



## **Evaluating Risk: Taxable Bonds**

You may be familiar with a classic test to determine whether children could resist current gratification and what would be the outcome for their future if they could. The study investigators gave each child one marshmallow. The children could eat the marshmallow immediately or not eat the marshmallow and wait for the return of the investigator. If they waited and didn't eat the marshmallow they would receive two marshmallows. The children were then tracked to see if their ability to defer gratification would affect their long-term success in life. The study concluded that the children who did not eat the marshmallow were more successful long term. Eating the marshmallow now is the same as succumbing to the enticements of high yield, sometimes called junk or risk investments.

Are you willing to take on extra risk now in the hope of receiving a higher return, or can you defer immediate gratification by taking on lower risk and receiving a lower return? Investing in lower-risk investments currently will ensure the return of your invested principal later. Investors are supposed to assess their own risk tolerance, and there are many tools to help them. For the more conservative individual investor, their tolerance for risk is often summarized in a clear cut question: Will I get my invested money back? When the market gets dicey, the tolerance for risk declines rapidly. Harold Evensky has said: "When the market goes up, risk tolerance is infinite, but when it goes down, risk tolerance is often at zero."

However, we are all susceptible to the enticements of a better return and a higher yield. In this article, we provide guidelines for assessing how risky the market views your possible fixed income investments. However, it won't tell you how to resist the temptation to eat the marshmallow if you are offered one.

### **Risk Assessment: Pricing of Taxable Bonds**

*Taxable* bonds are generally priced against the comparable Treasury bonds. For example, bonds with a two-year maturity, whether corporate, Federal agency or taxable municipal bonds are

priced against similar two-year Treasury bonds. Ten-year taxable bonds are generally priced against the ten-year Treasury bond. By finding out what the Treasury bond is yielding, you are able to assess the market's interpretation of the risk of the taxable offering. You do this by determining how much more than the comparable Treasury yield is the bond you are considering buying.

The United States Treasury bond is considered to be the safest security for two reasons:

- Treasury bonds are recognized as the most credit worthy and market safe haven; and
- Treasury bonds are issued in the world's reserve currency, the U.S. dollar. Because of this, Treasury bonds are accepted everywhere.

### **Corporate Bonds**

Corporate bonds are well known and most familiar to investors. Investors are familiar with the stock market. Corporations that issue stock also borrow in the bond markets. Deal sizes are generally large - \$100 million or more – and these large issues may be continuously issued. Investors sometimes feel that bonds of well-known corporations are safer because the issuers are household names.

The debt of corporations is usually lumped into very large issues maturing in one year. This makes the issue more easily traded, but makes the corporation more vulnerable to market forces because they face the need to issue new debt or repay large sums at one time.

Most corporations carry medium and low ratings from Moody's, Standard & Poor's (S&P) and Fitch Ratings, with many falling into the junk bond category of double-B or lower. However, investors are probably not aware that the year-to-date (10/2014) default rate for corporate bonds has been 3 percent, while the default rate for lesser known taxable municipal bonds has been 0.06 percent.

### **Taxable Municipal Bonds**

What generally distinguishes taxable municipal bonds is their small size at issuance. They are not frequently traded, and may not trade at all after issuance. Because of these features, small issues of taxable municipal bonds are less liquid, meaning that they may not sell quickly. A new taxable muni issue will generally have debt that retires every year, a ten year call date and a sinking fund for the longest maturities. A sinking fund is a pool of money dedicated to the early retirement of bonds according to a predetermined schedule. The ratings and the types of security for the bondholder vary, from high grade triple-A to junk bonds. Taxable municipal bonds are issued for a variety of purposes, including golf courses, parks, stadiums, convention centers, conservation, municipal airports, pension funding or simply the refunding of tax-exempt bonds that cannot be refunded and reissued as tax-exempt. The more essential the service, the more conservative the investment tends to be.

As stated above, all taxable bonds are priced using the comparable Treasury bond as the baseline. A question you can ask whenever you are purchasing a bond, or for that matter, any interest bearing security is: What is the spread over the comparable Treasury?

For example, New York City issued federally *taxable* bonds on September 25<sup>th</sup> 2013. These bonds were rated Aa2 by Moody's, AA by Standard and Poor's and AA by Fitch Ratings at the time of issuance.

Table 1 is the description that was sent out to describe how these bonds were priced.

**Table 1**

MATURITY	SPREAD TO UST (United States Treasury)
09/01/2016	+ 50 to 3yr
09/01/2017	+ 20 to 5yr
09/01/2018	+ 65 to 5yr
09/01/2019	+ 50 to 7yr
09/01/2020	+ 85 to 7yr
09/01/2021	+ 50 to 10yr
09/01/2022	+ 70 to 10yr
09/01/2023	+ 85 to 10yr

The spread between the taxable offering and the Treasury bonds is measured in basis points (bp).<sup>1</sup> The September 1<sup>st</sup> 2016 maturity is priced plus 50 basis points (bp) to the three year Treasury bond. If you go to the website of the United States [Treasury](#) (UST) Department, you can see that the 3-year Treasury yielded 0.66 percent on the date of sale.

09/25/13	3-yr	5-yr	7-yr	10-yr	20-yr	30-yr
	0.66	1.41	2.01	2.63	3.37	3.65

If you add 50 bps) to 0.66, the final yield is 1.16 percent. Since the Treasury yields move continually, bonds are priced at the time of sale based upon how the Treasury bonds are priced at that moment. The bonds maturing in 2023, ten years, are plus 85 bp to the 10 year (2.63%) resulting in a yield of 3.48 percent (2.63 + 0.85).

### How is the Market Evaluating the Risk of this Investment

To ascertain how the market is evaluating the risk of a taxable bond, use the Treasury bond yield as the comparable baseline for whatever you purchase. Thus, if you are offered a juicy yield of 8 percent on a 30 year investment and the 30-year Treasury bond is yielding 3.69 percent, a difference of 431 basis points (4.31 percent), you might ask yourself if you are prepared to take on the risk of loss that the higher yield represents. If you do not know if 431 basis points is considered risky or just average, compare it to some securities or bonds with similar maturities and triple-A ratings and see what the spread difference is between that higher rated bonds and treasury bonds. The yield on the 30-year Treasury bond on October 21<sup>st</sup>, 2014 is 2.974 percent

and the yield on the 10-year note is 2.195 percent. If you are offered a yield much higher for comparable maturities, investigate the risk.

- **Current Pricing Information:** If you know the base rate of the Treasury yields for a given due date, then you have a way of comparing the riskiness of one investment to another with fresh, current information. It answers the question: How is the market evaluating the risk in this investment today? It is especially useful to focus on the spread between the safest investment (Treasury bonds) and what you are planning to purchase if you tend to be a “yield hog” like most of us, who want the highest yield without focusing on the risk.
- **Comparing Similarly Rated Investments:** You can use the yield-to-call and yield-to-maturity to compare one bond to another. If the market consensus is that the long term prospects for an issuer are negative, then the spreads will widen vis-à-vis similarly rated bonds. If the consensus is positive, then the spreads will narrow, even if the ratings for the bonds are the same. Ratings are lagging indicators if they are not newly issued. Therefore, the ratings may or may not be indicative of market sentiment.

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<sup>i</sup> A basis point is 0.01% or one one-hundredth of a percent. In other words, there are 100 basis points in 1%. The difference between an interest rate of 4.00% and 4.01%, for example, is one basis point.