Second Quarter 2023

Bond Market Commentary

Interest rates have covered an incredible amount of territory over the past 60 years. The yield of the U.S. Treasury 10-year Note has offered investors yields ranging from 15.32% to 0.68%. We use the term yield to describe the cost of money for a borrower of money, and the interest income for the lender of the funds. Investment in bonds typically offers a fixed amount of annual income for a set period at which time the money which was bowered is returned.

As investors, we consider the income component as an important element of a typical portfolio asset allocation. The certainty of the annual income and return of the invested funds provide a sense of safety and security. Investments in bonds provide protection to other more volatile investments like equities, which are used to provide growth in assets, but provide more uncertain returns.

To illustrate the significant range of annual income an investor could receive from investments in a 10-year U.S. Treasury Note, consider investing $100,000 at 15.32%. This investment would provide $15,320 of income each year for 10 years, totaling $153,200 plus the return your investment of $100,000. On the other hand, the same $100,000 investment invested at 0.68% would provide $680 of income per year for 10 years, totaling $6,800 and the return of your $100,000 investment. The difference in income earned over a 10-year time frame is remarkable.

What caused such extreme levels in interest rates? There are many economic and monetary factors that influence interest rates, but most powerful is the Federal Reserve Board (Fed). As the central banking authority of the U.S., they control the monetary system through 12 Reserve Banks. The significant rise or fall in interest rates over the past 60 years was primarily driven by the Fed which was reacting in response to potential financial crises.

In the early 1980's, the Fed raised interest rates in reaction to the significant increase in inflation due to large increases in gas and energy prices in the late 1970's. The following forty-year decline in interest rates was unexpected. In contrast, reacting to the 2008 great recession, the Fed reduced interest rates to near historic lows. Interest rates remained at the lower levels for many years. In 2020, the Fed again drove interest rates to what now are the historical lows, due to the unexpected impact of a pandemic. Just as professional investors didn't anticipate interest rates of 15%, they didn't anticipate interest rates of zero or the negative interest rates experienced in some countries.

Forty years of falling interest rates led to steady reduction of income for investors. In 2022, again in response to rapidly rising inflation, the Fed raised rates from 0.00% to the current 5.25% level. It is uncertain what the Fed will do next. However, investing at current interest rates offers attractive income after years of near-zero interest rates.

Index Returns (%) As of 6/30/2023	Performance Period		
Index	**3 Month**	**6 Month**	**1 Year**
Bloomberg U.S. Treasury Intermediate	-1.15	1.10	-1.02
Bloomberg Govt/Credit Intermediate	-0.81	1.50	-0.10
Bloomberg Intermediate Aggregate	-0.75	1.62	-0.60
Bloomberg U.S. Treasury	-1.38	1.59	-2.13
Bloomberg Govt/Credit	-0.93	2.21	-0.70
Bloomberg Aggregate	-0.84	2.09	-0.94
Bloomberg U.S. Treasury 20+ Year	-2.35	4.06	-7.72
Bloomberg Corporate	-0.29	3.21	1.55
Bloomberg Corporate Intermediate	-0.16	2.33	1.85
Bloomberg Corporate High Yield	1.75	5.38	9.06
Bloomberg Credit AAA	-0.99	3.99	-0.84
Bloomberg Credit AA	-0.69	3.22	-0.02
Bloomberg Credit A	-0.40	2.90	0.80
Bloomberg Credit BAA	-0.10	3.47	2.52
Bloomberg MBS	-0.64	1.87	-1.52
Bloomberg TIPS	-1.42	1.87	-1.40
Bloomberg Inter-Short Muni	-0.54	1.29	1.84

