

## Merced County Employees' Retirement Association

November 14, 2024

Q3 Performance Update

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# **Economic and Market Update**

## Data as of September 30, 2024

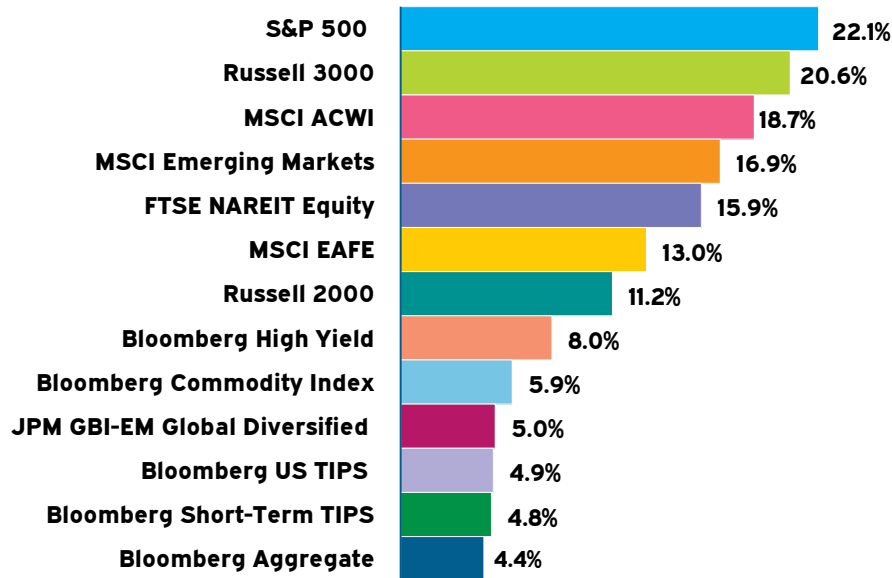
## Commentary

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.

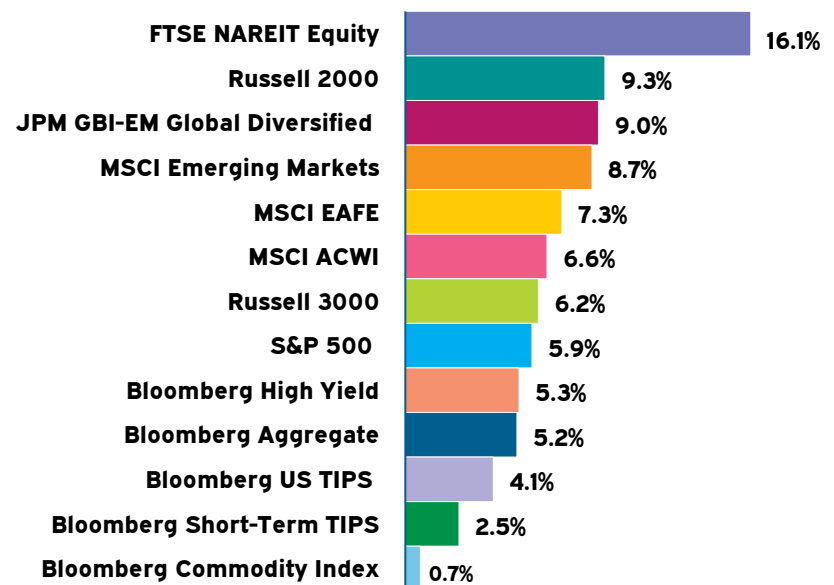
- In September, the Federal Reserve surprised many in the markets with a 50 basis point interest rate cut while the US economy and employment picture remains quite healthy.
- In the third quarter, US equities (Russell 3000) rose 6.2%. The US equity rally broadened, with value and small cap stocks outperforming 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.

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

#### YTD



#### Q3



→ 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.

→ Year-to-date through September, all major asset classes were positive, led by US equities.

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

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

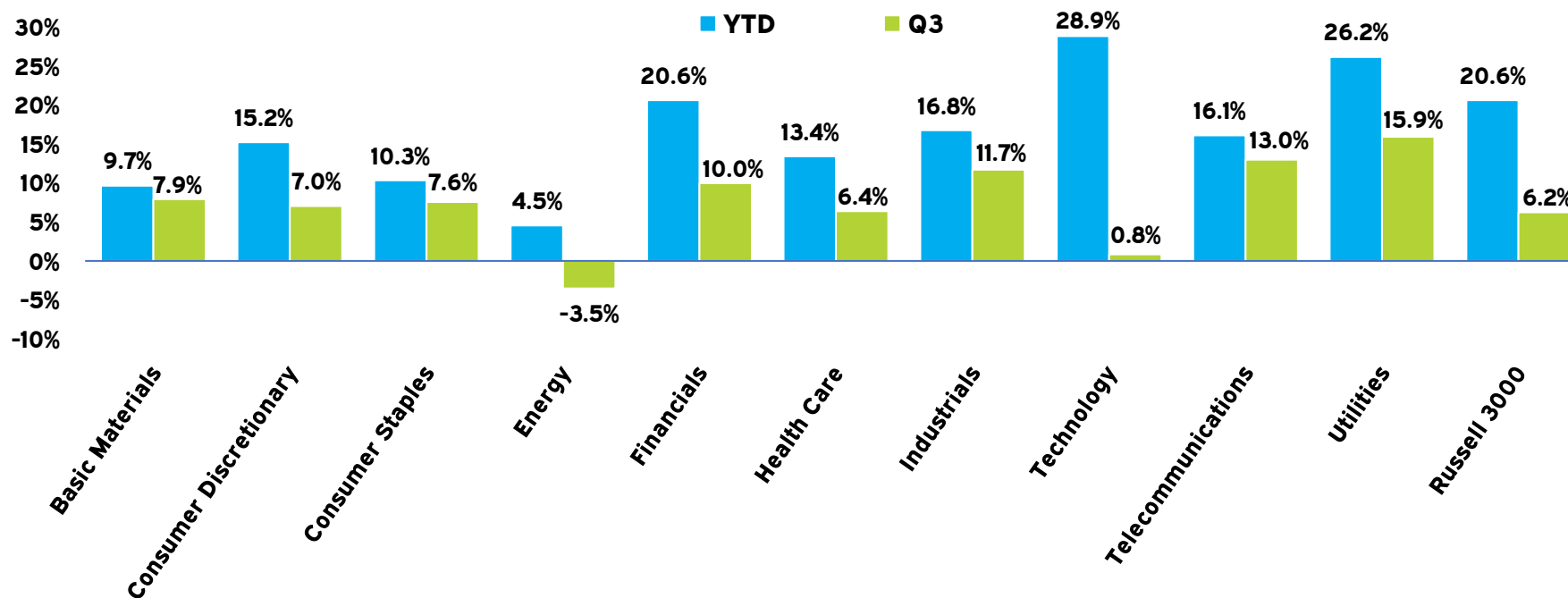
Domestic Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.1	5.9	22.1	36.4	11.9	16.0	13.4
Russell 3000	2.1	6.2	20.6	35.2	10.3	15.3	12.8
Russell 1000	2.1	6.1	21.2	35.7	10.8	15.6	13.1
Russell 1000 Growth	2.8	3.2	24.5	42.2	12.0	19.7	16.5
Russell 1000 Value	1.4	9.4	16.7	27.8	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

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

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



- With the notable exception of energy stocks, all sectors posted positive returns in the third quarter.
- 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>1</sup> Source: Bloomberg. Data is as of September 30, 2024.

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

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

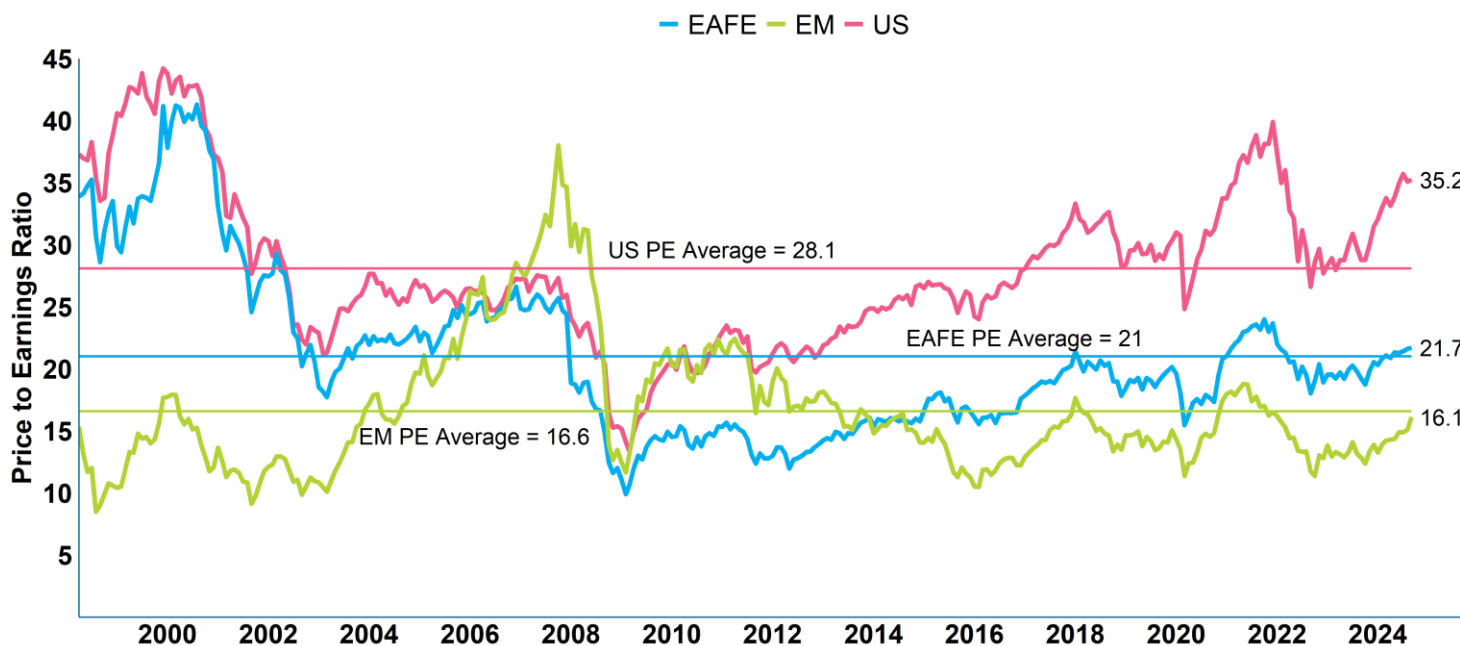
**Foreign Equity: Developed international equities (MSCI EAFE) rose +7.3% in the third quarter, while emerging market equities (MSCI Emerging Markets) gained 8.7%.**

- 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.
- 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%).
- The weakening US dollar further supported international stocks, particularly in developed markets.

<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>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.

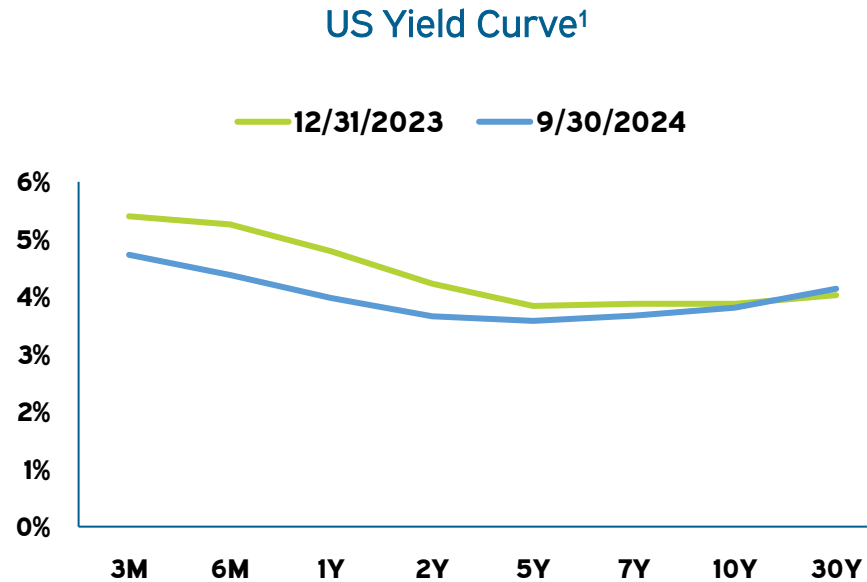
### Fixed Income Returns<sup>1</sup>

Fixed Income	September (%)	QTD (%)	YTD (%)	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: 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%.

