



Employees' Retirement System of the City of Norfolk

November 6, 2024

Fund Evaluation Report

Agenda

1. Economic and Market Update
2. Executive Summary
3. Performance Summary
 - September 30, 2024
4. Appendices
 - Corporate Update
 - Disclaimer, Glossary, and Notes

Economic and Market Update

Data as of September 30, 2024

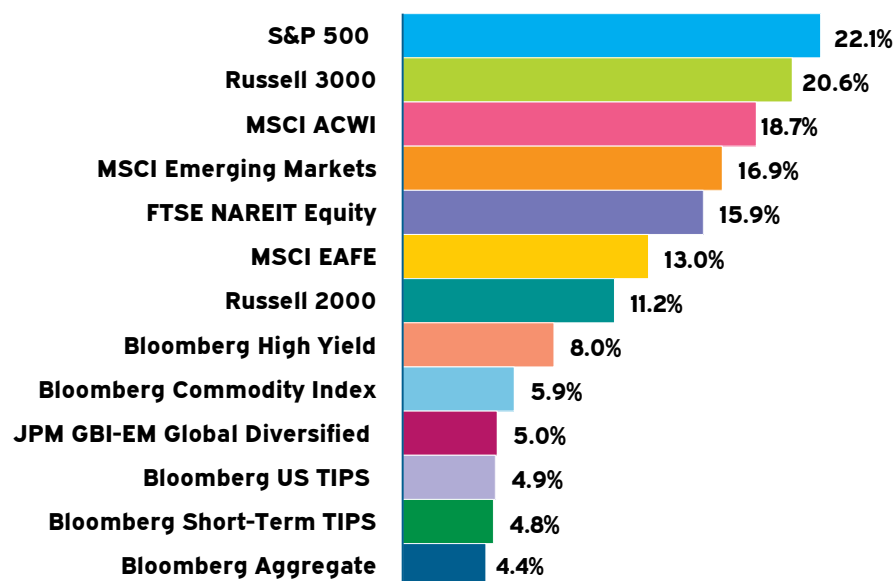
Commentary

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.

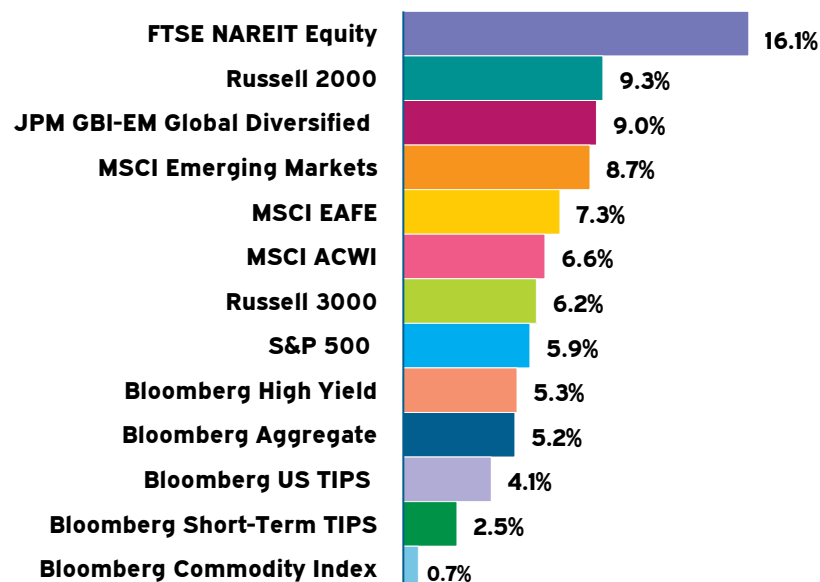
- In September, the Federal Reserve surprised many in the markets with a 50 basis point interest rate cut while the US economy and employment picture remains quite healthy.
- In the third quarter, US equities (Russell 3000) rose 6.2%. The US equity rally broadened, with value and small cap stocks outperforming 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 Returns¹

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.

¹ Source: Bloomberg. Data is as of September 30, 2024.

Domestic Equity Returns¹

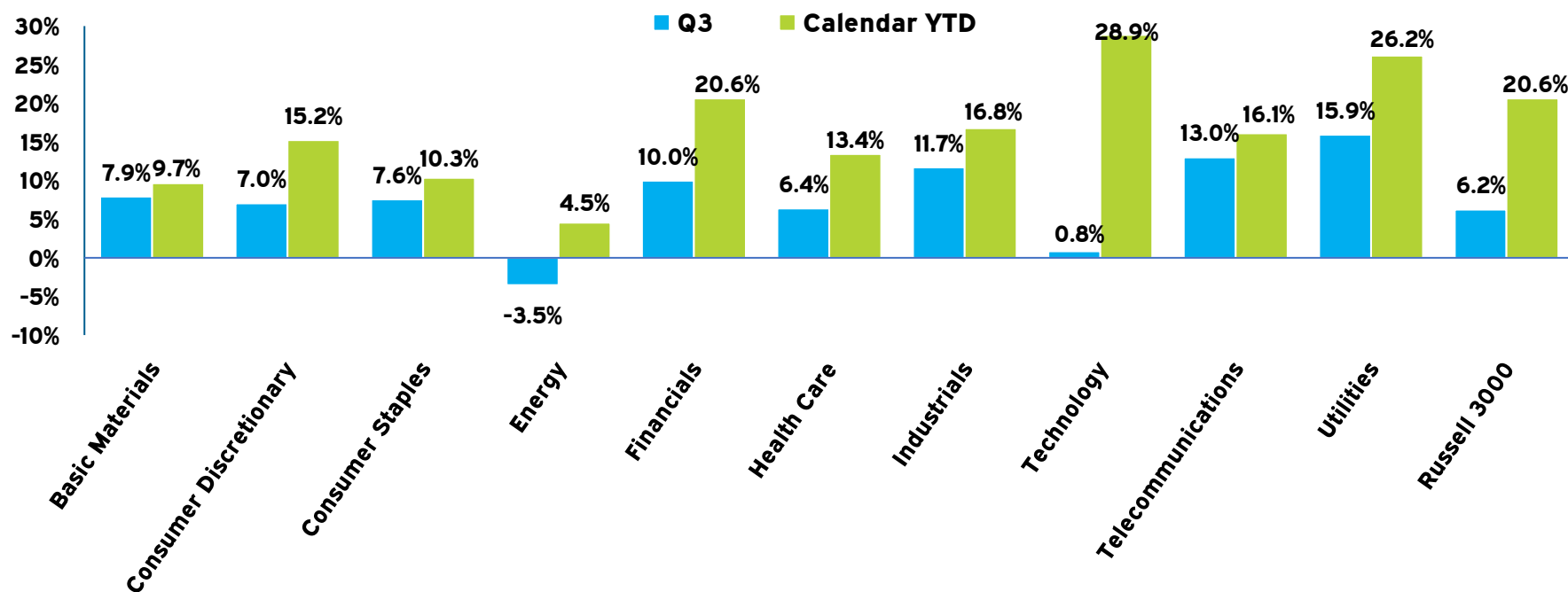
Domestic Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.1	5.9	22.1	36.4	11.9	16.0	13.4
Russell 3000	2.1	6.2	20.6	35.2	10.3	15.3	12.8
Russell 1000	2.1	6.1	21.2	35.7	10.8	15.6	13.1
Russell 1000 Growth	2.8	3.2	24.5	42.2	12.0	19.7	16.5
Russell 1000 Value	1.4	9.4	16.7	27.8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

¹ Source: Bloomberg. Data is as of September 30, 2024.

Russell 3000 Sector Returns¹



- 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%).

¹ Source: Bloomberg. Data is as of September 30, 2024.

Foreign Equity Returns¹

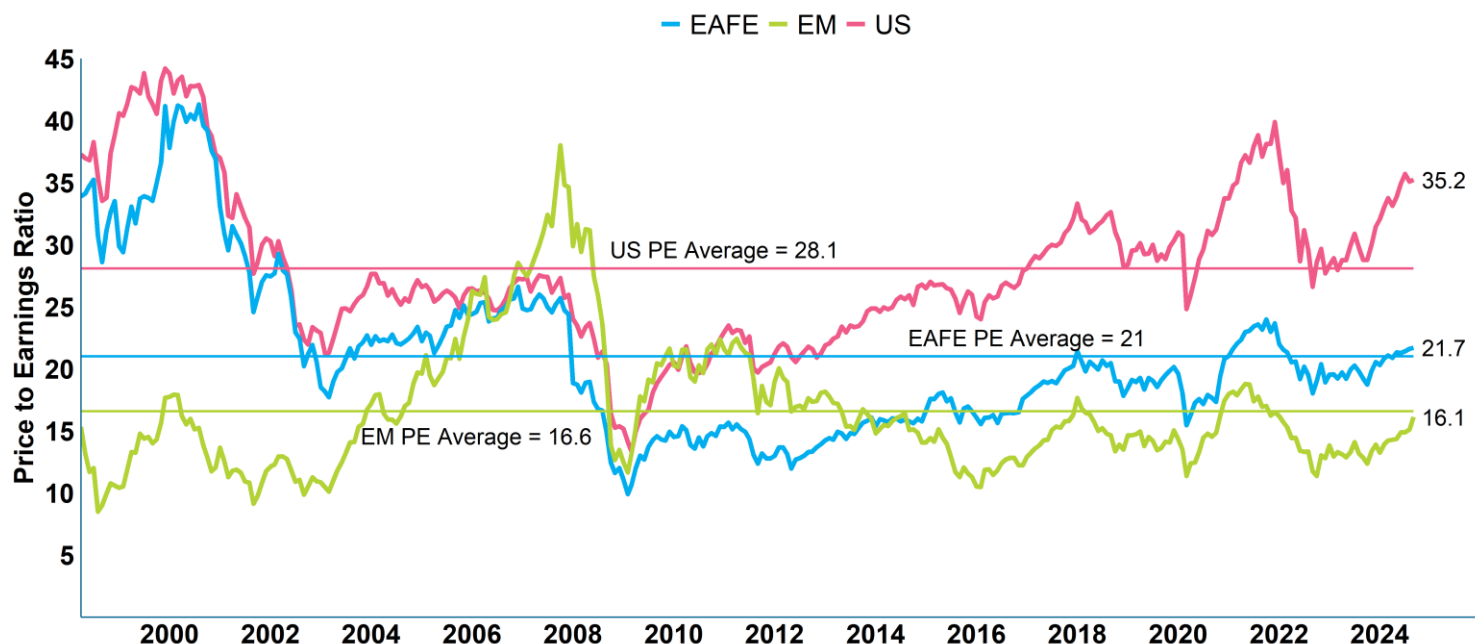
Foreign Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.7	8.1	14.2	25.4	4.1	7.6	5.2
MSCI EAFE	0.9	7.3	13.0	24.8	5.5	8.2	5.7
MSCI EAFE (Local Currency)	-0.4	0.8	12.0	17.5	7.9	8.8	7.4
MSCI EAFE Small Cap	2.6	10.5	11.1	23.5	-0.4	6.4	6.2
MSCI Emerging Markets	6.7	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.

¹ Source: Bloomberg. Data is as September 30, 2024.

Equity Cyclically Adjusted P/E Ratios¹



- 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.

¹ 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.

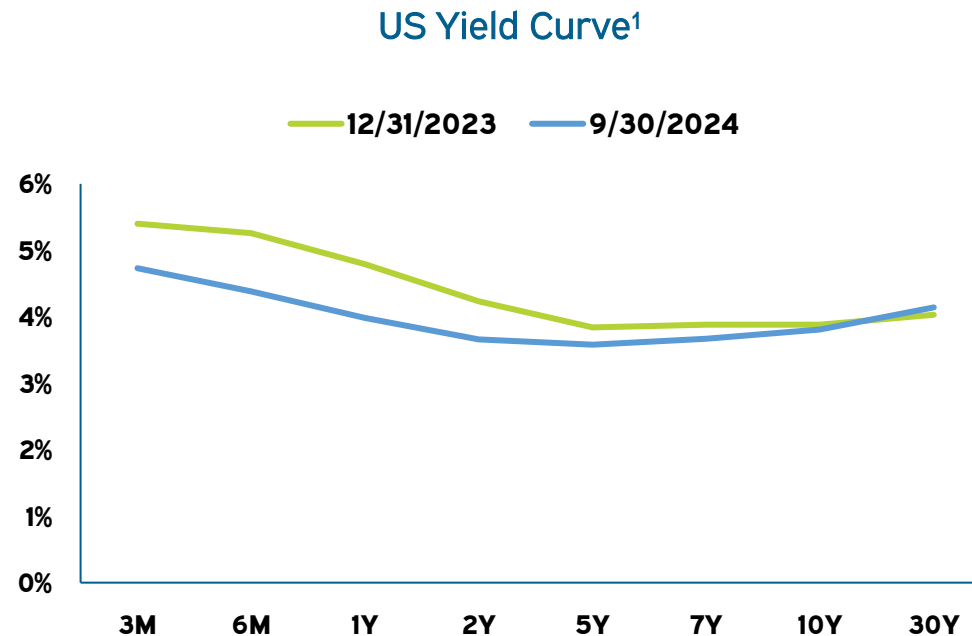
Fixed Income Returns¹

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%.

