

# Austin Firefighters Retirement Fund November 18, 2024 Board Meeting



Agenda

### Agenda

- 1. Economic and Market Update
- 2. Executive Summary
- 3. 3Q24 Investment Report
- 4. IPPE Responses
- 5. Summary of Proposed Changes to the IPS and Operating Procedures
- 6. Public Manager Fee Benchmarking
- 7. Roadmap
- 8. Appendix
  - Disclaimer, Glossary and Notes

**Economic and Market Update** Data as of September 30, 2024



#### Commentary

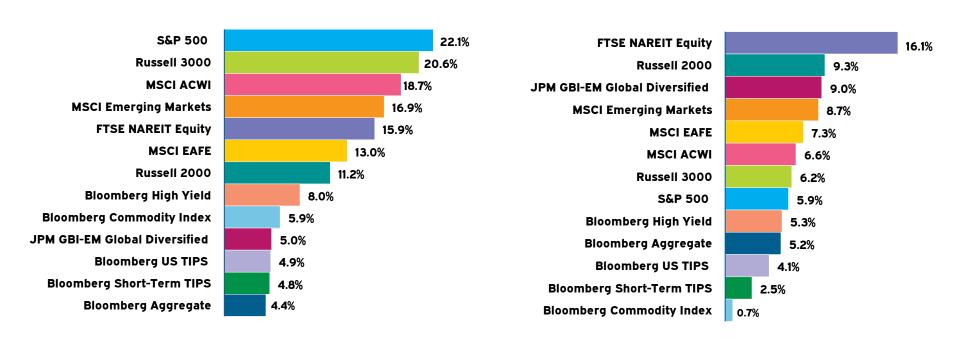
In the third quarter, stock and bond markets rallied despite heightened volatility. Central bank indications of future interest rate cuts given declining inflation pressures was a key driver of gains.

- → In September, the Federal Reserve surprised many in the markets with a 50 basis point interest rate cut while the US economy and employment picture remains quite healthy.
- $\rightarrow$  In the third quarter, US equities (Russell 3000) rose 6.2%. The US equity rally broadened, with value and small cap stocks outperforming large cap growth stocks, reversing the narrow leadership trend earlier this year.
- → Emerging market stocks (+8.7%) outperformed developed market stocks in the third quarter; in non-US developed markets (+7.3%) value and small cap stocks also beat the broad market.
- → After two years of piecemeal policy stimulus, China's policy makers rolled out a significant stimulus package to support equity prices, reduce bank reserve requirements and funding rates, and support current and future mortgage borrowers. In particular, bank loans for listed company share buybacks and purchases drove the MSCI China equity index to rally 23.9% in September and 23.5% for the entire third quarter.
- → Fixed income markets also posted positive returns on expectations for additional policy rate cuts this year and next, as inflation pressures recede, and the economy slows.
- → Looking ahead, the paths of inflation, labor markets, and monetary policy, China's slowing economy and potential policy stimulus benefits, increased geopolitical tensions, and the looming US election will be key factors.



**YTD** 

Q3



Index Returns<sup>1</sup>

- → Major markets finished the third quarter in positive territory despite several spikes in volatility. Falling inflation, resilient growth in the US, and dovish central banks supported stocks and bonds. Rate sensitive sectors, like REITs, particularly benefited from lower interest rates.
- $\rightarrow$  Year-to-date through September, all major asset classes were positive, led by US equities.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024.

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Domestic Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.1	5.9	22.1	36.4	11.9	16.0	13.4
Russell 3000	2.1	6.2	20.6	35.2	10.3	15.3	12.8
Russell 1000	2.1	6.1	21.2	35.7	10.8	15.6	13.1
Russell 1000 Growth	2.8	3.2	24.5	42.2	12.0	19.7	16.5
Russell 1000 Value	1.4	9.4	16.7	27.8	9.0	10.7	9.2
Russell MidCap	2.2	9.2	14.6	29.3	5.7	11.3	10.2
Russell MidCap Growth	3.3	6.5	12.9	29.3	2.3	11.5	11.3
Russell MidCap Value	1.9	10.1	15.1	29.0	7.4	10.3	8.9
Russell 2000	0.7	9.3	11.2	26.8	1.8	9.4	8.8
Russell 2000 Growth	1.3	8.4	13.2	27.7	-0.4	8.8	8.9
Russell 2000 Value	0.1	10.2	9.2	25.9	3.8	9.3	8.2

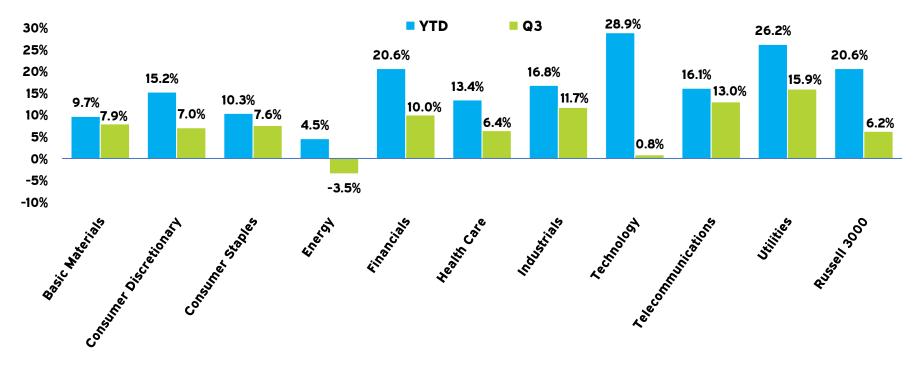
#### Domestic Equity Returns<sup>1</sup>

#### US Equities: The Russell 3000 rose +6.2% in the third quarter, bringing the year-to-date results to +20.6%.

- → In the third quarter, the previously technology-driven stock rally broadened out as optimism grew over the potential for a "soft landing" of the US economy and as investors reexamined the future of AI-related stocks.
- → In this environment, value outperformed growth across the capitalization spectrum and small cap stocks (Russell 2000: +9.3%) outperformed large cap stocks (Russell 1000: +6.1%).
- → Despite the third quarter's rally in value and small cap stocks, large cap growth stocks are the best performing asset class (R1000 Growth: +24.5%) for the year-to-date 2024 due to on-going enthusiasm for AI.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024.





#### Russell 3000 Sector Returns<sup>1</sup>

- $\rightarrow$  With the notable exception of energy stocks, all sectors posted positive returns in the third quarter.
- $\rightarrow$  On the prospect of growing energy demand for cloud computing for AI, utilities were the best performing sector in the third quarter (+15.9%) followed by telecom (+13.0%) and industrials (+11.7%).
- → All sectors feature positive returns for the year-to-date period. Technology stocks (+28.9%) continue to lead the broader market, followed by utilities (+26.2%), and financials (+20.6%).

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024.

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Foreign Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.7	8.1	14.2	25.4	4.1	7.6	5.2
MSCI EAFE	0.9	7.3	13.0	24.8	5.5	8.2	5.7
MSCI EAFE (Local Currency)	-0.4	0.8	12.0	17.5	7.9	8.8	7.4
MSCI EAFE Small Cap	2.6	10.5	11.1	23.5	-0.4	6.4	6.2
MSCI Emerging Markets	6.7	8.7	16.9	26.1	0.4	5.7	4.0
MSCI Emerging Markets (Local Currency)	5.6	6.6	18.3	25.0	2.9	7.4	6.5
MSCI EM ex. China	1.3	4.0	12.7	27.4	3.4	8.4	4.8
MSCI China	23.9	23.5	29.3	23.9	-5.6	0.8	3.4

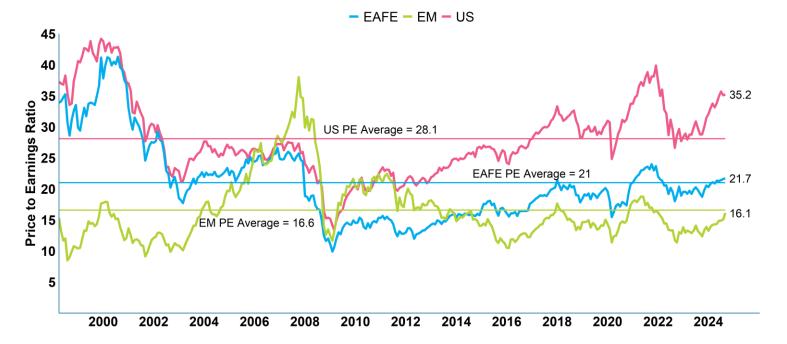
#### Foreign Equity Returns<sup>1</sup>

Foreign Equity: Developed international equities (MSCI EAFE) rose +7.3% in the third quarter, while emerging market equities (MSCI Emerging Markets) gained 8.7%.

- → Non-US developed market stocks saw similar themes as the US, with value and small cap stocks outperforming large cap stocks in the third quarter, as investors anticipated further rate cuts from the European Central Bank and the Bank of England. Japan's TOPIX index experienced an over 20% decline at the start of August due to the Bank of Japan's (BoJ) unexpected rate increase and related pressures on the yen carry trade. It subsequently recovered, though, as the BoJ signaled that further rate increases were not likely.
- $\rightarrow$  In late September, China announced significant stimulus measures to support asset prices resulting in Chinese stocks rallying +23.9% just in September. This led to emerging markets having the best quarterly results (+8.7%).
- $\rightarrow$  The weakening US dollar further supported international stocks, particularly in developed markets.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as September 30, 2024.





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

- → The broad global equity rally lifted stocks' cyclically adjusted price/earnings ratios over the quarter, with US stock valuations finishing well above their long-term 28.1 average.
- → Non-US developed market valuations increased to slightly above their long-term average while emerging market stocks are now trading close to their long-term average given the strong recent gains.

<sup>&</sup>lt;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: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of September 2024. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.



Fixed Income	September (%)	QTD (%)	<b>ҮТD</b> (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.4	5.2	4.9	12.1	-1.0	0.7	2.1	4.5	6.0
Bloomberg Aggregate	1.3	5.2	4.4	11.6	-1.4	0.3	1.8	4.2	6.2
Bloomberg US TIPS	1.5	4.1	4.9	9.8	-0.6	2.6	2.5	3.8	6.9
Bloomberg Short-term TIPS	1.0	2.5	4.8	7.5	2.5	3.6	2.4	3.9	2.4
Bloomberg US Long Treasury	2.0	7.8	2.4	15.4	-8.3	-4.3	1.1	4.2	15.5
Bloomberg High Yield	1.6	5.3	8.0	15.7	3.1	4.7	5.0	7.0	3.4
JPM GBI-EM Global Diversified (USD)	3.4	9.0	5.0	13.4	0.6	0.6	0.6		

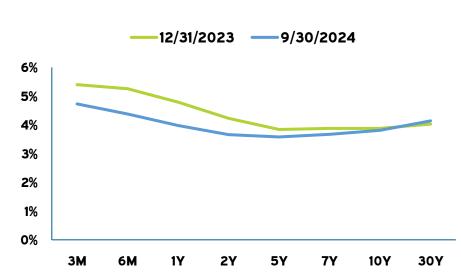
#### Fixed Income Returns<sup>1</sup>

Fixed Income: The Bloomberg Universal index rose 5.2% in the third quarter, bringing the year-to-date return into positive territory (+4.9%).

- → Fixed income indexes rose in the quarter as rates fell, driven by a continued decline in inflation. This and the weakening labor market led to the Fed cutting interest rates with more cuts expected.
- → The broad US bond market (Bloomberg Aggregate) rose 5.2% over the quarter, with the broad TIPS market gaining 4.1%. The less interest rate sensitive short-term TIPS index increased 2.5%.
- → Riskier bonds experienced volatility during the quarter but ultimately posted strong results as risk appetite remained strong. Emerging market debt gained 9.0% and high yield rose 5.3%.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.

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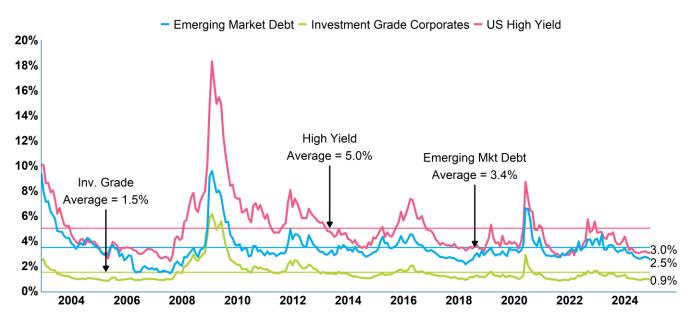


#### US Yield Curve<sup>1</sup>

- → US interest rates fell over the quarter as economic data continued to soften and the Fed started its rate cutting cycle.
- → The more policy sensitive 2-year Treasury yield declined from 4.75% to 3.64% over the quarter, while the 10-year Treasury yield fell from 4.40% to 3.78% over the same period.
- → Notably, the portion of the yield curve from 2-years to 10-years was no longer inverted at the end of September, given policy rate cuts and resilient growth. This trend could continue as the Fed likely continues to cut interest rates.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024.



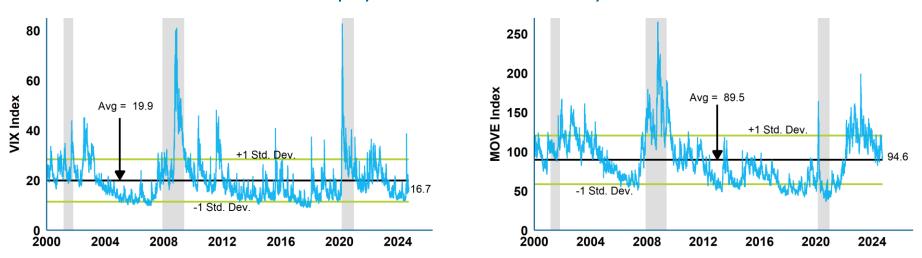


#### Credit Spreads vs. US Treasury Bonds<sup>1</sup>

- → Spreads (the yield above a comparable maturity Treasury) widened significantly at the start of the quarter in the volatile environment but declined after, largely finishing where they started.
- $\rightarrow$  All yield spreads remained below their respective long-run averages, particularly high yield.
- → Although spreads are relatively tight, yields remain at above-average levels compared to the last two decades, particularly for short-term issues.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as September 30, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

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

- → In the third quarter, equity and bond market volatility experienced periods of elevation due to concerns over the US labor market, the unwinding of the yen-carry trade, and increased geopolitical tensions. Ultimately, both settled well below their respective peaks as additional economic data and the easing of monetary policy calmed investors.
- → Volatility levels (VIX) in the stock market spiked above one standard deviation of its long-term average in early August but finished below the long-term average.
- $\rightarrow$  Bond market volatility (MOVE) also fluctuated through the quarter. Uncertainty in the bond market remains above the long-run average as markets continue to reprice the pace of interest rate cuts.

<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 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and September 2024.



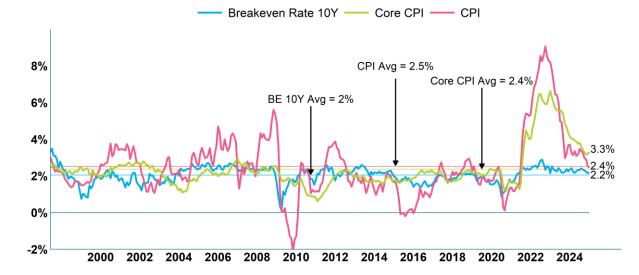


#### Recent Market Strength: China<sup>1</sup>

- → On September 24th, Chinese policy makers surprised markets with a suite of policy stimulus measures designed to support stock prices, banks, and mortgage borrowers.
- → Banks were asked to extend loans to publicly traded companies for share purchases and buybacks, contributing to significant equity market gains in the last week of the quarter. These policies also contributed to increased foreign demand for Chinese shares.
- → The banking sector benefited from a cut to the 1-year medium term lending rate and to their reserve requirement rate.
- $\rightarrow$  Homeowners may also benefit from changes to downpayment minimums and mortgage rate reductions.
- → Despite the recent gains in the stock market, questions remain about the ultimate impact of these policies on longer-term growth in China, as well as policy makers' commitment to continue supporting the economy.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of September 30, 2024.