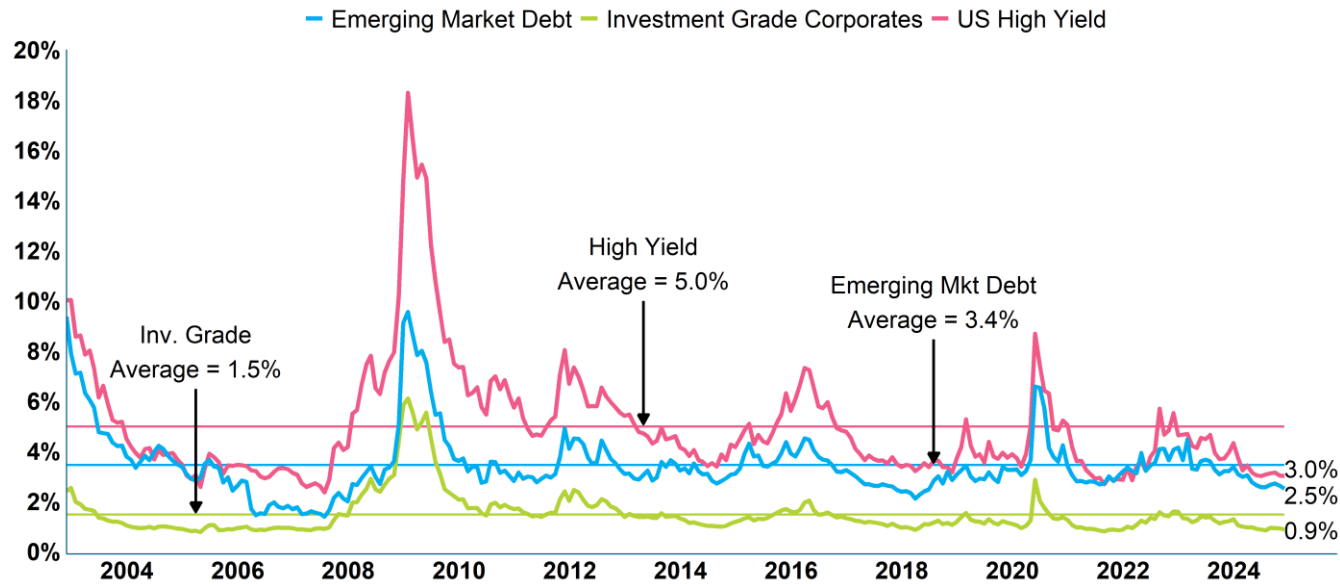
<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



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

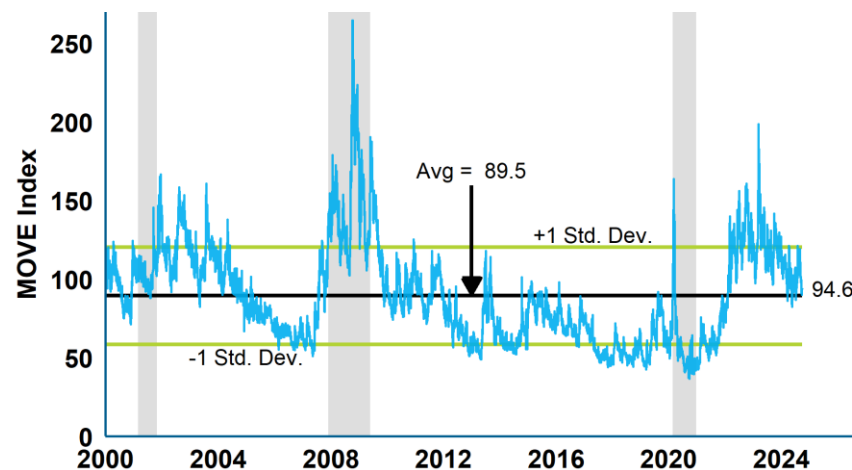
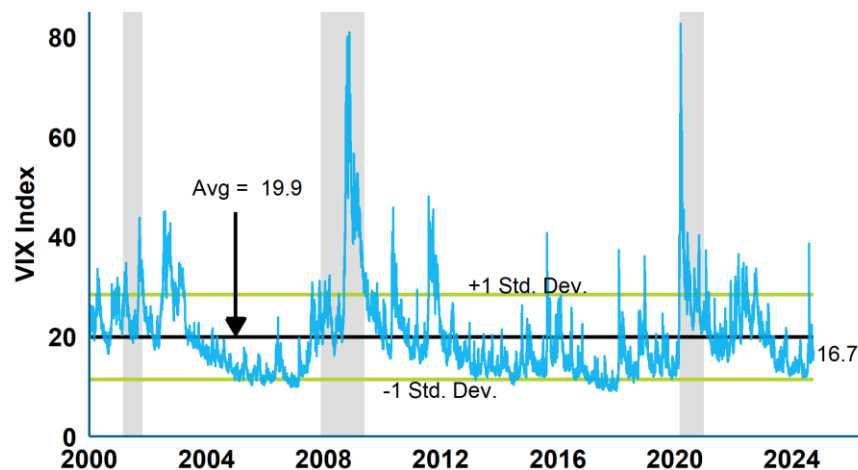
### Credit Spreads vs. US Treasury Bonds<sup>1</sup>



- 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.
- 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>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.

### 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.
- 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>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.

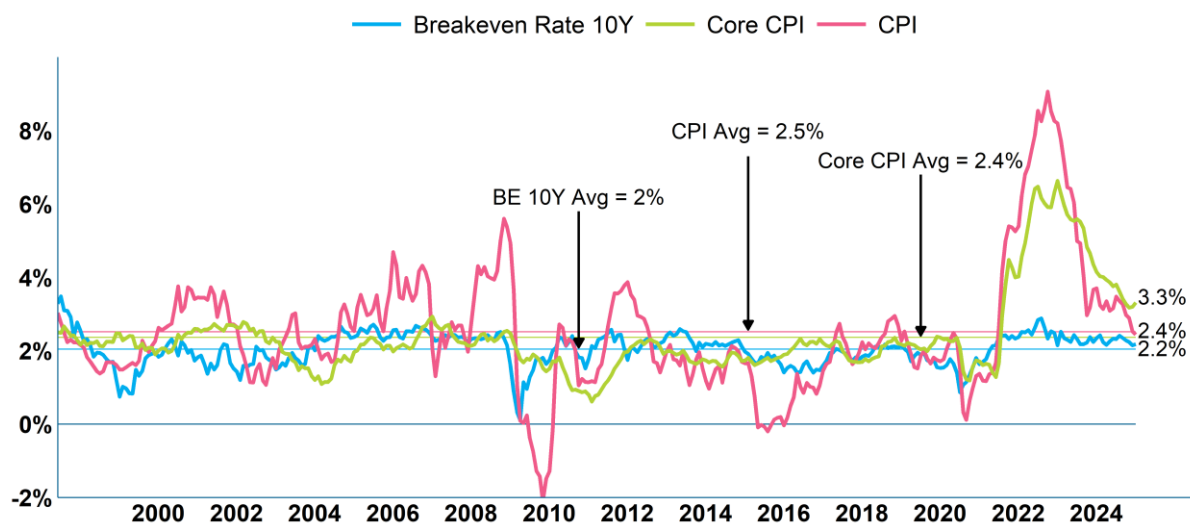
### Recent Market Strength: China<sup>1</sup>



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

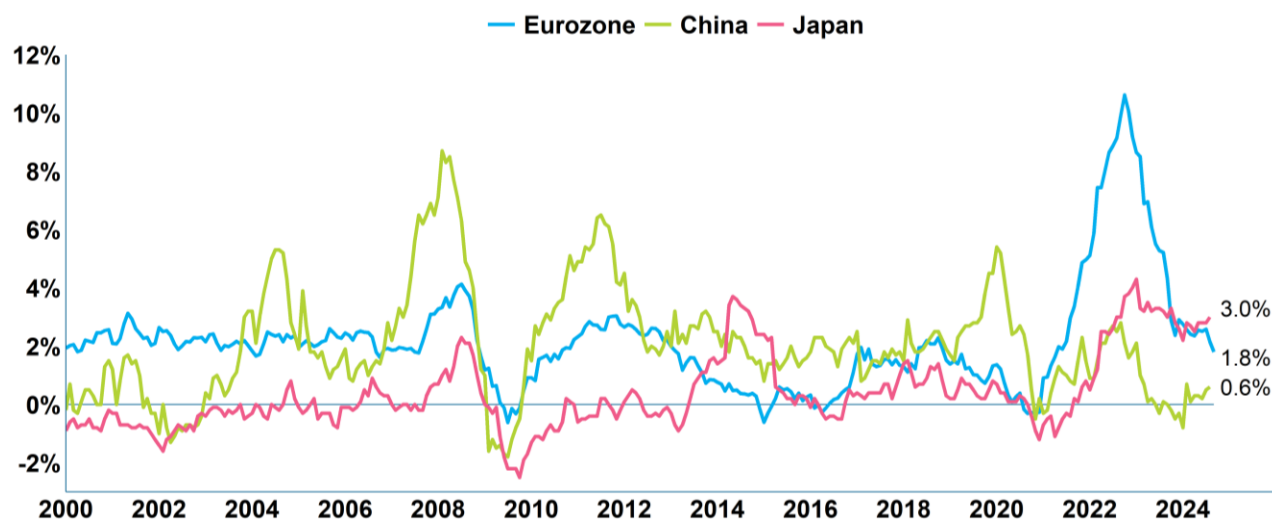
### US Ten-Year Breakeven Inflation and CPI<sup>1</sup>



- 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>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.

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

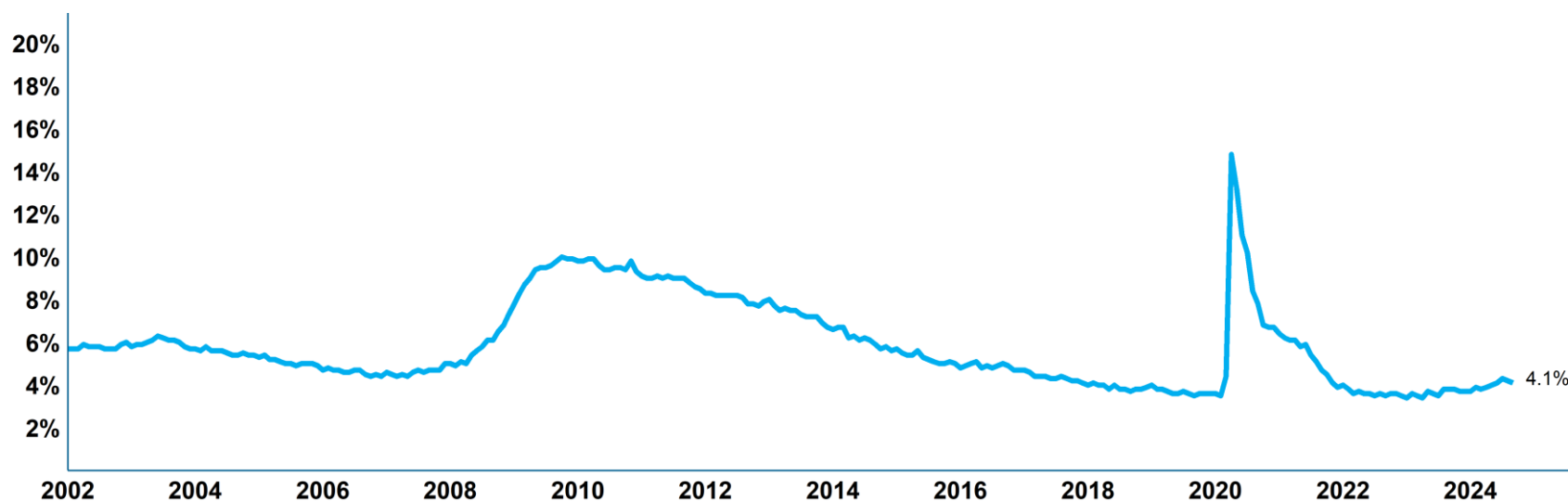


- In the eurozone, inflation fell from 2.5% to 1.8% over the quarter (a level below the US), potentially clearing the way for further rate cuts from the European Central Bank.
- By contrast, inflation in Japan recently increased (2.8% to 3.0%) due in part to higher food, electricity, and gas prices supporting 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>1</sup> Source: Bloomberg. Data is as of September 30, 2024, except Japan and China which are as of August 31, 2024.



