The last two years of financial history have proven that little is certain when it comes to interest rates. That said, with yields on many parts of the market still hovering near their long term lows, there remains a risk that interest rates could rise in the future. In prior “What If Interest Rates Rise?” installments, we discussed the basic relationship between higher interest rates and lower bond prices, and also described how rates rise or fall based on inflation expectations, supply and demand, and actions taken by the Federal Reserve. While the relationship between higher interest rates and lower bond prices generally holds, the degree of sensitivity of bond values and returns to rates depends on the underlying characteristics of a specific bond—including maturity, coupon, and credit profile.

As a refresher, the majority of bonds have an inverse relationship between their market value and the level of interest rates: the yield on a bond is determined by market forces. If other bonds in the markets are available at higher interest rates, the price of outstanding bonds must decline to remain competitive. In a rising interest rate scenario, the yield or return of the bond, therefore, is determined in part by its yield relative to other bonds being offered.

Of course, if an investor holds a bond to maturity, that investor will receive the original yield, regardless of market value changes in the interim. While the relationship between higher rates and lower bond prices holds in general, the reality is a bit more complex. Not all bonds are affected equally by potentially higher interest rates. Here are a few rules of thumb:

- A floating-rate bond whose coupon resets periodically based on some index will have less market value sensitivity than a fixed-rate bond;
- A shorter maturity bond will have less sensitivity than a longer maturity bond;
- A higher coupon bond will have less sensitivity than a lower coupon bond; and
- A higher yielding bond (e.g., a bond with a lower credit rating) will have less sensitivity than a lower yielding bond.

We’ve provided a series of charts (A–D), each comparing the price sensitivity of groups of two bonds which are otherwise very similar, except for one of the above characteristics. The ratio, incidentally, of a bond’s change in price relative to a change in interest rates is a concept called “duration.”
These analyses use mathematical relationships to estimate what would occur in the market value of a bond given an immediate and instant change in interest rates. As both logic and experience suggest, however, interest rates don’t rise instantly, but instead trend directionally over a period time. With that idea in mind, we’ve sought out some periods in recent history when interest rates have risen as an example of this difference. Over the 15 months between September 1993 and December 1994, interest rates on 7-year Treasuries rose 2.72%. The difference in performance of a bond, in looking at an instant versus a gradual change in interest rates, can be very substantial—even if the magnitude of the rate change is identical. In Chart E, you can see that relationship: a 5-year bond would face a –16.4% return if yields moved 2.72% instantly, but because of the income produced by owning the bond, it would face a lesser (though still significant) –3.2% return if interest rates rose over the course of 15 months.

In conclusion, while the relationship between potentially higher interest rates and bonds is a negative one, there are a range of characteristics of individual bonds which separate levels of interest rate risk. Securities with floating interest rates are less sensitive to rises in rates, as are bonds with shorter maturities dates—while to a lesser degree, bonds with higher coupons, and bonds of lower credit ratings also display reduced sensitivity. Your Janney Financial Advisor can help you identify the level of risk in your individual bond portfolio using a “What If” analysis that evaluates a trend (rather than shock) of higher interest rates and how that trend is likely to impact bond values.

Upcoming installments of the “What If Interest Rates Rise?” series will discuss in more detail methods of building portfolios with lower levels of interest rate risk, as well as the impact of potentially higher interest rates on specific areas of the bond markets, such as mortgage-backed securities and preferreds.