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Municipal Bonds in Focus

March 31, 2024



## Key Takeaways

- Municipal bonds were modestly negative year-to-date amid continued rate volatility. Tax-Equivalent Yields are compelling as yields have increased across the curve
- Relative valuations have cheapened slightly. Technicals and fundamentals remain favorable
- Elections have historically produced more noise than market event
- The yield curve remains inverted, strengthening the case for dynamic allocations and active management

## Performance

- Municipal bonds had a strong 2023 and have modestly declined to start the year
- High Yield and shorter duration has led performance YTD

Performance

- Current Tax Equivalent Yields may provide an attractive entry point
- Yield/Duration profiles are compelling on an absolute basis and relative to the US Agg

Bloomberg HY Muni	9.2
Bloomberg US Corporate High Yield	1.5
Bloomberg Municipal 1-3 Yr	0.0
Bloomberg Municipal Revenue	-0.3
Bloomberg Municipal 5 Yr 4-6	-0.4
Bloomberg Municipal	-0.4
Bloomberg Municipal State GO	-0.6 <b>■</b> 5.2
Bloomberg Municipal Local GO	-0.8
Bloomberg US Agg Bond	-0.8

■2023 ■YTD

	Yield to Worst	TEY	Duration	TEY/D
Bbg Municipal 1-3 Yr	3.3	5.3	1.7	3.1
Bbg Municipal 5 Yr 4-6	3.1	4.9	3.6	1.3
Bbg Municipal	3.5	5.5	5.9	0.9
Bbg Municipal Revenue	3.6	5.7	6.2	0.9
Bbg Municipal State GO	3.1	5.0	4.7	1.1
Bbg Municipal Local GO	3.4	5.4	6.4	8.0
Bbg HY Muni	5.5	8.7	9.9	0.9
Bbg US Agg Bond		4.9	6.2	8.0
Bbg US Corporate HY		7.7	3.7	2.1

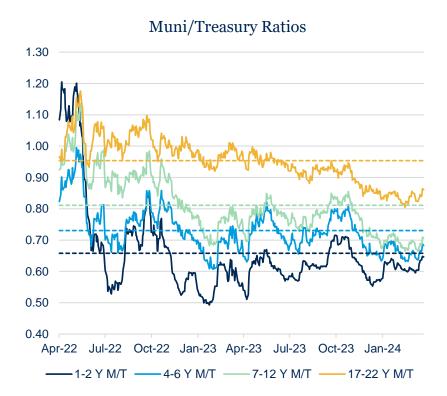
TEY ("Tax Equivalent Yield") is calculated as: Yield to Worst/(1-Tax Bracket) and is using a 37% tax bracket

Source: FactSet. As of March 31, 2024.

Source: Morningstar Direct. As of March 31, 2024.

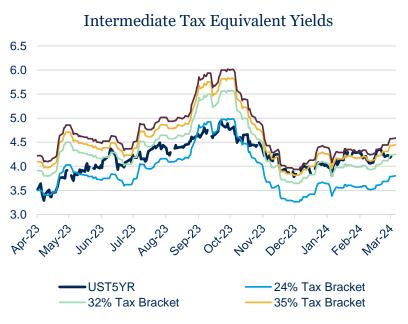
## Valuation

- Valuations have cheapened YTD
- Intermediate duration (4-6) remains close to the 2-year average



Source: FactSet. As of March 31, 2024.

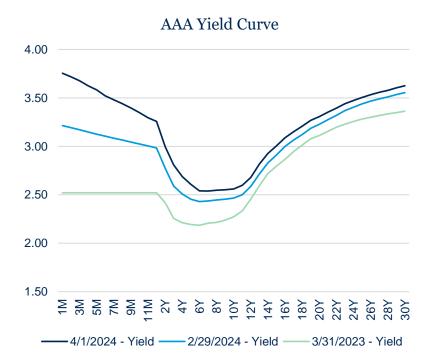
- Intermediate muni yields continue to be compelling after adjusting for taxes across most tax brackets
- Tax brackets above 32% provide greater adjusted yields than treasury counterpart



Source: FactSet. As of March 31, 2024.

## **Technicals**

- The muni curve remains inverted
- The current environment presents opportunities for dynamic allocations



- Supply is on a similar pace to 2023
- There is still a lot of demand left to come back to municipal markets; future technicals are supportive to prices



Source: SIFMA and Morningstar. As of March 31, 2024.

