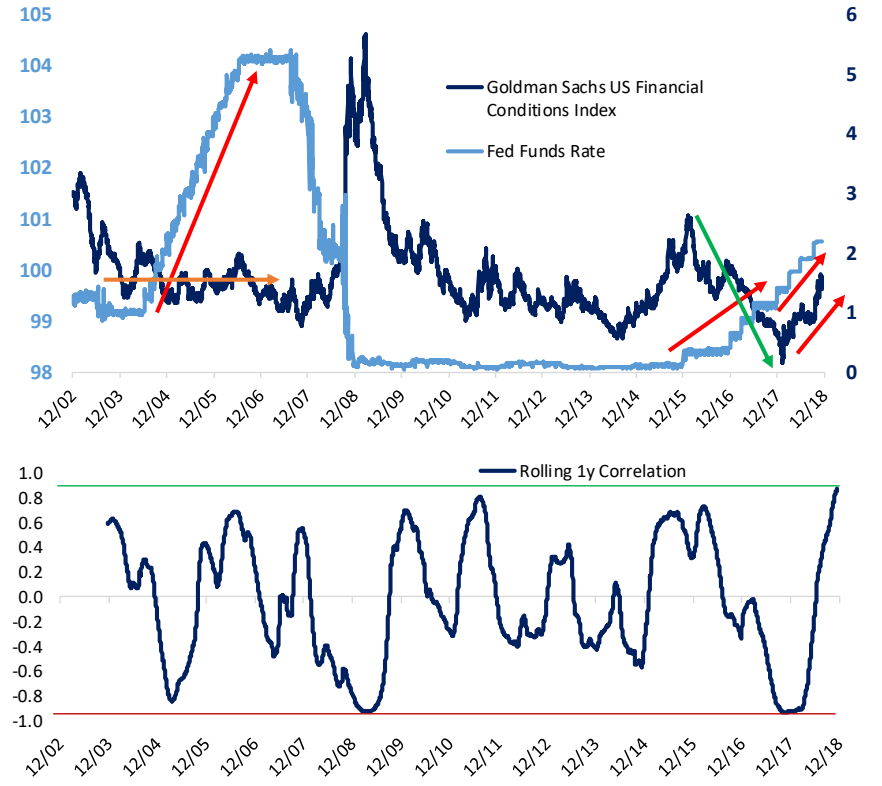
Yield Curve & Fed

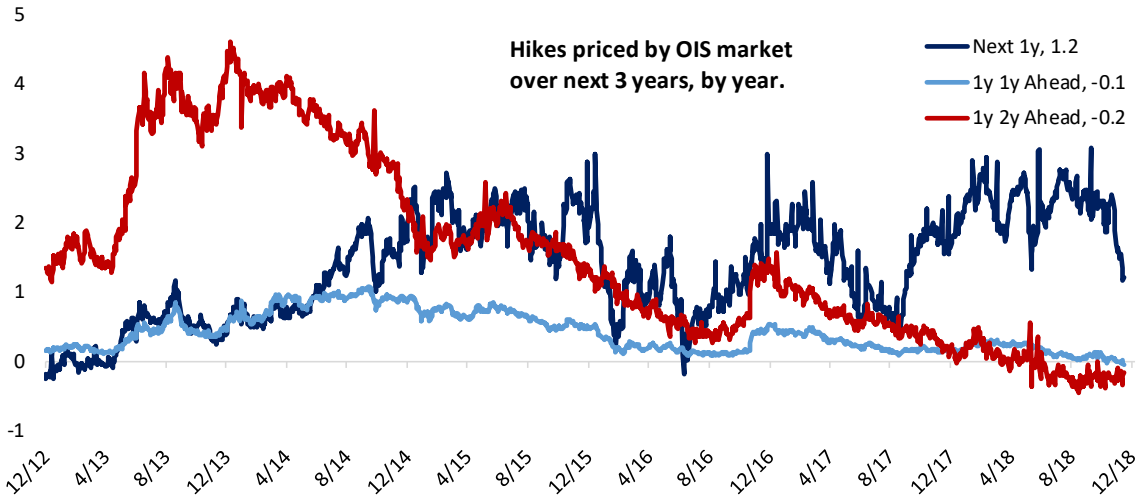
Financial Conditions Finally Tightening In-Line With Fed Hikes



While the FOMC has been hiking rates since December of 2015 and consistently since the end of 2016, for the first two years of the tightening cycle financial conditions were steadily loosening, working against the Fed's tightening efforts. Now, as the Fed tightens there's been a steady move towards tighter (higher in the chart at left) financial conditions. That means the Fed is successfully removing accommodation and isn't facing the same sort of conundrum (higher rates without tighter financial conditions) that it did in the mid-2000s or earlier this cycle. In fact, the correlation between the Fed Funds rate and financial conditions is at a record high.

