MARKET VIEW

U.S. Equities: More Straight Talk about the Curve *November 20, 2017*

Is a flattening yield curve tightly linked to a subsequent decline in equity prices? A closer look at historical data offers a surprising answer.

[This Market View is adapted, in part, from a forthcoming whitepaper. This is the second of two parts.]

In part one of this special two-part *Market View*, we noted **investor concerns about the ongoing flattening of the yield curve**. That's because a flat two-year–10-year U.S. Treasury yield curve suggests an expectation of falling short-term interest rates—or an extended period of very low short-term rates--corresponding to presumptions of a weak U.S. economy and disappointing corporate earnings. In turn, those developments would have negative implications for U.S. equity prices.

To address those concerns, we turned to **Giulio Martini**, Lord Abbett Partner and Director of Strategic Asset Allocation. In last week's edition, Martini detailed some common misunderstandings about the yield curve and how it is composed. In this concluding segment, we'll present more of his views on the yield curve and its relationship to economic growth, corporate profits, and, ultimately, U.S. equity prices.

But first we offer an update on the curve. In the ensuing days since Part 1 was published, the slope of the U.S. Treasury yield curve flattened even further, to 64 basis points, as of November 16. The curve remains near its flattest since September 2007.

Chart 1. Flat City: The U.S. Treasury Yield Curve Remains Near Multiyear Lows *U.S. Treasury two-year–10-year yield curve slope, January 4, 2016–November 16, 2017*



Source: Bloomberg.

Performance quoted above is historical. Past performance is not a reliable indicator or guarantee of future results. The historical data are for illustrative purposes only, do not represent the performance of any specific portfolio managed by Lord Abbett or any particular investment, and are not intended to predict or depict future results.

As we pointed out last time, a flattening yield curve doesn't always mean that expectations for future short-term rates are being revised downward. That's because there are two distinct components to the yield curve: *risk-neutral yield*, which represents market expectations of future short-term rates, and the *term premium*, which represents market uncertainty around those expectations. We showed that the majority of the recent flattening of the yield curve is estimated to have been due to a flattening of the term premium as opposed to a decline in the risk-neutral yield. According to Martini, a flattening of the yield curve due to declining relative long-term uncertainty should have very different implications for the expected growth of U.S. gross domestic product (GDP), rather than a decline due to falling expectations about future short rates.

We also previously noted that many investors hold to the notion that a flattening yield curve signals future economic weakness. But Martini says that the relationship between changes in short-term interest rates and changes in U.S. GDP) growth and corporate earnings appears to have evolved over time.

Why is that? In answer, we think a look at recent U.S. economic history is in order. Martini says financial deregulation that culminated with the effective bypassing of interest-rate ceilings by U.S. banks in the late 1970s "broke the linkage between the slope of the yield curve, GDP growth expectations, and stock returns." Prior to that, the U.S. Federal Reserve's control over short-term rates, combined with interest-rate ceilings imposed on checking and savings accounts, gave policymakers a very effective mechanism for controlling the business cycle. This led, Martini says, "to a very predictable linkage between the slope of the yield curve and future economic and corporate earnings growth."

The tight relationship that existed before 1980 is why many analysts and investors continue to believe that a flattening yield curve is a valuable leading indicator; but, as Martini notes, "the mechanism that created that relationship disappeared after deregulation." Thus, Martini says, "a flattening of the risk-neutral curve shouldn't be taken as a negative signal for stock prices."

Just how has the relationship between the risk-neutral curve and stock returns changed over time? And what happens when you take the term premium into account? Using regression analysis to gauge these relationships over the past 55 years reveals some surprising information. Chart 2 depicts the degree to which a 100 basis-point flattening had a negative effect on stock prices over the past 55 years for both the yield-neutral and term-premium curves. The degree to which the yield curve change affects stocks is indicated by the coefficient; for example, in the case of the risk-neutral curve for 1962–2017, a 100 basis-point flattening would result in a roughly 3% decline in stock prices.

Chart 2. What's the Historical Linkage between the Components of the Yield Curve and U.S. Stocks?

Regressions of monthly stock returns on lagged changes (curve changes in preceding month, stock price changes in current month) for the indicated periods

While the long-term record indicates that a flattening of the yield curve is associated with declining stock prices	1962-2017	
	Coefficient	T-Stat
Risk-Neutral Slope	0.03	3.05
Term Premium Slope	0.00	-0.11
		10/2 70
the linkage is mainly attributable to the period before		1982-79
U.S. financial deregulation.	Coefficient	T-Stat
Risk-Neutral Slope	0.08	4.23
Term Premium Slope	0.00	-0.24
Since 1985, there has been no material relationship between		1985-2017
a flattening curve and declines in stock prices	Coefficient	T-Stat
Risk-Neutral Slope	-0.01	3.05
Term Premium Slope	-0.02	-0.11

Source: Lord Abbett. Data for 2017 are year to date through October 31. The data depict regressions of monthly stock returns (as represented by the S&P 500[®] Index) on lagged changes (yield curve changes in preceding month, stock price changes in current month) for the indicated periods. Both curves in the illustration are derived from the two-year-to 10-year U.S. Treasury yield curve. Risk-neutral yield refers to current expectations for future short-term rates, while the term premium reflects uncertainty around those expectations. Coefficient represents the decline in stock prices expected when the indicated yield curve flattens by 100 points (for example, in the case of the risk-neutral curve for 1962-2017, a 100 basis point flattening would result in an approximately 3% decline in stock prices). A *t-statistic*, or t-stat, gauges how likely it is that a measured effect is due to chance alone. For example, the t-statistic of 3.05 for the 1962-2017 period indicates that there is only a 0.11% chance that the 0.03 coefficient between changes in the slope of the risk neutral yield curve and changes in the value of the stock market index is, in reality, zero or negative. The smaller the t-statistic, the greater the probability that the true coefficient is actually zero, i.e. there is no relationship between the two variables, and the larger the t-statistic the smaller the chance that there is no

Performance quoted above is historical. Past performance is not a reliable indicator or guarantee of future results. The historical data are for illustrative purposes only, do not represent the performance of any specific portfolio managed by Lord Abbett or any particular investment, and are not intended to predict or depict future results. In looking solely at the overall record for 1962-2017, the evidence would seem to indicate that a flattening risk-neutral curve prefigures stock-market declines. But the picture changes greatly on closer examination. For the risk-neutral curve, notes Martini, the relationship between curve flattening and stock-price declines was very strong before 1979—when bank deposit rates were deregulated. "It has been nonexistent since 1985," Martini says. "Thus, it is no longer possible to draw the simple conclusion that a flatter risk-neutral yield curve should be expected to drive stock prices lower."

What about the "other" yield curve? The coefficient on changes in the slope of the term premium in any of the measured periods "is not statistically significant," says Martini.

"We believe the current yield curve flattening is non-threatening to the equity market because it has been driven by the estimated term premium portion as opposed to downward revisions to future short rate expectations," Martini concludes, "and because a flattening risk-neutral yield curve is no longer strongly associated with falling stock prices."

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Yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates. One such comparison involves the two-year and 10-year U.S. Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates. The curve is also used to predict changes in economic output and growth.

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