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The Problems with Bond Funds

"The bondholder has a fixed and prior claim for principal and interest; the stockholder assumes the major risks and shares of the profits of ownership . . . Hence investors are led to believe that the very name "bond" must carry some especial [sic] assurance against loss. This attitude is basically unsound, and on frequent occasions is responsible for serious mistakes and loss."

Benjamin Graham, Security Analysis, (1st edition)

Although interest rates have been at historically low levels since the financial crisis, they are expected to begin rising later this year. This could have far-reaching effects in the financial markets, especially among bond funds. Depending on its focus, a bond mutual fund or a bond exchange-traded fund may invest in government, corporate, municipal and convertible bonds as well as instruments such as mortgage-backed securities.

Over the last twenty years, bond funds became increasingly popular on Wall Street with their market growing to over $3 trillion. Many investors found bond funds less risky than individual bonds while others perceived them to be safer than equities or as an offset to them in a portfolio. Bond funds have done well, but few investors likely appreciate the significance that falling interest rates have had on their performance.

From the mid-1990s on, interest rates began a long period of decline. The prime rate, a widely used benchmark for mortgages and loans, hit 9% in early 1995 and then began to fall until it reached 3¼% where it has remained since 2008. A key characteristic of bonds, and bond funds, is that their price has an inverse relationship to interest rates -- when interest rates go down, bond prices go up. Conversely, when interest rates go up, bond prices go down.

Thus, for most of its recent history, the bond fund industry has benefitted from a long period of declining and low levels of interest rates. However, when interest rates begin to rise, it is very likely that bond funds will struggle to replicate their prior performance.

We thought this an appropriate time to review the differences between individual bonds and bond funds. As with stocks, we believe investors of all stripes are best served if they understand what they own.

In general terms, there are two types of bond funds. Bond exchange-traded funds, or "ETFs," tend to be passively managed, designed to track an underlying index. The index can be broad, such as the entire U.S. bond market, or narrow, such as "junk" or high-yield corporate debt. Thus, the buying and selling decisions of the ETF's manager are based on changes that have taken place in the underlying index.

In contrast, a bond mutual fund is usually actively managed. The decisions of the fund manager are based on his or her view of the market, the economy and other factors. As we take an active view of the financial markets, our comments in this newsletter will focus on bond mutual funds.

Bond funds can also be either "open-end" or "closed-end." When an investor purchases shares in an open-end fund, the fund creates more shares. Similarly, when shares in an open-end fund are sold, the shares are taken out of circulation. If a large number of shares are sold, the fund may have to sell some of its holdings in order to meet the redemptions. Open-end funds do not trade on the open market -- their price is based on the net asset value of the fund at the end of each trading day.

Closed-end funds issue a set amount of shares and then trade in the open market just like stocks or ETFs. While the value of the fund is determined by its net asset value, the actual price of the fund is affected by investor supply and demand. Thus, a closed-end fund may trade at prices either above or below its real value.

No matter what type, bonds and bond funds are immediately affected when interest rates change. If interest rates increase, the price of a bond decreases. This is because the bond makes interest payments at a fixed rate and new bonds with higher rates are now available. The table below shows what happens to the price of a U.S. Treasury bond when interest rates increase either 1% or 2%.

Despite all of our country's problems, U.S. Treasury bonds are still considered the safest and most liquid in the world. Even so, a 1% increase in interest rates will cause the price of a bond maturing in two years to drop 2%. If interest rates rise 2%, that same bond will fall 4%:

U.S. Treasury Bonds

The effect of rising interest rates on bond prices

Years to Maturity	Rate of Price Decrease if Interest Rates Increase… +1%	+2%
2	-2%	-4%
5	-5	-9
10	-9	-16
20	-14	-26
30	-16	-30

The effect is even greater on longer-dated bonds that mature in 20 or 30 years. If interest rates move up 2%, a U.S. Treasury bond maturing in 30 years will see its price drop almost a third -- about 30%.