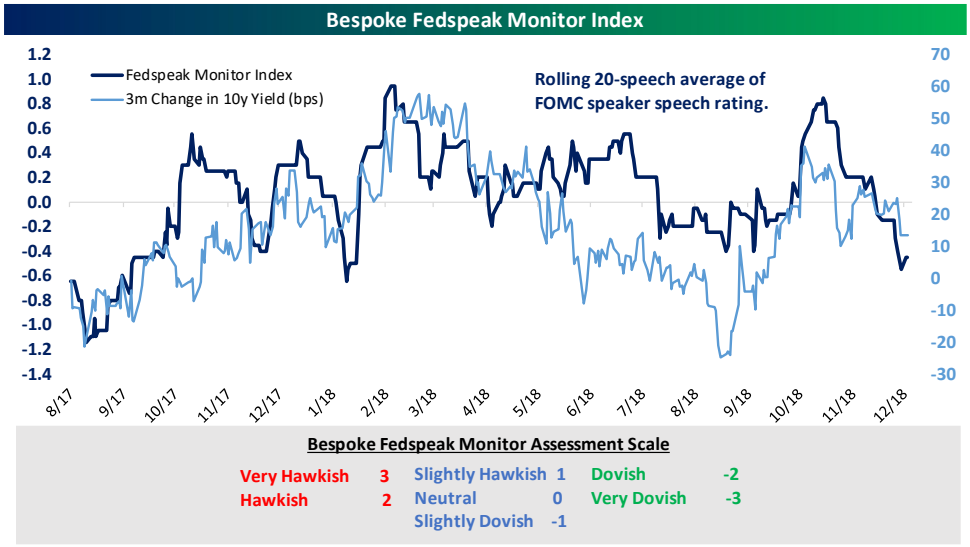
As things currently stand, the short-term interest rate market is currently pricing only a bit more than one rate hike in 2019 hike and *cuts* thereafter. Of course, these markets have been very wrong previously, but it's safe to say that the contrarian perspective as far as short-term rates go is to expect the Fed to hike more than once next year and at any point thereafter.

The OIS Forward Market Is Pricing Only ~1 Hike Over The Next Year, And Cuts After



Yield Curve & Fed

To keep track of what the Fed is saying, we've created a *Fedspeak Monitor Index*, which helps keep track of how hawkish or dovish the tone is of FOMC speakers. We rate each speech on a seven point scale between the most hawkish and most dovish comments. We then take a rolling 20-speech average. Obviously, the assessment of each speech is qualitative, so this isn't a perfectly objective measure of the hawkishness or dovishness of the FOMC's speeches. On the other hand, it does tend to track the movement of interest rates pretty well over time and is a helpful guide to the stance of the committee. After the Fed became very hawkish this fall and if anything got carried away, into the end of the year the tone shifted much more dovish as the Fed walked back focus on how high the neutral rate is and how far above it they would have to tighten.



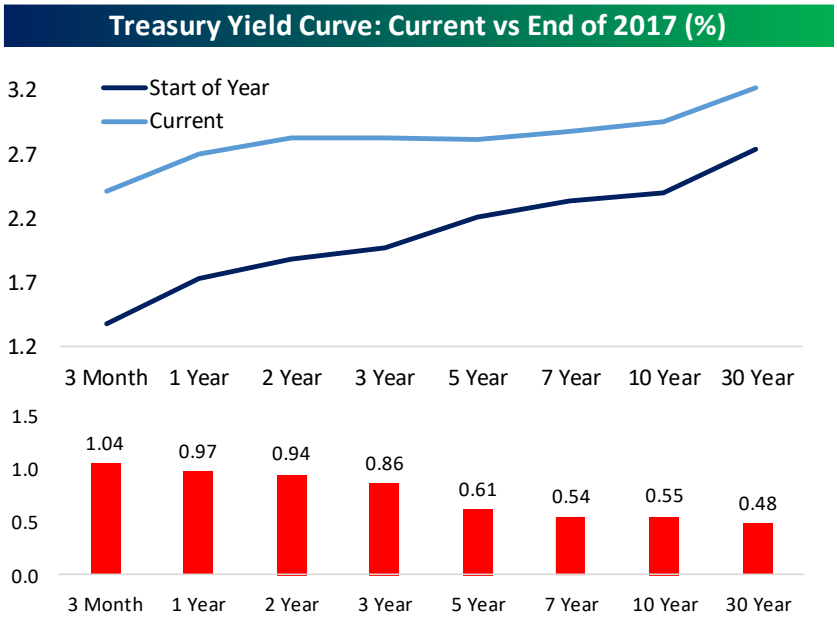
FOMC Voters in 2019 Are Set To Tilt A Bit Less Hawkish

