March 2017





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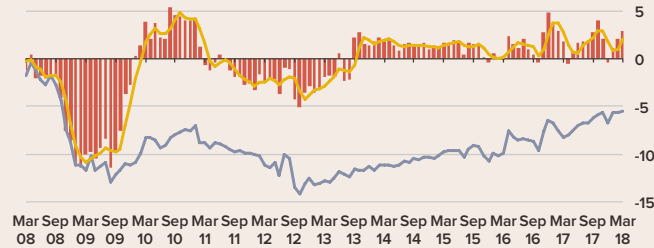
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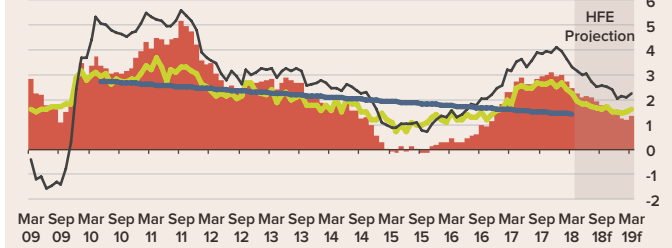
United Kingdom: Industrial Production

Bars Are Industrial Production, %cha, Yellow Line Is 12-Month Moving Average
Blue Line Is Percent Change Since Peak (Right Axis)



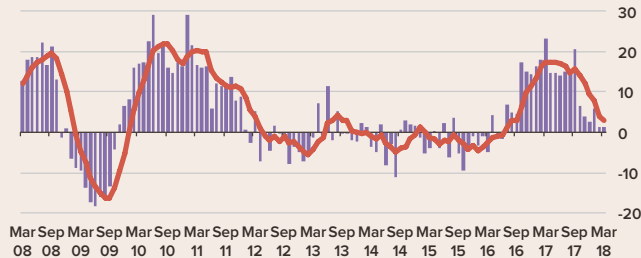
United Kingdom: CPI, Percent Change Year Ago

Green Line Shows Core CPI, Black Line Shows RPI
Apr 18 Onward Is HFE Forecast, Blue Line Is Trend Of Core CPI Since 2010



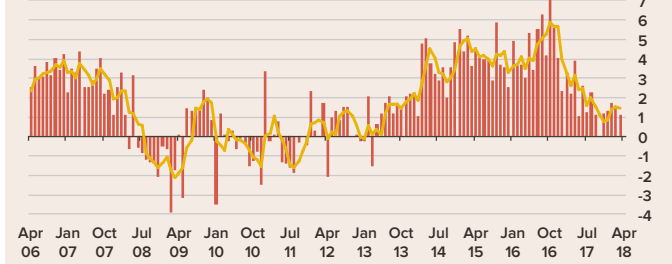
United Kingdom: Exports, Percent Change Year Ago

Red Line Shows Five-Month Moving Average



United Kingdom: Retail Sales, Percent Change Year Ago

Line Shows Yearly Change Of Three-Month Moving Average





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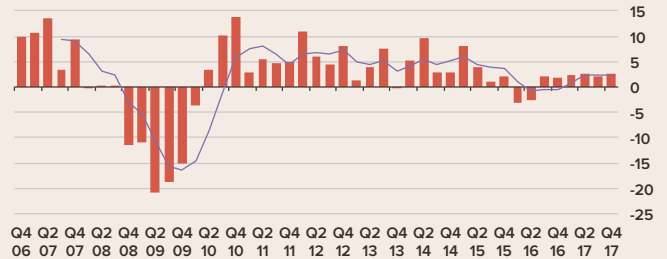
United Kingdom: HFE Estimate Of Immigration

Excess Of Job Creation Over Unemployment Decline, 12-Month Rate, Thousands
Line Shows 12-Month Moving Average



United Kingdom: Investment Spending By Businesses

■ Percent Change Year Ago — Four-Quarter Moving Average



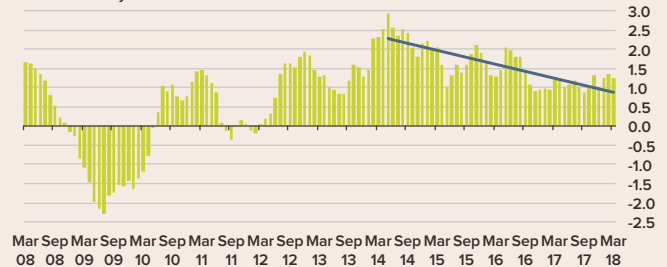
United Kingdom: Construction Sector Activity

Index 2015 = 100, Quarterly Data Prior To January 2010, Monthly Data Thereafter



United Kingdom: ILO Employment, Percent Change Year Ago

Trend Since May 2014 Shown





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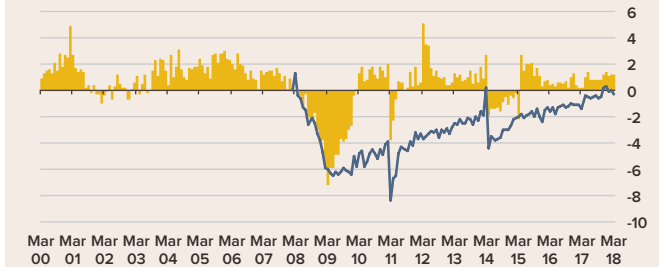
Japan: Industrial Production Index