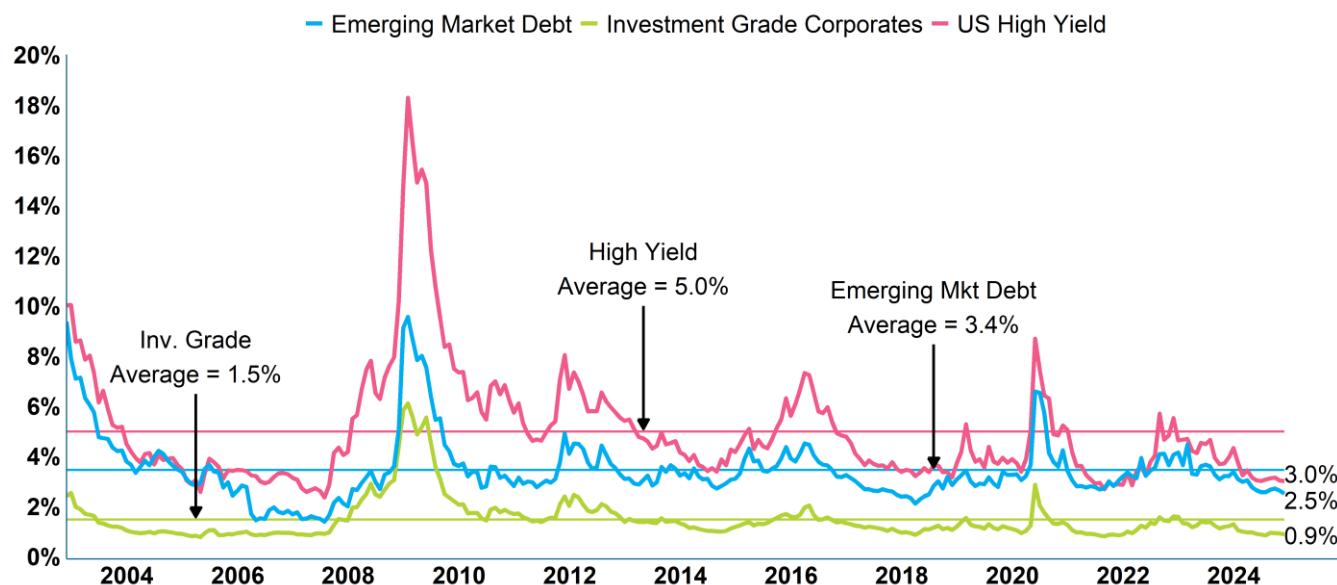
¹ Source: Bloomberg. Data is as of September 30, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



- 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.

¹ Source: Bloomberg. Data is as of September 30, 2024.

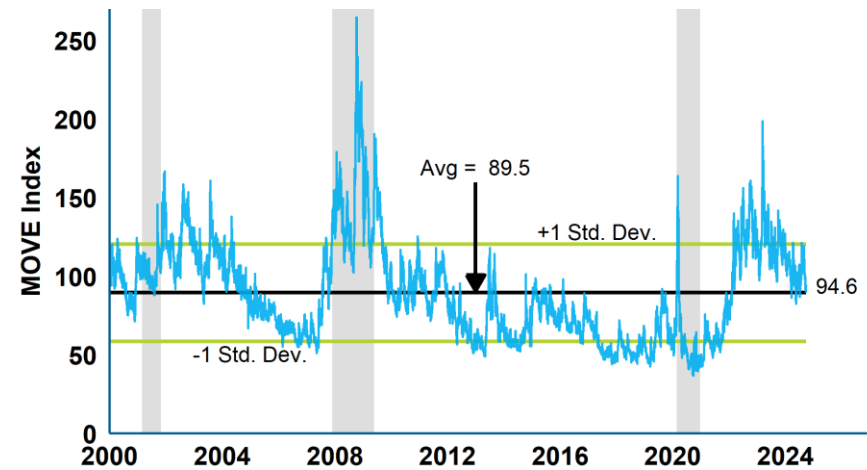
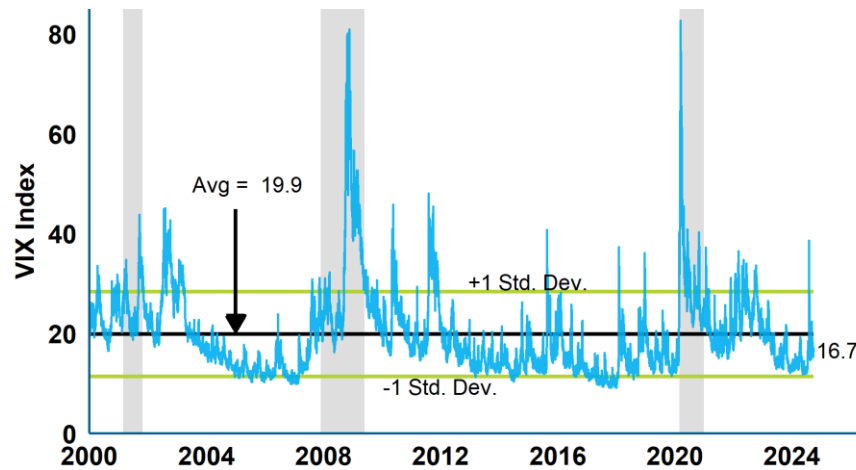
Credit Spreads vs. US Treasury Bonds¹



- 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.

¹ 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 Volatility¹



- 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.

¹ 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.

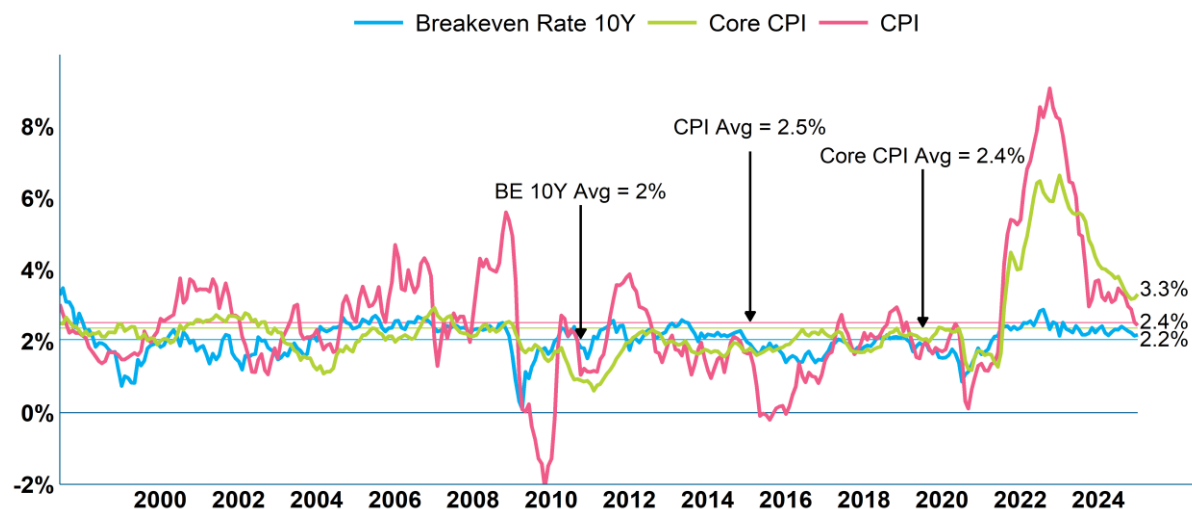
Recent Market Strength: China¹



- 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.

¹ Source: Bloomberg. Data as of September 30, 2024.

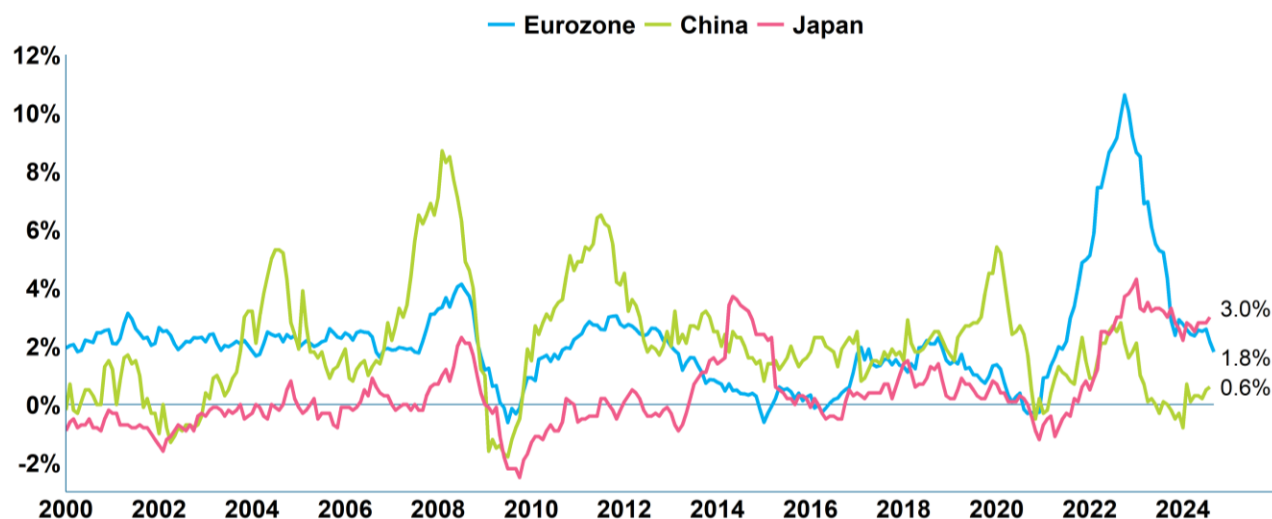
US Ten-Year Breakeven Inflation and CPI¹



- 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.

¹ 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.

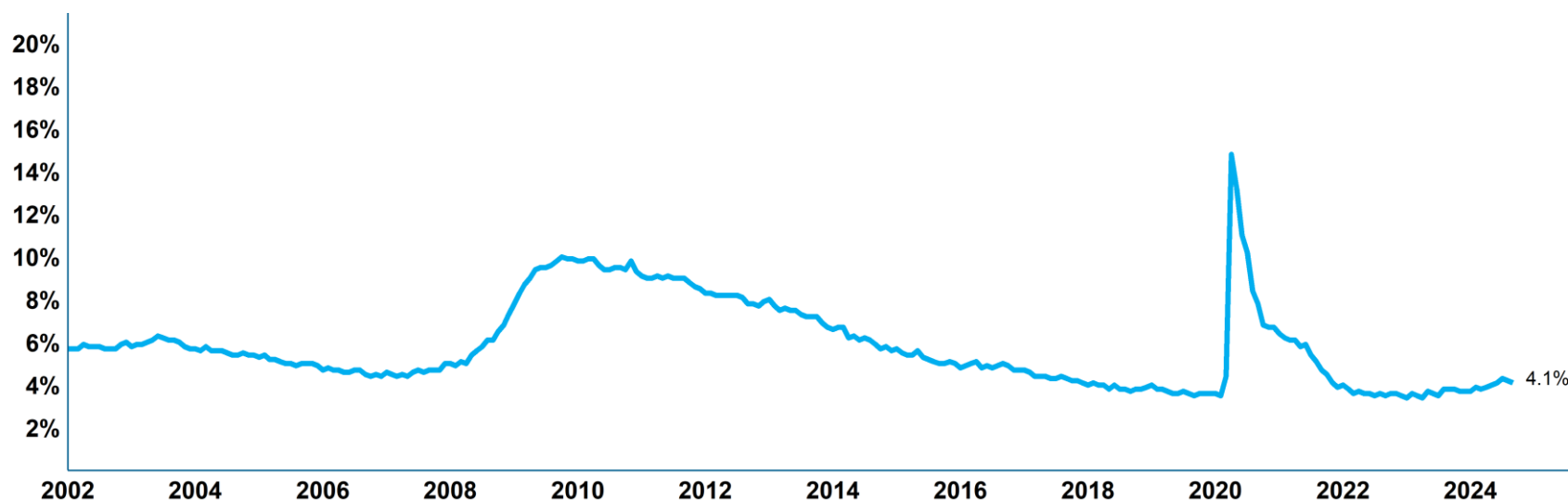
Global Inflation (CPI Trailing Twelve Months)¹



- 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.