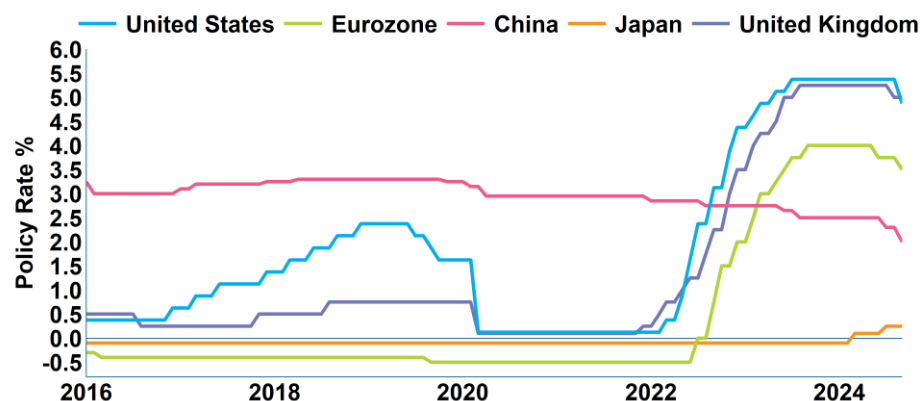
### US Unemployment<sup>1</sup>



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

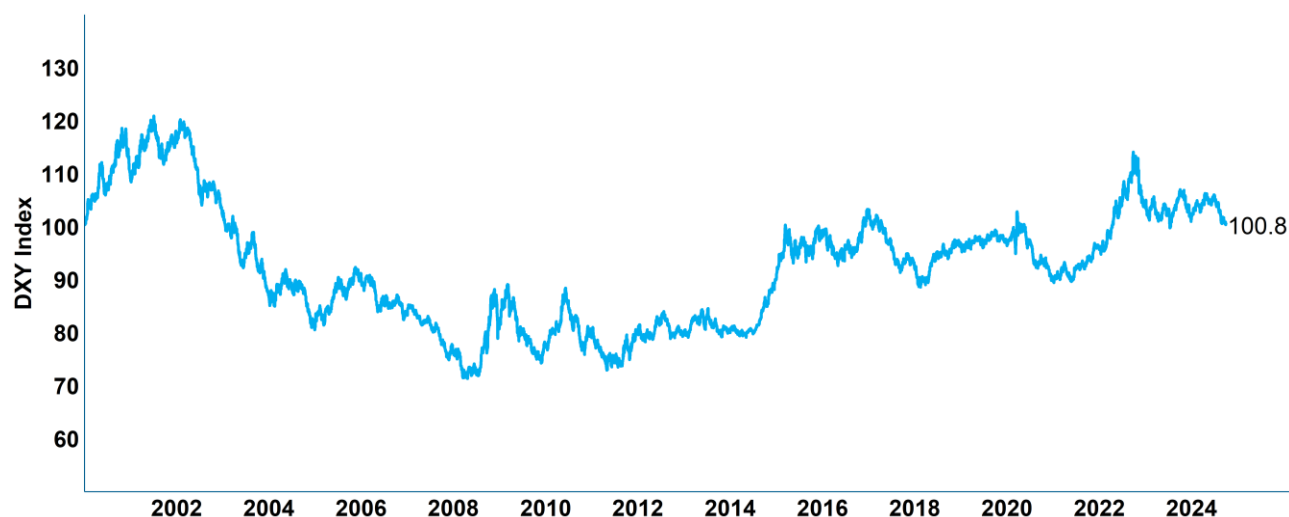
### Policy Rates<sup>1</sup>



- 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>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.

### US Dollar vs. Broad Currencies<sup>1</sup>



- 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>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.

## **Q3 Executive Summary**

Performance Overview – Q3 2024

Total Market Value		Quarter Results		5 Year Results	
Q3 2024	\$1,290,676,075	MercedCERA	4.3%	MercedCERA	9.3%
Q2 2024	\$1,238,599,556	Policy Benchmark	5.0%	Policy Benchmark	9.6%

As of September 30, 2024, the value of the Fund's assets was \$1,291 million.

- The MercedCERA portfolio returned 4.3% for the quarter, underperforming relative to its policy index. This translates to annualized returns of 5.2%, 9.3% and 7.8% over the three, five and ten-year trailing periods. The portfolio's since inception annualized return is 8.2%.
- Equity markets broadly climbed higher during the third quarter of 2024 as markets eyed future rate cuts, whereas Fixed Income markets also gained due interest rate cuts as well as declining inflation over the period. US Equities returned 6.2%, matching the index return (Russell 3000). Developed International Equity returned 5.4% over the period, trailing the benchmark by 2.2%. Emerging Markets Equity posted 9.2% over the period, outpacing the benchmark by 50 basis points. US Fixed Income returned 5.5%, outpacing the benchmark return of 5.0%. Opportunistic Credit saw strong returns at 3.1% over the quarter, trailing the blended benchmark of 4.4%. Real Estate posted 4.1% for the quarter, outpacing the benchmark by 4.5%. Private Equity saw strong absolute returns at 1.6%, compared to the (public market plus premium) index return of 3.3%. Real Assets returned 4.7, trailing the index return of 8.4%.
- Underperformance over the quarter was primarily attributable to the Developed International Equity, Private Equity and Hedge Fund sleeves, marginally offset by Real Estate's outperformance versus their respective benchmark.

### Public Manager Highlights Q3 2024

5 out of 13 Public Active Managers<sup>1</sup> either outperformed or matched their respective benchmarks for Q3 2024.

#### Total Equity (Active)

- US Equity returned 6.2%, matching the benchmark over the quarter. BNY Mellon Newton Dynamic US Equity, the portfolio's active large cap manager, returned 5.7%, versus the S&P 500 Index return of 5.9%. Champlain Small Cap, the portfolio's active small cap manager, returned 8.1%, trailing the Russell 2000 Index return of 9.3%. Underperformance was attributable to the fund's exclusion the Real Estate sector (strongest performing Russell 2000 sector) as well as stock selection in Industrials, Information Technology, and Consumer sectors.
- Developed International Equity returned 5.4%, trailing the asset class blended benchmark by 220 basis points as all managers in the sleeve, except for the First Eagle International Value, trailed their respective benchmarks. First Eagle, the strongest performer on both absolute and relative basis, cited positions in gold bullion, Alibaba and Unilever as the primary contributors. Acadian, the second strongest absolute performer, cited both broad stock selection and sector overweights to information technology as primary detractors. Driehaus, which also produced positive returns while trailing its benchmark, cited manager selection in Information Technology, Energy and Materials sectors as the largest detractors over the period.
- Artisan & RWC, the two managers in the Emerging Markets space posted returns of 9.6% & 7.8% respectively. Relative to their index (MSCI Emerging Markets) return of 8.7%, Artisan outpaced the index, whereas RWC underperformed over the period. Artisan is a benchmark-agnostic strategy that invests in a small number of securities. Artisan cited positions in Chinese online platform Meituan, Southeast Asian e-commerce company Sea, Latin American marketplace MercadoLibre and Indian online travel company MakeMyTrip as some of the strongest contributors over the quarter.

<sup>1</sup> Excludes Public Managers that do not have a full quarter of performance, Private Markets and Hedge Fund Managers.

**Public Manager Highlights Q3 2024 (continued)****Total Fixed Income (Active)**

- US Fixed Income returned 5.5%, mirroring the asset class benchmark performance over the quarter. Brandywine provided the strongest absolute returns at 7.1% over the period, outperforming its benchmark by 1.9%, as the manager cited overweight duration positioning as the primary contributor to outperformance in the declining yield environment. Wellington Core Bond also saw strong absolute performance at 5.3%, marginally outpacing the Bloomberg US Aggregate Index return of 5.2%. Payden & Rygel Low Duration rounded out the active fixed income manager in the portfolio returning 2.9% for the period, matching the index.
- Opportunistic Credit returned 3.1%, trailing the blended benchmark return of 4.4%. Both PIMCO and GoldenTree funds posted positive absolute returns for the quarter while trailing their respective benchmarks. PIMCO cited exposure to Agency MBS and EM debt as the primary detractors over the period.



Active Manager Expectations

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
<b>Domestic Equity</b>				
Champlain Small Cap	Moderately diversified small cap portfolio.	Low	4.0% to 7.0%	In low quality rallies.
Newton/Mellon Capital MCM Dynamic US Equity	Very diversified, quantitative, large cap core portfolio. Also has exposure to fixed income assets.	Neutral (higher in more recent periods)	2.5% to 5.0%	When investors misprice forward looking return/risk characteristics; when returns are concentrated in one sector.
<b>Developed Markets Equity (Non-US)</b>				
Driehaus International Small Cap Growth	Diversified growth manager that seeks to invest in companies experiencing positive growth inflections, using a combination of fundamental and macroeconomic analysis.	Low	4.0% to 7.0%	At market inflection points, with abrupt leadership change. Deep value, low quality market environments.
Acadian ACWI ex US Small Cap Equity	Very diversified international small cap portfolio, employing highly adaptive quantitative models.	Neutral	2.5% to 4.5%	During narrow markets, abrupt changes in leadership. In "value" challenged periods.
First Eagle International Value Fund	Benchmark agnostic, diversified international value manager with strategic gold allocation and willingness to utilize cash when valuations are elevated across the market.	Low	5.0% to 10.0%	In growth- and momentum-led rallies, where value discipline and an allocation to cash will be headwinds, and if physical gold underperforms.
GQG International Equity	Benchmark agnostic, concentrated international quality-growth equity manager with valuation discipline and macro awareness. Willing to invest in US-listed companies.	Low	5.0% to 10.0%	In cyclical recoveries where deep value, asset-heavy, smaller cap stocks rally.

Active Manager Expectations (continued)

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
<b>Emerging Markets Equity</b>				
Artisan Developing World	Concentrated, benchmark agnostic emerging markets strategy focused on high quality companies, overlaid with top-down macro (currency) awareness.	Neutral	5.0% to 10.0%	During cyclical rallies concentrated in deeper value, smaller cap stocks.
RWC Emerging Markets	Concentrated, growth-at-a-reasonable-price emerging markets equity strategy focused on mid cap stocks.	High	6.0% to 10.0%	Narrow rallies in large cap stocks where small and mid-caps lag, periods of heightened market volatility, deep drawdowns in asset-heavy cyclicals.
<b>Investment Grade Bonds</b>				
Brandywine	Top-down, macro, value-oriented strategy that invests with a benchmark agnostic philosophy	Neutral	2.0% to 7.0%	
Payden & Rygel	Short-term portfolios with emphasis on sector selection and yield curve management rather than relying on duration management	Low	0.2% to 0.7%	
Wellington	Benchmark-relative, diversified strategy with emphasis on individual security analysis, with Broad Markets teams' top-down sector views taken into consideration	Neutral	1.0 to 1.5%	
<b>Opportunistic Credit</b>				
PIMCO Income	Global multi-sector, benchmark agnostic approach, utilizing firm's resources to identify best income ideas while staying senior in the capital structure.	Low	1.5% to 3.5%	During periods of lower quality bond rallies and volatility in interest rates and certain currencies.
GoldenTree Multi-Sector Credit	Bottom-up security selection, managing risk and adding value through credit sector rotation.	Low	2.5% to 4.5%	During initial periods of economic recovery and rapid spread tightening.

