Thornburg Municipal Bond Strategies

Portfolio Manager Commentary
31 March 2022

Thornburg

Market Review

Globally, fixed income markets finished one of the most difficult quarters in recent memory as rates soared. The upward trend for global developed market rates that began in September 2021 and was initially driven by inflation and the Fed's hawkish pivot accelerated following the Russian invasion of Ukraine. U.S. inflation measures reached a 40-year high at the end of 2021, marked by the November CPI print of 6.8%, as global economies continued to adjust to supply chain issues and shifts in consumer spending. Any hopes inflationary pressures would ease were quickly dashed as inflation readings came in higher to start the year, with the most recent reading of 7.9% in February. High levels of inflation can pose serious challenges for the U.S. economy because of the negative impact it can have on consumer sentiment and consumer spending, which accounts for nearly two-thirds of GDP. Evidence of its impact was found in February retail sales figures that came in below expectations as consumers wrangled with higher prices and the Fed lowered its GDP growth expectations at their March meeting.

A challenging quarter for municipal bond performance has created an incredible buying opportunity for municipal bond investors.

Along with lowered GDP expectations at the March meeting, the Fed also increased interest rates for the first time in over 3 years with a 25-basis point (bps)

Average Annual Returns (%, as of 31 Mar 2022)

	QTR	YTD	1-YR	3-YR	5-YR	10-YR
Limited Term Municipal Composite (NET)	-4.25	-4.25	-3.86	0.59	1.26	1.57
Limited Term Municipal Composite (GROSS)	-4.19	-4.19	-3.60	0.85	1.53	1.84
BBG Muni 5 Yr TR Index	-5.10	-5.10	-4.48	0.85	1.51	1.78
ICE BofA 1-10 Yr US Muni Index	-4.44	-4.44	-3.74	0.92	1.60	1.76
Short Duration Municipal Composite (NET)	-2.08	-2.08	-2.08	0.28	0.73	–
Short Duration Municipal Composite (GROSS)	-2.00	-2.00	-1.73	0.62	1.07	–
ICE BofA 1-3 Yr US Muni Index	-2.33	-2.33	-2.19	0.64	0.98	–
Intermediate Term Municipal Composite (NET)	-5.12	-5.12	-3.90	1.25	2.05	2.43
Intermediate Term Municipal Composite (GROSS)	-5.03	-5.03	-3.52	1.66	2.46	2.86
ICE BofA 3-15 Yr US Muni Index	-5.87	-5.87	-4.54	1.26	2.20	2.50
Strategic Municipal Income Composite (NET)	-5.53	-5.53	-4.21	1.11	2.01	2.79
Strategic Municipal Income Composite (GROSS)	-5.39	-5.39	-3.64	1.75	2.67	3.51
ICE BofA US Muni Index	-6.18	-6.18	-4.13	1.71	2.62	3.00

Performance data for the Limited Term Municipal Strategy is from the Limited Term Municipal Composite, inception date of 1 January 1985. Performance data for Short Duration Municipal Strategy is from the Short Duration Municipal Composite, inception date of 1 April 2014. Performance data for the Intermediate Term Municipal Strategy is from the Intermediate Term Municipal Composite, inception date of 1 November 1991. Performance data for the Strategic Municipal Income Strategy is from the Strategic Municipal Income Composite, inception date of 1 May 2009.

Each composite represents all assets under management in fully discretionary, transaction fee based accounts. Returns are calculated using a time-weighted and asset-weighted calculation including reinvestment of dividends and income. Periods less than one year are not annualized. Individual account performance will vary. The performance data quoted represents past performance; it does not guarantee future results. Net of fee returns are net of transaction costs and investment advisory fees. For periods prior to 2011, net returns for some accounts in the composite also reflect the deduction of administrative expenses. Thornburg Investment Management Inc.'s fee schedule is detailed in Part 2A of its ADV brochure. Gross of fee returns are net of transaction costs. Performance results of the firm's clients will be reduced by the firm's management fees. For example, an account with a compounded annual total return of 10% would have increased by 159% over ten years. Assuming an annual management fee of 0.75%, this increase would be 142%.

hike that left some market participants wanting more. At the start of the quarter, markets were anticipating three 25 bps hikes in 2022. Expectations changed dramatically by quarter-end, as the market is now anticipating eight or nine rate hikes, which implies the Fed Funds Rate will finish the year near 2.5%. The rapid change in expectations led the bond market to flash signals that a hard landing may be impossible to avoid, as the 2-year and 10-year Treasury yield inverted for the first time since 2019. An inversion of the yield curve, which is one of many predictors of a possible recession, occurs when yields on short-term bonds are higher than the yields on longer-term bonds.

