

Financial fitness

Why Do Most Bonds Lose Value As Interest Rates Rise? What's The alternative?

By Rocky Mills, North Ranch Resident

Most bonds have a fixed coupon (the amount of interest they're obligated to pay each year). Let's say you paid \$100,000 to buy a bond that matures in 15 years at \$100,000. In the meantime, it pays a 3% annual coupon. That means you'll receive \$3,000 in interest every year. And because this 3% coupon is fixed, the \$3,000 doesn't change – you'll get the same amount each year until the bond matures.

Let's further assume that when you bought your bond, the interest rate you could get on similar bonds (same rating; same industry) was also 3%. In other words, you bought a 3% bond in a 3% world, which is why you paid "par" (i.e. the maturity value) of \$100,000.

What happens to your bond's value if the 3% world becomes, say, a 5% world? You still own your bond that pays \$3,000 a year, but new bonds being issued pay a much higher 5% or \$5,000 per year. Your bond, in comparison, doesn't look so good. Which means that if you went to sell it, you'd have to discount your price to make up for the interest shortfall.

This price discounting is not done on a whim. There are very precise bond calculators that will determine what price your bond should be, given that your bond only pays 3% in what is now a 5% world, with 15 years left to maturity.

What's the concept underlying this calculation? Simple: the discount needs to make up for the lower coupon. In our example, your bond paid \$2,000 a year less than what a current 5% bond would pay. So the total interest shortfall over the 15-year life of the bond is \$30,000. This would, at first blush, suggest that your bond is valued at \$70,000.

But a bond calculator also takes into account the time value of money, where it takes less of today's dollars to "buy" those \$2,000 shortfalls in future years. So the actual value, when using a bond calculator, comes closer to \$79,000.

Still, your bond lost \$21,000 in value – or 21% – for a 2% rise in interest rates.

What if the interest rate of your bond wasn't fixed at 3%? What if it were allowed to "float" up or down as interest rates moved up or down? In a 3% world, you'd get paid 3%; in a 5% world, you might get paid 5%. And now, in a 5% world, because this floating rate bond pays what similar bonds are paying, there's no interest shortfall. Which, in turn, means there's likely very little, if any, discount to the bond's value. In other words, a floating rate bond can help protect your bond's value from rising interest rates.

Bear in mind, however, it's a dual-edge sword. If rates drop, a fixed rate bond will likely increase in value, but a floating rate bond will likely not increase. And all bonds – fixed or floating – carry other risks besides interest rate risk, such as the credit risk of the issuer and reinvestment risk.

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