

# Metropolitan Government of Nashville and Davidson County

March 31, 2023

Performance Report

## Agenda

1. Economic and Market Update
2. Executive Summary
3. Performance Report as of March 31, 2023
4. Disclaimer, Glossary, and Notes

# **Economic and Market Update**

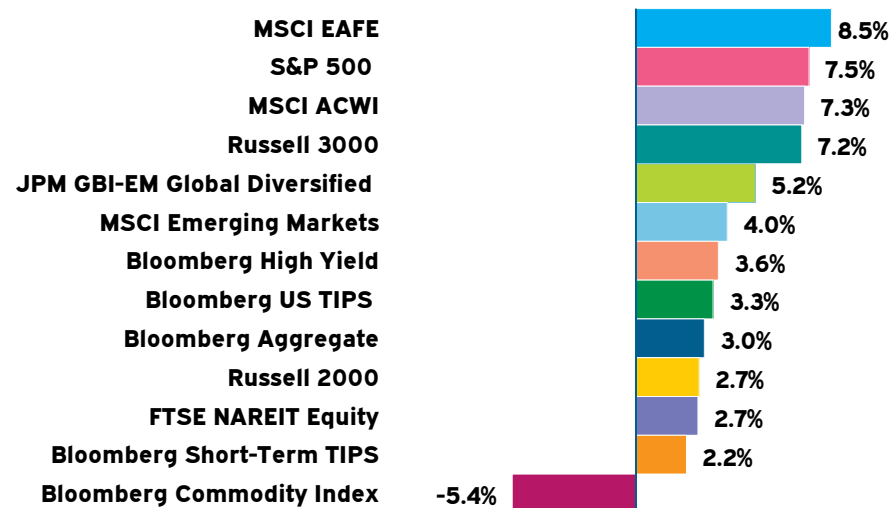
Data as of March 31, 2023

### Commentary

- It was a volatile quarter for most asset classes driven by evolving monetary policy expectations and high-profile bank failures. Ultimately, investors remained focused on slowing inflation and potentially peaking rate hikes leading to positive results across most asset classes for the quarter.
- The Fed's, and others', quick responses to pressures in the banking sector brought confidence back to the markets in March with the crisis driving the terminal policy rate expectations lower.
  - US equity markets (Russell 3000) rallied in March (+2.7%) finishing the first quarter in strongly positive territory (+7.2%). Growth significantly outperformed value for the quarter, driven by the technology sector.
  - Non-US developed equity markets (MSCI EAFE +2.5%) also posted positive returns in March. They returned 8.5% for the quarter, finishing ahead of US equities.
  - Emerging market equities had positive returns for the month (+3.0%) supported by Chinese equities (+4.5%) and a weaker US dollar. They trailed developed market equities for the quarter partly due to higher US-China tensions.
  - On expectations for lower inflation and concerns over the banking sector, bonds rallied in March, with the broad US bond market (Bloomberg Aggregate) rising 2.5%. For the quarter, the broad US bond market was up 3.0%.
- This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in small- and medium-sized regional banks in the US, will all be key.

### Index Returns<sup>1</sup>

Q1 2023



→ Despite volatility during the quarter, public markets, except commodities, finished the first quarter of 2023 in positive territory adding to the strong gains from the fourth quarter of last year.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of March 31, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.7	7.5	-7.7	18.6	11.2	12.2
Russell 3000	2.7	7.2	-8.6	18.5	10.4	11.7
Russell 1000	3.2	7.5	-8.4	18.6	10.9	12.0
Russell 1000 Growth	6.8	14.4	-10.9	18.6	13.6	14.6
Russell 1000 Value	-0.5	1.0	-5.9	17.9	7.5	9.1
Russell MidCap	-1.5	4.1	-8.8	19.2	8.0	10.0
Russell MidCap Growth	1.4	9.1	-8.5	15.2	9.1	11.2
Russell MidCap Value	-3.1	1.3	-9.2	20.7	6.5	8.8
Russell 2000	-4.8	2.7	-11.6	17.5	4.7	8.0
Russell 2000 Growth	-2.5	6.1	-10.6	13.4	4.3	8.5
Russell 2000 Value	-7.2	-0.7	-13.0	21.0	4.5	7.2

#### US Equities: Russell 3000 Index rose 2.7% in March and 7.2% in Q1.

- US stocks rose in aggregate for the month and quarter as investors were optimistic that the Federal Reserve may end its policy tightening earlier than expected. However, turmoil in the regional banking industry weighed on segments of the market.
- The small cap and value indices were more exposed to the banking turmoil and underperformed their broad market indices by significant margins.
- Large cap stocks were driven higher by the continued strength of the technology and communication services sectors. This same dynamic contributed to the continued outperformance of growth stocks against their value counterparts across the capitalization spectrum.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.4	6.9	-5.1	11.8	2.5	4.2
MSCI EAFE	2.5	8.5	-1.4	13.0	3.6	5.0
MSCI EAFE (Local Currency)	0.5	7.5	3.8	14.6	6.3	7.3
MSCI EAFE Small Cap	-0.2	4.9	-9.8	12.1	0.9	5.8
MSCI Emerging Markets	3.0	4.0	-10.7	7.8	-0.9	2.0
MSCI Emerging Markets (Local Currency)	2.2	3.8	-6.6	8.8	1.9	5.0
MSCI China	4.5	4.7	-4.7	-2.6	-4.0	3.4

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.5% in March and 8.5% for the quarter. Emerging market equities (MSCI EM) rose 3.0% for the month and 4.0% in the first quarter.**

- Non-US equities also recovered in March with developed markets (MSCI EAFE) outpacing US equities (8.5% versus 7.2%) for the quarter and emerging markets (MSCI Emerging Markets) trailing (4.0% versus 7.2%).
- Developed market equities also benefited from expectations that monetary policy may be peaking on declining inflation. The continued weakness in the US dollar also added to the quarterly results (+1%) for US investors.
- Emerging market equities started the year with optimism over the reopening of China’s economy, but the escalation of US-China tensions and the broader banking crisis led to weaker relative results compared to developed markets.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Fixed Income Returns<sup>1</sup>

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Barclays Universal	2.3	2.9	-4.6	-2.0	1.0	1.6	4.8	6.3
Bloomberg Barclays Aggregate	2.5	3.0	-4.8	-2.8	0.9	1.4	4.4	6.5
Bloomberg Barclays US TIPS	2.9	3.3	-6.1	1.8	2.9	1.5	4.1	7.0
Bloomberg Short-term TIPS	1.9	2.2	-0.3	3.5	3.0	1.5	4.6	2.5
Bloomberg Barclays High Yield	1.1	3.6	-3.3	5.9	3.2	4.1	8.5	4.2
JPM GBI-EM Global Diversified (USD)	4.1	5.2	-0.7	0.9	-2.4	-1.5	7.1	5.1

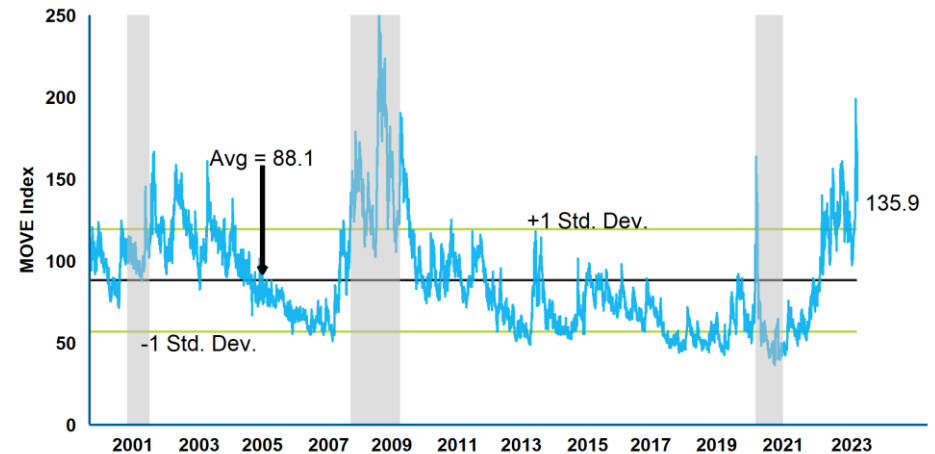
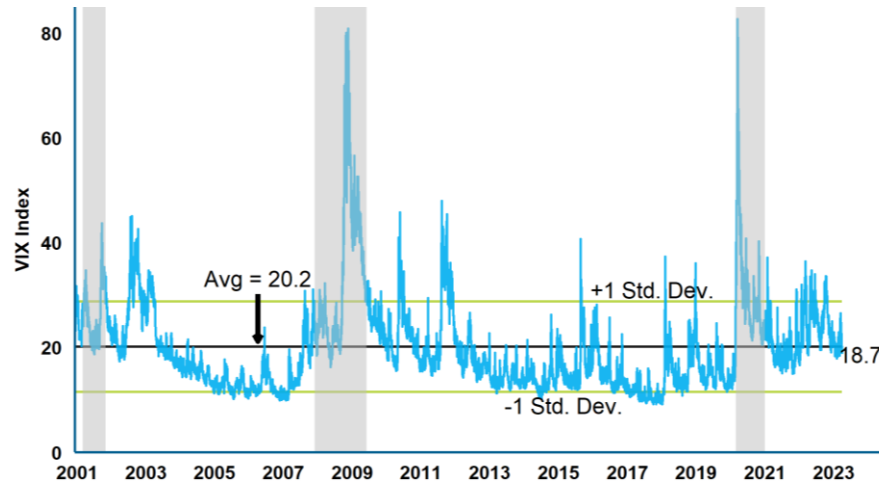
**Fixed Income: The Bloomberg Universal rose 2.3% in March and 2.9% in Q1 as global sovereign debt yields fell on monetary policy expectations.**

- Anecdotal reports suggest bouts of flight-to-quality flows during the peak of interest rate volatility connected to the banking sector pushed sovereign debt yields lower. These concerns largely outweighed continued inflation concerns and caused investors to adjust their policy expectations.
- The broad TIPS index outperformed the broad US bond market (Bloomberg Aggregate) in March and for the quarter.
- High yield bonds had the weakest results in March driven by banking sector weakness but outperformed the broad US bond market for the quarter.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



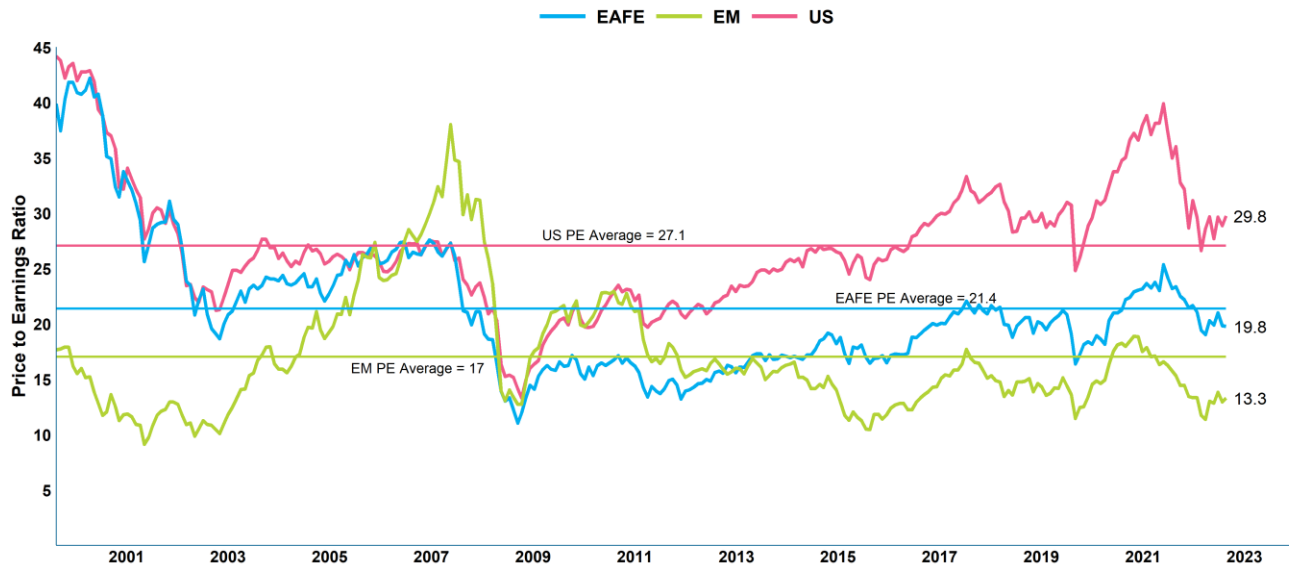
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) remained subdued through the end of March as investors continued to anticipate the end of the Fed's policy tightening.
- In comparison, the bond market remains on edge with the more policy sensitive MOVE (fixed income volatility) remaining well above its long-run average. During the quarter it hit the highest level since the Global Financial Crisis as the banking sector issues created uncertainty over how the Fed would balance fighting inflation and maintaining financial stability.

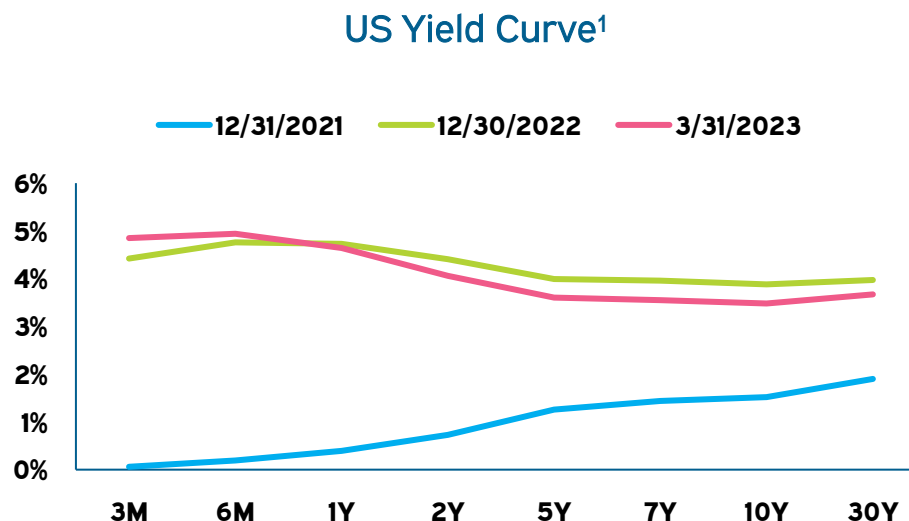
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of March 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and March 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

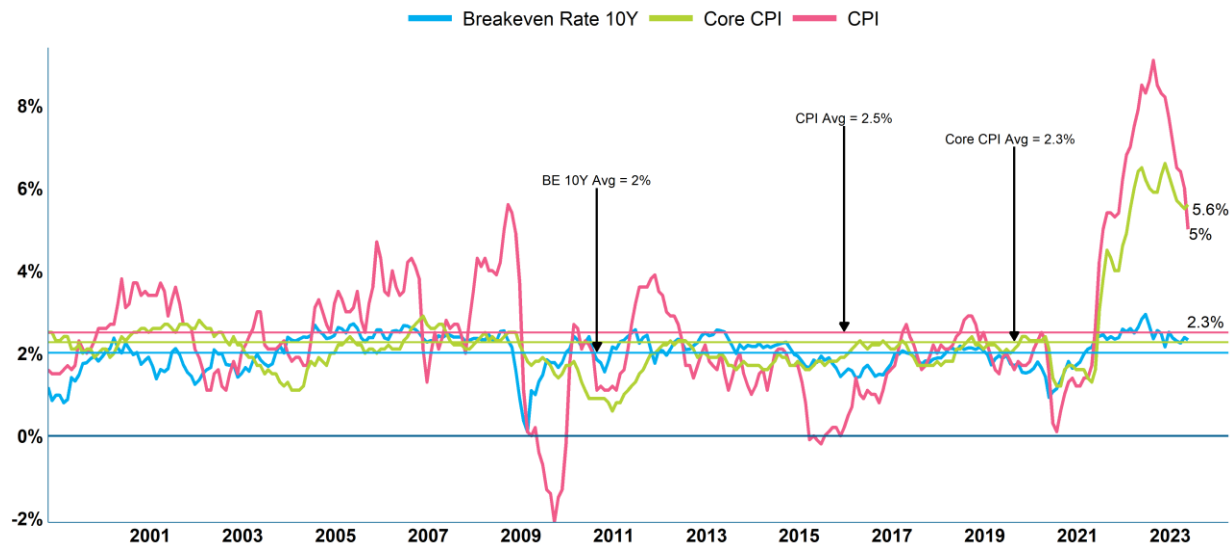
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of March 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- It was a volatile quarter for interest rates, particularly shorter-dated maturities. Except for the shortest maturities, rates largely declined across the yield curve in the first quarter on expectations of peaking policy.
- After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the quarter at -0.55% as policy-sensitive rates at the front-end of the curve declined faster than longer maturities. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.
- The Fed remained committed to fighting inflation, despite pressures in the banking sector, raising rates another 25 basis points to a range of 4.75% to 5.0% at its March meeting.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

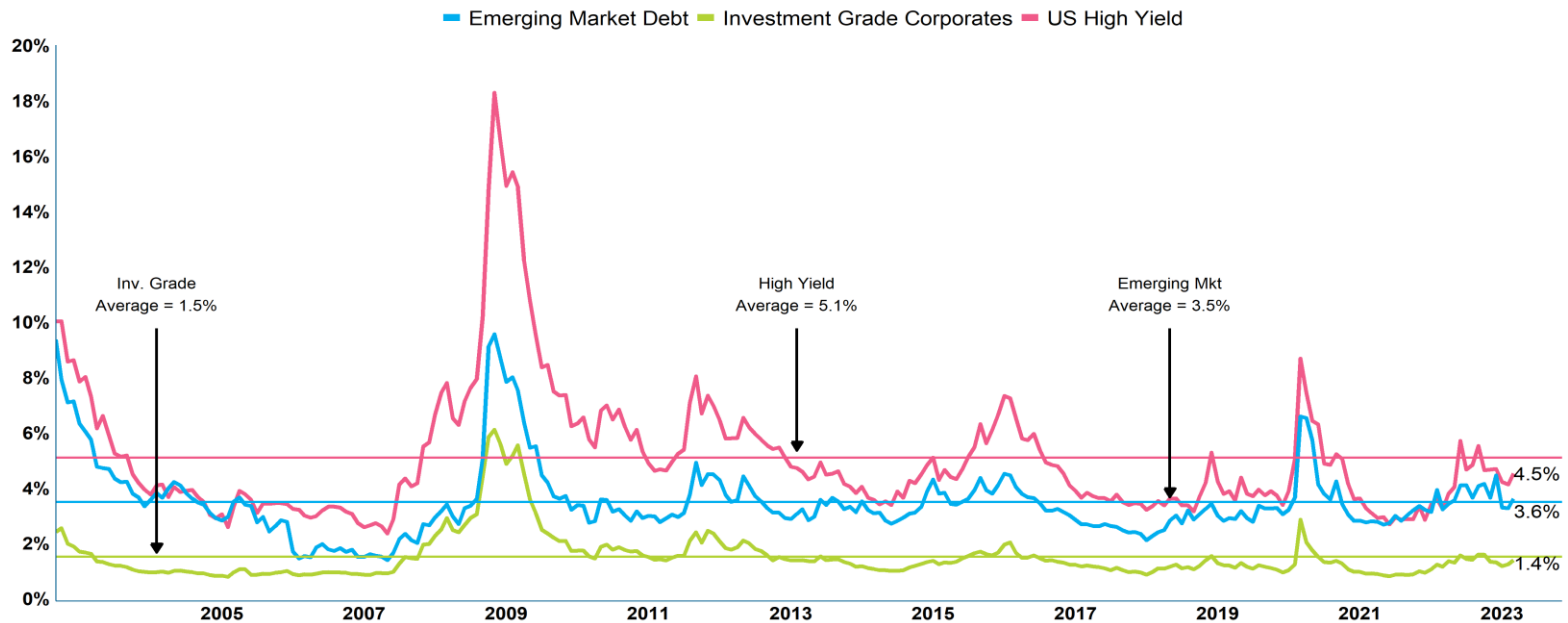
### Ten-Year Breakeven Inflation and CPI<sup>1</sup>



- Inflation continued to decline in March with the year-over-year reading falling from 6.0% to 5.0% and coming in slightly below the 5.1% expectations. The rate of price increases also slowed on a month-over-month basis (0.1% versus 0.4%), with food prices only slightly higher and energy prices declining.
- Core inflation – excluding food and energy - rose (5.6% versus 5.5%) mostly driven by transportation and housing.
- Inflation expectations (breakevens) were volatile over the month and declined on net, but nonetheless ended the month at 2.3% (roughly where it started the quarter).

