

# Metropolitan Government of Nashville and Davidson County September 30, 2023 Performance Report



Agenda

#### Agenda

- **1.** Economic and Market Update
- **2.** Executive Summary
- **3.** Performance Report as of September 30, 2023
- 4. Disclaimer

#### **Economic and Market Update**

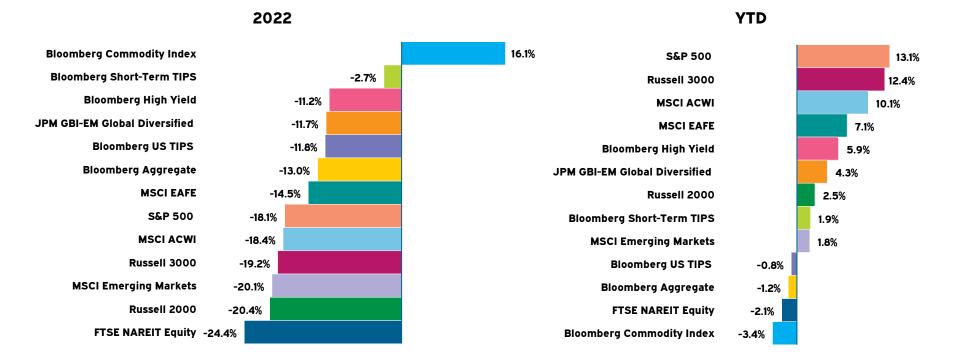
Data as of September 30, 2023



#### Commentary

- → After a strong July, global assets turned negative in August and September as expectations shifted to the Fed keeping interest rates higher for longer. Weakening economic data from Europe and China, as well as further instability in the Chinese real estate sector and a strong US dollar, weighed on results.
  - The Federal Open Markets Committee (FOMC) increased policy rates in July by 0.25% to a range of 5.25% 5.5% and kept rates at that level at their September meeting. Markets are now largely expecting the FOMC to maintain interest rates at this level through the first half of next year.
  - US equity markets (Russell 3000 index) fell in the third quarter (-3.3%), bringing the year-to-date gains to 12.4%. The technology sector remains the key driver of results this year, helped by artificial intelligence optimism.
  - Non-US developed equity markets declined more than the US in the third quarter (MSCI EAFE -4.1%) with the strength of the US dollar adding 2.8% to the quarterly declines. This widened the gap between US and international developed equities for the year (12.4% versus 7.1%).
  - Emerging market equities experienced the smallest declines in the third quarter (-2.9%). Negative results were driven by China and again the strong US dollar. Emerging markets continue to significantly trail developed market equities year-to-date, returning just 1.8%, again driven by China.
  - Interest rates generally rose over the quarter, particularly for longer-dated maturities. The broad US bond market fell (-3.2%) for the quarter and turned negative (-1.2%) year-to-date, as higher income has offset capital losses from rising rates.
- $\rightarrow$  For the rest of this year, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.

#### **Economic and Market Update**



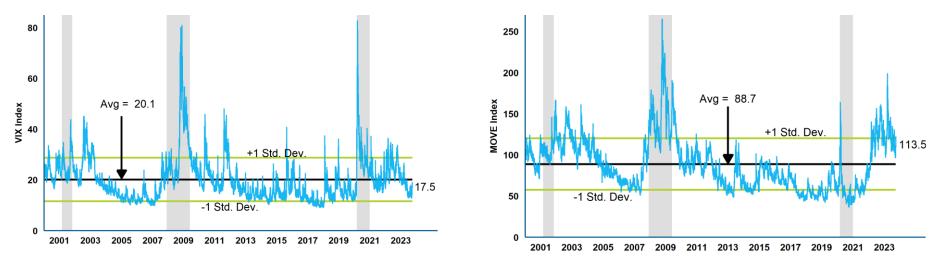
#### Index Returns<sup>1</sup>

→ After a particularly difficult 2022, most public market assets are up thus far in 2023, led by US equities.

→ While hopes for a soft landing remain in place, the prospect of higher interest rates for longer weighed on market sentiment in August and September.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.





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

- → Volatility in equities (VIX) increased over the quarter but finished at a level below the long-term average. The recent increase in equity volatility has largely been driven by investors coming to terms that interest rates might remain higher for a longer period.
- → In comparison, volatility in the bond market (MOVE) remains well above its long-run average (88.7) after last year's historic losses and due to continued policy uncertainty. Over the quarter, fixed income volatility finished slightly higher compared to where it started, like equities, driven by expectations for rates to stay higher for longer.

<sup>&</sup>lt;sup>1</sup> Equity Volatility – Source: FRED. 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 September 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and September 2023.





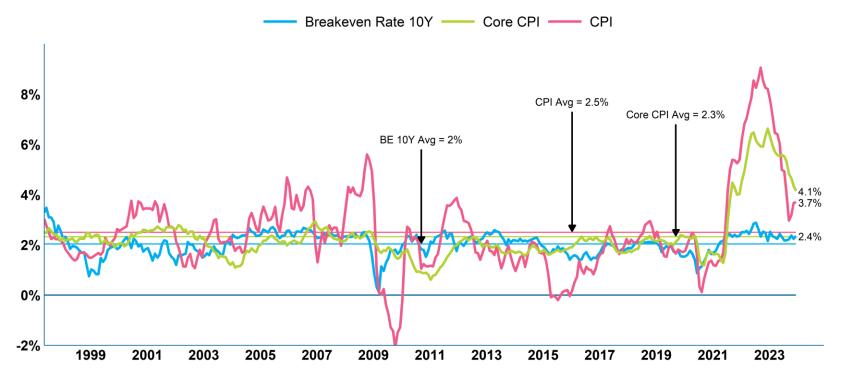
US Yield Curve<sup>1</sup>

- → Overall rates have continued to increase this year, particularly at the policy sensitive front-end of the yield curve, but at much slower pace compared to last year.
- → Over the quarter, very short-term interest rates (two years or less) increased only slightly as monetary policy has likely reached close to its terminal rate for this cycle. By contrast, longer-term rates rose dramatically as US debt was downgraded and investors came to terms with rates remaining higher for longer. The ten-year Treasury yield increased from 3.8% to 4.6% over the quarter.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.



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



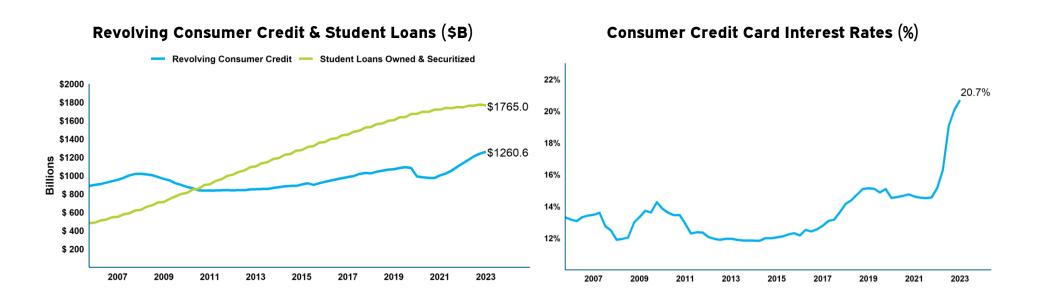
→ After the steady decline in inflation from the June 2022 peak, consumer prices recently increased driven by energy prices.

→ Core inflation – excluding food and energy – continued its decline (4.3% to 4.1%) year-over-year. It remains stubbornly high, though, driven by shelter costs (+7.2%), particularly owners' equivalent rent, and transportation services (+9.1%).

<sup>&</sup>lt;sup>1</sup> Source: FRED. Data is as September 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.



#### US Consumer Under Stress<sup>1</sup>



- → Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been an important driver of economic growth.
- $\rightarrow$  As we look ahead, the strength of the US consumers will remain key as they make up most of domestic growth (GDP).

<sup>&</sup>lt;sup>1</sup> Source: FRED. The most recent data is as June 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.



**Policy Rates** 

Balance Sheet as % of GDP



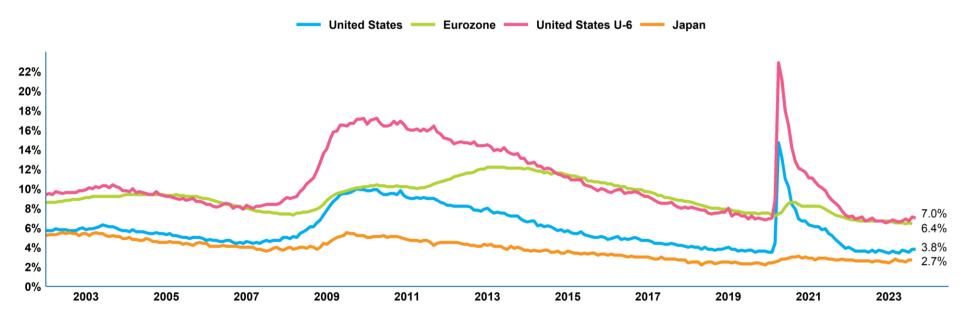
#### United States - Eurozone - China - Japan - United Kingdom United States - Eurozone - China - Japan - United Kingdom 6.0 140 5.5 5.0 120 4.5 4.0 3.5 3.0 2.5 2.0 Policy Rate % 100 % of GDP 80 60 1.5 40 1.0 0.5 20 0.0 -0.5 0 2011 2013 2015 2017 2019 2021 2023 2017 2019 2021 2023

 $\rightarrow$  Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.