Source: Bloomberg

Daily Generic Municipal Bond Yields (%) as of 6/30/2023

Term	Maturity	AAA	AA	A	BAA
1 Yr.	2024	2.99	3.18	3.44	4.44
2 Yr.	2025	2.90	3.08	3.35	4.35
3 Yr.	2026	2.76	2.94	3.22	4.21
4 Yr.	2027	2.65	2.83	3.13	4.10
5 Yr.	2028	2.59	2.77	3.08	4.05
7 Yr.	2030	2.52	2.72	3.02	3.99
9 Yr.	2032	2.50	2.72	3.02	3.97
10 Yr.	2033	2.53	2.76	3.06	4.00
12 Yr.	2035	2.73	3.00	3.30	4.20
14 Yr.	2037	3.00	3.32	3.62	4.49
15 Yr.	2038	3.07	3.43	3.72	4.57
17 Yr.	2040	3.16	3.52	3.81	4.64
19 Yr.	2042	3.25	3.65	3.93	4.74
20 Yr.	2043	3.28	3.68	3.96	4.77
25 Yr.	2048	3.45	3.89	4.13	4.94
30 Yr.	2053	3.50	3.98	4.19	5.00

Source: Bloomberg

Index Descriptions:

Bloomberg U.S. Intermediate Treasury Index: Unmanaged index includes all domestic publicly issued, U.S. Treasury securities that have a remaining maturity of greater than or equal to 1 year and less than 10 years, are rated investment grade, and have $250 million or more of outstanding face value.
Bloomberg Intermediate Government/Credit Index: Broad-based flagship benchmark that measures the non-securitized component of the U.S. Aggregate Index with less than 10 years to maturity. The index includes investment grade, U.S. dollar-denominated, fixed-rate treasuries, government-related and corporate securities.
Bloomberg Intermediate Aggregate Index: Broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market with less than 10 years to maturity. The securitized sector is wholly included. The index includes Treasuries, government-related and corporate securities, MBS, ABS and CMBS.
Bloomberg U.S. Treasury Bond Index: Is part of the Bloomberg global family of domestic government bonds indices. The index measures the performance of the U.S. Treasury bond market, using market capitalization weighting and a standard rule-based inclusion methodology.
Bloomberg U.S. Government/Credit Bond Index: Broad-based flagship benchmark that measures the non-securitized component of the U.S. Aggregate Index. The index includes investment grade, U.S. dollar-denominated, fixed-rate treasuries, government-related and corporate securities.
Bloomberg U.S. Aggregate Bond Index: Broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).
Bloomberg U.S. Treasury 20+ Year Index: Measures U.S. dollar-denominated, fixed-rate nominal debt issues by the U.S. Treasury with 20+ years to maturity.
Bloomberg U.S. Credit Index: Composed of all domestic publicly issued, fixed-rate, nonconvertible, and investment-grade corporate debt. Issues are rated at least Baa by Moody's Investors Service or BBB by Standard & Poor's, if unrated by Moody's. Collateralized Mortgage Obligations (CMOs) are not included.
Bloomberg U.S. Intermediate Credit Index: Measures the investment-grade, U.S. dollar-denominated, fixed-rate, taxable corporate and government-related bond markets. The index only includes domestic securities with maturity between one and ten years. It is composed of the Bloomberg Barclays U.S. Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.
Bloomberg U.S. Corporate High Yield Index: Unmanaged index that is comprised of domestic issues that meet the following criteria: at least $150 million par value outstanding, maximum credit rating of Ba1 (including defaulted issues) and at least one year to maturity.
Bloomberg Aaa Corporate Index: Measures the Aaa-rated, fixed-rate, taxable domestic corporate bond market. It includes USD denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.
Bloomberg Aa Corporate Index: Measures the Aa-rated, fixed-rate, taxable domestic corporate bond market. It includes USD denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.
Bloomberg Government/Credit A+ Bond Index: Unmanaged index that tracks the performance of U.S. Government and corporate domestic bonds rated investment grade or better, with maturities of at least one year with a security rating of A or better.
Bloomberg Baa Corporate Index: Measures the Baa-rated, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.
Bloomberg U.S. Mortgage-Backed Securities Index: Unmanaged index that tracks domestic agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by GNMA, FNMA, and FHLM.
Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) Index: Represents domestic securities that protect against adverse inflation and provide a minimum level of real return. To be included in this index, bonds must have cash flows linked to an inflation index, be sovereign issues denominated in U.S. currency, and have more than one year to maturity, and, as a portion of the index, total a minimum amount outstanding of 100 million U.S. dollars.
Bloomberg Municipal Bond Inter-Short 1-10 Year Index: Unmanaged index of municipal bonds traded in the U.S. with maturities ranging from 1-10 years.