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

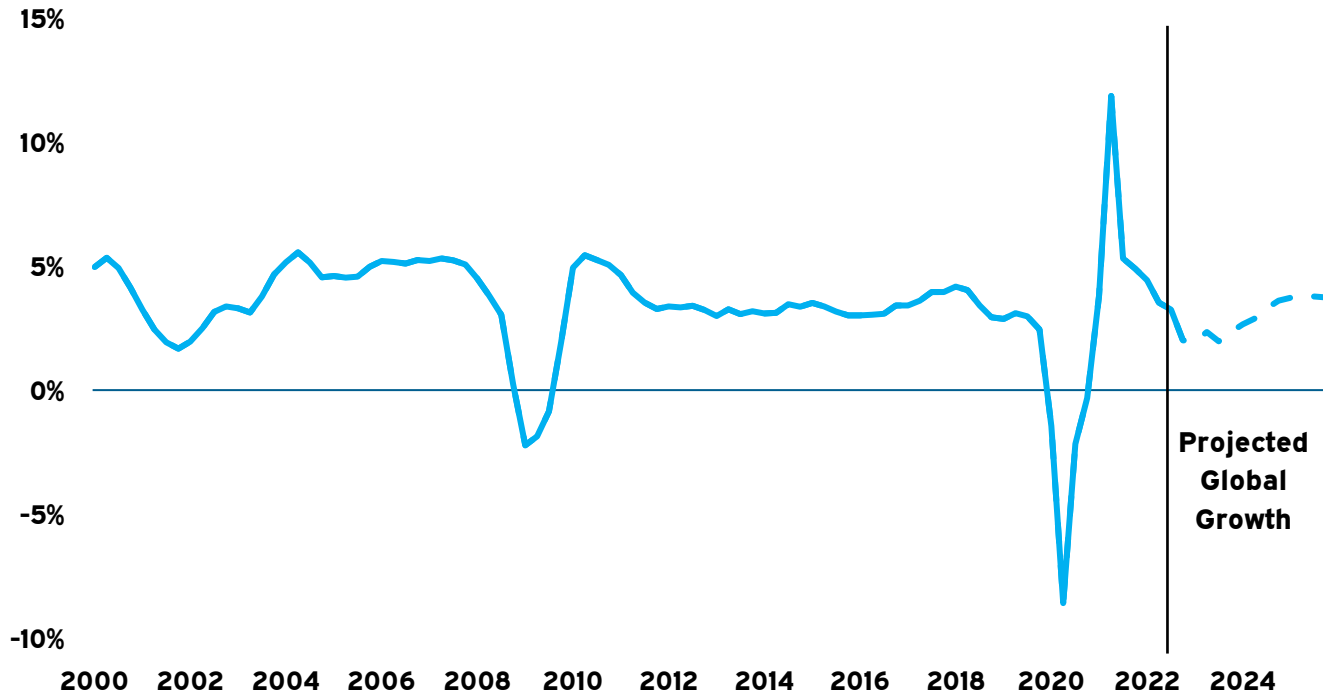
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Spreads (the added yield above a comparable maturity Treasury) experienced a significant spike in March during the banking crisis but subsequently declined as the Fed and others stepped in to provide support.
- High yield spreads rose from 4.1% to a peak of 5.2% in March before finishing the quarter at 4.5% (lower than the start of the quarter by 0.2%). Investment grade spreads also spiked in March (1.2% to 1.6%) but also fell from their peak to 1.4%. Emerging market spreads finished the quarter at 3.6% experiencing the largest decline (-0.9%).

<sup>1</sup> Sources: Bloomberg. Data is as of March 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

**Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>**

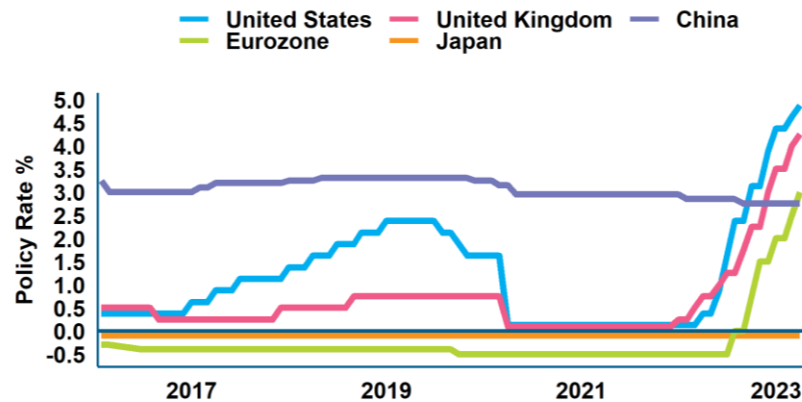


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

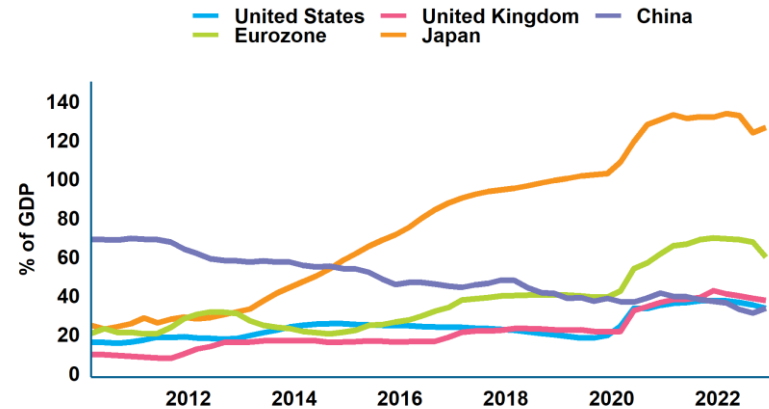
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated March 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



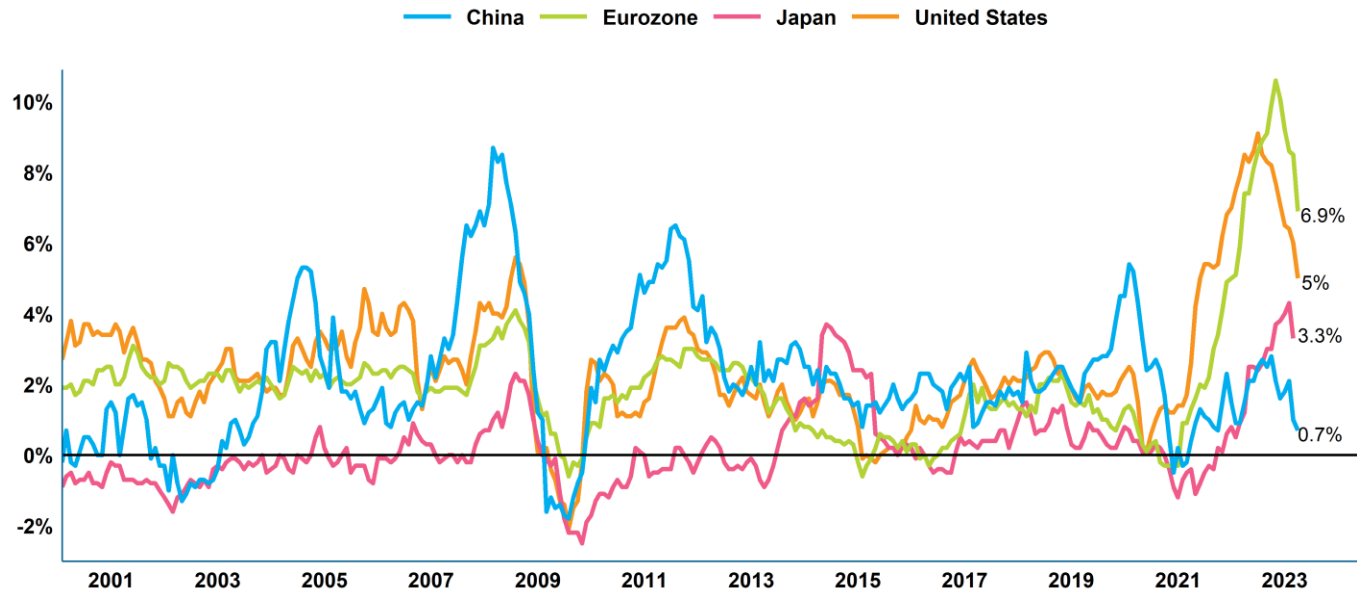
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- In March, the Fed, FDIC, and Treasury provided deposit guarantees after high profile bank failures revealed bank capital losses on US Treasuries related to higher interest rates and lax risk management.
- China's central bank is one notable exception. They are expected to maintain an accommodative monetary stance to support the economy. They cut bank reserves requirements to improve bank liquidity and banks have also securitized over \$390 billion in non-performing loans to improve loan quality ratios.
- Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of March 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**

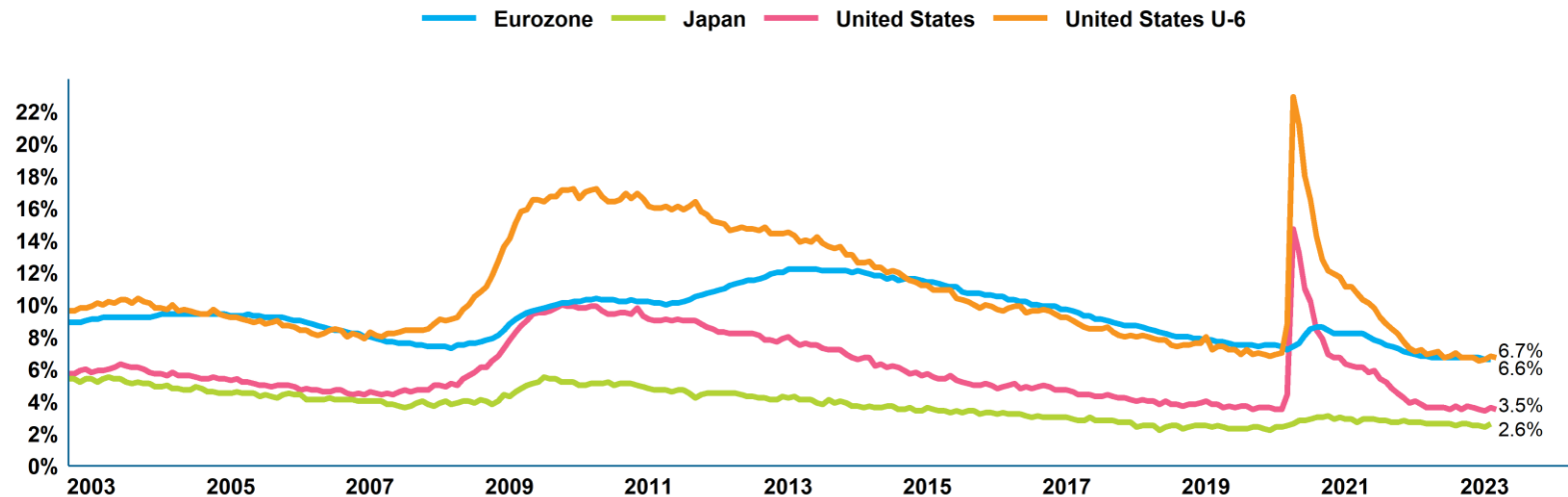


- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall as energy prices have eased.
- Lingering supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023. The most recent Japanese inflation data is as of February 2023.



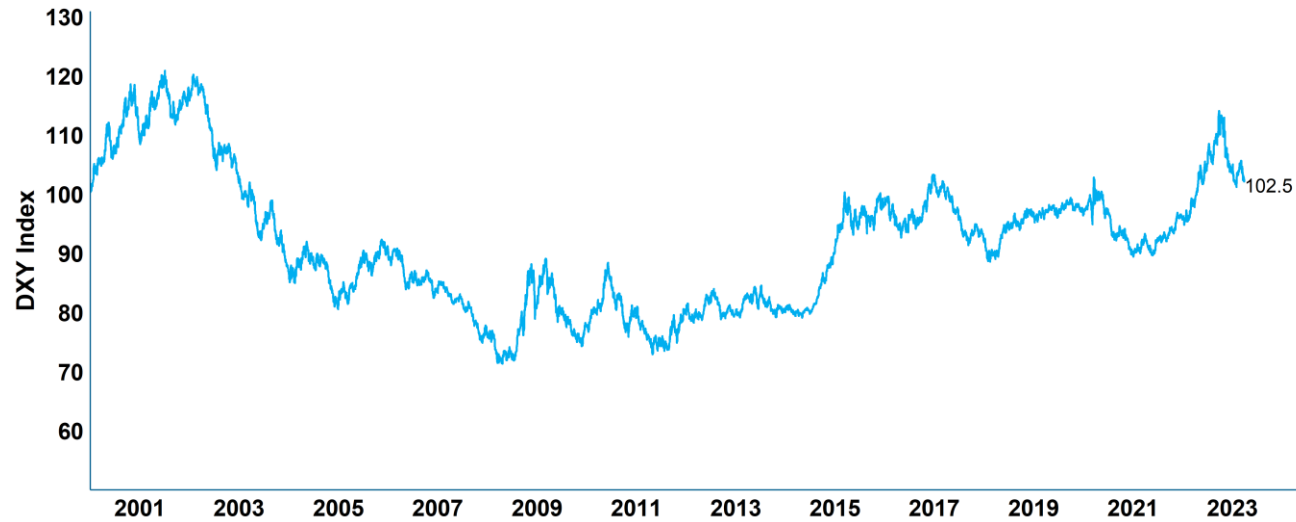
### Unemployment<sup>1</sup>



- Labor markets have significantly improved from the pandemic as economies have largely reopened.
- Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently has returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.7% but have also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of February 2023.

**US Dollar versus Broad Currencies<sup>1</sup>**



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows. Late last year and into early this year, the dollar experienced some weakness though as investors anticipated the end of Fed tightening.
- Overall, the US dollar depreciated in March and finished the quarter slightly lower than where it started as weaker economic data and bank turmoil drove interest rates lower in the US.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of March 31, 2023.

## Summary

### Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also try to maintain financial stability.
- Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors remains elevated given persistent inflation pressures and a strong US labor market.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

## **Executive Summary**

#### → Asset Growth

- The Metropolitan Government of Nashville and Davidson County Plan was valued at \$4.1 billion at the end of 1Q23, an increase of approximately \$17.6 million over the three-month period, despite net cash outflows of \$16.0 million in the quarter.

#### → Asset Allocation

- The majority of asset classes are within policy ranges. Domestic Equity is underweight falling below the policy range while Fixed Income Alternatives was overweight with an allocation that is above the policy range. As previously approved, private equity has until 2026 to get below the top end of policy range.
- Meketa and Staff have reviewed the current asset allocation and Investment Policy Statement. Recommended updates will be shared today with the Investment Committee members.

#### → Performance

	1 YR	3 YR	5 YR	10 YR
Metro Nashville (net)	-5.8%	10.6%	8.0%	8.2%
Policy Benchmark	-4.7%	9.7%	5.2%	6.6%
Excess Return	-1.1%	0.9%	2.8%	1.6%
Peer Ranking	56 <sup>th</sup>	52 <sup>nd</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>

- Returns over the trailing one year were negative but longer term results (absolute, relative and peer ranking) are all still quite strong.

#### → Positive notables during the quarter

- Absolute performance was once again driven by public equities. International equity was up 6.2%, net of fees, in 1Q23, while domestic equity was up 5.4%, net of fees.
- Small Cap and Mid Cap Equity outperformed their benchmarks by 2.9% and 1.6%, respectively.
- Real Assets and Real Estate also outperformed their benchmarks by 1.2% and 1.9%, respectively.