Seasonally Adjusted Monthly Index, 2010 = 100



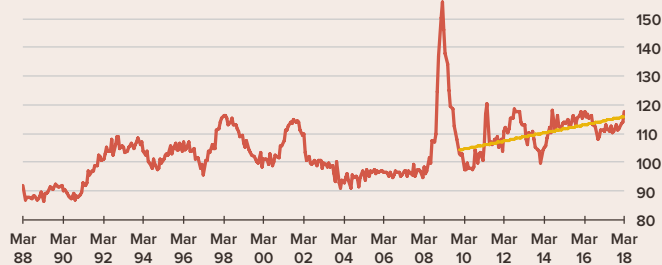
Japan: Tertiary Sector Index, Percent Change Year Ago

Blue Line Is Percent Change Since Peak



Japan: Inventory To Sales Ratio

Seasonally Adjusted Monthly Index, 2010 = 100, Trend Line Since 2010 Shown



Japan: Retail Sales

Seasonally Adjusted Monthly Index, 2010 = 100





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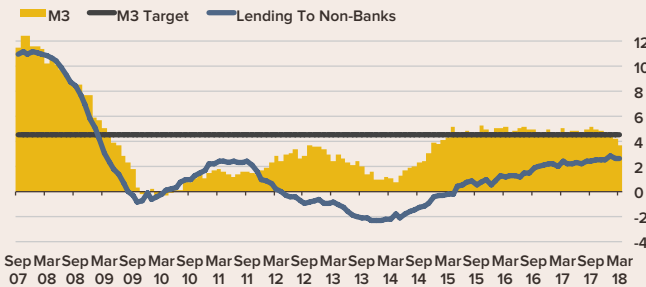
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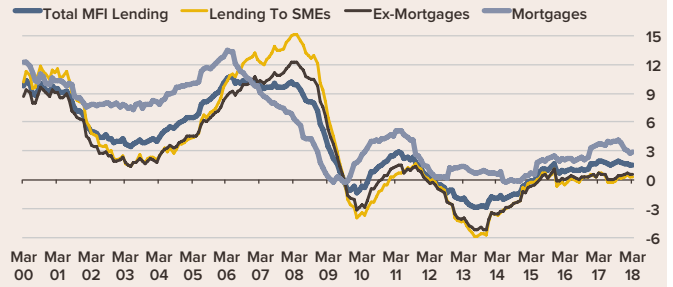
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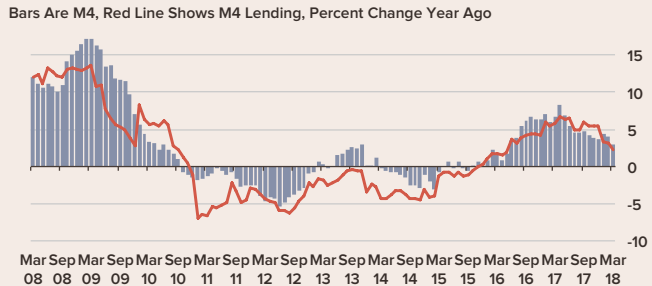
Euro Zone: M3 And Credit Growth, Percent Change Year Ago



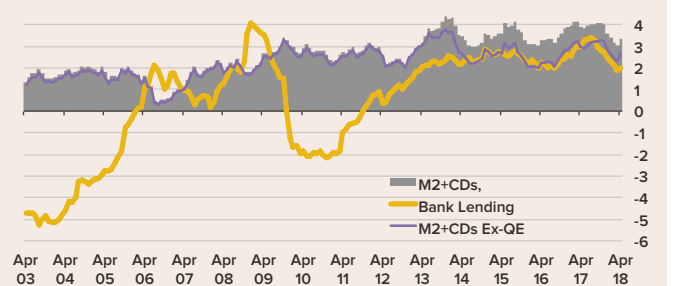
Euro Zone: Bank Lending, Percent Change Year Ago



United Kingdom: Growth Of Broad Money And Credit



Japan: Money And Credit, Percent Change Year Ago





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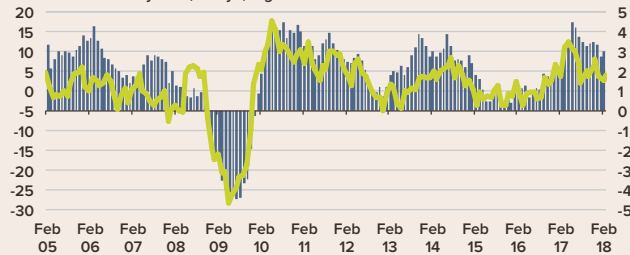
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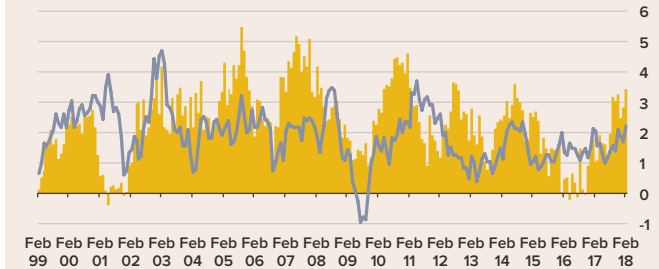
Canada: Monthly Domestic Product & Manufacturing Output

Green Line Is Mfg Production, %chya, Left Axis
Columns Are Monthly GDP, %chya, Right Axis