¹ Source: Bloomberg. Data is as of September 30, 2024, except Japan and China which are as of August 31, 2024.

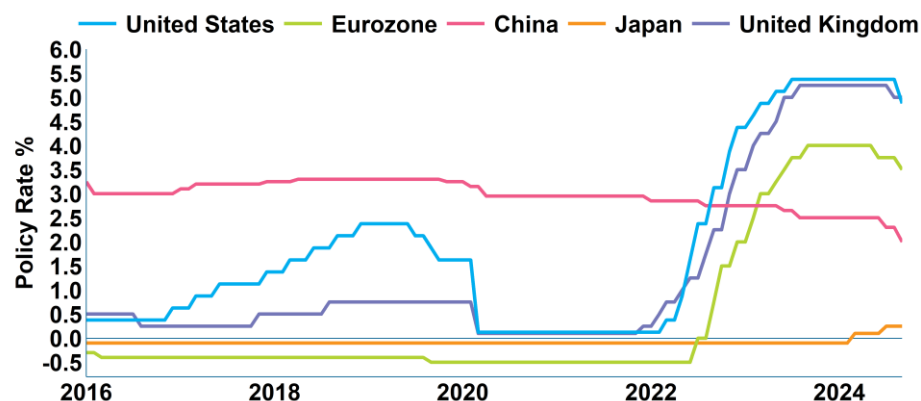
US Unemployment¹



- 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.

¹ Source: FRED. Data is as of September 30, 2024.

Policy Rates¹



- 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.

¹ 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 Currencies¹



- 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.

¹ 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

→ In September, US equities continued to rise, with value and small caps outperforming large cap growth stocks. Bonds also experienced positive returns in September as the Fed cut policy rates by 50 basis points with expectations for future cuts this year.

→ The below table reflects the latest estimated valuation data through September 2024.

NERS	September 2024	August 31, 2024	July 31, 2024
Total Fund Balance	\$1.42 Billion	\$1.40 Billion	\$1.38 Billion
Funded Status	91%	90%	89%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%
FYTD Rate of Return	6.1%	3.9%	2.0%
12 Months Trailing Rate of Return	20.5%	14.4%	10.3%
Monthly Rate of Return	2.1%	1.9%	2.0%
Monthly Gains/Losses	\$28.8 million	\$25.7 million	\$27.1 million
Monthly Net Cash Flow	-\$8.0 million	-\$8.0 million	\$34.3 million

→ The Actuarial Determined Contribution rates for Fiscal Year 2025 are:

- NERS: \$34.4 million
- VRS: 7.84%

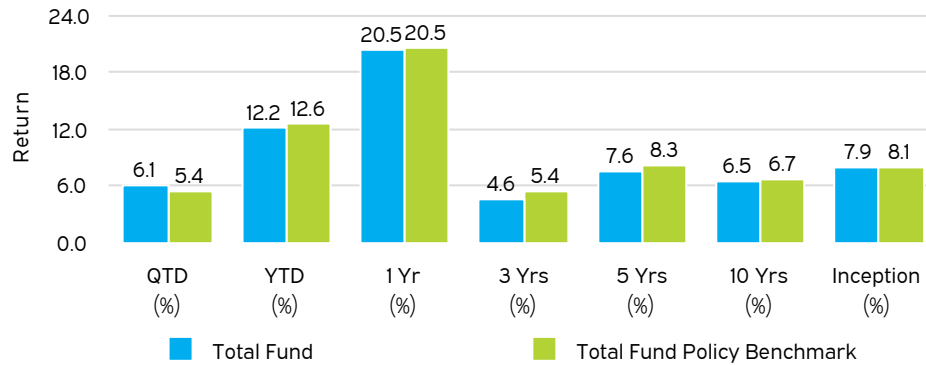
→ As of September 30, the System was inside of its target asset allocation ranges for all asset classes.

Performance Summary

Portfolio Objective

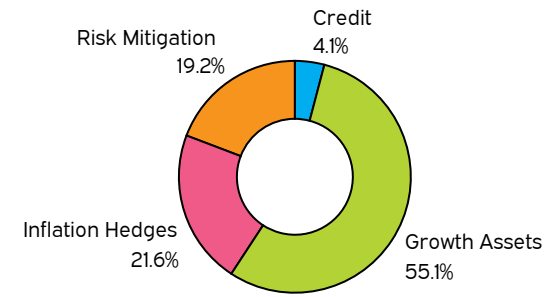
The Employees' Retirement System of the City of Norfolk is a long-term investor whose objective is to enable the System to provide retirement income for plan participants and beneficiaries. The System's strategy is generate a return that meets the long-term return objective, while minimizing volatility.

Return Summary



	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	6.1	12.2	20.5	4.6	7.6	6.5	7.9	10/01/1990
Total Fund Policy Benchmark	5.4	12.6	20.5	5.4	8.3	6.7	8.1	

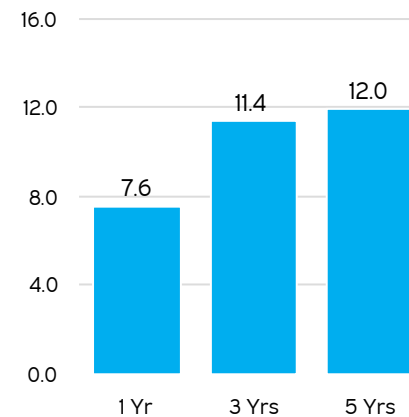
Current Allocation



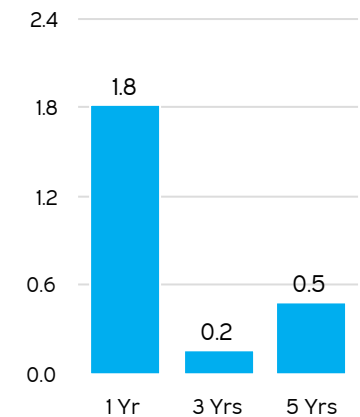
Summary of Cash Flows

	Quarter-To-Date	Year-To-Date
Total Fund		
Beginning Market Value	1,321,625,157	1,295,810,106
Net Cash Flow	18,431,648	-29,946,728
Net Investment Change	81,586,622	155,780,049
Ending Market Value	1,421,643,427	1,421,643,427

Annualized Standard Deviation

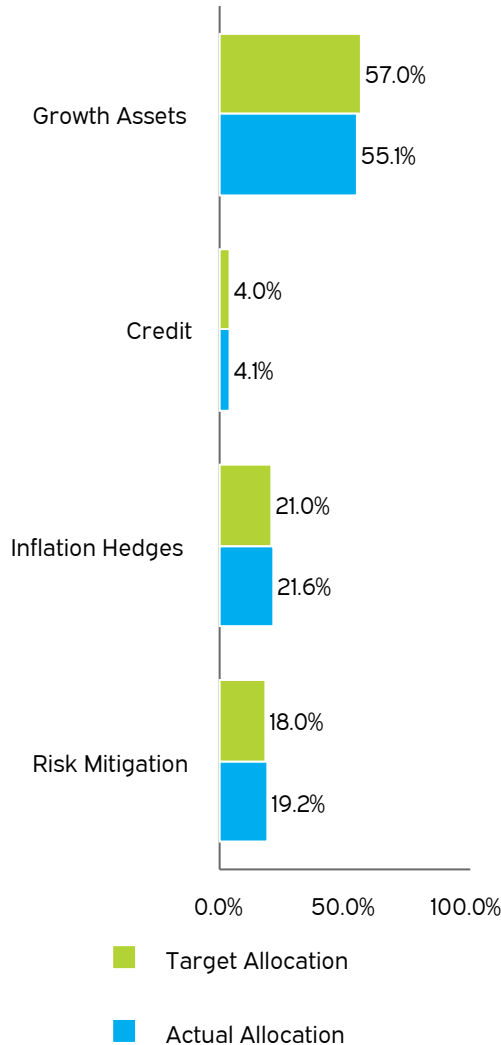


Sharpe Ratio



Performance Update | As of September 30, 2024

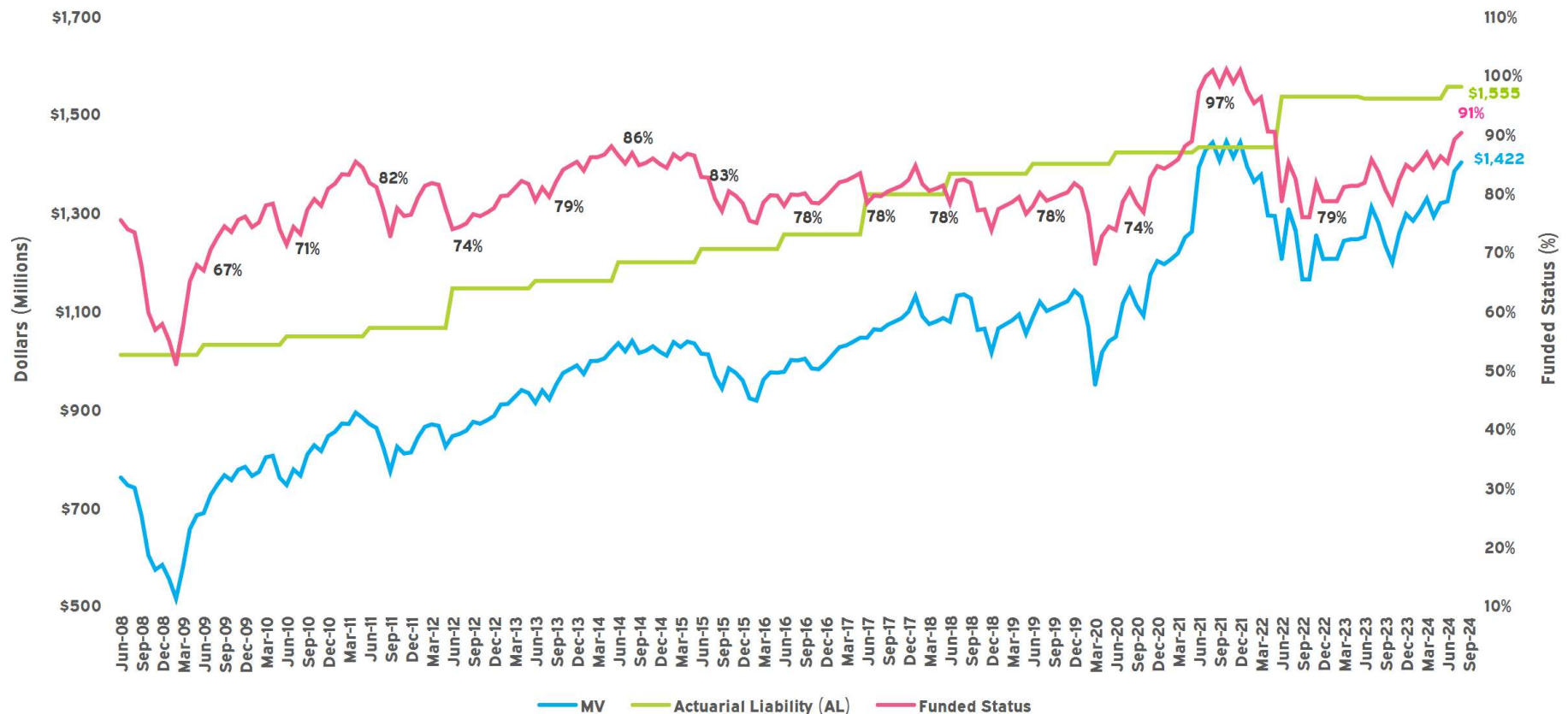
Actual vs. Target Allocation



Allocation vs. Targets and Policy

	Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	\$783,549,021	55.1	57.0	47.0 - 67.0	Yes
Global Equity	\$778,340,411	54.7	52.0	42.0 - 62.0	Yes
Private Equity	\$5,208,610	0.4	5.0	0.0 - 10.0	Yes
Credit	\$58,410,086	4.1	4.0	0.0 - 9.0	Yes
High Yield & Bank Loans	\$58,410,086	4.1	4.0	0.0 - 9.0	Yes
Inflation Hedges	\$306,689,358	21.6	21.0	14.0 - 28.0	Yes
Real Estate	\$111,261,427	7.8	8.0	3.0 - 13.0	Yes
Natural Resources & Infrastructure	\$72,861,585	5.1	5.0	0.0 - 10.0	Yes
Gold	\$53,702,453	3.8	3.0	0.0 - 6.0	Yes
Short-Term TIPS	\$68,863,893	4.8	5.0	0.0 - 10.0	Yes
Risk Mitigation	\$272,994,961	19.2	18.0	11.0 - 25.0	Yes
Investment Grade Fixed Income	\$218,071,805	15.3	14.0	7.0 - 21.0	Yes
Hedge Funds	\$53,196,524	3.7	4.0	0.0 - 9.0	Yes
Cash	\$1,726,633	0.1	0.0	0.0 - 3.0	Yes
Total	\$1,421,643,427	100.0	100.0		

Assets, Liabilities and Funded Status Over Time



As of June 30, 2023, Total Plan Actuarial Liability (AL) is \$1.555 billion and the Actuarial Value of assets (AVA) is \$1.324 billion for an Actuarial Funded Ratio (AVA/AL) of 85%. Using the Market Value of Assets (MVA), the Market Funded Ratio (MV/AL) was approximately 90% in August, 2024 and 91% in September, 2024.