The inversion of the yield curve capped off one of the wildest quarters for bond yield movements in recent memory. The Treasury curve flattened throughout the quarter, as yields were up substantially across all maturities. The 2-year U.S. Treasury yield led the way as it rose 162 bps, finishing the quarter at 2.34%. Of the 162 bps move in the 2-year Treasury, 90 bps came in the month of March alone which was only the tenth move of that magnitude since 1980 but in all nine instances previously, the yield on the 2-year was above 11%. The flattening of the Treasury curve and rapid rise in yields led spreads on investment-grade and high-yield corporates, as well as taxable municipals, to show signs of weakness. Spreads widened through much of the quarter, and peaked in mid-March, as the Russian/Ukraine conflict caused market jitters. However, spreads retraced half of the move from their peaks, as the risk tone improved somewhat as the quarter came to an end.

First-Quarter 2022 Performance Highlights

- The Thornburg Municipal Strategies posted negative total returns during one of the municipal bond market's worst quarters on record. Interest rates rose dramatically across the entire muni market as inflation readings came in at the highest levels in 40 years which stoked concerns of aggressive Fed action. Despite the difficult quarter, the Thornburg Municipal Strategies all outperformed their respective indexes on a relative basis.

Annual Return Performance Summary (%)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Limited Term Municipal Composite (NET)	3.56	0.25	3.49	2.04	-0.28	2.77	1.31	4.33	3.38	0.20
Limited Term Municipal Composite (GROSS)	3.85	0.52	3.77	2.31	-0.01	3.04	1.58	4.62	3.65	0.46
Bloomberg Barclays 5 Year Municipal Bond Index	2.96	0.81	3.19	2.43	-0.39	3.14	1.69	5.45	4.29	0.34
ICE BofA 1–10 Year U.S. Municipal Securities Index	2.98	0.16	3.58	2.12	-0.05	2.83	1.69	5.28	3.81	0.48
Short Duration Municipal Composite (NET)	–	–	–	0.34	0.38	1.25	1.33	2.37	1.34	0.09
Short Duration Municipal Composite (GROSS)	–	–	–	0.74	0.72	1.60	1.68	2.73	1.66	0.44
ICE BofA 1–3 Year Municipal Securities Index	–	–	–	0.76	0.33	0.99	1.76	2.88	2.16	0.34
Intermediate Term Municipal Composite (NET)	6.13	-0.78	6.91	2.58	0.04	4.00	1.06	6.21	4.24	1.17
Intermediate Term Municipal Composite (GROSS)	6.59	-0.34	7.39	3.03	0.48	4.44	1.47	6.65	4.65	1.57
ICE BofA 3–15 Year Municipal Securities Index	4.88	-0.99	6.57	3.16	-0.06	4.64	1.45	7.01	4.96	0.94
Strategic Municipal Income Composite (NET)	10.31	-2.33	10.42	2.78	0.12	4.29	1.18	5.82	4.02	1.50
Strategic Municipal Income Composite (GROSS)	11.13	-1.60	11.24	3.55	0.88	5.07	1.82	6.57	4.65	2.10
ICE BofA Municipal Master Index	7.26	-2.89	9.78	3.55	0.44	5.42	1.04	7.74	5.26	1.83

Past performance does not guarantee future results.

- Municipal yields staged one of the most dramatic quarters in recent memory with increases of more than 150bps for certain maturities. As to be expected in a rising rate environment, shorter maturities outperformed longer maturities by a wide margin. The spike in yields lead duration to be the single largest driver of performance across all strategies as shorter duration strategies outperformed longer strategies on an absolute basis.
- One silver lining during the quarter was the continued strong performance of municipal credit. States posted huge year-over-year revenue gains early in the quarter and defaults have been almost non-existent. The strength of the overall market was a contributor to positive performance and helped mitigate some of the losses incurred due to interest rate movements.

Current Positioning and Outlook

The Bloomberg Municipal Bond Index experienced one of its worst quarters on record by delivering a total return of -6.23% as yields spiked across domestic fixed income markets. Municipal yields rose significantly across all maturities which lead short bonds to outperform longs bonds by a significant margin. The Bloomberg 1-year Municipal Bond Index returned -1.61% for the quarter while the Bloomberg Long Bond (22+) Index returned an abysmal -8.65%. The upward trend of yields began in September 2021 as inflation prints came in at uncomfortably high levels, spurring movements in yields which now in hindsight look tame in comparison to the magnitude of the moves occurred during the first quarter of 2022.

The driving force behind the negative performance for the indexes and the Thornburg strategies was the rise in interest rates. The 2-year AAA Muni yield jumped from 0.24% to where it finished the quarter at 1.78% while the 30-year AAA muni yield rose from 2.05% to 2.60%. Absent during that time was any significant impact on performance from a movement in credit spreads. The market did experience brief moments of credit spread widening, but the strength of municipal credit quality is undeniably strong and continues to surprise to the upside. In January, states reported 17% year-over-year revenue growth which is astounding when you take into consideration 2021 was better than the pre-COVID highs of 2019. The strength is not just limited to the states as evidenced by the very low default rates that have occurred in the high yield municipal space last year and again this year.

