The Macroeconomic Outlook

2nd Quarter, 2018

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Synopsis

- Almost a decade after the onset of the Great Contraction of 2007 – 2009, the Fed deserves an “honorable mention” for achieving its dual mandate of full employment and price stability – the cries of naysayers notwithstanding.
- And now, the Fed is on to its next phase of gradually raising the federal funds rate to around 3% and passively contracting its balance sheet.
- Market participants who are bullish on the economy think that 10Y Treasuries will move up to a fair-value yield of 4% as the term premium rises, while forecasters who are bearish on the economy think that the 10Y yield will move around an anchor of 3%, possibly because of still expanding foreign Central Bank balance sheets and strong global demand for safe assets.
- Risks on the horizon entail rising US debt-to-GDP levels, financial market distress due to “trade wars” or “overpriced assets,” pressures on the short end of the yield curve primarily due to increased US Treasury funding needs and worries about a flat or an inverting yield curve signaling an impending recession.
- The question remains whether the Fed will be able to smoothly navigate around the risks mentioned above. Consensus is emerging that the Fed’s balance sheet will not contract as sharply as initially expected.

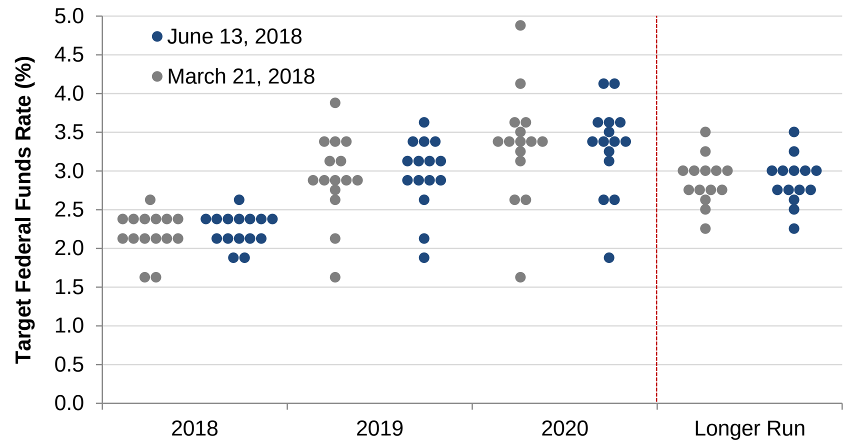
The Macroeconomic Roadway

Political Risk	⇨ As worries about North Korea subside post the Trump-Kim summit, trade tensions increase. The question is: are we observing mere “Art of the Deal” theatrics, or will a serious trade war break out?
Economic Growth (US) **(International)**	⇨ Although indicators of economic activity were on the soft side earlier in the year, the outlook for the remainder of 2018 remains quite positive, and meaningfully above most estimates of its long-term trend supported by sizable fiscal stimulus as well as still-accommodative financial conditions ⇨ Real GDP growth will likely pick up in the next few quarters. The fundamentals for consumer spending are favorable: income gains have been strong, consumer confidence remains solid, and employment prospects remain bright. Business investment should remain solid, with drilling and mining bolstered by increased oil prices ⇨ Political developments in Italy have reintroduced some risk, and financial conditions in the euro area have worsened. With some uptick in political uncertainty, and inflation still below target in the euro area and Japan, monetary policies among the advanced economies look likely to be divergent for some time ⇨ A strengthening dollar, rising energy prices, and rising rates raises the risks of capital flow reversals in some emerging markets
Labor Markets (US)	⇨ At 3.8%, the unemployment rate is below most estimates of its long-term level ⇨ For the first time since 2000, there are more job vacancies than there are people counted as unemployed. And, the rate at which workers are quitting their jobs is elevated, while businesses are finding it difficult to fill vacancies ⇨ Labor force participation of prime age workers has moved up in recent years but remains below pre-crisis levels. Wage growth has been moderate, consistent with low productivity growth but also an indication that the labor market is not excessively tight ⇨ High demand for workers should support wage growth and labor force participation. A tight labor market may lead businesses to invest more in technology and training, which should support productivity growth
Inflation	⇨ Inflation has moved up to the Fed’s 2% objective, although the Fed has yet to see it remain near that objective on a sustained basis ⇨ As the Fed worries about the downside risks to inflation, it admits that a mild, temporary overshoot of the inflation target could be consistent with the symmetry of the FOMC’s target
Monetary Policy (Fed) **(ECB)** **(Yield Curve)**	⇨ A decade after the onset of the great contraction, the Fed seems to have broadly delivered on its dual mandate of stable inflation and full employment ⇨ The Fed now is on its next policy phase of “normalization” where it will be gradually raising the federal funds rate to around 3%, and will passively contract its balance sheet ⇨ Risks to the economy such as asset over-valuations and rising Federal debt notwithstanding, the Fed will likely complete this second policy phase by 2019-2020 ⇨ The ECB will continue to make asset purchases (APP) at €30B/month until end-September 2018, and at €15B/Month until end-December 2018, after which it will stop, depending on incoming data. ECB’s policy rates remain stuck at -40bps to 0bps ⇨ There has been growing attention to the possibility of an inversion of the yield curve. Historically, yield curve inversions have had a reliable track record predicting recessions in the US. Since 1960, there has only been one case where the yield curve has inverted and a recession has not followed – in 1966 ⇨ This correlation between yield curve inversions and recessions might arise either because: (1) short-term rates rise relative to long-term rates because of Fed actions, or (2) long-term rates decline relative to short-term rates, perhaps reflecting a flight to safety ⇨ Currently, the 10Y-3M spread has declined from 375 bps in early 2010 to about 125 bps in 1Q2018. While that represents a considerable flattening, the current spread between the 10Y and 3M yields is only about 20 bps narrower than the average over the 45 years before the financial crisis ⇨ In interpreting the flattening of the yield curve, we first note that the 10Y is unusually low. Second, the Fed estimates that the term premium has tended to be slightly negative in recent years, possibly because of the large asset purchases that numerous central banks have undertaken ⇨ With a very low term-premium, any given amount of monetary policy tightening may lead to an inversion sooner ⇨ Because of the gradual runoff of the Fed’s balance sheet, term premiums may recover somewhat from their recent depressed levels, but are unlikely to return to the high levels of earlier years
Fiscal Policy	⇨ As the tax cuts and decreased regulatory burdens fuel optimism in the business community, increased trade tensions and associated uncertainties cause caution
The Markets	⇨ Goldman Sachs Financial Stress Indicator increases slightly from 98.68 at the end of 2017 to 99.31 currently. The VIX on the other hand declines from a peak of 37.32% in February to 16.09% currently, having slightly risen over the last week due to trade worries, with the MOVE index declining since the beginning of June