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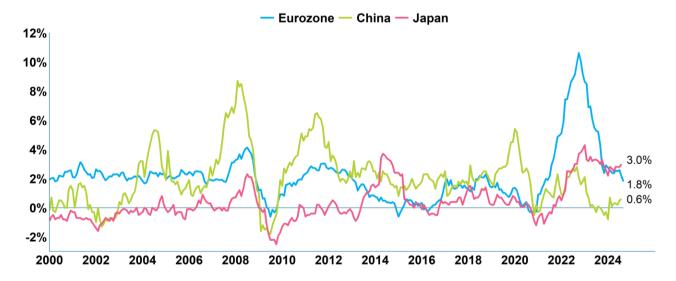
#### US Ten-Year Breakeven Inflation and CPI<sup>1</sup>

- → Over the quarter, year-over-year headline inflation continued to decline (3.0% to 2.4%) supporting the Fed's start to cutting policy rates. The 2.4% September level was the lowest since early 2021.
- → Month-over-month inflation increased 0.2% each month over the quarter. Food and shelter costs saw monthly increases, while energy prices largely fell.
- → Year-over-year core inflation (excluding food and energy) finished the quarter where it started (3.3%). Shelter (+4.9% YoY) and transportation (+8.5% YoY) remain key drivers of stickier core inflation.
- → Inflation expectations (breakevens) have been relatively stable over the last several years. They remain below current inflation levels.

<sup>&</sup>lt;sup>1</sup> Source: FRED. Data is as September 2024. 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.



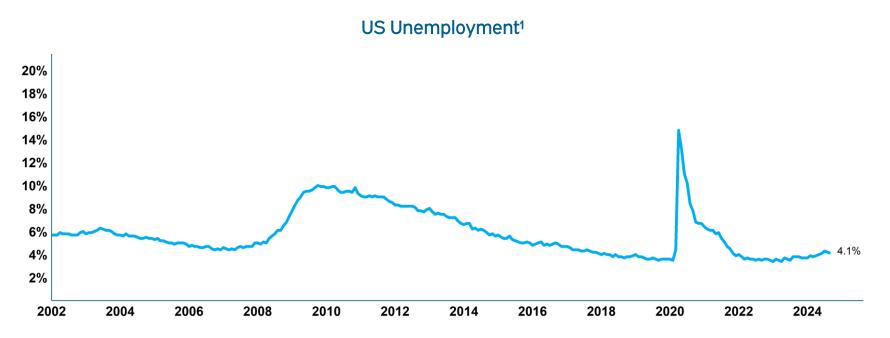




- → In the eurozone, inflation fell from 2.5% to 1.8% over the quarter (a level below the US), potentially clearing the way for further rate cuts from the European Central Bank.
- → By contrast, inflation in Japan recently increased (2.8% to 3.0%) due in part to higher food, electricity, and gas prices supporting the case for additional interest rate increases by the Bank of Japan.
- → In China, inflation increased each of the last seven months, after declines late last year. Recent extreme weather has caused supply issues and contributed to higher prices. Inflation in China remains much lower than in other countries, due to weak consumer spending and as issues in the real estate sector continue to weigh on sentiment.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024, except Japan and China which are as of August 31, 2024.

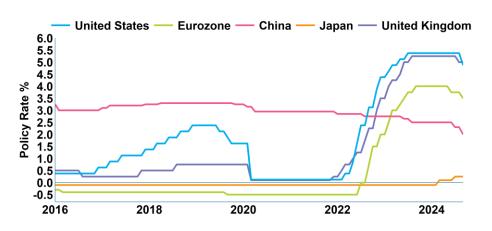




- $\rightarrow$  The US labor market has softened but remains relatively strong. After reaching 4.3% in July, the unemployment rate finished the quarter at the level it started (4.1%), with 6.8 million people looking for work.
- → After job gains came in below expectations in July (114k versus 175k) and August (142k versus 165k), contributing to some of the market volatility, they finished strong in September, beating estimates (254k versus 150k). Food services (+69K) and healthcare (+45K) were the largest contributors to the September gains.
- → Initial claims for unemployment remain relatively low and year-over-year wage gains remain strong (+4.0%). The number of job openings increased slightly (7.9 to 8.0 million) over the quarter.

<sup>&</sup>lt;sup>1</sup> Source: FRED. Data is as of September 30, 2024.

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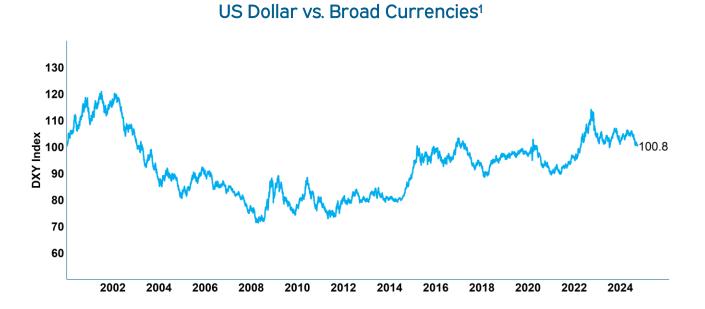


#### Policy Rates<sup>1</sup>

- → In the US, the Fed reduced interest rates by 0.5% after holding them at a 5.25%-5.50% level for over a year. In their statement they highlighted that they would make additional interest rate cut decisions based on incoming data. Market participants are pricing in roughly two additional cuts in 2024.
- → The Bank of England (BoE) and the European Central Bank (ECB) have both started cutting rates. The BoE made a 25 basis points interest rate cut in July while the ECB made two similar cuts in June and September.
- → Inflation in Japan remains elevated, prompting Bank of Japan officials to raise the policy rate 0.15% to 0.25% over the quarter after decades at near-zero rates.
- → China announced a broad based unexpected stimulus package that included lower interest rates, a reduction in bank reserve requirements, and liquidity for stock investors.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September, 2024. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.





# → The US dollar weakened in the third quarter by 4.7% versus other major currencies, influenced by the decline in interest rates and expectations for slower growth.

- → It remains at historically strong levels, though, given relatively stronger growth, higher interest rates, and on the prospects of other central banks, potentially easing policy faster than the Fed.
- → Looking ahead, the track of policy rates across major central banks will be key for the path of the US dollar from here. If the US economy slows more than expected and the Fed relatedly lowers rates at a faster pace, we could see the dollar weaken further.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of September 30, 2024.



#### Summary

#### Key Trends:

- → According to the International Monetary Fund's (IMF) July report, global growth this year is expected to match the 2023 estimate at around 3.2% with most major economies predicted to avoid a recession.
- → Key economic data in the US has largely weakened and come in below expectations, causing markets to expect an additional two rate cuts this year after the Fed's initial 0.5% reduction. Uncertainty remains regarding the timing and pace of interest rate cuts in the coming year.
- → US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.
- → A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.
- → We have started to see divergences in monetary policy. Some central banks, such as the Fed, European Central Bank, and the Bank of England, have started to cut interest rates and others, like the Bank of Japan, have increased interest rates. This disparity will likely influence capital flows and currencies.
- → China appears to have shifted focus to more policy support for the economy/asset prices with a new suite of policy stimulus and signals for more support ahead. It is still not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.

### **Executive Summary**



#### **Executive Summary**

#### **3Q 24 Executive Summary**

Category	Results	Notes				
Total Fund Performance	Positive	+4.5% ( +\$52 mm net investment change)				
Performance vs. Benchmarks	Underperformed	4.5% vs. 5.1% (policy benchmark)				
Performance vs. Peers	4.5% vs. 4.8% median (64™ percentile)					
Asset Allocation Attribution Effects	Positive	Underweight real estate and overweight US equity helped				
Active Public Managers vs. Benchmarks	Underperformed	5 of 11 active managers beat respective benchmarks (after fees)				
Active Public Managers vs. Peer Groups	Mixed	5 of 10² active managers beat peer group median (after fees)				
Compliance with Targets	In Compliance	All exposure within policy ranges				

<sup>&</sup>lt;sup>1</sup> InvMetrics Public DB >\$1B net.

<sup>&</sup>lt;sup>2</sup> Excludes Aberdeen EMD. No appropriate peer group for Aberdeen blended currency emerging market debt. Peer groups only exist for local currency or USD strategies.



#### **Executive Summary**



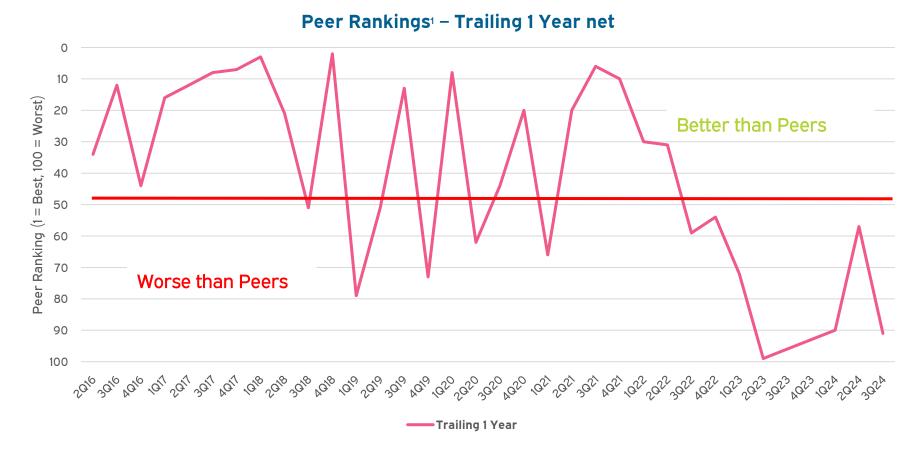
#### Peer Rankings<sup>1</sup> – Trailing 10 Years net

→ AFRF consistently (~80% of the time) ranks in the top half of similar sized public pensions when evaluating returns at any moment over a trailing 10 year return perspective.

<sup>&</sup>lt;sup>1</sup> InvMetrics Public DB >\$1B net. or equivalent peer group sub \$1 billion in quarters when AFRF was under \$1 billion.



#### **Executive Summary**



 $\rightarrow$  Peer rankings end up being mostly noise when evaluated over just one year period. This shows AFRF peer rankings at the same points in time but when evaluating only on the trailing 1 year period. AFRF outperformed around 60% of the time.

<sup>&</sup>lt;sup>1</sup> InvMetrics Public DB >\$1B net. or equivalent peer group sub \$1 billion in quarters when AFRF was under \$1 billion.



**Executive Summary** 



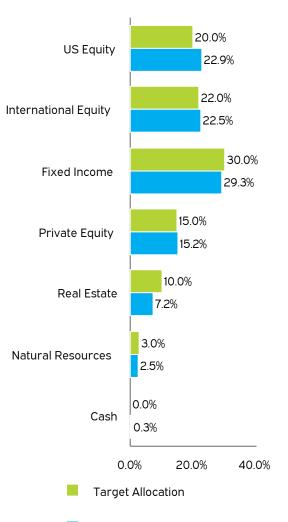
#### Driver of Recent History – Private Equity vs. S&P 500

→ Private equity has had a challenging ~3 years after a record year in 2021 (when it generated return over 57% for AFRF). At the same time, the S&P 500 Index has generated very strong returns over the trailing ~2 years. Over time we expect this noise to even out.

### **3Q24 Investment Report**



#### Total Fund | As of September 30, 2024

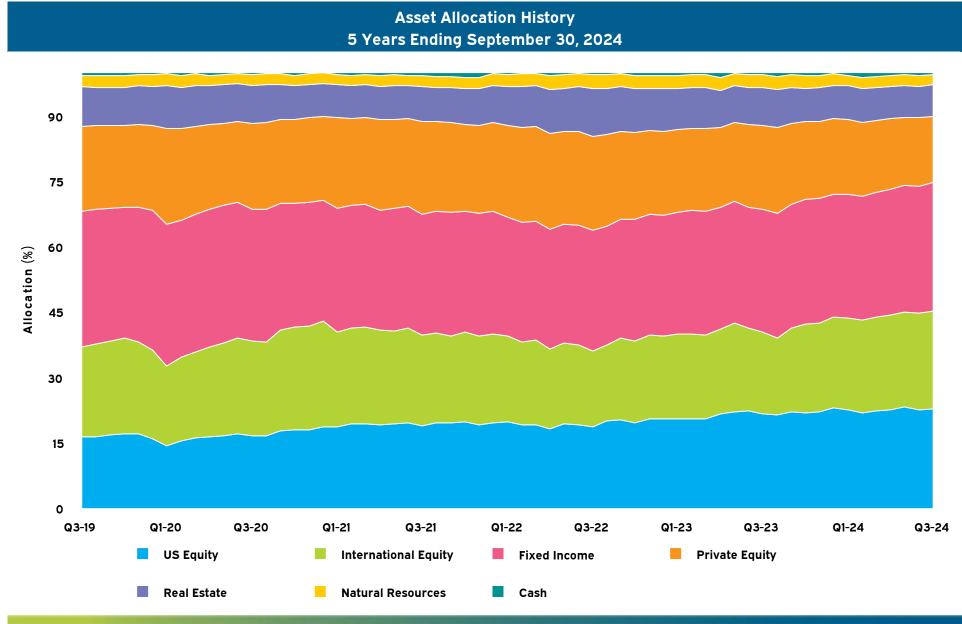


Actual vs. Target Allocation

Allocation vs. Targets and Policy									
	Current Balance	Current Allocation(%)	Policy (%)	Policy Range(%)	Within IPS Range?				
US Equity	\$273,817,919	22.9	20.0	13.0 - 27.0	Yes				
International Equity	\$269,723,285	22.5	22.0	15.0 - 29.0	Yes				
Fixed Income	\$351,336,444	29.3	30.0	20.0 - 40.0	Yes				
Private Equity	\$182,189,364	15.2	15.0	5.0 - 25.0	Yes				
Real Estate	\$86,408,750	7.2	10.0	0.0 - 20.0	Yes				
Natural Resources	\$29,528,490	2.5	3.0	0.0 - 5.0	Yes				
Cash	\$4,180,316	0.3	0.0	0.0 - 5.0	Yes				
Total	\$1,197,184,568	100.0	100.0						

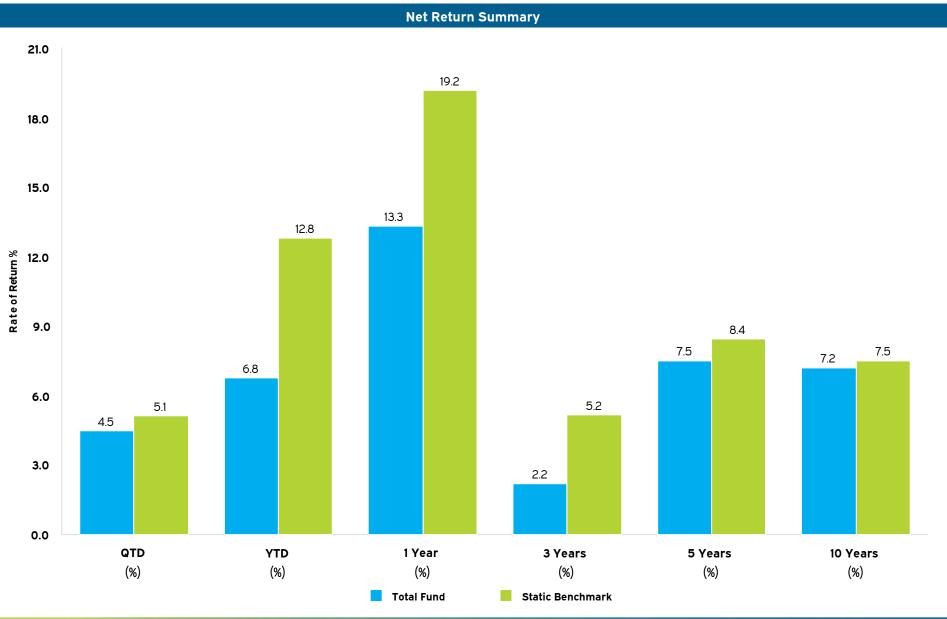


#### Total Trust | 5 Years Ending September 30, 2024





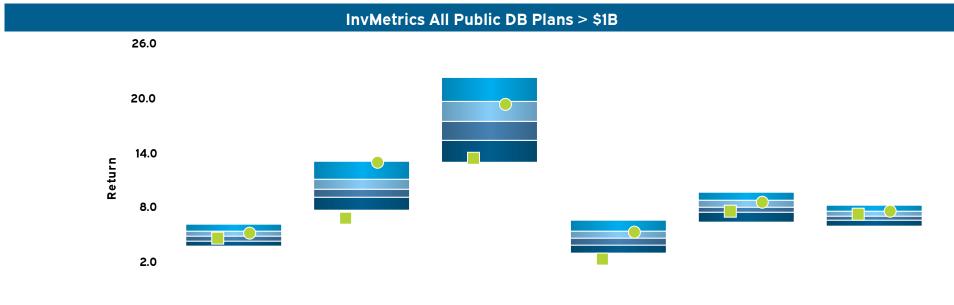
#### Total Fund Performance | As of September 30, 2024