### Manager Monitor

Manager	Significant Events (Yes/No)	Last Meeting w Board of Retirement	Last Meeting with MIG	Comments <sup>1</sup>
<b>Domestic Equity Assets</b>				
BNY Mellon Newton Dynamic US Equity Fund	No	-	Feb-24	Review of strategy, and discussion on current market environment. No changes to conviction level
Champlain Small Cap	No	-	Oct-24	Review of strategy & recent performance, no changes to conviction level
<b>Developed Markets Equity (Non-US) Assets</b>				
Driehaus International Small Cap Growth	No	-	<i>2024 Q4*</i>	<i>Meketa scheduled to meet with management team in 2024 Q4</i>
Acadian ACWI ex US Small Cap Equity	No	-	Oct-24	Review of executive team structure changes
First Eagle International Value Fund	No	-	<i>Oct-24</i>	<i>Meketa met with management team in October</i>
GQG International Equity	Yes	-	Mar-24	Discussion with recent team structure changes regarding leadership turnover & non-US Equity strategies. Removing fund from Watch status.
<b>Emerging Markets Equity Assets</b>				
Artisan Developing World	No	-	<i>2024 Q4*</i>	<i>Meketa scheduled to meet with management team in 2024 Q4</i>
RWC Emerging Markets	No	-	Apr-24	Review of strategy, no changes to conviction level.
<b>US Fixed Income Assets</b>				
Brandywine US Fixed Income	No	-	Jul-24	Review of strategy, no changes to conviction level
Payden & Rygel Low Duration	No	-	Oct-24	On site review of their strategy & management team. No changes to conviction level
Wellington Core Bond	No	-	Sep-24	Review of strategy, no changes to conviction level
<b>Opportunistic Credit</b>				
PIMCO Income Fund	No	-	Dec-23	Review of Portfolio Manager changes at firm level. No concerns after review.
GoldenTree Multi-Sector Credit	No	-	Jun-24	Review of strategy & market outlook, no changes to conviction level.
<b>Private Equity Program</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>Oversight by Cliffwater.</b>
<b>Real Assets Program</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>Oversight by Cliffwater.</b>
<b>Hedge Fund Program</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>Oversight by Cliffwater.</b>

<sup>1</sup> Italics indicate meetings have been scheduled or have recently occurred

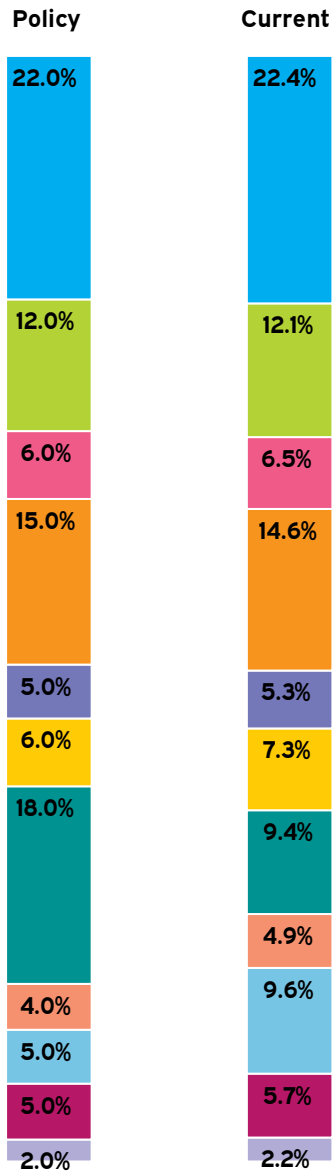
Active Manager Peer Rankings<sup>1</sup>

Investment Managers	Product	Peer Group	Market Value (\$M)	Market Value				Client Inception	Years in Portfolio
				1YR	3YR	5YR	10YR		
Champlain	Small Cap Fund	US Small Cap Core	32	84	89	96	59	Nov-20	3.9
Newton	Dynamic US Equity Strategy	US Large Cap Core	57	42	67	52	13	Dec-12	11.8
Acadian	All-Country World ex US Small Cap	Non-US Div Small Cap	20	42	24	8	22	May-19	5.3
Driehaus	International Small Cap Growth	ACWI ex US Small Cap Growth	19	49	59	38	25	May-19	5.3
GQG	International Equity	All ACWI ex US Equity	56	10	6	8	-	Dec-19	4.8
First Eagle	International Value	EAFE Value Equity	60	55	74	91	72	Dec-19	4.8
Artisan	Developing World	Emerging Markets	59	1	90	10	-	Dec-19	4.8
RWC	Emerging Markets	Emerging Markets	25	88	91	65	57	Dec-19	4.8
Brandywine	US Fixed Income	US Fixed Income	36	15	34	4	1	Nov-22	1.9
Payden & Rygel	Low Duration	US Short Duration Gov/Cred Fixed Income	8	34	39	40	39	Nov-22	1.9
Wellington	Core Bond	US Fixed Income	52	22	68	69	76	Nov-22	1.9
PIMCO	Income Fund	Global Multi-Sector Fixed Income	12	65	32	31	20	May-19	5.3
GoldenTree	Multi-Sector Credit Strategy	Global Multi-Sector Fixed Income	28	47	6	11	-	Jun-19	5.2

<sup>1</sup> Source: eVestment. Ranks are greyed out for periods before Merced CERA was invested.

**Interim Performance Update**  
As of September 30, 2024

Total Fund | As of September 30, 2024



Allocation vs. Targets and Policy						
	Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
US Equity	289,338,262	22.4	22.0	0.4	16.0 - 27.0	Yes
International Equity	156,256,364	12.1	12.0	0.1	7.0 - 17.0	Yes
Emerging Markets Equity	83,358,402	6.5	6.0	0.5	3.0 - 9.0	Yes
Private Equity	188,575,727	14.6	15.0	-0.4	5.0 - 20.0	Yes
Direct Lending	68,046,748	5.3	5.0	0.3	0.0 - 10.0	Yes
Real Estate	94,828,724	7.3	6.0	1.3	4.0 - 8.0	Yes
US Fixed Income	121,756,316	9.4	18.0	-8.6	13.0 - 23.0	No
Opportunistic Credit	62,640,978	4.9	4.0	0.9	2.0 - 6.0	Yes
Hedge Funds	123,744,105	9.6	5.0	4.6	2.5 - 7.5	No
Real Assets	73,600,061	5.7	5.0	0.7	3.0 - 7.0	Yes
Cash	28,530,388	2.2	2.0	0.2	0.0 - 4.0	Yes
<b>Total</b>	<b>1,290,676,075</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund (Net)</b>	1,290,676,075	100.0	4.3	11.6	4.3	18.3	5.2	9.3	7.8	8.2	Jan-95
<b>Total Fund (Gross)</b>			4.4	11.9	4.4	18.7	5.6	9.7	8.2	8.3	Jan-95
<i>Policy Index</i>			5.0	13.1	5.0	19.6	5.8	9.6	8.1	6.5	
<b>Total Fund w/o Alternatives (Net)</b>	713,350,323	55.3	5.9	15.5	5.9	26.5	4.9	9.7	8.0	--	Jan-08
<b>Total Fund w/o Alternatives (Gross)</b>			6.0	15.9	6.0	27.0	5.3	10.1	8.4	--	Jan-08
<i>Policy Index w/o AI</i>			6.6	13.4	6.6	24.2	4.6	8.3	7.3	--	
<b>US Equity (Net)</b>	289,338,262	22.4	6.2	19.8	6.2	34.1	9.5	14.2	12.8	10.7	Jan-95
<b>US Equity (Gross)</b>			6.2	19.9	6.2	34.3	9.7	14.5	13.1	10.8	Jan-95
<i>Russell 3000</i>			6.2	20.6	6.2	35.2	10.3	15.3	12.7	10.7	
<b>International Equity (Net)</b>	239,614,766	18.6	6.6	18.2	6.6	29.2	2.3	10.8	6.8	6.1	Jan-99
<b>International Equity (Gross)</b>			6.8	18.9	6.8	30.3	3.1	11.6	7.5	6.5	Jan-99
<i>International Equity Custom</i>			8.1	15.3	8.1	26.1	3.9	7.8	5.5	4.8	
<b>Developed International Equity (Net)</b>	156,256,364	12.1	5.4	15.7	5.4	26.7	6.1	10.0	6.3	5.1	Feb-08
<b>Developed International Equity (Gross)</b>			5.6	16.3	5.6	27.6	6.9	10.7	6.9	5.6	Feb-08
<i>Custom Blended Developed International Equity BM</i>			7.6	12.8	7.6	24.5	4.7	8.1	5.7	4.0	
<b>Emerging Markets Equity (Net)</b>	83,358,402	6.5	9.2	23.1	9.2	34.3	-3.5	10.6	7.3	6.1	May-12
<b>Emerging Markets Equity (Gross)</b>			9.5	24.0	9.5	35.7	-2.6	11.7	8.3	7.1	May-12
<i>MSCI EM</i>			8.7	16.9	8.7	26.1	0.4	5.8	4.2	3.8	
<b>US Fixed Income (Net)</b>	121,756,316	9.4	5.5	5.0	5.5	12.4	-1.6	0.2	1.8	4.5	Jan-95
<b>US Fixed Income (Gross)</b>			5.5	5.2	5.5	12.6	-1.5	0.3	1.9	4.6	Jan-95
<i>US Fixed Income Custom Benchmark</i>			5.0	4.4	5.0	11.1	-1.1	0.5	1.9	4.6	

Data Prior to March 2018 provided by prior consultant.

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Opportunistic Credit (Net)</b>	62,640,978	4.9	3.1	7.9	3.1	12.4	4.7	5.9	--	5.7	May-19
<b>Opportunistic Credit (Gross)</b>			3.2	8.2	3.2	12.9	5.2	6.4	--	6.2	May-19
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever</i>			4.4	5.9	4.4	12.1	1.7	2.8	--	3.3	
<b>Real Estate (Net)</b>	94,828,724	7.3	4.1	3.5	4.1	6.4	2.2	3.3	5.2	6.5	Dec-10
<b>Real Estate (Gross)</b>			4.1	3.5	4.1	6.4	2.2	3.3	5.5	7.4	Apr-99
<i>Custom Blended Real Estate Benchmark</i>			-0.4	-7.5	-0.4	-9.3	1.9	3.2	5.7	6.5	
<i>CPI +5% (Seasonally Adjusted)</i>			1.8	5.7	1.8	7.5	10.0	9.4	8.0	7.7	
<b>Private Real Estate (Net)</b>	74,562,878	5.8	1.1	1.0	1.1	0.7	3.0	3.2	5.1	6.4	Dec-10
<b>Private Real Estate (Gross)</b>			1.1	1.0	1.1	0.7	3.0	3.2	5.5	7.4	Apr-99
<i>Custom Blended Real Estate Benchmark</i>			-0.4	-7.5	-0.4	-9.3	1.9	3.2	5.7	6.5	
<b>Private Equity (Net)</b>	188,575,727	14.6	1.6	6.8	1.6	7.3	10.3	16.4	12.9	10.2	Jul-05
<b>Private Equity (Gross)</b>			1.6	6.8	1.6	7.3	10.3	16.4	12.9	10.4	Jul-05
<i>Custom Private Equity Benchmark</i>			3.3	26.5	3.3	23.1	9.1	18.3	15.5	--	
<b>Direct Lending (Net)</b>	68,046,748	5.3	2.9	8.8	2.9	12.0	8.1	--	--	10.4	Jul-20
<b>Direct Lending (Gross)</b>			2.9	8.8	2.9	12.0	8.1	--	--	10.4	Jul-20
<i>S&amp;P LSTA Leveraged Loan +2%</i>			2.5	8.1	2.5	11.8	8.6	7.9	6.9	9.7	
<b>Hedge Fund (Net)</b>	123,744,105	9.6	0.7	5.3	0.7	6.7	3.7	5.6	4.7	4.6	Jul-14
<b>Hedge Fund (Gross)</b>			1.1	6.4	1.1	8.3	4.8	6.7	5.2	5.1	Jul-14
<i>Custom Blended Hedge Fund Benchmark</i>			2.0	6.9	2.0	10.3	2.5	5.4	4.0	3.9	
<b>Real Assets (Net)</b>	73,600,061	5.7	4.7	11.5	4.7	15.2	13.8	12.2	10.1	10.0	Dec-10
<b>Real Assets (Gross)</b>			4.7	11.5	4.7	15.2	13.9	12.3	10.5	10.5	Dec-10
<i>Custom Blended Real Assets Benchmark</i>			8.4	10.8	8.4	18.9	7.2	7.3	7.5	--	
<i>CPI +5% (Seasonally Adjusted)</i>			1.8	5.7	1.8	7.5	10.0	9.4	8.0	7.8	

Real Assets includes State Street Real Assets NL Fund.



