



The Bond Dilemma

Interest rates have been low for several years. The Federal Reserve continually commits to holding short term rates low until 2015. This past July there was a disturbance in the force and longer term interest rates moved up causing the value of investments sensitive to interest rate changes drop in value. Those that followed the trend of flight to quality seemed to have been punished the most. To illustrate I'll use two indexes created by Morningstar. The Long-Term US Treasury Bond Index (highest quality bonds) is composed of US Treasury bonds with maturities of seven years or longer had a total return for 2013 of -9.90%. The Long-Term Corporate Bond Index includes US corporate bonds with maturities of seven years or longer had a total return for 2013 of -4.46%.

So two questions have started creeping into conversations about portfolio management:

1. What will happen to the bond portion of my portfolio if interest rates go up?
2. Why should I keep bonds in my portfolio?

Let's talk about the first question. There are 2 ways to make money investing in bonds; the interest that is paid and the change in the market value of the bond. Interest income is usually why we invest in things like money market funds, bank CDs and bonds. The change in price becomes a bit of a math exercise. If we buy a bond and hold it to maturity we get our money back plus the income from interest.

Let's say we invest in a \$1,000 bond that has a maturity in two years and the interest rate is 5.0%. At the end of one year you get \$50 in interest. If you hold the bond for the second year you get another \$50 plus your \$1,000 back. But, what if you need to sell the bond at the end of the first year and current interest rates changed from 5.0% to 6.0%? Someone would be willing to buy your bond if they can get a 6.0% return. The bond pays \$50 per year so how much would one be willing to pay for the bond to get a 6.0% return; the answer is \$833.33 ($\$50 / 6.0\%$). Your loss would be \$116.67 ($\$1,000 - \$833.33 + \50) representing a loss on your \$1000 investment of 11.67%



My teeter totter example. The drawing above illustrates the inverse relationship between the interest rate and the price of a bond. As interest rates change the price of the bond moves in the opposite direction. Even more interesting is that the teeter totter is like a time line. The longer the maturity the further we move away from the fulcrum, the point of the triangle. The shorter the maturity the closer to the fulcrum you move. Further from the center, the changes become more pronounced. In times of decreasing interest rates there is a profitable advantage to holding longer maturity bonds and when rates rise damage control comes from holding shorter term bonds. Most professionally managed fixed income investments such as bond funds have shortened the length of maturity of their portfolios in anticipation of rising interest rates. In other words if a portfolio would normally have an average maturity of 10 years the portfolio manager may have shortened the maturity to say 5 years to reduce the impact of interest rate risk.

So, if the value of the bonds are anticipated to go down why keep them in my portfolio? The answer to this question was in my July newsletter where I used the analogy of a salsa recipe to describe portfolio design in Dr. Craig L. Israelsen's book "TWELVE: A Diversified Investment Portfolio with a Plan". There are 2 reasons for including fixed income investments in a portfolio; to generate income and mitigation of market volatility of the stock market. **The first is pretty obvious, income.** For those retired, it is a way to generate income from a portfolio for retirement distribution without having to sell investments to generate the cash flow. If you are reinvesting the income, think of the concept of dollar

cost averaging, as the price of the bonds go down you are buying cheaper shares so when prices move back up you have leveraged the ride back up with the purchase of cheaper shares (bond funds). Sounds like the stock market, doesn't it?

The second reason gets a little more complicated to explain – mitigation of stock market risk. An investment portfolio like a good salsa has many ingredients. Sometimes the ingredients are better than others. For example the onions you just bought may not be as good as the last batch, but the combination of ingredients is what makes the salsa, so good or bad we include them. If we change the recipe because the onions, peppers, cilantro or tomatoes are not the greatest we may no longer have salsa. In the July newsletter I mentioned the fad for investing was to buy dividend paying stocks. I alluded to the idea that stocks in a portfolio were like the tomatoes in the salsa. If we changed the ingredients of the portfolio to just stocks we would end up with tomato sauce rather than salsa. But the combination of the ingredients is what makes the salsa. So with a portfolio, the combination of various asset classes is what makes a portfolio work. Even though the value of bonds in the near term may go down, they are still doing what they were intended to do in the recipe of the portfolio.

The bond market, like the stock market has cycles. Think back to 2008 when the markets crashed. Stocks (tomatoes) were perceived to be bad. Those that sold their stock positions experienced some significant losses. Those who hung on have done quite well in spite of the market decline. The bond market has similar cycles. We may be entering a time when the fruit (bonds) may not be as good as in times past. The trick is to recognize the implications and plan for its impact. Sometimes, a change in variety, like using beefsteak instead of heirloom tomatoes, can help reduce the volatility. So portfolio managers have shortened the average length of maturity of their portfolios. There are other techniques that can help as well, the point is a well-managed bond portfolio will already have made these changes for you so you don't have to worry about it.

Derivatives are like genetically engineered food. Sometimes we don't really know what we are eating other than the fact that it may look like a pepper. In the money management world we call these derivatives.

We know from past experiences when times are good derivatives can help enhance a portfolio. We also know from the 2008 market experience derivatives can magnify the impact of a negative market event. These esoteric investments have become so complex that even the "expert" analysts have a hard time recognizing their existence in a portfolio. Not only that, but tax reporting has become difficult. Not many years ago tax statements were required to be in the mail by the 31st of January. Now in some cases it's fortunate to have them out by the 15th of February or later.

No one really knows what the impact will be because the speed that interest rates rise is a determinant of the negative impact on our portfolio. In the opening of this newsletter I talked about two ways to make money investing in bonds. If interest rates rise slowly then the interest income may be enough to offset the decline in prices. On the other hand if rates rise fast, we will see losses in the bond portion of portfolios.

Either way, it is important to have a recipe and to taste the results. Once the model is created we can investigate changes to the recipe and taste how it affects the salsa. Managing an investment portfolio is similar. Once a model is established we can investigate how changes will impact the performance. Some passive investors profess a buy and hold strategy. I prefer a buy and monitor strategy. Because of all the issues mentioned above continuous monitoring needs to be done to measure the impact of those changes. Otherwise we end up with something less than what we desire.

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