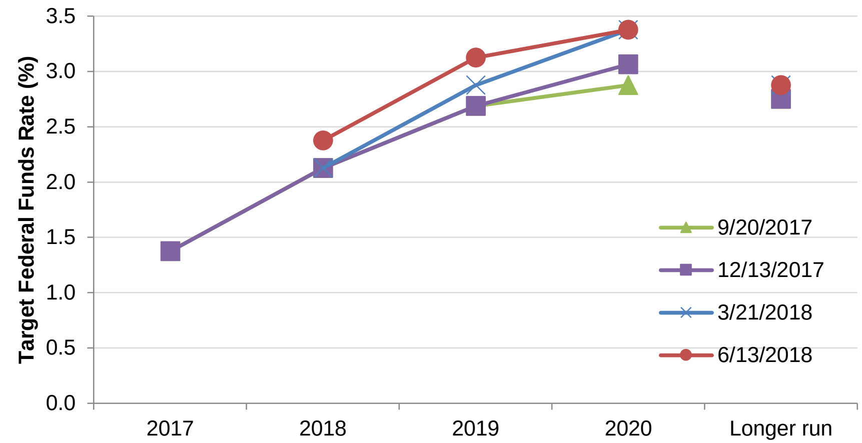
Tailwinds Neutral Headwinds

The Fed Funds Rate

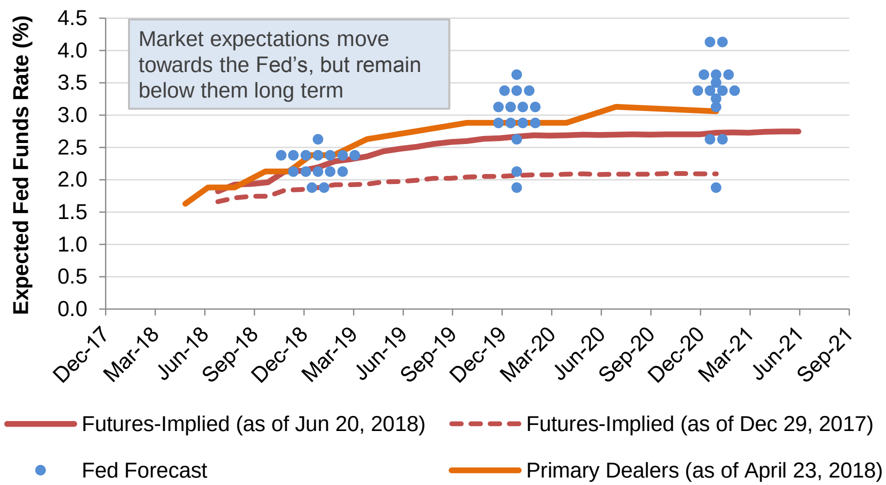
Outlook on Pace of Policy Firming as of Jun 2018