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#### Plan Sponsor Peer Group Analysis | As of September 30, 2024



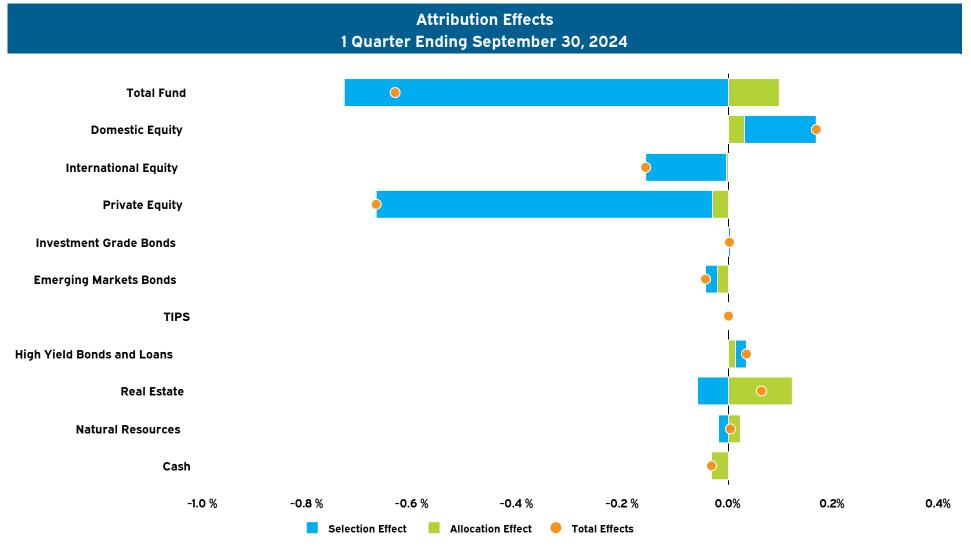
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	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	4.5 (64)	6.8 (99)	13.3 (91)	2.2 (100)	7.5 (72)	7.2 (42)
<ul> <li>Static Benchmark</li> </ul>	5.1 (31)	12.8 (6)	19.2 (27)	5.2 (30)	8.4 (34)	7.5 (25)
5th Percentile	6.1	12.9	22.2	6.5	9.6	8.1
1st Quartile	5.3	11.0	19.5	5.3	8.7	7.5
Median	4.8	9.9	17.4	4.6	8.0	6.9
3rd Quartile	4.3	9.0	15.3	3.8	7.4	6.5
95th Percentile	3.7	7.6	12.9	2.9	6.3	5.9
Population	71	71	71	68	67	65

Parentheses contain percentile rankings.

Calculation based on monthly periodicity.



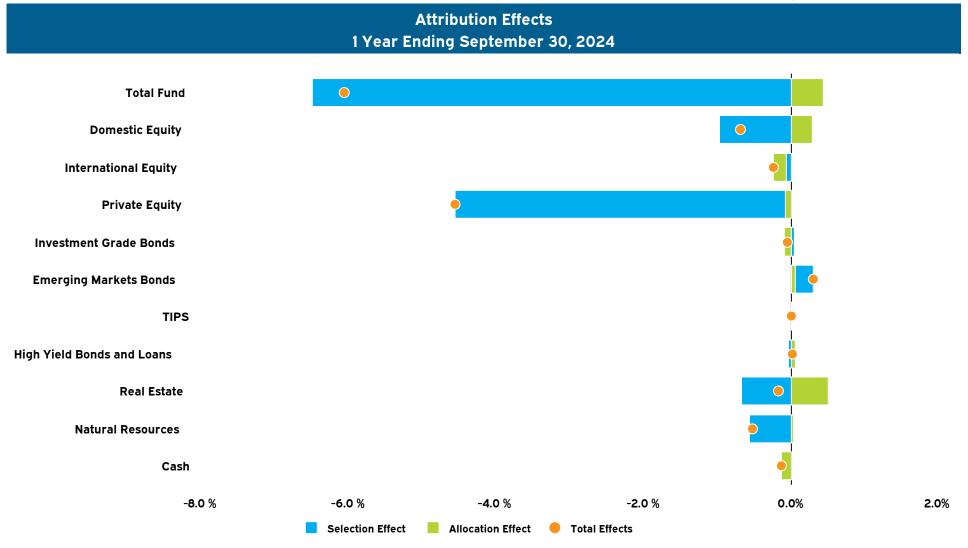
#### Total Plan Attribution | 1 Quarter Ending September 30, 2024



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.



#### Total Plan Attribution | 1 Year Ending September 30, 2024

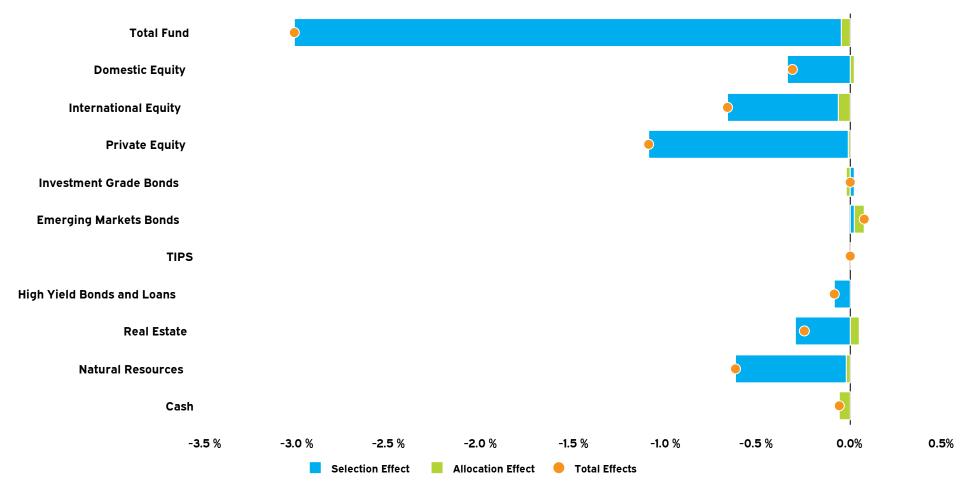


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#### Total Plan Attribution | 3 Years Ending September 30, 2024





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.



#### InvMetrics All Public DB Plans > \$1B | As of September 30, 2024





#### Asset Allocation & Performance | As of September 30, 2024

Asset Class Performance Summary (Net of Fees)												
	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	<b>3 Yrs</b> (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	25 Yrs (%)	Inception (%)	Inception Date
Total Fund	1,197,184,568	100.0	4.5	6.8	13.3	2.2	7.5	7.2	7.5	6.4	7.0	Apr-97
Static Benchmark			5.1	12.8	19.2	5.2	8.4	7.5	7.2			
Dynamic Benchmark			5.2	13.8	20.1	5.2	8.4	7.4				
70% MSCI ACWI/30% Barclays Agg			6.2	14.3	25.4	5.3	8.7	7.3	7.3	6.1	6.7	
Domestic Equity	273,817,919	22.9	6.8	16.1	30.0	8.7	13.3	11.3	10.3	7.7	9.0	Apr-97
Russell 3000 Index			6.2	20.6	35.2	10.3	15.3	12.8	10.6	8.3	9.6	
International Equity	269,723,285	22.5	7.4	13.5	25.1	1.1	7.3	5.6	6.7	5.3	5.9	Apr-97
Spliced International Equity Benchmark			8.1	14.2	25.4	4.1	7.6	5.2	7.1	5.3	5.7	
Private Equity	182,189,364	15.2	-0.6	-2.0	-2.5	1.2	13.7	14.0			15.0	Jun-10
Private Equity Benchmark			3.4	25.4	21.7	7.5	13.0	12.3			14.7	
Fixed Income	351,336,444	29.3	5.0	5.7	13.0	-0.2	1.7	2.6	3.5	4.1	4.4	Apr-97
Blmbg. U.S. Aggregate Index			5.2	4.4	11.6	-1.4	0.3	1.8	3.2	4.0	4.3	
Real Estate	86,408,750	7.2	0.0	-7.2	-10.8	-2.8	0.8	4.8			2.5	Jan-08
NCREIF Property Index			0.8	-0.5	-3.5	0.9	3.3	5.9	7.8	8.3	5.3	
Natural Resources	29,528,490	2.5	0.4	-9.7	-8.0	-1.9	-1.3	0.0			0.7	Mar-13
S&P North American Natural Res Sector Index (TR)			1.0	10.7	9.4	18.5	13.4	3.4	8.1	6.2	4.3	
Cash	4,180,316	0.3										

Static Benchmark consists of 20% Russell 3000, 22% MSCI ACWI ex US net, 13% Bloomberg Agg, 5% Bloomberg US TIPS, 2.5% ICE BofA US High Yield TR, 2.5% Credit Suisse Leveraged, 1.75% JPM GBI, 3.5% JPM EMBI, 1.75% JPM CEMBI 15% MSCI ACWI + 2% (Quarter Lagged), 5% NCREIF Property Index, 5% NCREIF ODCE Equal Weighted Net, 3% S&P North American Natural Resources TR.

Dynamic Benchmark consists of each asset class benchmark multiplied by actual asset class weight at the end of each preceding month.

The Spliced International Equity Benchmark consists of MSCI EAFE from 1/1/1997 to 12/31/1998. From 1/1/1999 to present it consists of MSCI ACWI ex US net.

The Private Equity Benchmark consists of the S&P 500 + 3% from 4/30/2010 to 3/31/2018. From 4/1/2018 to present it consists of MSCI ACWI + 2% (Quarter Lagged).



#### Asset Allocation & Performance | As of September 30, 2024

Trailing Net Performance										
	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	1,197,184,568	100.0	4.5	6.8	13.3	2.2	7.5	7.2	7.0	Apr-97
Static Benchmark			5.1	12.8	<i>19.2</i>	5.2	8.4	7.5		
Dynamic Benchmark			5.2	13.8	20.1	5.2	8.4	7.4		
70% MSCI ACWI/30% Barclays Agg			6.2	14.3	25.4	5.3	<i>8</i> .7	7.3	6.7	
InvMetrics All Public DB Plans > \$1B Median			4.8	9.9	17.4	4.6	8.0	6.9	7.1	
InvMetrics All Public DB Plans > \$1B Rank			64	99	91	100	72	42	60	
Domestic Equity	273,817,919	22.9	6.8	16.1	30.0	8.7	13.3	11.3	9.0	Apr-97
Russell 3000 Index			6.2	20.6	35.2	10.3	<i>15.3</i>	12.8	9.6	
eV All US Equity Median			7.0	15.5	28.8	7.9	12.2	10.4	9.9	
eV All US Equity Rank			53	48	45	43	39	39	80	
SSgA S&P 500	128,835,243	10.8	5.9	22.1	36.3	11.9	15.9	13.4	10.3	Feb-04
S&P 500 Index			5.9	22.1	36.4	11.9	16.0	13.4	10.3	
eV US Large Cap Equity Median			5.9	18.7	31.8	9.8	13.8	11.7	9.9	
eV US Large Cap Equity Rank			52	28	31	21	28	25	38	
Westwood Capital Large Cap Value	13,876,981	1.2	5.7	12.5	21.8	7.8	9.3	9.5	8.9	Oct-01
Russell 1000 Value Index			9.4	16.7	27.8	9.0	10.7	9.2	8.4	
eV US Large Cap Value Equity Median			7.9	16.1	27.6	9.8	11.7	9.7	8.9	
eV US Large Cap Value Equity Rank			85	86	90	79	87	57	52	
Westfield Small/Mid Cap Growth	67,809,556	5.7	10.6	15.0	28.2	2.3	13.2	10.6	12.6	Nov-02
Russell 2500 Growth Index			7.0	11.2	25.2	-0.7	9.7	10.0	11.1	
eV US Small-Mid Cap Growth Equity Median			б.8	11.8	24.5	-0.8	10.9	10.5	11.2	
eV US Small-Mid Cap Growth Equity Rank			9	31	32	21	22	46	14	



	Market Value \$	% of Portfolio	QTD (%)	<b>YTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Vaughan Nelson Small Cap Value	63,296,139	5.3	4.9	8.0	23.9	10.5	12.8		10.7	Jan-16
Russell 2000 Value Index			10.2	9.2	25.9	3.8	9.3	8.2	9.3	
eV US Small Cap Value Equity Median			8.3	10.2	24.0	6.2	10.4	8.7	9.6	
eV US Small Cap Value Equity Rank			90	71	52	10	21		27	
International Equity	269,723,285	22.5	7.4	13.5	25.1	1.1	7.3	5.6	5.9	Apr-97
Spliced International Equity Benchmark			8.1	14.2	25.4	4.1	7.6	5.2	5.7	
SSgA MSCI EAFE Fund	133,310,391	11.1	7.2	13.2	25.0	5.8	8.5	6.0	6.4	Feb-13
MSCI EAFE (Net)			7.3	13.0	24.8	5.5	8.2	5.7	6.1	
eV EAFE Core Equity Median			7.6	12.8	24.3	4.3	8.2	6.0	6.5	
eV EAFE Core Equity Rank			58	46	41	27	43	54	53	
Baillie Gifford International Growth Fund	37,886,126	3.2	9.9	14.5	29.1	-6.4	7.6	7.3	9.8	May-09
MSCI AC World ex USA (Net)			8.1	14.2	25.4	4.1	7.6	5.2	7.4	
eV ACWI ex-US All Cap Growth Eq Median			6.3	12.7	25.9	-0.7	7.2	6.7	9.5	
eV ACWI ex-US All Cap Growth Eq Rank			9	36	26	98	44	38	33	
Highclere International Small Cap	33,135,637	2.8	10.1	9.4	22.4	-2.8	4.8	5.1	6.9	Dec-09
MSCI EAFE Small Cap (Net)			10.5	11.1	23.5	-0.4	6.4	6.2	7.3	
eV EAFE Small Cap Equity Median			9.3	11.8	23.7	-0.3	7.4	6.4	7.5	
eV EAFE Small Cap Equity Rank			35	67	63	73	81	73	75	
DFA Emerging Markets Value	30,218,938	2.5	5.7	14.9	23.2	6.3	8.6	5.0	3.9	Dec-09
MSCI Emerging Markets Value (Net)			8.1	15.1	24.4	3.3	5.9	3.1	3.0	
eV Emg Mkts All Cap Value Equity Median			7.б	13.8	23.4	3.8	7.3	4.7	4.3	
eV Emg Mkts All Cap Value Equity Rank			74	41	53	19	28	46	65	