#### → Negative notables during the quarter

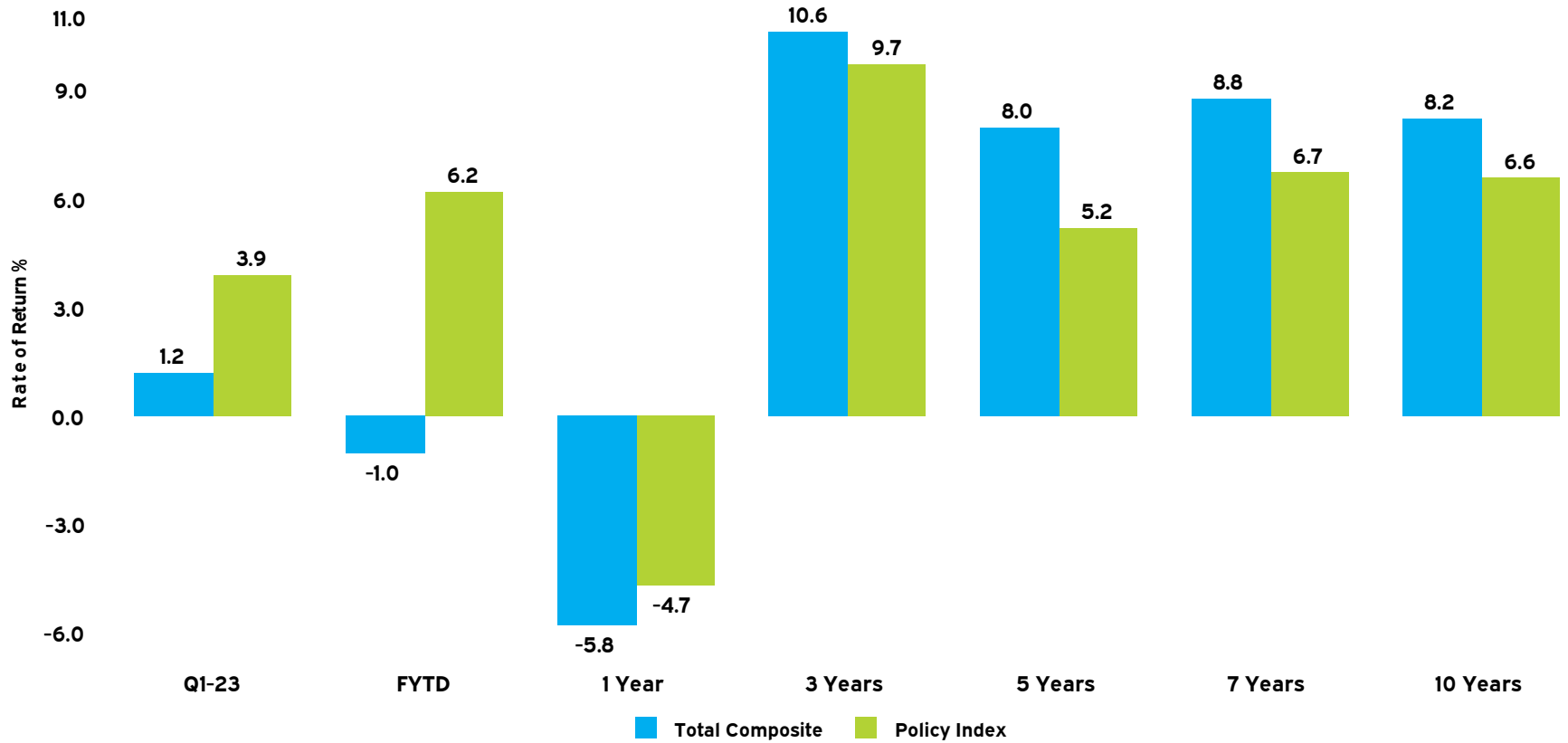
- Private equity generated a negative absolute return (-2.3%) and trailed its benchmark by 5.0% over the quarter (despite very positive long term absolute and relative performance).
- Large Cap Equity underperformed the S&P Index by 2.2% while Fixed Income underperformed its Barclay's US Aggregate benchmark by 0.7%.

## **Performance Report as of March 31, 2023**

# Metropolitan Government of Nashville and Davidson County

Total Composite | As of March 31, 2023

## Net Return Summary



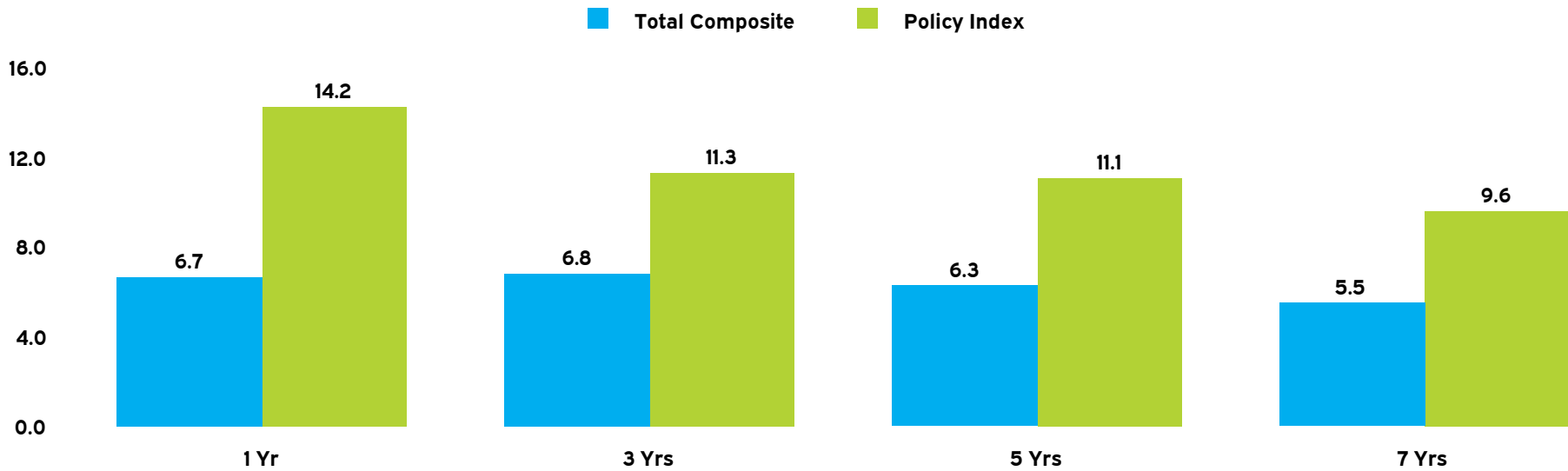
All returns in report are net of fees unless explicitly noted otherwise.



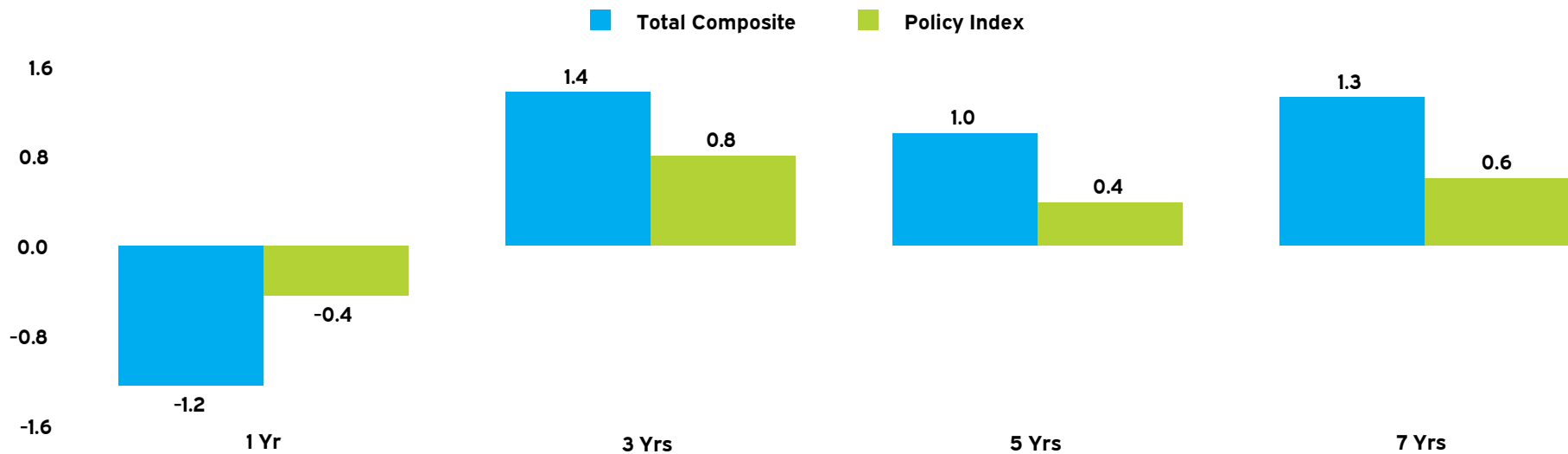
# Metropolitan Government of Nashville and Davidson County

Multi Report Enhanced | As of March 31, 2023

## Annualized Standard Deviation



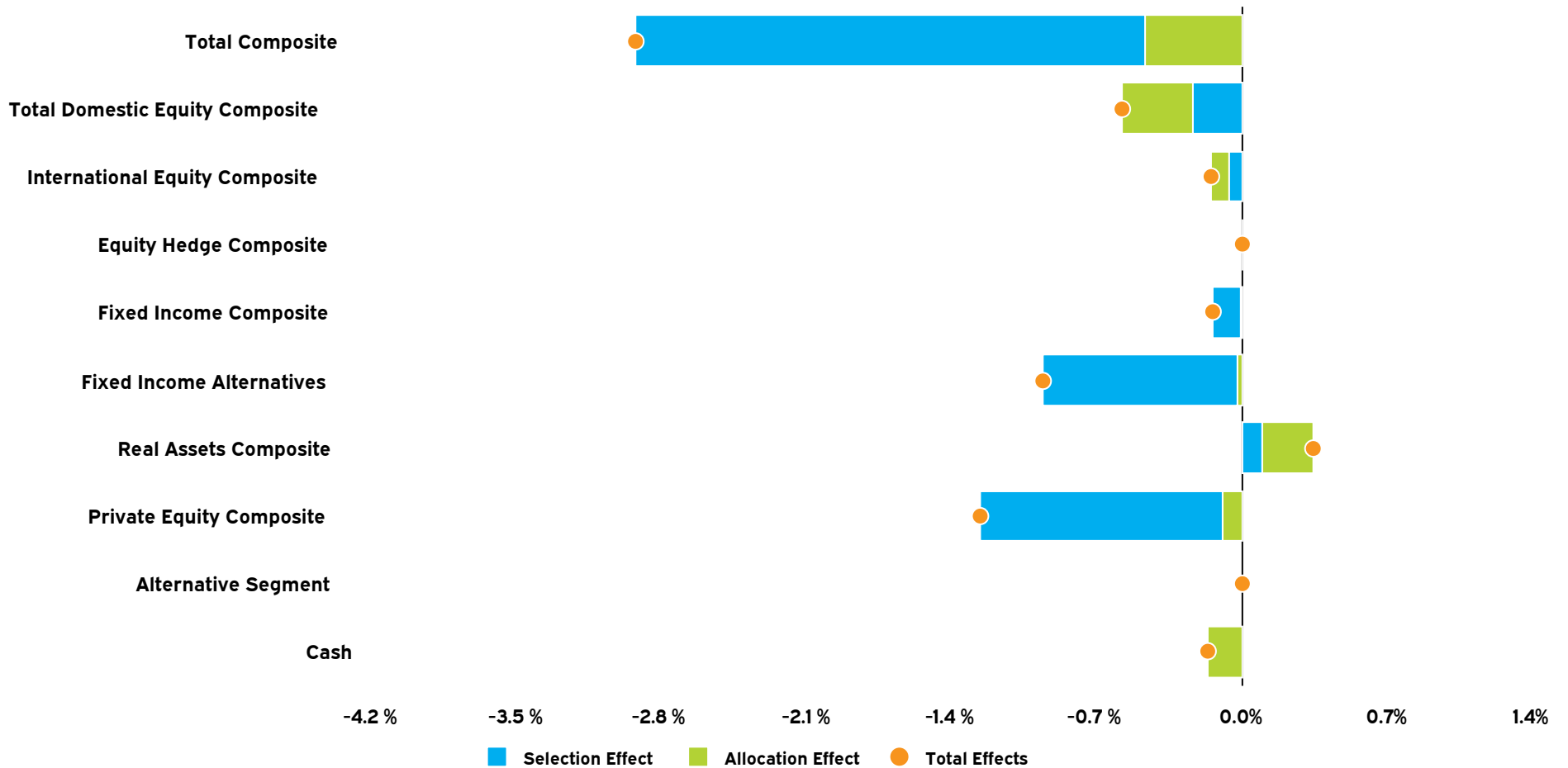
## Sharpe Ratio



# Metropolitan Government of Nashville and Davidson County

Total Plan Attribution | 1 Quarter Ending March 31, 2023

## Attribution Effects 1 Quarter Ending March 31, 2023

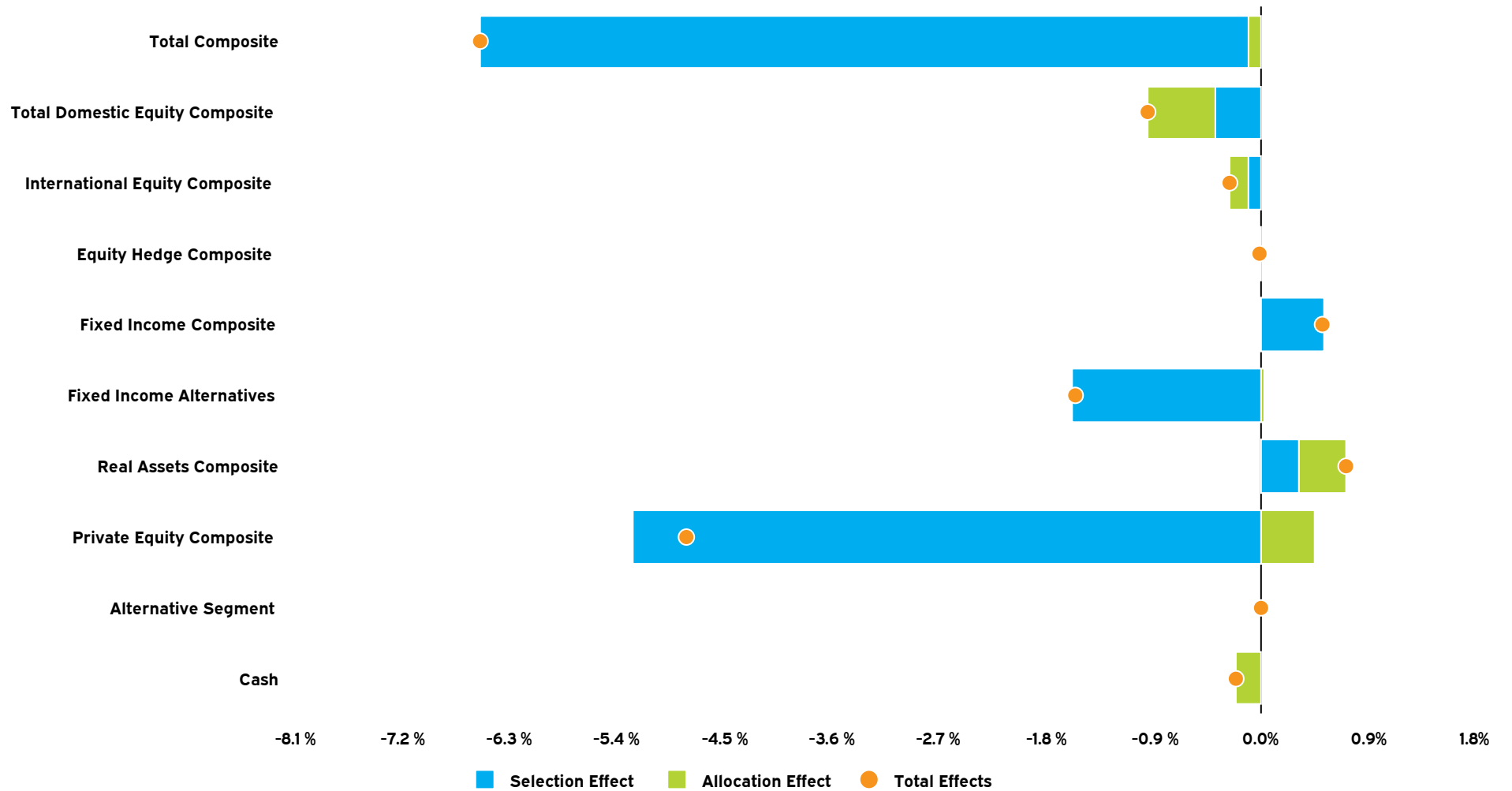


The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

# Metropolitan Government of Nashville and Davidson County

Total Plan Attribution | Fiscal Year to Date

## Attribution Effects Fiscal Year to Date

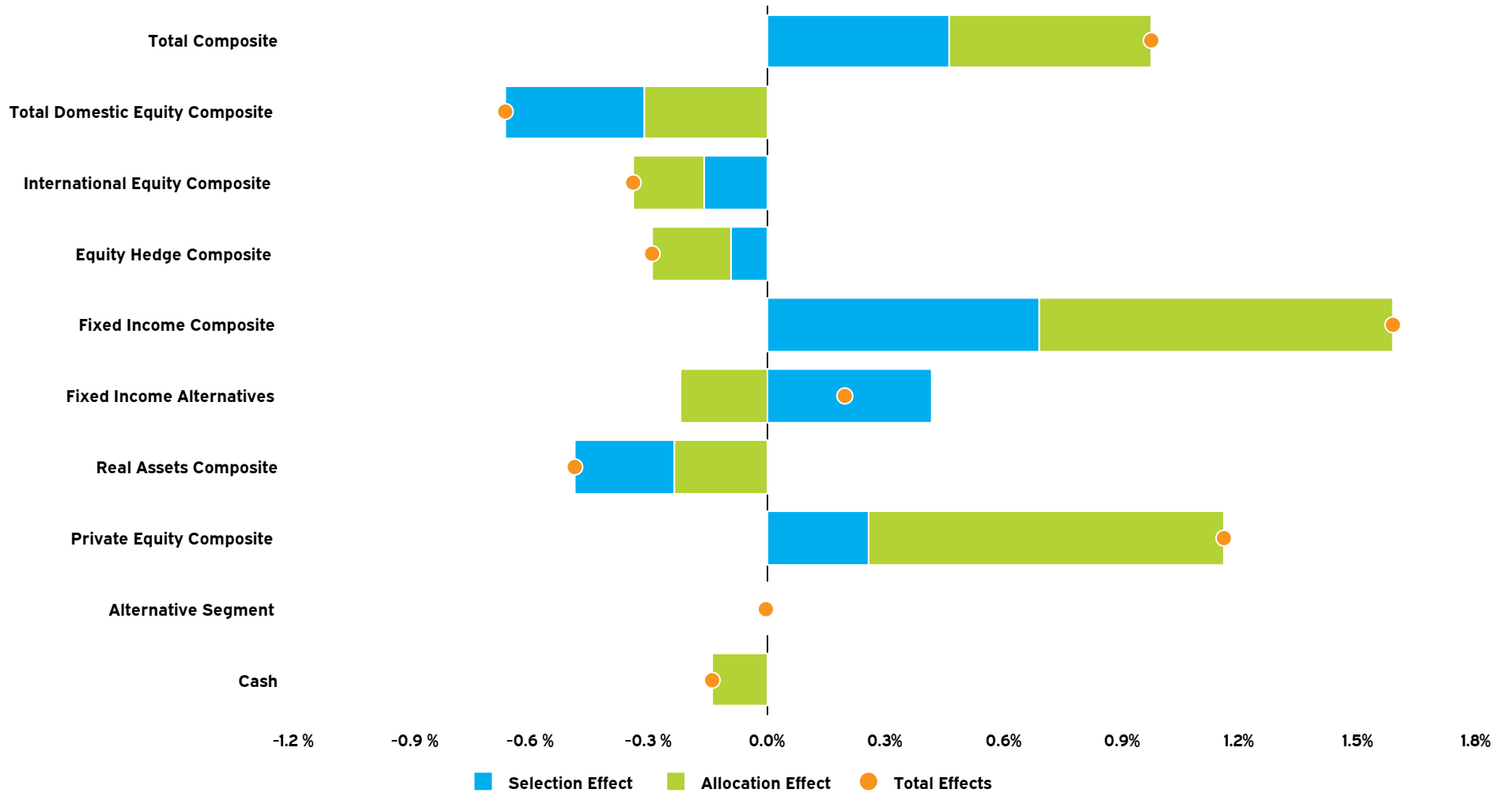


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# Metropolitan Government of Nashville and Davidson County