FOMC Outlook, Meeting by Meeting, Sep 2017 – Jun 2018



Various Fed Funds Forecasts as of Jun 2018



Option-Implied Probability of Target by FOMC Meeting as of 7/2/2018

Target Fed Funds Rate (%)

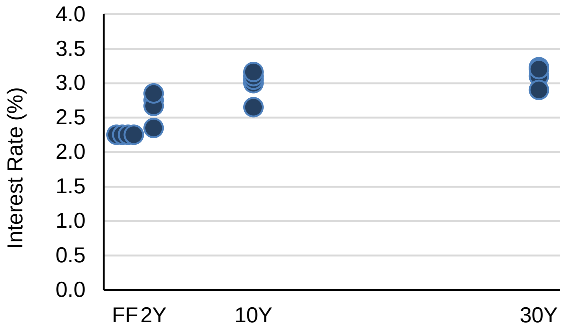
FOMC Meeting Date	1.5-1.75	1.75-2	2-2.25	2.25-2.5	2.5-2.75	2.75-3	3.0-3.25	3.25-3.5
8/1/2018	0	**79**	21	0	0	0	0	0
9/26/2018	0	23	**63**	15	0	0	0	0
11/8/2018	0	22	**60**	17	1	0	0	0
12/19/2018	0	10	39	**41**	10	0	0	0
1/30/2019	0	9	36	**41**	13	1	0	0
3/20/2019	0	5	24	**39**	25	7	1	0
5/1/2019	0	4	21	**37**	27	9	2	0
6/19/2019	0	3	16	**32**	30	15	4	1
7/31/2019	0	3	15	**30**	**30**	16	5	1
9/18/2019	0	2	13	27	**30**	19	7	2
10/30/2019	0	2	13	27	**30**	19	7	2
12/11/2019	0	2	11	25	**30**	21	9	3
1/29/2020	0	2	10	24	**30**	21	9	3

Probability of Target Rate (%) at Meeting

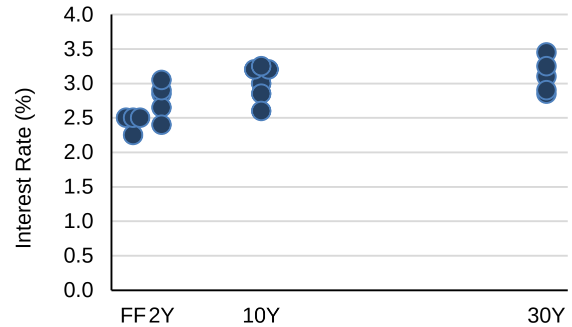
Source: Federal Reserve; Bloomberg

US Government Rates Outlook, 3Q18 – 2Q19

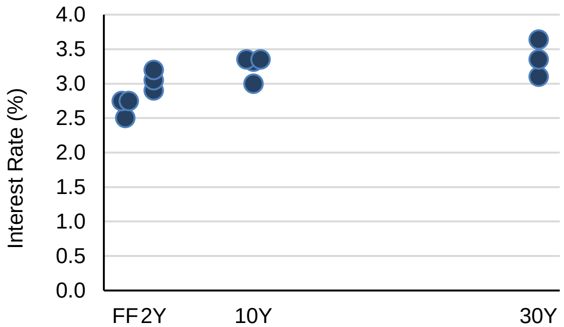
Surveyed Projections, 3Q 2018



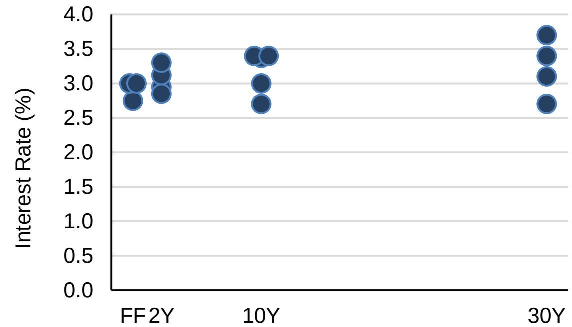
Surveyed Projections, 4Q 2018



Surveyed Projections, 1Q 2019



Surveyed Projections, 2Q 2019



- **Each of the major banks remains confident that there will be at least one remaining rate hike in 2018, with three banks projecting two hikes. The markets see the chance of two or more hikes (51%) as equally likely as one or no hikes (49%, measured by option implied probability)**
- **Expected increases on the short end of the yield curve have not been equally reflected in the long end, *i.e.*, further flattening is still expected**
- **Pessimistic projections about the economy expect the year-end 10Y rate to decrease 25 bps from the current rate (one bank). Median projections about the economy see an increase in the year-end 10Y rate of 0-15 bps (two banks). Optimistic projections place the year end 10 year rate up 35-40 (three banks)**