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	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TT Emerging Markets Equity	35,172,194	2.9	4.1	17.8	27.8	-4.1	4.1		2.9	Apr-19
MSCI Emerging Markets (Net)			<i>8</i> .7	16.9	26.1	0.4	5.7	4.0	4.5	
eV Emg Mkts Equity Median			7.1	15.0	24.1	1.2	6.5	4.6	5.4	
eV Emg Mkts Equity Rank			85	25	21	88	82		87	
Private Equity	182,189,364	15.2	-0.6	-2.0	-2.5	1.2	13.7	14.0	15.0	Jun-10
Private Equity Benchmark			3.4	25.4	21.7	7.5	13.0	12.3	14.7	
57 Stars Global Opportunity 3	5,959,435	0.5								
Blue Bay Direct Lending	1,420,458	0.1								
Constitution Capital Partners III	1,586,503	0.1								
Consitution Capital Partners VII	1,644,376	0.1								
Cross Creek Capital Partners II - B	9,570,760	0.8								
Cross Creek Capital Partners III	9,913,012	0.8								
Deutsche Bank SOF III	1,821,288	0.2								
Dover Street X, L.P.	35,624,817	3.0								
HarbourVest 2013 Direct	3,009,004	0.3								
HarbourVest Co-Investment Fund IV	7,741,162	0.6								
HighVista Private Equity V, L.P.	3,796,861	0.3								
HighVista Private Equity VI, L.P.	11,473,428	1.0								
LGT Crown Asia II	6,553,683	0.5								
LGT Crown Europe Small Buyouts III	2,752,357	0.2								



	Market Value \$	% of Portfolio	<b>QTD</b> (%)	<b>YTD</b> (%)	1 Yr (%)	<b>3 Yrs</b> (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
LGT Crown Global Opportunities VI	33,616,503	2.8								
LGT Crown Global Secondaries II	93,663	0.0								
LGT Crown Global Secondaries III	1,901,949	0.2								
Partners Group Emerging Markets 2015	7,503,263	0.6								
Partners Group U.S. Distressed Private Equity 2009	188,258	0.0								
Private Advisors Co-Investment Fund III	742,640	0.1								
Private Equity Investors V	1,342,268	0.1								
StepStone Global Partners V	6,560,234	0.5								
StepStone Global Partners VI	12,231,512	1.0								
SVB Strategic Investors Fund IX, L.P.	15,141,929	1.3								



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	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Fixed Income	351,336,444	29.3	5.0	5.7	13.0	-0.2	1.7	2.6	4.4	Apr-97
Blmbg. U.S. Aggregate Index			5.2	4.4	11.6	-1.4	0.3	1.8	4.3	
SSgA Bond Fund	124,956,134	10.4	5.2	4.5	11.6	-1.4	0.3	1.8	3.2	Jan-04
Blmbg. U.S. Aggregate Index			5.2	4.4	11.6	-1.4	0.3	1.8	3.3	
eV US Core Fixed Inc Median			5.2	4.8	11.9	-1.2	0.7	2.1	3.5	
eV US Core Fixed Inc Rank			43	80	70	73	86	80	84	
SSgA TIPS	59,498,742	5.0	4.1	5.0	9.8	-0.6	2.6	2.5	2.2	Aug-14
Blmbg. U.S. TIPS Index			4.1	4.9	9.8	-0.б	2.6	2.5	2.3	
eV US TIPS / Inflation Fixed Inc Median			4.0	4.9	9.6	-0.4	2.6	2.5	2.2	
eV US TIPS / Inflation Fixed Inc Rank			42	46	34	57	56	54	65	
Loomis Sayles Core Plus Fixed Income	48,622,626	4.1	5.3	4.9	12.5	-0.9	1.5		2.7	Jul-15
Blmbg. U.S. Aggregate Index			5.2	4.4	11.6	-1.4	0.3	1.8	1.8	
eV US Core Plus Fixed Inc Median			5.3	5.4	12.7	-0.9	1.2	2.5	2.6	
eV US Core Plus Fixed Inc Rank			47	79	57	51	32		32	
Aberdeen Emerging Markets Bond Fund	66,005,721	5.5	6.0	9.2	21.1	0.6	1.4		3.0	Dec-14
JPM EMBI Global Diversified			6.2	<u>8</u> .6	18.6	-0.4	0.9	3.3	3.1	
50% JP Morgan EMBI / 25% JP Morgan GBI-EM / 25% JP Morgan CEMBI			6.5	7.7	16.3	0.1	1.2			
Pyramis Tactical Bond Fund	27,937,937	2.3	5.3	5.2	12.7	0.3	2.4	3.8	3.9	Aug-13
Blmbg. U.S. Aggregate Index			5.2	4.4	11.6	-1.4	0.3	1.8	2.0	
eV US Core Plus Fixed Inc Median			5.3	5.4	12.7	-0.9	1.2	2.5	2.8	
eV US Core Plus Fixed Inc Rank			41	65	51	11	10	6	5	
Aristotle Pacific	24,315,284	2.0	1.9	6.4	9.6	6.8			5.8	Dec-19
Credit Suisse Leveraged Loan Index			2.0	6.6	9.6	6.3	5.6	4.9	<i>5.8</i>	
eV US Float-Rate Bank Loan Fixed Inc Median			2.0	6.2	9.3	5.6	5.0	4.3	5.1	
eV US Float-Rate Bank Loan Fixed Inc Rank			65	40	42	9			18	



	Market Value \$	% of Portfolio	<b>QTD</b> (%)	<b>YTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	86,408,750	7.2	0.0	-7.2	-10.8	-2.8	0.8	4.8	2.5	Jan-08
NCREIF Property Index			0.8	-0.5	<i>-3.5</i>	0.9	3.3	5.9	5.3	
Clarion Partners Lion Properties Fund	64,855,622	5.4	0.0	-4.8	-9.2	-2.3	1.8	5.9	4.9	Apr-05
NCREIF Fund Index-ODCE (EW) (Net)			-0.1	-3.3	-8.4	-1.1	2.3	5.5	5.4	
Portfolio Advisors Real Estate Fund V	4,906,173	0.4								
Partners Group Global RE 2011	470,933	0.0								
Partners Group Distressed RE 2009	29,129	0.0								
Partners Group Real Estate Secondary 2017	11,485,237	1.0								
Crow Holdings Realty Partners X, L.P.	4,661,656	0.4								
Natural Resources	29,528,490	2.5	0.4	-9.7	-8.0	-1.9	-1.3	0.0	0.7	Mar-13
S&P North American Natural Res Sector Index (TR)			1.0	10.7	9.4	18.5	13.4	3.4	4.3	
Aether Real Assets V	9,122,903	0.8								
Aether Real Assets IV	9,480,742	0.8								
Aether Real Assets III	8,900,885	0.7								
Aether Real Assets II	2,023,960	0.2								
Cash	4,180,316	0.3								
Cash	4,180,316	0.3								



	C	Calendar	Year Pei	rformanc	e					
	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)
Total Fund	8.4	-10.8	17.6	12.9	15.7	-2.0	17.0	7.1	1.3	4.8
Static Benchmark	13.6	-12.0	14.4	11.2	15.8	-3.6	16.4	9.6	-0.1	5.7
Dynamic Benchmark	14.5	-13.2	14.9	10.5	14.6	-3.1	16.1	8.4	0.4	5.4
70% MSCI ACWI/30% Barclays Agg	17.1	-16.6	12.2	14.3	21.2	-6.5	17.5	6.4	-1.3	4.8
Domestic Equity	22.1	-16.0	24.6	16.5	29.4	-7.9	21.8	9.9	0.2	10.0
Russell 3000 Index	26.0	-19.2	25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6
SSgA S&P 500	26.2	-18.1	28.6	18.3	31.5	-4.4	21.8	12.0	1.4	13.7
S&P 500 Index	26.3	-18.1	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7
Westwood Capital Large Cap Value	8.4	-5.9	23.8	3.9	27.3	-5.7	20.4	10.9	-0.1	11.9
Russell 1000 Value Index	11.5	-7.5	25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5
Westfield Small/Mid Cap Growth	18.4	-23.4	16.2	34.2	35.2	-7.6	31.0	3.4	-4.1	7.8
Russell 2500 Growth Index	18.9	-26.2	5.0	40.5	32.7	-7.5	24.5	9.7	-0.2	7.1
Vaughan Nelson Small Cap Value	25.7	-9.8	31.0	9.6	25.0	-14.1	6.8	20.7		
Russell 2000 Value Index	14.6	-14.5	28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2
International Equity	16.6	-21.1	4.1	17.6	22.4	-15.9	34.0	5.0	-4.4	-4.4
Spliced International Equity Benchmark	15.6	-16.0	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9
SSgA MSCI EAFE Fund	18.6	-14.1	11.4	8.2	22.4	-13.5	25.3	1.3	-0.6	-4.7
MSCI EAFE (Net)	18.2	-14.5	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9
Baillie Gifford International Growth Fund	14.3	-34.4	-9.4	63.0	37.3	-17.3	45.5	1.4	-2.9	-6.4
MSCI AC World ex USA (Net)	15.6	-16.0	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9
Highclere International Small Cap	13.2	-24.2	8.3	10.2	23.5	-18.8	30.9	10.3	6.5	-4.4
MSCI EAFE Small Cap (Net)	13.2	-21.4	10.1	12.3	25.0	-17.9	33.0	2.2	9.6	-4.9



	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)
DFA Emerging Markets Value	16.5	-10.7	12.4	2.7	9.6	-11.9	33.8	19.8	-18.8	-4.4
MSCI Emerging Markets Value (Net)	14.2	-15.8	4.0	5.5	12.0	-10.7	28.1	14.9	-18.6	-4.1
TT Emerging Markets Equity	5.6	-26.9	-1.0	19.8						
MSCI Emerging Markets (Net)	9.8	-20.1	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2
Private Equity	0.8	-1.7	57.0	20.4	16.1	15.8	17.7	9.4	12.7	23.3
Private Equity Benchmark	23.2	-19.0	29.9	12.6	3.4	5.4	25.4	15.3	4.4	17.1
57 Stars Global Opportunity 3										
Blue Bay Direct Lending										
Constitution Capital Partners III										
Consitution Capital Partners VII										
Cross Creek Capital Partners II - B										
Cross Creek Capital Partners III										
Deutsche Bank SOF III										
Dover Street X, L.P.										
HarbourVest 2013 Direct										
HarbourVest Co-Investment Fund IV										
HighVista Private Equity V, L.P.										
HighVista Private Equity VI, L.P.										
LGT Crown Asia II										
LGT Crown Europe Small Buyouts III										
LGT Crown Global Opportunities VI										



	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)
LGT Crown Global Secondaries II										
LGT Crown Global Secondaries III										
Partners Group Emerging Markets 2015										
Partners Group U.S. Distressed Private Equity 2009										
Private Advisors Co-Investment Fund III										
StepStone Global Partners V										
StepStone Global Partners VI										
SVB Strategic Investors Fund IX, L.P.										
Private Equity Investors V										
Fixed Income	7.7	-12.7	0.0	8.3	10.5	-2.0	5.6	6.9	-2.1	3.1
Blmbg. U.S. Aggregate Index	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
SSgA Bond Fund	5.6	-13.2	-1.6	7.5	8.7	0.0	3.5	2.6	0.5	5.9
Blmbg. U.S. Aggregate Index	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
SSgA TIPS	3.9	-12.0	5.9	10.9	8.3	-1.3	3.0	4.6	-1.5	
Blmbg. U.S. TIPS Index	3.9	-11.8	6.0	11.0	8.4	-1.3	3.0	4.7	-1.4	3.6
Loomis Sayles Core Plus Fixed Income	6.4	-12.7	-1.1	11.3	9.4	-0.4	5.4	6.9		
Blmbg. U.S. Aggregate Index	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0
Aberdeen Emerging Markets Bond Fund	13.8	-16.6	-4.0	5.0	15.1	-7.5	13.0	13.3	-2.7	
JPM EMBI Global Diversified	11.1	-17.8	-1.8	5.3	15.0	-4.3	10.3	10.2	1.2	7.4
Pyramis Tactical Bond Fund	7.0	-10.9	1.2	9.3	13.2	-0.9	5.9	10.4	-1.8	5.3
Blmbg. U.S. Aggregate Index	5.5	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0



	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)
Aristotle Pacific	14.0	-0.6	5.2	2.6						
Credit Suisse Leveraged Loan Index	13.0	-1.1	5.4	2.8	8.2	1.1	4.2	9.9	-0.4	2.1
Real Estate	-15.0	8.3	20.2	-0.6	5.6	8.6	7.5	7.8	13.1	10.5
NCREIF Property Index	-7.9	5.5	17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8
Clarion Partners Lion Properties Fund	-16.3	8.7	22.4	1.4	6.3	9.2	8.0	9.3	15.7	12.3
NCREIF Fund Index-ODCE (EW) (Net)	-13.3	7.6	21.9	0.8	5.2	7.3	6.9	8.4	14.2	11.4
Portfolio Advisors Real Estate Fund V										
Partners Group Global RE 2011										
Partners Group Distressed RE 2009										
Partners Group Real Estate Secondary 2017										
Crow Holdings Realty Partners X, L.P.										
Natural Resources	0.8	2.2	15.9	-9.9	-13.4	2.1	15.7	8.6	-6.3	6.7
S&P North American Natural Res Sector Index (TR)	3.7	34.1	39.9	-19.0	17.6	-21.1	1.2	30.9	-24.3	-9.8
Aether Real Assets V										
Aether Real Assets IV										
Aether Real Assets III										
Aether Real Assets II										
Cash										
Cash										



### MPT Stats By Group | As of September 30, 2024

	<b>Risk Return Statistics</b>	
		5 Yrs
	Total Fund	Static Benchmark
RETURN SUMMARY STATISTICS		
Maximum Return	6.3	7.5
Minimum Return	-6.7	-7.9
Return	7.5	8.4
Excess Return	5.4	6.3
Excess Performance	-0.9	0.0
RISK SUMMARY STATISTICS		
Beta	0.9	1.0
Down Capture	88.1	100.0
Up Capture	88.6	100.0
RISK/RETURN SUMMARY STATISTICS		
Standard Deviation	9.0	9.8
Sortino Ratio	0.9	1.0
Alpha	0.3	0.0
Sharpe Ratio	0.6	0.6
Excess Risk	9.1	9.9
Tracking Error	3.6	0.0
Information Ratio	-0.3	-
CORRELATION STATISTICS		
R-Squared	0.9	1.0
Actual Correlation	0.9	1.0



### Financial Reconciliation | Quarter To Date Ending September 30, 2024

	Beginning				Net Investment	Ending
	Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Change(\$)	Market Value(\$)
57 Stars Global Opportunity 3	6,572,406	-	-241,363	-241,363	-371,608	5,959,435
Aberdeen Emerging Markets Bond Fund	62,183,904	-	-	-	3,821,817	66,005,721
Aether Real Assets II	2,031,507	-	-	-	-7,547	2,023,960
Aether Real Assets III	9,209,219	-	-233,237	-233,237	-75,097	8,900,885
Aether Real Assets IV	9,346,739	-	-	-	134,003	9,480,742
Aether Real Assets V	8,781,159	265,836	-	265,836	75,908	9,122,903
Aristotle Pacific	23,865,379	-	-	-	449,905	24,315,284
Baillie Gifford International Growth Fund	34,469,059	-	-	-	3,417,067	37,886,126
Blue Bay Direct Lending	1,509,509	-	-	-	-89,052	1,420,458
Cash	8,619,172	23,363,442	-27,802,297	-4,438,856	-	4,180,316
Clarion Partners Lion Properties Fund	65,180,657	-	-324,806	-478,312	153,277	64,855,622
Constitution Capital Partners III	1,659,061	-	-	-	-72,557	1,586,503
Consitution Capital Partners VII	-	1,644,376	-	1,644,376	-	1,644,376
Cross Creek Capital Partners II - B	10,349,427	-	-298,441	-298,441	-480,226	9,570,760
Cross Creek Capital Partners III	10,430,126	-	-168,268	-168,268	-348,846	9,913,012
Crow Holdings Realty Partners X, L.P.	3,013,420	1,420,752	-	1,420,752	227,484	4,661,656
Deutsche Bank SOF III	1,834,565	-	-	-	-13,277	1,821,288
DFA Emerging Markets Value	28,581,909	-	-	-	1,637,028	30,218,938
Dover Street X, L.P.	35,303,386	-	-	-	321,431	35,624,817
HarbourVest 2013 Direct	3,846,766	-	-690,030	-690,030	-147,732	3,009,004
HarbourVest Co-Investment Fund IV	7,828,503	-	-	-	-87,341	7,741,162
Highclere International Small Cap	30,107,170	-	-	-	3,028,467	33,135,637
HighVista Private Equity V, L.P.	4,306,172	-	-407,895	-407,895	-101,416	3,796,861
HighVista Private Equity VI, L.P.	12,126,475	-	-480,568	-480,568	-172,479	11,473,428
LGT Crown Asia II	6,873,941	-	-270,428	-270,428	-49,830	6,553,683
LGT Crown Europe Small Buyouts III	2,734,978	-	-266,452	-266,452	283,831	2,752,357
LGT Crown Global Opportunities VI	34,391,807	400,000	-2,791,441	-2,391,441	1,616,137	33,616,503
LGT Crown Global Secondaries II	90,649	-	-633	-633	3,647	93,663
LGT Crown Global Secondaries III	1,909,359	-	-7,777	-7,777	367	1,901,949
Loomis Sayles Core Plus Fixed Income	46,148,404	-	-	-	2,474,222	48,622,626



