Madison INVESTMENTS

BOND CONCEPTS

Cash vs. Bonds: Which is Better?

In an environment where short-term yields are the same or higher than long-term yields, many investors are replacing traditional bond investments with cash. While both financial instruments are perceived to be "safe," investors should consider two important factors when determining which is best for their portfolio: **total return potential** and **reinvestment risk.**

As the Federal Reserve (Fed) orchestrated a historic increase in interest rates to combat inflation, fixed income investors finally saw income return to their portfolios. The 10-year Treasury bond, which yielded 0.6% in August 2020, surpassed 4.9% by October 2023. Short-term rates also shot up, with the 3-month Treasury bill trading in a range of 4.3% to 5.3% throughout 2023.

As indicated by the Fed Funds futures markets, many investors believe the next move in rates will be down. With the potential for an economic slowdown and uncertainty in markets, the essentially risk-free asset of cash tempts many investors with yields that have not been available in 15+ years. Some may be questioning the role of fixed income when cash can yield the same amount or more.

Having experienced the impact of interest rates rising, let's examine what investors may face if rates move in the other direction. Understanding this phenomenon is essential when deciding whether to invest in cash or bonds.

The Basics: Cash, Money Market Funds, and Bond Funds

Cash – including high-yield savings accounts, short CDs – money market funds, and bond funds, are all perceived as relatively "safe" investments but differ in terms of their risk level and return potential. Cash is the least risky of the three but offers the lowest potential return. Money market funds, considered cash equivalents, are a type of mutual fund that invests in short-term, low-risk securities such as treasury bills and commercial paper and offer a slightly higher return than cash. Bond funds invest in various fixed-income securities and offer a higher potential return than money market funds but also come with greater risk.

Short-term bond funds typically invest in bonds with maturities of five years or less. Intermediate bond funds invest in bonds with maturities out to ten years, while long-term bond funds can invest in bonds with maturities of thirty years or more. Longer-term bonds are more sensitive to interest rate movements than short-term bonds.

Duration

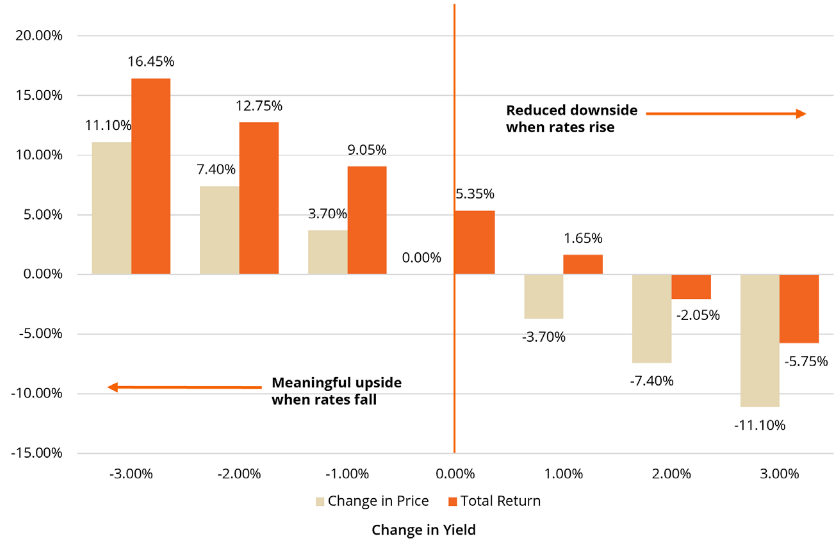
Duration is a measure of the expected change in a bond's price for a given change in yields. When interest rates rise, duration becomes a tangible measure of a bond's decrease in value. However, duration also offers the potential for capital appreciation. When interest rates fall, the price of a bond increases, leading to capital gains for investors should they decide to sell the bond before maturity. The greater the duration, the greater the price appreciation (falling rates) or depreciation (rising rates).

