



## Understanding Bond Calls: What it Means for Your Cash Flow

February 17, 2016

Interest rates have been falling, contrary to all the news reports that have reported rising interest rates for the last eight years. In this scenario, it is especially important for you to understand bond calls if you own:

- Individual bonds
- Bond Funds
- Annuities or life insurance

If you own a bond fund or rely on an insurance company, they all own individual bonds. These bonds are subject to calls (early redemptions) that will affect the cash flow from your bond funds and annuities. You may not see the effect of these calls because these entities may replace high coupon bonds they bought at par with high coupon bonds they purchased at a premium to face value. The payout of dividends from the bond funds and annuities might be similar. However, instead of receiving mostly interest income, you are also receiving a portion of your principal investment as well. High yielding bonds are being replaced by bonds paying less interest. Insurance companies that rely on interest income for their fees and expenses will have to pass those expenses onto the policy holders.

Here is how it works.

### The Process Described

The schoolboard of a small rural school district, located in northwest Ohio outside of Lima in Allen County, issued bonds in 2008 to construct a new high school and improve school facilities by acquiring land, improving the building sites and furnishing and equipping the facilities. The schoolboard manages four school buildings, administrative offices and a transportation authority.

The initial project cost \$38.2 million, but the school district was able to refinance only \$26.5 million of the original \$38.2 million bond issue. The refinance reduced the average interest rate cost from 4.8 percent to 3.3 percent. It is expected to save taxpayers \$2.1 million over 20 years. That means that bondholders who anticipated

earning an additional \$2.1 million on their investment will not be receiving those interest payments.

Treasurer Joel Parker stated: “Just like on your own personal home, it gets to a point where it’s advantageous to take advantage of market interest rates dropping, which is what we did.”<sup>ii</sup>

### How to Think About Bond Calls (Prepayments)

When you own a house and see interest rates drop, it may be wise to refinance your mortgage to reduce what you will have to pay if you plan on staying in your house for the long-term. When you purchase a bond, you take the role of the bank, lending money to corporations and federal and state governments. When you purchase a certificate of deposit (CD) you are lending to a bank. Just as your mortgage document outlines how and when you can refinance, the **prospectus** or **offering statement** that accompanies every bond, outlines when and how bond issuers can exercise their call option, also called an optional redemption.

<p><b>Offering Statement:</b> Details the financials of the issuer as well as the terms of the bond issue including: when the bonds can be called, where the payments are coming from, and what happens if the issuer cannot pay</p>
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If your bond is called, on the call or redemption date, the issuer will pay you either the **face value** of the bonds (**par or \$1,000 per bond**) or in certain cases a premium (e.g. 102 or \$1020 per bond) if that was agreed upon in the original offering.

On your brokerage statement, bonds that have been called will be marked with an (F) for full call. If they are marked with (P), then the interest income has been prepaid into a special fund that will be used to call the bonds on the first call date that is still in the future. In bond lingo, this is called pre-refunding.

The issuer redeems bonds to save money and savings generally must cover the cost of issuance of new refunding bonds. Refunding bonds are issued first, and then the outstanding bonds are redeemed.

You lose because you have to reinvest in new bonds at a lower interest rate. Note that bonds are less likely to be called in a rising interest rate environment. However, they can be called under any circumstance.

### Laddering Bond Calls

To reduce the probability of having many bonds prepaid at the same time, it is wise to ladder calls as well as maturities. When bond calls are laddered, the call dates are spread over a number of years. Initially the calls usually fall between five to ten

years from the time of purchase. Time passes quicker than you might think and soon every year has bonds potentially callable.

Bonds with shorter call dates would have lower yields-to-worst than bonds with longer call dates. In the example below, you can see how two bonds from the same issuer, separated by little more than a year in the final maturity, can have substantially different yields-to call because one call date is one year and 4 months shorter than the other for a yield difference of 0.539 percent.<sup>ii</sup> The yield-to-maturity meanwhile is only 0.128 percent difference between the two bonds.

Issuer	Rating	Coupon	Maturity	Call Date	Yield-to-Worst	Yield-to-Maturity
Massachusetts State G/O	Aa1/AA+	4	5/1/2040	5/1/2023	2.511	3.405
Massachusetts State G/O	Aa1/AA+	4	9/1/2041	9/1/2025	3.05	3.533

### Kinds of Bond Calls

There are four kinds of bond calls:

- Fixed Call
- Unscheduled Calls:
  - Extraordinary calls for a defined reason
  - Sinking Fund
  - Make Whole Call

A particular bond issue may have more than one kind of call, as seen from the chart below. It is imperative to ask about unscheduled calls when buying bonds by asking specifically about each type.

Bond Types	Non-Callable	Fixed	Unscheduled	Unscheduled2	Unscheduled3
			Extraordinary	Sinking Fund	Make Whole
Treasury	x	x			
Agency	x	x			
Certificate of Deposit	x	x			
Corporate	x	x	x		x
Municipal -Tax-exempt	x	x	x	x	
Municipal - Taxable	x	x	x	x	x

### **Understanding Bond Calls: An Array of Possibilities**

#### The Fixed Call: Bonds are Call Protected for X-Years

A fixed call is just that – it is fixed to begin on or any time after a specific date. The issuer decides if it is advantageous to redeem or call the bonds before the final maturity date. Your bonds cannot be called before the specified call date if this is the only call option.

Each type of bond has its own pattern. Federal Agency bonds, for example, may provide call protection for six months to three years at issuance, or they may be non-callable altogether. Municipal bonds, on the other hand, usually have between eight to ten years call protection when they are first issued. To have call protection means that your bonds cannot be called by the issuer before the first stated call date.