### Financial Reconciliation | Quarter To Date Ending September 30, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Partners Group Distressed RE 2009	32,144	-	-	-	-3,015	29,129
Partners Group Emerging Markets 2015	8,126,479	-	-304,624	-304,624	-318,591	7,503,263
Partners Group Global RE 2011	504,397	-	-	-	-33,464	470,933
Partners Group Real Estate Secondary 2017	11,364,251	150,000	-	150,000	-29,014	11,485,237
Partners Group U.S. Distressed Private Equity 2009	186,538	-	-	-	1,720	188,258
Portfolio Advisors Real Estate Fund V	5,298,577	-	-218,620	-218,620	-173,784	4,906,173
Private Advisors Co-Investment Fund III	796,309	-	-	-	-53,669	742,640
Private Equity Investors V	1,359,422	-	-	-	-17,154	1,342,268
Pyramis Tactical Bond Fund	26,504,769	-	-	-	1,433,168	27,937,937
SSgA Bond Fund	118,780,817	-	-	-	6,175,317	124,956,134
SSgA MSCI EAFE Fund	124,303,503	-	-	-	9,006,888	133,310,391
SSgA S&P 500	121,680,840	-	-	-	7,154,403	128,835,243
SSgA TIPS	57,138,071	-	-	-	2,360,671	59,498,742
StepStone Global Partners V	6,763,620	-	-	-	-203,386	6,560,234
StepStone Global Partners VI	11,634,071	-	-	-	597,441	12,231,512
SVB Strategic Investors Fund IX, L.P.	16,502,921	-	-	-	-1,360,992	15,141,929
TT Emerging Markets Equity	33,791,053	-	-	-	1,381,141	35,172,194
Vaughan Nelson Small Cap Value	68,068,232	-	-8,000,000	-8,000,000	3,227,907	63,296,139
Westfield Small/Mid Cap Growth	61,187,807	-	-	-	6,621,748	67,809,556
Westwood Capital Large Cap Value	13,110,645	-	-	-	766,336	13,876,981
Total	1,160,439,294	27,244,406	-42,506,880	-15,415,980	52,161,254	1,197,184,568



## **Private Equity Assets**

## Austin Firefighters Retirement Fund

### Private Equity Assets

Partners Group Distressed Private Equity 2009Special SituationsFund of Funds2009LGT Crown Global Secondaries IISecondary MarketFund of Funds2009Private Equity Investors VSecondary MarketFund of Funds2010LGT Crown Asia IIBuyoutFund of Funds2011StepStone Global Partners VVentureFund of Funds201157 Stars Global Opportunity 3DiversifiedFund of Funds2012LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2013Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013Gross Creek Capital Partners IIIVentureFund of Funds2013Flag Private Equity VBuyoutFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners IIISecondary MarketFund of Funds2014StepStone Global Partners VIVentureFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Islag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2016HarbourVest Co-Investment Fund IVCo-investments	Partnership	Focus	Туре	Vintage Year
Private Equity Investors VSecondary MarketFund of Funds2009Cross Creek Capital Partners II - BVentureFund of Funds2010LGT Crown Asia IIBuyoutFund of Funds2011StepStone Global Partners VVentureFund of Funds201157 Stars Global Opportunity 3DiversifiedFund of Funds2012LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2013Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013Gross Creek Capital Partners IIIVentureFund of Funds2013Gross Creek Capital Partners IIIVentureFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2014Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2016HarbourVest Co-Investment Fund IVSecondary MarketFund of Funds2016Partners Group Emerging Markets 2015S	Partners Group Distressed Private Equity 2009	Special Situations	Fund of Funds	2009
Cross Creek Capital Partners II - BVentureFund of Funds2010LGT Crown Asia IIBuyoutFund of Funds2011StepStone Global Partners VVentureFund of Funds201157 Stars Global Opportunity 3DiversifiedFund of Funds2011LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2012Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2014StepStone Global Partners VIVentureFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmen	LGT Crown Global Secondaries II	Secondary Market	Fund of Funds	2009
LGT Crown Asia IIBuyoutFund of Funds2011StepStone Global Partners VVentureFund of Funds201157 Stars Global Opportunity 3DiversifiedFund of Funds2011LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2012Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2017SVB Strategic Investors Fund IXSecondary MarketFund of Funds2017Dover Street XSecondary MarketFund of Funds2017	Private Equity Investors V	Secondary Market	Fund of Funds	2009
StepStone Global Partners VVentureFund of Funds201157 Stars Global Opportunity 3DiversifiedFund of Funds2011LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2012Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners IIISecondary MarketFund of Funds2013Constitution Capital Partners VIVentureFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2014Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2016HarbourVest Co-Investment Fund IVSecondary MarketFund of Funds2016SVB Strategic Investors Fund IXVentureFund of Funds2016Dover Street XSecondary MarketFund of Funds2016	Cross Creek Capital Partners II - B	Venture	Fund of Funds	2010
57 Stars Global Opportunity 3DiversifiedFund of Funds2011LGT Crown Europe Small Buyouts IIIBuyoutFund of Funds2012LGT Crown Global Secondaries IIISecondary MarketFund of Funds2013Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013Flag Private Equity VBuyoutFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2017Sve Street XSecondary MarketFund of Funds2018	LGT Crown Asia II	Buyout	Fund of Funds	2011
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LGT Crown Global Secondaries IIISecondary MarketFund of Funds2012Private Advisors Co-Investment Fund IIICo-investmentsFund of Funds2013HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013Flag Private Equity VBuyoutFund of Funds2013StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2017Over Street XSecondary MarketFund of Funds2018	57 Stars Global Opportunity 3	Diversified	Fund of Funds	2011
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HarbourVest 2013 DirectCo-investmentsFund of Funds2013Cross Creek Capital Partners IIIVentureFund of Funds2013Flag Private Equity VBuyoutFund of Funds2012StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016LGT Crown Global Opportunities VIDiversifiedFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2017Dover Street XSecondary MarketFund of Funds2017	LGT Crown Global Secondaries III	Secondary Market	Fund of Funds	2012
Cross Creek Capital Partners IIIVentureFund of Funds2013Flag Private Equity VBuyoutFund of Funds2012StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2018	Private Advisors Co-Investment Fund III	Co-investments	Fund of Funds	2013
Flag Private Equity VBuyoutFund of Funds2012StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2014Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2016LGT Crown Global Opportunities VIDiversifiedFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2018	HarbourVest 2013 Direct	Co-investments	Fund of Funds	2013
StepStone Global Partners VIVentureFund of Funds2013Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2014Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Cross Creek Capital Partners III	Venture	Fund of Funds	2013
Constitution Capital Partners Ironsides IIIBuyoutFund of Funds2014Deutsche Bank Secondary Opportunities Fund IIISecondary MarketFund of Funds2014Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Flag Private Equity V	Buyout	Fund of Funds	2012
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Flag Private Equity VIBuyoutFund of Funds2015Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Constitution Capital Partners Ironsides III	Buyout	Fund of Funds	2014
Blue Bay Direct Lending Fund IIPrivate DebtDirect Fund2015Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Deutsche Bank Secondary Opportunities Fund III	Secondary Market	Fund of Funds	2014
Partners Group Emerging Markets 2015Special SituationsFund of Funds2015LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Flag Private Equity VI	Buyout	Fund of Funds	2015
LGT Crown Global Opportunities VIDiversifiedFund of Funds2016HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Blue Bay Direct Lending Fund II	Private Debt	Direct Fund	2015
HarbourVest Co-Investment Fund IVCo-investmentsFund of Funds2017SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	Partners Group Emerging Markets 2015	Special Situations	Fund of Funds	2015
SVB Strategic Investors Fund IXVentureFund of Funds2018Dover Street XSecondary MarketFund of Funds2020	LGT Crown Global Opportunities VI	Diversified	Fund of Funds	2016
Dover Street XSecondary MarketFund of Funds2020	HarbourVest Co-Investment Fund IV	Co-investments	Fund of Funds	2017
	SVB Strategic Investors Fund IX	Venture	Fund of Funds	2018
Constitution Capital Partners Ironsides VII Buyout Fund of Funds 2023	Dover Street X	Secondary Market	Fund of Funds	2020
	Constitution Capital Partners Ironsides VII	Buyout	Fund of Funds	2023



#### **Private Equity Assets**

Partnership	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	nIRR' (%)	Vintage Year	TVPI Multiple
Partners Group Distressed Private Equity 2009	7.0	6.2	8.8	\$0.2	10.3	2009	1.4x
LGT Crown Global Secondaries II <sup>2</sup>	3.0	2.5	4.3	\$0.1	17.7	2009	1.8x
Private Equity Investors V <sup>3</sup>	3.0	3.0	1.4	\$1.3	-1.1	2009	1.1x
Cross Creek Capital Partners II – B	12.5	11.7	29.0	\$9.6	18.5	2010	3.3x
LGT Crown Asia II <sup>2</sup>	10.0	9.5	12.0	\$6.6	10.5	2011	1.9x
StepStone Global Partners V	7.5	6.8	18.6	\$6.6	23.0	2011	3.7x
57 Stars Global Opportunity 3	10.0	10.6	7.5	\$6.0	3.7	2011	1.3x
LGT Crown Europe Small Buyouts III <sup>2</sup>	8.4	7.2	11.3	\$2.5	15.6	2012	1.9x
LGT Crown Global Secondaries III <sup>2</sup>	10.0	7.7	10.2	\$1.9	11.9	2012	1.6x
Private Advisors Co-Investment Fund III	10.0	10.6	17.4	\$0.7	11.8	2013	1.8x
HarbourVest 2013 Direct	10.0	9.7	17.5	\$3.0	17.3	2013	2.3x
Cross Creek Capital Partners III	7.5	6.9	9.7	\$9.9	18.7	2013	2.9x
HighVista Private Equity V	10.0	10.0	16.9	\$3.8	16.2	2012	2.1x
StepStone Global Partners VI	7.5	6.8	11.8	\$11.5	20.7	2013	3.5x
Constitution Capital Partners Ironsides III	15.0	19.8	39.7	\$1.6	23.4   20.8	2014	2.2x
Deutsche Bank Secondary Opportunities Fund III	10.0	8.8	10.4	\$1.8	10.6	2014	1.4x
HighVista Private Equity VI	15.0	14.2	17.8	\$12.0	20.1	2015	2.1x
Blue Bay Direct Lending Fund II	20.0	19.4	21.7	\$1.7	7.3	2015	1.3x
Partners Group Emerging Markets 2015	10.0	8.8	6.4	\$7.5	7.8	2015	1.6x
LGT Crown Global Opportunities VI <sup>2</sup>	40.0	35.6	32.9	\$33.6	15.2	2016	1.9x
HarbourVest Co-Investment Fund IV	10.0	8.1	8.3	\$7.7	15.4	2017	2.0x
SVB Strategic Investors Fund IX	10.0	8.9	0.0	\$15.1	18.7 <sup>3</sup>	2018	1.6x
Dover Street X	40.0	30.8	11.0	\$35.6	22.8	2020	1.5x
Constitution Capital Partners Ironsides VII	25.0	1.6	0.0	1.6	NM	2023	NM
Total	\$311.4	\$265.2	\$324.6	\$181.9			2.0x

 <sup>&</sup>lt;sup>1</sup> All performance figures are reported directly from managers, net of fees, as of 6/30/2024, unless otherwise noted.
 <sup>2</sup> Performance figures are as of 9/30/2024.
 <sup>3</sup> Performance figures are as of 12/31/2023.



**Real Estate Assets** 



#### **Closed-Ends Funds**

Partnership	Focus	Туре	Vintage Year	TVPI Multiple
Partners Group U.S. Distressed 2009	U.S. Distressed	Fund of Funds	2009	1.4×
Partners Group Global RE 2011	Global	Fund of Funds	2011	1.3×
Portfolio Advisors Global Real Estate V	Global	Fund of Funds	2015	1.2x
Partners Group RE Secondary 2017	Global	Fund of Funds	2017	1.3×
Crow Holdings Realty Partners X	U.S.	Value Add	2023	NM
				1.2x

Partnership	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	nIRR' (%)
Partners Group U.S. Distressed 2009	\$12.0	\$11.2	\$15.1	\$0.0	7.2
Partners Group Global RE 2011	\$6.7	\$5.0	\$6.1	\$0.5	5.6
Portfolio Advisors Global Real Estate V	\$15.0	\$12.6	\$10.2	\$4.9	5.1
Partners Group RE Secondary 2017	\$15.0	\$9.3	\$0.5	\$11.5	5.7
Crow Holdings Realty Partners X	\$20.0	\$5.7	\$0.0	\$4.7	NM
Total	\$68.7	\$43.8	\$31.9	\$21.6	

<sup>&</sup>lt;sup>1</sup> Performance figures are reported directly from manager, net of fees, as of 6/30/2024.