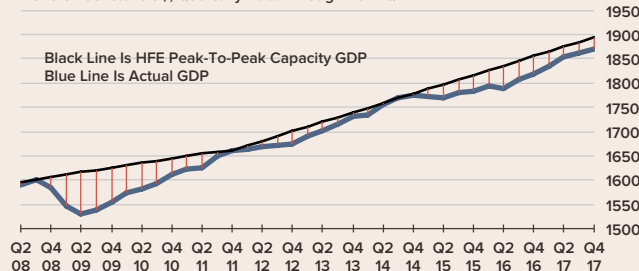
Canada: Average Weekly Earnings, Percent Change Year Ago

Line Shows Year-Over-Year Increases In CPI



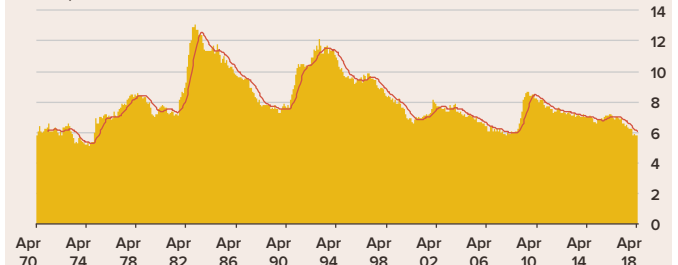
Canada: Actual GDP Vs HFE Full Capacity GDP

Billions Of Constant C\$, Quarterly Data Through 2017 Q4



Canada: Unemployment Rate

Percent, Line Shows 12-Month Trend





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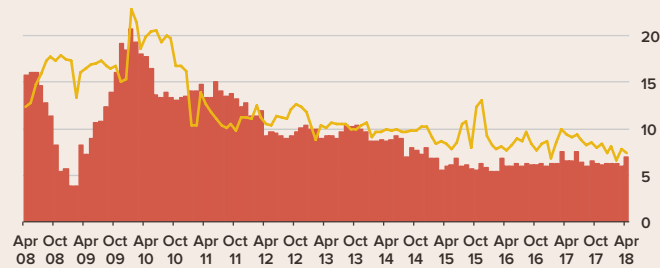
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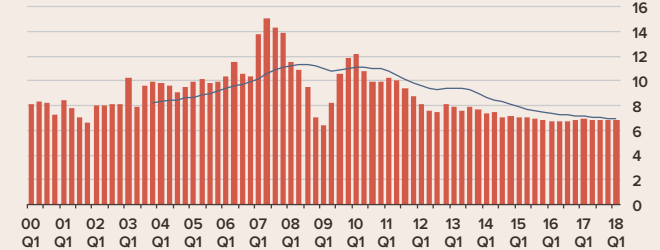
China: Industrial Production Vs Retail Sales Volumes

Bars Show Production, Line Is Retail Sales Volume Growth, Percent Change Year Ago



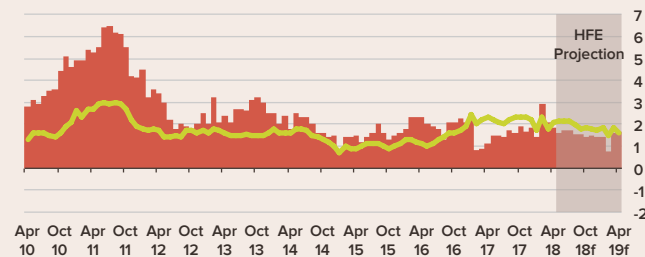
China: GDP, Percent Change Year Ago

Line Shows Four-Year Average Growth

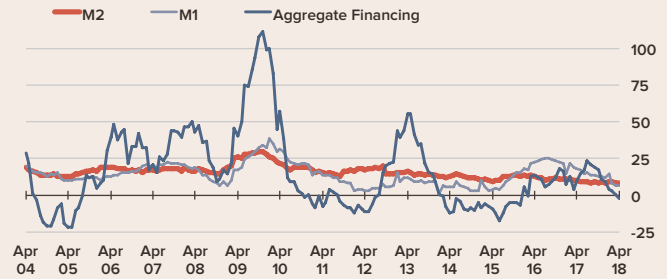


China: Consumer Price Index, Percent Change Year Ago

Green Line Shows Non-Food Prices, May 18 To Apr 19 Are HFE Forecast



China: Money And Credit, Percent Change Year Ago





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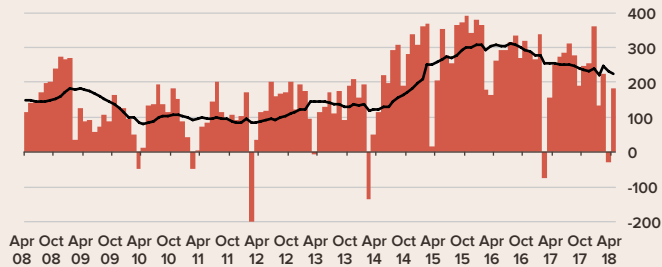
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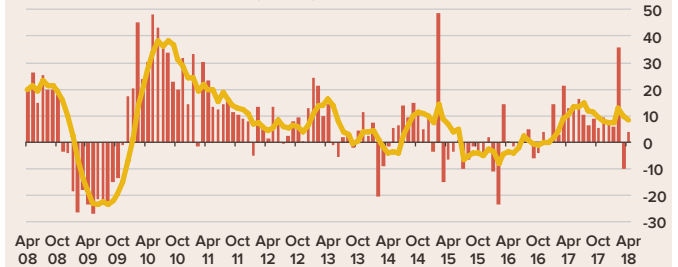
China: Trade Balance, Seasonally Adjusted, RMB Billions