	Name	Market Reaction Score	Fedspeak Monitor Score	Composite Score	2018 Voter	2019 Voter
Most Dovish --->	Clarida	1	2	1.5	X	X
	Bullard	5	1	3.0		X
	Harker	6	3	4.5		
	Quarles	4	8	6.0	X	X
	Rosengren	2	12	7.0		X
	Bostic	9	5	7.0	X	
	Dudley	3	14	8.5		
	Barkin	13	4	8.5	X	
	Evans	11	7	9.0		X
	Powell	10	9	9.5	X	X
	Mester	7	13	10.0	X	
	Kaplan	12	10	11.0		
	Kashkari	17	6	11.5		
<--- Most Hawkish	Daly	8	17	12.5	X	
	Williams	16	11	13.5	X	X
	George	14	16	15.0		X
	Brainard	15	15	15.0	X	X
	Bowman				X	X
	Strine					
				Average	9.3	8.8

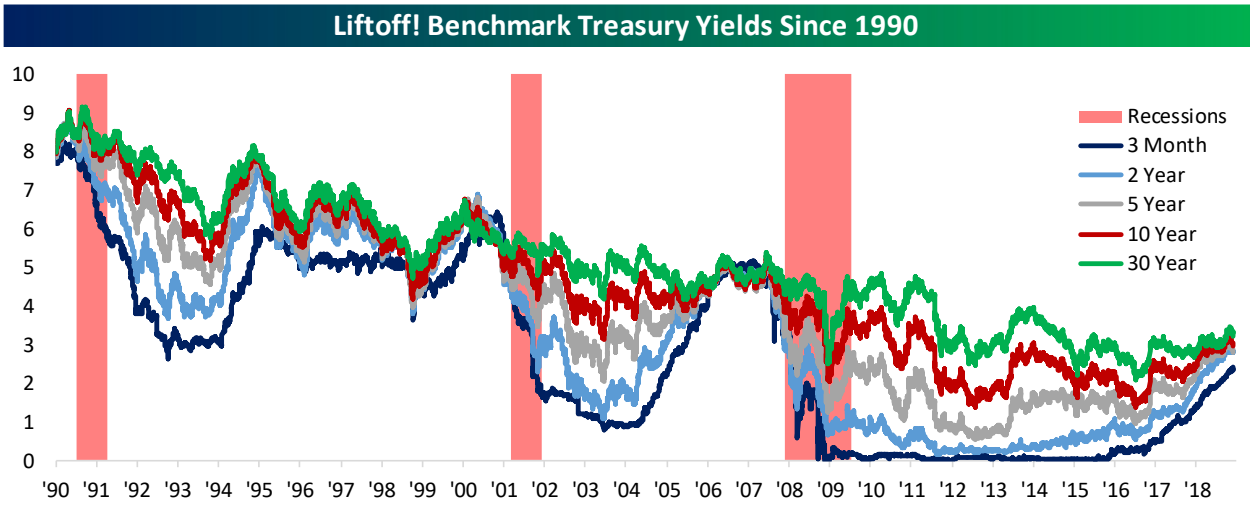
Using our *Fedspeak Monitor* data, we've created a ranking of FOMC members based on 2018 speeches. We've also ranked them by market reaction to those speeches to create a more objective score as well. To gauge overall hawkishness and dovishness, we then take the average of the two rankings. As shown in the chart, Clarida, Bullard, and Harker are the most dovish members of the committee, while Williams, George, and Brainard are the most hawkish. The 2019 FOMC voters are set to become *slightly* more hawkish than the 2018 FOMC voters, but there won't be a major change in composition as far as average rating goes.

Yield Curve & Fed

After flattening in 2017, the yield curve again pushed flatter in 2018 especially towards the end of the year. All major maturities on the US Treasury curve also saw rates rise, with the 5-30 year section of the curve seeing yields rise by about half a basis point. That contrasts with the long end's decline in 2017, despite higher interest rates in the front end for that year. This year, the Fed has continued to gradually raise rates with hikes every other meeting. That's resulted in short-term rates nearing the range that the Fed estimates as the "neutral" range, meaning policy is not yet restrictive but is getting closer to it.