## **Natural Resources Assets**



### Natural Resources Assets

Partnership	Vintage Year	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	Net IRR <sup>,</sup> %	TVPI Multiple <sup>2</sup>
Aether Real Assets II	2012	\$7.5	\$7.7	\$5.0	\$2.0	-1.4	0.9x
Aether Real Assets III	2013	\$15.0	\$16.0	\$5.6	\$8.9	-2.0	0.9x
Aether Real Assets IV	2016	\$10.0	\$10.2	\$2.5	\$9.5	3.2	1.2x
Aether Real Assets V	2018	\$10.0	\$8.4	\$0.4	\$9.1	5.5	1.2x
Total		\$42.5	\$42.0	\$13.3	\$29.5		1.1x

<sup>&</sup>lt;sup>1</sup> Performance figures are reported directly from manager, net of fees, as of 6/30/2024. <sup>2</sup> TVPI Multiple is as of 6/30/2024

### **Austin Firefighters Retirement Fund**

#### Composite Domestic Equity Characteristics | As of September 30, 2024



### **Austin Firefighters Retirement Fund**

### Composite International Equity Characteristics | As of September 30, 2024

Char	acteristics		Sector Weig	hts (%) vs MSCI AC World ex USA index
	Portfolio	Benchmark		
Number of Holdings	4,254	2,094	Energy	2.4
Wtd. Avg. Mkt. Cap \$B	91.6	110.1		
Median Mkt. Cap \$B	1.5	10.4	Materials	5.1 7.1
Price To Earnings	17.4	15.6	Industrials	15.8
Price To Book	3.2	2.7	Industrials	13.8
Return on Equity (%)	4.4	4.5	Consumer Discretionary	15.5
Yield (%)	2.2	2.9		6.8
Beta (5 Years, Monthly)	1.1	1.0	Consumer Staples	7.4
R-Squared (5 Years, Monthly)	1.0	1.0	Health Care	10.5 9.4
			Financials	17.1
Тор Н	oldings (%)		Information Technology	14.7
ASML Holding NV		2.5		6.2
Spotify Technology SA		1.8	Communication Services	5.6
MercadoLibre Inc		1.8	Utilities	2.1

1.7

1.6

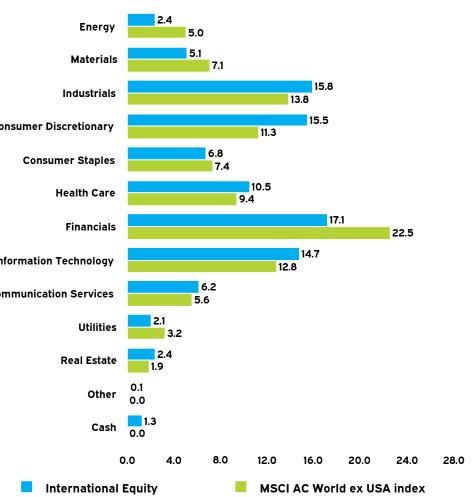
1.5

1.3

1.3

1.3

1.3



Taiwan Semiconductor Manufac. COM

Ferrari NV

Adyen N.V

LOreal SA

CASH

Atlas Copco AB

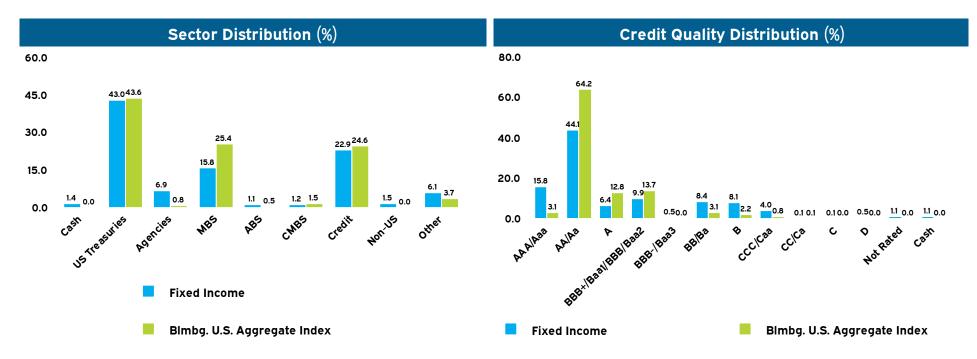
AIA Group Ltd



#### **Composite Fixed Income Characteristics | As of September 30, 2024**

	Total Fund			
	\$	%		
SSgA Bond Fund	124,956,134	36		
SSgA TIPS	59,498,742	17		
Loomis Sayles Core Plus Fixed Income	48,622,626	14		
Aberdeen Emerging Markets Bond Fund	66,005,721	19		
Pyramis Tactical Bond Fund	27,937,937	8		
Aristotle Pacific	24,315,284	7		
Total Fixed Income	351,336,444	100		

Portfolio Characteristics							
	Portfolio	Benchmark					
Yield To Maturity (%)	5.5	4.2					
Average Duration	5.6	6.0					
Avg. Quality	А	AA					
Weighted Average Maturity (Years)	9.0	8.1					



Pyramis Tactical Bond Fund fixed income characteristics are lagged as of March 31, 2024 due to manager data being unavailable.

### **Austin Firefighters Retirement Fund**

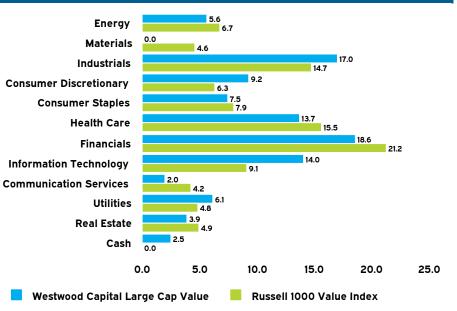
### Manager Equity | As of September 30, 2024

3.4
3.4
3.4
3.1
3.0
2.9
2.7
2.5
2.4
2.3

Account Information						
Account Name	Westwood Capital Large Cap Value					
Account Structure	Separate Account					
Inception Date	10/01/2001					
Asset Class	US Equity					
Benchmark	Russell 1000 Value Index					
Peer Group	eV US Large Cap Value Equity					

Equity Characteristics vs Russell 1000 Value Index							
	Portfolio	Benchmark					
Number of Holdings	48	872					
Wtd. Avg. Mkt. Cap \$B	401.9	172.1					
Median Mkt. Cap \$B	148.6	14.2					
P/E Ratio	22.5	20.8					
Yield (%)	2.0	2.1					
EPS Growth - 5 Yrs. (%)	12.1	9.0					
Price to Book	3.4	2.9					

Sector Weights (%)



% of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Westwood Capital Large Cap Value	5.7	12.5	21.8	7.8	9.3	9.5	8.9	10/01/2001
Russell 1000 Value Index	9.4	16.7	27.8	9.0	10.7	9.2	8.4	10/01/2001

### Austin Firefighters Retirement Fund

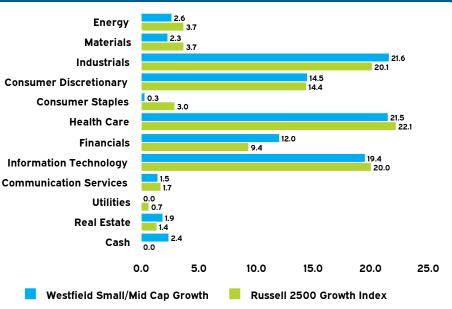
#### Manager Equity | As of September 30, 2024

Top Holdings	
Axon Enterprise Inc	3.7
Comfort Systems USA Inc	3.3
Ascendis Pharma AS	3.0
M/I Homes Inc	2.4
Option Care Health Inc	2.4
Avery Dennison Corp	2.3
Blue Owl Capital Inc	2.3
Masimo Corp	2.3
Bright Horizons Family Solutions Inc	2.1
Insulet Corporation	2.1

Account Information						
Account Name	Westfield Small/Mid Cap Growth					
Account Structure	Separate Account					
Inception Date	11/01/2002					
Asset Class	US Equity					
Benchmark	Russell 2500 Growth Index					
Peer Group	eV US Small-Mid Cap Growth Equity					

#### **Equity Characteristics** vs Russell 2500 Growth Index Portfolio Benchmark Number of Holdings 1,293 66 Wtd. Avg. Mkt. Cap \$B 12.0 6.6 Median Mkt. Cap \$B 10.8 1.5 P/E Ratio 29.4 26.7 Yield (%) 0.6 0.6 EPS Growth - 5 Yrs. (%) 30.1 19.1 Price to Book 4.7 5.0

Sector Weights (%)



% of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Westfield Small/Mid Cap Growth	10.6	15.0	28.2	2.3	13.2	10.6	12.6	11/01/2002
Russell 2500 Growth Index	7.0	11.2	25.2	-0.7	9.7	10.0	11.1	11/01/2002

### Austin Firefighters Retirement Fund

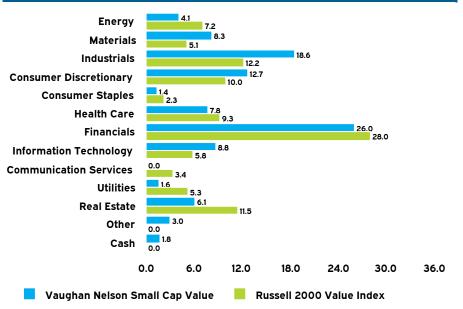
### Manager Equity | As of September 30, 2024

Top Holdings	
Element Solutions Inc	3.4
iShares Russell 2000 Value ETF	3.0
Western Alliance Bancorporation	2.9
Comerica Incorporated	2.7
First American Financial Corp	2.6
Cushman & Wakefield Ltd	2.5
Zions Bancorporation National Association	2.2
AAON Inc	2.2
Beacon Roofing Supply Inc	2.2
Installed Building Products Inc	2.0

	Account Information								
	Account Name	Vaughan Nelson Small Cap Value							
)	Account Structure	Separate Account							
•	Inception Date	12/01/2015							
,	Asset Class	US Equity							
	Benchmark	Russell 2000 Value Index							
2	Peer Group	eV US Small Cap Value Equity							

Equity Characteristics vs Russell 2000 Value Index								
	Portfolio	Benchmark						
Number of Holdings	64	1,438						
Wtd. Avg. Mkt. Cap \$B	6.1	2.8						
Median Mkt. Cap \$B	5.9	0.8						
P/E Ratio	22.4	14.2						
Yield (%)	1.9	2.1						
EPS Growth - 5 Yrs. (%)	6.7	6.7						
Price to Book	2.4	1.6						

### Sector Weights (%)



% of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Vaughan Nelson Small Cap Value	4.9	8.0	23.9	10.5	12.8	-	10.7	01/01/2016
Russell 2000 Value Index	10.2	9.2	25.9	3.8	9.3	8.2	9.3	01/01/2016

### Austin Firefighters Retirement Fund

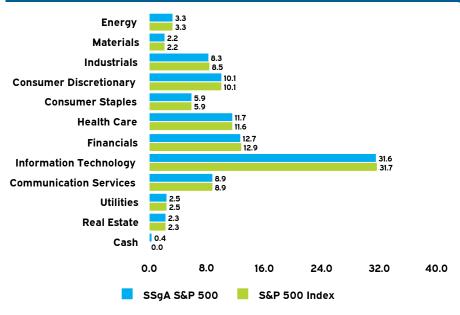
#### Manager Equity | As of September 30, 2024

Top Holdings	
Apple Inc	7.3
Microsoft Corp	6.6
NVIDIA Corporation	6.2
Amazon.com Inc	3.6
Meta Platforms Inc	2.6
Alphabet Inc Class A	2.0
Berkshire Hathaway Inc	1.7
Alphabet Inc Class C	1.7
Broadcom Inc	1.7
Tesla Inc	1.5

Acco	unt Information
Account Name	SSgA S&P 500
Account Structure	Commingled Fund
Inception Date	01/01/2004
Asset Class	US Equity
Benchmark	S&P 500 Index
Peer Group	eV US Large Cap Equity

Equity Characteristics vs S&P 500 Index								
	Portfolio	Benchmark						
Number of Holdings	499	504						
Wtd. Avg. Mkt. Cap \$B	990.5	987.8						
Median Mkt. Cap \$B	38.2	38.2						
P/E Ratio	28.0	28.0						
Yield (%)	1.3	1.3						
EPS Growth - 5 Yrs. (%)	18.9	18.9						
Price to Book	5.1	5.1						

### Sector Weights (%)



Portfolio Performance Summary									
	<b>QTD</b> (%)	<b>YTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date	
SSgA S&P 500	5.9	22.1	36.3	11.9	15.9	13.4	10.3	02/01/2004	
S&P 500 Index	5.9	22.1	36.4	11.9	16.0	13.4	10.3	02/01/2004	

### Austin Firefighters Retirement Fund

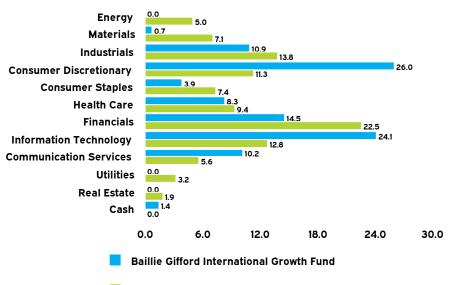
#### Manager Equity | As of September 30, 2024

Top Holdings	
Spotify Technology SA	5.9
MercadoLibre Inc	5.9
ASML Holding NV	4.9
Ferrari NV	4.5
Taiwan Semiconductor Manufac. COM	4.5
Adyen N.V	4.5
Wisetech Global Ltd	3.8
Atlas Copco AB	3.8
Meituan	3.6
AIA Group Ltd	3.1

Acco	unt Information
Account Name	Baillie Gifford International Growth Fund
Account Structure	Mutual Fund
Inception Date	05/01/2009
Asset Class	International Equity
Benchmark	MSCI AC World ex USA (Net)
Peer Group	eV ACWI ex-US All Cap Growth Eq

Equity Characteristics vs MSCI AC World ex USA index							
	Portfolio	Benchmark					
Number of Holdings	60	2,094					
Wtd. Avg. Mkt. Cap \$B	121.5	110.1					
Median Mkt. Cap \$B	22.4	10.4					
P/E Ratio	23.6	15.6					
Yield (%)	0.7	2.9					
EPS Growth - 5 Yrs. (%)	34.3	10.7					
Price to Book	6.2	2.7					

### Sector Weights (%)



MSCI AC World ex USA index

#### % of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Baillie Gifford International Growth Fund	9.9	14.5	29.1	-6.4	7.6	7.3	9.8	05/01/2009
MSCI AC World ex USA (Net)	8.1	14.2	25.4	4.1	7.6	5.2	7.4	05/01/2009

### **Austin Firefighters Retirement Fund**

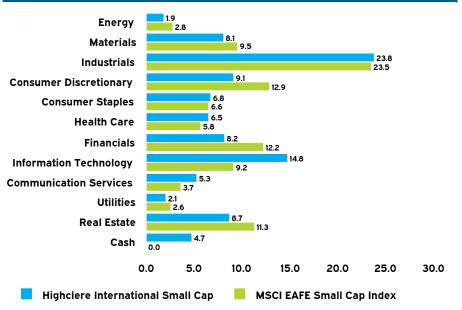
#### Manager Equity | As of September 30, 2024

1.3
1.1
1.0
0.9
0.9
0.9
0.9
0.9
0.9
0.8

Account Information						
Account Name	Highclere International Small Cap					
Account Structure	Commingled Fund					
Inception Date	12/01/2009					
Asset Class	International Equity					
Benchmark	MSCI EAFE Small Cap (Net)					
Peer Group	eV EAFE Small Cap Equity					

Equity Characteristics vs MSCI EAFE Small Cap Index								
	Portfolio	Benchmark						
Number of Holdings	178	2,104						
Wtd. Avg. Mkt. Cap \$B	2.2	3.3						
Median Mkt. Cap \$B	1.5	1.4						
P/E Ratio	17.4	13.9						
Yield (%)	2.7	3.1						
EPS Growth - 5 Yrs. (%)	2.3	9.7						
Price to Book	2.1	2.1						

### Sector Weights (%)



% of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Highclere International Small Cap	10.1	9.4	22.4	-2.8	4.8	5.1	6.9	12/01/2009
MSCI EAFE Small Cap (Net)	10.5	11.1	23.5	-0.4	6.4	6.2	7.3	12/01/2009

### Austin Firefighters Retirement Fund

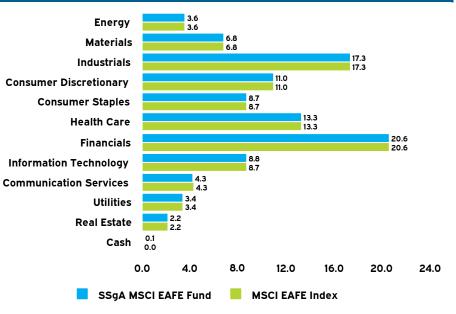
#### Manager Equity | As of September 30, 2024

Top Holdings	
Novo Nordisk A/S	2.2
ASML Holding NV	1.9
Nestle SA, Cham Und Vevey	1.5
Astrazeneca PLC	1.4
SAP SE	1.4
Novartis AG	1.3
Roche Holding AG	1.3
LVMH Moet Hennessy Louis Vuitton SE	1.2
Shell Plc	1.2
Toyota Motor Corp	1.0

Account Information						
Account Name	SSgA MSCI EAFE Fund					
Account Structure	Commingled Fund					
Inception Date	02/01/2013					
Asset Class	International Equity					
Benchmark	MSCI EAFE (Net)					
Peer Group	eV EAFE Core Equity					

Equity Characteristics vs MSCI EAFE Index								
Portfolio Benchmark								
Number of Holdings	760	732						
Wtd. Avg. Mkt. Cap \$B	95.6	95.6						
Median Mkt. Cap \$B	15.8	15.8						
P/E Ratio	15.2	15.2						
Yield (%)	3.0	3.0						
EPS Growth - 5 Yrs. (%)	9.6	9.4						
Price to Book	2.6	2.6						

### Sector Weights (%)



#### % of Portfolio

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
SSgA MSCI EAFE Fund	7.2	13.2	25.0	5.8	8.5	6.0	6.4	02/01/2013
MSCI EAFE (Net)	7.3	13.0	24.8	5.5	8.2	5.7	6.1	02/01/2013