- $\rightarrow$  In July the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and then kept rates at this level at their September meeting. Markets are expecting at most one more hike later this year.
- → The European Central Bank also increased rates in July, with an additional hike in September, but rates remain lower than in the US. In Japan, expectations have increased that the BOJ will end its negative interest rate policy due to rising inflation.
- → The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- → Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Policy rate data is as of September 30, 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 June 30, 2023.





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

- → Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- $\rightarrow\,$  The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.

<sup>&</sup>lt;sup>1</sup> Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as September 30, 2023, for the US. The most recent data for Eurozone unemployment is as of August 2023 and Japanese unemployment is as of August 2023.





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

- → After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- → Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipate the FOMC keeping interest rates higher for longer.
- → For the rest of this year, the track of inflation across economies and the corresponding monetary policies will be key drivers of currency moves.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of September 30, 2023.



#### Summary

#### Key Trends:

- $\rightarrow$  The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- → Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- → Growth is expected to slow globally this year, with many economies forecasted to tip into recession. However, optimism has been building that some economies could experience a soft landing. Inflation, monetary policy, and the war will all be key.
- → In the US, consumers could feel pressure as certain components of inflation remain high (e.g., shelter), borrowing costs are elevated, and the job market may weaken.
- → The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- → Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for recent strength in the US dollar to persist, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- $\rightarrow$  Heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

### **Executive Summary**



**Executive Summary** 

#### $\rightarrow$ Asset Growth

• The Metropolitan Government of Nashville and Davidson County Plan was valued at \$4.1 billion at the end of 3Q23, an investment loss of approximately \$47.1 million over the three-month period. Net cash outflows of \$18.8 million occurred in the quarter.

#### $\rightarrow$ Asset Allocation

- All asset classes ended the quarter within policy ranges.
- Domestic Equity and Real Assets continued to be slightly underweight at the end of the third quarter, while Private Debt and Cash were slightly overweight compared to policy targets.

#### $\rightarrow$ Notable Changes in the quarter

- There were three new commitments approved at the September investment meeting:
  - $\rightarrow$  StepStone VC Secondaries VI \$10mm
  - $\rightarrow$  LGT Crown Europe Small Buyouts VI \$10mm
  - $\rightarrow$  OSP Value Fund IV \$30mm

**Executive Summary** 

#### $\rightarrow$ Net Performance

	1 YR	3 YR	5 YR	10 YR
Metro Nashville (net)	4.3%	7.2%	7.1%	7.7%
Policy Benchmark	9.8%	4.1%	4.4%	6.1%
Excess Return	-5.5%	3.1%	2.7%	1.6%
Peer Ranking	99 <sup>th</sup>	25 <sup>th</sup>	<b>9</b> rd	10 <sup>th</sup>

 $\rightarrow$  Longer term results remain strong (absolute, relative and peer rankings).

#### $\rightarrow$ Positive notables during the quarter

- Absolute performance was driven by private debt and real assets which both returned 1.1% net of fees.
- Within US domestic equity, William Blair SMID outperformed its benchmark by 0.7%.
- Within international equities, which outperformed the benchmark by 1.5%, the Arrowstreet EAFE and EM strategies beat their benchmarks by 3.6% and 4.8%, respectively.
- Private Equity outperformed its benchmark by 3.8%.

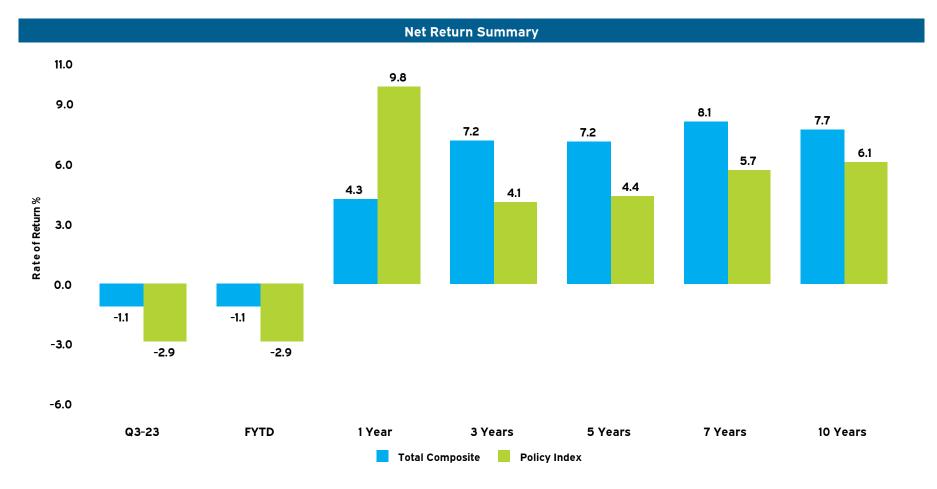
#### $\rightarrow$ Negative notables during the quarter

• Domestic Equity generated a negative absolute return (-5.1%) and trailed its benchmark by 1.8% over the quarter (despite positive long term absolute performance).

### Performance Report as of September 30, 2023



#### Total Composite | As of September 30, 2023



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

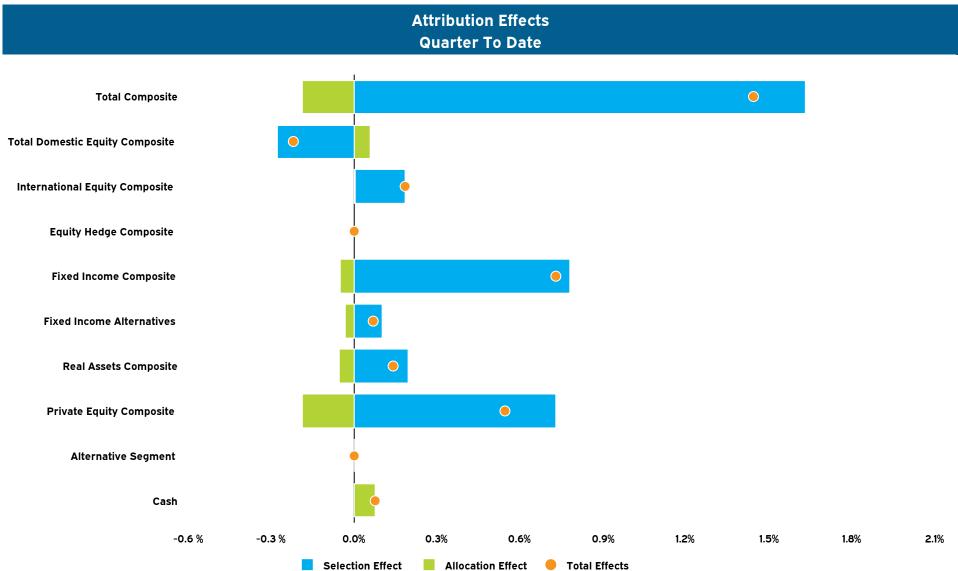


#### Multi Report Enhanced | As of September 30, 2023





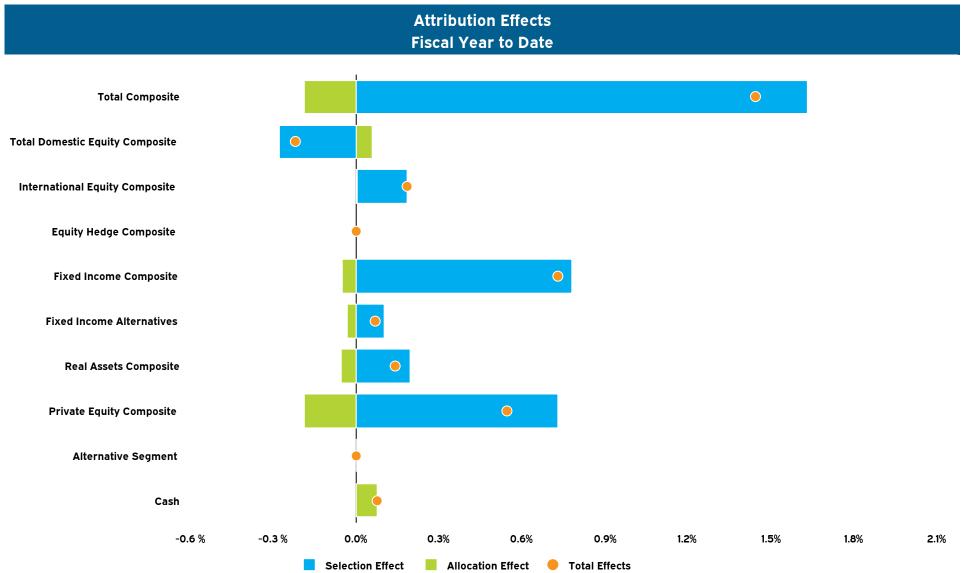
Total Plan Attribution | Quarter to Date



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 aver 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



