



# **Employees' Retirement System of the City of Norfolk**

## **Performance Update**

### **As of August 31, 2024**

**Fund Evaluation Report**

## Agenda

- 1. Economic and Market Update as of August 31, 2024**
- 2. Executive Summary**
- 3. Performance Summary as of August 31, 2024**
- 4. Appendix**
  - Disclaimer, Glossary, and Notes

# **Economic and Market Update**

## Data as of August 31, 2024

## Commentary

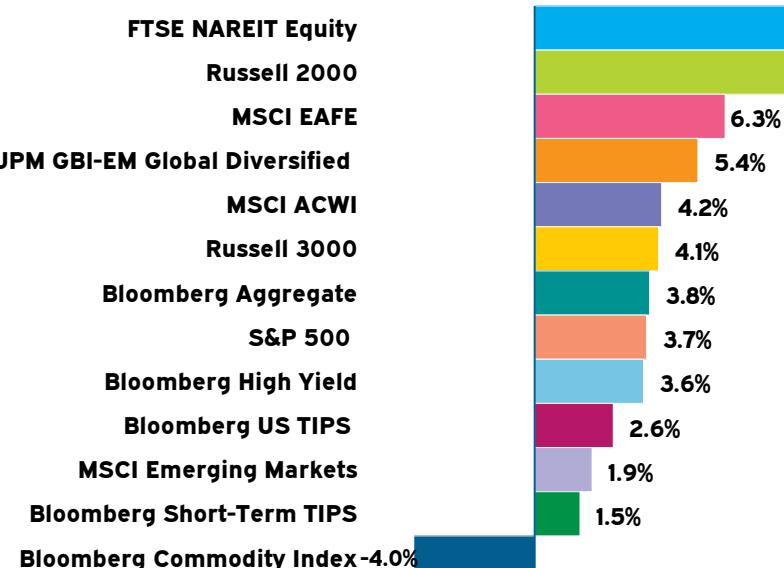
→ After a very volatile start to the month, most asset classes posted gains in August.

- Weak US jobs data caused speculation that the Fed might have waited too long to cut interest rates increasing the risk of a “hard landing” for the US economy. This and pressure from the Bank of Japan raising rates on the yen carry trade drove the equity market volatility at the start of the month.
- Subsequent data was more reassuring though, including an above expectations retail sales report, and the equity market was able to recover for the month. The Bank of Japan also calmed markets with dovish comments to stabilize the unwinding of the yen carry trade.
- From Jackson Hole, Chair Powell indicated that improvements in inflation and a balancing labor market provided justification for rate cuts soon. At their subsequent September meeting they reduced rates by 0.50%.
- In August, the broad market (Russell 3000) returned +2.2%. Large cap stocks (+2.4%) outperformed small cap (-1.5%). For the month healthcare, utilities, and consumer staples took over leadership from technology.
- Non-US developed equity markets outperformed the broad US market in August (+3.3%). A weakening US dollar was a key driver of results.
- Emerging market equities (+1.6%) lagged developed markets with China gaining +1.0%.
- Fixed income markets posted positive returns on expectations for policy rate cuts this fall as inflation pressures recede, and the economy slows.