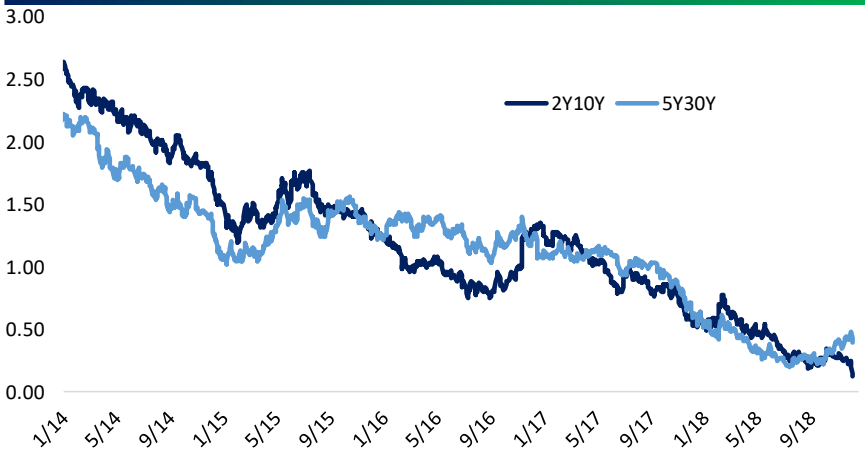
The yield curve has still not yet inverted, but it's continuing to flatten as long end rates rise at a slower pace than the Fed tightens at the front end of the curve. As shown in the chart below, there's still a comfortable margin between long-term rates and the front end, which wasn't the case when the curve inverted (3m versus 10y or 30y) prior to the 2001 and 2007 recessions.



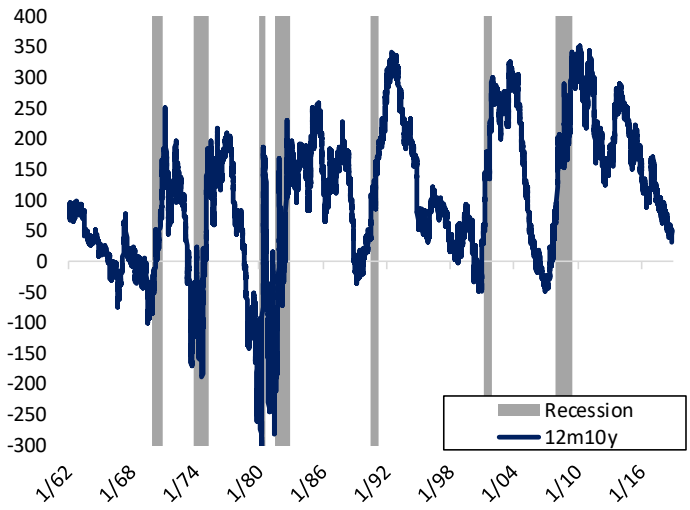
Yield Curve & Fed

As mentioned on the prior page, the flattening trend has been very consistent over the last few years. Since the start of 2014, the 2s10s curve has gone from a spread of more than 2.5 percentage points to just above inversion (zero spread). One interesting wrinkle to end the year: while the belly of the curve (3m10y or 2s10s) is very flat, and parts of the term structure (for instance, 3y5y) have inverted, longer-term curves have actually been biased towards steepening.

Some Hiccups, But The Flattening Trend Is Inexorable



US 12m10y Yield Curve Versus Recessions (bps)



US 12m10y Yield Curve Versus Recessions

Inversion Date	Next Recession	Months To Recession	Reversion Date	Months To Recession
9/29/1965	12/1/1969	51	2/28/1966	46
3/9/1973	11/1/1973	8	2/1/1974	-3
8/18/1978	1/1/1980	17	5/2/1980	-4
1/25/1989	7/1/1990	18	5/5/1989	14
9/21/1998	3/1/2001	30	1/3/2001	2
12/27/2005	12/1/2007	24	6/6/2007	6
	Avg	*25*	*Avg*	*10*
	Ex '69 Recession	*19*	*Ex '69 Recession*	*3*

