# **Economics Group**

# WELLS SECURITIES

## **Interest Rate Weekly**

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# **Taking the Long-View on Recession Forecasting**

In a recent special report we proposed a new framework for predicting recessions that goes beyond a yield curve inversion. Our new method has significant implications as the Fed prepares to hike rates in December.

### **Yield Curve - The Price of False Negatives**

Predicting recessions is one of the most important elements of decision-making in the public and private sector. As such, a different set of policy tools is needed during a recession than that used for an economic expansion. The yield curve (spread between the 10-year Treasury and federal funds rate), in particular the inversion point of the yield curve, is thought to be a very good predictor of a recession, top graph. However, the yield curve as a predictor delivers a number of false negatives—predicting no-recession when one follows. Is there a better way?

#### Is This Time Different?

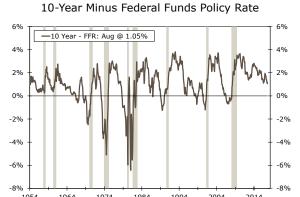
The inverted yield curve has predicted the last seven recessions but missed the 1957-1958 and 1960-1961 recessions. That is, the yield curve remained positive (did not hit the inversion point) during the 1954-1965 period. Furthermore, the misses associated with the 1957-1958 and 1960-1961 recessions (false negative) raises questions about the yield curve's effectiveness in predicting the next recession. This begs the question, is there an alternative method for recession prediction that is more effective?

#### A Better Way to Drive Investment Decisions

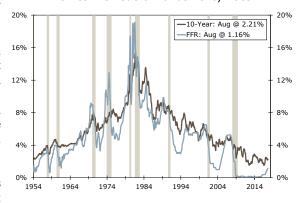
In our recent work, we propose a new framework that identifies a threshold between the fed funds rate and the 10-year Treasury yield (we call it FFR/10-year threshold) as a better leading indicator of recession. In a rising fed funds rate environment, the threshold is breached when the fed funds rate touches/crosses the lowest level of the 10-year Treasury yield in that cycle, middle graph. When this occurs, the risk of a recession in the near future is significant. Our framework has successfully predicted all recessions since 1955 with an average lead time of 17 months. Furthermore, our framework predicted several recessions before the yield curve inversion point and, therefore, serves as a more effective tool in predicting recessions given the more advanced warning. That is, with our framework, we do not need to wait for the yield curve to invert to predict a recession.

#### **Crossing Over: The Importance of Signaling**

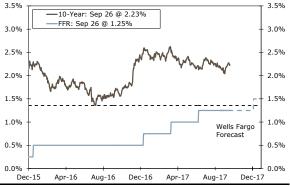
Signals are an important characteristic in economic behavior. The analyst does not need to wait for the actual recession if, instead, a signal is present that provides information that a future event is coming. The crossover of the funds rate from below to above the prior cyclical low of the 10-year Treasury rate provides two signals. First, crossing the threshold signals the intentions of the central bank to continue to raise rates and thereby eventually tighten credit and possibly invert the yield curve. Second, the increase in the funds rate puts a number of existing fixed income holdings under the threat that their total return value could turn negative if the central bank continues to pursue a tighter policy. Investors do not have to wait for the yield curve to invert – the crossing of the funds rate above the prior cyclical low of the 10-year yield is enough, bottom graph.



10-Year vs Federal Funds Policy Rate



10-Year and Federal Funds Rate



Source: IHS Global Insight, Federal Reserve Board and Wells Fargo Securities

<sup>&</sup>lt;sup>1</sup> "Do We Need to Wait for a Yield Curve Inversion to Predict a Recession? No." The report was published on September 8, 2017

## Wells Fargo U.S. Interest Rate Forecast

	Actual				Forecast							
	2017			2018				2019				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.50	1.75	1.75	2.00	2.00	2.25	2.25	2.50
3 Month LIBOR	1.15	1.30	1.35	1.65	1.65	1.90	1.90	2.15	2.15	2.40	2.40	2.65
Prime Rate	4.00	4.25	4.25	4.50	4.50	4.75	4.75	5.00	5.00	5.25	5.25	5.50
Conventional Mortgage Rate	4.20	3.90	4.03	4.20	4.28	4.36	4.40	4.46	4.49	4.55	4.57	4.65
3 Month Bill	0.76	1.03	1.08	1.30	1.45	1.60	1.67	1.85	1.95	2.10	2.15	2.30
6 Month Bill	0.91	1.14	1.15	1.40	1.55	1.70	1.77	1.95	2.05	2.20	2.25	2.40
1 Year Bill	1.03	1.24	1.27	1.55	1.68	1.80	1.87	2.05	2.15	2.25	2.30	2.45
2 Year Note	1.27	1.38	1.46	1.72	1.83	1.93	2.00	2.15	2.23	2.33	2.38	2.50
5 Year Note	1.93	1.89	1.95	2.20	2.29	2.39	2.45	2.58	2.65	2.75	2.80	2.90
10 Year Note	2.40	2.31	2.30	2.49	2.57	2.66	2.71	2.78	2.82	2.88	2.91	3.00
30 Year Bond	3.02	2.84	2.95	3.19	3.29	3.41	3.49	3.58	3.62	3.68	3.71	3.80

Forecast as of: September 7, 2017

#### Wells Fargo U.S. Economic Forecast and FOMC Central Tendency Projections

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Change in Real Gross Domestic Product			
Wells Fargo	2.5	2.5	2.6
FOMC	2.2 to 2.5	2.0 to 2.3	1.7 to 2.1
Unemployment Rate			
Wells Fargo	4.3	4.0	3.8
FOMC	4.2 to 4.3	4.0 to 4.2	3.9 to 4.4
PCE Inflation			
Wells Fargo	1.3	1.6	2.0
FOMC	1.5 to 1.6	1.8 to 2.0	2.0 to 2.0
"Core" PCE Deflator			
Wells Fargo	1.4	1.8	1.9
FOMC	1.5 to 1.6	1.8 to 2.0	2.0 to 2.0

Forecast as of: September 7, 2017

NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation is the percentage rate of change in the price index for personal consumption expenditures (PCE). Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Fed Data as of: September 20, 2017

Source: IHS Global Insight, Bloomberg LP, Federal Reserve Board and Wells Fargo Securities

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