financial fitness

Rocky Mills, North Ranch Resident

"DURATION"

Measuring How Interest Rates Affect Your Bonds' Value

What happens to your bonds when interest rates rise? Generally, they go down in value.
How much? That depends on a number of factors, including:
How much did interest rates rise?
How long until your bonds mature?
Do your bonds have call features?
How much do your bonds pay?

That's a good list to know, but not too helpful in figuring out how much exposure you have to rising rates. Fortunately, there's a statistic calculated for each bond that gives you a pretty good sense of your interest rate risk. It's called ***"Duration."***

Duration tells you how much you should expect your bond to fall for each 1% rise in interest rates. So let's say your bond has a ***duration*** of 10. If interest rates rise 2%, your bond should drop roughly 20% in value. The same logic – only opposite – applies to falling rates: a bond's ***duration*** will tell you how much a bond ought to rise for each 1% drop in interest rates. So think of ***duration*** as a multiplier that relates interest rate changes to bond value changes. And remember, it's an inverse relationship: when rates go up, values generally go down. When rates fall, values generally rise.

The years to maturity has the biggest impact on ***duration:*** the longer the maturity, the bigger the ***duration.*** In fact, if you wanted a quick ballpark estimate of your bond's ***duration,*** take 2/3 of the years to maturity. For example, a bond that matures in 20 years might have a ***duration*** in the 13 to 14 area.

The second biggest factor is the coupon (i.e. the amount of interest your bond pays every year). The smaller the coupon, the higher the ***duration.*** Take, for example, the smallest possible coupon – a zero coupon bond that pays no annual interest. It's like the old savings bonds we had as kids – you buy it at a deep discount like $600, it pays nothing over its lifetime and then matures at $1,000. Zero coupon bonds have a ***duration*** equal to its years to maturity. That's much higher than the typical coupon-paying bond at only 2/3 of the years to maturity.

When do you want to own higher ***duration*** bonds? Simple: When interest rates are falling, as they have for the last 30 years. During periods when rates are falling, higher ***duration*** bonds rise more in value than lower ***duration*** bonds.

But, I believe interest rates have bottomed and will begin to rise. The Fed just applied two ¼-point rate-hikes this year, indicating that they believe the economy is gaining strength and due for more growth. That, in turn, suggests higher interest rates ahead. Given that the yield on the bellwether 10-year treasury has been hovering near 30-year lows, it appears that rates have nowhere to go but up. In such a rising rate environment, higher ***duration*** bonds will fare much worse than lower ***durations.***

What is the *duration* of your bonds? You need to know. Ask your advisor– they'll have it at their fingertips, for each bond and for your portfolio as a whole. If you own your bonds in a bond fund, you can pull up the fund's ***duration*** from their website or financial sites like Morningstar.

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