Black Line Is 12-Month Moving Average



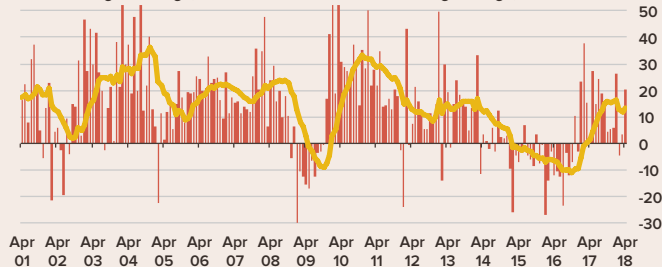
China: Exports, Percent Change Year Ago

Yellow Line Shows 5-Month Moving Average, In RMB



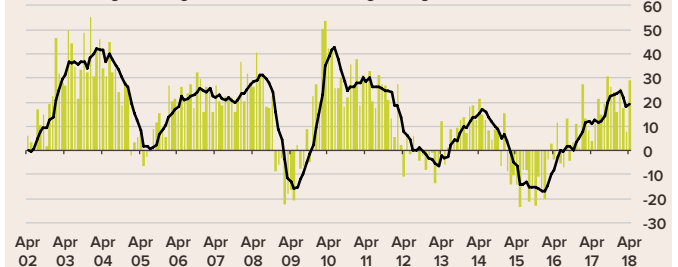
China: Monthly Imports From The United States

Percent Change Year Ago, Yellow Line Shows 5-Month Moving Average, In U.S. Dollars



China: Imports From The EU In U.S. Dollars

Percent Change Year Ago, Line Is 12-Month Moving Average





Made In China 2025

- **Research and development:** Establish 15 national “innovation centers” by 2020 and 40 by 2025, to develop technologies.
- **Manufacture smarter:** Lower operating costs, shorten production times and slash defect rates, each by 30% by 2020 and 50% by 2025.
- **Industrial self sufficiency:** Produce 40% of core components in all manufacturing by 2020, 70% by 2025.
- **Environmental responsibility:** In all sectors, reduce emissions per unit produced by 20%, lower energy use per unit of output below world average by 2025 and build 1,000 green factories by 2025.
- **Build significant shares of global manufacturing of ten sectors:**
Aerospace, rail, high-tech autos, hi-tech marine, power grids, machine tools, nuclear plants and equipment, medical equipment.



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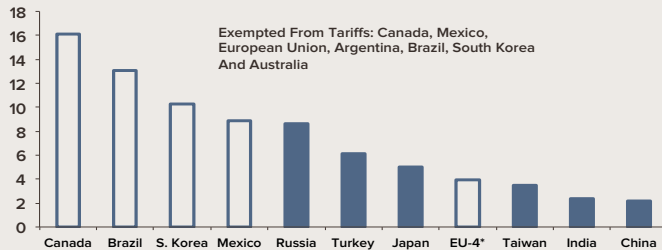
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1a. Numerous Exemptions For The Steel And Aluminum Tariffs

Percentage Of U.S. Steel Imports, 2017 Through October



*Germany, Italy, Spain & the U.K.

1b. Tariffs: United States Versus China

Tariff Rate, %

	Simple Average*	Weighted Average**
United States' Exports To China		
Agricultural Products	15.1	5.8
Non-Agricultural Products	9.0	5.3
China's Exports To United States		
Agricultural Products	4.0	2.8
Non-Agricultural Products	4.0	3.0

Source: WTO's World Tariff Profiles 2017

*Based on a standardized simple average across six harmonized system categories.

**Based on a weighted average of recorded exports.



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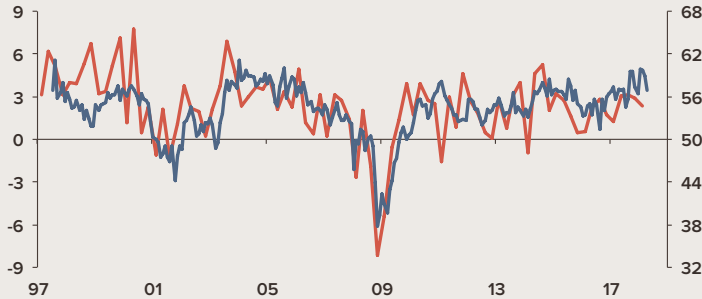
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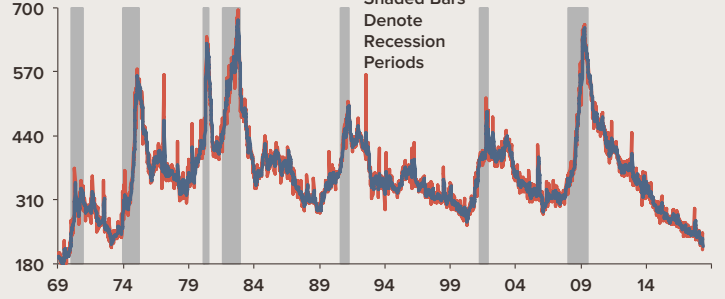
2a. ISM Data Still Look Strong Enough For 3.5% Real GDP Growth

— Real GDP, %ch, Q/Q, Annual Rate (Left)
— Composite ISM Index (Manufacturing And Non-Manufacturing Combined, Right)