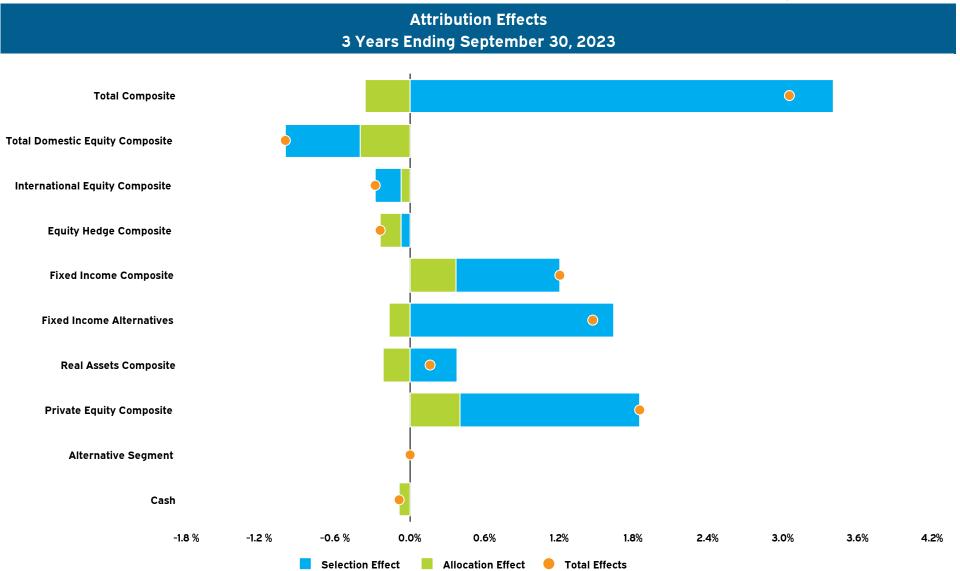
Total Plan Attribution | Fiscal Year to Date



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 aver 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



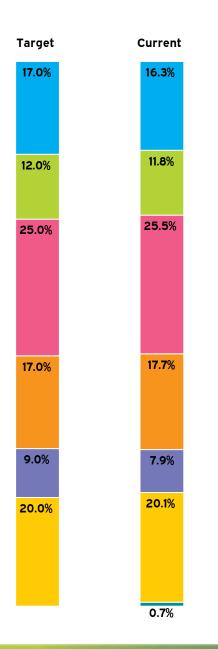
Total Plan Attribution | 3 Years Ending September 30, 2023



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

Asset Allocation vs. Policy | As of September 30, 2023



	Allocat	ion vs. Policy		
	Current Balance (\$)	Current Allocation (%)	Policy (%)	Within IPS Range?
Domestic Equity	\$660,626,429	16	17	Yes
International Equity	\$478,934,677	12	12	Yes
Fixed Income	\$1,031,753,206	25	25	Yes
Private Debt	\$715,980,922	18	17	Yes
Real Assets	\$321,145,737	8	9	Yes
Private Equity	\$813,718,959	20	20	Yes
Cash	\$28,608,978	1	0	Yes
Total Composite	\$4,050,997,340	100	100	

Target

25.0%

13.0%

20.0%

18.0%

12.0%

12.0%

8.2%

23.6%

3.1%

#### Metropolitan Government of Nashville and Davidson County

Current **Allocation vs Policy** 13.1% Current Current Policy Within IPS Allocation (%) Balance (\$) Range? (%) Domestic Equity \$522,197,264 13 25 No 9.1% International Equity \$361,583,191 9 13 Yes Equity Hedge \$7,586,114 0 0 Yes 20.5% Fixed Income \$818,000,093 21 20 Yes Private Debt \$880,589,801 22 18 No Real Assets \$328,361,022 12 8 Yes Private Equity \$942,673,847 12 No 24 Alternative Segment \$32,611 0 0 Yes Cash 22.1% \$125,214,935 3 0 Yes **Total Composite** \$3,986,238,878 100 100

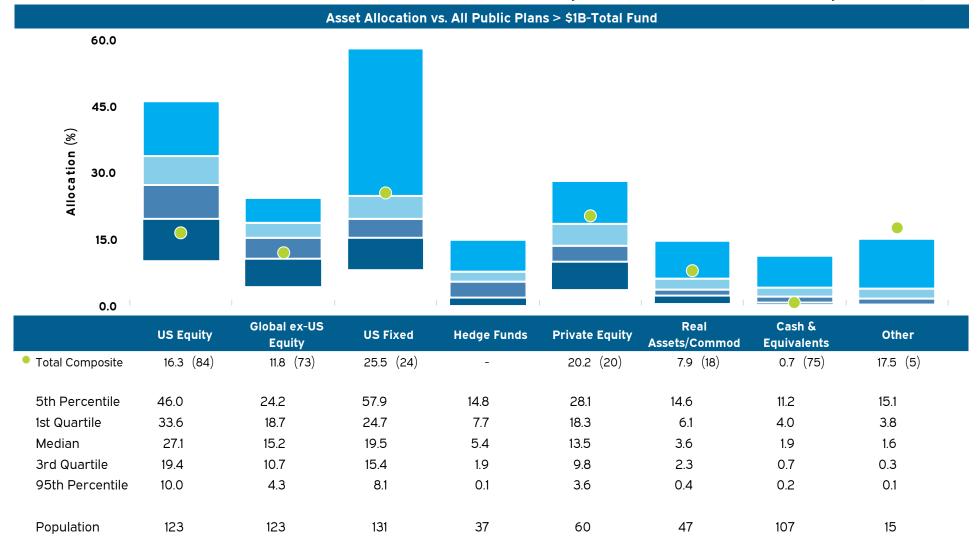
#### Asset Allocation vs. Policy | As of September 30, 2022







Total Composite Asset Allocations | As of September 30, 2023

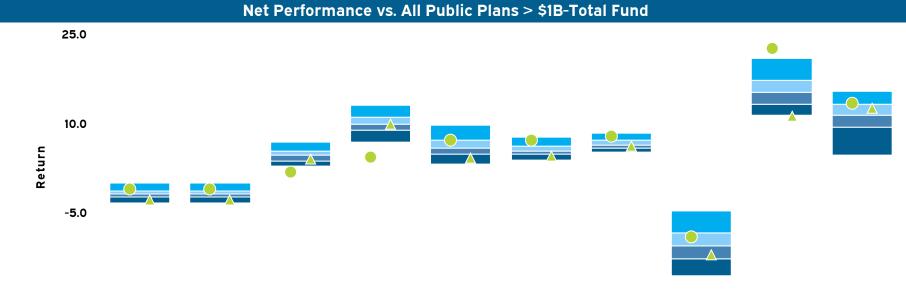


Other represents Private Debt allocation. Parentheses contain percentile rankings.

MEKETA INVESTMENT GROUP



#### Public Plans Peer Group Returns | As of September 30, 2023



-20.0					
-20.0					

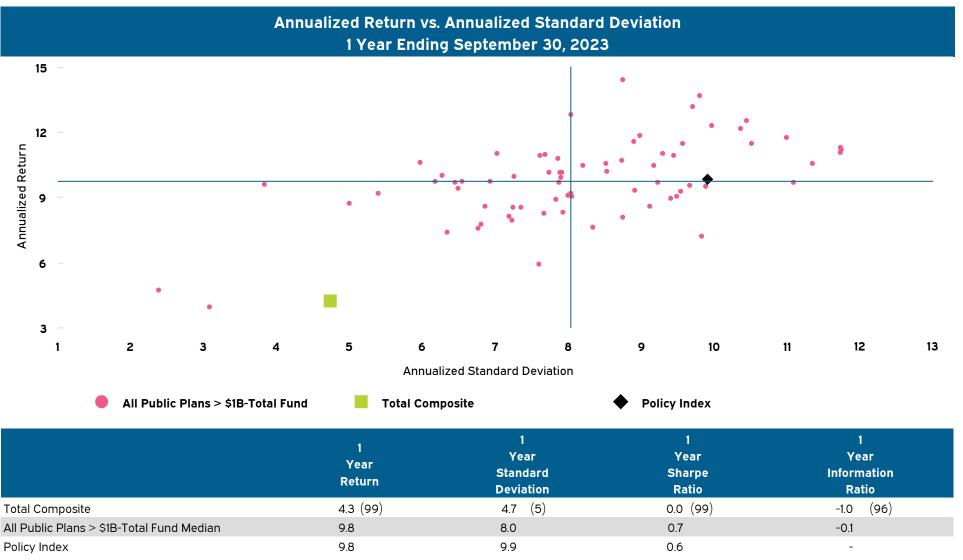
	QTD (%)	<b>FYTD</b> (%)	<b>YTD</b> (%)	1 Yr (%)	<b>3 Yrs</b> (%)	5 Yrs (%)	10 Yrs (%)	2022	2021	2020
Total Composite	-1.1 (14)	-1.1 (14)	1.8 (99)	4.3 (99)	7.2 (25)	7.2 (9)	7.7 (10)	-9.1 (32)	22.6 (3)	13.2 (23)
🔺 Policy Index	-2.9 (83)	-2.9 (83)	4.0 (62)	9.8 (48)	4.1 (91)	4.4 (83)	6.1 (54)	-12.1 (68)	11.1 (98)	12.4 (33)
5th Percentile	-0.1	-0.1	6.8	13.0	9.6	7.6	8.3	-4.7	20.8	15.2
1st Quartile	-1.4	-1.4	5.2	11.0	7.1	6.1	7.1	-8.4	17.2	13.0
Median	-1.9	-1.9	4.6	9.8	5.8	5.3	6.2	-10.6	15.1	11.2
3rd Quartile	-2.5	-2.5	3.6	8.8	4.8	4.7	5.7	-12.8	13.2	9.2
95th Percentile	-3.5	-3.5	2.8	6.8	3.1	3.8	5.1	-15.6	11.2	4.6

Parentheses contain percentile rankings.