A major difference between an individual bond and a bond fund is that when an individual bond is purchased, the maturity date and the interest payments to be received from the bond are known, giving an investor a certain amount of control and flexibility. When the bond matures and the principal is received in full, the investor has the option of purchasing a new bond or investing in other securities such as stocks.

More importantly, holding an individual bond to maturity means that interest rate changes just become noise in the financial markets. Interest rates moving up or down result in gains and losses on paper only, not in actual losses of principal or income.

In contrast, a bond fund typically consists of hundreds of bonds which are constantly maturing -- a bond fund does not have a maturity date. As the bonds mature, the fund manager has to replace them with new or other types of bonds. Depending on the conditions in the financial markets and in the economy, the manager may not be able to find replacement bonds with similar risk profiles.

The effect of rising interest rates may be amplified based on the types of bonds held in a fund. High-yield or emerging market bonds may be more sensitive to interest rate changes than other types of bonds, such as U.S. Treasury or high-grade corporate debt. In addition, some funds, such as closed-end funds, tend to use leverage, or borrowed money, to amplify returns, but leverage is a two-edged sword. Rising interest rates could put such funds under extreme pressure. Finally, if interest rates start to rise and keep rising, the price of the bond fund may stay depressed for a long period of time.

Sometimes a snowball effect can be created in the markets. If interest rates rise and the value of a fund drops significantly, investors can become nervous and sell their shares. The manager could be forced to sell some of the bond fund's holdings in order to meet the redemption requests. Widespread selling could drive bond prices even lower. As one industry observer noted:

> *"What happens in the marketplace is all those bonds from the fund manager start going out to bid to be sold, and that creates more supply in the market -- and more supply drives prices lower. It's a downward cycle. It takes very little shift in the supply and demand to cause prices to shift pretty dramatically."*

The mechanics of buying and selling bonds are very different from that of stocks. For the most part, stocks are bought and sold on centralized exchanges. This ensures a certain amount of transparency in addition to orderly trading. That is, traders can see what other traders are doing as well as the current market price of the stock.

In contrast, bonds are traded through a network of dealers, or "over-the-counter." The dealers offer quotes to buy or sell and with many different dealers in the market, the same bond can be offered at the same time at different prices. In other words, a horse trader's market.

Sometimes, liquidity in the bond market can vanish. That is, the dealers in the over-the-counter market can, for whatever reason, decide that they are not going to buy or sell particular bonds. As an example, during the financial crisis, Lehman Brothers, a global financial services firm and the fourth-largest U.S. investment bank, went bankrupt primarily because the market for its short-term debt obligations evaporated literally overnight. In general, the bond market has not been as liquid as it used to be before the financial crisis.

Because interest rates have remained low for so long, a number of mutual fund companies have developed a new concept -- the "go anywhere" bond fund. These are also called "nontraditional" or "unconstrained" funds. They may invest in just about anything anywhere, including emerging markets, developing markets, foreign countries, the U.S., floating-rate bank loans, real estate, foreign currencies and even international as well as domestic stocks.

The premise behind "go anywhere" funds is that by roaming far and wide, the fund manager may be able to limit losses when interest rates begin to rise or other adverse market conditions develop.

Thus, investors in a "go anywhere" bond fund may actually end up owning a fund with more stocks and other instruments than bonds. This means they could be unpleasantly surprised if their investment fails to act as bonds are expected to act. The majority of "go anywhere" funds have been launched in just the past few years and thus have not been thoroughly road tested for rising interest rates, bond market collapses, or other types of market conditions.

In sum, bond funds have enjoyed a bull market for twenty years or so. When prices rise over long periods of time, investors tend to get complacent. But as the bond market has grown, it has become increasingly more complex and at the end of the day, complexity always affects risk. Complexity also affects volatility, sometimes in ways that are not expected.

When fixed-income securities are desired, we think it makes more sense to focus on high-quality individual bonds. We prefer to know what our clients own and to have some understanding of how the investment will react under different market conditions and investing environments. After all, the Latin warning "*caveat emptor*" applies to investors as well.