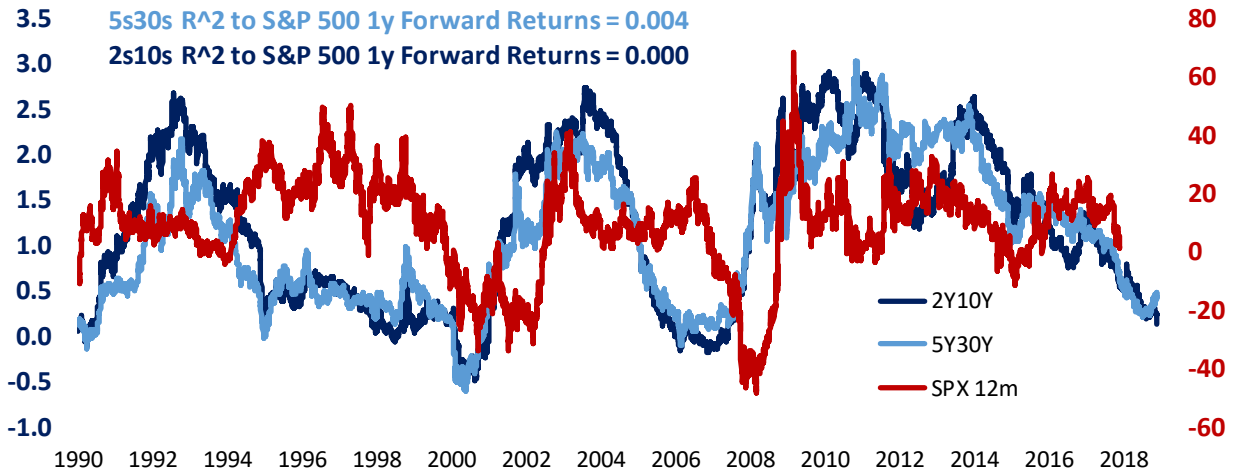
With curves getting increasingly flat to the point of inversion, worries about recession are starting to pick up. From an investor's perspective, it's important to keep in mind that *inversion* is a *leading* indicator of recession, with an average lead time of 18-24 months and as long as 30 months before a recession kicks off.

The real thing to fear for investors is when a recession is *much* closer to starting. As shown in the chart at left, while recessions are typically led by an inversion over a period measured in years, re-steepening of yield curves typically leads recession by a period of months or quarters. The UST curve can invert and stay that way for a long period of time before a recession starts, but once the FOMC starts cutting rates in response to weakness, a recession is truly imminent.

Yield Curve & Fed

For equity investors, yield curve inversions are not a very helpful estimator for forward returns. Below we show the 2y10y curve and 5y30y curve versus following year equity market returns going back to 1990. Prior to that, data for these specific curves is a bit unreliable. As shown, the correlation between the curves and forward returns is near-zero, and while curve steepening or flattening has occasionally been consistent with the evolution of stock market returns, there's no stable pattern over time that would justify an assumption that yield curve flattening means lower stock market returns.

Not Much of A Relationship: Forward Equity Returns And The Yield Curve



In fact, from the perspective of historical returns going back to 1990, the current level and flattening action in the curve is actually a *positive* signal for equity market returns. As shown in the table below, when the curve has been around this level and flattening (for 3m10y, 2y10y, and 2y30y) or around this level and steepening (for 5y30y) forward returns have been positive for the equity market. On average, forward returns are in the mid-teens over the following year, while the subsequent month, 3 months, and year are all positive on average for similar periods of curve shape and flattening bias.

Flattening Yield Curves & Equity Market Returns

	Current	Current	Previous	S&P 500		
Curve	Level (%)	Percentile	Instances	1 Month	3 Month	1 Year
3m10s*	0.543	0.157	84	2.34	4.51	15.10
2s10s*	0.122	0.120	73	1.94	5.18	16.18
2s30s*	0.384	0.149	114	0.36	3.59	17.01
5s30s**	0.396	0.217	68	1.61	6.64	23.49

