Madison INVESTMENTS

BOND CONCEPTS

Why Bonds Now?

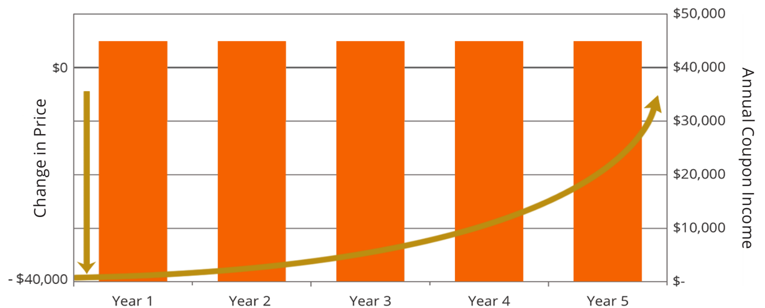
Traditionally, fixed income has played three important roles in asset allocation: principal preservation, steady income, and risk reduction. After pandemic-induced monetary and fiscal stimulus, the appeal of bonds had diminished some. The ability to preserve principal remained intact, but low yields meant that income was not keeping up with inflation, and the prospect of a rising rate environment meant elevated interest rate risk with limited downside protection. Today, these key attributes of bonds have returned, and investors can again expect their fixed income allocation to fulfill its traditional role in a portfolio.

Principal Preservation

Bonds mature at par. And, assuming the bond is held until maturity and the underlying company or issuer does not default on payment, daily fluctuations in market value will only show up "on paper." The bondholder receives income in the form of coupon payments, and at the bond's maturity, the bondholder will receive the initial principal back. These characteristics give bonds – particularly high-quality bonds – the ability to preserve principal in difficult markets.

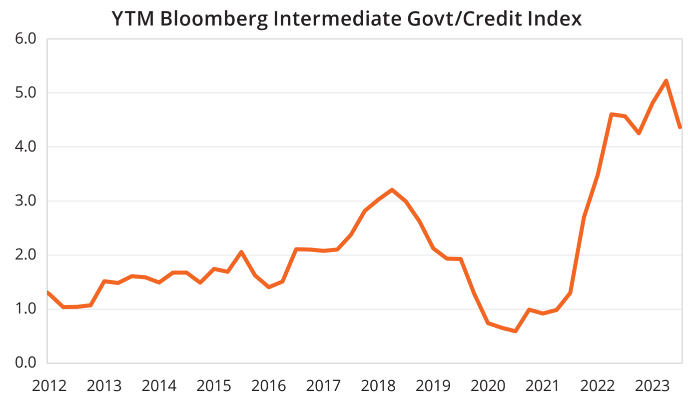
Scenario:
- 5 Year Maturity
- $1,000,000 Face Value
- Purchase at Par ($100)
- Coupon 4.50%
- Duration 4.00
- Interest rates rise 1.00%
- Price falls $40,000

Cash Flows:
- $45,000 Annual Coupon Income
- $1,000,000 Maturity Payment



Steady Source of Income

For much of the last 15 years, low rates from the Federal Reserve had starved the markets of income. In July 2020, the ten-year Treasury yield fell below 0.60% and remained below 1.00% for much of 2020 and into 2021. At the same time, corporate bond spreads relative to Treasuries tightened to historically low levels, giving investors little reward for taking on interest rate or credit risk. Then came the surge in inflation, and suddenly, bonds were not only producing very little nominal income, but they were also facing significantly negative real yields.



With the Federal Reserve raising interest rates at an accelerated pace starting in 2022, investors are again rewarded for taking on interest rate risk.

> “For the first time in over a decade, high-quality bonds, in particular, offer a steady source of safe income.”