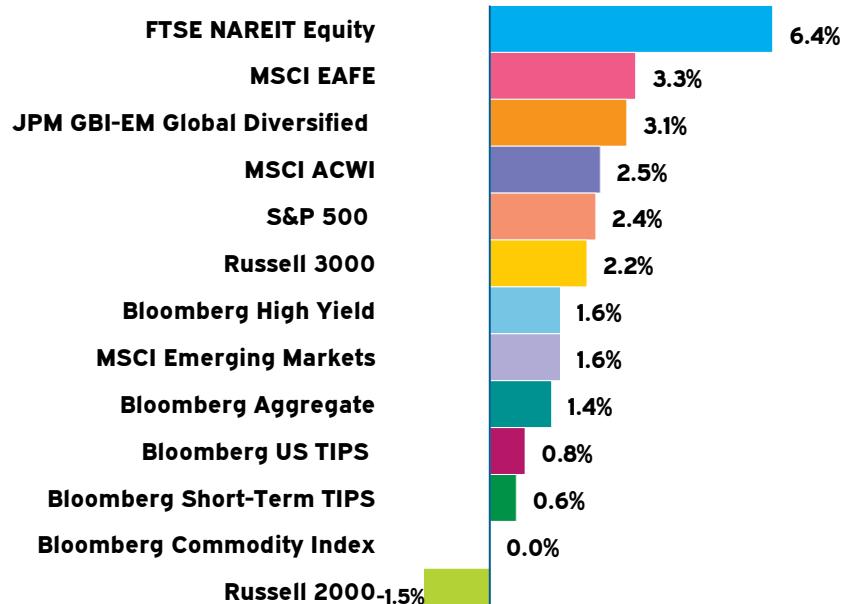
→ Looking ahead, the paths of inflation, labor markets, and monetary policy, China’s economic disorder and slowing economic growth, the yen-carry trade, and the looming US election will be key factors.

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

**QTD**



**August**



- August was positive for most asset classes, but the month started off very volatile given concerns over weak economic data and an unwinding of the yen carry trade due to a rate increase by the Bank of Japan. Eventually things settled down though as additional economic data was released, and corporate earnings remained strong.
- As we approach the end of the third quarter, US stocks have significantly outperformed other asset classes.

<sup>1</sup> Source: Bloomberg. Data is as of August 31, 2024.

Domestic Equity Returns<sup>1</sup>

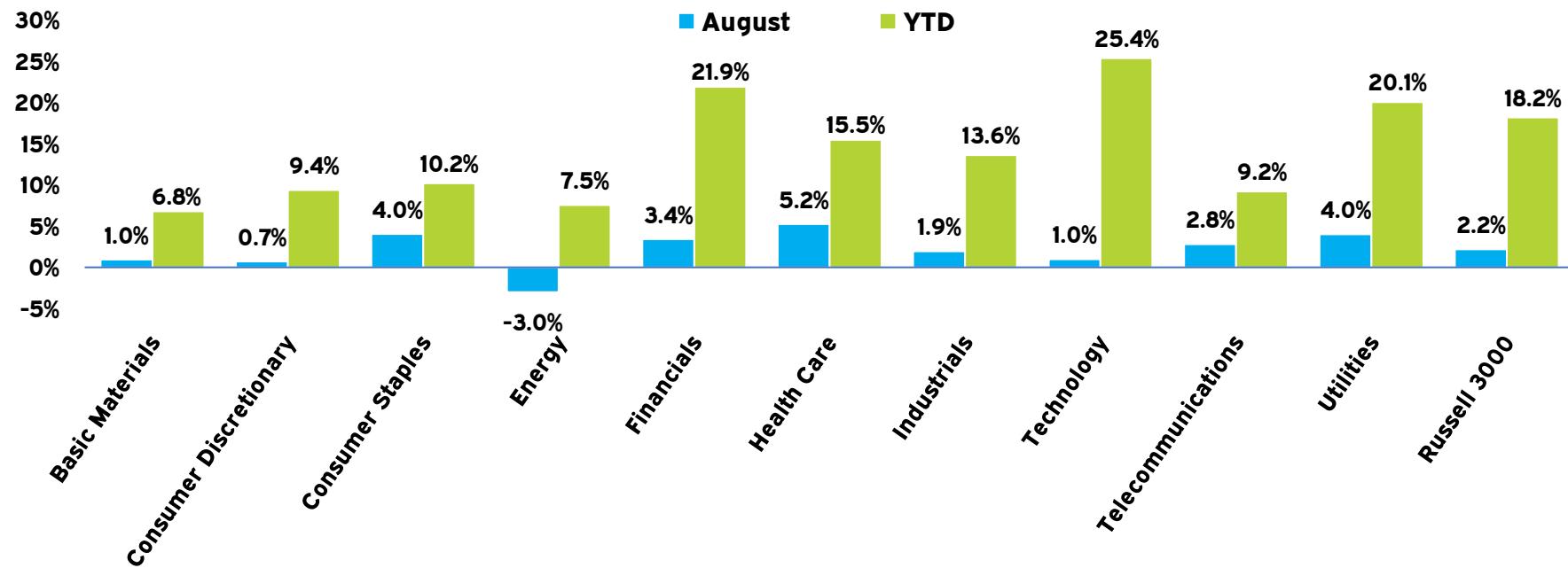
Domestic Equity	August (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.4	3.7	19.5	27.1	9.4	15.9	13.0
Russell 3000	2.2	4.1	18.2	26.1	7.9	15.2	12.3
Russell 1000	2.4	3.9	18.6	26.6	8.3	15.5	12.6
Russell 1000 Growth	2.1	0.3	21.1	30.8	8.9	19.1	16.0
Russell 1000 Value	2.7	7.9	15.1	21.1	7.3	11.2	8.8
Russell MidCap	2.0	6.8	12.1	20.2	3.5	11.2	9.6
Russell MidCap Growth	2.5	3.1	9.3	19.1	-0.5	10.5	10.6
Russell MidCap Value	1.9	8.0	13.0	20.2	5.4	10.8	8.3
Russell 2000	-1.5	8.5	10.4	18.5	0.6	9.7	8.0
Russell 2000 Growth	-1.1	7.0	11.7	17.7	-2.1	8.3	8.2
Russell 2000 Value	-1.9	10.1	9.1	19.2	3.1	10.4	7.5