2b. Lowest Four-Week Average For Claims Since 1969

Initial Claims, Thousands Per Week
— Weekly — Four-Week Average





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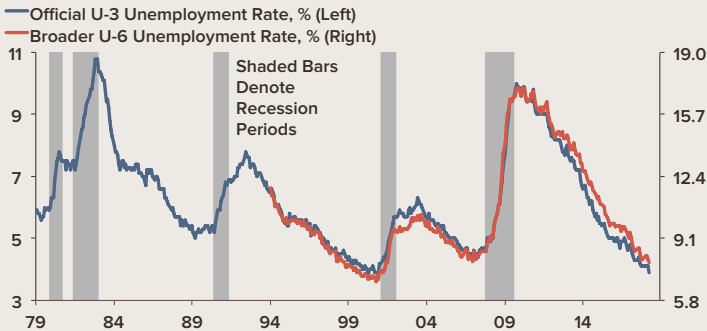
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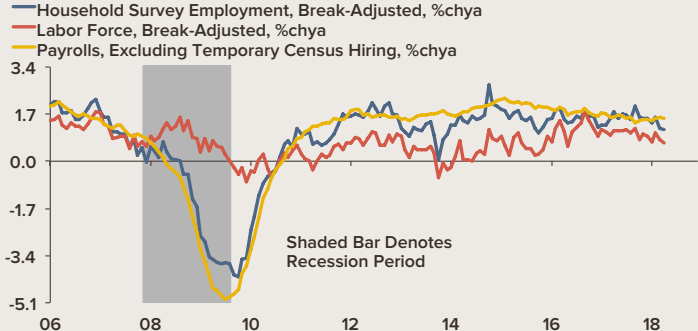
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3a. U-6 & U-3 Unemployment Rates Are Below 2007 Levels



3b. Employment Growth Keeps Outpacing Labor Force Growth





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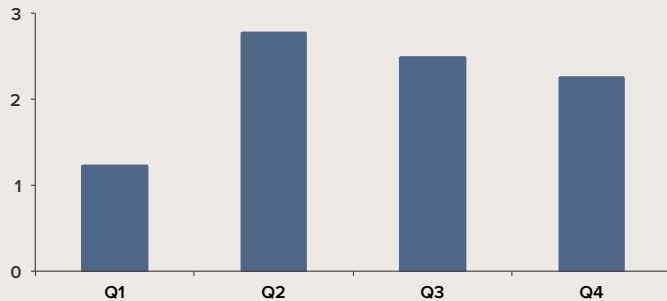
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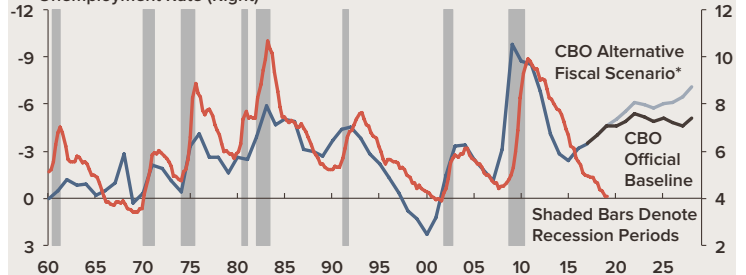
4a. GDP Growth Has Tended To Be Weak In First Quarters

2010-2017 Averages For Quarterly Real GDP Growth, %ch, Annual Rate



4b. Fiscal Policy Is Turning Stimulative

— Federal Budget Balance, % Of GDP, Scale Inverted (Left)
— Unemployment Rate (Right)



*Assumes extension of expiring tax provisions and continuation of recent increases in spending caps.



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5. HFE's U.S. Economic & Financial Forecasts

%ch From Previous Period, Annual Rate, Except Where Noted; Forecasts In Bold

	2017				2018				Calendar Average			Q4/Q4		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019	2017	2018	2019
Real GDP	1.2	3.1	3.2	2.9	2.3	3.7	3.0	2.8	2.3	3.0	2.6	2.6	3.0	2.3
CPI	3.0	0.1	2.1	3.3	3.5	2.0	2.2	2.3	2.1	2.6	2.5	2.1	2.5	2.8
Core CPI	2.2	0.8	1.8	2.2	3.0	2.0	2.4	2.5	1.8	2.3	2.6	1.7	2.5	2.8
Core PCE Prices	1.8	0.9	1.3	1.9	2.5	1.6	2.0	2.1	1.5	1.9	2.2	1.5	2.0	2.4
Unemployment (% level)	4.7	4.3	4.3	4.1	4.1	3.9	3.7	3.5	4.4	3.8	3.3	4.1	3.5	3.3
Federal Budget Balance (\$B, FY)									-666	-775	-1100			
% Of GDP									-3.5	-3.9	-5.2			
												End Of Year		
Fed Funds Target (% EOP)	0.88	1.13	1.13	1.38	1.63	1.88	2.13	2.38	1.0	1.8	2.8	1.38	2.38	3.38
10-Year Treasury (% EOP)	2.4	2.3	2.3	2.4	2.7	2.9	3.0	3.2	2.4	2.9	3.5	2.4	3.2	3.7
30-Year Treasury (% EOP)	3.0	2.8	2.9	2.7	3.0	3.2	3.3	3.5	2.9	3.1	3.7	2.7	3.5	3.9
S&P 500 (level, EOP)	2363	2423	2519	2674	2641	2700	2700	2650	2440	2676	2585	2674	2650	2520