Historical Rates

	12/31/2017 (%)	3/31/2018 (%)	6/30/2018 (%)
FF	1.25-1.50	1.50-1.75	1.75-2.00
2Y	1.88	2.27	2.53
10Y	2.41	2.74	2.86
30Y	2.74	2.97	2.99

All (medians)

	3Q18 (%)	4Q18 (%)	1Q19 (%)	2Q19 (%)
FF	2.00-2.25	2.25-2.50	2.50-2.75	2.75-3.00
2Y	2.71	2.85	3.05	3.04
10Y	3.05	3.10	3.34	3.37
30Y	3.15	3.10	3.35	3.25

Ramirez Base Case Economic Projections

	2Q18 (%)	3Q18 (%)	4Q18 (%)	1Q19 (%)
FF	1.75-2.00	2.00-2.25	2.25-2.50	2.25-2.50
2Y	2.55	2.65	2.75	2.85
10Y	2.91	2.95	3.00	3.05
30Y	3.05	3.10	3.15	3.25

Ramirez Bullish Economic Projections

	2Q18 (%)	3Q18 (%)	4Q18 (%)	1Q19 (%)
FF	1.75-2.00	2.00-2.25	2.25-2.50	2.50-2.75
2Y	2.60	2.70	2.80	2.90
10Y	2.95	3.00	3.05	3.10
30Y	3.10	3.15	3.20	3.30

Ramirez Bearish Economic Projections

	2Q18 (%)	3Q18 (%)	4Q18 (%)	1Q19 (%)
FF	1.75-2.00	1.75-2.00	1.75-2.00	2.00-2.25
2Y	2.50	2.60	2.70	2.80
10Y	2.85	2.90	2.95	3.00
30Y	3.00	3.05	3.10	3.20

Note: Fed Funds Rate "dots" represent top of target range

Source: Wall Street Research, Bloomberg, Calculations by Ramirez.

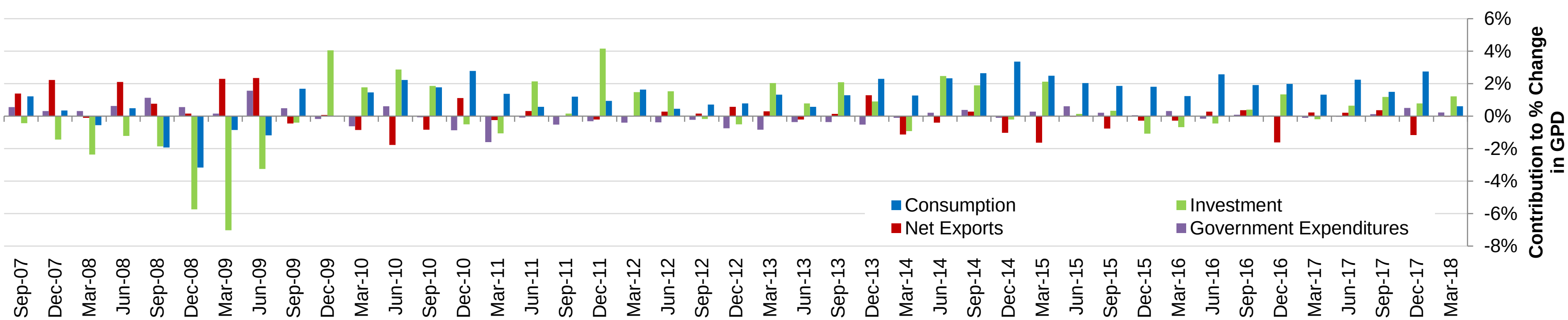
US GDP and its Components, 2Q 2017 – 1Q 2018