## US Equities: The Russell 3000 rose +2.2% in August, bringing the year-to-date results to +18.2%.

- US stocks experienced a sharp drawdown in early August, driven by the unwinding of the yen carry trade and a disappointing July jobs report. However, subsequent encouraging data on jobless claims and retail sales caused investors to be less concerned as the month wore on.
- Apple, Nvidia, and Microsoft now constitute 18% of the Russell 1000 Index (large cap). Taken together they drove the outperformance of the large cap index (+2.4%) over the small cap Russell 2000 index (-1.5%) for the month. The decline in energy prices also contributed to the underperformance as small cap energy companies were more impacted than their large cap peers.

<sup>1</sup> Source: Bloomberg. Data is as of August 31, 2024.

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



- In August, economically sensitive energy stood out with negative returns, while other sectors posted positive results.
- Health care (+5.2%) led the way for the month driven by strong results from Eli Lilly related to its weight loss drug. Consumer staples (+4.0%) and utilities (+4.0%) also posted strong gains for the month.
- All sectors have positive returns for the year-to-date period. Technology stocks (+25.4%) continue to lead the broader market, followed by financials (+21.9%), and utilities (+20.1%).

<sup>1</sup> Source: Bloomberg. Data is as of August 31, 2024.

Foreign Equity Returns<sup>1</sup>

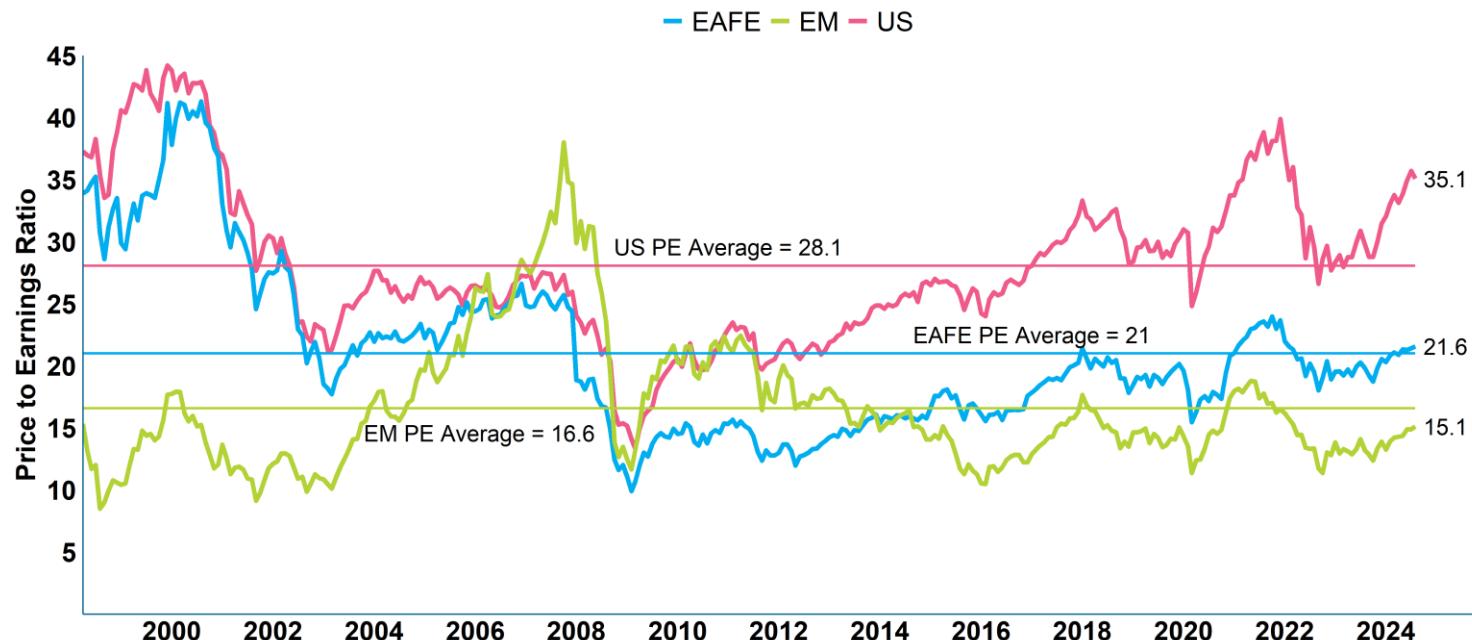
Foreign Equity	August (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.8	5.2	11.2	18.2	2.1	7.6	4.4
MSCI EAFE	3.3	6.3	12.0	19.4	4.1	8.6	5.2
MSCI EAFE (Local Currency)	0.4	1.2	12.4	16.7	7.6	9.6	7.4
MSCI EAFE Small Cap	2.0	7.8	8.3	15.1	-2.4	6.4	5.3
MSCI Emerging Markets	1.6	1.9	9.5	15.1	-3.1	4.8	2.6