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	1,421,643,427	100.0	6.1	12.2	20.5	4.6	7.6	6.5	7.9	Oct-90
Total Fund Policy Benchmark			5.4	12.6	20.5	5.4	8.3	6.7	8.1	
Total Fund Actual Allocation Benchmark			5.5	12.2	20.7	--	--	--	--	
Total Fund Public Benchmark			6.4	14.2	25.7	5.1	8.2	7.0	8.2	
Growth Assets	783,549,021	55.1	6.7	17.5	29.8	--	--	--	18.2	Dec-22
Growth Assets Custom Benchmark			6.6	18.6	30.4	--	--	--	19.5	
Global Equity	778,340,411	54.7	6.8	17.6	29.8	7.1	11.9	9.5	9.3	Oct-90
Global Equity Policy Benchmark			6.8	17.8	31.0	7.4	11.9	9.3	9.6	
Private Equity	5,208,610	0.4								
Credit	58,410,086	4.1	3.4	6.9	10.9	--	--	--	10.9	May-23
Credit Custom Benchmark			3.7	7.3	12.7	--	--	--	11.4	
High Yield & Bank Loans	58,410,086	4.1	3.4	6.9	10.9	--	--	--	10.9	May-23
High Yield & Bank Loans Custom Benchmark			3.7	7.3	12.7	--	--	--	11.4	
Inflation Hedges	306,689,358	21.6	6.1	7.6	9.7	--	--	--	0.0	Dec-22
Inflation Hedges Custom Benchmark			4.0	5.2	6.4	--	--	--	0.2	
Real Estate	111,261,427	7.8	6.2	3.0	0.7	-1.1	0.8	3.7	5.8	Apr-11
NCREIF ODCE (Net)			0.0	-3.2	-8.0	-1.0	2.1	5.2	6.9	
Natural Resources & Infrastructure	72,861,585	5.1	3.5	5.9	7.4	--	--	--	4.3	Apr-23
S&P Global LargeMidcap Resources & Commodities NR USD			4.6	6.0	6.9	--	--	--	3.8	
Gold	53,702,453	3.8	15.0	25.4	40.4	--	--	--	16.3	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			16.5	28.5	48.1	--	--	--	20.1	
Short-Term TIPS	68,863,893	4.8	2.5	4.9	7.5	--	--	--	5.1	Mar-23
Blmbg. U.S. TIPS 0-5 Year			2.5	4.8	7.5	--	--	--	5.7	

See benchmark history page for benchmark detail.

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	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Risk Mitigation	272,994,961	19.2	4.7	3.5	9.6	--	--	--	4.6	Dec-22
<i>Risk Mitigation Custom Benchmark</i>			3.7	4.2	9.5	--	--	--	4.4	
Investment Grade Fixed Income	218,071,805	15.3	6.2	4.5	13.3	-1.4	0.5	2.0	5.2	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	-1.4	0.3	1.8	5.1	
Intermediate-Term Bonds	165,941,049	11.7	5.7	5.3	12.9	-0.9	0.8	2.2	5.2	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	-1.4	0.3	1.8	5.1	
Long-Term Bonds	52,130,756	3.7	7.8	2.6	15.4	--	--	--	2.5	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			7.8	2.4	15.4	--	--	--	2.6	
Hedge Funds	53,196,524	3.7	-0.7	-0.9	-2.5	--	--	--	1.1	Apr-23
<i>Hedge Fund Custom Benchmark</i>			-1.3	2.9	2.0	--	--	--	3.4	
Cash	1,726,633	0.1								

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Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	1,421,643,427	100.0	6.1	12.2	20.5	4.6	7.6	6.5	7.9	Oct-90
Total Fund Policy Benchmark			5.4	12.6	20.5	5.4	8.3	6.7	8.1	
Total Fund Actual Allocation Benchmark			5.5	12.2	20.7	--	--	--	--	
Total Fund Public Benchmark			6.4	14.2	25.7	5.1	8.2	7.0	8.2	
Growth Assets	783,549,021	55.1	6.7	17.5	29.8	--	--	--	18.2	Dec-22
Growth Assets Custom Benchmark			6.6	18.6	30.4	--	--	--	19.5	
Global Equity	778,340,411	54.7	6.8	17.6	29.8	7.1	11.9	9.5	9.3	Oct-90
Global Equity Policy Benchmark			6.8	17.8	31.0	7.4	11.9	9.3	9.6	
SSgA Russell 1000 Growth Index	29,575,911	2.1	3.2	24.5	42.2	--	--	--	37.7	Mar-23
Russell 1000 Growth Index			3.2	24.6	42.2	--	--	--	37.6	
SSgA Russell 1000 Value Index	55,210,242	3.9	9.4	16.6	27.7	--	--	--	17.0	Mar-23
Russell 1000 Value Index			9.4	16.7	27.8	--	--	--	16.9	
DF Dent Small Cap Growth Fund	16,343,194	1.1	12.1	--	--	--	--	--	11.1	Jun-24
Russell 2000 Growth Index			8.4	--	--	--	--	--	8.2	
SSgA Russell 3000 Index	176,076,093	12.4	6.2	20.6	35.2	--	--	--	26.7	Mar-23
Russell 3000 Index			6.2	20.6	35.2	--	--	--	26.6	
SSgA MSCI EAFE	92,405,114	6.5	7.2	13.1	24.9	--	--	--	16.1	Mar-23
MSCI EAFE (Net)			7.3	13.0	24.8	--	--	--	15.8	
SSgA Emerging Markets Index	40,551,157	2.9	8.1	15.7	24.7	--	--	--	15.6	Mar-23
MSCI Emerging Markets (Net)			8.7	16.9	26.1	--	--	--	16.3	
ABS China Direct	9,495,496	0.7	17.6	20.0	13.7	--	--	--	1.1	Mar-23
MSCI China (Net)			23.5	29.3	23.9	--	--	--	9.0	
ABS EM ex China Direct	23,026,761	1.6	1.4	10.1	21.1	--	--	--	20.2	Mar-23
MSCI EM ex China			4.0	12.7	27.4	--	--	--	20.1	

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	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All-Cap	34,614,609	2.4	7.8	9.2	15.6	--	--	--	12.9	Apr-23
MSCI AC World Index (Net)			6.6	18.7	31.8	--	--	--	22.2	
First Eagle Global Equity	137,070,494	9.6	10.1	18.6	26.6	--	--	--	17.7	Apr-23
MSCI AC World Index (Net)			6.6	18.7	31.8	--	--	--	22.2	
Artisan Global Opportunities	105,077,687	7.4	4.3	17.4	32.7	--	--	--	21.2	Apr-23
MSCI AC World Index (Net)			6.6	18.7	31.8	--	--	--	22.2	
J. Stern & Co. World Stars Global Equity Fund	58,893,653	4.1	3.5	--	--	--	--	--	17.5	Feb-24
MSCI AC World IMI Index (Net)			6.8	--	--	--	--	--	17.6	
Private Equity	5,208,610	0.4								
NexPhase Capital Fund V, L.P.	241,778	0.0								
Vitruvian Investment Partnership V	127,214	0.0								
Lexington Capital Partners X, L.P.	4,029,169	0.3								
Flagship Pioneering Fund VIII, L.P.	193,163	0.0								
Gauge Capital IV, L.P.	203,436	0.0								
KPS Special Situations Fund VI, L.P.	413,850	0.0								
Credit	58,410,086	4.1	3.4	6.9	10.9	--	--	--	10.9	May-23
Credit Custom Benchmark			3.7	7.3	12.7	--	--	--	11.4	
High Yield & Bank Loans	58,410,086	4.1	3.4	6.9	10.9	--	--	--	10.9	May-23
High Yield & Bank Loans Custom Benchmark			3.7	7.3	12.7	--	--	--	11.4	
Sculptor Credit Opportunities Overseas Fund	26,208,874	1.8	0.4	3.7	5.2	--	--	--	6.4	May-23
Blmbg. Global High Yield Index			6.2	9.6	19.0	--	--	--	13.9	
Brigade High Income Fund	32,201,212	2.3	5.8	9.5	15.3	--	--	--	14.3	May-23
60% Barclays U.S. Corporate High Yield & 40% CS Lev Loans			4.0	7.4	13.3	--	--	--	11.5	

Private Equity asset market values are based on June 30, 2024 fair market values and adjusted for subsequent cash flows.
Sculptor Credit Opportunities Overseas Fund is an estimated market value.

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	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Inflation Hedges	306,689,358	21.6	6.1	7.6	9.7	--	--	--	0.0	Dec-22
<i>Inflation Hedges Custom Benchmark</i>			4.0	5.2	6.4	--	--	--	0.2	
Real Estate	111,261,427	7.8	6.2	3.0	0.7	-1.1	0.8	3.7	5.8	Apr-11
<i>NCREIF ODCE (Net)</i>			0.0	-3.2	-8.0	-1.0	2.1	5.2	6.9	
JP Morgan Asset Management Strategic Property Fund	43,925,048	3.1	0.6	-4.1	-11.4	-3.1	0.7	4.2	6.4	Apr-11
<i>NCREIF ODCE (Net)</i>			0.0	-3.2	-8.0	-1.0	2.1	5.2	6.9	
UBS Trumbull Property Fund	21,650,663	1.5	-0.2	-3.2	-7.2	-3.5	-1.3	2.2	3.6	Dec-11
<i>NCREIF ODCE (Net)</i>			0.0	-3.2	-8.0	-1.0	2.1	5.2	6.6	
SSgA US REIT	45,685,716	3.2	15.5	14.8	33.5	--	--	--	14.5	Mar-23
<i>Dow Jones U.S. Select RESI</i>			15.5	14.8	33.6	--	--	--	14.6	
Natural Resources & Infrastructure	72,861,585	5.1	3.5	5.9	7.4	--	--	--	4.3	Apr-23
<i>S&P Global LargeMidcap Resources & Commodities Ind</i>			4.6	6.0	6.9	--	--	--	3.8	
SSgA S&P Global LargeMidCap Natural Resources Index	56,586,308	4.0	4.5	6.0	6.7	--	--	--	3.8	Apr-23
<i>S&P Global LargeMidcap Resources & Commodities Ind</i>			4.6	6.0	6.9	--	--	--	3.8	
JP Morgan Infrastructure Investments Fund	16,275,277	1.1	0.0	5.1	8.5	--	--	--	8.5	Oct-23
<i>DJ Brookfield Listed Public Infrastructure +1%</i>			14.6	14.3	28.5	--	--	--	28.5	
Gold	53,702,453	3.8	15.0	25.4	40.4	--	--	--	16.3	Apr-23
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>			16.5	28.5	48.1	--	--	--	20.1	
First Eagle Institutional Gold Fund, LP	53,702,453	3.8	15.0	25.4	40.4	--	--	--	16.3	Apr-23
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>			16.5	28.5	48.1	--	--	--	20.1	
Short-Term TIPS	68,863,893	4.8	2.5	4.9	7.5	--	--	--	5.1	Mar-23
<i>Blmbg. U.S. TIPS 0-5 Year</i>			2.5	4.8	7.5	--	--	--	5.7	
Vanguard Short-Term TIPS Index	68,863,893	4.8	2.5	4.9	7.5	--	--	--	4.8	Apr-23
<i>Blmbg. U.S. TIPS 0-5 Year</i>			2.5	4.8	7.5	--	--	--	4.8	

JP Morgan Infrastructure Investments Fund is stated using last quarter's market value.