Calculation based on monthly periodicity.

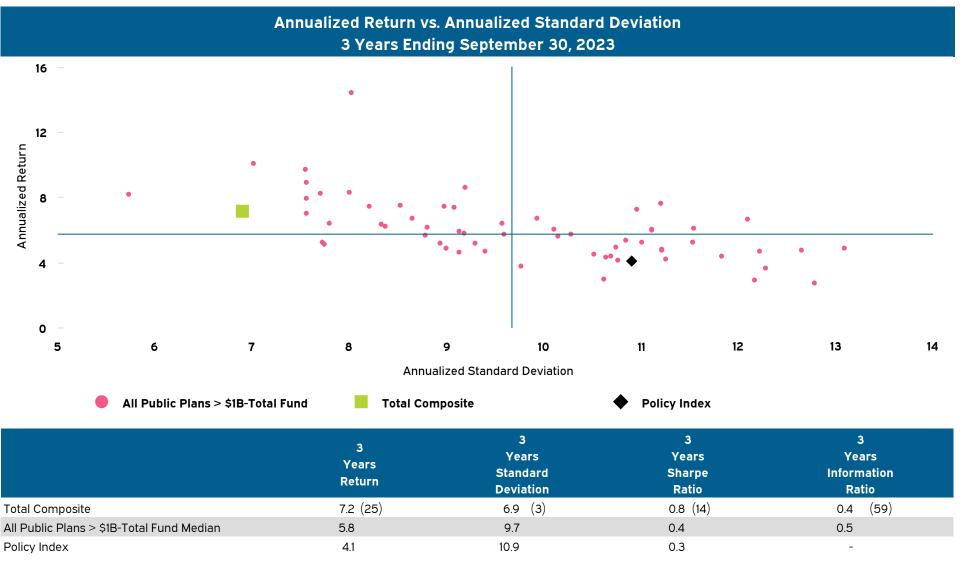


Total Plan Risk/Return | As of September 30, 2023



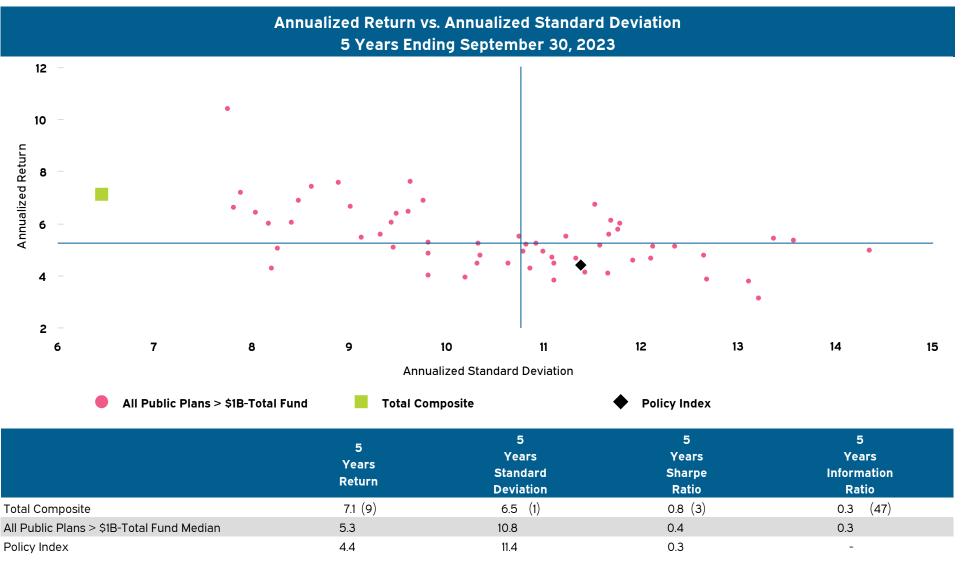


Total Plan Risk/Return | As of September 30, 2023





Total Plan Risk/Return | As of September 30, 2023





#### Total Plan (Net Returns) **Market Value** % of 3 Mo FYTD YTD 1Yr 3 Yrs 5 Yrs 10 Yrs Inception Inception (%) (%) (%) (%) (%) (%) (\$) Portfolio (%) (%) Date **Total Composite** -1.1 (14) -1.1 (14) 1.8 (99) 4.3 (99) 7.2 (25) 7.2 (9) 7.7 (10) 8.3 (16) 4,050,997,340 100.0 Jun-91 Policy Index -2.9 (83) -2.9 (83) 4.0 (62) 9.8 (48) 4.1 (91) 4.4 (83) 6.1 (54) \_\_\_ Over/Under 1.8 1.8 -2.2 -5.5 3.1 2.8 1.6 ----5.1 (80) -5.1 (80) **Domestic Equity** 660.626.429 7.7 (57) 14.0 (76) 5.3 (76) 8.7 (31) 11.4 (17) (39) 16.3 8.5 Apr-01 -3.3 (46) -3.3 (46) 12.4 (30) 20.5 (37) 9.4 (42) 9.1 (26) 8.2 (53) Russell 3000 Index 11.3 (20) Over/Under -1.8 -1.8 -4.7 -6.5 -0.4 0.1 0.3 -4.1 -2.3 (25) 4.6 (61) 19.1 (63) 6.7 (63) International Equity 478.934.677 11.8 -2.3 (25) 1.9 (59) 1.8 (78) 2.3 (94) Jul-93 -3.8 (37) -3.8 (37) 20.4 (54) International Equity Policy Index 5.3 (50) 3.7 (44) 2.6 (63) 3.3 (82) 5.1 (100) Over/Under 1.5 1.5 -0.7 -1.8 -0.8 -1.3 -1.0 1.6 **Fixed Income** 1.031.753.206 25.5 -0.1 (38) -0.1 (38) 2.5 (29) 5.3 (21) -1.2 (42) 1.4 (40) 3.0 (22) 5.4 (18) Aug-91 Blmbg. U.S. Aggregate Index -3.2 (79) -3.2 (79) -1.2 (82) 0.6 (86) -5.2 (86) 0.1 (87) 1.1 (81) 4.7 (47) Over/Under 3.1 3.1 3.7 4.7 4.0 1.3 1.9 0.7 1.1 (18) 10.0 (1) 6.9 (1) (1) Private Debt 1.1 (18) 5.3 (98) 7.0 (1) 715.980.922 17.7 3.2 (95) 12.9 Jan-09 0.5 (53) 0.5 (53) 6.0 (30) 10.2 (35) 1.8 (52) 2.8 (56) 3.8 (56) Private Debt Policy Index 4.0 (100) Over/Under 0.6 0.6 -2.8 -4.9 8.2 4.1 3.2 8.9 Real Assets 321.145.737 7.9 1.1 1.1 1.7 1.4 11.1 4.2 6.8 6.2 Jul-01 NCREIF Property Index -1.4 -1.4 -5.1 -8.4 6.0 5.3 7.4 7.9 Over/Under 2.5 2.5 6.8 -0.6 9.8 5.1 -1.1 -1.7 **Private Equity** 813,691,071 20.1 -1.3 -1.3 -4.2 -6.9 13.2 15.8 15.4 12.1 Oct-01 -5.1 Russell 2000 Index -5.1 2.5 8.9 7.2 2.4 6.6 8.4 Over/Under 3.8 3.8 -6.7 -15.8 6.0 13.4 8.8 3.7 Cash 28.608.978 0.7 0.4 0.4 0.3 0.5 1.2 1.0 0.6 4.1 Jul-09 FTSE 3 Month T-Bill 1.4 3.8 4.7 1.8 1.4 1.7 1.1 0.8 -3.5 -0.5 Over/Under -1.0 -1.0 -4.2 -0.6 -0.7 3.3