Total Plan Attribution | 3 Years Ending March 31, 2023

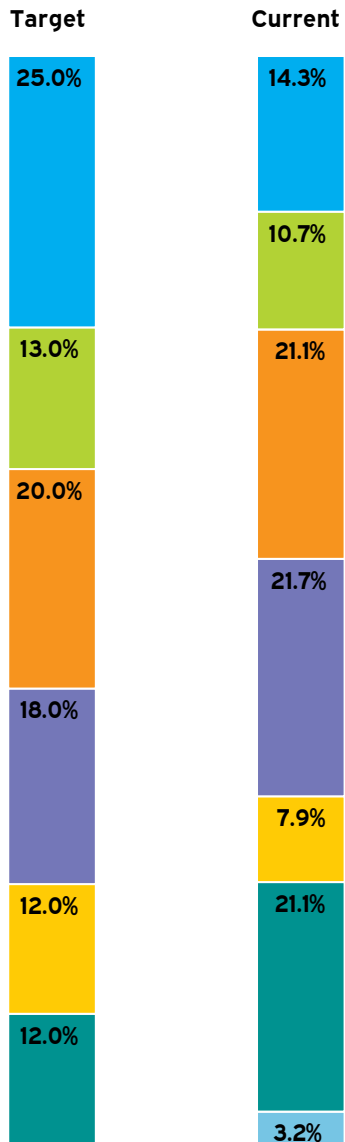
## Attribution Effects 3 Years Ending March 31, 2023



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# Metropolitan Government of Nashville and Davidson County

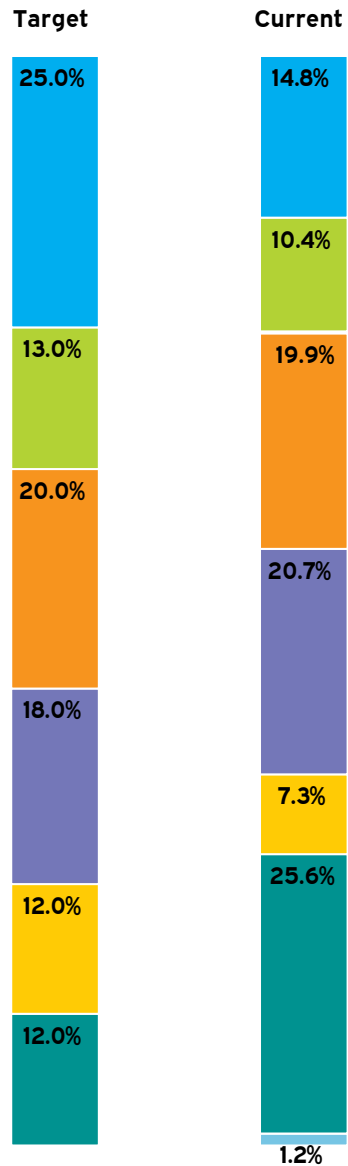
## Asset Allocation vs. Policy | As of March 31, 2023



Allocation vs. Policy					
	Current Balance	Current Allocation (%)	Policy (%)	Within IPS Range?	
Domestic Equity	\$582,290,188	14.3	25.0	No	
International Equity	\$437,237,422	10.7	13.0	Yes	
Equity Hedge	\$229,216	0.0	0.0	Yes	
Fixed Income	\$859,913,604	21.1	20.0	Yes	
Fixed Income Alternatives	\$884,214,318	21.7	18.0	No	
Real Assets	\$322,108,385	7.9	12.0	Yes	
Private Equity	\$858,030,119	21.1	12.0	No	
Alternative Segment	\$32,611	0.0	0.0	Yes	
Cash	\$128,757,816	3.2	0.0	Yes	
<b>Total Composite</b>	<b>\$4,072,813,680</b>	<b>100.0</b>	<b>100.0</b>		

# Metropolitan Government of Nashville and Davidson County

## Asset Allocation vs. Policy | As of March 31, 2022

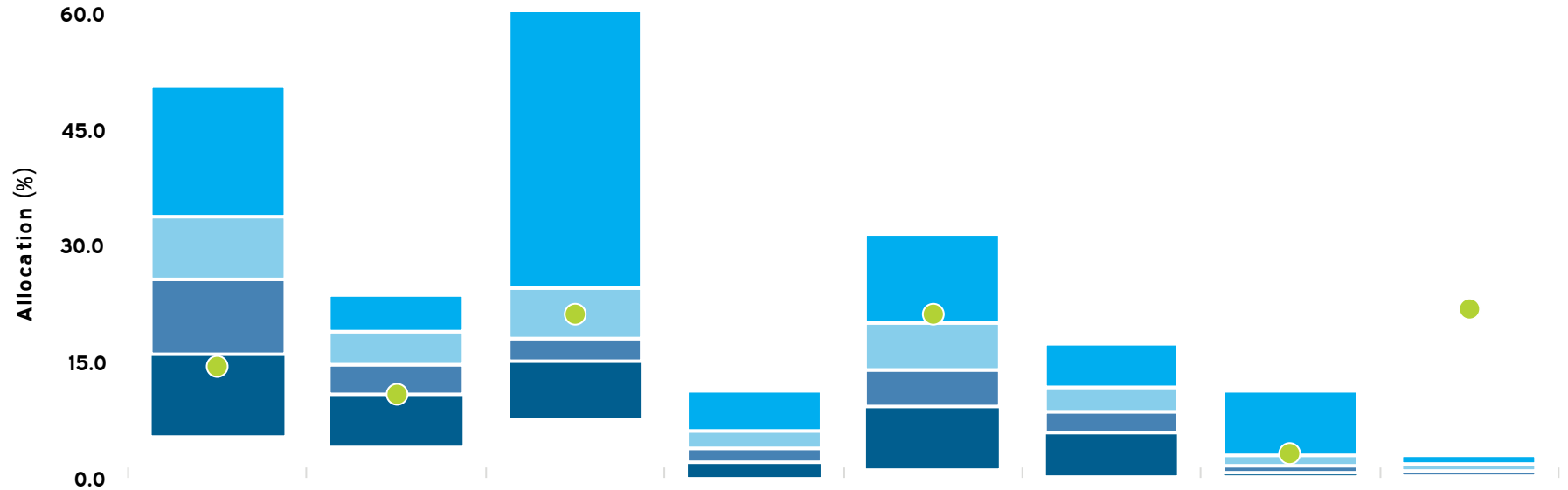


Allocation vs Policy				
	Current Balance	Current Allocation (%)	Policy (%)	Within IPS Range?
Domestic Equity	\$656,527,735	14.8	25.0	No
International Equity	\$460,787,389	10.4	13.0	Yes
Equity Hedge	\$7,765,865	0.2	0.0	Yes
Fixed Income	\$878,751,651	19.9	20.0	Yes
Fixed Income Alternatives	\$915,840,841	20.7	18.0	Yes
Real Assets	\$322,820,748	7.3	12.0	Yes
Private Equity	\$1,131,415,722	25.6	12.0	No
Alternative Segment	\$289,062	0.0	0.0	Yes
Cash	\$52,028,201	1.2	0.0	Yes
<b>Total Composite</b>	<b>\$4,426,227,215</b>	<b>100.0</b>	<b>100.0</b>	

# Metropolitan Government of Nashville and Davidson County

Total Composite Asset Allocations | As of March 31, 2023

## Asset Allocation vs. All Public Plans > \$1B-Total Fund



	US Equity	Global ex-US Equity	US Fixed	Hedge Funds	Private Equity	Real Estate - Private	Cash & Equivalents	Other
● Total Composite	14.3 (81)	10.7 (75)	21.1 (38)	-	21.1 (23)	-	3.2 (22)	21.7 (1)
5th Percentile	50.5	23.7	65.5	11.2	31.4	17.4	11.1	2.8
1st Quartile	33.7	19.0	24.6	6.1	20.0	11.6	2.8	1.8
Median	25.7	14.5	18.1	3.8	13.9	8.5	1.6	0.8
3rd Quartile	15.9	10.7	15.1	2.1	9.1	5.9	0.6	0.3
95th Percentile	5.4	4.1	7.7	0.1	1.1	0.2	0.2	0.2
Population	104	103	104	25	44	41	81	4

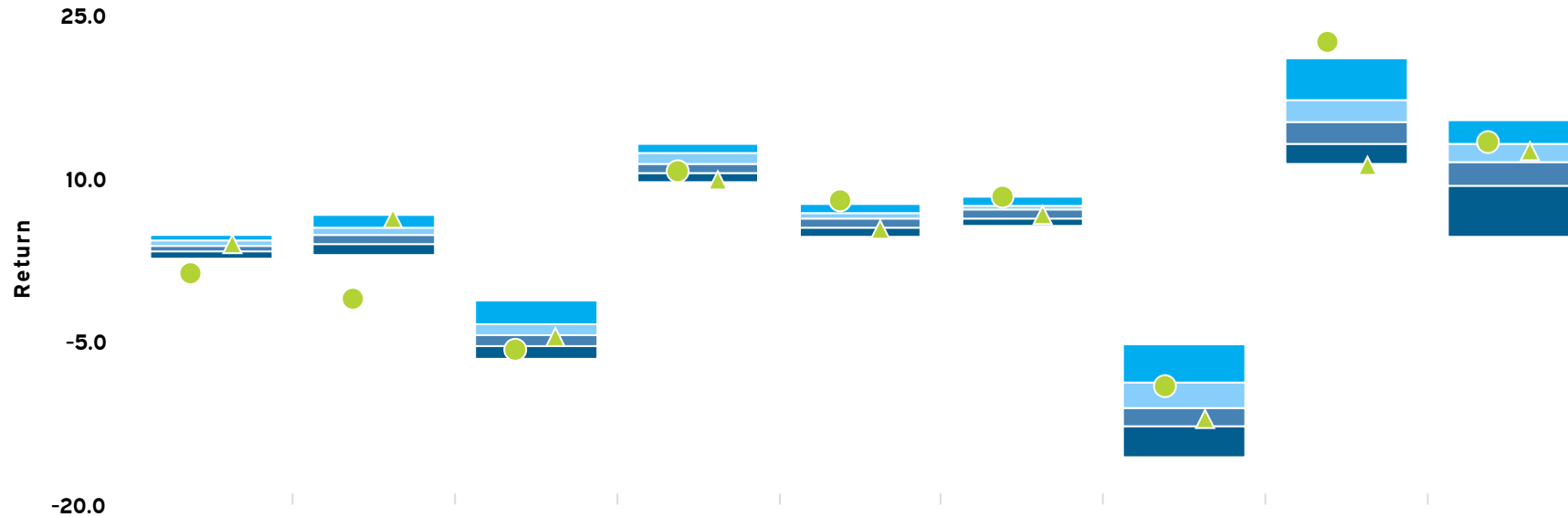
Other represents Alternative Fixed Income allocation.

Parentheses contain percentile rankings.

# Metropolitan Government of Nashville and Davidson County

Public Plans Peer Group Returns | As of March 31, 2023

## Net Performance vs. All Public Plans > \$1B-Total Fund



	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2022	2021	2020
● Total Composite	1.2 (100)	-1.0 (100)	-5.8 (81)	10.6 (66)	8.0 (4)	8.2 (6)	-9.1 (31)	22.6 (3)	13.2 (23)
▲ Policy Index	3.9 (42)	6.2 (11)	-4.7 (57)	9.7 (93)	5.2 (82)	6.6 (60)	-12.1 (66)	11.1 (98)	12.4 (34)
5th Percentile	4.8	6.7	-1.2	13.1	7.6	8.3	-5.3	21.0	15.2
1st Quartile	4.3	5.4	-3.5	12.3	6.8	7.5	-8.7	17.2	13.1
Median	3.8	4.7	-4.5	11.2	6.3	7.0	-11.1	15.1	11.4
3rd Quartile	3.2	3.9	-5.4	10.5	5.4	6.2	-12.9	13.2	9.2
95th Percentile	2.6	2.9	-6.6	9.6	4.7	5.7	-15.6	11.2	4.5

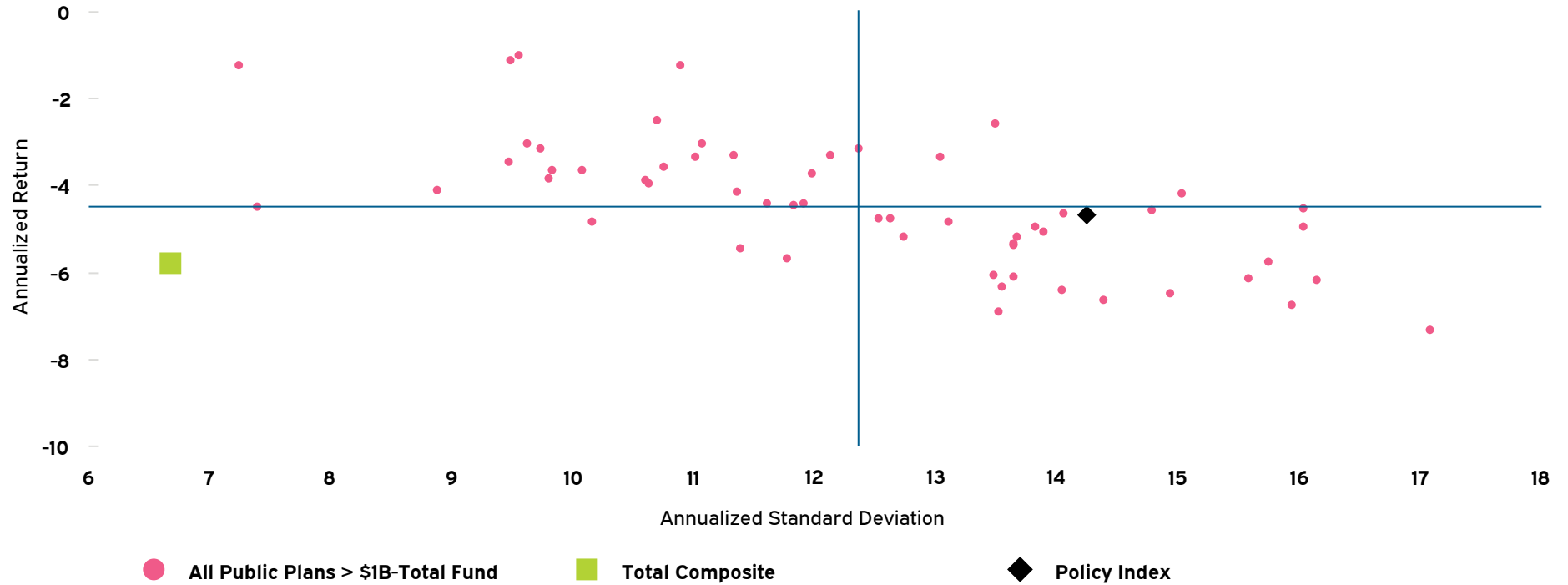
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