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	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Risk Mitigation	272,994,961	19.2	4.7	3.5	9.6	--	--	--	4.6	Dec-22
<i>Risk Mitigation Custom Benchmark</i>			3.7	4.2	9.5	--	--	--	4.4	
Investment Grade Fixed Income	218,071,805	15.3	6.2	4.5	13.3	-1.4	0.5	2.0	5.2	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	-1.4	0.3	1.8	5.1	
Intermediate-Term Bonds	165,941,049	11.7	5.7	5.3	12.9	-0.9	0.8	2.2	5.2	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	-1.4	0.3	1.8	5.1	
SSqA US Aggregate Bond	44,708,041	3.1	5.2	4.6	11.6	-1.4	0.3	1.9	2.8	Jan-09
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	-1.4	0.3	1.8	2.8	
Wellington Core Bond	89,928,385	6.3	5.4	5.6	13.2	--	--	--	5.8	May-23
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	--	--	--	4.5	
Brandywine U.S. Fixed Income	31,304,623	2.2	7.2	4.9	14.0	--	--	--	5.2	Jun-23
<i>Blmbg. U.S. Aggregate Index</i>			5.2	4.4	11.6	--	--	--	5.6	
Long-Term Bonds	52,130,756	3.7	7.8	2.6	15.4	--	--	--	2.5	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			7.8	2.4	15.4	--	--	--	2.6	
SSqA Long US Treasury Index	52,130,756	3.7	7.8	2.6	15.4	--	--	--	2.5	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			7.8	2.4	15.4	--	--	--	2.6	
Hedge Funds	53,196,524	3.7	-0.7	-0.9	-2.5	--	--	--	1.1	Apr-23
<i>Hedge Fund Custom Benchmark</i>			-1.3	2.9	2.0	--	--	--	3.4	
36 South Kohinoor Series (Cayman) Fund	13,437,670	0.9	-0.4	1.0	-2.2	--	--	--	1.1	Apr-23
<i>CBOE EurekaHedge Long Volatility Hedge Fund Index</i>			2.7	1.2	-2.7	--	--	--	-2.5	
BH-DG Systematic Trading Master Fund	16,631,844	1.2	-4.7	-6.0	-7.1	--	--	--	-0.3	Apr-23
<i>SG Trend Index</i>			-5.7	2.4	-2.7	--	--	--	3.9	
Lombard Odier Bear Convexity	5,798,521	0.4	0.7	2.7	-2.0	--	--	--	-1.6	Apr-23
<i>CBOE EurekaHedge Long Volatility Hedge Fund Index</i>			2.7	1.2	-2.7	--	--	--	-2.5	
Alpstone Global Macro Fund	17,328,488	1.2	2.5	0.5	1.5	--	--	--	2.6	May-23
<i>HFRI Macro (Total) Index</i>			-0.8	4.6	3.8	--	--	--	4.2	
Cash	1,726,633	0.1								
Cash	1,726,633	0.1								

Fiscal Year Performance						
	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
Total Fund	10.4	8.4	-10.0	25.9	0.6	5.3
<i>Total Fund Policy Benchmark</i>	<i>12.1</i>	<i>9.5</i>	<i>-10.0</i>	<i>26.5</i>	<i>1.3</i>	<i>5.9</i>
<i>Total Fund Actual Allocation Benchmark</i>	<i>11.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
<i>Total Fund Public Benchmark</i>	<i>14.2</i>	<i>10.5</i>	<i>-14.1</i>	<i>24.1</i>	<i>4.6</i>	<i>6.2</i>
Growth Assets	17.4	--	--	--	--	--
<i>Growth Assets Custom Benchmark</i>	<i>19.3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Global Equity	17.4	15.8	-16.2	41.6	1.6	5.0
<i>Global Equity Policy Benchmark</i>	<i>18.4</i>	<i>16.1</i>	<i>-16.5</i>	<i>40.9</i>	<i>1.2</i>	<i>4.6</i>
SSgA Russell 1000 Growth Index	33.5	--	--	--	--	--
<i>Russell 1000 Growth Index</i>	<i>33.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
SSgA Russell 1000 Value Index	13.0	--	--	--	--	--
<i>Russell 1000 Value Index</i>	<i>13.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
SSgA Russell 3000 Index	23.1	--	--	--	--	--
<i>Russell 3000 Index</i>	<i>23.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
DF Dent Small Cap Growth Fund	--	--	--	--	--	--
<i>Russell 2000 Growth Index</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
SSgA MSCI EAFE	11.7	--	--	--	--	--
<i>MSCI EAFE (Net)</i>	<i>11.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
SSgA Emerging Markets Index	11.6	--	--	--	--	--
<i>MSCI Emerging Markets (Net)</i>	<i>12.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
ABS China Direct	-6.3	--	--	--	--	--
<i>MSCI China (Net)</i>	<i>-1.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
ABS EM ex China Direct	17.8	--	--	--	--	--
<i>MSCI EM ex China</i>	<i>18.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Kopernik Global All-Cap	11.8	--	--	--	--	--
<i>MSCI AC World Index (Net)</i>	<i>19.4</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
First Eagle Global Equity	10.5	--	--	--	--	--
<i>MSCI AC World Index (Net)</i>	<i>19.4</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>

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	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
Artisan Global Opportunities	20.5	--	--	--	--	--
<i>MSCI AC World Index (Net)</i>	<i>19.4</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
J. Stern & Co. World Stars Global Equity Fund	--	--	--	--	--	--
<i>MSCI AC World IMI Index (Net)</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Private Equity						
NexPhase Capital Fund V, L.P.						
Vitruvian Investment Partnership V						
Lexington Capital Partners X, L.P.						
Flagship Pioneering Fund VIII, L.P.						
Gauge Capital IV, L.P.						
KPS Special Situations Fund VI, L.P.						
Credit	9.8	--	--	--	--	--
<i>Credit Custom Benchmark</i>	<i>10.8</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
High Yield & Bank Loans	9.8	--	--	--	--	--
<i>High Yield & Bank Loans Custom Benchmark</i>	<i>10.8</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Sculptor Credit Opportunities Overseas Fund	6.4	--	--	--	--	--
<i>Blmbg. Global High Yield Index</i>	<i>11.8</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Brigade High Income Fund	12.3	--	--	--	--	--
<i>60% Barclays U.S. Corporate High Yield & 40% CS Lev Loans</i>	<i>10.7</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Inflation Hedges	1.9	--	--	--	--	--
<i>Inflation Hedges Custom Benchmark</i>	<i>1.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
Real Estate	-8.4	-12.1	18.1	3.7	-0.3	1.9
<i>NCREIF ODCE (Net)</i>	<i>-10.0</i>	<i>-10.7</i>	<i>28.3</i>	<i>7.1</i>	<i>1.3</i>	<i>5.5</i>
JP Morgan Asset Management Strategic Property Fund	-14.9	-11.3	27.5	6.1	1.2	4.6
<i>NCREIF ODCE (Net)</i>	<i>-10.0</i>	<i>-10.7</i>	<i>28.3</i>	<i>7.1</i>	<i>1.3</i>	<i>5.5</i>
UBS Trumbull Property Fund	-8.6	-15.6	23.5	1.1	-1.9	-0.8
<i>NCREIF ODCE (Net)</i>	<i>-10.0</i>	<i>-10.7</i>	<i>28.3</i>	<i>7.1</i>	<i>1.3</i>	<i>5.5</i>
SSgA US REIT	7.0	--	--	--	--	--
<i>Dow Jones U.S. Select RESI</i>	<i>7.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>

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	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
Natural Resources & Infrastructure	6.8	--	--	--	--	--
<i>S&P Global LargeMidcap Resources & Commodities Ind</i>	<i>5.2</i>	--	--	--	--	--
SSgA S&P Global LargeMidCap Natural Resources Index	5.2	--	--	--	--	--
<i>S&P Global LargeMidcap Resources & Commodities Ind</i>	<i>5.2</i>	--	--	--	--	--
JP Morgan Infrastructure Investments Fund	--	--	--	--	--	--
<i>DJ Brookfield Listed Public Infrastructure +1%</i>	--	--	--	--	--	--
Gold	15.3	--	--	--	--	--
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>	<i>17.8</i>	--	--	--	--	--
First Eagle Institutional Gold Fund, LP	15.3	--	--	--	--	--
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>	<i>17.8</i>	--	--	--	--	--
Short-Term TIPS	5.4	--	--	--	--	--
<i>Blmbg. U.S. TIPS 0-5 Year</i>	<i>5.4</i>	--	--	--	--	--
Vanguard Short-Term TIPS Index	5.4	--	--	--	--	--
<i>Blmbg. U.S. TIPS 0-5 Year</i>	<i>5.4</i>	--	--	--	--	--
Risk Mitigation	0.5	--	--	--	--	--
<i>Risk Mitigation Custom Benchmark</i>	<i>3.2</i>	--	--	--	--	--
Investment Grade Fixed Income	0.9	0.1	-10.5	0.2	8.6	7.6
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
Intermediate-Term Bonds	3.1	0.0	-10.5	0.2	8.6	7.6
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
SSgA US Aggregate Bond	2.6	-0.9	-10.3	-0.3	8.8	7.9
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
Wellington Core Bond	4.0	--	--	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	--	--	--	--	--
Brandywine U.S. Fixed Income	0.5	--	--	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	--	--	--	--	--
Long-Term Bonds	-5.7	--	--	--	--	--
<i>Blmbg. U.S. Treasury: Long</i>	<i>-5.6</i>	--	--	--	--	--
SSgA Long US Treasury Index	-5.7	--	--	--	--	--
<i>Blmbg. U.S. Treasury: Long</i>	<i>-5.6</i>	--	--	--	--	--
Hedge Funds	-1.2	--	--	--	--	--
<i>Hedge Fund Custom Benchmark</i>	<i>4.7</i>	--	--	--	--	--
36 South Kohinoor Series (Cayman) Fund	0.6	--	--	--	--	--
<i>CBOE EurekaHedge Long Volatility Hedge Fund Index</i>	<i>-3.7</i>	--	--	--	--	--

Performance Update | As of September 30, 2024

	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
BH-DG Systematic Trading Master Fund	-4.7	--	--	--	--	--
<i>SG Trend Index</i>	<i>4.0</i>	--	--	--	--	--
Lombard Odier Bear Convexity	-2.9	--	--	--	--	--
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>	<i>-3.7</i>	--	--	--	--	--
Alpstone Global Macro Fund	1.1	--	--	--	--	--
<i>HFRI Macro (Total) Index</i>	<i>5.9</i>	--	--	--	--	--
Cash						

	Risk Return Statistics	
	3 Yrs (%)	5 Yrs (%)
	Total Fund	Total Fund
RETURN SUMMARY STATISTICS		
Maximum Return	5.8	8.3
Minimum Return	-7.3	-10.5
Return	4.6	7.6
Excess Return	1.8	5.8
Excess Performance	-0.8	-0.6
RISK SUMMARY STATISTICS		
Beta	1.0	0.9
Up Capture	98.2	96.6
Down Capture	102.6	99.5
RISK/RETURN SUMMARY STATISTICS		
Standard Deviation	11.4	12.0
Sortino Ratio	0.2	0.7
Alpha	-0.8	-0.2
Sharpe Ratio	0.2	0.5
Excess Risk	11.3	12.0
Tracking Error	0.9	1.5
Information Ratio	-0.8	-0.4
CORRELATION STATISTICS		
R-Squared	1.0	1.0
Actual Correlation	1.0	1.0

Statistics Summary 3 Years Ending September 30, 2024

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Fund	4.6	11.4	-0.8	1.0	0.2	0.9
Total Fund Policy Benchmark	5.4	11.3	-	1.0	0.2	0.0
Growth Assets	-	-	-	-	-	-
Growth Assets Custom Benchmark	-	-	-	-	-	-
Global Equity	7.1	16.1	-0.5	1.0	0.3	0.8
Global Equity Policy Benchmark	7.4	16.5	-	1.0	0.3	0.0
SSgA Russell 1000 Growth Index	-	-	-	-	-	-
Russell 1000 Growth Index	12.0	20.6	-	1.0	0.5	0.0
SSgA Russell 1000 Value Index	-	-	-	-	-	-
Russell 1000 Value Index	9.0	16.4	-	1.0	0.4	0.0
DF Dent Small Cap Growth Fund	-	-	-	-	-	-
Russell 2000 Growth Index	-0.4	22.8	-	1.0	-0.1	0.0
SSgA Russell 3000 Index	-	-	-	-	-	-
Russell 3000 Index	10.3	17.5	-	1.0	0.5	0.0
SSgA MSCI EAFE	-	-	-	-	-	-
MSCI EAFE (Net)	5.5	16.7	-	1.0	0.2	0.0
SSgA Emerging Markets Index	-	-	-	-	-	-
MSCI Emerging Markets (Net)	0.4	17.4	-	1.0	-0.1	0.0
ABS China Direct	-	-	-	-	-	-
MSCI China (Net)	-5.6	32.3	-	1.0	-0.1	0.0