### **Austin Firefighters Retirement Fund**

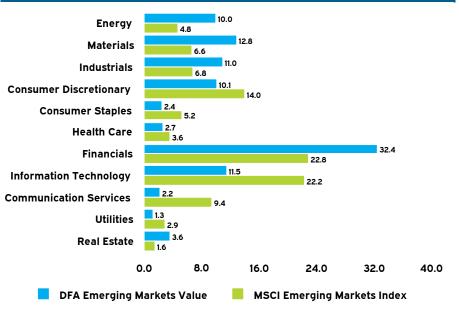
### Manager Equity | As of September 30, 2024

Top Holdings	
Reliance Industries Ltd	3.4
China Construction Bank Corp	2.6
Alibaba Group Holding Ltd	2.6
Hon Hai Precision Industry Co Ltd	2.2
TECHNO ELECTRIC & ENGINEERIN	1.4
Ping An Insurance Group Co of China Ltd	1.3
Axis Bank Ltd	1.3
Bank of China Ltd	1.2
KB Financial Group Inc	1.0
Industrial & Commercial Bank of China	0.9

Account Information						
Account Name	DFA Emerging Markets Value					
Account Structure	Mutual Fund					
Inception Date	12/01/2009					
Asset Class	International Equity					
Benchmark	MSCI Emerging Markets Value (Net)					
Peer Group	eV Emg Mkts All Cap Value Equity					

Equity Characteristics vs MSCI Emerging Markets Index						
	Portfolio	Benchmark				
Number of Holdings	3,253	1,277				
Wtd. Avg. Mkt. Cap \$B	38.2	153.6				
Median Mkt. Cap \$B	0.9	8.2				
P/E Ratio	10.2	15.7				
Yield (%)	3.5	2.6				
EPS Growth - 5 Yrs. (%)	11.4	14.7				
Price to Book	1.8	2.9				

### Sector Weights (%)



### % of Portfolio

Portfolio Performance Summary								
	QTD (%)	<b>YTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
DFA Emerging Markets Value	5.7	14.9	23.2	6.3	8.6	5.0	3.9	12/01/2009
MSCI Emerging Markets (Net)	8.7	16.9	26.1	0.4	5.7	4.0	3.9	12/01/2009

### **Austin Firefighters Retirement Fund**

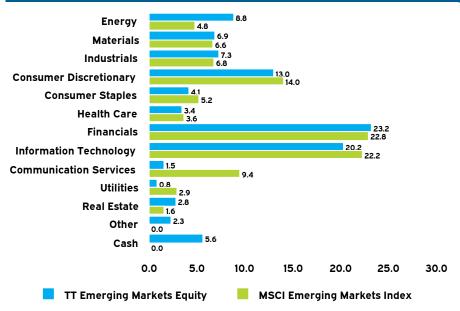
#### Manager Equity | As of September 30, 2024

Top Holdings	
Taiwan Semiconductor Manufac. COM	9.6
Ypf Sociedad Anonima Yacimientos Petroliferos Fiscales	4.2
Nova Ljubljanska Banka d.d	3.8
Alibaba Group Holding Ltd	3.0
Capstone Copper Corp	2.6
Vista Energy SAB de CV	2.6
Ase Technology Holdings Co	2.5
SK Hynix Inc	2.5
Akbank T A S	2.5
PDD Holdings Inc	2.4
% of Portfolio	35.7

Account Information					
Account Name	TT Emerging Markets Equity				
Account Structure	Commingled Fund				
Inception Date	03/25/2019				
Asset Class	International Equity				
Benchmark	MSCI Emerging Markets (Net)				
Peer Group	eV Emg Mkts Equity				

#### **Equity Characteristics** vs MSCI Emerging Markets Index Portfolio Benchmark Number of Holdings 70 1,277 Wtd. Avg. Mkt. Cap \$B 114.9 153.6 Median Mkt. Cap \$B 12.4 8.2 P/E Ratio 15.7 14.6 Yield (%) 2.0 2.6 EPS Growth - 5 Yrs. (%) 21.1 14.7 2.6 2.9 Price to Book

### Sector Weights (%)



Portfolio Performance Summary									
	QTD (%)	<b>YTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date	
TT Emerging Markets Equity	4.1	17.8	27.8	-4.1	4.1	-	2.9	04/01/2019	
MSCI Emerging Markets (Net)	8.7	16.9	26.1	0.4	5.7	4.0	4.5	04/01/2019	

#### MEKETA INVESTMENT GROUP

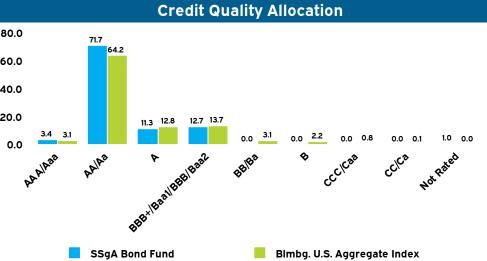
### **Austin Firefighters Retirement Fund**

### Manager Fixed Income | As of September 30, 2024

	Account Information	
Account Name	SSgA Bond Fund	8
Account Structure	Commingled Fund	60
Inception Date	01/01/2004	
Asset Class	US Fixed Income	40
Benchmark	Blmbg. U.S. Aggregate Index	20
Peer Group	eV US Core Fixed Inc	c

Portfolio Performance Summary

	атр (%)	үтд (%)	1 Yr (%)	3 Yrs (%)			Since Inception	Inception Date
SSgA Bond Fund	5.2	4.5	11.6	-1.4	0.3	1.8	3.2	01/01/2004
Blmbg, U.S. Aggregate Index	5.2	4.4	11.6	-1.4	0.3	1.8	3.3	



**Sector Allocation** 



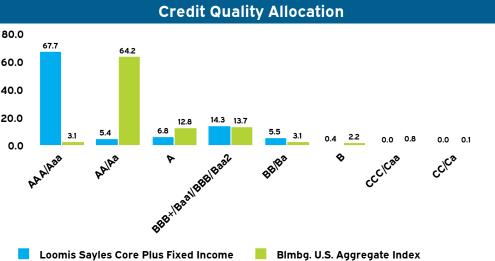
Portfolio Fixed Income Characteristics								
	Q	Q2-24						
	Portfolio	Benchmark	Portfolio					
Yield To Maturity	4.2	4.2	5.0					
Average Duration	6.2	6.0	6.1					
Average Quality	AA	AA	AA					
Weighted Average Maturity	8.4	8.1	8.6					

### Austin Firefighters Retirement Fund

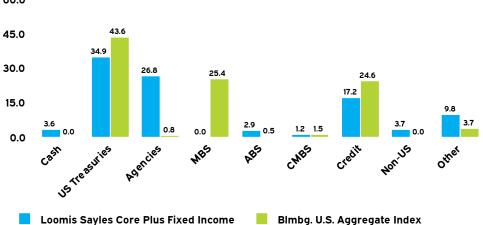
### Manager Fixed Income | As of September 30, 2024

	Account Information	
Account Name	Loomis Sayles Core Plus Fixed Income	٤
Account Structure	Commingled Fund	e
Inception Date	06/01/2015	
Asset Class	US Fixed Income	4
Benchmark	Blmbg. U.S. Aggregate Index	2
Peer Group	eV US Core Plus Fixed Inc	

Portfoli	ο Ρε	erfor	ma	nce S	Sum	mary		
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Loomis Sayles Core Plus Fixed Income	5.3	4.9	12.5	-0.9	1.5	-	2.7	07/01/2015
Blmbg. U.S. Aggregate Index	5.2	4.4	11.6	-1.4	0.3	1.8	1.8	



**Sector Allocation** 



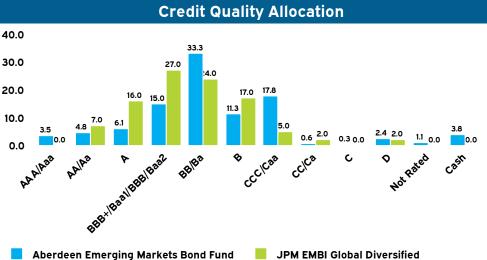
Portfolio Fixed Income Characteristics								
	Q	Q2-24						
	Portfolio	Benchmark	Portfolio					
Yield To Maturity	4.9	4.2	5.6					
Average Duration	6.8	6.0	7.1					
Average Quality	А	AA	AA					
Weighted Average Maturity	9.3	8.1	9.6					

### Austin Firefighters Retirement Fund

### Manager Fixed Income | As of September 30, 2024

	Account Information	
Account Name	Aberdeen Emerging Markets Bond Fund	4
Account Structure	Commingled Fund	з
Inception Date	12/01/2014	
Asset Class	International Fixed Income	2
Benchmark	JPM EMBI Global Diversified	1
Peer Group		

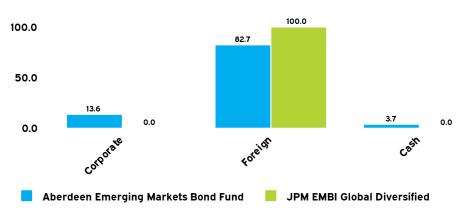
Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Aberdeen Emerging Markets Bond Fund	6.0	9.2	21.1	0.6	1.4	-	3.0	12/01/2014
JPM EMBI Global Diversified	6.2	8.6	18.6	-0.4	0.9	3.3	3.1	



Sector Allocation

Portfolio Fixed Income Characteristics							
	Q3-24						
	Portfolio	Benchmark	Portfolio				
Yield To Maturity	9.1	6.8	8.3				
Average Duration	6.8	6.9	6.4				
Average Quality	BB	BB+	BB				
Weighted Average Maturity	11.5	11.6	10.8				

150.0



MEKETA INVESTMENT GROUP

### Austin Firefighters Retirement Fund

### Manager Fixed Income | As of September 30, 2024

	Account Information	
Account Name	SSgA TIPS	150.
Account Structure	Commingled Fund	
Inception Date	07/01/2014	100.
Asset Class	US Fixed Income	100.
Benchmark	Blmbg. U.S. TIPS Index	
Peer Group	eV US TIPS / Inflation Fixed Inc	50.

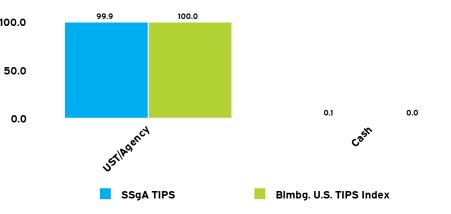
Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
SSgA TIPS	4.1	5.0	9.8	-0.6	2.6	2.5	2.2	08/01/2014
Blmbg. U.S. TIPS Index	4.1	4.9	9.8	-0.6	2.6	2.5	2.3	



**Credit Quality Allocation** 

Sector Allocation

Portfolio Fixed Income Characteristics						
	Q	3-24	Q2-24			
	Portfolio	Benchmark	Portfolio			
Yield To Maturity	3.8	3.8	4.7			
Average Duration	3.8	2.4	4.9			
Average Quality	AA	AA	AA			
Weighted Average Maturity	7.4	7.4	7.1			



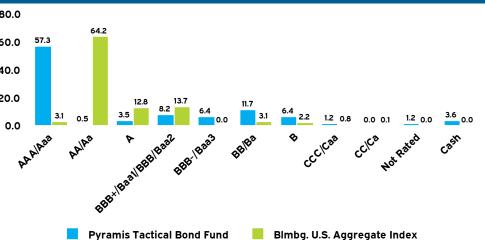
### **Austin Firefighters Retirement Fund**

#### Manager Fixed Income | As of September 30, 2024

	Account Information		
Account Name	Pyramis Tactical Bond Fund	80.0	
Account Structure	Commingled Fund	60.0	57.3
Inception Date	08/01/2013		
Asset Class	US Fixed Income	40.0	
Benchmark	Blmbg. U.S. Aggregate Index	20.0	
Peer Group	eV US Core Plus Fixed Inc	0.0	
		5.0	.0

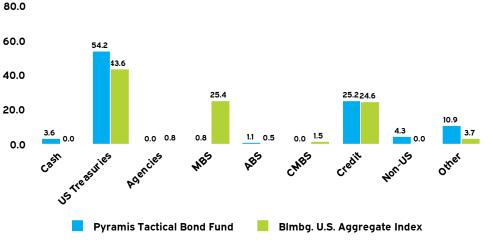
## Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)		5 Yrs (%)		Since Inception	Inception Date
Pyramis Tactical Bond Fund	5.3	5.2	12.7	0.3	2.4	3.8	3.9	08/01/2013
Blmbg. U.S. Aggregate Index	5.2	4.4	11.6	-1.4	0.3	1.8	2.0	



**Credit Quality Allocation** 

**Sector Allocation** 



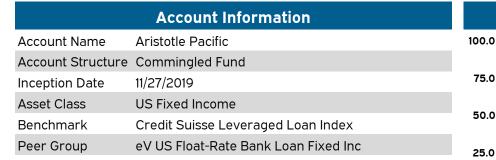
**Portfolio Fixed Income Characteristics** Q3-24 Q2-24 Benchmark Portfolio Portfolio Yield To Maturity 5.0 4.2 5.9 **Average Duration** 6.6 6.0 6.9 Average Quality А AA AA Weighted Average Maturity 12.3 8.1 13.3

Pyramis Tactical Bond Fund fixed income characteristics are lagged as of March 31, 2024 due to manager data being unavailable.

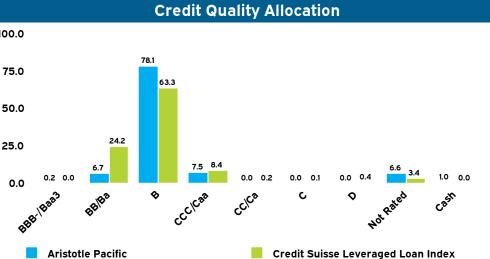
### MEKETA

### **Austin Firefighters Retirement Fund**

### Manager Fixed Income | As of September 30, 2024



Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Aristotle Pacific	1.9	6.4	9.6	6.8	-	-	5.8	12/01/2019
Credit Suisse Leveraged Loan Index	2.0	6.6	9.6	6.3	5.6	4.9	5.8	



Sector Allocation

150.0

Portfolio Fixed Income Characteristics				
	Q	3-24	Q2-24	
	Portfolio	Benchmark	Portfolio	
Yield To Maturity	8.0	8.4	8.0	
Average Duration	0.3	0.3	0.3	
Average Quality	В	В	В	
Weighted Average Maturity	4.4	4.4	4.4	





### Fee Schedule | As of September 30, 2024

Public Manager Annual Investment Expense Analysis				
	Market Value (\$) (\$)	% of Portfolio	Estimated Annual Fee (%)	Estimated Expense (\$) (\$)
Westwood Capital Large Cap Value	13,876,981	1.55	0.50	69,385
Westfield Small/Mid Cap Growth	67,809,556	7.58	1.15	779,810
Vaughan Nelson Small Cap Value	63,296,139	7.07	0.82	518,073
SSgA S&P 500	128,835,243	14.40	0.01	15,384
Baillie Gifford International Growth Fund	37,886,126	4.23	0.61	219,740
Highclere International Small Cap	33,135,637	3.70	1.16	385,424
SSgA MSCI EAFE Fund	133,310,391	14.90	0.05	68,324
DFA Emerging Markets Value	30,218,938	3.38	0.38	163,182
TT Emerging Markets Equity	35,172,194	3.93	0.80	281,378
SSgA Bond Fund	124,956,134	13.96	0.03	34,991
Loomis Sayles Core Plus Fixed Income	48,622,626	5.43	0.29	141,557
Aberdeen Emerging Markets Bond Fund	66,005,721	7.38	0.45	297,026
SSgA TIPS	59,498,742	6.65	0.03	17,850
Pyramis Tactical Bond Fund	27,937,937	3.12	0.34	94,989
Aristotle Pacific	24,315,284	2.72	0.41	99,693
Total	894,877,648	100.00	-	3,186,804

Estimated fees are based off of public investments only and are calculated by multiplying manager fee schedules by each fund's market value as of the report date. Estimated fees do not take into consideration potential performance based fees, fur expenses or charges. Private market fees are reported annually in separate report.