# Metropolitan Government of Nashville and Davidson County

Total Plan Risk/Return | As of March 31, 2023

## Annualized Return vs. Annualized Standard Deviation 1 Year Ending March 31, 2023

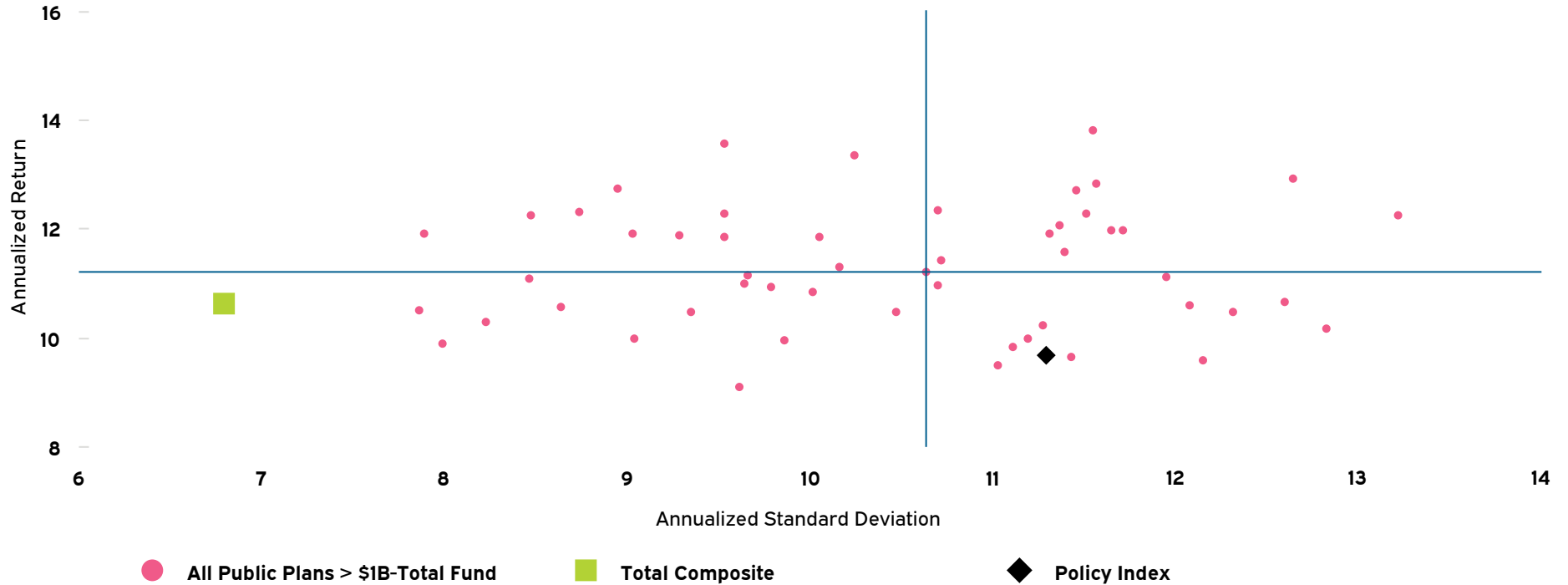


	1 Year Return	1 Year Standard Deviation	1 Year Sharpe Ratio	1 Year Information Ratio
Total Composite	-5.8 (81)	6.7 (1)	-1.2 (100)	-0.2 (70)
All Public Plans > \$1B-Total Fund Median	-4.5	12.4	-0.5	0.0
Policy Index	-4.7	14.2	-0.4	-

# Metropolitan Government of Nashville and Davidson County

Total Plan Risk/Return | As of March 31, 2023

## Annualized Return vs. Annualized Standard Deviation 3 Years Ending March 31, 2023

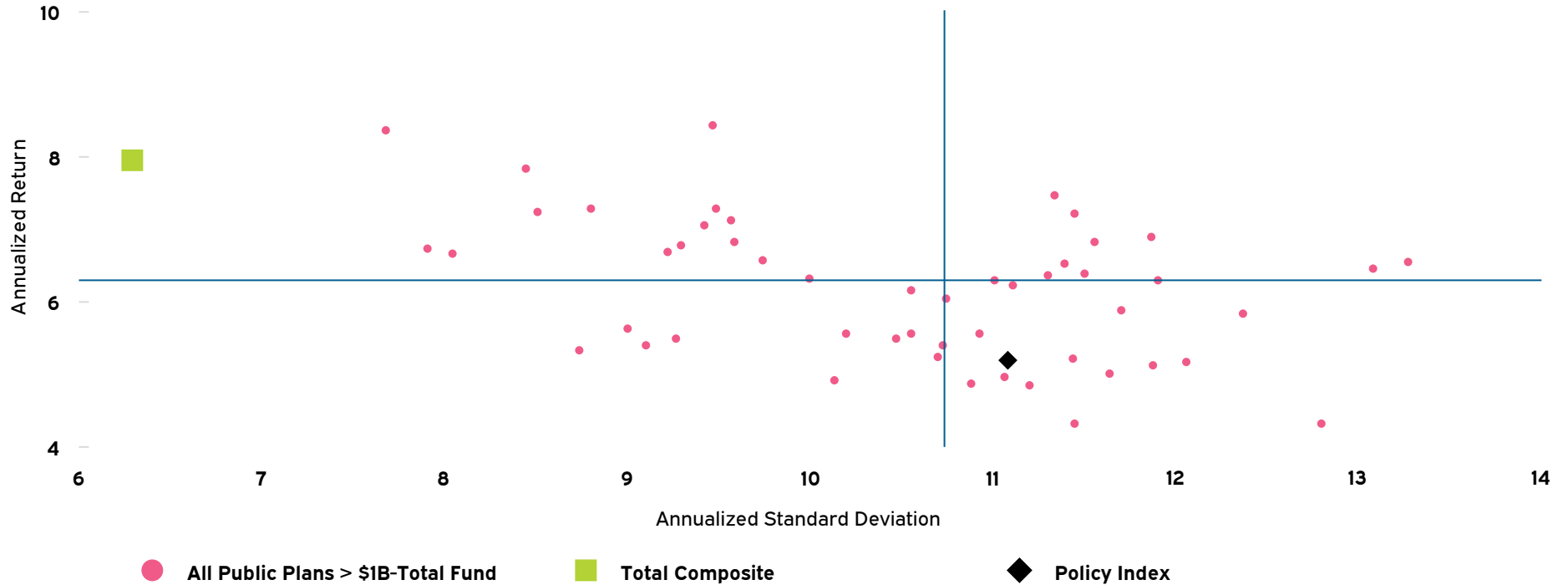


	3 Years Return	3 Years Standard Deviation	3 Years Sharpe Ratio	3 Years Information Ratio
Total Composite	10.6 (66)	6.8 (1)	1.4 (2)	0.1 (84)
All Public Plans > \$1B-Total Fund Median	11.2	10.6	1.0	0.4
Policy Index	9.7	11.3	0.8	-

# Metropolitan Government of Nashville and Davidson County

Total Plan Risk/Return | As of March 31, 2023

## Annualized Return vs. Annualized Standard Deviation 5 Years Ending March 31, 2023



	5 Years Return	5 Years Standard Deviation	5 Years Sharpe Ratio	5 Years Information Ratio
Total Composite	8.0 (4)	6.3 (1)	1.0 (1)	0.3 (54)
All Public Plans > \$1B-Total Fund Median	6.3	10.7	0.5	0.3
Policy Index	5.2	11.1	0.4	-

# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

Total Plan (Net Returns)										
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Composite</b>	<b>4,072,813,680</b>	<b>100.0</b>	<b>1.2 (100)</b>	<b>-1.0 (100)</b>	<b>-5.8 (56)</b>	<b>10.6 (52)</b>	<b>8.0 (3)</b>	<b>8.2 (2)</b>	<b>8.4 (11)</b>	<b>Jun-91</b>
Policy Index			3.9 (71)	6.2 (27)	-4.7 (26)	9.7 (77)	5.2 (81)	6.6 (60)	--	
Over/Under			-2.7	-7.2	-1.1	0.9	2.8	1.6	--	
<b>Total Equity Composite</b>	<b>1,019,527,610</b>	<b>25.0</b>	<b>5.8</b>	<b>7.7</b>	<b>-8.7</b>	<b>13.7</b>	<b>6.3</b>	<b>8.4</b>	<b>7.2</b>	<b>Apr-01</b>
<b>Domestic Equity</b>	<b>582,290,188</b>	<b>14.3</b>	<b>5.4 (56)</b>	<b>7.0 (71)</b>	<b>-11.2 (74)</b>	<b>16.0 (67)</b>	<b>10.7 (22)</b>	<b>12.3 (18)</b>	<b>8.6 (35)</b>	<b>Apr-01</b>
Russell 3000 Index			7.2 (38)	9.7 (47)	-8.6 (54)	18.5 (40)	10.5 (26)	11.7 (23)	8.1 (54)	
Over/Under			-1.8	-2.7	-2.6	-2.5	0.2	0.6	0.5	
<b>Large Cap Equity</b>	<b>350,099,812</b>	<b>8.6</b>	<b>5.3 (49)</b>	<b>5.0 (88)</b>	<b>-10.8 (79)</b>	<b>16.1 (68)</b>	<b>13.0 (7)</b>	<b>13.7 (9)</b>	<b>8.0 (97)</b>	<b>Jul-91</b>
S&P 500 Index			7.5 (32)	10.0 (36)	-7.7 (60)	18.6 (37)	11.2 (24)	12.2 (25)	10.1 (49)	
Over/Under			-2.2	-5.0	-3.1	-2.5	1.8	1.5	-2.1	
<b>Mid Cap Equity</b>	<b>165,497,452</b>	<b>4.1</b>	<b>5.7 (43)</b>	<b>8.6 (66)</b>	<b>-12.7 (85)</b>	<b>16.2 (66)</b>	<b>9.8 (20)</b>	<b>12.1 (10)</b>	<b>7.5 (84)</b>	<b>Jan-08</b>
Russell Midcap Index			4.1 (61)	9.7 (53)	-8.8 (62)	19.2 (47)	8.1 (52)	10.1 (51)	8.6 (49)	
Over/Under			1.6	-1.1	-3.9	-3.0	1.7	2.0	-1.1	
<b>Small Cap Equity</b>	<b>66,692,925</b>	<b>1.6</b>	<b>5.6 (35)</b>	<b>14.1 (13)</b>	<b>-9.6 (61)</b>	<b>14.0 (91)</b>	<b>6.0 (61)</b>	<b>8.9 (55)</b>	<b>10.4 (77)</b>	<b>Jul-91</b>
Russell 2000 Index			2.7 (65)	6.8 (69)	-11.6 (74)	17.5 (73)	4.7 (81)	8.0 (72)	9.3 (96)	
Over/Under			2.9	7.3	2.0	-3.5	1.3	0.9	1.1	
<b>International Equity</b>	<b>437,237,422</b>	<b>10.7</b>	<b>6.2 (77)</b>	<b>8.8 (82)</b>	<b>-5.1 (56)</b>	<b>10.3 (82)</b>	<b>0.6 (89)</b>	<b>3.1 (95)</b>	<b>6.8 (57)</b>	<b>Jul-93</b>
International Equity Policy Index			6.9 (67)	10.0 (69)	-5.1 (55)	11.8 (67)	2.5 (62)	4.2 (85)	5.3 (100)	
Over/Under			-0.7	-1.2	0.0	-1.5	-1.9	-1.1	1.5	
<b>Fixed Income</b>	<b>859,913,604</b>	<b>21.1</b>	<b>2.3 (64)</b>	<b>2.5 (30)</b>	<b>-3.0 (54)</b>	<b>1.6 (30)</b>	<b>1.6 (47)</b>	<b>2.8 (26)</b>	<b>5.5 (20)</b>	<b>Aug-91</b>
Blmbg. U.S. Aggregate Index			3.0 (41)	-0.1 (85)	-4.8 (70)	-2.8 (91)	0.9 (86)	1.4 (69)	4.9 (47)	
Over/Under			-0.7	2.6	1.8	4.4	0.7	1.4	0.6	

# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Fixed Income Alternatives</b>	<b>884,214,318</b>	<b>21.7</b>	<b>-0.6 (100)</b>	<b>-0.3 (100)</b>	<b>-0.6 (16)</b>	<b>8.1 (13)</b>	<b>7.0 (1)</b>	<b>7.4 (1)</b>	<b>13.1 (1)</b>	<b>Jan-09</b>
<i>Fixed Income Alternatives Policy Index</i>			3.7 (20)	7.1 (40)	-3.6 (62)	5.8 (47)	3.0 (48)	3.8 (47)	4.0 (100)	
Over/Under			-4.3	-7.4	3.0	2.3	4.0	3.6	9.1	
<b>Total Distressed Composite</b>	<b>243,214,206</b>	<b>6.0</b>	<b>0.4</b>	<b>3.0</b>	<b>6.1</b>	<b>7.7</b>	<b>6.6</b>	<b>7.2</b>	<b>13.6</b>	<b>Jan-09</b>
<i>ICE BofA High Yield Master II</i>			3.7	7.1	-3.6	5.8	3.0	4.0	8.8	
Over/Under			-3.3	-4.1	9.7	1.9	3.6	3.2	4.8	
<b>Income Strategies</b>	<b>641,000,112</b>	<b>15.7</b>	<b>-1.0</b>	<b>-1.5</b>	<b>-3.1</b>	<b>8.3</b>	<b>7.1</b>	<b>7.5</b>	<b>7.5</b>	<b>May-11</b>
<b>Real Assets</b>	<b>322,108,385</b>	<b>7.9</b>	<b>-0.6</b>	<b>-0.8</b>	<b>5.5</b>	<b>5.7</b>	<b>5.0</b>	<b>6.9</b>	<b>6.2</b>	<b>Jul-01</b>
<i>NCREIF Property Index</i>			-1.8	-4.7	-1.6	7.2	6.7	8.3	8.3	
Over/Under			1.2	3.9	7.1	-1.5	-1.7	-1.4	-2.1	
<b>Real Estate Composite</b>	<b>245,584,391</b>	<b>6.0</b>	<b>0.1</b>	<b>-3.8</b>	<b>0.4</b>	<b>4.4</b>	<b>6.0</b>	<b>8.5</b>	<b>7.1</b>	<b>Jul-01</b>
<i>NCREIF Property Index</i>			-1.8	-4.7	-1.6	7.2	6.7	8.3	8.3	
Over/Under			1.9	0.9	2.0	-2.8	-0.7	0.2	-1.2	
<b>Infrastructure Composite</b>	<b>14,206,585</b>	<b>0.3</b>	<b>-4.5</b>	<b>3.4</b>	<b>6.3</b>	<b>-6.0</b>	<b>-0.9</b>	<b>0.6</b>	<b>2.2</b>	<b>Jul-09</b>
<b>Private Equity</b>	<b>858,030,119</b>	<b>21.1</b>	<b>-2.3</b>	<b>-12.8</b>	<b>-13.7</b>	<b>18.2</b>	<b>18.8</b>	<b>16.5</b>	<b>12.5</b>	<b>Oct-01</b>
<i>Russell 2000 Index</i>			2.7	6.8	-11.6	17.5	4.7	8.0	8.6	
Over/Under			-5.0	-19.6	-2.1	0.7	14.1	8.5	3.9	
<b>Cash</b>	<b>128,757,816</b>	<b>3.2</b>	<b>0.0</b>	<b>0.5</b>	<b>0.5</b>	<b>1.9</b>	<b>1.1</b>	<b>0.4</b>	<b>4.2</b>	<b>Jul-09</b>
<i>FTSE 3 Month T-Bill</i>			1.1	2.5	2.6	1.0	1.4	0.9	0.6	
Over/Under			-1.1	-2.0	-2.1	0.9	-0.3	-0.5	3.6	

# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

Trailing Net Performance										
	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Composite</b>	<b>4,072,813,680</b>	<b>100.0</b>	<b>1.2 (100)</b>	<b>-1.0 (100)</b>	<b>-5.8 (56)</b>	<b>10.6 (52)</b>	<b>8.0 (3)</b>	<b>8.2 (2)</b>	<b>8.4 (11)</b>	<b>Jun-91</b>
<i>Policy Index</i>			3.9 (71)	6.2 (27)	-4.7 (26)	9.7 (77)	5.2 (81)	6.6 (60)	--	
Over/Under			-2.7	-7.2	-1.1	0.9	2.8	1.6	--	
<b>Total Equity Composite</b>	<b>1,019,527,610</b>	<b>25.0</b>	<b>5.8 (61)</b>	<b>7.7 (75)</b>	<b>-8.7 (69)</b>	<b>13.7 (65)</b>	<b>6.3 (56)</b>	<b>8.4 (44)</b>	<b>7.2 (53)</b>	<b>Apr-01</b>
<b>Domestic Equity</b>	<b>582,290,188</b>	<b>14.3</b>	<b>5.4 (56)</b>	<b>7.0 (71)</b>	<b>-11.2 (74)</b>	<b>16.0 (67)</b>	<b>10.7 (22)</b>	<b>12.3 (18)</b>	<b>8.6 (35)</b>	<b>Apr-01</b>
<i>Russell 3000 Index</i>			7.2 (38)	9.7 (47)	-8.6 (54)	18.5 (40)	10.5 (26)	11.7 (23)	8.1 (54)	
Over/Under			-1.8	-2.7	-2.6	-2.5	0.2	0.6	0.5	
<b>Large Cap Equity</b>	<b>350,099,812</b>	<b>8.6</b>	<b>5.3 (49)</b>	<b>5.0 (88)</b>	<b>-10.8 (79)</b>	<b>16.1 (68)</b>	<b>13.0 (7)</b>	<b>13.7 (9)</b>	<b>8.0 (97)</b>	<b>Jul-91</b>
<i>S&amp;P 500 Index</i>			7.5 (32)	10.0 (36)	-7.7 (60)	18.6 (37)	11.2 (24)	12.2 (25)	10.1 (49)	
Over/Under			-2.2	-5.0	-3.1	-2.5	1.8	1.5	-2.1	
BlackRock Large Cap ETF	1,300,649	0.0	7.1 (34)	9.5 (42)	-7.5 (59)	18.0 (44)	10.9 (29)	12.0 (28)	12.5 (38)	Aug-10
<i>S&amp;P 500 Index</i>			7.5 (32)	10.0 (36)	-7.7 (60)	18.6 (37)	11.2 (24)	12.2 (25)	13.2 (25)	
Over/Under			-0.4	-0.5	0.2	-0.6	-0.3	-0.2	-0.7	
PIMCO Managed Volatility	348,777,685	8.6	5.3 (49)	5.0 (88)	-10.8 (79)	16.1 (67)	13.0 (7)	--	12.5 (7)	Jan-15
<i>S&amp;P 500 Index</i>			7.5 (32)	10.0 (36)	-7.7 (60)	18.6 (37)	11.2 (24)	12.2 (25)	10.8 (26)	
Over/Under			-2.2	-5.0	-3.1	-2.5	1.8	--	1.7	
<b>Mid Cap Equity</b>	<b>165,497,452</b>	<b>4.1</b>	<b>5.7 (43)</b>	<b>8.6 (66)</b>	<b>-12.7 (85)</b>	<b>16.2 (66)</b>	<b>9.8 (20)</b>	<b>12.1 (10)</b>	<b>7.5 (84)</b>	<b>Jan-08</b>
<i>Russell Midcap Index</i>			4.1 (61)	9.7 (53)	-8.8 (62)	19.2 (47)	8.1 (52)	10.1 (51)	8.6 (49)	
Over/Under			1.6	-1.1	-3.9	-3.0	1.7	2.0	-1.1	
Champlain Mid Cap Core	165,497,452	4.1	5.7 (43)	8.6 (66)	-12.7 (85)	16.2 (66)	9.8 (20)	12.1 (10)	12.9 (19)	Dec-09
<i>Russell Midcap Index</i>			4.1 (61)	9.7 (53)	-8.8 (62)	19.2 (47)	8.1 (52)	10.1 (51)	12.0 (41)	
Over/Under			1.6	-1.1	-3.9	-3.0	1.7	2.0	0.9	
<b>Small Cap Equity</b>	<b>66,692,925</b>	<b>1.6</b>	<b>5.6 (35)</b>	<b>14.1 (13)</b>	<b>-9.6 (61)</b>	<b>14.0 (91)</b>	<b>6.0 (61)</b>	<b>8.9 (55)</b>	<b>10.4 (77)</b>	<b>Jul-91</b>
<i>Russell 2000 Index</i>			2.7 (65)	6.8 (69)	-11.6 (74)	17.5 (73)	4.7 (81)	8.0 (72)	9.3 (96)	
Over/Under			2.9	7.3	2.0	-3.5	1.3	0.9	1.1	
William Blair SMID	66,643,321	1.6	5.7 (39)	14.1 (14)	-9.6 (66)	14.0 (92)	7.7 (47)	11.6 (12)	12.6 (15)	Dec-12
<i>Russell 2500 Growth Index</i>			6.5 (30)	11.4 (31)	-10.4 (72)	14.7 (87)	6.8 (60)	10.0 (39)	11.1 (40)	
Over/Under			-0.8	2.7	0.8	-0.7	0.9	1.6	1.5	

## Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>International Equity</b>	<b>437,237,422</b>	<b>10.7</b>	<b>6.2 (85)</b>	<b>8.8 (84)</b>	<b>-5.1 (56)</b>	<b>10.3 (83)</b>	<b>0.6 (90)</b>	<b>3.1 (92)</b>	<b>6.8 (53)</b>	<b>Jul-93</b>
<i>International Equity Policy Index</i>			6.9 (76)	10.0 (77)	-5.1 (56)	11.8 (66)	2.5 (62)	4.2 (84)	5.3 (100)	
Over/Under			-0.7	-1.2	0.0	-1.5	-1.9	-1.1	1.5	
Grantham, Mayo, Van Otterloo & Co.	125,601,026	3.1	5.9 (82)	8.6 (83)	-4.1 (45)	9.3 (86)	0.2 (92)	3.0 (95)	4.0 (96)	Sep-09
<i>MSCI AC World ex USA (Net)</i>			6.9 (67)	10.0 (69)	-5.1 (55)	11.8 (67)	2.5 (62)	4.2 (85)	4.8 (83)	
Over/Under			-1.0	-1.4	1.0	-2.5	-2.3	-1.2	-0.8	
Lazard Freres Intl Value	139,837,607	3.4	8.6 (35)	12.1 (44)	-1.9 (23)	11.6 (71)	1.9 (75)	4.2 (83)	6.5 (53)	Jan-95
<i>Lazard Freres Policy Index</i>			6.9 (67)	10.0 (69)	-5.1 (55)	11.8 (67)	2.5 (62)	4.2 (85)	5.0 (97)	
Over/Under			1.7	2.1	3.2	-0.2	-0.6	0.0	1.5	
GMO EM Domestic Opp	37,516,326	0.9	7.6 (9)	1.6 (71)	-10.0 (62)	4.5 (94)	-2.8 (95)	1.0 (93)	2.3 (86)	Aug-12
<i>MSCI Emerging Markets (Net)</i>			4.0 (70)	0.8 (78)	-10.7 (70)	7.8 (69)	-0.9 (68)	2.0 (69)	2.8 (73)	
Over/Under			3.6	0.8	0.7	-3.3	-1.9	-1.0	-0.5	
Oaktree EM	134,272,524	3.3	3.8 (74)	7.8 (26)	-7.7 (38)	11.8 (36)	1.0 (32)	--	2.9 (50)	Oct-13
<i>MSCI Emerging Markets (Net)</i>			4.0 (70)	0.8 (78)	-10.7 (70)	7.8 (69)	-0.9 (68)	2.0 (69)	2.4 (68)	
Over/Under			-0.2	7.0	3.0	4.0	1.9	--	0.5	

## Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Fixed Income</b>	<b>859,913,604</b>	<b>21.1</b>	<b>2.3 (64)</b>	<b>2.5 (30)</b>	<b>-3.0 (54)</b>	<b>1.6 (30)</b>	<b>1.6 (47)</b>	<b>2.8 (26)</b>	<b>5.5 (20)</b>	<b>Aug-91</b>
<i>Blmbg. U.S. Aggregate Index</i>			<i>3.0 (41)</i>	<i>-0.1 (85)</i>	<i>-4.8 (70)</i>	<i>-2.8 (91)</i>	<i>0.9 (86)</i>	<i>1.4 (69)</i>	<i>4.9 (47)</i>	
Over/Under			-0.7	2.6	1.8	4.4	0.7	1.4	0.6	
PIMCO Core Plus Total Return	235,220,763	5.8	3.2 (54)	0.3 (70)	-5.2 (56)	-2.0 (83)	1.1 (78)	1.5 (88)	3.8 (42)	Oct-06
<i>Blmbg. U.S. Aggregate Index</i>			<i>3.0 (74)</i>	<i>-0.1 (82)</i>	<i>-4.8 (36)</i>	<i>-2.8 (100)</i>	<i>0.9 (86)</i>	<i>1.4 (93)</i>	<i>3.1 (97)</i>	
Over/Under			0.2	0.4	-0.4	0.8	0.2	0.1	0.7	
PIMCO Corporate Credit	291,731,622	7.2	3.3 (15)	3.9 (1)	-4.1 (19)	1.8 (1)	2.6 (1)	3.6 (1)	5.5 (1)	Jun-09
<i>PIMCO Corporate Credit Policy Index</i>			<i>3.5 (8)</i>	<i>3.4 (1)</i>	<i>-4.6 (33)</i>	<i>1.1 (1)</i>	<i>2.1 (1)</i>	<i>2.8 (1)</i>	<i>4.6 (2)</i>	
Over/Under			-0.2	0.5	0.5	0.7	0.5	0.8	0.9	
PIMCO Unconstrained Bond	301,868,681	7.4	1.3 (77)	2.3 (60)	-1.5 (41)	2.2 (55)	1.3 (53)	--	2.3 (47)	Sep-13
<i>ICE BofA LIBOR 3-month Constant Maturity</i>			<i>1.1 (78)</i>	<i>2.4 (60)</i>	<i>2.4 (11)</i>	<i>1.0 (75)</i>	<i>1.6 (46)</i>	<i>1.1 (68)</i>	<i>1.1 (74)</i>	
Over/Under			0.2	-0.1	-3.9	1.2	-0.3	--	1.2	
Marathon Loan Opportunities Fd	31,092,537	0.8	2.8	6.5	-5.5	-0.5	-0.3	--	2.5	Oct-14
<i>Morningstar LSTA US Leveraged Loan</i>			<i>3.2</i>	<i>7.3</i>	<i>2.5</i>	<i>8.5</i>	<i>3.6</i>	<i>3.8</i>	<i>3.8</i>	
Over/Under			-0.4	-0.8	-8.0	-9.0	-3.9	--	-1.3	



# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Fixed Income Alternatives</b>	<b>884,214,318</b>	<b>21.7</b>	<b>-0.6 (100)</b>	<b>-0.3 (100)</b>	<b>-0.6 (16)</b>	<b>8.1 (13)</b>	<b>7.0 (1)</b>	<b>7.4 (1)</b>	<b>13.1 (1)</b>	<b>Jan-09</b>
<i>Fixed Income Alternatives Policy Index</i>			<i>3.7 (20)</i>	<i>7.1 (40)</i>	<i>-3.6 (62)</i>	<i>5.8 (47)</i>	<i>3.0 (48)</i>	<i>3.8 (47)</i>	<i>4.0 (100)</i>	
Over/Under			<b>-4.3</b>	<b>-7.4</b>	<b>3.0</b>	<b>2.3</b>	<b>4.0</b>	<b>3.6</b>	<b>9.1</b>	
Garrison Distressed Fund II	450	0.0								
Oaktree EPOF III	7,250,871	0.2								
Garrison Opp. Fund III	2,077,119	0.1								
Waterfall Eden Fund	321,265	0.0								
Cyrus Opps Fund II	--	0.0								
Courage Credit Opportunities Fund III	1	0.0								
Marathon European Credit Opps II	1,012,232	0.0								
Marathon European Credit Opps III	22,293,830	0.5								
Mount Logan Opportunities Fund IV	9,951,588	0.2								
Centerbridge Capital Partners III	29,474,034	0.7								
Oaktree Opps Fund X	47,764,581	1.2								
PIMCO COF III	39,098,044	1.0								
Hygieia SMA	83,970,191	2.1								
EIG-Energy Fund XV	3,628,456	0.1								
Accel Growth Fund, L.P.	27,513	0.0								
Cowen Healthcare Royalty II	603,922	0.0								
GSO Capital Opp. Fund II	1,205,140	0.0								
Energy Cap Mezz Opps Fund A	3,670,220	0.1								
Marathon CLO Managed	26,278,094	0.6								
Mount Logan Middle Market Funding	165,501	0.0								
EIG-Energy Fund XVI	17,536,431	0.4								
Anchorage Illiquid Opps IV	738,671	0.0								
Hayfin Direct Lending Fund	179,899	0.0								
Principal RE Debt	24,191	0.0								
OSP Value Fund	5,016,269	0.1								
Athyrium Opps Fund II	6,763,026	0.2								
Accel-KKR Growth Capital Partners II, L.P.	9,089,589	0.2								

## Metropolitan Government of Nashville and Davidson County

**Total Plan (Net of Fees) | As of March 31, 2023**

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
PIMCO COF II	16,766,211	0.4								
Oaktree Euro Principal IV	22,271,126	0.5								
OSP Value Fund II	7,269,072	0.2								
Accel-KKR Credit Partners, L.P. - Series I	26,497,142	0.7								
Courage Capital IV	20,170,694	0.5								
Arcmont SMA	79,655,423	2.0								
PIMCO PL A B	103,722,592	2.5								
Oaktree European Principal Fund V	17,714,132	0.4								
Anchorage Illiquid Opps VII	50,287,868	1.2								
PIMCO Tactical Opportunities Fund	99,211,423	2.4								
OSP Value Fund III	27,571,446	0.7								
Anchorage Illiquid Opps V	23,722,961	0.6								
AKKR NV SMA	15,814,163	0.4								

# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Assets</b>	<b>322,108,385</b>	<b>7.9</b>	<b>-0.6</b>	<b>-0.8</b>	<b>5.5</b>	<b>5.7</b>	<b>5.0</b>	<b>6.9</b>	<b>6.2</b>	<b>Jul-01</b>
<i>NCREIF Property Index</i>			<i>-1.8</i>	<i>-4.7</i>	<i>-1.6</i>	<i>7.2</i>	<i>6.7</i>	<i>8.3</i>	<i>8.3</i>	
Over/Under			1.2	3.9	7.1	-1.5	-1.7	-1.4	-2.1	
<b>Real Estate Composite</b>	<b>245,584,391</b>	<b>6.0</b>	<b>0.1</b>	<b>-3.8</b>	<b>0.4</b>	<b>4.4</b>	<b>6.0</b>	<b>8.5</b>	<b>7.1</b>	<b>Jul-01</b>
<i>NCREIF Property Index</i>			<i>-1.8</i>	<i>-4.7</i>	<i>-1.6</i>	<i>7.2</i>	<i>6.7</i>	<i>8.3</i>	<i>8.3</i>	
Over/Under			1.9	0.9	2.0	-2.8	-0.7	0.2	-1.2	
JP Morgan European Real Estate	167,864	0.0	4.3 (98)	1.8 (100)	-3.1 (2)	2.9 (99)	-3.1 (100)	3.1 (100)	0.5 (100)	Apr-09
<i>NCREIF Property Index</i>			<i>-1.8 (100)</i>	<i>-4.7 (100)</i>	<i>-1.6 (1)</i>	<i>7.2 (98)</i>	<i>6.7 (92)</i>	<i>8.3 (98)</i>	<i>8.0 (100)</i>	
Over/Under			6.1	6.5	-1.5	-4.3	-9.8	-5.2	-7.5	
ARES European RE IV	4,340,450	0.1								
Michelson Multifamily Fund, L.P.	18,316,873	0.4								
Soundmark Horizon	33,523,947	0.8								
Savanna Real Estate Fund III	3,765,436	0.1								
True North RE III	12,693,010	0.3								
AG Realty Fund VIII	4,833,934	0.1								
AG Realty Fund IX	18,560,844	0.5								
Stonelake Fund VI	17,197,428	0.4								
EIG Private Debt	7,825,998	0.2								
PIMCO Bravo	--	0.0								
True North HY II	1	0.0								
Oaktree European Capital Solutions Fund, L.P.	13,310,058	0.3								
PIMCO Bravo II	1,536,846	0.0								
PIMCO Bravo III	27,989,413	0.7								
Principal RE Debt II	5,162,989	0.1								
RCP II NEPC SYND P	2,976,774	0.1								
Riverstone CP II	9,924,589	0.2								
EIG Energy XVII	20,331,468	0.5								
AG Realty Fund X	15,181,120	0.4								
Oaktree European Capital Solutions Fund II, L.P.	10,168,723	0.2								
Centerbridge RE II	8,271,508	0.2								

## Metropolitan Government of Nashville and Davidson County

**Total Plan (Net of Fees) | As of March 31, 2023**

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GSO Energy Select Opportunities Fund, L.P.	4,378,978	0.1								
Ares Energy Opp Fd	9,827,607	0.2								
Riverstone GL Energy & Power Fund V	10,324,690	0.3								
Sheridan Prod Ptrs III	9,658,000	0.2								
Chambers Energy III	23,439,696	0.6								
Riverstone GL Energy & Power Fund VI	18,895,023	0.5								

# Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Private Equity</b>	<b>858,030,119</b>	<b>21.1</b>	<b>-2.3</b>	<b>-12.8</b>	<b>-13.7</b>	<b>18.2</b>	<b>18.8</b>	<b>16.5</b>	<b>12.5</b>	<b>Oct-01</b>
<i>Russell 2000 Index</i>			<i>2.7</i>	<i>6.8</i>	<i>-11.6</i>	<i>17.5</i>	<i>4.7</i>	<i>8.0</i>	<i>8.6</i>	
Over/Under			<b>-5.0</b>	<b>-19.6</b>	<b>-2.1</b>	<b>0.7</b>	<b>14.1</b>	<b>8.5</b>	<b>3.9</b>	
HarbourVest Dover Street VII	70,879	0.0								
HarbourVest International VI	--	0.0								
StepStone Global Partners V	44,201,456	1.1								
Fort Washington Fund VII	16,210,971	0.4								
StepStone Opportunities II	14,931,922	0.4								
Axiom Asia III	29,827,649	0.7								
HarbourVest 2013 Direct Fund	735,631	0.0								
HarbourVest Dover Street VIII	--	0.0								
LGT Crown Europe Small Buyout III	10,625,476	0.3								
LGT CESB IV	11,996,777	0.3								
StepStone Global Partners VI	77,806,621	1.9								
StepStone Global Partners VII	84,226,083	2.1								
StepStone Secondaries Fund I	11,626,642	0.3								
StepStone GE III	12,113,295	0.3								
StepStone Growth Equity IV	13,857,956	0.3								
Greycroft Growth	9,266,064	0.2								
LGT Co-Investment Fund	19,793,689	0.5								
StepStone Opportunities III	8,320,436	0.2								
Dyal Capital Partners II	--	0.0								
Helios Investors III	36,318,573	0.9								
Raine Partners II	33,015,338	0.8								
Columbia Capital VI	18,792,190	0.5								
Axiom Asia IV	66,981,492	1.6								
StepStone Opportunities IV	13,214,409	0.3								
Astorg VI	6,408,215	0.2								
LGT Crown Co Inv Opps II	11,015,343	0.3								

## Metropolitan Government of Nashville and Davidson County

Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Axiom Asia Co-Investment I	11,265,374	0.3								
Columbia Capital VII	7,775,977	0.2								
Axiom Asia V	25,032,619	0.6								
StepStone Global Partners IX	43,104,612	1.1								
StepStone GE V	14,240,922	0.3								
Raine Partners III	11,510,819	0.3								
Openview V	12,309,646	0.3								
Accel-KKR Capital Partners V, L.P.	23,347,236	0.6								
Accel KKR Credit Partners VI	5,785,771	0.1								
StepStone Opportunities VI	20,023,207	0.5								
LGT Crown Europe Small Buyout V	3,560,463	0.1								
Openview Venture Partners VI	6,994,560	0.2								
StepStone Secondaries IV	25,574,733	0.6								
StepStone SPV IX	9,106,569	0.2								
StepStone Global Partners X	24,741,635	0.6								
Axiom Asia VI	17,855,798	0.4								
StepStone Growth Equity VI, Leaders	6,318,558	0.2								
StepStone Growth Equity VI, Redpoint	4,080,899	0.1								
StepStone Growth Equity VI	2,970,359	0.1								
Axiom Colnv Fund II	3,287,362	0.1								
Axiom Opportunities	5,145,055	0.1								
StepStone Secondaries V	14,348,960	0.4								
FCA Venture Partners III	32,611	0.0	0.0	-54.2	-88.7	-51.4	-37.2	-15.3	0.5	Apr-10
<i>Russell 3000 Index</i>			<i>7.2</i>	<i>9.7</i>	<i>-8.6</i>	<i>18.5</i>	<i>10.5</i>	<i>11.7</i>	<i>12.0</i>	
Over/Under			-7.2	-63.9	-80.1	-69.9	-47.7	-27.0	-11.5	

