



Economics Group

Interest Rate Weekly

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A Closer Look at the Ten-Year Yield Over Time

As the benchmark Treasury note for U.S. markets, the behavior of the ten-year yield provides interesting insights that run counter to the conventional wisdom.

No Mean Reversion and Trends Are Obvious Only After the Fact

Yields on the ten-year U.S. Treasury do not revert to the mean. This provides an interesting contrast to the mean reverting behavior of real GDP and inflation. Therefore, there is an immediate disconnect between the object of interest, the benchmark rate, and the two primary factors often utilized in forecasting the ten-year rate.

Earlier this year, there were a number of forecasters who predicted that the ten-year yield would fall below 1.5 percent and some actually forecasted less than one percent. These forecasters suffered from the recency bias, by projecting continued lower rates based upon the most recent behavior in the fourth quarter of 2014. The rate on the ten year note actually bottomed on a monthly average basis at 1.88 percent, just when many of these January forecasts were being made (top chart).

The Long-Term Trend Is Downward: Useless Information

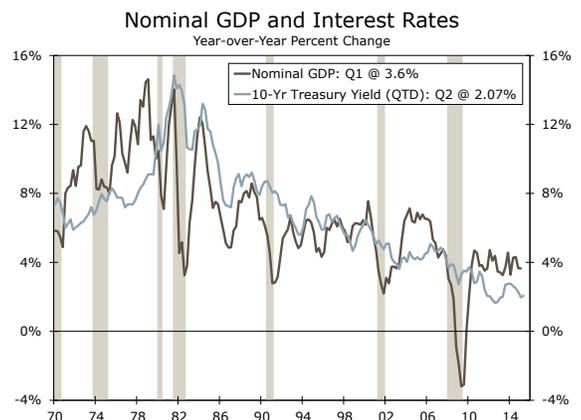
As Keynes might say, “in the long-run we are all dead.” The long-run trend is obvious only after the fact. Any investor betting continuously on what we know now as the downward trend in yields would have seen their performance suffer in the short run (middle chart). Paraphrasing Keynes, the market can hold out longer than any investor. The sharp jump in yields in mid-1984, 1987, 1994, 1999-2000 and again in late 2013 provide further evidence of the short-run volatility in yields. The apparent downward trend in yields is neither persistent nor unbroken. The argument that Treasury yields below two percent are a bargain has not turned out to be a very good forecast.

Last Soldier Standing—Not for Long

One immediate problem you may have noticed is that many analysts rely on economic growth and inflation to forecast yields. Yet, growth and inflation are mean-reverting time series—benchmark ten-year Treasury yields are not.

Moreover, what may appear to have been a stable relationship between nominal GDP and interest rates has been anything but in recent years (bottom chart). In recessions, including 1990-1991, 2001 and 2008-2009, yields were actually persistently above the nominal GDP figure. More recently, the yield on the ten-year Treasury has remained well below nominal GDP. In fact, note in the past decade that yields have persistently been about two percentage points below nominal GDP—but again this only happens during the expansion phase of the business cycle.

Whatever the link between nominal GDP and ten-year Treasury yields, the relationship is uncertain, variable, and of little value today given the underlying changes in the bond market over the past ten years.



Wells Fargo U.S. Interest Rate Forecast

	Actual				Forecast							
	2014				2015				2016			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.75	2.25
3 Month LIBOR	0.23	0.23	0.24	0.26	0.27	0.30	0.70	0.95	1.20	1.45	1.95	2.45
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.50	3.75	4.00	4.25	4.75	5.25
Conventional Mortgage Rate	4.34	4.16	4.16	3.86	3.77	4.05	4.15	4.23	4.28	4.37	4.63	4.75
3 Month Bill	0.05	0.04	0.02	0.04	0.03	0.05	0.13	0.55	0.86	1.15	1.43	1.81
6 Month Bill	0.07	0.07	0.03	0.12	0.14	0.16	0.27	0.63	0.91	1.22	1.52	1.85
1 Year Bill	0.13	0.11	0.13	0.25	0.26	0.30	0.69	0.99	1.24	1.57	1.89	2.43
2 Year Note	0.44	0.47	0.58	0.67	0.56	0.70	0.87	1.07	1.26	1.71	2.00	2.46
5 Year Note	1.73	1.62	1.78	1.65	1.37	1.68	1.78	1.89	2.01	2.19	2.31	2.59
10 Year Note	2.73	2.53	2.52	2.17	1.94	2.25	2.35	2.41	2.46	2.53	2.77	2.89
30 Year Bond	3.56	3.34	3.21	2.75	2.54	2.95	3.07	3.15	3.18	3.29	3.53	3.69

Forecast as of: June 10, 2015

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

	<u>2015</u>	<u>2016</u>	<u>2017</u>
Change in Real Gross Domestic Product			
Wells Fargo	1.7	2.9	N/A
FOMC	2.3 to 2.7	2.3 to 2.7	2.0 to 2.4
Unemployment Rate			
Wells Fargo	5.2	4.8	N/A
FOMC	5.0 to 5.2	4.9 to 5.1	4.8 to 5.1
PCE Inflation			
Wells Fargo	0.8	2.0	N/A
FOMC	0.6 to 0.8	1.7 to 1.9	1.9 to 2.0

Forecast as of: June 10, 2015

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: March 18, 2015

Source: Federal Reserve Board, Bloomberg LP and Wells Fargo Securities, LLC

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