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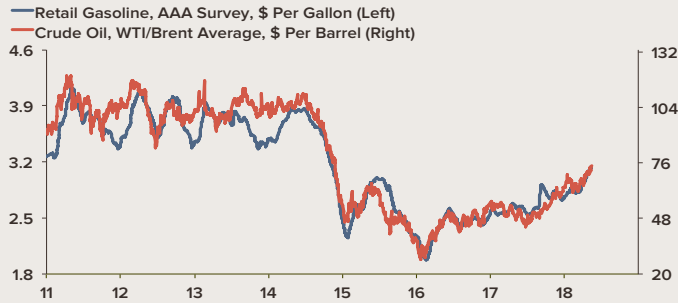
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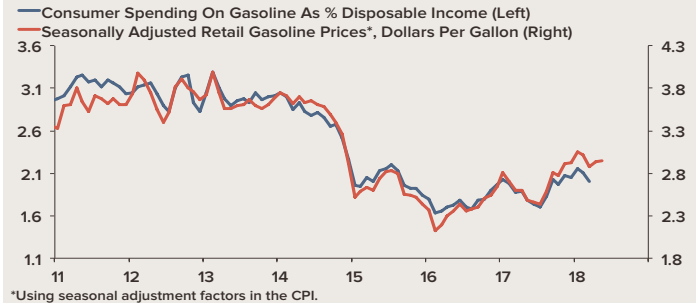
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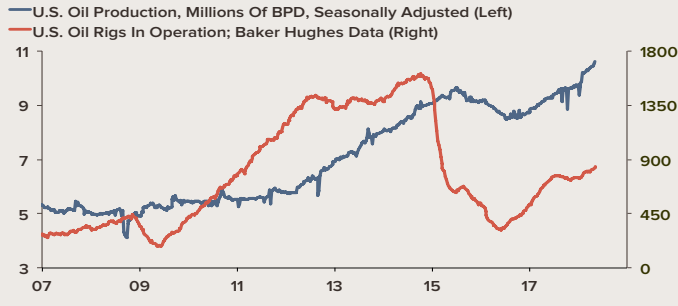
6a. Gasoline Prices Are Rising With Oil Prices



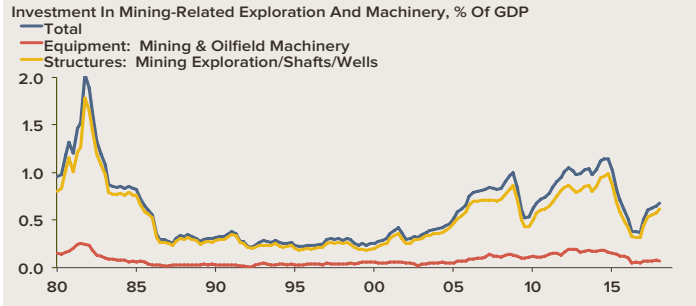
6b. ...Reducing Consumers' Real Spending Power



6c. Oil Drilling And Production Are Rising



6d. Plunge In Mining-Related Capex Only Partly Reversed





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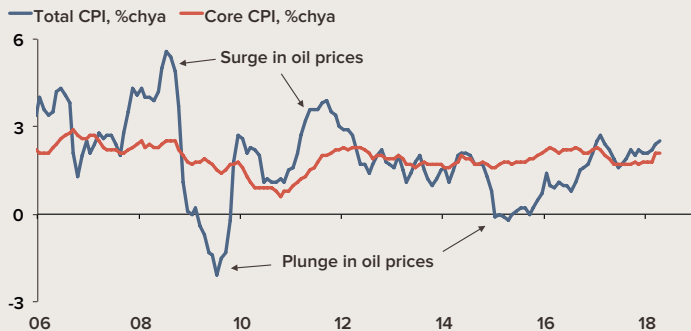
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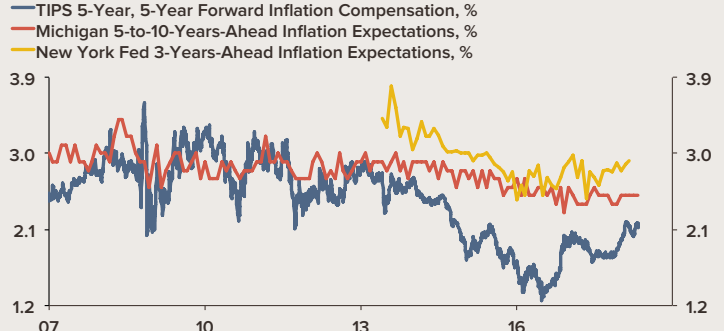
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7a. Fed Policy Will Depend On Core Inflation, Not Oil Prices



7b. ...Unless Inflation Expectations Rise Significantly





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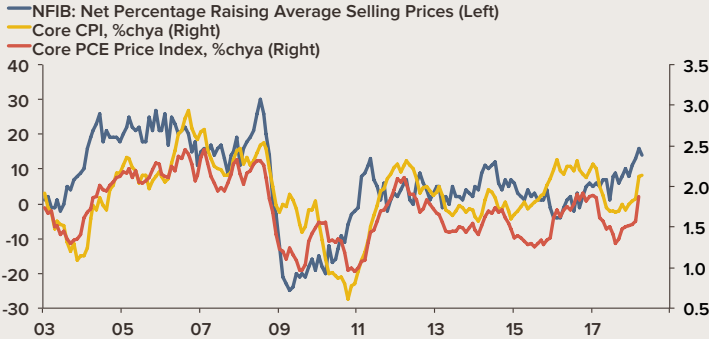
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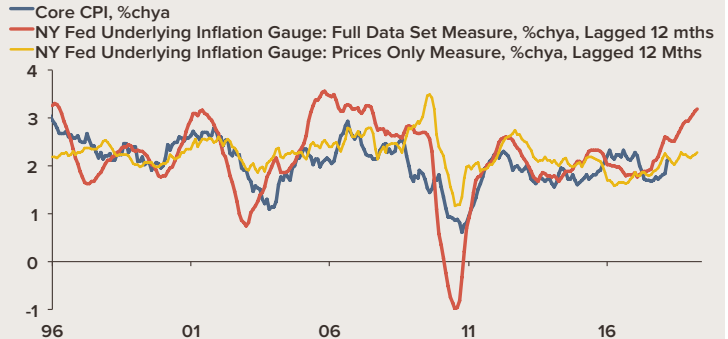
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8a. NFIB Inflation Series Is Corroborating A Pick-Up In The Trend