## Elections

- Munis have generally posted positive absolute returns during election years
- Average return during non-election years was 2.9%



 Average returns during, and immediately following, election years have been positive regardless of political party outcomes

• This suggests elections may create noise rather than a market event

Average
Intermediate
Return
During an
Election Year

Average
Intermediate
Return
Following an
Election Year

4.6%

4.8%

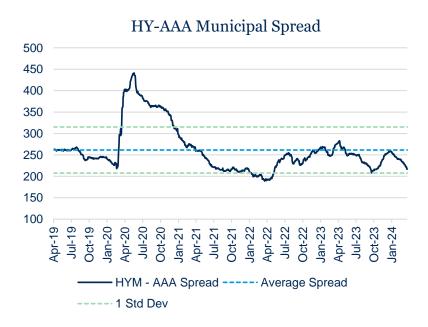
Source: Electoral Colleges, Wikipedia, 1988 - 2024. Red indicates Republican winner, Blue indicates Democratic winner.

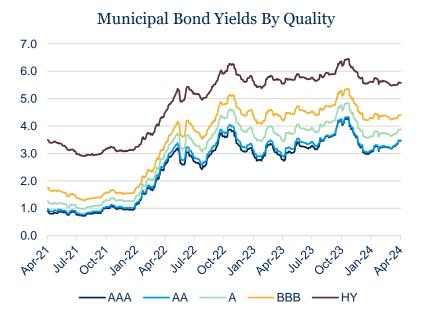
Source: Morningstar. As of March 31, 2024.

## **Fundamentals**

- Robust tax collections, reserves, and revenues have continued to support fundamentals
- Spreads have tightened to lower first standard deviation levels

- Yields have increased
- Yield dispersion remains wide with lower quality offering a substantial margin





Source: FactSet. As of March 31, 2024.



# Key Takeaways

- Belle Haven has provided significant consistency in outperformance relative to others
- •Core Plus Baird Strategic, has continued to be a stand-out performer
- PIMCO Opportunistic Value is closed to new money



## Manager Search Investment Analysis March 2024

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### **DEFINITION OF KEY METRICS**

#### Alpha

The Alpha is the nonsystematic return, or the return that can't be attributed to the market. It can be thought of as how the manager performed if the market's return was zero. A positive alpha implies the manager added value to the return of the portfolio over that of the market. A negative alpha implies the manager did not contribute any value over the performance of the market.

#### Batting Average

Batting average is a measure of a manager's consistency. It is calculated as the ratio between the number of periods that a manager outperforms a benchmark and the total number of periods observed. For example, a batting average of 0.60 implies that a manager outperformed its benchmark 6 out of 10 time periods.

#### Beta

This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse than the market in down markets. It is important to note, however, that a low fund beta does not imply that the fund has a low level of volatility; rather, a low beta means only that the fund's market-related risk is low. Because beta analyzes the market risk of a fund by showing how responsive the fund is to the market, its usefulness depends on the degree to which the markets determine the fund's total risk (indicated by R-squared).

#### Information Ratio

The information ratio is a measure of the excess return per volatility of that excess return. This value is determined by taking the annualized excess return over a benchmark and dividing it by the standard deviation of excess return.

#### R-Squared

This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates that very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by the market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.

#### Return

Time-weighted average annual returns for the time period indicated.

#### Sharpe Ratio

The Sharpe ratio is the excess return per unit of total risk as measured by standard deviation. Higher numbers are better, indicating more return for the level of risk experienced. The ratio is a fund's return minus the risk-free rate of return (30-day T-Bill rate) divided by the fund's standard deviation. The higher the Sharpe ratio, the more reward you are receiving per unit of total risk.

#### Volatility (or Standard Deviation)

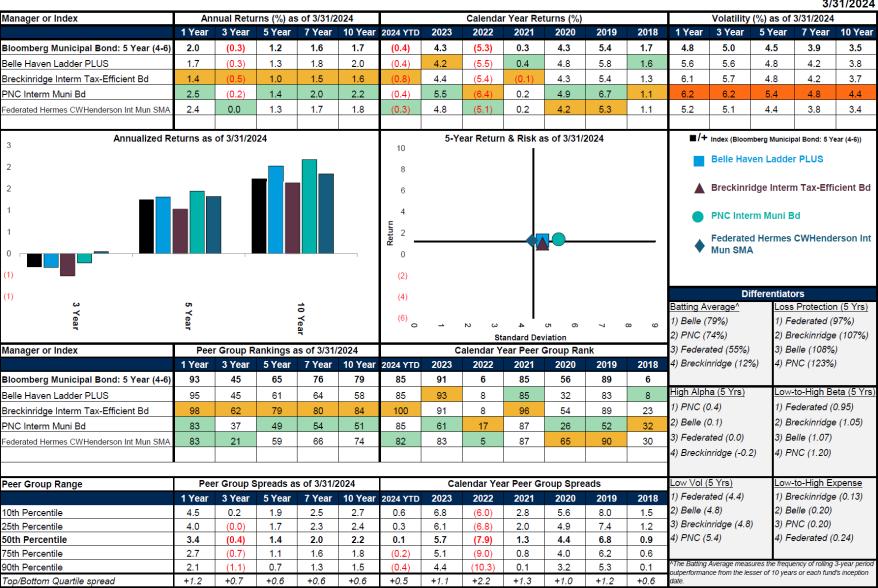
Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning that there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.