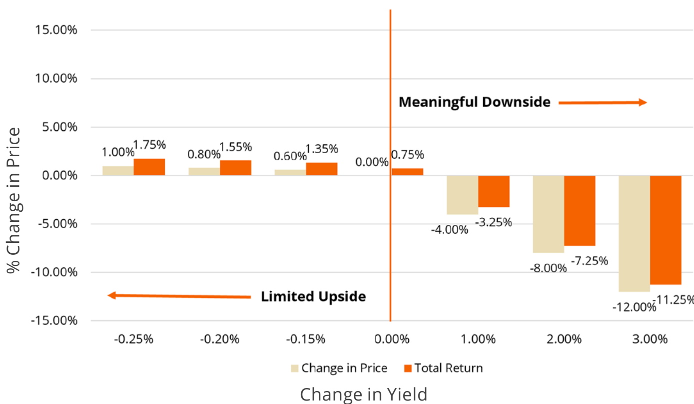
Risk Reduction Through Diversification

When a bond portfolio is structured to produce both income and capital gains, it can act as a hedge against underperformance in riskier parts of an asset allocation. To demonstrate the importance of income in this equation, consider the impact of rising and falling interest rates on a bond’s price return.

Bond prices move in the opposite direction as their yield. With yields so low, as they were in 2020-2021, a bond portfolio would have very little capacity to appreciate in value while still exposed to meaningful downside risk should rates eventually rise.

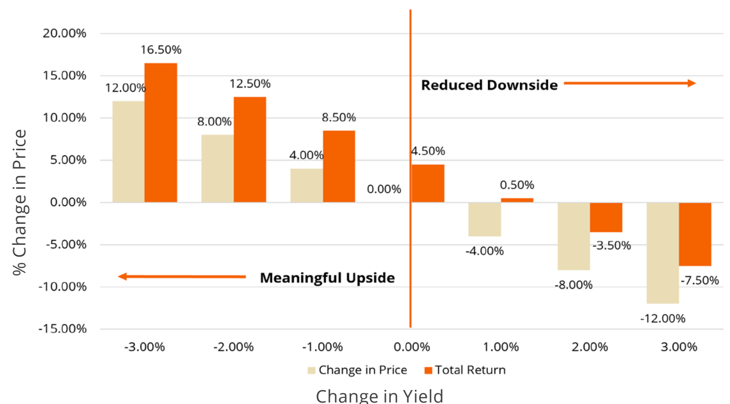
Consider two portfolios: one with a beginning yield-to-maturity of 0.75%; the other 4.50%. Both portfolios have the same interest rate risk, with a duration of 4.00.

To measure the diversification factor, investors might look at correlations to risker assets like equities. High quality bonds have historically provided the lowest correlation against equities, something that can add value in difficult markets.



In the first example (0.75%), the portfolio offers limited upside while still being exposed to meaningful negative returns in a rising rate environment. As the yield rises (x-axis), the low starting interest rate will not offer much of a buffer to the drop in price.

With yields at a more normal level (4.50%), the second portfolio offers meaningful upside potential and should act as a hedge against equity underperformance. Should rates continue to rise, the higher starting yield will serve as a counter to negative price movements, reducing downside risk.



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This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security.

The charts and graphs in this material are mathematical examples only and do not represent and Madison strategy. The assume bonds are held to maturity and experience no default, call or other credit event.

In addition to the ongoing market risk applicable to portfolio securities, bonds are subject to interest rate risk, credit risk and inflation risk. When interest rates rise, bond prices fall; generally, the longer a bond's maturity, the more sensitive it is to this risk. Credit risk is the possibility that the issuer of a security will be unable to make interest payments and repay the principal on its debt. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

Diversification does not assure a profit or protect against loss in a declining market.

Principal preservation statements relate to investment objectives and assume all bonds are held to maturity with no defaults. Market value between purchase and maturity may vary.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only, and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Bloomberg U.S. Intermediate Government/Credit Bond Index measures the performance of United States dollar-denominated United States Treasuries, government-related and investment-grade United States corporate securities that have a remaining maturity of greater than or equal to one year and less than 10 years.

Yield to Maturity (YTM): the rate of return on a bond calculated on the basis of purchase price, redemption price, the total interest payments, and the number of months or years until maturity. The yield to maturity is greater than the current yield when the bond is selling at a discount, and less when the bond is at premium.

Duration: a measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates. Duration measures how long it takes, in years, for an investor to be repaid the bond's price by the bond's total cash flows.

Bond Spread: 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.

Madison-513718-2024-03-14