	06/30/17	09/30/17	12/31/17	03/31/18	YoY
Real GDP (QoQ, SAAR)	3.1%	3.2%	2.9%	2.2%	2.8%
Personal consumption	3.3	2.2	4.0	1.0	2.6
Goods	5.4	4.5	7.8	(0.6)	4.2
Durables	7.6	8.6	13.7	(2.6)	6.7
Nondurables	4.2	2.3	4.8	0.4	2.9
Services	2.3	1.1	2.3	1.8	1.9
Gross private domestic investment	3.9	7.3	4.7	7.2	5.8
Fixed investment	3.2	2.4	8.2	6.5	5.0
Nonresidential	6.7	4.7	6.8	9.2	6.8
Structures	7.0	(7.0)	6.3	14.2	4.8
Equipment	8.8	10.8	11.6	5.5	9.1
Intellectual Property Products	3.7	5.2	0.8	10.9	5.1
Residential	(7.3)	(4.7)	12.8	(2.0)	(0.6)
Government expenditures & gross investment	(0.2)	0.7	3.0	1.1	1.1
Federal spending	1.9	1.3	3.2	1.7	2.0
State and local spending	(1.5)	0.2	2.9	0.8	0.6
Net exports of goods & services					
Exports	3.5	2.1	7.0	4.2	4.2
Imports	1.5	(0.7)	14.1	2.8	4.3
Addenda					
Final sales of domestic product [a]	2.9	2.4	3.4	2.0	2.7
Gross domestic income (GDI) [b]	3.3	4.6	3.4	4.8	-
Gross national product (GNP) [c]	2.8	3.7	2.7	2.0	-
Disposable personal income	2.70	0.70	1.20	3.30	1.97
Contributions to % Change in GDP					
Personal Consumption	2.24	1.49	2.75	0.71	1.79
Gross Private Domestic Investment	0.64	1.19	0.78	1.18	0.95
Change in Private Inventories	0.12	0.79	(0.53)	0.13	0.13
Government Consumption and Investments	(0.03)	0.12	0.51	0.20	0.20
Net Exports of Goods and Services	0.21	0.36	(1.16)	0.08	(0.13)

[a] GDP less change in private inventories [b] GDI-GDP = statistical discrepancy
[c] GDP plus net foreign payments for US factors of production

The US Economy, 2Q 2017 – 1Q 2018

- **Quarterly fluctuations not withstanding, economic activity continues to expand at a moderate pace (~2.8%)**
- **Consumption and real personal disposable income increases slightly less than the GDP growth rate (~2.6%)**
- **Investment grows significantly faster than GDP (~5.8%), with business fixed investment appearing to have rebounded significantly (~5.3%)**
- **Government expenditures grow slightly (~1.2%)**
- **Exports grow by 4.0%, while imports increase by 4.4%**