#### Tracking Error

Tracking error measures the volatility of the difference in annual returns between the manager and the index. This value is calculated by measuring the standard deviation of the difference between the manager and index returns. For example, a tracking error of +/- 5 would mean there is about a 68% chance (1 standard deviation event) that the manager's returns will fall within +/- 5% of the benchmark's annual return.



### **Municipal Bond** Return, Standard Deviation and Peer Group Comparisons



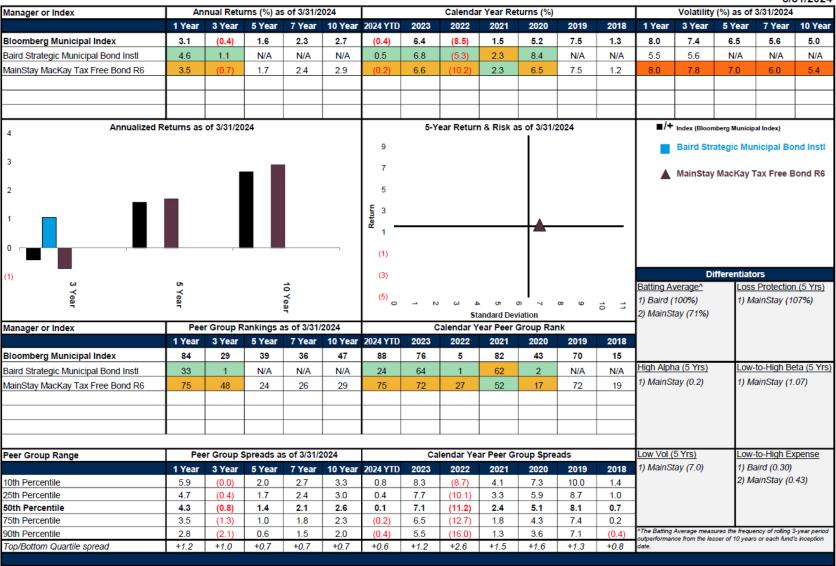


# Municipal Bond MPT and Other Quantitative Risk and Return Metrics

		Pas	t 10-Year	Metrics a	s of 3/31/2	2024			Pa		Max Drawdowns (10 yrs)									
Managers vs. Bloomberg Municipal Bond: 5 Year (4-6)	Correl / R <sup>2</sup>	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	8/2021 - 10/2022	8/2016 - 11/2016	3/2020 - 4/2020			
Bloomberg Municipal Bond: 5 Year (4-6)	1/1	1	0	0.11	0/0	100%	100%	1/1	1	0	(0.17)	0/0	100%	100%	-8.7%	-3.5%	-2.9%			
Belle Haven Ladder PLUS	0.98 / 0.96	1.05	0.3	0.18	0.8 / 0.39	107%	101%	0.99 / 0.97	1.07	0.1	(0.15)	0.8 / 0.07	109%	108%	-9.5%	-3.6%	-2.4%			
Breckinridge Interm Tax-Efficient Bd	0.98 / 0.96	1.03	(0.1)	0.07	0.8 / -0.13	100%	102%	0.98 / 0.97	1.05	(0.2)	(0.21)	0.9 / -0.25	103%	107%	-9.2%	-3.7%	-1.8%			
PNC Interm Muni Bd	0.97 / 0.95	1.21	0.4	0.19	1.2 / 0.36	124%	120%	0.99 / 0.97	1.20	0.4	(0.11)	1.3 / 0.15	125%	123%	-10.9%	-4.8%	-3.7%			
Federated Hermes CWHenderson Int Mun SMA	0.96 / 0.91	0.92	0.1	0.14	1 / 0.11	93%	87%	0.97 / 0.94	0.95	0.0	(0.16)	1 / 0.07	99%	97%	-8.6%	-3.1%	-2.1%			
Managers vs. Bloomberg Municipal Bond: 5					ing average							Graph	Legend							
Year (4-6)	1 Month Periods	% + Months	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months	Return Start Date		=	Brecki	nridge	adder P Interm T		cient Bo	d					
Belle Haven Ladder PLUS	120	56%	109	62%	85	79%	Mar-14	—												
Breckinridge Interm Tax-Efficient Bd	120	47%	109	38%	85	12%	Mar-14													
PNC Interm Muni Bd	120	55%	109	65%	85	74%	Mar-14													
Federated Hermes CWHenderson Int Mun SMA	120	50%	109	59%	85	55%	Mar-14													
1.0% 0.8% 0.6% 0.4% 0.2% 0.0% -0.2% -0.4%		×	<b>***</b>	<b>▼</b>			5		\frac{1}{\sqrt{1}}	\ \ \		Z	F	<b>₩</b>						
-0.6% -0.8% -1.0% Mar-17 Sep-17 M	ar-18	Sep-18	Mar-1	9 Se	ep-19	Mar-20	Sep-	20 Ma	ar-21	Sep-21	Mar-	22 Se	ep-22	Mar-23	Sep-2	)3 Ma	ur-24			