## Metropolitan Government of Nashville and Davidson County

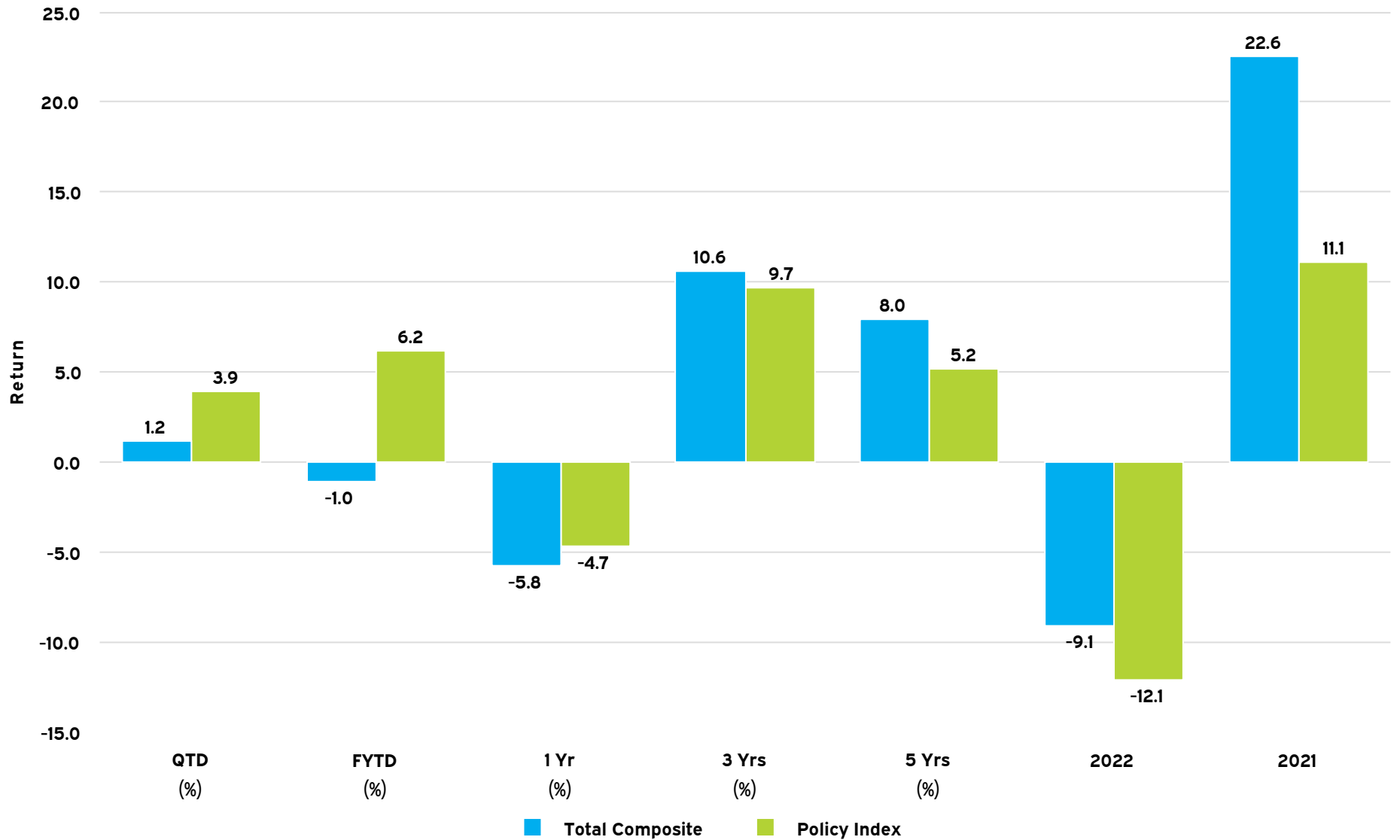
Total Plan (Net of Fees) | As of March 31, 2023

	Market Value (%)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Cash</b>	<b>128,757,816</b>	<b>3.2</b>	<b>0.0</b>	<b>0.5</b>	<b>0.5</b>	<b>1.9</b>	<b>1.1</b>	<b>0.4</b>	<b>4.2</b>	<b>Jul-09</b>
<i>FTSE 3 Month T-Bill</i>			<i>1.1</i>	<i>2.5</i>	<i>2.6</i>	<i>1.0</i>	<i>1.4</i>	<i>0.9</i>	<i>0.6</i>	
Over/Under			-1.1	-2.0	-2.1	0.9	-0.3	-0.5	3.6	
Cash Account	127,478,006	3.1	0.0	0.5	0.5	0.2	0.2	0.1	3.5	Jul-09
<i>FTSE 3 Month T-Bill</i>			<i>1.1</i>	<i>2.5</i>	<i>2.6</i>	<i>1.0</i>	<i>1.4</i>	<i>0.9</i>	<i>0.6</i>	
Over/Under			-1.1	-2.0	-2.1	-0.8	-1.2	-0.8	2.9	
Miscellaneous Cash	1,279,803	0.0	1.6	2.5	1.2	16.8	5.9	2.5	3.1	May-12

# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

## Total Plan Composite Return Summary (net of fees)

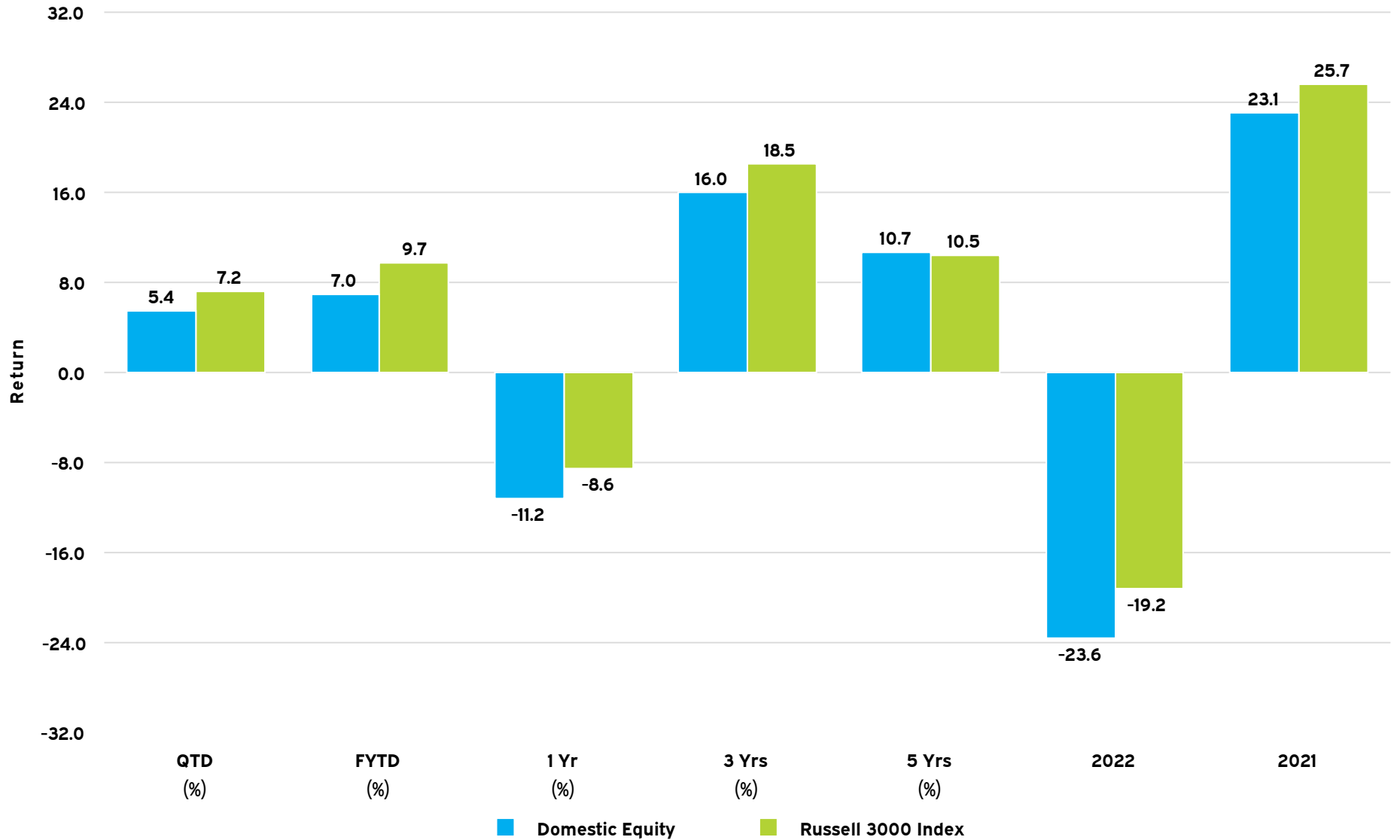




# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

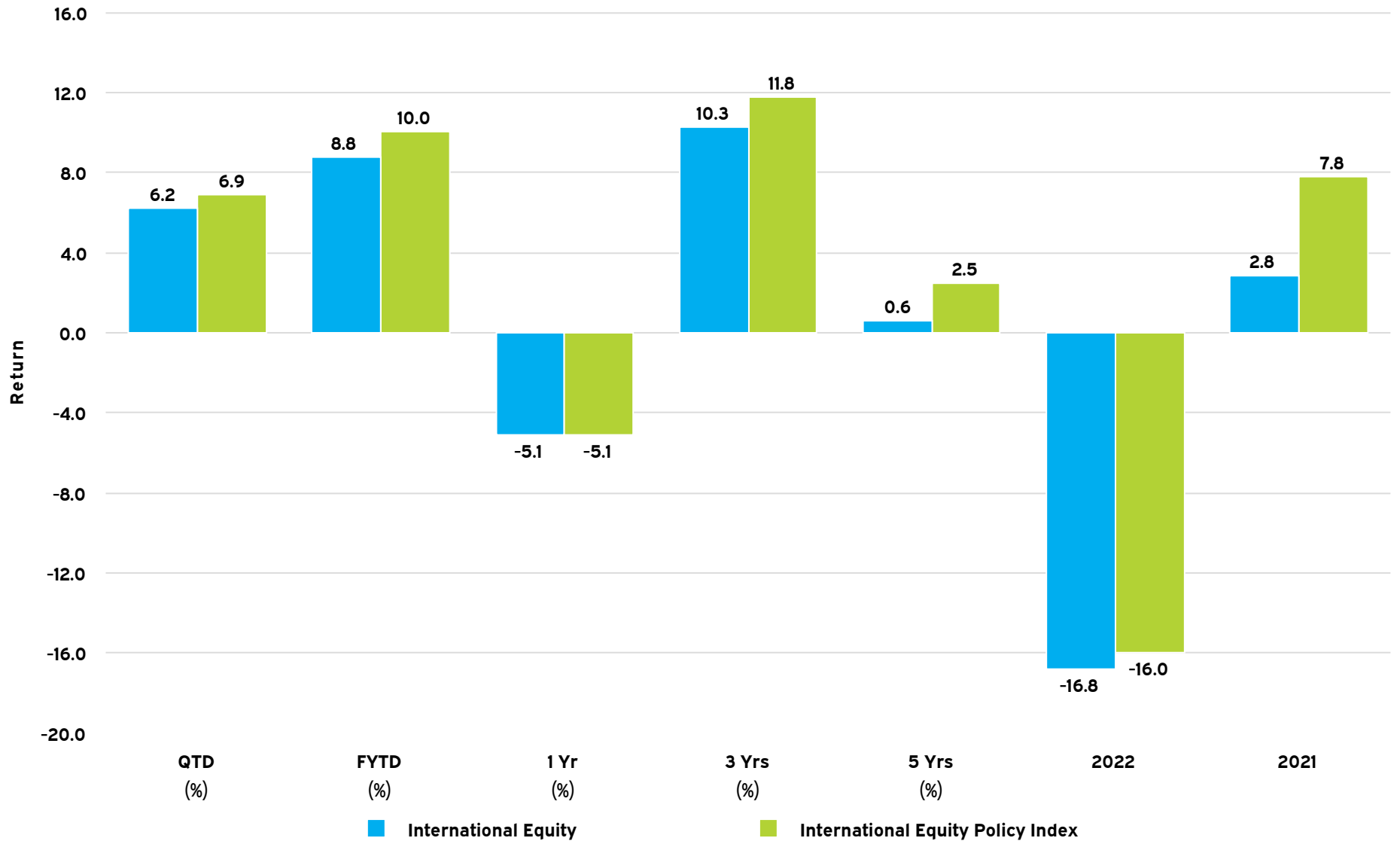
## Total Domestic Equity Composite Return Summary (net of fees)



# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

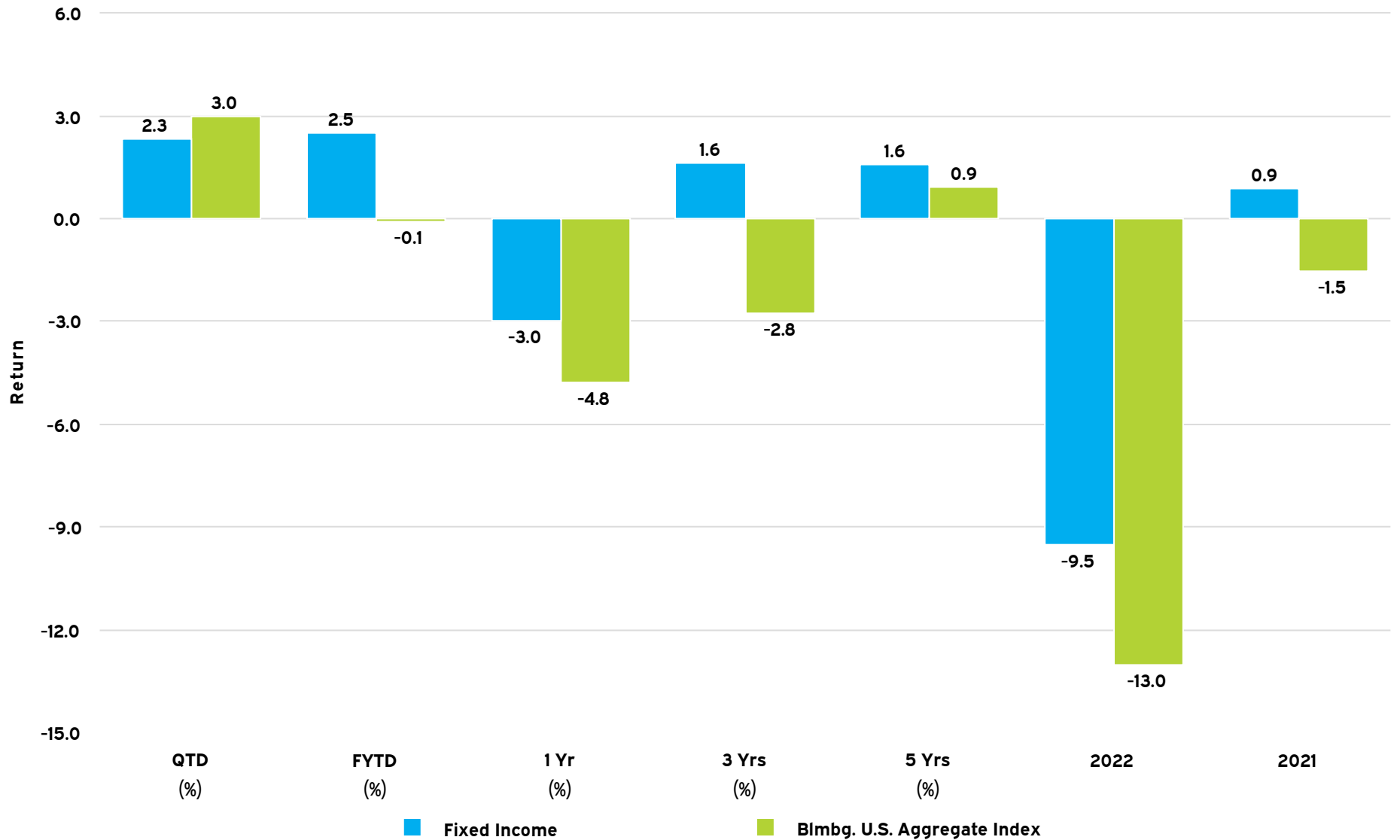
## Total International Equity Return Summary (net of fees)



# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

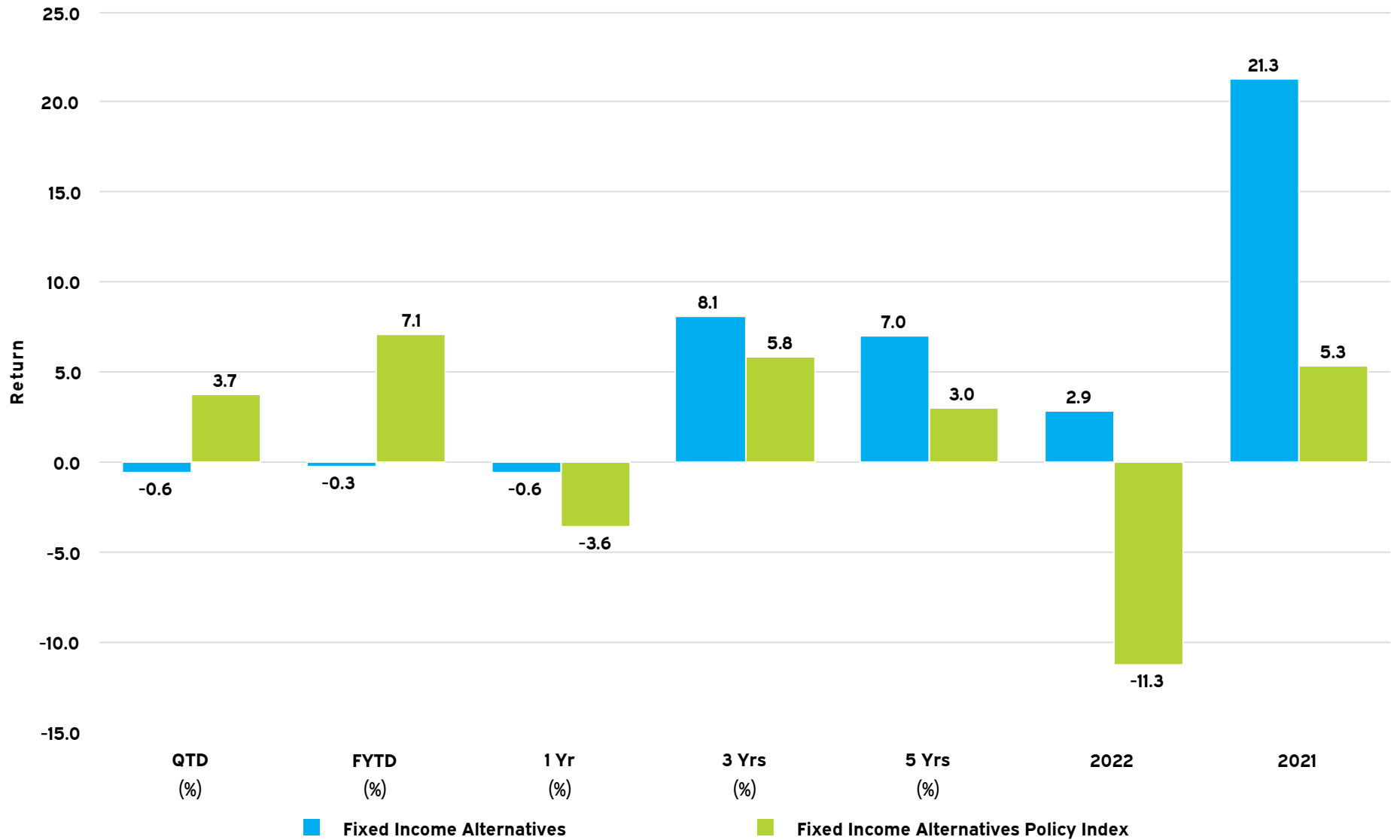
## Total Fixed Income Composite Return Summary (net of fees)



# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

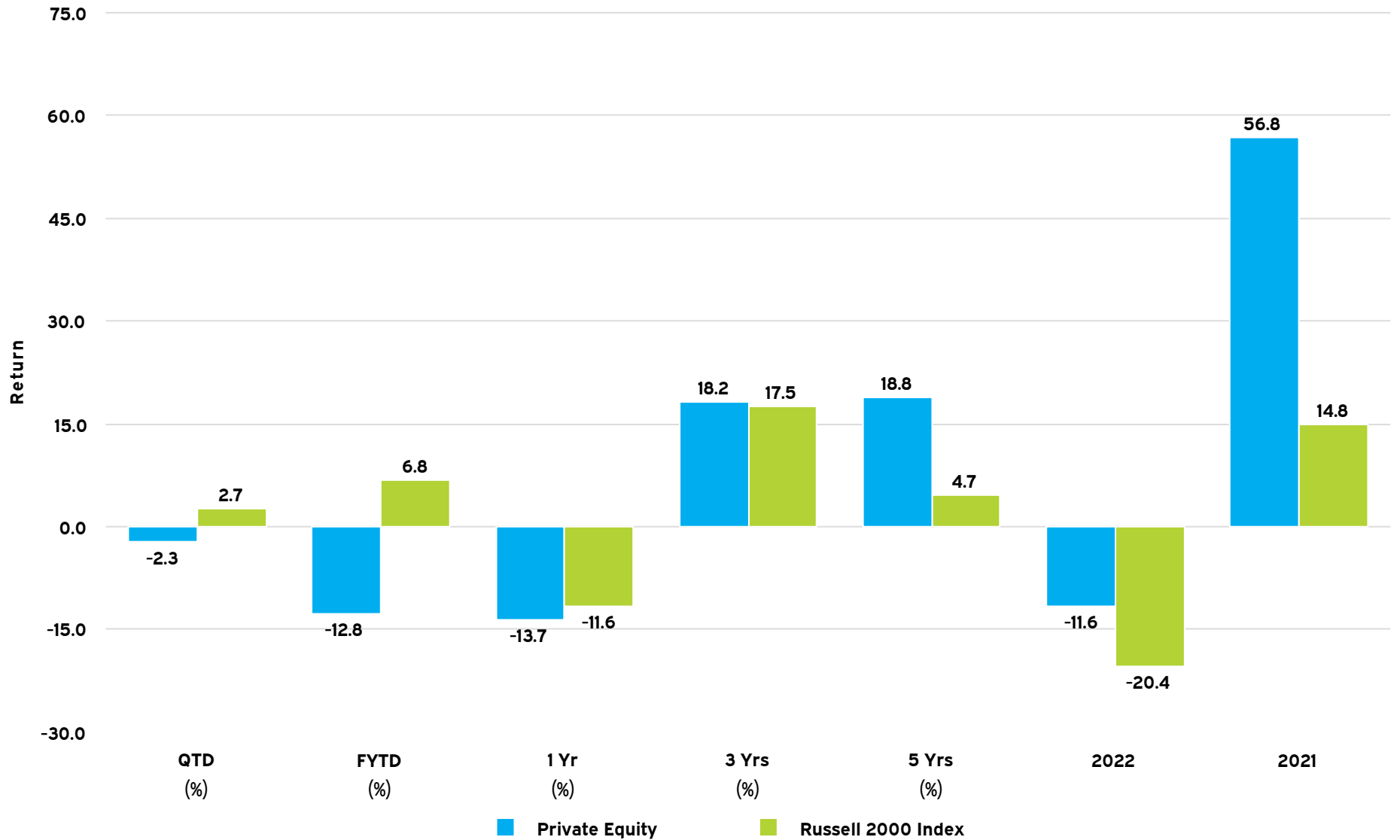
## Total Fixed Income Alternatives Return Summary (net of fees)



# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

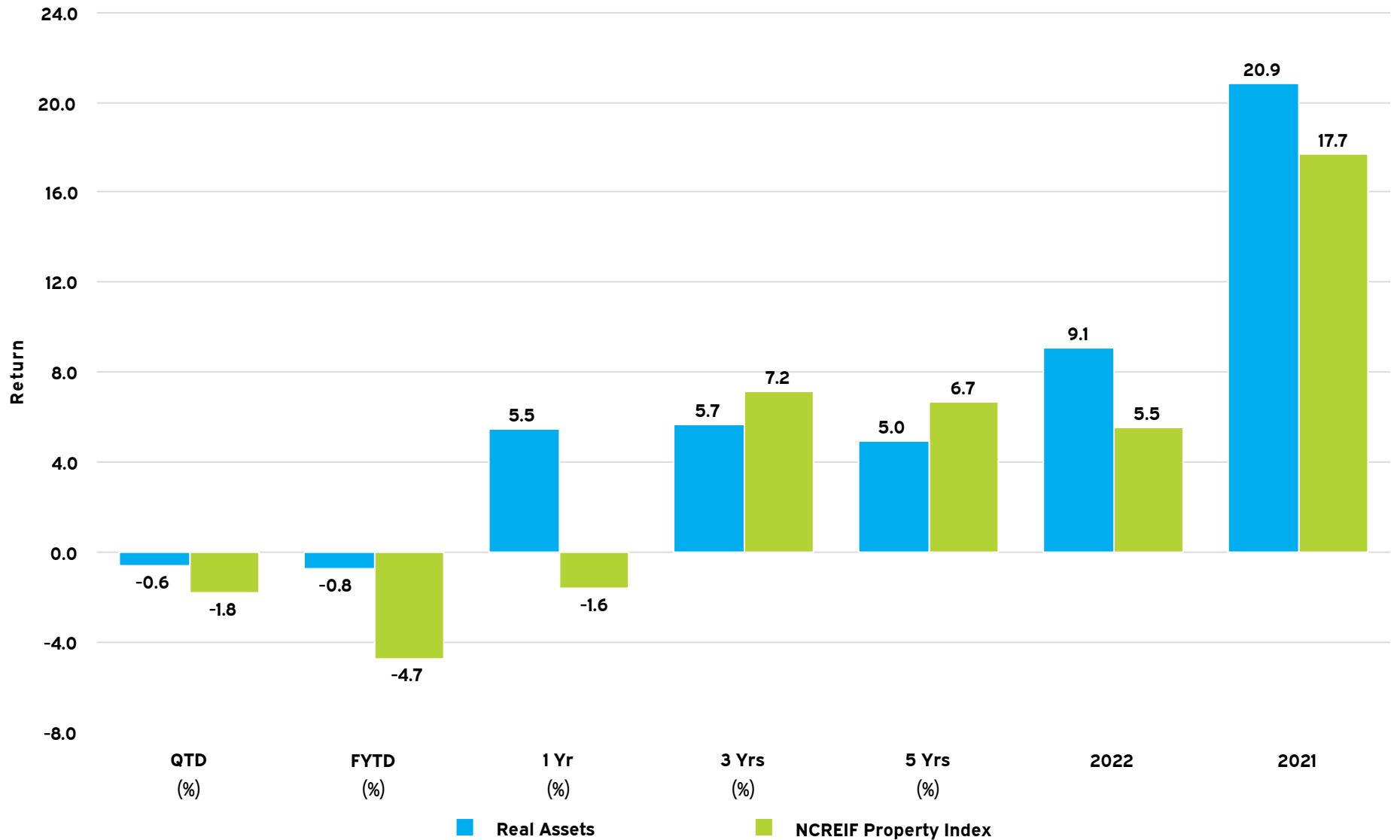
## Total Private Equity Composite (net of fees)



# Metropolitan Government of Nashville and Davidson County

Comparative Performance | As of March 31, 2023

## Total Real Assets Composite Return Summary (net of fees)



# Metropolitan Government of Nashville and Davidson County

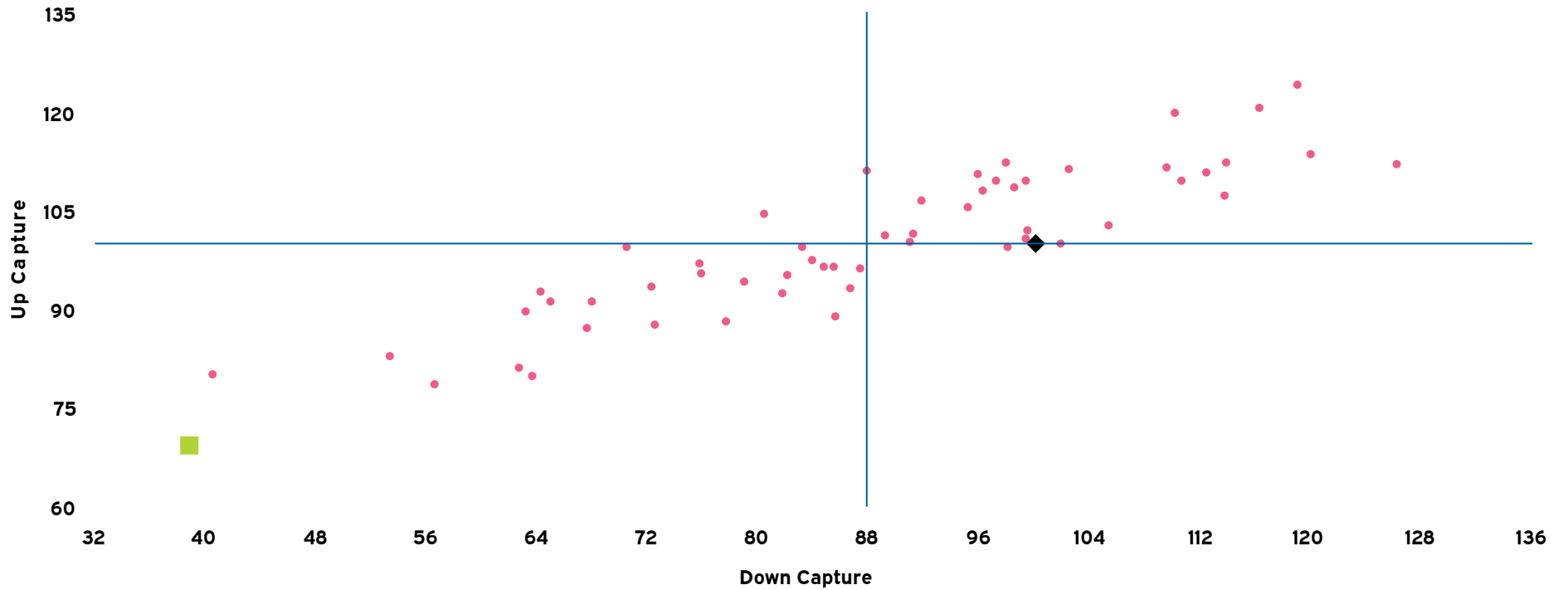
Total Plan Risk Return Statistics | As of March 31, 2023

Risk Return Statistics					
	3 Years		5 Yrs		
	Total Composite	Policy Index	Total Composite	Policy Index	
<b>Return Summary Statistics</b>					
Maximum Return	5.8	7.8	5.8	7.8	
Minimum Return	-4.3	-6.0	-4.3	-9.7	
Return	10.6	9.7	8.0	5.2	
Excess Return	9.5	9.0	6.5	4.3	
Excess Performance	0.9	0.0	2.8	0.0	
<b>Risk Summary Statistics</b>					
Beta	0.5	1.0	0.5	1.0	
Up Capture	69.3	100.0	71.1	100.0	
Down Capture	38.8	100.0	39.6	100.0	
<b>Risk/Return Summary Statistics</b>					
Standard Deviation	6.8	11.3	6.3	11.1	
Sortino Ratio	2.6	1.3	1.7	0.6	
Alpha	5.7	0.0	5.3	0.0	
Sharpe Ratio	1.4	0.8	1.0	0.4	
Excess Risk	6.9	11.3	6.4	11.2	
Tracking Error	7.1	0.0	6.6	0.0	
Information Ratio	0.1	-	0.3	-	
<b>Correlation Statistics</b>					
R-Squared	0.6	1.0	0.7	1.0	
Actual Correlation	0.8	1.0	0.9	1.0	

# Metropolitan Government of Nashville and Davidson County

Total Plan | As of March 31, 2023

## Downside Capture vs. Upside Capture 3 Years Ending March 31, 2023



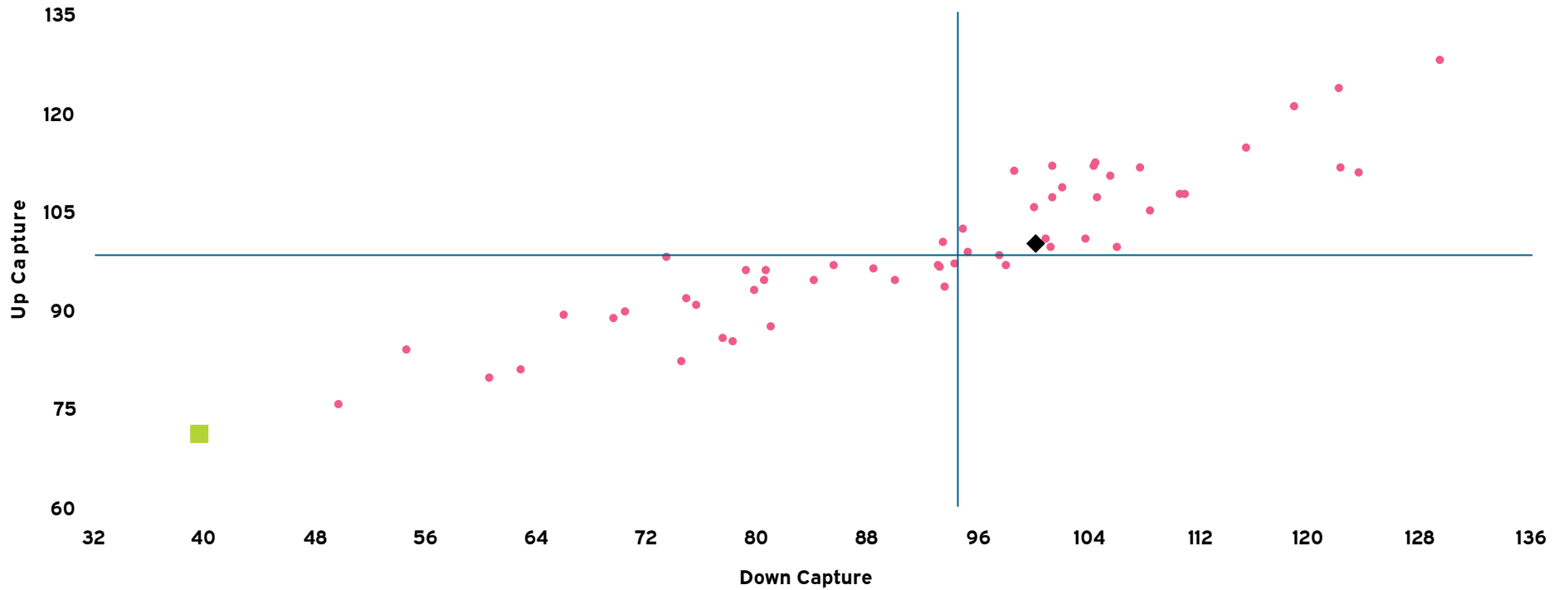
	3 Years Return	3 Years Up Capture	3 Years Down Capture
Total Composite	10.6	69.3	38.8
Policy Index	9.7	100.0	100.0



# Metropolitan Government of Nashville and Davidson County

Total Plan | As of March 31, 2023

## Downside Capture vs. Upside Capture 5 Years Ending March 31, 2023



	5 Years Return	5 Years Up Capture	5 Years Down Capture
Total Composite	8.0	71.1	39.6
Policy Index	5.2	100.0	100.0

#### April 2021

Russell 2000 Index	12.0%
Russell 3000 Index	25.0%
Blmbg. US Aggregate Index	20.0%
ICEBofa High Yield Master II	18.0%
NCREIF Property Index	12.0%
MSCI AC World ex USA (Net)	13.0%

#### April 2018

Russell 2000 Index	12.0%
Russell 3000 Index	17.0%
Blmbg. US Aggregate Index	21.0%
ICEBofa High Yield Master II	15.0%
HFRI Equity Hedge (Total) Index	7.0%
NCREIF Property Index	12.0%
MSCI AC World ex USA (Net)	16.0%

#### June 2017

Russell 2000 Index	12.0%
Russell 3000 Index	20.0%
Blmbg. US Aggregate Index	21.0%
ICEBofa High Yield Master II	15.0%
NCREIF Property Index	12.0%
MSCI AC World ex USA (Net)	13.0%

**Private Market Performance Summary**  
as of December 31, 2022

**Total Private Market Performance**  
As of December 31, 2022

Asset Class	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Net IRR (%)	PME <sup>1</sup> (%)
Fixed Income Alternatives	1,832.8	1,617.7	241.1	1,270.8	882.0	1.33	9.3%	4.8%
Private Equity	1,202.5	973.0	231.7	1,090.7	849.7	1.99	15.8%	7.2%
Real Estate and Real Assets	975.9	742.3	234.9	684.8	315.8	1.35	6.3%	8.2%
<b>Total</b>	<b>4,011.2</b>	<b>3,333.0</b>	<b>707.7</b>	<b>3,046.3</b>	<b>2,047.5</b>	<b>1.53</b>	<b>10.5%</b>	

<sup>1</sup> Public Market Equivalent benchmarks are: MSCI ACWI IMI Index for Private Equity, Merrill Lynch High Yield Index for Fixed Income Alternatives, and NCREIF NPI for Real Estate/Real Assets.

<sup>2</sup> Performance calculations based on manager provided 12/31/22 NAVs and cash flows.

## **Disclaimer, Glossary, and Notes**

WE HAVE PREPARED THIS REPORT FOR THE SOLE BENEFIT OF THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY.

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