Source: Bloomberg

US Macroeconomic Indicators, March 2018 – June 2018

	3/31/2018	4/30/2018	5/31/2018	6/30/2018[1]	LTM Max	LTM Min	SAAR[5]
State of the Consumer							
US Consumer Spending (SA, MoM%)	0.6	0.5	0.2	--	1.0	(0.1)	5.3
US Auto Sales (SAAR, mil.)	17.4	17.1	16.8	17.4	18.5	16.0	17.2
New One Family Houses Sold (SAAR, 000's)	671.0	646.0	689.0	--	712.0	556.0	668.7
Existing Homes Sold (SAAR, mil.)	5.6	5.5	5.4	--	5.7	5.4	5.5
Housing Starts (SAAR , 000's)	1,327.0	1,286.0	1,350.0	--	1,350.0	1,158.0	1,321.0
Housing Permits (SAAR, 000's)	1,377.0	1,364.0	1,301.0	--	1,377.0	1,254.0	1,347.3
U. of Mich. Consumer Confidence	101.4	98.8	98.0	98.2	101.4	93.4	99.1
Conference Board Consumer Confidence	127.0	125.6	128.8	126.4	130.0	120.0	127.0
US Pending Home Sales Index (SA, 2001=100)	107.8	106.4	105.9	--	109.8	104.3	106.7
US Personal Income(SA, MoM%)	0.3	0.2	0.4	--	0.5	0.2	3.7
US Retail Sales (SA, MoM%)	0.7	0.4	0.8	--	1.9	(0.1)	7.9
Labor Market*							
Unemployment (SA, %), HH	4.1	3.9	3.8	4.0	4.4	3.8	4.0
Unemployed and Part Time (SA, %), HH	8.0	7.8	7.6	7.8	8.6	7.6	7.8
Change in Non-Farm Payroll (SA, 000's), Est.	155.0	175.0	244.0	213.0	324.0	14.0	196.8
Unemployed Workers Total (SA, 000's), HH	6,585.0	6,346.0	6,065.0	6,564.0	7,127.0	6,065.0	6,390.0
Labor Participation Rate (SA, %), HH	62.9	62.8	62.7	62.9	63.0	62.7	62.8
Civilian Labor Force Level (SA, 000's), HH	161,763.0	161,527.0	161,539.0	162,140.0	162,140.0	160,371.0	161,742.3
US Civilian Noninstitutional Population Total (SA, 000's), HH	257,097.0	257,272.0	257,454.0	257,642.0	257,642.0	255,151.0	257,366.3
Employed in Civilian Labor Force, Net Change (SA, 000's), HH	(37.0)	3.0	293.0	102.0	853.0	(478.0)	90.3
ADP National Employment Report (SA , 000's, MoM%)	198.5	170.1	189.0	177.2	249.5	83.7	183.7
US Initial Jobless Claims (SA, 000's, ***weekly***)[3], DoL	242.0	211.0	223.0	231.0	254.0	211.0	226.8
US Average Hourly Earnings (SA, YoY%), Est.	2.6	2.6	2.7	2.7	2.8	2.3	2.7
US Aggregate Weekly Hours (SA, YoY%), Est.	2.4	2.2	2.1	2.1	2.4	1.3	2.2
Employment Cost Index (SA, QoQ%, ***quarterly***), BLS	0.8	--	--	--	0.8	0.6	3.2
US Avg. Weekly Hr. Worked, Nonfarm Private, Nonsupervisory (SA), Est.	33.7	33.8	33.8	33.8	33.8	33.6	33.8
Production							
US Industrial Production MoM (SA, %)	0.5	0.9	(0.1)	--	1.5	(0.4)	5.5
US Services Revenue Total YoY (NSA, %, ***quarterly***), Census	5.2	--	--	--	5.2	5.1	5.2
US Durable Goods New Orders MoM (SA, %)	2.7	(1.0)	(0.4)	--	4.7	(7.4)	5.2
US Durable Goods New Orders Ex Transportation MoM (SA, %)	0.5	1.9	0.0	--	1.9	(0.9)	10.0
ISM Manufacturing PMI (SA, %)	59.3	57.3	58.7	60.2	60.8	56.5	58.9
ISM Non-Manufacturing PMI (%)	58.8	56.8	58.6	59.1	59.9	54.3	58.3
Philadelphia Fed Business Outlook Survey (SA, %)	22.3	23.2	34.4	19.9	34.4	19.9	25.0
Empire State Manufacturing Survey (SA, %)	22.5	15.8	20.1	25.0	28.1	12.7	20.9
Chicago Purchasing Manager Index (SA, %)	57.4	57.6	62.7	64.1	67.8	57.4	60.5
Prices							
CPI (YoY%)	2.4	2.5	2.8	--	2.8	1.7	2.8
Core CPI (YoY%)	2.1	2.1	2.2	--	2.2	1.7	2.2
CPI Consumer Services ex. Energy (YoY%)	2.9	2.9	3.0	--	3.0	2.4	3.0
CPI Consumer Commodities ex. Food/Energy (YoY%)	(0.3)	(0.4)	(0.3)	--	(0.3)	(1.0)	(0.3)
PCE Core (SA, MoM%)	0.2	0.2	0.2	--	0.3	0.1	2.1
PCE Core (SA, YoY%)	1.8	1.8	2.0	--	2.0	1.3	2.0
U. of Mich. Expected Change in Prices During the Next Year: Median (%)	2.8	2.7	2.8	3.0	3.0	2.4	2.8
U. of Mich. Expected Change in Prices During the Next 5-10 Years (%)	2.5	2.5	2.5	2.6	2.6	2.4	2.5
US Personal Consumption Expenditures Chain Type (SA, MoM%)	0.0	0.2	0.2	--	0.4	0.0	1.6
US Personal Consumption Expenditures Chain Type (SA, YoY %)	2.0	2.0	2.3	--	2.3	1.4	2.3
PPI Final Demand (SA, MoM%)	0.3	0.1	0.5	--	0.5	0.0	3.7
Case-Shiller Composite-20 City (YoY%)	6.7	6.6	--	--	6.7	5.7	6.6
TIPs Break Even 5Y (***daily***)[4]	2.0	2.1	2.1	2.1	2.1	1.6	2.1

(1) most recent number for the period 5/31/18 - 7/9/18, (2) preliminary number, (3) For past months numbers are end-of-period; for current month, all available numbers are listed (4) For past months numbers are end-of-period; for current month, most recent number available (5) Based on last three or four (data permitting) observations, growth rates are annualized

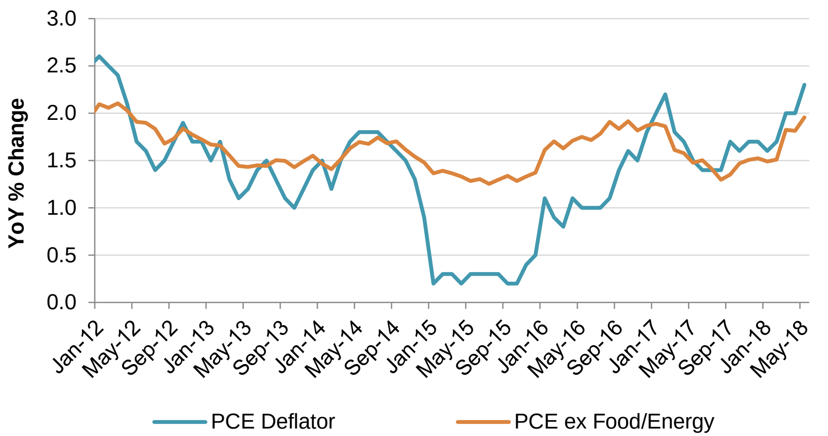
- **US consumer spending expands at an annualized rate of ~5.3%**
- **Both U3 and U6 unemployment rates remain below pre-crisis lows, while slack remains among less educated workers**
- **US industrial production expands at an annualized rate of 5.5%, while non-manufacturing activities increase by a nominal 5.2%****
- **Core measures of inflation including core CPI (2.2%, YoY), and core PCE (2.0%, YoY) remain near the Fed's 2% target, yet:**
  - **Headline CPI (2.8%, YoY) sits well above the target rate**
  - **Services inflation hovers at 3.0%, while**
  - **Goods inflation remains at an LTM high of -0.3%**