### Municipal Core Plus Bond Return, Standard Deviation and Peer Group Comparisons



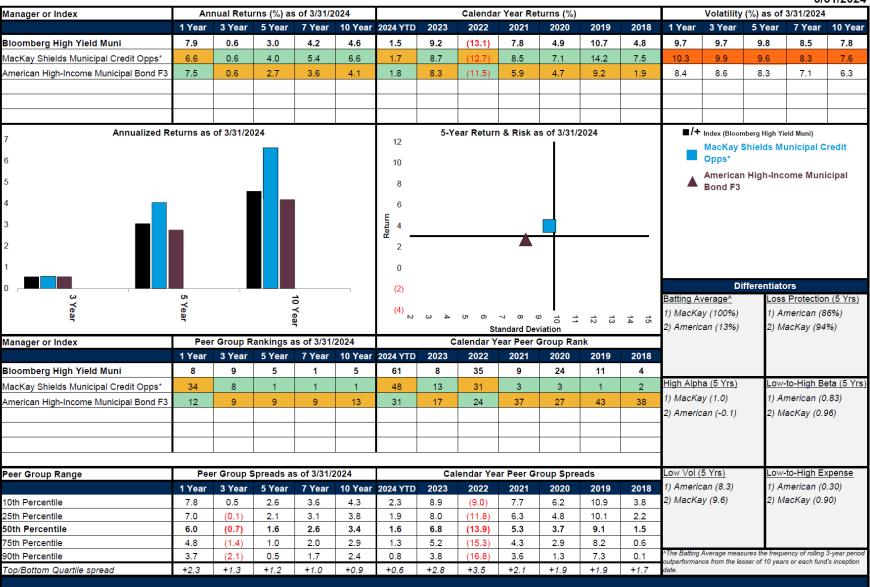


## Municipal Core Plus Bond MPT and Other Quantitative Risk and Return Metrics

		Pas	t 10-Year	Metrics a	s of 3/31/2	2024			Pa		Max Drawdowns (10 yrs)								
Managers vs. Bloomberg Municipal Index	Correl /	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	8/2021 - 10/2022	9/2016 - 11/2016	3/2020 - 4/2020		
Bloomberg Municipal Index	1/1	1	0	0.26	0/0	100%	100%	1/1	1	0	(0.07)	0/0	100%	100%	-13.2%	-5.2%	-4.8%		
Baird Strategic Municipal Bond Instl	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9.1%	N/A	-2.1%		
MainStay MacKay Tax Free Bond R6	0.98 / 0.96	1.06	0.2	0.29	1.1 / 0.23	106%	104%	0.99 / 0.98	1.07	0.2	(0.04)	1 / 0.12	108%	107%	-14.8%	-5.8%	-5.9%		
Managers vs. Bloomberg Municipal Index	Monthly, 1				verages vs. ger inception		j Municipal												
	1 Month Periods	% + Months	12 Month periods	% + 12- Months	36 Month Periods	% + 36 Months	Return Star Date	Baird Strategic Municipal Bond Instl MainStay MacKay Tax Free Bond R6											
Baird Strategic Municipal Bond Instl	52	62%	41	100%	17	100%	Nov-19	<u>)</u>											
MainStay MacKay Tax Free Bond R6	120	54%	109	56%	85	71%	Mar-14												
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# High Yield Municipal Bond Return, Standard Deviation and Peer Group Comparisons