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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Private Infrastructure (Net)</b>	<b>36,761,198</b>	<b>2.8</b>	<b>2.3</b>	<b>9.4</b>	<b>2.3</b>	<b>11.0</b>	<b>11.4</b>	<b>12.6</b>	<b>--</b>	<b>10.2</b>	<b>Jan-15</b>
<b>Private Infrastructure (Gross)</b>			<b>2.3</b>	<b>9.4</b>	<b>2.3</b>	<b>11.0</b>	<b>11.4</b>	<b>12.8</b>	<b>--</b>	<b>10.3</b>	<b>Jan-15</b>
<i>S&amp;P Global Infrastructure</i>			<i>13.4</i>	<i>18.0</i>	<i>13.4</i>	<i>30.9</i>	<i>9.6</i>	<i>6.9</i>	<i>6.3</i>	<i>6.3</i>	
<b>Private Natural Resources (Net)</b>	<b>32,072,880</b>	<b>2.5</b>	<b>7.2</b>	<b>14.4</b>	<b>7.2</b>	<b>20.6</b>	<b>24.9</b>	<b>15.7</b>	<b>--</b>	<b>16.2</b>	<b>Oct-15</b>
<b>Private Natural Resources (Gross)</b>			<b>7.2</b>	<b>14.4</b>	<b>7.2</b>	<b>20.6</b>	<b>24.9</b>	<b>15.7</b>	<b>--</b>	<b>16.2</b>	<b>Oct-15</b>
<i>S&amp;P Global Natural Resources Sector Index (TR)</i>			<i>3.6</i>	<i>3.9</i>	<i>3.6</i>	<i>7.7</i>	<i>8.6</i>	<i>10.5</i>	<i>5.7</i>	<i>10.8</i>	
<b>Cash (Net)</b>	<b>28,530,388</b>	<b>2.2</b>	<b>1.2</b>	<b>3.3</b>	<b>1.2</b>	<b>4.5</b>	<b>2.4</b>	<b>1.6</b>	<b>--</b>	<b>--</b>	<b>Dec-10</b>
<b>Cash (Gross)</b>			<b>1.2</b>	<b>3.3</b>	<b>1.2</b>	<b>4.5</b>	<b>2.4</b>	<b>1.6</b>	<b>--</b>	<b>--</b>	<b>Dec-10</b>

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund</b>	<b>1,290,676,075</b>	<b>100.0</b>	<b>4.3</b>	<b>11.6</b>	<b>4.3</b>	<b>18.3</b>	<b>5.2</b>	<b>9.3</b>	<b>7.8</b>	<b>8.2</b>	<b>Jan-95</b>
<i>Policy Index</i>			<i>5.0</i>	<i>13.1</i>	<i>5.0</i>	<i>19.6</i>	<i>5.8</i>	<i>9.6</i>	<i>8.1</i>	<i>6.5</i>	
<b>Total Fund w/o Alternatives</b>	<b>713,350,323</b>	<b>55.3</b>	<b>5.9</b>	<b>15.5</b>	<b>5.9</b>	<b>26.5</b>	<b>4.9</b>	<b>9.7</b>	<b>8.0</b>	<b>--</b>	<b>Jan-08</b>
<i>Policy Index w/o AI</i>			<i>6.6</i>	<i>13.4</i>	<i>6.6</i>	<i>24.2</i>	<i>4.6</i>	<i>8.3</i>	<i>7.3</i>	<i>--</i>	
<b>US Equity</b>	<b>289,338,262</b>	<b>22.4</b>	<b>6.2</b>	<b>19.8</b>	<b>6.2</b>	<b>34.1</b>	<b>9.5</b>	<b>14.2</b>	<b>12.8</b>	<b>10.7</b>	<b>Jan-95</b>
<i>Russell 3000</i>			<i>6.2</i>	<i>20.6</i>	<i>6.2</i>	<i>35.2</i>	<i>10.3</i>	<i>15.3</i>	<i>12.7</i>	<i>10.7</i>	
BNY Mellon Newton Dynamic US Equity	56,513,680	4.4	5.7	21.3	5.7	35.5	9.8	15.0	14.3	16.2	Jan-13
<i>S&amp;P 500 Index</i>			<i>5.9</i>	<i>22.1</i>	<i>5.9</i>	<i>36.4</i>	<i>11.9</i>	<i>16.0</i>	<i>13.4</i>	<i>14.7</i>	
BNY Mellon Large Cap	200,651,030	15.5	6.1	21.2	6.1	35.9	10.7	15.6	--	14.7	Apr-16
<i>Russell 1000 Index</i>			<i>6.1</i>	<i>21.2</i>	<i>6.1</i>	<i>35.7</i>	<i>10.8</i>	<i>15.6</i>	<i>13.1</i>	<i>14.6</i>	
Champlain Small Cap	32,173,553	2.5	8.1	8.4	8.1	20.6	1.1	--	--	8.6	Nov-20
<i>Russell 2000 Index</i>			<i>9.3</i>	<i>11.2</i>	<i>9.3</i>	<i>26.8</i>	<i>1.8</i>	<i>9.4</i>	<i>8.8</i>	<i>11.4</i>	
<b>International Equity</b>	<b>239,614,766</b>	<b>18.6</b>	<b>6.6</b>	<b>18.2</b>	<b>6.6</b>	<b>29.2</b>	<b>2.3</b>	<b>10.8</b>	<b>6.8</b>	<b>6.1</b>	<b>Jan-99</b>
<i>International Equity Custom</i>			<i>8.1</i>	<i>15.3</i>	<i>8.1</i>	<i>26.1</i>	<i>3.9</i>	<i>7.8</i>	<i>5.5</i>	<i>4.8</i>	
<b>Developed International Equity</b>	<b>156,256,364</b>	<b>12.1</b>	<b>5.4</b>	<b>15.7</b>	<b>5.4</b>	<b>26.7</b>	<b>6.1</b>	<b>10.0</b>	<b>6.3</b>	<b>5.1</b>	<b>Feb-08</b>
<i>Custom Blended Developed International Equity BM</i>			<i>7.6</i>	<i>12.8</i>	<i>7.6</i>	<i>24.5</i>	<i>4.7</i>	<i>8.1</i>	<i>5.7</i>	<i>4.0</i>	
Acadian ACWI ex U.S. Small Cap Equity	20,343,210	1.6	7.9	17.0	7.9	28.0	5.3	12.7	--	11.0	May-19
<i>MSCI AC World ex USA Small Cap (Net)</i>			<i>8.9</i>	<i>11.9</i>	<i>8.9</i>	<i>23.3</i>	<i>1.4</i>	<i>8.2</i>	<i>6.1</i>	<i>7.1</i>	
Driehaus International Small Cap Growth	19,225,320	1.5	6.6	12.8	6.6	23.4	-0.8	9.5	--	9.3	May-19
<i>MSCI AC World ex USA Small Growth Index (Net)</i>			<i>8.4</i>	<i>11.2</i>	<i>8.4</i>	<i>22.5</i>	<i>-1.9</i>	<i>7.5</i>	<i>6.1</i>	<i>6.5</i>	
GQG International Equity	56,478,376	4.4	-0.1	16.5	-0.1	30.4	8.4	--	--	10.7	Dec-19
<i>MSCI AC World ex USA (Net)</i>			<i>8.1</i>	<i>14.2</i>	<i>8.1</i>	<i>25.4</i>	<i>4.1</i>	<i>7.6</i>	<i>5.2</i>	<i>6.9</i>	

Historical returns for the US Equity Composite prior to January 2012 and for the International Equity Composite prior to December 2010 are gross only.

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
First Eagle International Value Fund <i>MSCI EAFE (Net)</i>	60,209,458	4.7	9.8 <i>7.3</i>	14.3 <i>13.0</i>	9.8 <i>7.3</i>	22.5 <i>24.8</i>	5.9 <i>5.5</i>	-- <i>8.2</i>	-- <i>5.7</i>	5.8 <i>7.4</i>	Dec-19
<b>Emerging Markets Equity</b> <i>MSCI EM</i>	<b>83,358,402</b>	<b>6.5</b>	<b>9.2</b> <i>8.7</i>	<b>23.1</b> <i>16.9</i>	<b>9.2</b> <i>8.7</i>	<b>34.3</b> <i>26.1</i>	<b>-3.5</b> <i>0.4</i>	<b>10.6</b> <i>5.8</i>	<b>7.3</b> <i>4.2</i>	<b>6.1</b> <i>3.8</i>	<b>May-12</b>
Artisan Developing World TR <i>MSCI Emerging Markets (Net)</i>	58,640,310	4.5	9.6 <i>8.7</i>	28.2 <i>16.9</i>	9.6 <i>8.7</i>	43.3 <i>26.1</i>	-3.2 <i>0.4</i>	-- <i>5.7</i>	-- <i>4.0</i>	10.2 <i>5.1</i>	Dec-19
RWC <i>MSCI Emerging Markets (Net)</i>	24,718,092	1.9	7.8 <i>8.7</i>	11.7 <i>16.9</i>	7.8 <i>8.7</i>	15.5 <i>26.1</i>	-4.3 <i>0.4</i>	-- <i>5.7</i>	-- <i>4.0</i>	2.9 <i>5.1</i>	Dec-19
<b>US Fixed Income</b> <i>US Fixed Income Custom Benchmark</i>	<b>121,756,316</b>	<b>9.4</b>	<b>5.5</b> <i>5.0</i>	<b>5.0</b> <i>4.4</i>	<b>5.5</b> <i>5.0</i>	<b>12.4</b> <i>11.1</i>	<b>-1.6</b> <i>-1.1</i>	<b>0.2</b> <i>0.5</i>	<b>1.8</b> <i>1.9</i>	<b>4.5</b> <i>4.6</i>	<b>Jan-95</b>
Vanguard Short-Term Treasury Index Fund <i>Bloomberg U.S. Government 1-3 Year Index</i>	6,994,858	0.5	2.9 <i>2.9</i>	4.1 <i>4.1</i>	2.9 <i>2.9</i>	6.7 <i>6.8</i>	1.2 <i>1.3</i>	1.4 <i>1.5</i>	-- <i>1.4</i>	1.8 <i>1.9</i>	Mar-18
Vanguard Total Bond Market Index Fund <i>Blmbg. U.S. Aggregate Index</i>	18,383,724	1.4	5.1 <i>5.2</i>	4.4 <i>4.4</i>	5.1 <i>5.2</i>	11.4 <i>11.6</i>	-1.4 <i>-1.4</i>	0.3 <i>0.3</i>	-- <i>1.8</i>	1.3 <i>1.3</i>	May-19
Payden & Rygel Low Duration Fund <i>Blmbg. U.S. Treasury: 1-3 Year</i>	8,350,647	0.6	2.9 <i>2.9</i>	5.0 <i>4.1</i>	2.9 <i>2.9</i>	7.9 <i>6.8</i>	-- <i>1.3</i>	-- <i>1.5</i>	-- <i>1.4</i>	6.9 <i>4.8</i>	Nov-22
Brandywine US Fixed Income <i>Blmbg. U.S. Aggregate Index</i>	35,946,160	2.8	7.1 <i>5.2</i>	4.8 <i>4.4</i>	7.1 <i>5.2</i>	13.8 <i>11.6</i>	-- <i>-1.4</i>	-- <i>0.3</i>	-- <i>1.8</i>	4.0 <i>7.0</i>	Nov-22
Wellington Core Bond <i>Blmbg. U.S. Aggregate Index</i>	52,080,927	4.0	5.3 <i>5.2</i>	5.6 <i>4.4</i>	5.3 <i>5.2</i>	13.3 <i>11.6</i>	-- <i>-1.4</i>	-- <i>0.3</i>	-- <i>1.8</i>	6.7 <i>7.0</i>	Nov-22

Developed International Equity and Emerging Markets Equity composites were only reported as one composite prior to March 2018.

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Opportunistic Credit</b>	<b>62,640,978</b>	<b>4.9</b>	<b>3.1</b>	<b>7.9</b>	<b>3.1</b>	<b>12.4</b>	<b>4.7</b>	<b>5.9</b>	--	<b>5.7</b>	<b>May-19</b>
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever</i>			<i>4.4</i>	<i>5.9</i>	<i>4.4</i>	<i>12.1</i>	<i>1.7</i>	<i>2.8</i>	--	<i>3.3</i>	
PIMCO Income Fund	12,197,048	0.9	4.6	6.5	4.6	12.7	2.4	3.6	--	3.6	May-19
<i>Blmbg. U.S. Aggregate Index</i>			<i>5.2</i>	<i>4.4</i>	<i>5.2</i>	<i>11.6</i>	<i>-1.4</i>	<i>0.3</i>	<i>1.8</i>	<i>1.3</i>	
GoldenTree Multi-Sector Credit	28,212,707	2.2	3.6	9.4	3.6	15.0	5.6	6.3	--	6.2	Jun-19
<i>50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans</i>			<i>3.7</i>	<i>7.3</i>	<i>3.7</i>	<i>12.7</i>	<i>4.7</i>	<i>5.2</i>	<i>5.0</i>	<i>5.3</i>	
OWS Credit Opportunity Fund LP	22,231,223	1.7	1.7	6.8	1.7	9.3	--	--	--	9.3	Oct-23
<i>50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans</i>			<i>3.7</i>	<i>7.3</i>	<i>3.7</i>	<i>12.7</i>	<i>4.7</i>	<i>5.2</i>	<i>5.0</i>	<i>12.7</i>	
<b>Real Estate</b>	<b>94,828,724</b>	<b>7.3</b>	<b>4.1</b>	<b>3.5</b>	<b>4.1</b>	<b>6.4</b>	<b>2.2</b>	<b>3.3</b>	<b>5.2</b>	<b>6.5</b>	<b>Dec-10</b>
<i>Custom Blended Real Estate Benchmark</i>			<i>-0.4</i>	<i>-7.5</i>	<i>-0.4</i>	<i>-9.3</i>	<i>1.9</i>	<i>3.2</i>	<i>5.7</i>	<i>7.8</i>	
<i>CPI +5% (Seasonally Adjusted)</i>			<i>1.8</i>	<i>5.7</i>	<i>1.8</i>	<i>7.5</i>	<i>10.0</i>	<i>9.4</i>	<i>8.0</i>	<i>7.8</i>	
Vanguard REIT Index	20,265,846	1.6	17.2	13.6	17.2	34.2	2.5	--	--	8.6	Sep-20
<i>Spliced Vanguard REIT Benchmark</i>			<i>17.2</i>	<i>13.7</i>	<i>17.2</i>	<i>34.4</i>	<i>2.6</i>	<i>4.9</i>	<i>7.4</i>	<i>8.7</i>	
<b>Private Real Estate</b>	<b>74,562,878</b>	<b>5.8</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>0.7</b>	<b>3.0</b>	<b>3.2</b>	<b>5.1</b>	<b>6.4</b>	<b>Dec-10</b>
<i>Custom Blended Real Estate Benchmark</i>			<i>-0.4</i>	<i>-7.5</i>	<i>-0.4</i>	<i>-9.3</i>	<i>1.9</i>	<i>3.2</i>	<i>5.7</i>	<i>7.8</i>	
Greenfield Gap VII	724,937	0.1	7.8	-0.9	7.8	1.7	12.8	14.7	--	14.4	Jan-15
Patron Capital V	4,941,655	0.4	-1.0	-0.2	-1.0	-7.6	-16.3	-10.2	--	-0.5	Feb-16
UBS Trumbull Property	20,635,006	1.6	-0.7	-6.3	-0.7	-7.7	-0.3	-0.3	2.6	5.5	Apr-99
Carlyle Realty VIII	2,179,113	0.2	-0.5	-4.2	-0.5	-3.7	27.5	26.9	--	8.5	Jan-18
Taconic CRE Dislocation Fund II	3,168,473	0.2	-2.1	-4.1	-2.1	-1.4	6.0	8.1	--	7.4	Nov-18
Carmel Partners Investment Fund VII	4,871,520	0.4	4.8	12.5	4.8	10.6	7.0	-8.7	--	-15.1	Apr-19