Notation: Est. = Establishment Survey by BLS, HH = Household Survey by BLS, DoL = US Department of Labor, BLS = Bureau of Labor Statistics.
*** YoY, 4Q17, according to US Census Bureau's quarterly services survey*

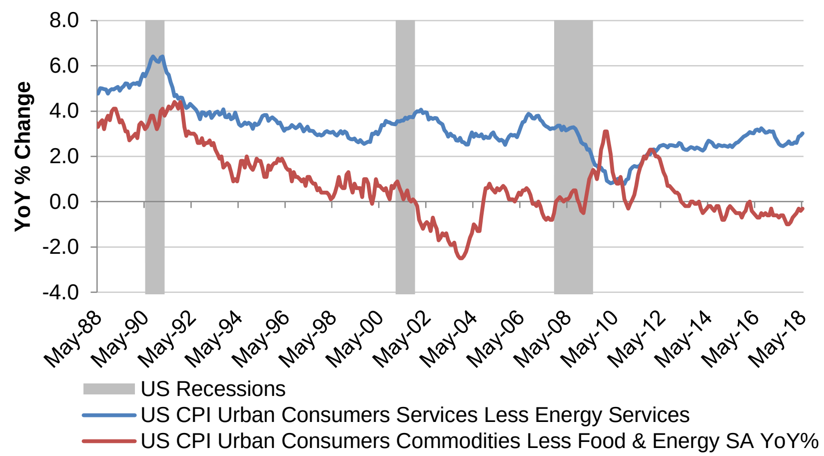
Source: Bloomberg

Inflation Indicators

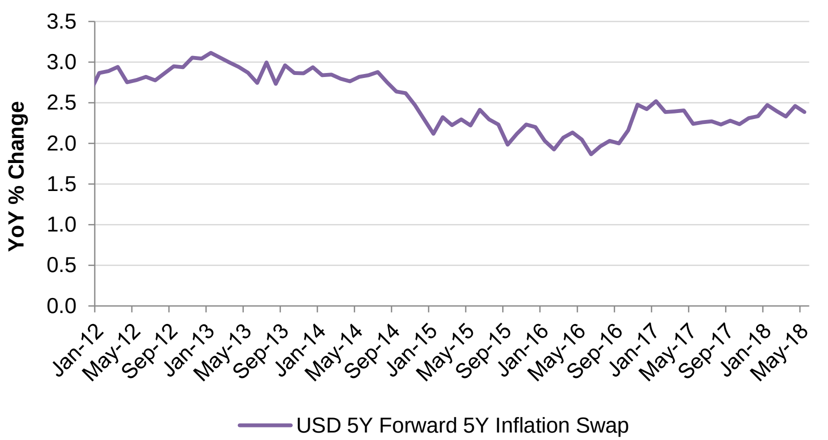
US PCE Deflators, Jan 2012 – May 2018



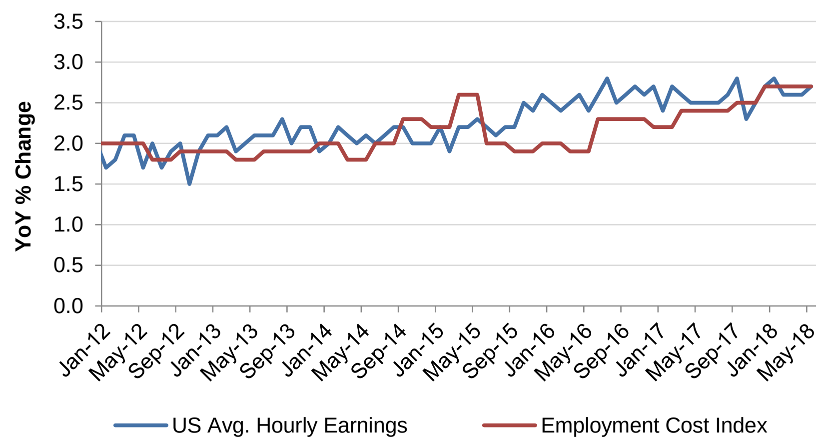
US Goods & Services, May 1988 – May 2018