# High Yield Municipal Bond MPT and Other Quantitative Risk and Return Metrics

		Pas	t 10-Year	Metrics a	s of 3/31/2	2024			Pa	Max Dra	Max Drawdowns (10 yrs)									
Managers vs. Bloomberg High Yield Muni	Correl / R <sup>2</sup>	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	Correl / R2	Beta	Alpha (%)	Sharpe Ratio (%)	Track. Error / Info. Ratio (%)	UP Capture	DOWN Capture	1/2022 - 10/2022	3/2020 - 4/2020	10/2016 - 11/2016			
Bloomberg High Yield Muni	1/1	1	0	0.41	0/0	100%	100%	1/1	1	0	0.10	0/0	100%	100%	-17.7%	-14.0%	-7.1%			
MacKay Shields Municipal Credit Opps	0.96 / 0.92	0.93	2.3	0.69	2.2 / 0.91	107%	84%	0.98 / 0.96	0.96	1.0	0.21	1.9 / 0.53	102%	94%	-17.3%	-11.8%	-7.8%			
American High-Income Municipal Bond F3	0.96 / 0.93	0.78	0.3	0.44	2.4 / -0.17	79%	76%	0.99 / 0.98	0.83	(0.1)	0.09	2 / -0.14	85%	86%	-16.0%	-10.9%	-5.3%			
	Manthi	. 40				Diala						Graph	Legend							
Managara va Blaamharg Lligh Viold Muni	Wonthly				g averages v nager incep		erg High													
Managers vs. Bloomberg High Yield Muni	1 Month		12 Month	% <b>+ 12</b> -	36 Month	% + 36	Return Star			MacKa	v Shiel	ds Muni	cipal C	redit Or	ops*					
	Periods	% + Months	periods	Months	Periods	Months	Date			MacKay Shields Municipal Credit Opps*     American High-Income Municipal Bond F3										
MacKay Shields Municipal Credit Opps	120	61%	109	86%	85	100%	Mar-14	]												
American High-Income Municipal Bond F3	120	43%	109	42%	85	13%	Mar-14	1												
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Mar-17 Sep-17 Ma	ar-18	Sep-18	Mar-1	19 Se	ep-19	Mar-20	Sep-	20 Ma	ar-21	Sep-21	Mar-	22 Se	p-22	Mar-23	Sep-2	.3 Ma	r-24			

## **Disclosures and Definitions**

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When referencing asset class returns or statistics, the following indices are used to represent those asset classes, unless otherwise noted. Each index is unmanaged, and investors can not actually invest directly into an index:

Intermediate Muni: Bloomberg Municipal Bond 5 Year (4-6) Total Return Index

High Yield Municipals: Bloomberg Muni High Yield Total Return Index

AAA Yield Curve: S&P US Muni AAA Curve

1-2 Y M/T: ICE BofA US General Obligation Municipal Securities (1-2 Y) - Yield to Worst / US Benchmark Bond - 1 Year - Yield

4-6 Y M/T: ICE BofA US General Obligation Municipal Securities (4-6 Y) - Yield to Worst / US Benchmark Bond - 5 Year - Yield

7-12 Y M/T: ICE BofA US General Obligation Municipal Securities (7-12 Y) - Yield to Worst / US Benchmark Bond - 10 Year — Yield

17-22 Y M/T: ICE BofA US General Obligation Municipal Securities (17-22 Y) - Yield to Worst / US Benchmark Bond - 20 Year - Yield

HYM - AAA Spread: Bloomberg Muni High Yield Total Return Index Yield to Worst - Bloomberg Municipal Bond AAA Total Return Index Yield to Worst

AAA: Bloomberg Municipal Bond AAA Total Return Index Yield to Worst AA: Bloomberg Municipal Bond AA Total Return Index Yield to Worst A: Bloomberg Municipal Bond A Total Return Index Yield to Worst BBB: Bloomberg Municipal Bond BBB Total Return Index Yield to Worst

HY: Bloomberg Muni High Yield Total Return Index Yield to Worst

# **Material Risks & Limitations**

**Fixed Income** securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.

Cash may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.