All private markets performance and market values reflect a 06/30/2024 capital account balance unless otherwise noted.

Private Real Estate results prior to 1/1/2019 were included in the Real Assets composite. All results for the Private Real Estate composite that include the period prior to 1/1/2019 will reflect only the latest lineup of managers that Meketa received information for, therefore it may not reflect the entire Private Real Estate composite at that given time.

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
AG Realty Value Fund X, L.P.	3,106,066	0.2	-1.6	-5.2	-1.6	-6.5	5.8	7.4	--	3.3	Jun-19
Rockpoint Real Estate Fund VI, L.P.	4,701,651	0.4	1.0	-1.5	1.0	-2.1	3.7	--	--	7.3	May-20
Cerberus Real Estate Debt Fund, L.P.	4,900,627	0.4	-1.7	1.1	-1.7	4.8	5.8	--	--	9.2	Jul-20
Taconic CRE Dislocation Onshore Fund III	8,073,207	0.6	3.7	8.8	3.7	14.3	9.7	--	--	8.7	Jun-21
Starwood Distressed Opportunity Fund XII Global	4,542,738	0.4	2.2	13.2	2.2	7.5	9.1	--	--	75.6	Jun-21
Carlyle Realty Partners IX	2,920,916	0.2	5.0	-2.0	5.0	0.6	--	--	--	-163.9	Dec-21
Carmel Partners Investment Fund VIII	6,510,831	0.5	5.0	14.8	5.0	23.2	--	--	--	1.3	Apr-22
Rockpoint Real Estate Fund VII L.P.	3,286,138	0.3	1.2	4.2	1.2	1.2	--	--	--	7.7	Aug-22
<b>Private Equity</b>	<b>188,575,727</b>	<b>14.6</b>	<b>1.6</b>	<b>6.8</b>	<b>1.6</b>	<b>7.3</b>	<b>10.3</b>	<b>16.4</b>	<b>12.9</b>	<b>10.2</b>	<b>Jul-05</b>
<i>Custom Private Equity Benchmark</i>			<i>3.3</i>	<i>26.5</i>	<i>3.3</i>	<i>23.1</i>	<i>9.1</i>	<i>18.3</i>	<i>15.5</i>	<i>--</i>	
Taconic Credit Dislocation Fund IV L.P.	4,249,882	0.3	1.7	12.0	1.7	18.5	--	--	--	14.5	Jul-23
Khosla Ventures Seed F, L.P.	905,456	0.1	6.4	17.7	6.4	13.2	--	--	--	9.6	Jul-23
Adams Street	3,147,547	0.2	-6.2	-6.6	-6.2	-10.4	-7.8	7.0	9.2	7.1	Oct-05
Invesco VI	359,373	0.0	-2.3	-24.7	-2.3	-25.3	-16.5	7.9	11.4	10.4	Jul-13
Ocean Avenue II	4,679,835	0.4	-16.1	-24.6	-16.1	-31.3	0.0	18.0	16.4	15.4	Jul-14
Pantheon I	57,572	0.0	0.1	-6.5	0.1	-7.9	-15.3	-15.1	-6.1	-1.8	Jan-06
Pantheon II	2,483,217	0.2	0.8	3.9	0.8	0.6	-2.5	10.0	11.2	11.4	Jan-12
Pantheon Secondary	107,428	0.0	-0.6	-1.5	-0.6	-2.1	-8.8	-7.8	-2.7	0.3	Jul-07
Davidson Kempner Long-Term Distressed Opportunities Fund IV	2,744,402	0.2	2.9	7.5	2.9	11.1	31.2	19.7	--	17.7	Apr-18

Pantheon I includes Pantheon US Fund VI and Pantheon Europe Fund IV. Pantheon Europe Fund IV is adjusting from the 12/31/2023 NAV.

Pantheon II includes Pantheon US Fund IX, Pantheon Asia Fund VI, and Pantheon Europe Fund VII.

Pantheon Secondary includes Pantheon GLO SEC III B.

Adams Street includes Adams street 2005, Adams Street 2007, and Adams Street 2011.

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XII	6,155,394	0.5	4.8	7.0	4.8	13.1	11.6	24.8	--	14.7	Jun-18
Carrick Capital Partners III	4,723,447	0.4	-5.0	-3.6	-5.0	0.2	9.4	11.1	--	9.4	Aug-18
Cressey & Company Fund VI	5,124,553	0.4	2.1	-2.3	2.1	-4.3	9.7	17.4	--	12.2	Jan-19
TCV X	6,945,513	0.5	-0.5	15.2	-0.5	10.9	-0.1	20.8	--	17.3	Apr-19
Accel-KKR Growth Capital Partners III	5,165,994	0.4	1.8	5.4	1.8	8.3	7.0	7.1	--	6.7	Jul-19
Genstar Capital Partners IX	9,417,950	0.7	9.1	12.8	9.1	18.1	23.2	25.8	--	24.9	Aug-19
Cortec Group Fund VII	9,057,165	0.7	-0.3	3.3	-0.3	3.3	11.6	--	--	21.8	Dec-19
Spark Capital Growth Fund III	8,535,555	0.7	1.0	-1.2	1.0	-2.9	14.3	--	--	11.6	Mar-20
Spark Capital VI	3,806,223	0.3	-0.4	1.9	-0.4	3.0	16.0	--	--	6.0	Mar-20
Summit Partners Growth Equity Fund X-A	9,207,095	0.7	1.4	6.4	1.4	8.0	9.3	--	--	7.0	Mar-20
Taconic Market Dislocation Fund III L.P.	4,917,332	0.4	2.0	14.0	2.0	15.9	9.4	--	--	15.0	Jul-20
Marlin Heritage Europe II, L.P.	8,765,013	0.7	11.0	15.2	11.0	13.4	8.7	--	--	3.2	Oct-20
Khosla Ventures VII	5,558,002	0.4	-15.4	0.5	-15.4	5.2	7.5	--	--	5.7	Jan-21
Accel-KKR Capital Partners VI	4,500,800	0.3	11.8	11.8	11.8	11.8	23.9	--	--	-0.8	Feb-21
Khosla Ventures Seed E	2,416,302	0.2	1.0	2.8	1.0	3.2	23.6	--	--	84.7	Feb-21
TCV XI	6,091,036	0.5	0.9	19.6	0.9	15.3	2.0	--	--	0.1	Feb-21
Thoma Bravo Discover Fund III	10,059,097	0.8	4.4	15.3	4.4	17.8	9.6	--	--	9.8	Jun-21
Summit Partners Venture Capital Fund V-A	4,266,611	0.3	1.1	15.3	1.1	13.6	2.2	--	--	1.1	May-21

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XIII/A & B	6,520,491	0.5	3.6	13.0	3.6	16.0	20.2	--	--	64.7	Jun-21
Genstar Capital Partners X	7,924,405	0.6	0.8	1.0	0.8	2.2	4.2	--	--	4.2	Oct-21
Nautic Partners X	6,555,493	0.5	5.5	14.4	5.5	22.7	--	--	--	10.1	Jan-22
Spark Capital Growth Fund IV	4,792,128	0.4	11.0	12.3	11.0	10.2	--	--	--	13.6	Jan-22
Spark Capital VII	2,078,146	0.2	-0.5	-1.3	-0.5	-2.7	--	--	--	-5.8	Feb-22
TCV Velocity Fund I	4,618,069	0.4	-1.0	20.5	-1.0	23.5	--	--	--	7.5	Feb-22
Accel-KKR Growth Capital Partners IV	2,348,601	0.2	3.0	3.5	3.0	3.4	--	--	--	-10.1	Apr-22
Summit Partners Growth Equity Fund XI-A	2,933,834	0.2	15.1	22.1	15.1	25.8	--	--	--	-24.7	Apr-22
GTCR Strategic Growth Fund I/A&B LP	2,336,927	0.2	-0.3	0.4	-0.3	6.1	--	--	--	-24.6	Jul-22
Threshold Ventures IV LP	1,630,885	0.1	-1.9	-3.0	-1.9	-6.8	--	--	--	-16.5	Aug-22
Thoma Bravo Discovery Fund IV	5,467,942	0.4	3.3	13.4	3.3	16.9	--	--	--	15.4	Jan-23
Marlin Heritage III	2,626,153	0.2	-1.3	5.8	-1.3	0.1	--	--	--	-63.8	Jan-23
Cortec Group Fund VIII, L.P.	1,722,216	0.1	9.9	-2.7	9.9	-11.7	--	--	--	-11.8	Apr-23
Khosla Ventures VIII	2,318,428	0.2	-0.1	-0.3	-0.1	-2.2	--	--	--	-2.1	Sep-23
Genstar Capital Partners XI	237,139	0.0	10.9	50.3	10.9	--	--	--	--	50.3	Nov-23
Summit Partners Europe Growth Equity Fund IV, SCSp	-40,823	0.0	-26.1	--	-26.1	--	--	--	--	-26.1	Jun-24
Spark Capital VIII	240,000	0.0	0.0	--	0.0	--	--	--	--	0.0	Jul-24
Wynnchurch Capital Partners VI, L.P.	948,908	0.1	--	--	--	--	--	--	--	-4.3	Aug-24