Performance Update | As of September 30, 2024

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
ABS EM ex China Direct	-	-	-	-	-	-
MSCI EM ex China	2.3	17.1	-	1.0	0.0	0.0
Kopernik Global All-Cap	-	-	-	-	-	-
MSCI AC World Index (Net)	8.1	16.3	-	1.0	0.4	0.0
First Eagle Global Equity	-	-	-	-	-	-
MSCI AC World Index (Net)	8.1	16.3	-	1.0	0.4	0.0
Artisan Global Opportunities	-	-	-	-	-	-
MSCI AC World Index (Net)	8.1	16.3	-	1.0	0.4	0.0
Credit	-	-	-	-	-	-
Credit Custom Benchmark	-	-	-	-	-	-
High Yield & Bank Loans	-	-	-	-	-	-
High Yield & Bank Loans Custom Benchmark	4.7	5.6	-	1.0	0.3	0.0
Sculptor Credit Opportunities Overseas Fund	-	-	-	-	-	-
Blmbg. Global High Yield Index	2.7	9.5	-	1.0	0.0	0.0
Brigade High Income Fund	-	-	-	-	-	-
60% Barclays U.S. Corporate High Yield & 40% CS Lev Loans	4.4	6.1	-	1.0	0.2	0.0
Inflation Hedges	-	-	-	-	-	-
Inflation Hedges Custom Benchmark	-	-	-	-	-	-
Real Estate	-1.1	6.6	0.0	0.6	-0.6	5.9
NCREIF ODCE (Net)	-1.0	8.4	-	1.0	-0.5	0.0
JP Morgan Asset Management Strategic Property Fund	-3.1	6.2	-0.3	0.5	-1.0	6.6
NCREIF ODCE (Net)	-1.0	8.4	-	1.0	-0.5	0.0

Performance Update | As of September 30, 2024

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
UBS Trumbull Property Fund	-3.5	8.3	-0.9	0.9	-0.8	2.8
NCREIF ODCE (Net)	-1.0	8.4	-	1.0	-0.5	0.0
SSgA US REIT	-	-	-	-	-	-
Dow Jones U.S. Select RESI	4.3	21.6	-	1.0	0.1	0.0
Natural Resources & Infrastructure	-	-	-	-	-	-
S&P Global LargeMidcap Resources & Commodities Ind	9.0	19.9	-	1.0	0.4	0.0
SSgA S&P Global LargeMidCap Natural Resources Index	-	-	-	-	-	-
S&P Global LargeMidcap Resources & Commodities Ind	9.0	19.9	-	1.0	0.4	0.0
JP Morgan Infrastructure Investments Fund	-	-	-	-	-	-
DJ Brookfield Listed Public Infrastructure +1%	7.0	17.3	-	1.0	0.3	0.0
Gold	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	13.1	20.0	-	1.0	0.5	0.0
First Eagle Institutional Gold Fund, LP	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	13.1	20.0	-	1.0	0.5	0.0
Short-Term TIPS	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.5	3.2	-	1.0	-0.3	0.0
Vanguard Short-Term TIPS Index	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.5	3.2	-	1.0	-0.3	0.0
Risk Mitigation	-	-	-	-	-	-
Risk Mitigation Custom Benchmark	-	-	-	-	-	-
Investment Grade Fixed Income	-1.4	8.7	0.0	1.1	-0.5	1.7
Blmbg. U.S. Aggregate Index	-1.4	7.5	-	1.0	-0.6	0.0

Performance Update | As of September 30, 2024

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Intermediate-Term Bonds	-0.9	7.8	0.9	1.0	-0.5	0.6
Blmbg. U.S. Aggregate Index	-1.4	7.5	-	1.0	-0.6	0.0
SSgA US Aggregate Bond	-1.4	7.5	0.0	1.0	-0.6	0.2
Blmbg. U.S. Aggregate Index	-1.4	7.5	-	1.0	-0.6	0.0
Wellington Core Bond	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-1.4	7.5	-	1.0	-0.6	0.0
Brandywine U.S. Fixed Income	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-1.4	7.5	-	1.0	-0.6	0.0
Long-Term Bonds	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-8.4	15.6	-	1.0	-0.7	0.0
SSgA Long US Treasury Index	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-8.4	15.6	-	1.0	-0.7	0.0
Hedge Funds	-	-	-	-	-	-
Hedge Fund Custom Benchmark	-	-	-	-	-	-
36 South Kohinoor Series (Cayman) Fund	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	-0.2	6.2	-	1.0	-0.5	0.0
BH-DG Systematic Trading Master Fund	-	-	-	-	-	-
SG Trend Index	7.3	13.2	-	1.0	0.3	0.0
Lombard Odier Bear Convexity	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	-0.2	6.2	-	1.0	-0.5	0.0
Alpstone Global Macro Fund	-	-	-	-	-	-
HFRI Macro (Total) Index	4.2	5.2	-	1.0	0.2	0.0

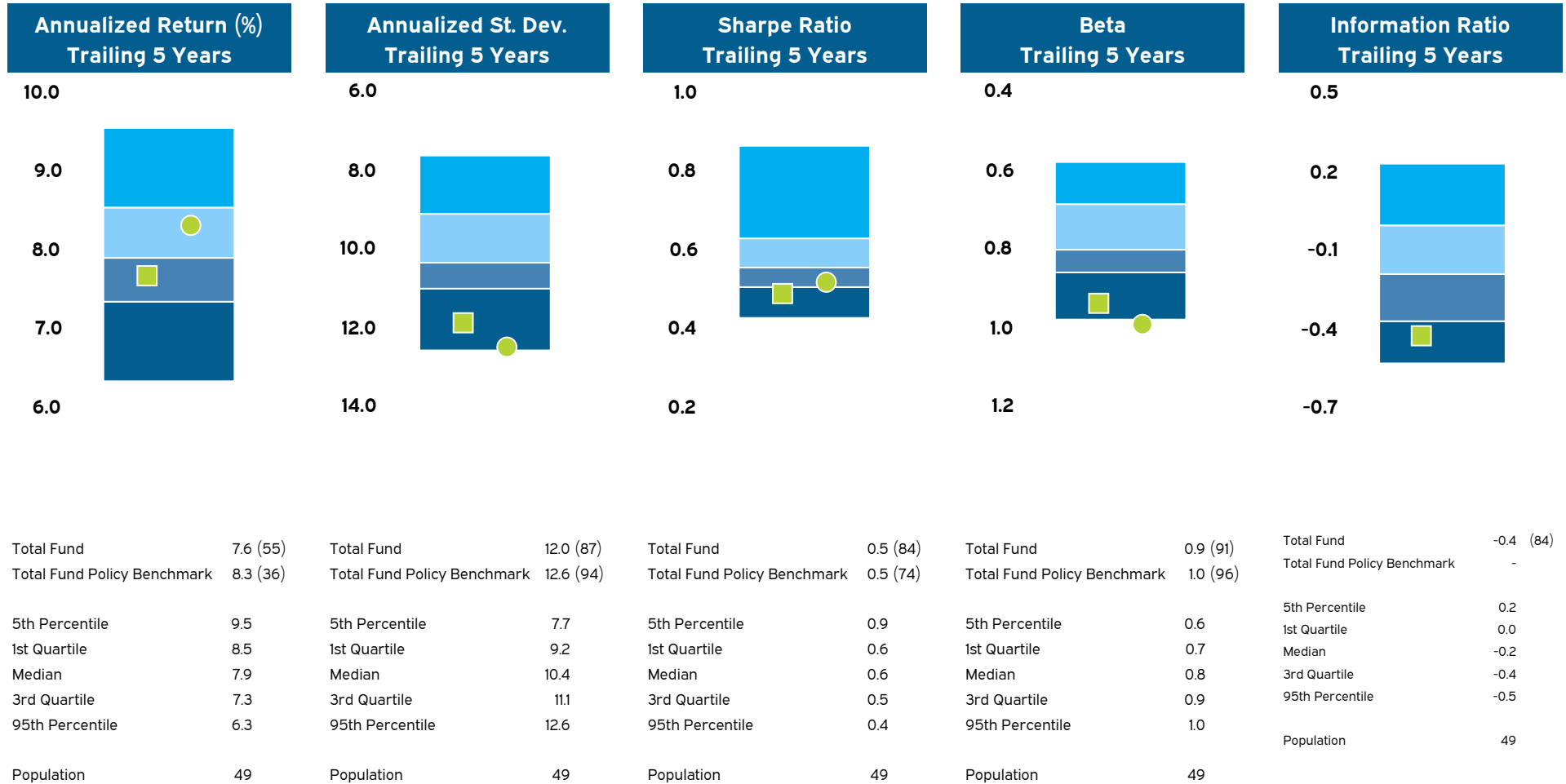
Cash Flow Summary

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
SSgA Russell 1000 Growth Index	32,595,477	-4,000,000	980,434	29,575,911
SSgA Russell 1000 Value Index	30,574,771	21,000,000	3,635,471	55,210,242
DF Dent Small Cap Growth Fund	14,581,457	-	1,761,736	16,343,194
SSgA Russell 3000 Index	187,906,261	-23,000,000	11,169,832	176,076,093
SSgA MSCI EAFE	86,159,403	-	6,245,711	92,405,114
SSgA Emerging Markets Index	37,517,942	-	3,033,215	40,551,157
ABS China Direct	8,077,510	-	1,417,986	9,495,496
ABS EM ex China Direct	22,707,103	-	319,658	23,026,761
Kopernik Global All-Cap	32,123,472	-	2,491,137	34,614,609
First Eagle Global Equity	124,519,019	-	12,551,475	137,070,494
Artisan Global Opportunities	100,750,383	-	4,327,304	105,077,687
J. Stern & Co. World Stars Global Equity Fund	56,890,120	-	2,003,534	58,893,653
NexPhase Capital Fund V, L.P.	258,216	-	-16,438	241,778
Vitruvian Investment Partnership V	142,881	-	-15,667	127,214
Lexington Capital Partners X, L.P.	4,049,885	-68,872	48,156	4,029,169
Flagship Pioneering Fund VIII, L.P.	115,603	90,000	-12,440	193,163
Gauge Capital IV, L.P.	22,956	180,480	-	203,436
KPS Special Situations Fund VI, L.P.	-	413,850	-	413,850
Sculptor Credit Opportunities Overseas Fund	26,116,829	-	92,045	26,208,874
Brigade High Income Fund	38,513,581	-8,200,000	1,887,630	32,201,212
JP Morgan Asset Management Strategic Property Fund	43,668,784	-100,338	356,601	43,925,048
UBS Trumbull Property Fund	22,199,750	-506,178	-42,909	21,650,663
SSgA US REIT	36,381,381	3,000,000	6,304,335	45,685,716
SSgA S&P Global LargeMidCap Natural Resources Index	48,141,382	6,000,000	2,444,926	56,586,308
JP Morgan Infrastructure Investments Fund	16,275,277	-	-	16,275,277