## Disclosures – Index & Benchmark Definitions

#### **Index & Benchmark Definitions**

#### Fixed Income

- Bloomberg U.S. Aggregate Index covers the U.S. investment grade fixed rate bond
  market, with index components for government and corporate securities, mortgage passthrough securities, and asset-backed securities.
- Bloomberg U.S. Corporate High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.
- The Bloomberg Municipal Bond 1-3 Year Index is another benchmark index used to track the performance of municipal bonds with maturities ranging from 1 to 3 years.
   Municipal bonds are debt securities issued by state and local governments to finance public projects such as roads, schools, and infrastructure.
- The Bloomberg Municipal Bond 5-Year (4-6) Index is a benchmark index used to track
  the performance of municipal bonds with maturities ranging from 4 to 6 years. Municipal
  bonds are debt securities issued by state and local governments to finance public projects
  such as roads, schools, and infrastructure.
- Bloomberg Muni Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. Bonds must be rated investment-grade by at least two ratings agencies.
- Bloomberg High Yield Municipal Bond Index covers the universe of fixed rate, noninvestment grade debt.
- The Bloomberg Municipal Revenue Bond Index is a benchmark index used to track the
  performance of municipal revenue bonds. Municipal revenue bonds are a type of municipal
  bond that is backed by the revenue generated from specific projects or facilities, such as
  toll roads, airports, utilities, hospitals, or other revenue-generating infrastructure.
- The Bloomberg State General Obligation (GO) Index is a benchmark index used to
  track the performance of state general obligation bonds. State general obligation bonds
  are municipal bonds issued by state governments and backed by the full faith and credit of
  the issuing state. They are considered one of the safest types of municipal bonds because
  they are backed by the taxing power of the state government.
- The Bloomberg Local General Obligation (GO) Index is a benchmark index used to
  track the performance of local general obligation bonds. Local general obligation bonds are
  municipal bonds issued by local governments, such as cities, counties, or other local
  authorities, and backed by the full faith and credit of the issuing local government.
- The ICE BofA US General Obligation Municipal Securities (1-2 Y) Index, formerly
  known as the Merrill Lynch US General Obligation Municipal Securities (1-2 Y) Index, is a
  benchmark index used to track the performance of US general obligation municipal
  securities with maturities ranging from 1 to 2 years.
- The ICE BofA US General Obligation Municipal Securities (4-6 Y) Index, formerly
  known as the Merrill Lynch US General Obligation Municipal Securities (4-6 Y) Index, is a
  benchmark index used to track the performance of US general obligation municipal
  securities with maturities ranging from 4 to 6 years.

#### **Index & Benchmark Definitions**

#### Fixed Income

- The ICE BofA US General Obligation Municipal Securities (7-12 Y) Index, formerly known as the Merrill Lynch US General Obligation Municipal Securities (7-12 Y) Index, is a benchmark index used to track the performance of US general obligation municipal securities with maturities ranging from 7 to 12 years.
- The ICE BofA US General Obligation Municipal Securities (17-22 Y) Index, formerly
  known as the Merrill Lynch US General Obligation Municipal Securities (17-22 Y) Index,
  is a benchmark index used to track the performance of US general obligation municipal
  securities with maturities ranging from 17 to 22 years.
- The Bloomberg Municipal Bond AAA Total Return Index is a benchmark index used to track the performance of AAA-rated municipal bonds in the United States. Municipal bonds are debt securities issued by state and local governments to finance public projects such as roads, schools, and infrastructure. Bonds with AAA ratings are considered to have the highest credit quality, indicating a low risk of default.
- The Bloomberg Municipal Bond AA Total Return Index is a benchmark index used to track the performance of AA-rated municipal bonds in the United States. Municipal bonds are debt securities issued by state and local governments to finance public projects such as roads, schools, and infrastructure. Bonds with AA ratings are considered to have high credit quality, indicating a lower risk of default compared to lower-rated bonds.
- The Bloomberg Municipal Bond A Total Return Index is a benchmark index used to track the performance of A-rated municipal bonds in the United States. Municipal bonds are debt securities issued by state and local governments to finance public projects such as roads, schools, and infrastructure. Bonds with A ratings are considered to have a relatively high credit quality, indicating a lower risk of default compared to lower-rated bonds.
- The Bloomberg Municipal Bond BBB Total Return Index is a benchmark index used
  to track the performance of BBB-rated municipal bonds in the United States. Municipal
  bonds are debt securities issued by state and local governments to finance public
  projects such as roads, schools, and infrastructure. Bonds with BBB ratings are
  considered to have a moderate credit quality, indicating a higher risk of default
  compared to higher-rated bonds.