As has been the case over the last several years, the demand side of the market (mutual fund flows) has been the driving force behind prices and yields. In many ways, the supply side of the market (new issuance) has taken a back-seat to the insatiable demand from retail investors. However, the supply side has shown glimpses of its former power like in 2021 when taxable muni issuance swelled to nearly a third of total new issuance. Municipal market performance during the quarter created, and was exacerbated by, a vicious bout of outflows that began the third week of January and remained negative for the rest of the quarter. According to ICI, the municipal market experienced $84B of inflows in 2021 as investors tripped over themselves chasing yields to near record low levels. During the first quarter, ICI reported $28B of outflows as negative returns sparked an exodus in the best yield environment in several years. Given the inverse relationship between yields and bond prices this means that some investors may have bought high and sold low as they chased price returns instead of focusing on the tax-exempt income munis provide.

The poor market timing of muni inflows and outflows underscores a change in market composition that exacerbates both positive and negative performance. As we have mentioned in previous commentaries, mutual fund assets have doubled in the last 7 years and now account for 25% of the market. The mutual fund structure brings about an inherent liquidity mismatch between the daily liquidity offered by the fund and the semi-illiquid assets (municipal bonds) that it owns. As we saw in March 2020 and again in March 2022, large outflows create forced selling which puts pressure on prices and strains market liquidity, which in turn leads to further price pressure and the cycle repeats.

We favor periods with pressure on market prices and view any associated outflows as an opportunity to add yield to our portfolios. During the quarter, this allowed us to purchase bonds at yields that haven't been seen in several years that were funded by high cash levels coming into 2022. The pressure from constant outflows revived secondary market trading. The market came alive as managers looked to it for liquidity to meet redemptions for shareholders. We capitalized on the opportunity by conducting bond swaps across our portfolios which increases the yield on the bonds we own and allows us to book a tax loss that can be used to offset future gains.

As we look forward, we have a close eye on areas that we believe may be large drivers of total return for the remainder of the year. In previous rate rising cycles the market followed rate hikes from the Fed but this time the market has pre-empted any Fed action. As a result, the short end of the muni market looks very attractive from an absolute and relative yield basis and leads us to believe the market may have overdone it on its expectations for rate increases from the Fed. At the same time, it seems as though the market has not moved enough on the long end with yields remaining subdued despite inflation over 8%. This may be an area of volatility as the inflation picture becomes clearer and the Fed has more time to end its asset purchase program and hike rates at future meetings. Lastly, all signs point to municipal credit remaining strong over the near term, but we have a close eye on factors that could chip away at it. Inflation readings are at levels that will have an impact on consumer behavior if sustained which could have broader implications for the municipal market.

In a market that seems to be exceedingly less certain, credit research is paramount. We are committed to being diligent in our research efforts to preserve shareholder capital and are hyper-focused in times of volatility to reward shareholders for their commitment to the Thornburg strategies.

Thank you for your continued trust and support investing alongside of us in the Thornburg municipal strategies.

Important Information

The performance data quoted represents past performance; it does not guarantee future results.

Unless otherwise noted, the source of all data, charts, tables and graphs is Thornburg Investment Management, Inc., as of 31 March 2022.

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U.S. Treasury securities, such as bills, notes and bonds, are negotiable debt obligations of the U.S. government. These debt obligations are backed by the “full faith and credit” of the government and issued at various schedules and maturities. Income from Treasury securities is exempt from state and local, but not federal, taxes.

Credit Spread/Quality Spread – The difference between the yields of securities with different credit qualities.

Duration – A bond’s sensitivity to interest rates. Bonds with longer durations experience greater price volatility than bonds with shorter durations.

Federal Open Market Committee (FOMC) - The branch of the Federal Reserve Board that determines the direction of monetary policy. The FOMC is composed of the board of governors, which has seven members, and five reserve bank presidents. The president of the Federal Reserve Bank of New York serves continuously, while the presidents of the other reserve banks rotate their service of one-year terms.

The ICE BofA 1-10 Year US Municipal Securities Index is a subset of the ICE BofA U.S. Municipal Securities Index including all securities with a remaining term to final maturity less than 10 years.

The ICE BofA 1-3 Year U.S. Municipal Securities Index is a subset of the ICE BofA U.S. Municipal Securities Index including all securities with a remaining term to final maturity less than 3 years.

The ICE BofA 3-15 Year U.S. Municipal Securities Index is a subset of the ICE BofA U.S. Municipal Securities Index including all securities with a remaining term to final maturity greater than or equal to three years and less than 15 years.

The ICE BofA U.S. Municipal Securities Index tracks the performance of the investment-grade U.S. tax-exempt bond market. Qualifying bonds must have at least one year remaining term to maturity, a fixed coupon schedule, and an investment grade rating (based on average of Moody's, S&P, and Fitch).

Portfolio construction will have significant differences from that of a benchmark index in terms of security holdings, industry weightings, asset allocations and number of positions held, all of which may contribute to performance, characteristics and volatility differences. Investors may not make direct investments into any index.

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