Westfield has a performance based fee. The fee ranges from minimum of 0.20% to a maximum of 1.30% based on the relative performance over the trailing three years. Included here is the average actual fee paid over the past three years.

### **IPPE Responses**

<b>AFRF Consolidated Recommendations</b>	
Callan Recommendations	AFRF Response
SdI	
Consider outlining key IPS and Operating Procedure changes in the meeting minutes. 2022 meeting minutes (the most recent IPS revision is dated February 2022) reflect motions made to approve the changes without providing detail of those changes.	Responsibility: AFRF Staff
<ul> <li>Consider combining the IPS and Operating Procedures.</li> <li>If they cannot be combined, consider moving and/or adding the following elements to the IPS: <ul> <li>A list and description of investible asset classes;</li> <li>A strategic asset allocation framework outlining asset class targets and allowable ranges;</li> <li>Performance benchmarks for sub asset classes and total policy benchmark.</li> </ul> </li> <li>Manager selection and termination documentation; <ul> <li>An outline of the process, including timeline, used by the Board to evaluate the ongoing appropriateness of all managers and asset classes.</li> </ul> </li> <li>If some of these elements are expected to need frequent updating, consider including them in an appendix to the IPS, which will have a less procedural review process to update than the rest of the Policy.</li> </ul>	<ul> <li>Meketa moved the following sections from the Operating</li> <li>Procedures to the IPS: <ul> <li>List of investable asset classes</li> <li>Asset allocation policy targets</li> <li>Asset allocation ranges</li> </ul> </li> </ul>
Consider making the Operating Procedures available to stakeholders (if it is not combined with the IPS).	Responsibility: AFRF Staff
Consider documenting all fund-level benchmarks used in performance reporting in the policy documents. This will allow stakeholders to understand the rationale of including each benchmark and the construction methodology. Currently, two of the total fund benchmarks used in performance reports are not outlined in the policies.	Meketa has worked with the Board to update the benchmark composition and language in the IPS. Once the new IPS is approved, we will likely remove a number of the extra benchmarks from the quarterly performance reports.
Consider adding an investment management fee philosophy that outlines how the Board considers fees when seeking to achieve the most attractive risk-adjusted net return for the Fund.	We considered this. Meketa feels the existing language in the IPS addressing manager fees in section XII. Investment Costs and the new language added to section VII. Investment Principles is sufficient
It appears the Operating Procedures III. Asset Allocation Targets may be intended to reference Section VII instead of Section VI in the IPS.	Correct. The language has been revised.
	76 of 08

Callan

77 of 98	);;
Meketa adjusted the language	Consider amending the fee reconciliation and payment section of the Operating Procedures. Only six of the 49
	Investment Fees
AFRF plans to do an asset liability study in 2025 - 2026	While the Board has requested the investment consultant review the impact of different scenarios on funded ratio and liquidity, it has not conducted a full asset-liability study in the last five years. The Board should consider a full asset- liability study, which integrates different asset allocation mixes and market scenarios with their potential impact on all aspects of the Fund's liabilities (i.e. funded ratio, contribution expectations, amortization period, etc.).
	Asset Allocation
Meketa added a paragraph on each to the existing IPS Section V. Investment Manager Selection and Termination	Consider outlining the process for new manager selection and criteria for manager termination.
The language/section Callan is referring to (Operating Procedures Section VII. Performance Objective) was deleted because of duplication with IPS section II.C Performance Objectives – which has been reworded for clarity.	Consider defining shorter term periods and specify how relative performance against peers will be evaluated.
Meketa disagrees. Manager benchmarks are defined in each manager's IMA or governing documents. The IPS should be a high level policy document that addresses total Fund or asset class level guidelines/benchmarks – both of which are already included.	Consider adding an appendix or table that defines the benchmarks used for individual managers.
AFRF plans to do an asset liability study in 2025-2026	Consider modelling plan liabilities and conducting integrated asset-liability studies on a periodic basis, typically every 3-5 years, to ensure that the Fund's asset allocation is designed to meet its liabilities and liquidity goals. Asset-liability studies illustrate the potential implications that asset allocation decisions have on future contribution policies. Most of Callan's public defined benefit plan clients, especially those of AFRF's size, conduct regular asset-liability studies.
We considered this. Meketa feels the existing language in the IPS in section II. Investment Objectives and II. A. Risk Objectives sufficiently explains the manner in which the Fund is invested and risk is evaluated.	Consider adding a risk objective to consider how the volatility of assets may impact the Fund's liability amortization period. This may provide additional guardrails to better enable the Fund to stay under the 30-year time frame to amortize the unfunded actuarial liability set by the Pension Review Board.
Meketa would like to discuss with the Board.	Consider including an acknowledgement that AFRF will look to meet the policies as defined by the PRB.

Summary of Proposed Changes to the IPS and Operating Procedures



### Summary of Key Proposed Changes

Proposed Change	Rationale
IPS Section II. Investment Objective, C. Performance Objective To manage the Fund's assets so as to achieve a high likelihood of outperforming the total return of an index composed of a mix of asset class benchmarks over a market cyclemeeting or exceeding the Policy Benchmark. The Policy Benchmark is defined as follows: A combination of cheaply investable index returns that matches the subject return series as well or better than others in terms of (1) measures of statistical fit and (2) market exposures. The Policy Benchmark should be fully investable and transparent, making it feasible to invest in. The subcomponents and weights will be determined by the Board (with the assistance of the Consultant) and detailed in the Operating Procedures. The Policy Benchmark will only be revised if there is a fundamental change in risk/return preferences. The benchmarks used for each asset class, as well as the mix of such benchmarks to determine the Fund's composite index, will be determined by the Board and set forth in its Operating Procedures	Changes to the Policy Benchmark approach based on the ~12 months of work/discussions Meketa had with Trustee Bass and previewed with the full Board in early 2024 to better reflect the fact that much of the AFRF asset exposure that is not directly in listed equities still has equity like risk characteristics. In addition, better reflects the burden or value of complexity, providing a simple way to easily evaluate if AFRF performance is truly beating an investible low cost simple alterative mix.
IPS and Operating Procedures	
List of investable asset classes was moved from the Operating Procedures to the IPS (Appendix A)	Callan recommended this in the IPPE report and Meketa agrees

### **Recommendations Rationale**



Proposed Change	Rationale
IPS	
New section added	
VII.INVESTMENT PRINCIPLESEquity exposure within an asset allocation is a key determinant of portfolio risk. The use of the term "effective equity exposure" addresses the fact that reported equity allocations often resemble an incomplete picture of the true equity like exposure in a portfolio. Assets such as Private Equity, Venture Capital, Real Estate, High Yield Bonds, etc., have high positive correlations to public equity, and exhibit equity like beta. This is especially true in times of market stress. As such, they offer limited ability to reduce portfolio risk. It is necessary to control effective equity exposure so as to be in compliance with the spirit of this policy.When considering the inclusion of active management, it is important to recognize that while actively managed funds offer the potential to outperform a benchmark, the likelihood they can, over long time periods, is low. Investing in actively managed funds typically involves much higher fee structures, and consistent with finance theory, active managers, in aggregate, tend to lose to their respective benchmarks by an amount equal to their fees. Due to the structural advantages index funds offer, the	Further clarification and continuation of item #1 discussed on prior page (Performance Objective). Intent is to provide better context to stakeholders or new Trustees on the risks inherent in the portfolio and how the Board intends to invest and think about its asset exposures and implementation.
inclusion of active managers should be judged through appropriate caution and healthy skepticism. Only in compelling circumstances should active managers be considered. Their inclusion should be re-evaluated	
periodically, and their fees should be reasonable.	
IPS and Operating Procedures	
Asset allocation policy and ranges were moved from the Operating Procedures to the IPS (Appendix B)	Callan recommended this in the IPPE report and Meketa agrees



Proposed Change	Rationale
IPS Section VII. Asset Allocation The most efficient way to meet market exposures, identified by a desired asset allocation, is by utilizing broad based, low fee, passive index funds. Due to the highly efficient and competitive nature of public markets, passive index investments, developed from and consistent with financial theory, is the natural starting point for investment in public asset classes. Active management will be considered when there is belief that given strategy is capable of achieving excess returns. While some public proxies exist for private assets, private asset investment is active by nature, and will present better opportunities for utilizing active strategies.	Further clarification and continuation of previous points Intent is to provide better context to stakeholders or new Trustees on the Board's approach to active vs. passive management as it seeks to implement its asset allocation policy.
IPS Section VII. Asset Allocation Removal of long term (broad) allocation ranges – Equities, Fixed Income and Alternatives	Duplicative and replaced with the more refined sub asset class targets and ranges now listed in Appendix B of the IPS



Proposed Change	Rationale
Operating Procedures	
Section IV. Investment Manager Invoice Fee Reconciliation and Payment	Recommendation to clean up language came from Callan during the IPPE report. Meketa agreed and updated language.
Clarified and changed language to reflect existing role of Staff and the fact that most fees are not invoiced but rather paid directly from the strategy assets	
Operating Procedures	Meketa deleted the detailed section describing the old approach to policy
Section VII. Performance Objectives – section deleted	benchmarks. This content has been replaced with the new language cited multiple times on prior pages (Investment Principles and Policy Benchmark sections)

### MEKETA

### Austin Firefighters Retirement Fund

Proposed Change	Rationale
Operating Procedures	
New Section	
II. Policy Benchmark	
The Policy Benchmark is defined as follows: investable index returns that matches the subj better than others in terms of (1) measures of s exposures. The Policy Benchmark should be fully making it feasible to invest in. The subcomp determined by the Board (with the assistance of Benchmark will only be revised if there is a funda preferences. The weights were determined base analysis relative to historical exposure and histor Policy Benchmark	return series as well or istical fit and (2) market vestable and transparent, ents and weights will be consultant). The Policy intal change in risk/return on a statistical regression
Weight Passi	ndex
42% Russell 3000 Index	
28% ACWI (ex US) Index	
30% Bloomberg Barclays A	egate Index
<u>100%</u>	



Proposed Change	Rationale
Operating Procedures	
III. Investment Manager Searches and Terminations	
When hiring or terminating investment managers, the Fund Staff, in consultation with the investment consultant, will summarize in the Board meeting minutes, the key factors that led to the decision.	Callan suggested adding more language to better explain what occurs during manager hire and termination recommendations. Meketa agreed and added language.
For new hires, typically the Consultant will prepare a "search document" when the Board is considering hiring a new manager. The search document will include a mix of qualitative and quantitative characteristics on high conviction strategies that should help guide the Trustees in understanding the potential risks and opportunities across different investment options. The Board may (but is not required to) interview candidates prior to hire.	
For terminations, the Consultant will typically prepare a memo or analysis explaining its recommendation for termination. Termination could result from any of the following (non-exhaustive) reasons:         -       Failure to deliver on performance expectations         -       Asset allocation changes         -       Strategy style drift         -       Investment staff departures at the investment manager         -       Firm instability or change in ownership at the investment	

### Public Manager Fee Benchmarking



Public Manager Fee Benchmarking

### **Overview**

- → Investment management fees represent a significant component of a fund's expenses and should be monitored closely.
- → Meketa Investment Group continually seeks to negotiate and reduce management fees for its clients where possible.
- $\rightarrow$  Typically, the biggest fee savings can be generated by using index funds in efficient asset classes.
- → The following page lists each active public investment manager and compares the fee Austin Fire pays vs. the median fee for similar investment strategies.



### Public Manager Fee Benchmarking

### **Estimated Manager Fees – Active Managers**

### as of June 30, 2024<sup>1</sup>

Account	Market Value As of 6/30/2024 (\$)	Asset Type	Estimated Annual Fee (%)	Estimated Annual Fee (\$)	Peer Ranking Percentile (%)	Peer Median Fee (%)
Westwood Capital Large Cap Value	13,110,645	Domestic Equity	0.50	65,553	19	0.60
Westfield Small/Mid Cap Growth	61,187,807	Domestic Equity	1.15	714,129	99	0.79
Vaughan Nelson Small Cap Value	68,068,232	Domestic Equity	0.81	551,478	43	0.82
Ballie Gifford Int'l Growth	34,469,059	Int'l Equity	0.61	206,814	12	0.85
Highclere Int'l Small Cap	30,107,170	Int'l Equity	1.17	353,625	94	0.90
DFA Emerging Markets Value	28,581,909	Int'l Equity	0.38	154,342	10	0.94
TT Emerging Markets Equity	33,791,053	Int'l Equity	0.80	270,328	35	0.86
Loomis Sayles Core Plus Bond	46,148,404	Fixed Income	0.29	135,371	29	0.31
Aberdeen Emerging Markets Bond	62,183,904	Fixed Income	0.45	279,828	12	0.60
Pyramis Tactical Bond	26,504,769	Fixed Income	0.34	90,116	57	0.31
Aristotle Pacific Asset Mgmt. Bank Loans	23,865,379	Fixed Income	0.41	97,848	5	0.50

 $\rightarrow$  A peer ranking of 1 means lowest cost in peer group, a peer ranking of 99 means highest cost in peer group.

<sup>&</sup>lt;sup>1</sup> Calculations were not reconciled with actual fees paid by the Pension Fund and will not match exactly. The table is for illustrative purposes only. Public market fees were calculated by multiplying manager fee schedule by market value as of June 30, 2024. Westfield has a performance based fee. The fee ranges from minimum of 0.20% to a maximum of 1.30% based on the relative performance over the trailing three years. Included here is the average actual fee paid over the past three years.



### Public Manager Fee Benchmarking

### Estimated Manager Fees – Passive Strategies as of June 30, 2024<sup>1</sup>

Account	Market Value As of 6/30/2024 (\$)	Asset Type	Estimated Annual Fee (%)	Estimated Annual Fee (\$)	Peer Ranking Percentile (%)	Peer Median Fee (%)
Index Assets						
SSgA S&P 500	121,680,840	Domestic Equity	0.01	14,668	1	0.49
SSgA MSCI EAFE	124,303,503	Int'l Equity	0.05	64,721	1	0.70
SSgA Agg. Bond	118,780,817	Fixed Income	0.03	33,756	1	0.24
SSgA TIPS	57,138,071	Fixed Income	0.03	17,141	1	0.30

<sup>&</sup>lt;sup>1</sup> Calculations were not reconciled with actual fees paid by the Pension Fund and will not match exactly. The table is for illustrative purposes only. Public market fees were calculated by multiplying manager fee schedule by market value as of June 30, 2024.



Public Manager Fee Benchmarking

### Summary

- $\rightarrow$  Austin Fire pays lower than median fee on 8 of 11 active public manager strategies.
- $\rightarrow$  The index fund fees are significantly lower than the active manager fees.
- → Austin Fire's shift toward passive in 2023, which moved the passive exposure from 22% of the total Fund at yearend 2022 to 36% on June 30, 2024, saves the Fund an approximate estimated \$800,000 per year.

### Roadmap

## **AUSTIN FIREFIGHTERS RETIREMENT FUND**

### PRELIMINARY ROAD MAP

# November 2024 Investment Committee Meeting

- 1. Progress report on IPPE recommendations
- $\mathbb{N}$ Investment Policy Statement + Operating Procedures
- 3. Annual fee benchmarking

## February 2025 Investment Committee Meeting

- 1. Annual asset allocation review
- 2. Passive Framework discussion

### Ongoing Future objective

1. Asset allocation/liability study – possibly 2026

<sup>&</sup>lt;sup>1</sup> Dates and actions subject to change based on client needs and capital market conditions

### Appendix



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



**Disclaimer, Glossary, and Notes** 

THIS REPORT HAS BEEN PREPARED FOR THE SOLE BENEFIT OF THE AUSTIN FIREFIGHTERS RETIREMENT FUND.

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.



### Disclaimer, Glossary, and Notes

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

**Market Capitalization:** For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



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

**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



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

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

<u>5% (discount)</u> = 5 (yrs. to maturity) =

1% pro rata, plus 5.26% (current yield)

6.26% (yield to maturity)

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

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**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999. The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.