		Tra	iling Ne	t Perfor	mance						
	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	<b>3 Yrs</b> (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Composite	4,050,997,340	100.0	-1.1 (14)	-1.1 (14)	1.8 (99)	4.3 (99)	7.2 (25)	7.2 (9)	7.7 (10)	8.3 (16)	Jun-91
Policy Index			-2.9 (83)	-2.9 (83)	4.0 (62)	9.8 (48)	<i>4.1 (91)</i>	4.4 (83)	6.1 (54)		
Over/Under			1.8	1.8	-2.2	-5.5	3.1	2.8	1.6		
Domestic Equity	660,626,429	16.3	-5.1 (80)	-5.1 (80)	7.7 (57)	14.0 (76)	5.3 (76)	8.7 (31)	11.4 (17)	8.5 (39)	Apr-01
Russell 3000 Index			-3.3 (46)	-3.3 (46)	12.4 (30)	20.5 (37)	9.4 (42)	9.1 (26)	11.3 (20)	<i>8.2 (53)</i>	
Over/Under			-1.8	-1.8	-4.7	-6.5	-4.1	-0.4	0.1	0.3	
BlackRock Large Cap ETF	67,960,276	1.7	-3.0 (51)	-3.0 (51)	12.5 (36)	20.6 (40)	9.9 (45)	9.6 (29)	11.5 (31)	12.5 (39)	Aug-10
S&P 500 Index			-3.3 (60)	-3.3 (60)	13.1 (33)	21.6 (35)	10.2 (41)	9.9 (24)	11.9 (24)	13.1 (26)	
Over/Under			0.3	0.3	-0.6	-1.0	-0.3	-0.3	-0.4	-0.6	
PIMCO Managed Volatility	364,393,144	9.0	-4.5 (86)	-4.5 (86)	10.0 (44)	15.0 (72)	6.4 (78)	11.4 (9)		12.3 (10)	Jan-15
S&P 500 Index			-3.3 (60)	-3.3 (60)	13.1 (33)	21.6 (35)	10.2 (41)	9.9 (24)	11.9 (24)	10.8 (26)	
Over/Under			-1.2	-1.2	-3.1	-6.6	-3.8	1.5		1.5	
Champlain Mid Cap Core	161,917,729	4.0	-6.4 (87)	-6.4 (87)	3.4 (70)	11.0 (81)	4.0 (68)	6.8 (45)	10.8 (13)	12.2 (25)	Dec-09
Russell Midcap Index			-4.7 (61)	-4.7 (61)	3.9 (65)	13.4 (60)	8.1 (55)	6.4 (51)	9.0 (49)	11.5 (45)	
Over/Under			-1.7	-1.7	-0.5	-2.4	-4.1	0.4	1.8	0.7	
William Blair SMID	66,289,259	1.6	-6.1 (75)	-6.1 (75)	5.1 (44)	14.6 (41)	2.4 (83)	4.7 (65)	9.9 (14)	12.0 (14)	Dec-12
Russell 2500 Growth Index			-6.8 (83)	-6.8 (83)	5.6 (41)	10.6 (71)	1.0 (88)	4.0 (73)	8.4 (48)	10.5 (44)	
Over/Under			0.7	0.7	-0.5	4.0	1.4	0.7	1.5	1.5	

#### Metropolitan Government of Nashville and Davidson County

	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	478,934,677	11.8	-2.3 (23)	-2.3 (23)	4.6 (62)	19.1 (62)	1.9 (62)	1.8 (77)	2.3 (92)	6.7 (64)	Jul-93
International Equity Policy Index			-3.8 (34)	-3.8 (34)	5.3 (57)	20.4 <i>(</i> 51 <i>)</i>	3.7 (46)	2.6 (60)	3.3 (82)	5.1 (100)	
Over/Under			1.5	1.5	-0.7	-1.3	-1.8	-0.8	-1.0	1.6	
Arrowstreet EAFE Fund	229,611,774	5.7	-0.5	-0.5						-0.1	Apr-23
MSCI EAFE (Net)			-4.1	-4.1	7.1	25.6	5.8	3.2	3.8	-1.3	
Over/Under			3.6	3.6						1.2	
Arrowstreet EM	72,662,111	1.8	2.0	2.0						3.8	Apr-23
MSCI Emerging Markets Index			-2.8	-2.8	2.2	12.2	-1.3	0.9	2.5	-1.8	
Over/Under			4.8	4.8						5.6	
Oaktree EM	128,275,964	3.2	-5.3 (85)	-5.3 (85)	-0.8 (87)	13.6 (55)	0.8 (43)	2.0 (48)	2.3 (61)	2.3 (61)	Oct-13
MSCI Emerging Markets (Net)			-2.9 (47)	-2.9 (47)	1.8 (65)	11.7 (65)	-1.7 (61)	0.6 (74)	2.1 (70)	2.1 (70)	
Over/Under			-2.4	-2.4	-2.6	1.9	2.5	1.4	0.2	0.2	
William Blair International Growth	45,818,621	1.1	-8.4 (84)	-8.4 (84)						-8.4 (84)	Jul-23
MSCI AC World Index Growth			-4.9 (34)	-4.9 (34)	18.4 (10)	24.7 (15)	4.0 (25)	8.6 (19)	9.9 (20)	-4.9 (34)	
Over/Under			-3.5	-3.5						-3.5	

#### Metropolitan Government of Nashville and Davidson County

	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Fixed Income	1,031,753,206	25.5	-0.1 (38)	-0.1 (38)	2.5 (29)	5.3 (21)	-1.2 (42)	1.4 (40)	3.0 (22)	5.4 (18)	Aug-91
Blmbg. U.S. Aggregate Index			-3.2 (79)	-3.2 (79)	-1.2 (82)	0.6 (86)	-5.2 (86)	0.1 (87)	1.1 (81)	4.7 (47)	
Over/Under			3.1	3.1	3.7	4.7	4.0	1.3	1.9	0.7	
PIMCO Core Plus Total Return	227,315,889	5.6	-2.9 (52)	-2.9 (52)	-0.2 (37)	1.5 (54)	-4.7 (67)	0.5 (63)	1.4 (82)	3.5 (45)	Oct-06
Blmbg. U.S. Aggregate Index			-3.2 (79)	-3.2 (79)	-1.2 (87)	0.6 (82)	-5.2 (87)	0.1 (89)	1.1 (95)	2.8 (98)	
Over/Under			0.3	0.3	1.0	0.9	0.5	0.4	0.3	0.7	
PIMCO Corporate Credit	285,178,665	7.0	-2.5 (13)	-2.5 (13)	1.0 (5)	5.4 (1)	-3.0 (4)	2.2 (1)	3.6 (1)	5.1 (1)	Jun-09
PIMCO Corporate Credit Policy Index			-2.0 (10)	-2.0 (10)	1.5 <i>(</i> 3 <i>)</i>	5.3 <i>(</i> 1 <i>)</i>	-3.0 (4)	1.5 <i>(2)</i>	2.9 (1)	4.3 (2)	
Over/Under			-0.5	-0.5	-0.5	0.1	0.0	0.7	0.7	0.8	
PIMCO Unconstrained Bond	304,430,040	7.5	0.3 (29)	0.3 (29)	2.1 (41)	4.5 (66)	-0.4 (46)	1.1 (59)	2.3 (42)	2.3 (45)	Sep-13
ICE BofA LIBOR 3-month Constant Maturity			1.3 (16)	1.3 (16)	3.7 (21)	4.6 (65)	1.7 (19)	1.9 (39)	1.3 (69)	1.3 (69)	
Over/Under			-1.0	-1.0	-1.6	-0.1	-2.1	-0.8	1.0	1.0	
PIMCO Private Income Fund	103,397,247	2.6	2.0 (1)	2.0 (1)	3.7 (99)	3.3 (100)	9.0 (11)			7.0 (96)	Apr-19
Fixed Income Alternatives Policy Index			0.5 (1)	0.5 (1)	6.0 (95)	10.2 (100)	1.8 (87)	2.8 (99)	3.8 (100)	2.6 (100)	
Over/Under			1.5	1.5	-2.3	-6.9	7.2			4.4	
PIMCO Tactical Opportunities Fund	109,873,248	2.7	9.8 (1)	9.8 (1)	14.4 (80)	16.0 (91)	12.1 (1)			10.8 (31)	Jun-20
Fixed Income Alternatives Policy Index			0.5 (1)	0.5 (1)	6.0 (95)	10.2 (100)	1.8 (87)	2.8 (99)	3.8 (100)	3.3 (97)	
Over/Under			9.3	9.3	8.4	5.8	10.3			7.5	

#### Metropolitan Government of Nashville and Davidson County

	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	715,980,922	17.7	1.1 (18)	1.1 (18)	3.2 (95)	5.3 (98)	10.0 (1)	6.9 (1)	7.0 (1)	12.9 (1)	Jan-09
Private Debt Policy Index			0.5 (53)	0.5 (53)	6.0 (30)	10.2 (35)	1.8 <i>(52)</i>	2.8 (56)	3.8 (56)	4.0 (100)	
Over/Under			0.6	0.6	-2.8	-4.9	8.2	4.1	3.2	8.9	
Garrison Distressed Fund II	1	0.0									
Oaktree EPOF III	6,381,271	0.2									
Garrison Opp. Fund III	2,025,490	0.0									
Waterfall Eden Fund	305,735	0.0									
Cyrus Opps Fund II		0.0									
Courage Credit Opportunities Fund III	1	0.0									
Marathon European Credit Opps II	954,158	0.0									
Marathon European Credit Opps III	19,937,134	0.5									
Mount Logan Opportunities Fund IV	5,482,860	0.1									
Centerbridge Capital Partners III	29,158,650	0.7									
Oaktree Opps Fund X	47,552,120	1.2									
PIMCO COF III	40,974,280	1.0									
Hygieia SMA	98,772,527	2.4									
EIG-Energy Fund XV	3,310,096	0.1									
Accel Growth Fund, L.P.	31,281	0.0									
Cowen Healthcare Royalty II	4,584	0.0									
GSO Capital Opp. Fund II	1,076,177	0.0									
Energy Cap Mezz Opps Fund A	1,893,524	0.0									
Marathon CLO Managed	23,227,636	0.6									
Mount Logan Middle Market Funding	22,184	0.0									
EIG-Energy Fund XVI	16,719,493	0.4									
Anchorage Illiquid Opps IV	775,910	0.0									
Hayfin Direct Lending Fund	20,377	0.0									
Principal RE Debt	24,191	0.0									
OSP Value Fund	4,556,616	0.1									
Athyrium Opps Fund II	5,327,947	0.1									
Accel-KKR Growth Capital Partners II, L.P.	8,667,040	0.2									
PIMCO COF II	17,738,405	0.4									
Oaktree Euro Principal IV	24,176,862	0.6									
OSP Value Fund II	6,895,515	0.2									