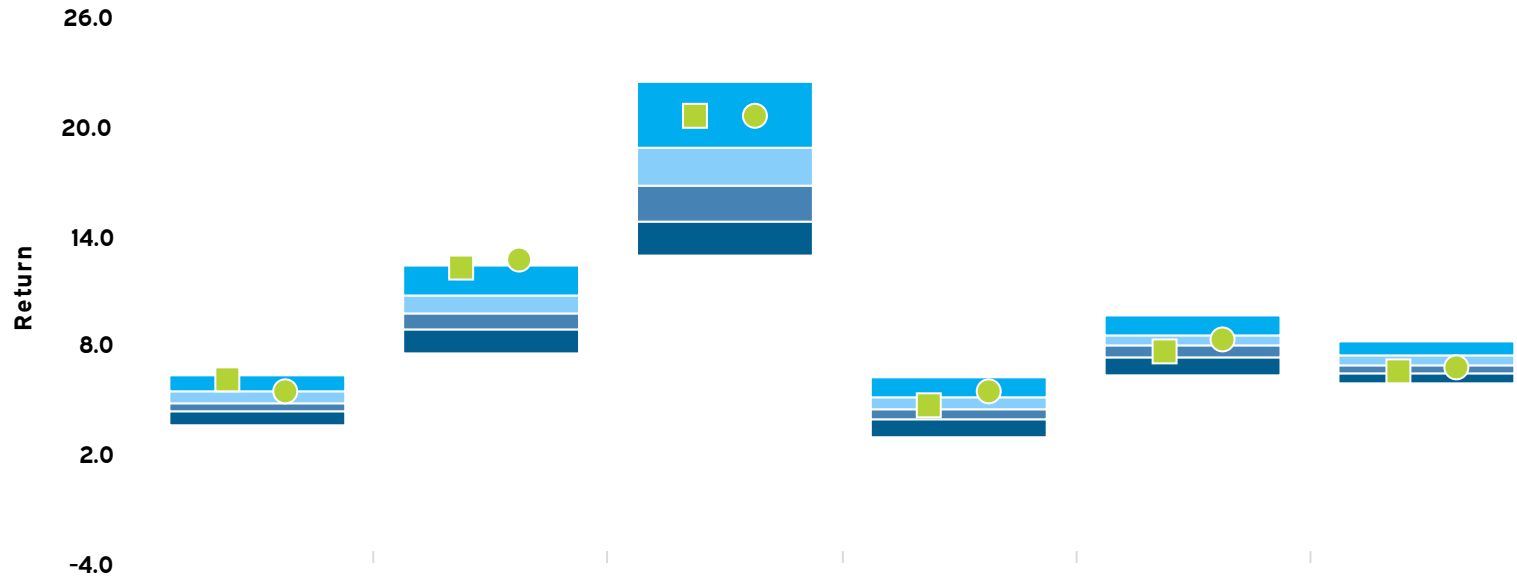
Performance Update | Quarter To Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
First Eagle Institutional Gold Fund, LP	46,710,259	-	6,992,194	53,702,453
Vanguard Short-Term TIPS Index	60,160,774	7,000,000	1,703,119	68,863,893
SSgA US Aggregate Bond	36,826,085	6,000,000	1,881,956	44,708,041
Wellington Core Bond	75,650,793	9,700,000	4,577,592	89,928,385
Brandywine U.S. Fixed Income	17,834,020	11,375,000	2,095,603	31,304,623
SSgA Long US Treasury Index	48,355,567	-	3,775,189	52,130,756
36 South Kohinoor Series (Cayman) Fund	21,544,083	-8,000,000	-106,413	13,437,670
BH-DG Systematic Trading Master Fund	17,455,049	-	-823,205	16,631,844
Lombard Odier Bear Convexity	7,758,139	-2,000,000	40,382	5,798,521
Alpstone Global Macro Fund	16,910,531	-	417,958	17,328,488
Cash	2,130,414	-452,295	48,513	1,726,633
Total	1,321,625,157	18,431,648	81,586,622	1,421,643,427

Performance Update | As of September 30, 2024



InvMetrics All Public DB Plans > \$1B



	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ Total Fund	6.1 (10)	12.2 (6)	20.5 (14)	4.6 (43)	7.6 (55)	6.5 (67)
● Total Fund Policy Benchmark	5.4 (25)	12.6 (4)	20.5 (14)	5.4 (17)	8.3 (36)	6.7 (55)
5th Percentile	6.3	12.3	22.4	6.2	9.5	8.1
1st Quartile	5.4	10.7	18.8	5.1	8.5	7.4
Median	4.8	9.7	16.7	4.4	7.9	6.8
3rd Quartile	4.3	8.8	14.8	3.9	7.3	6.4
95th Percentile	3.6	7.5	12.9	2.8	6.3	5.9
Population	54	54	54	51	49	48

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Annual Investment Expense Analysis As of September 30, 2024				
	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Growth Assets		\$783,549,021	\$2,383,033	0.30
Global Equity		\$778,340,411	\$2,362,675	0.30
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$29,575,911	\$5,915	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$55,210,242	\$11,042	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$16,343,194	\$155,260	0.95
SSgA Russell 3000 Index	0.02 % of Assets	\$176,076,093	\$35,215	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$92,405,114	\$36,962	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$40,551,157	\$32,441	0.08
ABS China Direct	0.65 % of Assets	\$9,495,496	\$61,721	0.65
ABS EM ex China Direct	0.50 % of Assets	\$23,026,761	\$115,134	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$34,614,609	\$259,610	0.75
First Eagle Global Equity	0.55 % of Assets	\$137,070,494	\$753,888	0.55
Artisan Global Opportunities	0.60 % of Assets	\$105,077,687	\$630,466	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$58,893,653	\$265,021	0.45
Private Equity		\$5,208,610	\$20,358	0.39
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$241,778	\$4,836	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$127,214	\$2,417	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$4,029,169	-	-
Flagship Pioneering Fund VIII, L.P.	2.00 % of Assets	\$193,163	\$3,863	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$203,436	\$4,069	2.00
KPS Special Situations Fund VI, L.P.	1.25 % of Assets	\$413,850	\$5,173	1.25

Fee Schedule		Market Value	Estimated Fee Value	Estimated Fee
Credit		\$58,410,086	\$429,535	0.74
High Yield & Bank Loans		\$58,410,086	\$429,535	0.74
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$26,208,874	\$262,089	1.00
Brigade High Income Fund	0.52 % of Assets	\$32,201,212	\$167,446	0.52
Inflation Hedges		\$306,689,358	\$1,099,155	0.36
Real Estate		\$111,261,427	\$618,747	0.56
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$43,925,048	\$399,718	0.91
UBS Trumbull Property Fund	0.96 % of First \$10 M	\$21,650,663	\$191,618	0.89
	0.83 % of Next \$15 M			
	0.81 % of Next \$25 M			
	0.79 % of Next \$50 M			
	0.67 % of Next \$150 M			
	0.60 % of Next \$150 M			
	0.56 % of Next \$200 M			
	0.52 % Thereafter			
SSgA US REIT	0.06 % of Assets	\$45,685,716	\$27,411	0.06
Natural Resources & Infrastructure		\$72,861,585	\$211,201	0.29
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$56,586,308	\$56,586	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$16,275,277	\$154,615	0.95
Gold		\$53,702,453	\$241,661	0.45
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$53,702,453	\$241,661	0.45
Short-Term TIPS		\$68,863,893	\$27,546	0.04
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$68,863,893	\$27,546	0.04

Performance Update | As of September 30, 2024

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Risk Mitigation		\$272,994,961	\$789,755	0.29
Investment Grade Fixed Income		\$218,071,805	\$223,278	0.10
Intermediate-Term Bonds		\$165,941,049	\$207,639	0.13
SSgA US Aggregate Bond	0.02 % of Assets	\$44,708,041	\$8,942	0.02
Wellington Core Bond	0.12 % of Assets	\$89,928,385	\$107,914	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$31,304,623	\$90,783	0.29
Long-Term Bonds		\$52,130,756	\$15,639	0.03
SSgA Long US Treasury Index	0.03 % of Assets	\$52,130,756	\$15,639	0.03
Hedge Funds		\$53,196,524	\$566,476	1.06
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$13,437,670	\$134,377	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$16,631,844	\$154,676	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$5,798,521	\$43,489	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$17,328,488	\$233,935	1.35
Cash		\$1,726,633	-	-
Cash		\$1,726,633	-	-
Total Fund		\$1,421,643,427	\$4,701,478	0.33

Monthly Management Fees Paid (\$)											
Fund	Jan	Feb	March	April	May	June	July	Aug	Sept	FYTD	CYTD
SSgA MSCI ACWI IMI Index Fund	9,786	-	-	-	-	-	-	-	-	-	9,786
SSgA Russell 1000 Growth Index	-	-	1,514	-	-	1,652	-	-	1,557	1,557	4,723
SSgA Russell 1000 Value Index	-	-	707	-	-	1,495	-	-	1,523	1,523	3,725
SSgA Russell 3000 Index	-	-	9,185	-	-	9,354	-	-	9,071	9,071	27,610
SSgA MSCI EAFE	-	-	8,416	-	-	8,402	-	-	8,602	8,602	25,421
SSgA Emerging Markets Index	-	-	6,989	-	-	6,936	-	-	7,303	7,303	21,228
Fidelity Small Cap Index Fund	303	320	331	308	-	-	-	-	-	-	1,261
DF Dent Small Cap Growth Fund	-	-	-	-	11,647	11,544	12,805	12,681	12,938	38,424	61,614
ABS China Direct	4,287	3,847	4,074	4,144	4,390	4,533	4,375	4,228	4,182	12,785	38,060
ABS EM ex China Direct	8,712	8,542	8,830	9,013	8,879	8,975	9,461	9,437	9,595	28,494	81,445
Kopernik Global All-Cap*	23,649	22,734	24,501	24,111	25,181	24,368	24,555	25,367	25,605	75,527	220,071
First Eagle Global Equity	50,374	54,587	56,738	55,116	57,127	57,095	59,461	61,347	62,850	183,657	514,695
Artisan Global Opportunities*	50,384	50,370	49,654	48,138	48,994	50,375	49,935	51,622	52,539	154,096	452,011
J. Stern & Co. World Stars Global Equity	1,212	23,204	23,730	22,740	23,920	22,572	21,196	21,654	22,093	64,943	182,321
NexPhase Capital Fund V	-	-	-	-	-	18,093	-	-	-	-	18,093
Vitruvian Investment Partnership V	-	-	-	-	-	-	-	-	-	-	-
Lexington Capital Partners X	-	-	-	-	-	-	-	-	-	-	-
Flagship Pioneering Fund VIII, L.P.	-	-	16,734	-	-	-	-	-	-	-	16,734
Gauge Capital IV, L.P.	-	-	-	-	-	14,836	-	-	-	-	14,836
KPS Special Situations Fund VI, L.P.	-	-	-	-	-	-	-	-	364	364	364
Sculptor Credit Opportunities Overseas Fund	21,738	20,336	21,738	21,539	22,257	21,539	22,001	22,001	-	44,001	173,147
Brigade High Income Fund*	16,222	16,334	16,573	16,330	16,584	16,689	13,475	13,706	13,954	41,135	139,867
JP Morgan Strategic Property Fund	113,900	-	-	105,886	-	-	100,338	-	-	100,338	320,123
UBS Trumbull Property Fund	49,971	-	-	47,526	-	-	46,216	-	-	46,216	143,713
SSgA US REIT	-	-	2,575	-	-	4,393	-	-	5,279	5,279	12,247
SSgA S&P Global LargeMidCap NR Index	-	-	10,710	-	-	12,341	-	-	12,265	12,265	35,316
JP Morgan Infrastructure Investments Fund	-	-	33,920	-	-	34,784	-	-	-	-	68,704
First Eagle Institutional Gold Fund, LP	13,806	12,574	15,683	17,335	18,195	17,380	18,911	19,353	19,671	57,935	152,908
Vanguard Short-Term TIPS Index*	2,220	2,216	2,228	2,227	1,994	2,005	2,393	2,273	2,295	6,961	19,851
SSgA US Aggregate Bond	-	-	2,598	-	-	1,836	-	-	1,819	1,819	6,252
Wellington Core Bond*	8,808	8,712	8,797	8,587	8,749	8,826	10,195	10,331	10,492	31,018	83,497
Brandywine U.S. Fixed Income	-	8,258	-	-	10,287	-	-	9,979	-	9,979	28,524
SSgA Long US Treasury Index	-	-	3,516	-	-	3,691	-	-	3,555	3,555	10,762
36 South Kohinoor Series (Cayman) Fund	17,859	17,586	17,769	17,961	17,877	18,029	11,245	11,179	11,242	33,666	140,746
BH-DG Systematic Trading Master Fund	13,421	12,810	14,121	13,894	14,248	12,418	14,479	12,170	12,807	39,456	120,367
Lombard Odier Bear Convexity	4,791	4,872	4,835	4,802	4,836	4,852	3,690	3,664	3,626	10,980	39,968
Alpstone Global Macro	19,160	19,194	19,544	19,752	19,546	19,046	19,003	19,285	19,542	57,830	174,071
Total	430,602	286,495	386,010	439,407	314,709	418,058	443,732	310,277	334,770	1,088,779	3,029,290
Custodial Fee	2,564	6,597	2,548	-	6,739	-	2,553	4,199	2,585	9,337	27,785

*In some instances, NERS is invested in a pooled vehicle so a separate fee isn't charged at the Plan level. The fee is reflected in the NAV. Estimated based on management fee and market value. September Sculptor and JP Morgan Infrastructure fees will be updated upon their availability.