Total Return Potential

Income +/- Change in Price = Total Return

The total return on a bond or portfolio of bonds is a function of the income it generates plus or minus any change in price. For most bonds, the level of income is set when it is bought. It is simply the coupon adjusted for the price paid for the bond. Change in price is a function of the duration of a bond and the amount of change in the bond's Yield to Maturity (YTM). The total return potential in today's market is far more appealing for bond investors than just a short time ago when interest rates were low and credit spreads were tight. It is common for a high-quality, intermediate bond portfolio to offer a starting YTM well over 5% today versus under 1% just a few years ago.

As the illustration shows, today's yields add value, whether rates rise or fall. If rates rise, the higher level of income acts as a cushion, offsetting some of the expected price declines. If rates fall, having some duration in a portfolio provides a meaningful upside. An investor not only enjoys a higher level of income but also the potential for capital appreciation. If an investor anticipates interest rates will fall, having exposure to longer-duration securities like bonds can provide a bump for the return of a portfolio. With cash and money market funds, if interest rates fall, there is little opportunity for price appreciation.



Assumes a beginning YTM of 5.35% and a duration of 3.7.

Reinvestment Risk

Another important consideration related to the movement in interest rates is the yield at which the proceeds from an investment are reinvested. Interest and principal payments are reinvested at whatever going rate the market dictates when they are received, not at a constant rate. As rates fall, maturing bonds with higher yields are replaced with lower-yielding bonds, reducing income. Conversely, as rates rise, a portfolio's income rises as low-yielding bonds are replaced with higher-yielding ones. Reinvestment risk is a function of interest rate volatility and the maturity structure of the underlying investment.

With longer-term bonds, in return for taking on the interest rate risk (duration), investors are exposed to less reinvestment risk. With cash or other short-term investments, an investor takes very little interest rate risk but is exposed to extreme reinvestment risk. For example, investor A invests in a money market account yielding 4%, and investor B invests in a five-year bond yielding 4%. After one year, if interest rates decline and the money market account is now yielding 2%, investor A will earn a lower yield. Alternatively, investor B will still earn 4%, as the bond was locked into that rate for five years. In addition, assuming the five-year yield also fell, the investor would enjoy appreciation of the underlying bond.

Of course, rates could also rise from here, and the locked-in 4% bond yield for investor B would become a lower yield than cash. But if the Fed is to be believed and the market's expectations are correct, the most likely path for rates over the next 12-24 months is lower. While cash or an equivalent investment may provide an attractive yield today, that yield, and therefore the income generated, may evaporate with little to no potential for capital appreciation if rates decline. A portfolio of intermediate bonds, on the other hand, will maintain most of its income-generating ability while also providing attractive total returns as holdings in the portfolio appreciate.

For some investors, locking in a longer-term cash flow may be important; for others, capital stability may be important. The type of investment that is right for you will depend on your investment goals, risk tolerance, and current market conditions.

Why Outlook is Important

The outlook for interest rates is critical when allocating an investment portfolio, especially when cash and longer-term bonds offer similar yields. Cash can be an important tool when navigating periods of rising interest rates, but only after considering reinvestment risk and the potential opportunity cost of capital appreciation should rates fall. When constructing a bond portfolio, an active fixed income manager can implement views on interest rates, the market, and the economy. Decisions such as yield curve positioning, credit quality, and duration exposure can work to reduce risk and take advantage of developments in interest rates.

Bond Spread is the difference between yields on differing debt instruments of varying maturities, credit ratings, and risk, calculated by deducting the yield of one instrument from another.

Yield Curve is a line that plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The slope of the yield curve gives an idea of future interest rate changes and economic activity. There are three main types of yield curve shapes: normal (upward sloping curve), inverted (downward sloping curve), and flat. Yield curve strategies involve positioning a portfolio to capitalize on expected changes.

Yield to Maturity (YTM) measures the annual return an investor would receive if they held a particular bond until maturity as of the end of a report period In order to make comparisons between instruments with different payment frequencies, a standard yield calculation basis is assumed This yield is calculated assuming semiannual compounding.