8b. Underlying Inflation Gauge Measures Are Signaling A Pick-Up





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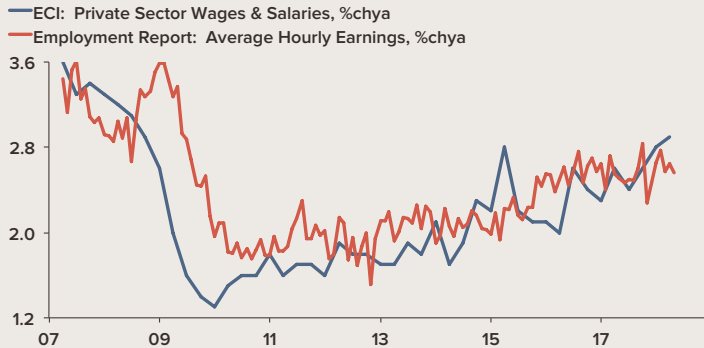
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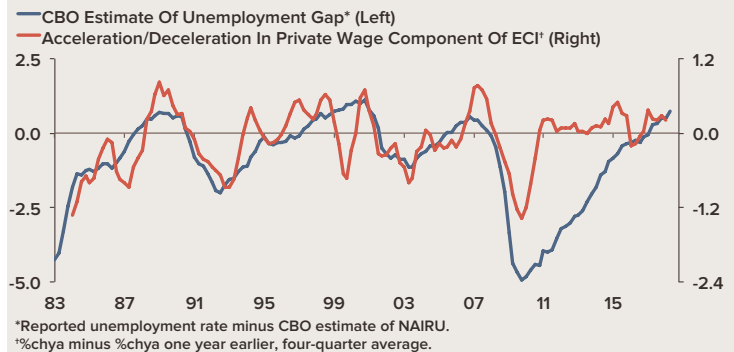
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9a. Wage Gains Have Been Accelerating, Most Clearly In The ECI



9b. ...Consistent With The NAIRU Framework





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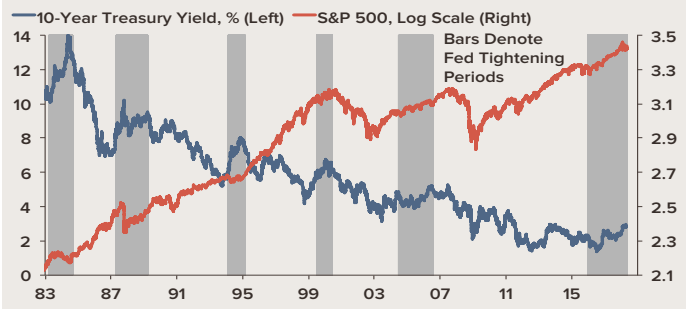
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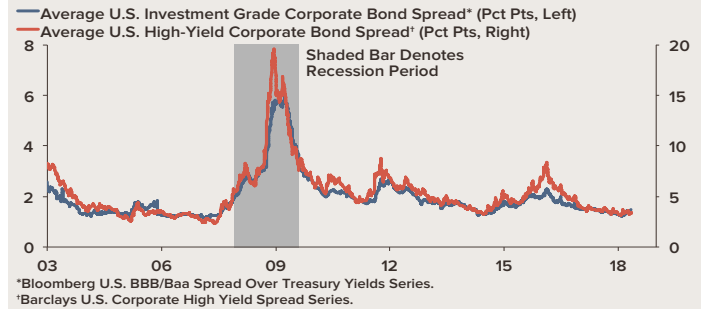
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10a. Bond Yields Are Up A Bit; Equites Remain Near Their High



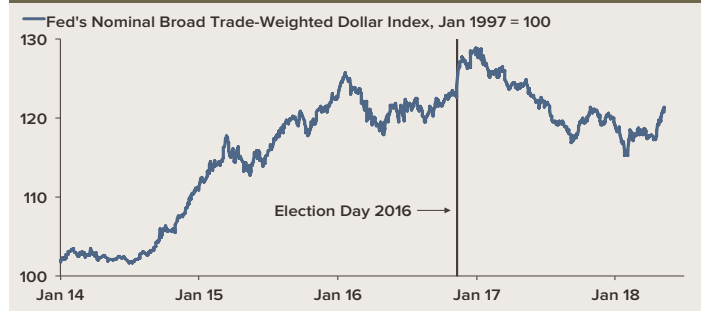
10b. Credit Spreads Remain Low



10c. Manufacturing ISM Export Orders Index Is Solidly Over 50



10d. Dollar Is Down Over The Past Year, Even With A Bounce





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11a. Fed Officials' Estimates For Appropriate Fed Funds Rate