US Inflation Expectations, Jan 2012 – May 2018



US Wage Growth, Jan 2012 – May 2018



- **Inflation measured by core PCE runs consistently below the Fed's 2% target**
- **Goods inflation dips below zero, while services inflation fluctuates around 3%**

Source: Federal Reserve; Bloomberg

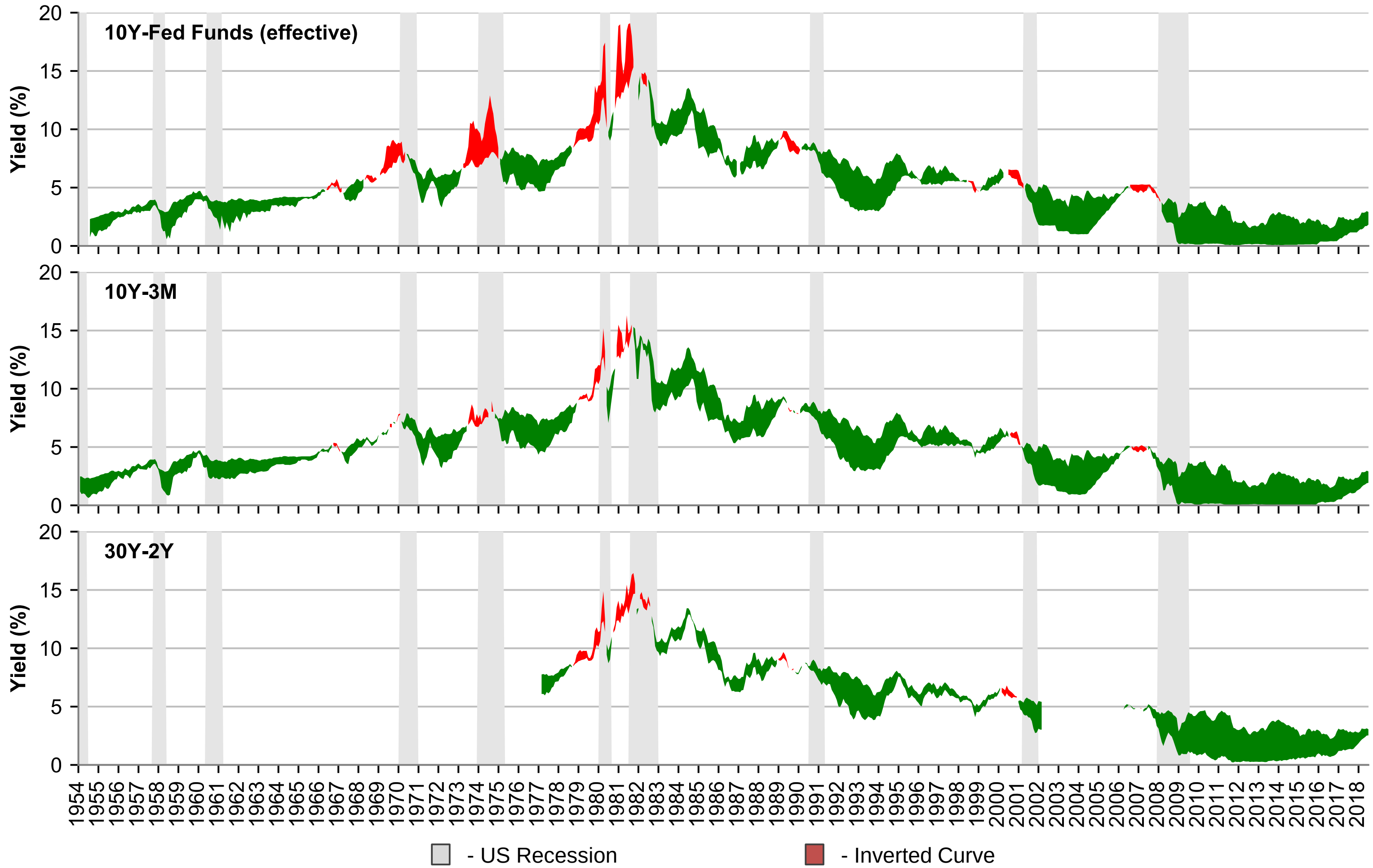
US Treasury Spreads, Yields & Inverted Curves

An inverted yield curve has preceded every recession since 1969

However, in 1966 the yield curves were inverted yet not followed by a recession and in 1998, the 10Y-FF was inverted and not followed by a recession, although the 10-3M was not inverted

Presently, the yield curve is flattening

Historical Yields of US Treasuries, December 1954 – July 2018



Source: Bloomberg, Federal Reserve Bank, Computations by Ramirez

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