If municipal bonds have ten-year call protection, the first call date is ten-years after the date of issuance. For example, if the bond was issued on October 15, 2015, then the issuer has the right to stop paying interest and return your principal investment on October 15, 2025. In a particular issue with **serial** bonds, all the bonds set to mature before that date cannot be called before that date.

All the bonds set to come due after the call date can be called, usually on any interest payment date after the first call date.

Bonds that start out with ten-year call protection have only nine-year call protection after one year. Traders often sell bonds when the bonds have only five-years of call protection remaining.

### Unscheduled Calls

When you ask about bond calls at the time of purchase, you might be told of the fixed calls but you may not be told about the unscheduled calls because they may not appear in the short description. These calls include: extraordinary calls, sinking fund calls and make whole calls.

These calls are generally not used to calculate the yield-to-call (yield to the earliest call date) because they are all unscheduled. However, if you understand the nature of these calls, you will be able to make better investment decisions.

### Extraordinary Calls

An extraordinary call is a call which gives the issuer the right, but not the obligation, to call the bonds when there are certain triggering events. For example, if a municipal housing bond issuer has unexpended funds, they may be able to call bonds early. In fact, in the case of housing bonds, the housing agency may be required to call bonds when there is extra cash. If the bonds were issued for construction of a building, the bonds might be able to be called if there were a fire or some other calamity. Water and sewer bonds usually have this call as well.

Bonds with fixed calls may also have extraordinary calls. In a short description of the bonds, this call can be overlooked.

The Build America Bonds (BABs) are a prime example of bonds with an extraordinary call. BABs are taxable municipal bonds that were issued for a short period beginning in 2010 at the height of the financial crisis as a way of helping municipalities retain

solvency during the Great Recession. Many BAB's have extraordinary calls that can be activated if the Federal government were to fail to pay the promised 35% of the issuer's interest payments. This event actually occurred as a result of the Federal Sequester and several issuers activated this call. Sequestration resulted in the Federal government reducing the interest paid from 35% to 28%. This suddenly made most of these bonds potentially callable. Some issuers immediately acted and called in the high coupon bonds and issued new bonds to replace them. Most issuers did not. However, that does not mean they will not sometime in the future!

### Sinking Fund

A sinking fund is a fund, established by the issuer and recorded in the bond indenture, which accumulates cash to pay off bonds at some future date. This is a mandatory payoff that will occur. Unlike all other calls that may not be exercised, the Sinking Fund is activated to smooth out payments in the years preceding the longest term bonds. It may begin about five years before the final maturities of serial bonds or of the *term bonds*.

The issuer may satisfy the terms of the sinking fund by purchasing bonds in the open market or by calling outstanding bonds by lottery. If you purchase your bonds at a premium to its face value, a sinking fund may negatively affect your outcome if your bonds are called. If you know about the sinking fund, you can calculate the yield-to-worst to the first possible call date to see if that is acceptable to you.

<b>Term Bond:</b> A bond issue which stands alone and may not be part of a series. It may also be called a bullet bond
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### Make Whole Call

These calls are frequently found in corporate bonds and municipal bonds that are subject to Federal income tax. They are designed to make whole the buyer who purchased the bonds as a new issue. If the bonds are called, the issuer must pay a penalty pursuant to a stated formula. The penalty often makes exercising of this call so expensive to the issuer that it is used infrequently. However, if you purchase bonds with this call in the secondary market that are selling at a large premium, it is wise to ask how your return might be affected if this call is activated. You may end up losing some of the premium you paid.

### An Example of the Impact of an Extraordinary Call

Housing bonds, like most Build America Bonds, have extraordinary calls. Here is a concrete example for a bond I considered purchasing on January 14, 2016.

The South Carolina Housing Finance and Development Authority Mortgage Revenue Authority issued federal and state taxable bonds rated Aa1 by Moody's. The coupon is 3.401% and the due date of the bond is 7/1/2022 to yield 3.078% with a market price of

101.873 on that date. This bond has no fixed call, but does have an extraordinary call, which can be exercised on any interest payment date.

If I were to have purchased 10 bonds at a price of 101.873, the cost would be \$10,187. I would have paid a premium of \$187 for the 10 bonds. When I looked at the *material events* – happenings that would affect the value of the offering- I noted that the issuer had exercised its right to call some of the bonds by publishing a notice on December 2015. Since there was already one call on these bonds, there was a high likelihood that there would be further calls. If the bonds were called in July of 2016, instead of at maturity in 2022, the yield would be -0.746 percent instead of a 3.078 percent yield-to-maturity because I would have held the bonds less than 6 months and had paid a premium.

<p><b>Material Events:</b> Also called Event Disclosures, they detail any major changes that might affect the solvency of the issuer or bond payments.</p>
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## Conclusion

In order to understand investing in bonds, whether you purchase individual bonds or bonds through a mutual fund or ETF (Exchange Traded Fund), you need to understand how bond calls will impact your investment. If you buy individual bonds, you can determine the yield to the call date as well as the yield-to-maturity of the bond. However, you will not be able to determine the yield-to-call if you buy bond funds or bond ETFs. Understanding the impact of calls on your bond portfolio will provide additional information that you may use to make decisions about your financial life.

We described how an issuer decides to refund an outstanding issue. We outlined the primary types of bond calls: fixed calls and unscheduled calls. We described three types of unscheduled calls that might not be described if you just ask about bond calls, namely: extraordinary calls, sinking fund calls and make whole calls.

Now that you are alerted to these calls we hope you can make wiser purchasing decisions.

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<sup>i</sup> John Bush. "Bond Refinancing to Save Elida Taxpayers \$2 Million." *The Lima News, Ohio*. As reported in *The Bond Buyer*. January 25, 2016.

<sup>ii</sup> Pricing as of February 16,2016.