#### Metropolitan Government of Nashville and Davidson County

	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Accel-KKR Credit Partners, L.P Series 1	27,026,041	0.7									
Courage Capital IV	18,267,498	0.5									
Arcmont SMA	95,920,653	2.4									
Oaktree European Principal Fund V	20,193,183	0.5									
Anchorage Illiquid Opps VII	54,477,100	1.3									
OSP Value Fund III	30,162,398	0.7									
Anchorage Illiquid Opps V	19,502,614	0.5									
AKKR NV SMA	18,463,992	0.5									
OSP Value Fund IV, L.P.	6,000,000	0.1									

#### Metropolitan Government of Nashville and Davidson County

	Market Value	% of	3 Mo	FYTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception
	(%)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
Real Assets	321,145,737	7.9	1.1	1.1	1.7	1.4	11.1	4.2	6.8	6.2	Jul-01
NCREIF Property Index			-1.4	-1.4	-5.1	-8.4	6.0	<i>5.3</i>	7.4	7.9	
Over/Under			2.5	2.5	6.8	9.8	5.1	-1.1	-0.6	-1.7	
ARES European RE IV	4,424,067	0.1									
JP Morgan European Real Estate		0.0									
Michelson Multifamily Fund, L.P.	30,835,136	0.8									
Soundmark Horizon	36,669,130	0.9									
Savanna Real Estate Fund III	499,472	0.0									
True North RE III	11,359,796	0.3									
AG Realty Fund VIII	4,327,592	0.1									
AG Realty Fund IX	12,909,542	0.3									
Stonelake Fund VI	17,877,106	0.4									
EIG Private Debt	7,729,566	0.2									
PIMCO Bravo		0.0									
True North HY II	1	0.0									
Oaktree European Capital Solutions Fund, L.P.	12,909,360	0.3									
PIMCO Bravo II	1,382,192	0.0									
PIMCO Bravo III	27,042,163	0.7									
Principal RE Debt II	4,518,639	0.1									
RCP II NEPC SYND P	3,035,348	0.1									
Riverstone CP II	9,742,874	0.2									
EIG Energy XVII	22,308,301	0.6									
AG Realty Fund X	14,428,607	0.4									
Oaktree European Capital Solutions Fund II, L.P	14,930,657	0.4									
Centerbridge RE II	10,442,744	0.3									
GSO Energy Select Opportunities Fund, L.P.	2,416,772	0.1									
Ares Energy Opp Fd	9,683,453	0.2									
Riverstone GL Energy & Power Fund V	7,107,021	0.2									
Sheridan Prod Ptrs III	7,272,000	0.2									
Chambers Energy III	23,437,162	0.6									
Riverstone GL Energy & Power Fund VI	15,371,990	0.4									

## Metropolitan Government of Nashville and Davidson County

	Market Value	% of Portfolio	3 Mo	FYTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	Inception
	(%)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
Private Equity	813,691,071	20.1	-1.3	-1.3	-4.2	-6.9	13.2	15.8	15.4	12.1	Oct-01
Russell 2000 Index			-5.1	-5.1	2.5	<i>8.9</i>	7.2	2.4	6.6	8.4	
Over/Under			3.8	3.8	-6.7	-15.8	6.0	13.4	8.8	3.7	
HarbourVest Dover Street VII	62,322	0.0									
HarbourVest International VI		0.0									
StepStone Global Partners V	40,844,874	1.0									
Fort Washington Fund VII	14,006,676	0.3									
StepStone Opportunities II	14,646,996	0.4									
Axiom Asia III	25,006,720	0.6									
HarbourVest 2013 Direct Fund	735,631	0.0									
HarbourVest Dover Street VIII		0.0									
LGT Crown Europe Small Buyout III	9,417,921	0.2									
LGT CESB IV	13,052,200	0.3									
StepStone Global Partners VI	69,973,704	1.7									
StepStone Global Partners VII	69,172,788	1.7									
StepStone Secondaries Fund I	11,529,448	0.3									
StepStone GE III	9,747,243	0.2									
StepStone Growth Equity IV	13,560,100	0.3									
Greycroft Growth	6,297,325	0.2									
LGT Co-Investment Fund	17,507,027	0.4									
StepStone Opportunities III	7,832,853	0.2									
Dyal Capital Partners II		0.0									
Helios Investors III	29,715,203	0.7									
Raine Partners II	28,807,536	0.7									
Columbia Capital VI	19,829,215	0.5									
Axiom Asia IV	69,480,027	1.7									
StepStone Opportunities IV	7,517,057	0.2									
Astorg VI	6,322,874	0.2									
LGT Crown Co Inv Opps II	11,112,338	0.3									
Axiom Asia Co-Investment I	10,106,713	0.2									
Columbia Capital VII	8,881,256	0.2									
Axiom Asia V	26,149,234	0.6									
StepStone Global Partners IX	43,071,686	1.1									
	,										

### Total Plan (Net of Fees) | As of September 30, 2023

## Metropolitan Government of Nashville and Davidson County

### Total Plan (Net of Fees) | As of September 30, 2023

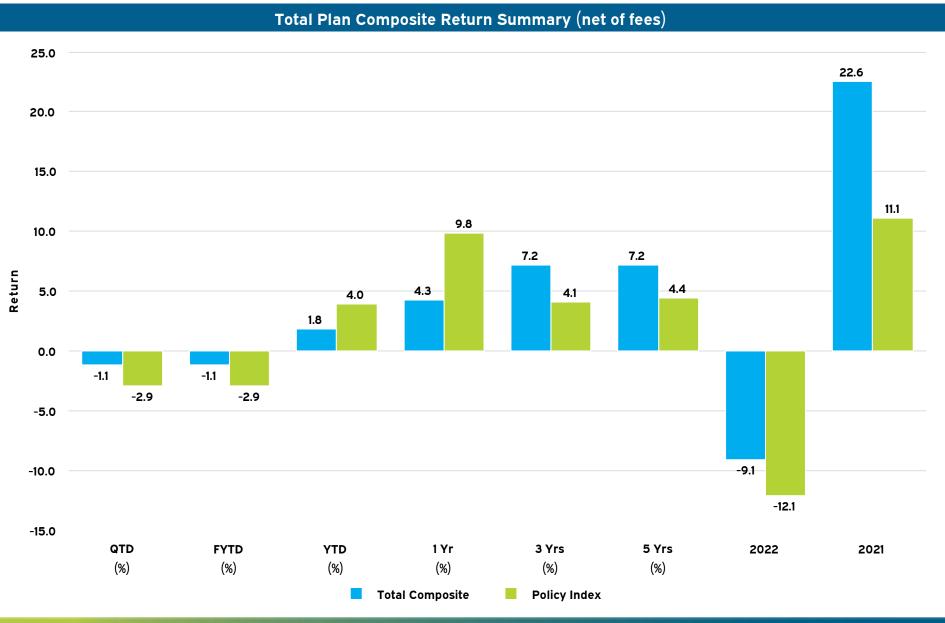
	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	<b>YTD</b> (%)	1 Yr (%)	<b>3 Yr</b> s (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
StepStone GE V	13,967,041	0.3									
Raine Partners III	11,071,830	0.3									
Openview V	7,808,122	0.2									
Accel-KKR Capital Partners V, L.P.	21,431,666	0.5									
Accel KKR Credit Partners VI	7,009,204	0.2									
StepStone Opportunities VI	19,901,564	0.5									
LGT Crown Europe Small Buyout V	5,070,372	0.1									
Openview Venture Partners VI	6,841,933	0.2									
StepStone Secondaries IV	23,991,779	0.6									
StepStone SPV IX	8,786,147	0.2									
StepStone Global Partners X	28,156,806	0.7									
Axiom Asia VI	22,068,528	0.5									
StepStone Growth Equity VI, Leaders	6,592,710	0.2									
StepStone Growth Equity VI, Redpoint	4,026,161	0.1									
StepStone Growth Equity VI	3,113,082	0.1									
Axiom Colnv Fund II	3,951,834	0.1									
Axiom Opportunities	6,114,241	0.2									
StepStone Secondaries V	15,692,681	0.4									
Columbia CAP EP VIII	2,163,255	0.1									
StepStone VC F-II	715,000	0.0									
Stepstone Growth Equity VIIL	1,068,868	0.0									

## Metropolitan Government of Nashville and Davidson County

	Market Value (%)	% of Portfolio	З Мо (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Cash	28,608,978	0.7	0.4	0.4	0.3	0.5	1.2	1.0	0.6	4.1	Jul-09
FTSE 3 Month T-Bill			1.4	1.4	3.8	4.7	1.8	1.7	1.1	0.8	
Over/Under			-1.0	-1.0	-3.5	-4.2	-0.6	-0.7	-0.5	3.3	
Cash Account	27,859,545	0.7	0.3	0.3	0.2	0.5	0.3	0.3	0.1	3.4	Jul-09
FTSE 3 Month T-Bill			1.4	1.4	3.8	4.7	1.8	1.7	1.1	0.8	
Over/Under			-1.1	-1.1	-3.6	-4.2	-1.5	-1.4	-1.0	2.6	
Miscellaneous Cash	749,433	0.0	0.6	0.6	3.1	4.5	11.7	5.2	2.8	3.1	May-12