% At Year-End, as of Mar 2018 FOMC Meeting

	2018	2019	2020	Longer Run
Median Estimate	2.125	2.875	3.375	2.875
Mean Estimate	2.192	2.917	3.325	2.866

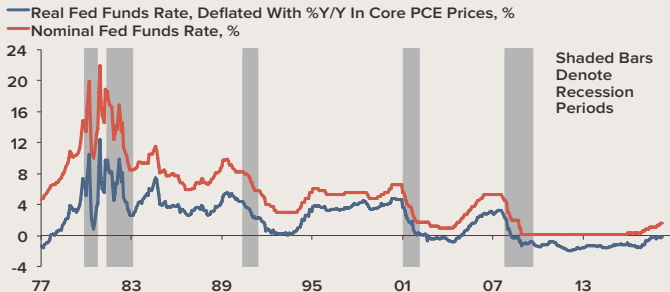
11b. Fed Officials' Economic Projections

Median, %ch Q4/Q4, Unless Noted, as of Mar 2018 FOMC Meeting

	2018	2019	2020	Longer Run
Real GDP	2.7	2.4	2.0	1.8
Unemployment Rate*	3.8	3.6	3.6	4.5
PCE Prices	1.9	2.0	2.1	2.0
Core PCE Prices	1.9	2.1	2.1	

*Q4 level

11c. Recent Recessions Have Been Preceded By Fed Tightening



11d. Fed Tightening Cycles

Start	End	Nominal Funds Rate Target (%)		Real Funds Rate (%)*	
		Start	End	Start	End
Mar 83	Aug 84	8.50	11.50	2.6	7.5
Apr 87	Feb 89	6.00	9.75	3.2	5.1
Feb 94	Feb 95	3.00	6.00	0.8	3.7
Jun 99	May 00	4.75	6.50	3.5	4.8
Jun 04	Jun 06	1.00	5.25	-0.9	2.9
Dec 15		0.13		-1.3	

*Deflated with %chya in core PCE prices.



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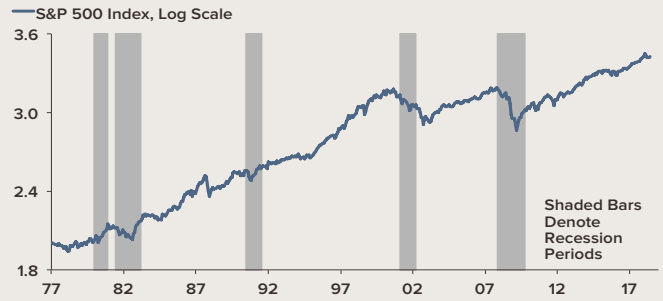
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12a. A Long Expansion, But “Expansions Do Not Die Of Old Age”

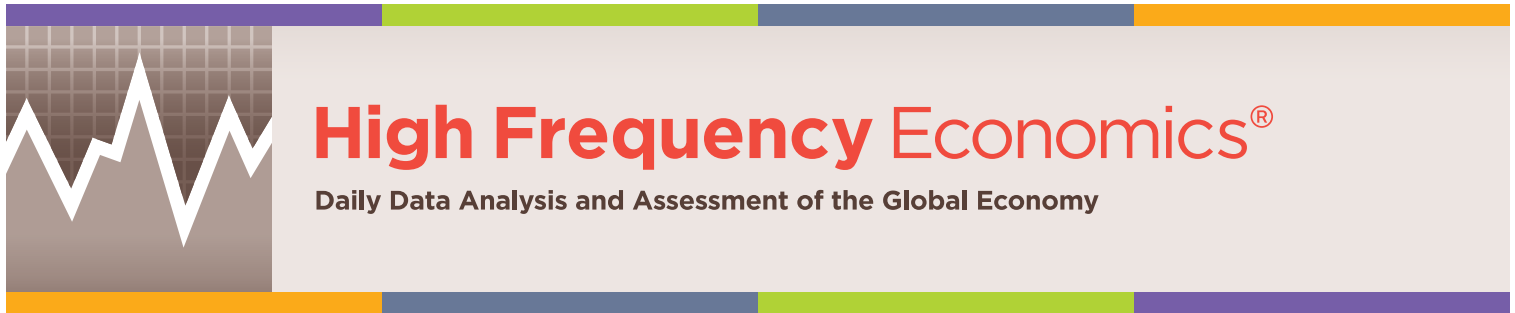
Recessions	Duration (Months)	Expansions	Duration (Months)
1945	8	1945-48	37
1948-49	11	1949-53	45
1953-54	10	1954-57	39
1957-58	8	1958-60	24
1960-61	10	1961-69	106
1970	11	1970-73	36
1973-75	16	1975-80	58
1980	6	1980-81	12
1981-82	16	1982-90	92
1990-91	8	1991-2001	120
2001	8	2001-07	73
2008-09	18	2009-?	106 So Far
Averages:		Averages:	
1854-1919	21.6	1854-1919	26.6
1919-45	18.2	1919-45	35.0
1945-2009	11.1	1945-2009	58.4

12b. Equities Usually Fall Before Recessions; Many False Signals



12c. Yield Curve Inversions Generally Precede Recessions





GDP Growth Falters In G-7 Ex-United States—It Is More Than The Weather

- Carl Weinberg, Chief International Economist

United States: Declining Slack To Keep Fed Tightening

- Jim O'Sullivan, Chief Economist