

# NEGATIVE DURATION: BOND STRATEGIES FOR A STEEPENING U.S. YIELD CURVE

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Since reaching an all-time low on July 8, 2016, the [10-Year U.S. Treasury note](#) has risen by more than 76 [basis points \(bps\)](#) (2.12% vs. 1.36%).<sup>1</sup> While the trend of [rising rates](#) began well in advance of the U.S. presidential election, yields across the curve have snapped higher following the surprise victory of Donald Trump.

Riding on a wave of a likely lower-tax/higher-growth investment environment, the U.S. [yield curve](#) is [steepening](#) as longer-term rates rise faster than short-term rates. In this environment, we believe a rising rate or negative [duration](#) bond strategy could make sense as one way to have portfolio positions that rise in value with interest rates

## Negative Duration Explained

In a traditional bond portfolio, the amount of [interest rate risk](#) is approximated by a concept known as duration. For every 100 bps increase in rates, the prices of the underlying bonds are expected to *decline* by 100 bps X duration (i.e., a five-year duration bond declines by 5%).

By creating a negative duration bond portfolio, investors have the ability to profit as interest rates rise. Through our partnership with Bloomberg Barclays and BofA Merrill Lynch, WisdomTree sought to create strategies that could potentially benefit from an increase in interest rates, particularly in a steepening yield curve environment.

## Negative Duration Index Construction

Negative duration indexes “overhedge” a long exposure in a portfolio of bonds by selling longer-[maturity](#) securities. As a result, the index is able to target a duration of negative five years while still generating income.

## Bloomberg Barclays Rate Hedged U.S. Aggregate Bond Index, Negative Five Duration

### Index Profile

## Creating Bond Short Exposure

However, given that we have more short exposure at the long end of the yield curve, the strategy tends to rise in value when the yield curve steepens and fall in value when longer-term interest rates decline (i.e., when the yield curve [flattens](#)). As a result, investors should consider not only the aggregate duration of their portfolios, but also where their short positions are across the yield curve.

## Where Are Interest Rates Rising?

Since July 8, rates have increased by 31, 60, 78 and 85 bps across the 2-, 5-, 10- and 30-year parts of the curve. As a result, the yield curve<sup>2</sup> has steepened by 47 bps between the 2- and 10-year segments. While this has been painful for long-only bond strategies, negative duration strategies have provided positive returns. As we show below, negative duration strategies have more than offset losses in a traditional portfolio primarily given the change in the shape.

## Rising Rates: 07/08/16—11/10/16

### Rising Rates

After nearly eight years of rock-bottom rates, many investors may have become complacent in managing interest rate risk. We believe our negative duration strategies could offer a powerful tool that can be combined with an existing portfolio or used as a standalone way to address a steepening U.S. yield curve.

<sup>1</sup>Source: Bloomberg, as of 11/11/16.

<sup>2</sup>Source: Bloomberg, as of 11/10/16.

Important Risks Related to this Article

Fixed income investments are subject to interest rate risk; their value will normally decline as interest rates rise. In addition, when interest rates fall, income may decline. Fixed income investments are also subject to credit risk, the risk that the issuer of a bond will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline.

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## **DEFINITIONS**

**Treasury notes** : A debt obligation issued by the United States government that matures in less than 30 year.

**Basis point** : 1/100th of 1 percent.

**Rate Hike** : refers to an increase in the policy rate set by a central bank. In the U.S., this generally refers to the Federal Funds Target Rate.

**Yield curve** : Graphical Depiction of interest rates on government bonds, with the current yield on the vertical axis and the years to maturity on the horizontal axis.

**Steepen** : an increase in the spread between short-term interest rates and longer-term rates.

**Duration** : A measure of a bond's sensitivity to changes in interest rates. The weighted average accounts for the various durations of the bonds purchased as well as the proportion of the total government bond portfolio that they make up.

**Interest rate risk** : The risk that an investment's value will decline due to an increase in interest rates.

**Maturity** : The amount of time until a loan is repaid.

**Flatten** : to effect a zero position.