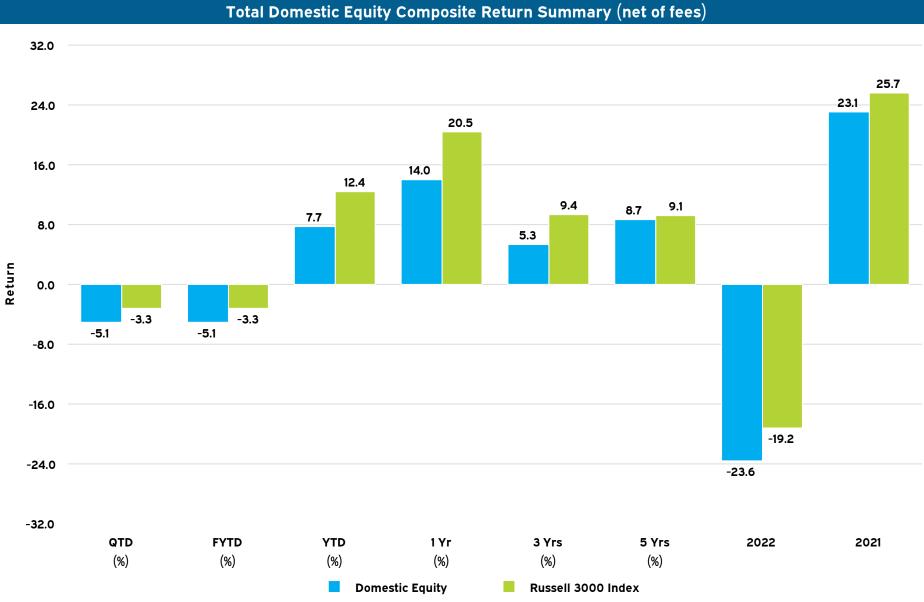
### Total Plan (Net of Fees) | As of September 30, 2023





