Bond Funds vs. Bond Ladders:

Which are Better When Interest Rates are Rising?

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Several investors have recently asked us whether they should own individual bonds versus bond funds in the belief that individual bonds are somehow better when interest rates are rising. The purpose of this note is to explain why this view is incorrect.

Some Bond Basics

Bonds are debt obligations issued by corporations or governments and typically pay a fixed rate of interest on a periodic basis for a set period of time. For example, let's say Google offers a new bond paying 5% interest (called the coupon return) annually over the next 10 years. You decide to purchase $100,000 and so you earn $5,000 annually for the next 10 years until the bond matures at which time you get back your original investment. But during these 10 years, market interest rates will fluctuate. If they go up, and Google wants to borrow more money, the company will have to offer bonds paying more, say 6%, for the same 10 year term. Any new investor is going to prefer the 6% bond so the 5% bondholder who wants to sell his/her bond, is going to have to offer it at a price less than $100,000 to entice the buyer away from the 6% bond. In short, the price of any existing individual bond will decline if interest rates rise such that the 5% bond and 6% bond have equal appeal.

The same holds true for bond funds. Bond funds are nothing more than baskets holding a large number of individual bonds. Therefore, just like individual bonds, bond funds lose value when interest rates rise, making them no more or less safe than owning individual bonds. **Anyone today owning individual bonds is experiencing the same loss in value that bond fund holders are experiencing.**

So what's all the fuss about? A key difference is that individual bond owners typically own their bonds until maturity and so they are guaranteed to get back the entirety of their original principal. In contrast, bond fund managers rarely hold bonds until maturity as they regularly purchase and sell bonds based on economic and market conditions, redemption re-quests, and so forth. Thus, bond funds do not offer the same guarantee of being able to recoup one's original investment since there is no fixed maturity date.

But here's the rub. Holding a bond until maturity comes with an opportunity cost: If rates rise while you are holding the bond, you miss out on the higher coupons offered by newer bonds on the market. This opportunity is captured by bond fund managers via their regular market activity. It is also captured if an investor owns a ladder (series of bonds maturing in subsequent years) and reinvests as bonds mature (called a rolling bond ladder). In a rising interest rate environment, the average coupon return of a bond fund (with the same duration, credit quality, etc. as a portfolio of individual bonds) will rise, whereas the average coupon return of the portfolio of individual bonds will remain the same unless the proceeds from maturing bonds are reinvested to create a rolling ladder.

In the long run, the difference in performance between a rolling ladder of individual bonds and a bond fund with the same duration (average time to receive cash flows) and credit quality, over the same time period, is typically very small, driven only by transaction and operational cost differentials.

So how to choose?

If you need to satisfy date-certain future liabilities (e.g., college tuition payments), holding individual bonds that are laddered to mature when the payments are due (i.e., a non-rolling ladder) makes good sense because you are guaranteed to get back exactly what you invested just when you need it. Holding individual bonds also allows you to better control duration. For example, you can shorten the overall duration of your bond portfolio by adding more short-term bonds into the mix. Likewise, you can increase your portfolio's duration by adding more long-dated bonds. This might be attractive if you are wanting to actively manage your bond portfolio. In contrast, most bond funds have a specific duration mandate and typically hold to that mandate within a close range. Finally, with individual bonds, one can tax-loss harvest at the individual bond level versus at the fund level.

But investing in bond funds also has its advantages. The more obvious one is diversification. A typical fund might hold hundreds or thousands of bonds so the impact of a single default is minimal. In contrast, a typical ladder of individual bonds generally includes between 10 and 30 bonds, which heightens the importance of investigating credit quality. The only exception to this benefit is when holding U.S. Treasury bonds because they are backed by the U.S. government and so diversification is not needed.

Bond funds are also a lot more convenient. Try going to Vanguard to put together your own portfolio of individual bonds – it can be a daunting task. In addition, bond funds offer the convenience of automatic dividend reinvestment and so you never have to worry about cash drag.

Finally, although harder to calculate, purchasing a low cost bond fund can be cheaper than building your own ladder. This is because bonds are purchased from dealers who make their money by marking up the price they paid for the bond they are offering to you (called the bid/ask spread). Bond fund managers pay much lower bid/ask spreads on their transactions than do small investors due to the large quantities they are trading.

Bottom Line

Bond funds are basically equivalent to rolling bond ladders and they are a whole lot easier to purchase and manage. The only downside is if you need to sell some shares of the fund when interest rates are rising and the NAV (net asset value) is low. With a ladder, you can pick and choose which bond(s) to sell and you may be lucky enough to have some short-dated bonds to sell that haven't declined a lot in value. Nevertheless, the most compelling reason to own a ladder of bonds is when you can exactly match the future cash flows from the maturing bonds to date-certain future liabilities.

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