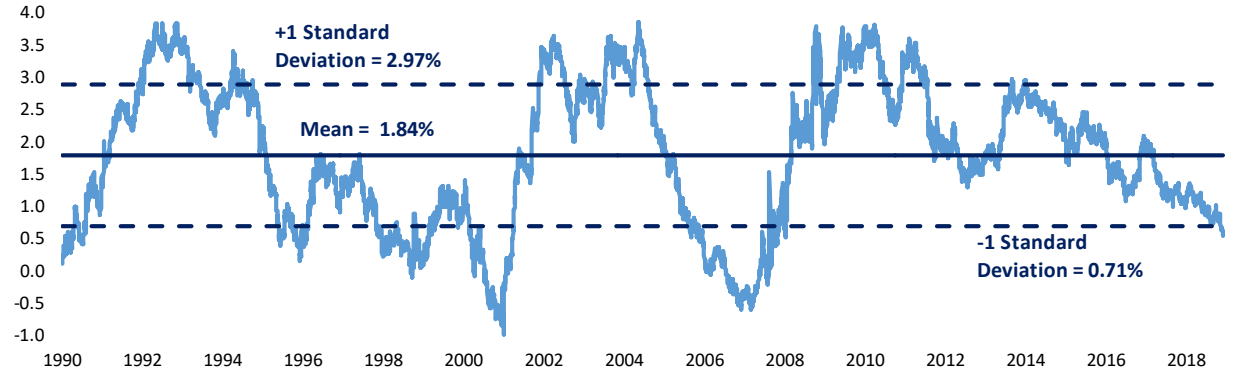
When curve has **flattened over past 3 months.*

***When curve has **steepened** over past 3 months.*

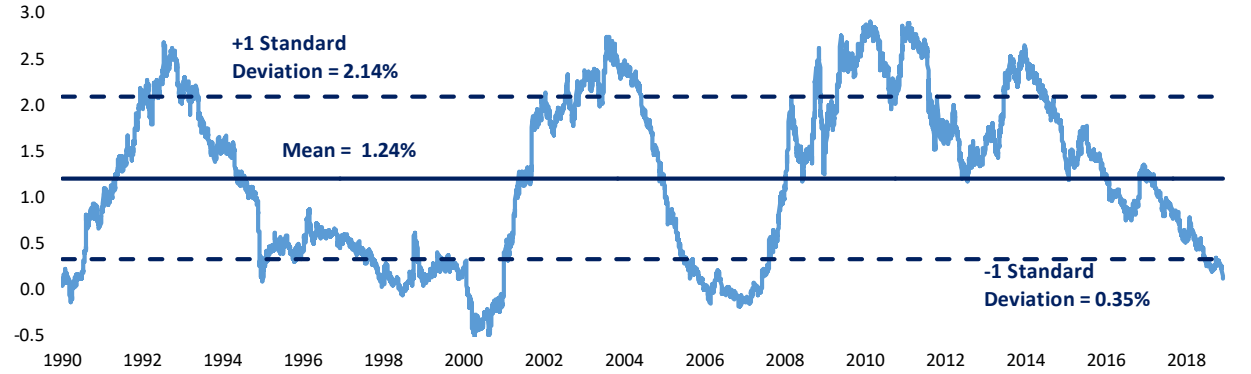
On the next page we show the historical range for various yield curves to provide context to the current level of the curve.

Yield Curve & Fed

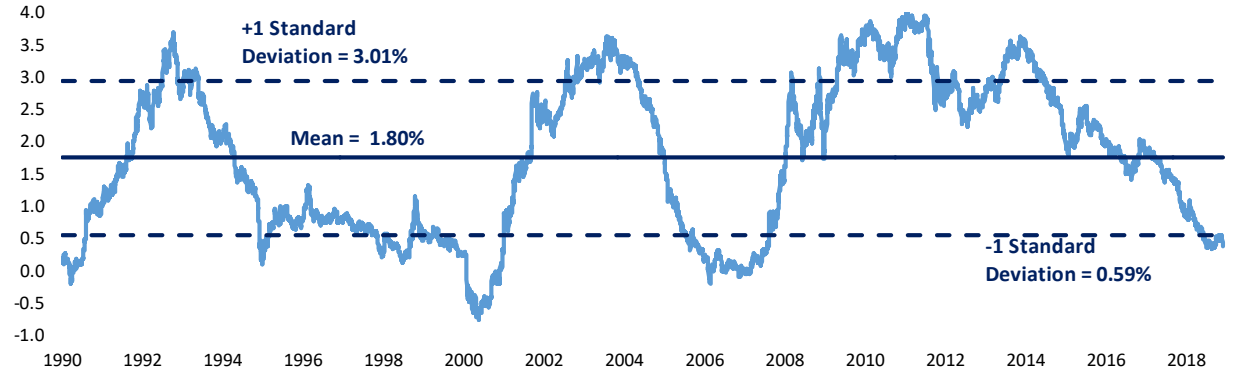
10 Year Treasury Yield - 3 Month Treausry Bill Yield: Since 1990



10 Year Treasury Yield - 2 Year Treausry Yield: Since 1990



30 Year Treasury Yield - 2 Year Treausry Yield: Since 1990



30 Year Treasury Yield - 5 Year Treausry Yield: Since 1990