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	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Accel-KKR Capital Partners VII LP	-131,008	0.0	--	--	--	--	--	--	--	0.0	Sep-24
<b>Direct Lending</b>	<b>68,046,748</b>	<b>5.3</b>	<b>2.9</b>	<b>8.8</b>	<b>2.9</b>	<b>12.0</b>	<b>8.1</b>	--	--	<b>10.4</b>	<b>Jul-20</b>
<i>S&amp;P LSTA Leveraged Loan +2%</i>			<i>2.5</i>	<i>8.1</i>	<i>2.5</i>	<i>11.8</i>	<i>8.6</i>	<i>7.9</i>	<i>6.9</i>	<i>9.7</i>	
Silver Point Specialty Credit Fund II, L.P.	6,608,956	0.5	3.9	9.7	3.9	12.7	8.7	--	--	10.9	Jul-20
Ares Senior Direct Lending Fund II	13,676,681	1.1	3.7	11.9	3.7	16.8	--	--	--	12.4	Jan-22
Varagon Capital Direct Lending Fund	16,070,153	1.2	3.1	6.4	3.1	9.4	--	--	--	4.1	Jan-22
AG Direct Lending Fund IV Annex	8,686,446	0.7	3.1	9.3	3.1	12.4	--	--	--	10.1	May-22
AG Direct Lending Fund V	3,779,333	0.3	-0.2	2.2	-0.2	4.7	--	--	--	6.3	Aug-22
Accel-KKR Credit Partners II LP	2,147,616	0.2	2.7	7.0	2.7	10.2	--	--	--	28.8	Mar-23
Silver Point Specialty Credit Fund III	8,416,669	0.7	1.7	12.9	1.7	12.9	--	--	--	7.8	Mar-23
Ares Capital Europe VI (D) Levered, L.P.	5,547,815	0.4	2.6	5.6	2.6	--	--	--	--	12.5	Nov-23
Ares Senior Direct Lending Fund III	3,113,079	0.2	3.8	--	3.8	--	--	--	--	3.8	Jun-24
<b>Hedge Fund</b>	<b>123,744,105</b>	<b>9.6</b>	<b>0.7</b>	<b>5.3</b>	<b>0.7</b>	<b>6.7</b>	<b>3.7</b>	<b>5.6</b>	<b>4.7</b>	<b>4.6</b>	<b>Jul-14</b>
<i>Custom Blended Hedge Fund Benchmark</i>			<i>2.0</i>	<i>6.9</i>	<i>2.0</i>	<i>10.3</i>	<i>2.5</i>	<i>5.4</i>	<i>4.0</i>	<i>3.9</i>	
Hudson Bay Fund	16,470,892	1.3	2.3	6.4	2.3	6.9	--	--	--	7.3	Jun-23
Graham Absolute Return	10,844,561	0.8	-0.7	5.8	-0.7	4.3	8.5	5.8	--	4.9	Sep-17
Wellington-Archipelago	18,306,625	1.4	0.5	11.4	0.5	15.2	7.9	8.0	--	6.7	Sep-17
Marshall Wace Eureka	5,080,063	0.4	0.5	9.4	0.5	10.0	4.6	7.2	--	6.2	Dec-17
Silver Point Capital	21,064,925	1.6	2.3	9.2	2.3	11.5	6.3	11.4	--	8.3	Dec-17



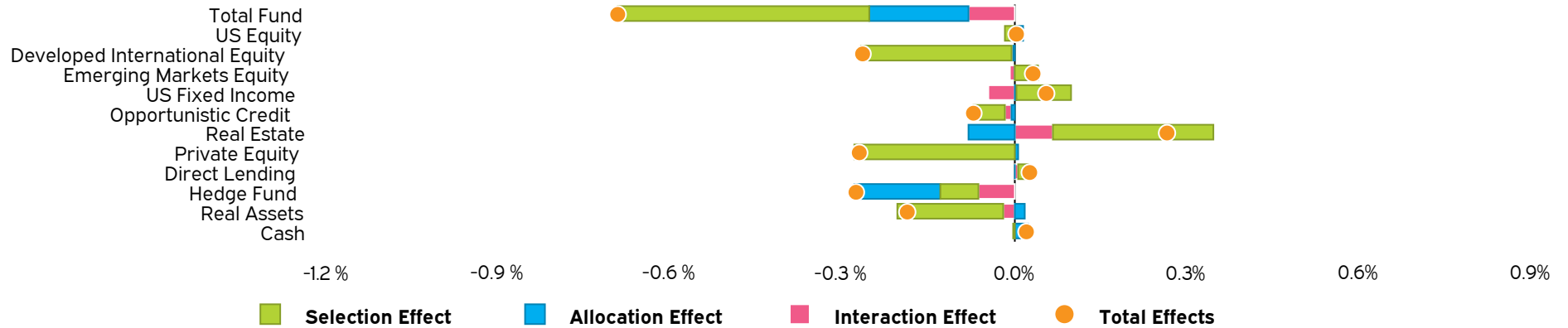
## Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Laurion Capital	12,693,238	1.0	-6.1	-10.4	-6.1	-8.9	-6.3	6.1	--	6.1	Aug-18
Taconic Opportunity Fund	14,701,602	1.1	0.8	2.5	0.8	3.2	1.4	2.9	--	3.2	Jan-19
Marshall Wace Global Opportunities	11,982,877	0.9	0.4	7.4	0.4	7.9	5.3	--	--	6.1	May-20
Caxton Global Investments	12,599,320	1.0	5.4	6.8	5.4	10.3	8.0	--	--	6.2	May-21
<b>Real Assets</b>	<b>73,600,061</b>	<b>5.7</b>	<b>4.7</b>	<b>11.5</b>	<b>4.7</b>	<b>15.2</b>	<b>13.8</b>	<b>12.2</b>	<b>10.1</b>	<b>10.0</b>	<b>Dec-10</b>
<i>Custom Blended Real Assets Benchmark</i>			<i>8.4</i>	<i>10.8</i>	<i>8.4</i>	<i>18.9</i>	<i>7.2</i>	<i>7.3</i>	<i>7.5</i>	<i>--</i>	
SSgA	4,765,983	0.4	6.2	8.7	6.2	12.4	5.5	7.4	--	6.2	May-17
<i>Real Asset NL Custom Blended Index</i>			<i>6.1</i>	<i>8.5</i>	<i>6.1</i>	<i>12.7</i>	<i>5.1</i>	<i>7.4</i>	<i>--</i>	<i>6.3</i>	
<b>Private Infrastructure</b>	<b>36,761,198</b>	<b>2.8</b>	<b>2.3</b>	<b>9.4</b>	<b>2.3</b>	<b>11.0</b>	<b>11.4</b>	<b>12.6</b>	<b>--</b>	<b>10.2</b>	<b>Jan-15</b>
<i>S&amp;P Global Infrastructure</i>			<i>13.4</i>	<i>18.0</i>	<i>13.4</i>	<i>30.9</i>	<i>9.6</i>	<i>6.9</i>	<i>6.3</i>	<i>6.3</i>	
KKR Global II	3,566,321	0.3	2.3	13.3	2.3	15.9	14.4	23.3	--	16.9	Jan-15
North Haven Infrastructure II	2,505,969	0.2	-0.5	-4.3	-0.5	-5.9	5.5	5.3	--	6.5	Jun-15
ISQ Global Infrastructure Fund II	5,863,169	0.5	1.8	8.3	1.8	9.8	11.0	12.2	--	5.1	Jul-18
KKR Global Infrastructure Investors III	4,427,487	0.3	2.2	16.9	2.2	22.0	8.6	6.5	--	2.1	Jan-19
Ardian Infrastructure Fund V	4,549,526	0.4	2.1	8.3	2.1	9.2	8.2	--	--	-4.8	Nov-19
ISQ Global Infrastructure Fund III	3,222,140	0.2	2.0	11.4	2.0	13.6	46.7	--	--	-399.1	Jun-21
KKR Global Infrastructure Investors IV	6,291,238	0.5	2.6	9.5	2.6	12.3	-218.8	--	--	-218.2	Sep-21
BlackRock Global Infrastructure Fund IV	4,423,486	0.3	1.7	6.6	1.7	4.6	--	--	--	-4.4	Dec-22
Ardian Infrastructure Fund VI	1,911,863	0.1	12.4	10.5	12.4	--	--	--	--	10.5	Dec-23

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

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Private Natural Resources</b>	<b>32,072,880</b>	<b>2.5</b>	<b>7.2</b>	<b>14.4</b>	<b>7.2</b>	<b>20.6</b>	<b>24.9</b>	<b>15.7</b>	<b>--</b>	<b>16.2</b>	<b>Oct-15</b>
<i>S&amp;P Global Natural Resources Sector Index (TR)</i>			<i>3.6</i>	<i>3.9</i>	<i>3.6</i>	<i>7.7</i>	<i>8.6</i>	<i>10.5</i>	<i>5.7</i>	<i>10.8</i>	
EnCap Flatrock Midstream Fund V	3,567,429	0.3	16.5	14.6	16.5	13.3	--	--	--	6.7	Jun-23
EnCap XI	5,929,126	0.5	12.7	22.0	12.7	38.4	36.1	13.8	--	-1.5	Aug-17
EnCap IV	1,831,032	0.1	6.0	7.8	6.0	8.8	51.0	30.5	--	21.6	Mar-18
GSO Energy Opportunities	419,421	0.0	2.2	38.4	2.2	59.6	46.3	28.0	--	22.6	Dec-15
Taurus Mining	342,628	0.0	1.7	12.9	1.7	7.2	58.9	28.4	--	23.5	Oct-15
Taurus Mining Annex	163,322	0.0	-0.2	0.2	-0.2	-6.0	18.1	16.1	--	20.3	Feb-17
BlackRock Global Energy and Power Infrastructure Fund III LP	4,545,719	0.4	1.2	4.4	1.2	3.9	8.4	12.8	--	12.3	Aug-19
Tailwater Energy Fund IV, LP	4,621,026	0.4	7.7	18.2	7.7	17.9	26.3	8.8	--	8.8	Oct-19
Carnelian Energy Capital IV	5,051,986	0.4	1.8	5.7	1.8	15.1	--	--	--	4.1	May-22
EnCap Energy Capital Fund XII	4,522,992	0.4	11.4	30.5	11.4	49.2	--	--	--	40.9	Aug-23
Carnelian Energy Capital V, L.P	1,078,199	0.1									
<b>Cash</b>	<b>28,530,388</b>	<b>2.2</b>	<b>1.2</b>	<b>3.3</b>	<b>1.2</b>	<b>4.5</b>	<b>2.4</b>	<b>1.6</b>	<b>--</b>	<b>--</b>	<b>Dec-10</b>
Cash	26,804,651	2.1	1.3	4.1	1.3	5.4	2.7	1.9	1.5	-0.9	Dec-10
Treasury Cash	1,725,737	0.1	0.0	0.0	0.0	0.0	0.0	0.0	--	0.1	Sep-17

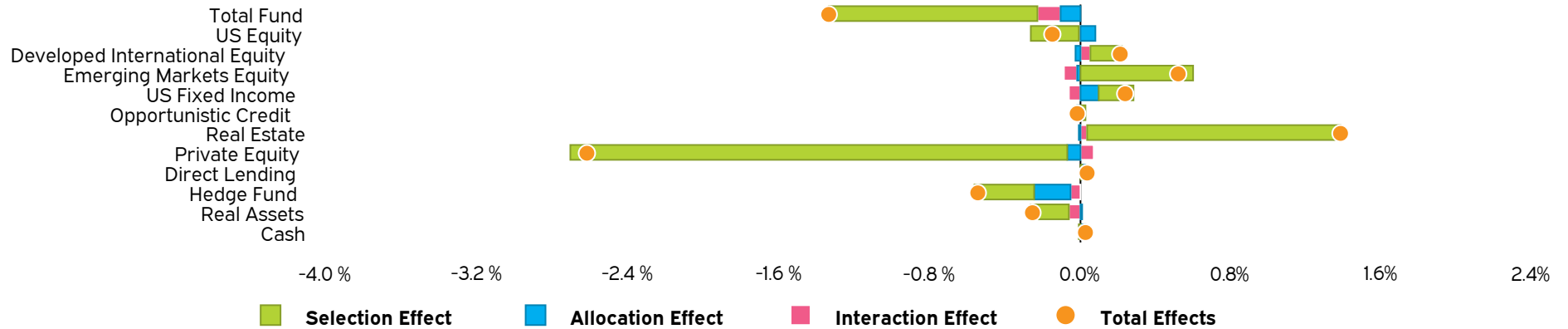
#### Attribution Effects 3 Months Ending September 30, 2024



#### Attribution Summary 3 Months Ending September 30, 2024

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction (%)	Total Effect (%)
US Equity	6.2	6.2	-0.1	0.0	0.0	0.0	0.0
Developed International Equity	5.4	7.6	-2.2	-0.3	0.0	0.0	-0.3
Emerging Markets Equity	9.2	8.7	0.5	0.0	0.0	0.0	0.0
US Fixed Income	5.5	5.0	0.5	0.1	0.0	0.0	0.1
Opportunistic Credit	3.1	4.4	-1.3	-0.1	0.0	0.0	-0.1
Real Estate	4.1	-0.4	4.6	0.3	-0.1	0.1	0.3
Private Equity	1.6	3.3	-1.7	-0.3	0.0	0.0	-0.3
Direct Lending	2.9	2.5	0.4	0.0	0.0	0.0	0.0
Hedge Fund	0.7	2.0	-1.3	-0.1	-0.2	-0.1	-0.3
Real Assets	4.7	8.4	-3.8	-0.2	0.0	0.0	-0.2
Cash	1.2	1.4	-0.2	0.0	0.0	0.0	0.0
<b>Total Fund</b>	<b>4.3</b>	<b>5.0</b>	<b>-0.7</b>	<b>-0.4</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.7</b>