Benchmark History

From Date	To Date	Benchmark
Total Fund		
01/01/2024	Present	14.0% Blmbg. U.S. Aggregate Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 4.0% Hedge Fund Custom Benchmark, 8.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 52.0% MSCI AC World IMI Index (Net), 5.0% Blmbg. U.S. TIPS 0-5 Year, 5.0% S&P Global LargeMidcap Resources & Commodities Ind, 2.0% Credit Suisse Leveraged Loan Index, 3.0% 60% Gold (Spot)/ 40% FTSE Gold Mines, 5.0% MSCI ACWI + 3% 1Q Lag
12/01/2022	01/01/2024	14.0% Blmbg. U.S. Aggregate Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 4.0% HFRI Macro (Total) Index, 8.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 52.0% MSCI AC World IMI Index (Net), 5.0% Blmbg. U.S. TIPS 0-5 Year, 5.0% S&P Global LargeMidcap Resources & Commodities Ind, 2.0% Credit Suisse Leveraged Loan Index, 3.0% 60% Gold (Spot)/ 40% FTSE Gold Mines, 5.0% MSCI ACWI + 3% 1Q Lag
05/01/2016	12/01/2022	30.0% Blmbg. U.S. Aggregate Index, 7.5% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 7.5% Alerian MLP Index, 55.0% MSCI AC World IMI Index (Net)
03/01/2016	05/01/2016	33.0% Russell 3000 Index, 30.0% Blmbg. U.S. Aggregate Index, 7.5% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 22.0% MSCI AC World ex USA (Net), 7.5% Alerian MLP Index
02/01/2013	03/01/2016	33.0% Russell 3000 Index, 35.0% Blmbg. U.S. Aggregate Index, 5.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 22.0% MSCI AC World ex USA (Net), 5.0% Alerian MLP Index
03/01/2011	02/01/2013	36.0% Russell 3000 Index, 35.0% Blmbg. U.S. Aggregate Index, 5.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 24.0% MSCI AC World ex USA (Net)
09/01/2009	03/01/2011	36.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 24.0% MSCI AC World ex USA (Net)
06/01/2009	09/01/2009	42.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 18.0% MSCI AC World ex USA (Net)
06/01/2006	06/01/2009	42.0% Russell 3000 Index, 40.0% Blmbg. U.S. Aggregate Index, 18.0% MSCI EAFE (Net)
07/01/2003	06/01/2006	60.0% S&P 500 Index, 40.0% Blmbg. U.S. Aggregate Index
10/01/2002	07/01/2003	55.0% S&P 500 Index, 45.0% Blmbg. U.S. Aggregate Index
10/01/1990	10/01/2002	50.0% S&P 500 Index, 50.0% Blmbg. U.S. Aggregate Index

Total Fund Public benchmark consists of 74% MSCI ACWI IMI / 26% Bloomberg US Aggregate. Historical Varies.

Total Fund Actual Allocation Benchmark reflects the asset classes set fourth in the Fund's investment policy statement, weighted for the Fund's actual investments and performance of the indexes referenced above.

Benchmark History

From Date	To Date	Benchmark
Growth Assets		
12/01/2022	Present	91.0% MSCI AC World IMI Index (Net), 9.0% MSCI ACWI + 3% 1Q Lag
Global Equity		
05/01/2016	Present	100.0% MSCI AC World IMI Index (Net)
09/01/2009	05/01/2016	60.0% Russell 3000 Index, 40.0% MSCI AC World ex USA (Net)
06/01/2009	09/01/2009	70.0% Russell 3000 Index, 30.0% MSCI AC World ex USA (Net)
01/01/2006	06/01/2009	70.0% Russell 3000 Index, 30.0% MSCI EAFE (Net)
10/01/1990	01/01/2006	100.0% S&P 500 Index
Credit		
12/01/2022	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% Credit Suisse Leveraged Loan Index
High Yield & Bank Loans		
12/31/1992	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% Credit Suisse Leveraged Loan Index
Inflation Hedges		
12/01/2022	Present	38.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 24.0% Blmbg. U.S. TIPS 1-5 Year Index, 24.0% S&P Global LargeMidcap Resources & Commodities Ind, 14.0% 60% Gold (Spot)/ 40% FTSE Gold Mines
Risk Mitigation		
01/01/2024	Present	78.0% Blmbg. U.S. Aggregate Index, 22.0% Hedge Fund Custom Benchmark
12/01/2022	01/01/2024	78.0% Blmbg. U.S. Aggregate Index, 22.0% HFRI Macro (Total) Index
Hedge Funds		
01/01/2024	Present	33.3% HFRI Macro (Total) Index, 33.3% SG Trend Index, 33.3% CBOE Eurekahedge Long Volatility Hedge Fund Index
03/01/2023	01/01/2024	100.0% HFRI Macro (Total) Index

Appendices

Corporate Update



7

Offices



240+

Employees



250+

Clients



\$2T

Assets Under Advisement



\$340B

Assets in Alternative Investments



98%

Client Retention Rate



5:1

Client | Consultant Ratio

UPCOMING EVENTS



Meketa Investment Group is proud to work for over 25 million American families everyday!

Client and employee counts as of September 30, 2024; assets under advisement as of June 30, 2024; assets in alternative investments as of December 31, 2023.
Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end. Average over the previous five years.

THOUGHT LEADERSHIP



The art of patient investing

In recent years, large cap US stocks and private equity have dramatically outperformed most asset classes. Almost every other asset class in a diversified portfolio has served as a drag on portfolio returns. This is testing many investors' patience with diversification.

This research note is intended to remind investors of the benefits of taking a patient approach to investing. The first half focuses on the long-term case for a diversified portfolio. The second half explores various areas where investors may want to remain patient in the current market.

Read more here:

<https://meketa.com/leadership/the-art-of-patient-investing/>



The decreasing number of public companies

In this note, we examine the drivers behind the decline in the number of publicly traded stocks.

Our analysis reviews IPOs and delistings, regulatory burdens, the growth and availability of private capital, and the role of mergers and acquisitions. We also consider factors like the rise of propriety technology and intellectual property. Finally, we explore the implications of this change for institutional investors.

Read more here:

<https://meketa.com/leadership/the-decreasing-number-of-public-companies/>



Can governments really pay for everything they promise?

This paper examines the current rise in debt levels, higher interest rates, and inflationary pressures in some sectors of the economy in the context of MMT.

It considers whether advanced economies have reached a tipping point where high levels of debt push inflation higher and suppress economic growth, or whether higher deficits may not spell economic disaster after all. It also contemplates what impact higher deficits and higher borrowing costs could have on investor portfolios.

Read more here:

<https://meketa.com/leadership/can-governments-really-pay-for-everything-they-promise/>

MEKETA ESSENTIALS

Meketa Essentials provides an advanced asset allocation and risk management toolset designed to empower chief investment officers, investment staff, and trustees to make data-driven decisions with confidence.

What is the probability of achieving our target returns?

The asset allocation tool within Meketa Essentials uses sophisticated modeling to estimate the likelihood of reaching your target returns over multiple time periods. By providing insights through probability distributions, it enables decision-makers to gauge if their current strategy is aligned with long-term financial goals.

How might our portfolio respond to economic and market shifts?

With capabilities like stress testing and economic regime modeling, Meketa Essentials allows clients to simulate the effects of different growth, inflation, and interest rate scenarios on their portfolios. This helps in understanding potential vulnerabilities and preparing for various market conditions.

Are we effectively managing portfolio risk?

The platform's risk decomposition tool breaks down overall portfolio risk by asset class, helping stakeholders pinpoint which areas contribute most to volatility. Additionally, tools like tracking error analysis provide insights into deviations from benchmarks, enabling a clearer view of whether risks are within acceptable limits.

MEKETA essentials Asset Allocation

Probability of Achieving Target Return of: at least 7%

Years	Current Portfolio	Aggressive	Liquid
1	53.87 %	55.63 %	50.90 %
3	56.69 %	59.69 %	51.56 %
5	58.60 %	62.43 %	52.02 %
10	62.07 %	67.29 %	52.85 %
20	66.81 %	73.67 %	54.03 %

MEKETA essentials Asset Allocation

Risk Decomposition

Asset Group	Current Portfolio Absolute	Aggressive Absolute	Liquid Absolute	Current Portfolio Percentage	Aggressive Percentage	Liquid Percentage
Risk Mitigating Assets	0.12 %	-0.01 %	0.24 %	1.00 %	-0.07 %	2.20 %
Inflation Hedges	0.93 %	0.66 %	0.37 %	7.45 %	4.25 %	3.47 %
Growth Assets	11.40 %	14.98 %	10.12 %	91.55 %	95.82 %	94.33 %

MEKETA essentials Asset Allocation

Stress Scenarios (Negative) Negative

Scenario	Current Portfolio	Aggressive	Liquid
10-year Treasury Bond rates rise 100 bps	3.97 %	5.44 %	3.58 %
10-year Treasury Bond rates rise 200 bps	-1.09 %	0.27 %	-2.33 %
10-year Treasury Bond rates rise 300 bps	-2.19 %	-1.26 %	-2.83 %
Baa Spreads widen by 50 bps, High Yield by 200 bps	1.05 %	0.56 %	0.63 %
Baa Spreads widen by 300 bps, High Yield by 1000 bps	-19.51 %	-21.66 %	-20.20 %
Trade Weighted Dollar gains 10%	-2.85 %	-2.95 %	-4.52 %
Trade Weighted Dollar gains 20%	-0.81 %	-0.84 %	-0.05 %
U.S. Equities decline 10%	-5.29 %	-6.74 %	-5.01 %
U.S. Equities decline 25%	-15.42 %	-18.00 %	-14.38 %
U.S. Equities decline 40%	-23.32 %	-25.81 %	-24.37 %

MEKETA'S WEEK OF SERVICE

Each year, Meketa dedicates a week to giving back to our communities. This year, we focused on homelessness, partnering with Blanchet House, Sarah's Circle, and United Way to volunteer our time and resources.

Blanchet House: Established in 1952 by University of Portland alumni, Blanchet House provides meals, clothing, hygiene items, and transitional recovery programs to those in need in Old Town and on its farm.. (Portland, OR)

Sarah's Circle: Founded in 1979, Sarah's Circle offers a safe space and essential services, such as shelter, meals, and community support, to women experiencing homelessness in the Uptown neighborhood. (Chicago, IL)

United Way: United Way connects communities worldwide to close gaps, open opportunities, and ensure that everyone can thrive. (Carlsbad, CA)



MEKETA IN THE NEWS

The Institutional Appetite for Private Equity and Deal Activity | [August 13, 2023](#)

Tim Toska, Global Head of Private Equity at Alter Domus, John Haggerty, Managing Principal & Director of Private Market Investments at Meketa Investment Group, Bart Molloy, Partner at Monument Group, join Jill Malandrino on Nasdaq TradeTalks to discuss the institutional appetite for private equity and deal activity.

[Watch Full Video Here](#)



Pensions&Investments



Pensions & Investments' 60 Influential Women in Institutional Investing 2024 Judy Chambers, managing principal, private markets consultant, Meketa

By Arleen Jacobius | [September 9, 2024](#)

Judy Chambers' finance career began early, working in a bank during the summer from age 15. She continued working at banks while earning her bachelor's degree and an MBA, the latter from [Northwestern University's Kellogg School of Management](#).

Chambers left banking and a job in Lehman Brothers' finance department for private equity consulting in 2002, after meeting Allan Emkin, a managing principal and founder of consulting firm [Pension Consulting Alliance](#). Meketa merged with PCA in 2019.

[Read Full Article Here](#)

Chambers is now a managing principal and private markets consultant at Meketa. Fostering women's growth starts with "one, recruiting them and then keeping them" by sponsoring them, ensuring they get the proper exposure in front of the rest of the team, she said.

Female executives who are just starting out need time to get on the right path, she said. "Everyone is smart," but they may not know what to do because they hadn't done it before, she said.

Mentors have been key in her own career, with sponsorship being key, Chambers said. Sponsorship means that there is always someone at the table that is fighting for you even if you're not in the room, Chambers said. "What keeps you at a firm is sponsorship," she added.

The industry has become more inclusive, better reflecting society than 20 or so years ago, Chambers said. "But it's still not 50-50," she said. "I go to a lot of meetings where I'm the only woman that has come through the room all day long. That shouldn't be at this point in 2024."

Disclaimer, Glossary, and Notes

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

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.