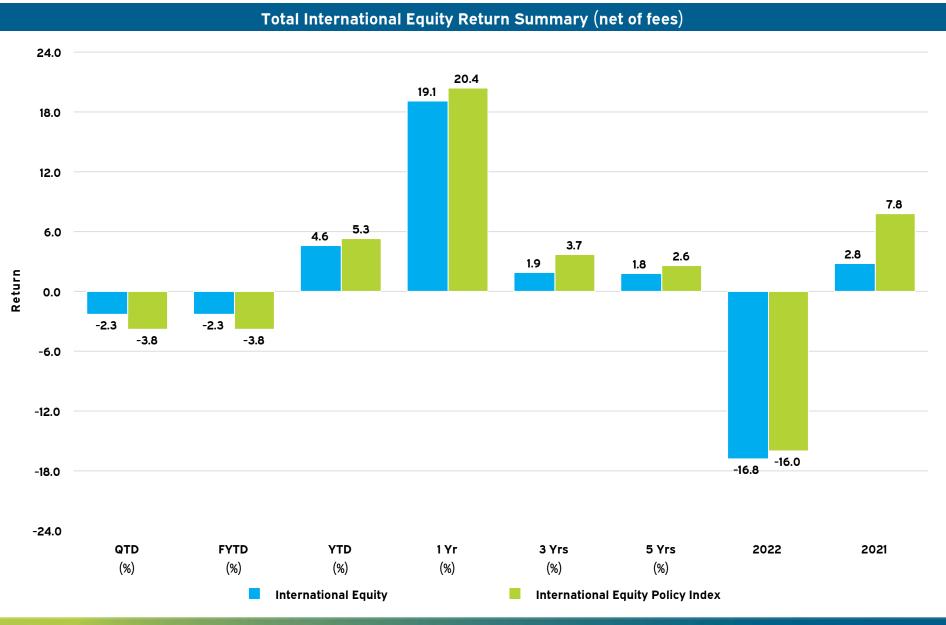


#### Comparative Performance | As of September 30, 2023



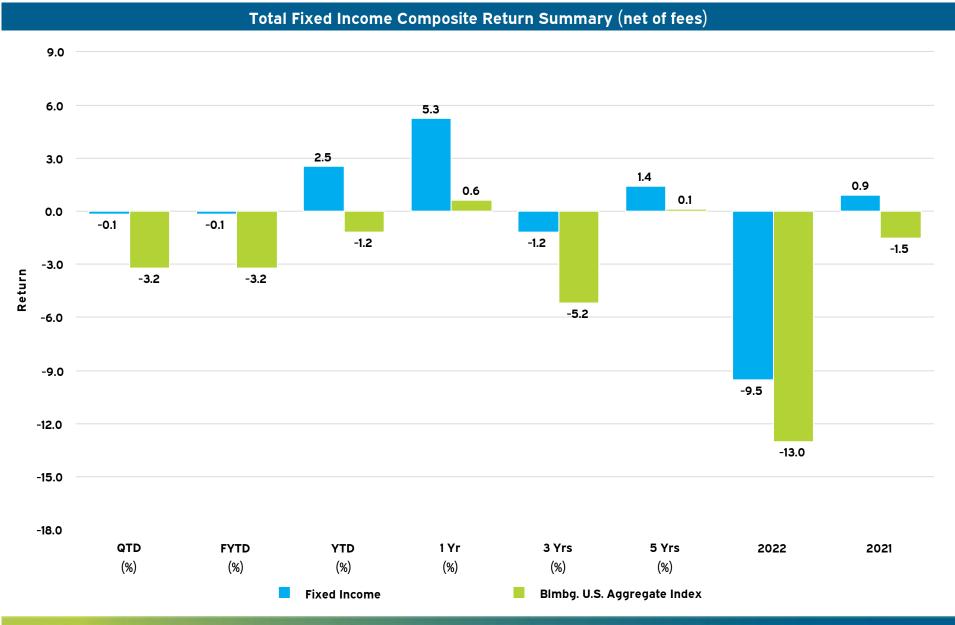
MEKETA INVESTMENT GROUP





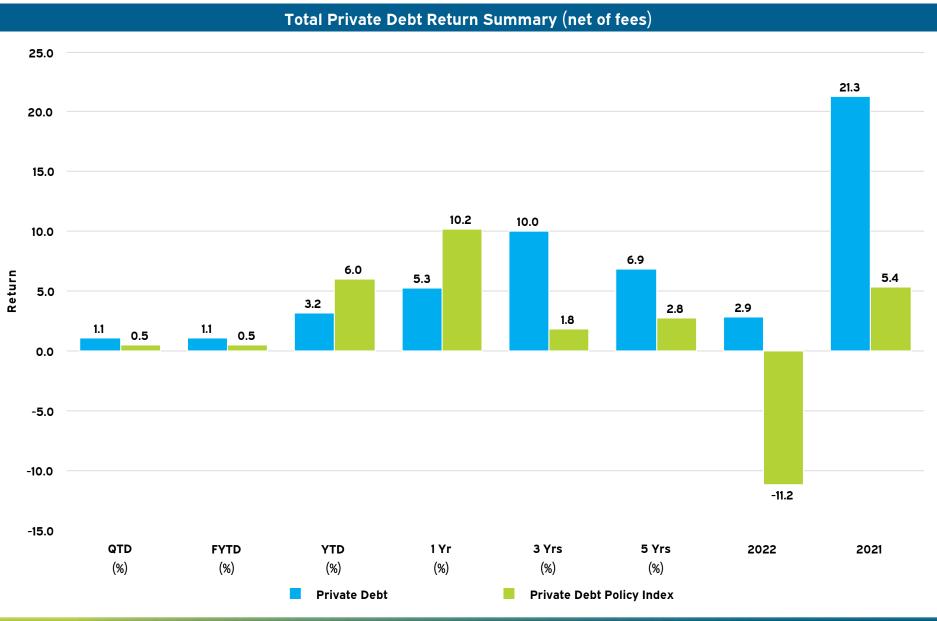


Comparative Performance | As of September 30, 2023

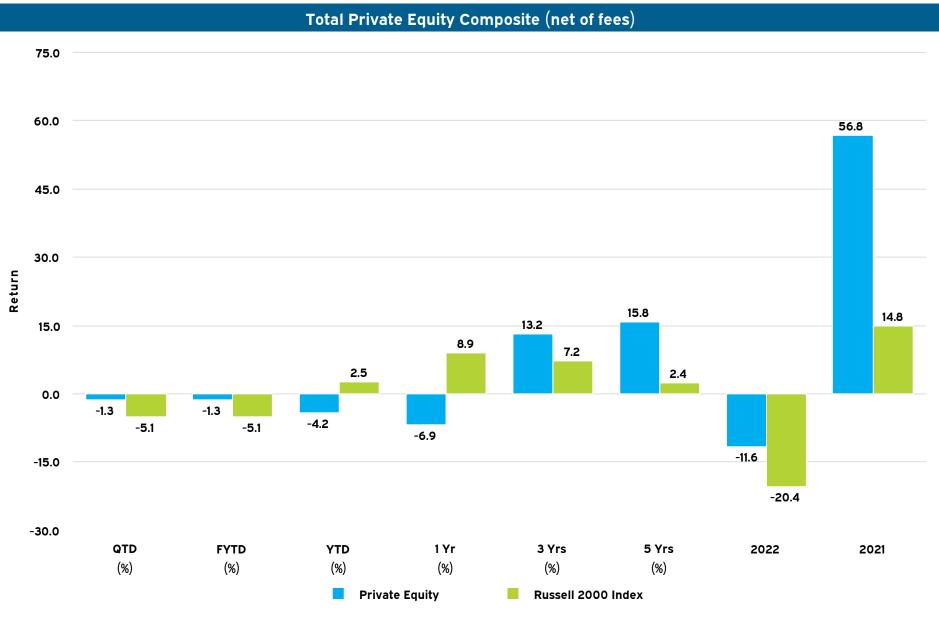


MEKETA INVESTMENT GROUP

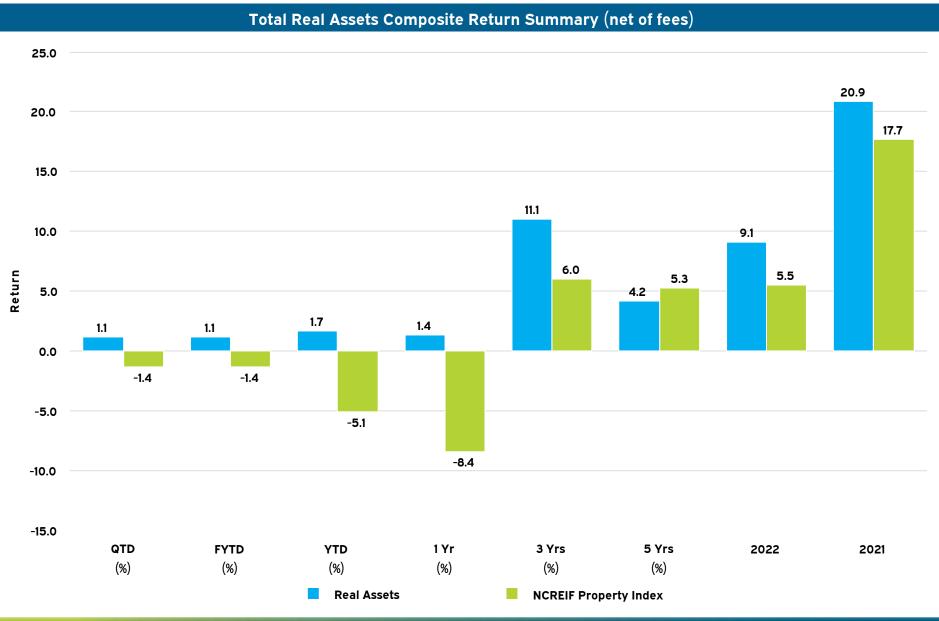
## Metropolitan Government of Nashville and Davidson County







## Metropolitan Government of Nashville and Davidson County



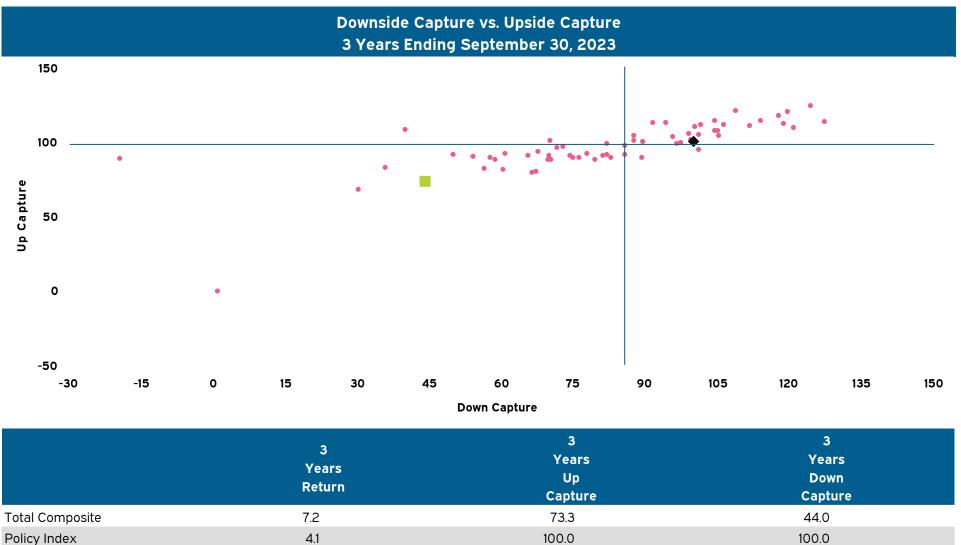


#### Total Plan Risk Return Statistics | As of September 30, 2023

	Ris	k Return Statistics		
_	3 Yea	rs	5 Yr:	5
-	Total Composite	Policy Index	Total Composite	Policy Index
Return Summary Statistics				
Maximum Return	5.8	7.8	5.8	7.8
Minimum Return	-4.3	-6.0	-4.3	-9.7
Return	7.2	4.1	7.1	4.4
Excess Return	5.5	2.9	5.4	3.3
Excess Performance	3.1	0.0	2.8	0.0
Risk Summary Statistics				
Beta	0.5	1.0	0.5	1.0
Up Capture	73.3	100.0	68.8	100.0
Down Capture	44.0	100.0	41.0	100.0
Risk/Return Summary Statistics				
Standard Deviation	6.9	10.9	6.5	11.4
Sortino Ratio	1.4	0.4	1.4	0.4
Alpha	4.8	0.0	4.8	0.0
Sharpe Ratio	0.8	0.3	0.8	0.3
Excess Risk	7.1	11.0	6.6	11.5
Tracking Error	6.3	0.0	6.7	0.0
Information Ratio	0.4	-	0.3	-
Correlation Statistics				
R-Squared	0.7	1.0	0.7	1.0
Actual Correlation	0.8	1.0	0.9	1.0

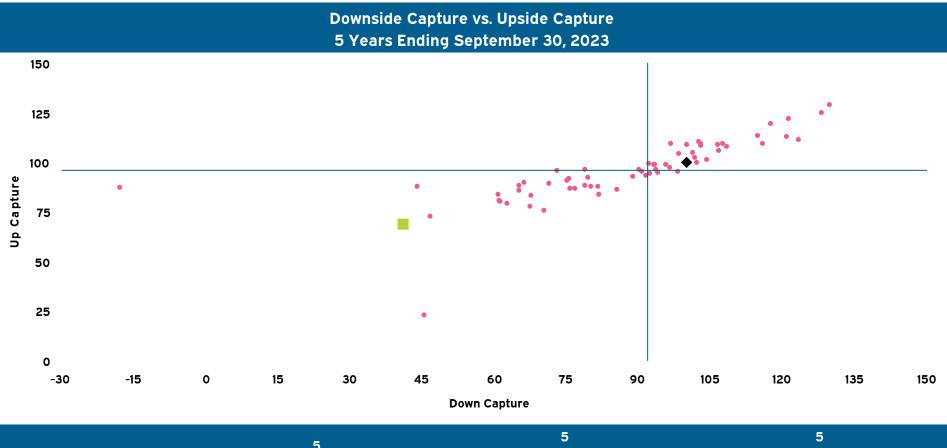


Total Plan | As of September 30, 2023





#### Total Plan | As of September 30, 2023



	years Return	Years Up Capture	Years Down Capture
Total Composite	7.1	68.8	41.0
Policy Index	4.4	100.0	100.0

## Metropolitan Government of Nashville and Davidson County

**Benchmark History** 

June 2023	
Russell 2000 Index	20.0%
Russell 3000 Index	17.0%
Blmbg. US Aggregate Index	25.0%
ICEBofa High Yield Master II	17.0%
NCREIF Property Index	9.0%
MSCI AC World ex USA (Net)	12.0%

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 June 30, 2023

Total Composite | June 30, 2023

## **Total Private Market Performance**

As of June 30, 2023

					Remaining			
Asset Class	Committed <sup>1</sup> (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Value (\$ MM)	TVPI (X)	Net IRR (%)	PME² (%)
Private Equity	1,257.7	1,000.6	264.2	1,117.7	836.1	1.95	15.3%	8.2%
Private Debt <sup>3</sup>	1,762.8	1,475.1	319.5	1,296.3	717.8	1.37	9.6%	5.9%
Real Estate and Real Assets	1,066.2	776.7	293.4	704.4	317.6	1.32	5.9%	8.3%
Total	4,086.8	3,252.4	877.2	3,118.4	1,871.5	1.53	10.2%	

<sup>&</sup>lt;sup>1</sup> Recent commitments appearing on this report for the first time: AKKR-NV SMA (\$100 mm), StepStone GE VII-L (\$10 mm), PIMCO COF IV (\$30 mm), PIMCO REO (\$60 mm)

<sup>&</sup>lt;sup>2</sup> Public Market Equivalent benchmarks are: MSCI ACWI IMI Index for Private Equity, Merrill Lynch High Yield Index for Private Debt, and NCREIF NPI for Real Estate/Real Assets.

<sup>&</sup>lt;sup>3</sup> Note effective May 2023 the Investment Committee voted to reclassify two private debt strategies to traditional fixed income (PIMCO Tacitical Opps \$100 mm commitment and PIMCO PIF \$100 mm commitment). The corresponding commitment, contributed, distributed and NAVs are no longer included in the private debt composite.

## Disclaimer



#### Disclaimer, Glossary, and Notes

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

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

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