#### Attribution Effects 1 Year Ending September 30, 2024



#### Attribution Summary

#### 1 Year Ending September 30, 2024

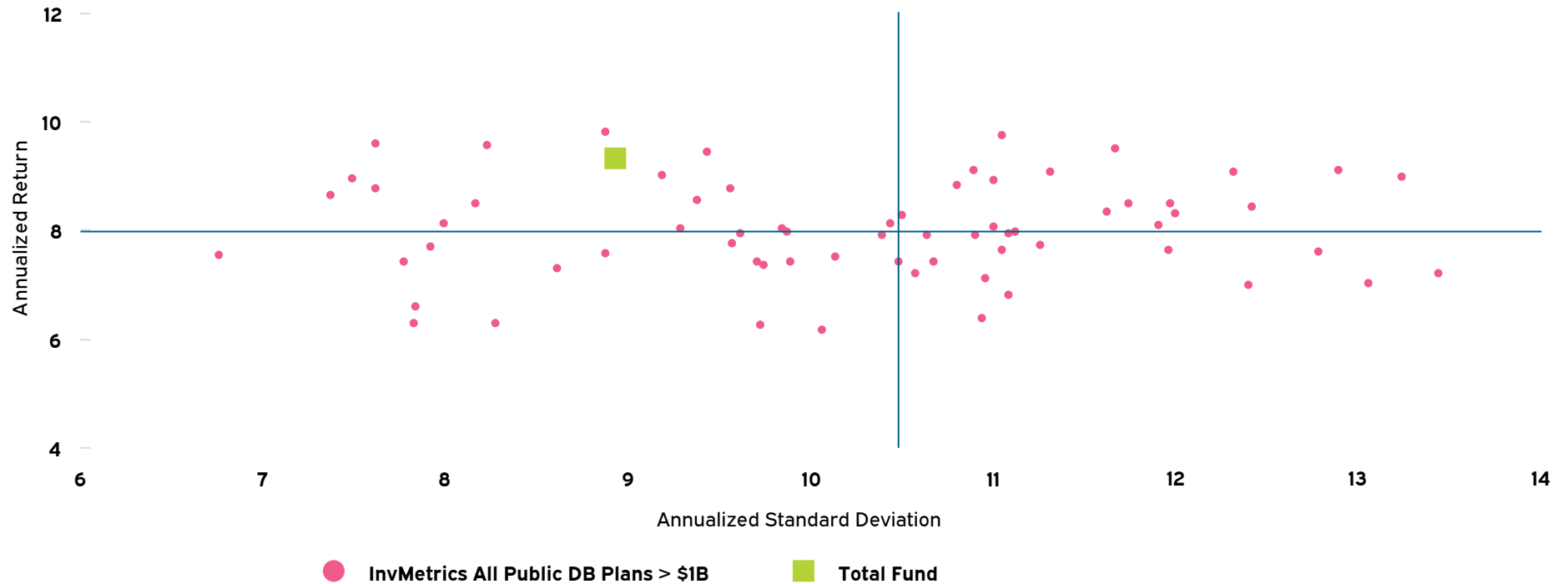
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction (%)	Total Effect (%)
US Equity	34.1	35.2	-1.1	-0.2	0.1	0.0	-0.2
Developed International Equity	26.7	24.5	2.2	0.2	0.0	0.1	0.2
Emerging Markets Equity	34.3	26.1	8.3	0.6	0.0	-0.1	0.5
US Fixed Income	12.4	11.1	1.3	0.2	0.1	-0.1	0.2
Opportunistic Credit	12.4	12.1	0.3	0.0	0.0	0.0	0.0
Real Estate	6.4	-9.3	15.7	1.4	0.0	0.0	1.4
Private Equity	7.3	23.1	-15.9	-2.6	-0.1	0.1	-2.6
Direct Lending	12.0	11.8	0.2	0.0	0.0	0.0	0.0
Hedge Fund	6.7	10.3	-3.5	-0.3	-0.2	-0.1	-0.5
Real Assets	15.2	18.9	-3.6	-0.2	0.0	-0.1	-0.3
Cash	1.2	1.4	-0.2	0.0	0.0	0.0	0.0
<b>Total Fund</b>	<b>18.3</b>	<b>19.6</b>	<b>-1.3</b>	<b>-0.9</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-1.3</b>

**Benchmark History**

From Date	To Date	Benchmark
<b>Total Fund</b>		
07/01/2024	Present	22.0% Russell 3000, 12.0% Custom Blended Developed International Equity BM, 6.0% MSCI EM, 18.0% US Fixed Income Custom Benchmark, 5.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% S&P LSTA Leveraged Loan +2%, 5.0% Custom Blended Real Assets Benchmark, 6.0% Custom Blended Real Estate Benchmark, 4.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever, 2.0% Blmbg. U.S. Treasury Bills: 1-3 Months
01/01/2022	07/01/2024	22.0% Russell 3000, 11.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 11.0% US Fixed Income Custom Benchmark, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% S&P LSTA Leveraged Loan +2%, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2020	01/01/2022	21.0% Russell 3000, 10.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 18.0% BBgBarc US Aggregate TR, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
07/01/2019	01/01/2020	21.0% US Equity Custom, 18.0% International Equity Custom, 18.0% US Fixed Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net), 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2019	07/01/2019	21.0% US Equity Custom, 23.0% US Fixed Custom, 18.0% International Equity Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net)
01/01/2017	01/01/2019	27.0% US Equity Custom, 22.0% US Fixed Custom, 23.0% International Equity Custom, 5.0% Custom Blended Hedge Fund Benchmark, 9.0% Thomson Reuters Cambridge Private Equity Index, 14.0% Real Asset Custom
07/01/2014	01/01/2017	22.7% Russell 1000 Index, 5.7% Russell 2000 Index, 23.6% International Equity Custom, 28.5% US Fixed Custom, 4.5% Custom Blended Hedge Fund Benchmark, 8.0% NCREIF ODCE (Net), 7.0% Thomson Reuters Cambridge Private Equity Index
<b>US Equity</b>		
01/01/2020	Present	100.0% Russell 3000 Index
12/31/1994	01/01/2020	100.0% Russell 3000
<b>International Equity</b>		
01/01/2019	Present	56.0% MSCI EAFE Index, 44.0% MSCI Emerging Markets Index
01/01/2017	01/01/2019	69.6% MSCI EAFE Index, 30.4% MSCI Emerging Markets Index

From Date	To Date	Benchmark
07/01/2013	01/01/2017	100.0% MSCI AC World ex USA index
<b>US Fixed Income</b>		
12/01/1994	Present	10.0% Blmbg. U.S. Treasury: 1-3 Year, 90.0% BBgBarc US Aggregate TR
<b>Hedge Fund</b>		
07/01/2017	Present	100.0% HFRI Fund of Funds Composite Index
01/01/2015	07/01/2017	50.0% HFRI Fund of Funds Composite Index, 50.0% HFRI RV: Multi-Strategy Index
<b>Real Assets</b>		
01/01/2022	Present	50.0% S&P Global Infrastructure, 50.0% S&P Global Natural Resources Sector Index (TR)
01/01/2020	01/01/2022	50.0% Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged), 50.0% Cambridge Infrastructure (1 Quarter Lagged)
03/01/1999	01/01/2020	100.0% Real Asset Custom
<b>SSgA</b>		
04/01/2017	Present	10.0% S&P Global Infrastructure, 15.0% Dow Jones U.S. Select RESI, 25.0% Bloomberg Roll Select Commodity TR Index, 25.0% S&P Global LargeMidcap Resources & Commodities Ind, 25.0% Blmbg. U.S. TIPS Index
<b>Private Real Estate</b>		
01/01/2020	Present	100.0% NCREIF ODCE 1Q Lagged
03/01/1999	01/01/2020	100.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net)
<b>Private Equity</b>		
01/01/2022	Present	100.0% Custom PE BM (Jan 2022 -) 1Q Lag
01/01/2020	01/01/2022	100.0% Cambridge Global Private Equity & VC (1 Quarter Lagged)
12/31/1994	01/01/2020	100.0% Thomson Reuters Cambridge Private Equity Index

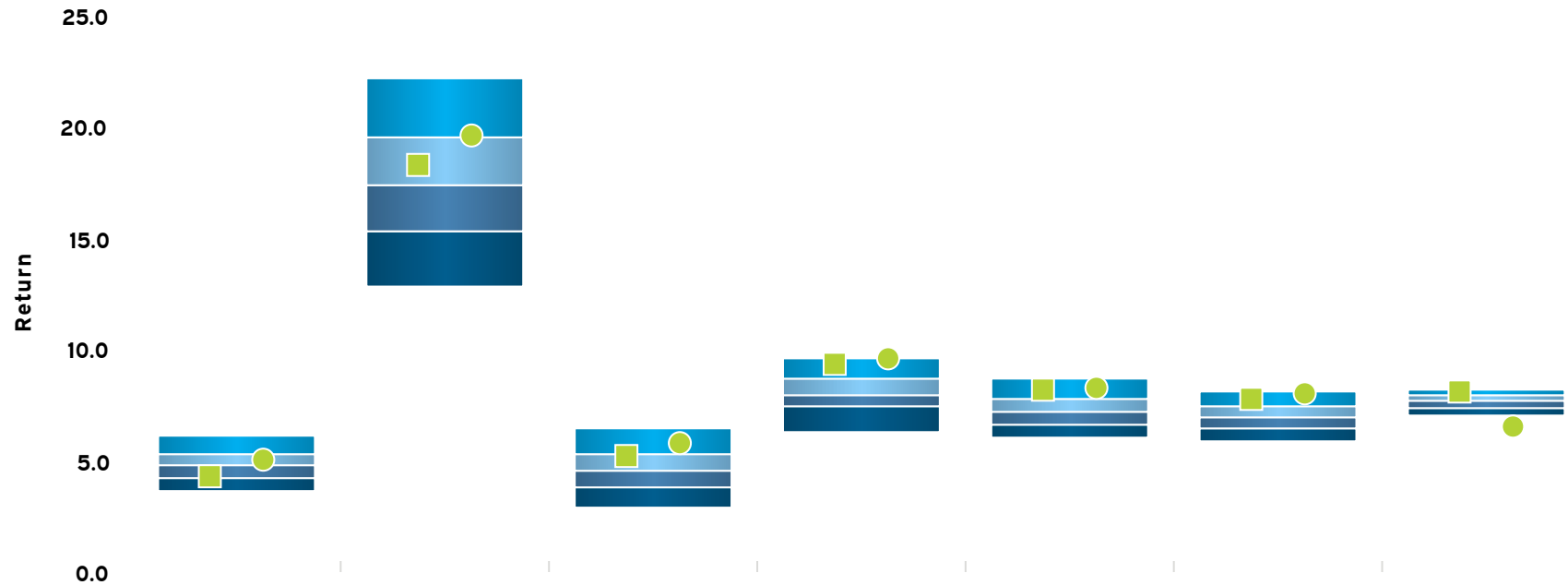
### Annualized Return vs. Annualized Standard Deviation 5 Years Ending September 30, 2024



	5 Years Return	5 Years Standard Deviation	5 Years Information Ratio	5 Years Beta	5 Years Sharpe Ratio	5 Years Tracking Error
Total Fund	9.3 (9)	8.9 (23)	-0.1 (17)	1.0 (24)	0.8 (9)	3.0 (7)
Policy Index	9.6 (6)	8.8 (20)	-	1.0	0.8 (8)	0.0
InvMetrics All Public DB Plans > \$1B Median	8.0	10.5	-0.3	1.1	0.6	4.0

Statistics Summary						
5 Years Ending September 30, 2024						
	5 Years Return	5 Years Standard Deviation	5 Years Information Ratio	5 Years Beta	5 Years Sharpe Ratio	5 Years Tracking Error
Total Fund	9.3	8.9	-0.1	1.0	0.8	3.0
<i>Policy Index</i>	9.6	8.8	-	1.0	0.8	0.0
InvMetrics All Public DB Plans > \$1B Median	8.0	10.5	-0.3	1.1	0.6	4.0





	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Since Inception
■ Total Fund	4.3 (73)	18.3 (34)	5.2 (27)	9.3 (9)	8.2 (17)	7.8 (19)	8.2 (16)
● Policy Index	5.0 (38)	19.6 (25)	5.8 (19)	9.6 (6)	8.3 (15)	8.1 (10)	6.5 (100)
5th Percentile	6.1	22.2	6.5	9.6	8.7	8.1	8.2
1st Quartile	5.3	19.5	5.3	8.7	7.8	7.5	7.9
Median	4.8	17.4	4.6	8.0	7.2	6.9	7.7
3rd Quartile	4.3	15.3	3.8	7.4	6.6	6.5	7.4
95th Percentile	3.7	12.9	2.9	6.3	6.1	5.9	7.1
Population	71	71	68	67	67	65	15

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

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

**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.  $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$ .

**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.

**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 its 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.

**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%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

**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.

**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.