MSCI Emerging Markets (Local Currency)	0.4	1.0	12.1	16.3	0.1	6.6	5.4
MSCI EM ex. China	1.8	2.7	11.3	22.6	1.8	8.7	3.9
MSCI China	1.0	-0.3	4.4	-2.8	-13.6	-3.4	0.6

**Foreign Equity: Developed international equities (MSCI EAFE) rose +3.3% in August, while emerging market equities (MSCI Emerging Markets) gained just +1.6%.**

- After a sell-off early in the month, developed market equities saw solid returns in August outpacing US equities. The weakening dollar was a major contributor to results with local currency returns much lower (+0.4% versus +3.3%). Europe led global returns for the month following promising inflation news and bolstered by spending around the Paris Olympics. UK returns were positive but comments that tax hikes and spending cuts were on the horizon weighed on relative returns. After initial significant volatility related to the strengthening yen, the Japanese TOPIX ended the month down -2.9%.
- Emerging market equities saw positive returns but lagged its developed peers. Smaller Asian markets saw the greatest returns, due to currency appreciation against the US dollar. China and India saw slight gains but lagged the broad index, while Korea saw losses as tech stocks experienced a correction.

<sup>1</sup> Source: Bloomberg. Data is as of August 31, 2024.

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



- In August, the US price to earnings ratio fell slightly to 35.1 it still remains well above its 21st century average (28.1).
- Non-US developed market valuations have increased to slightly above their long-term average while emerging market stocks remain well below their long-term average price-to-earnings ratio.

<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 August 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.

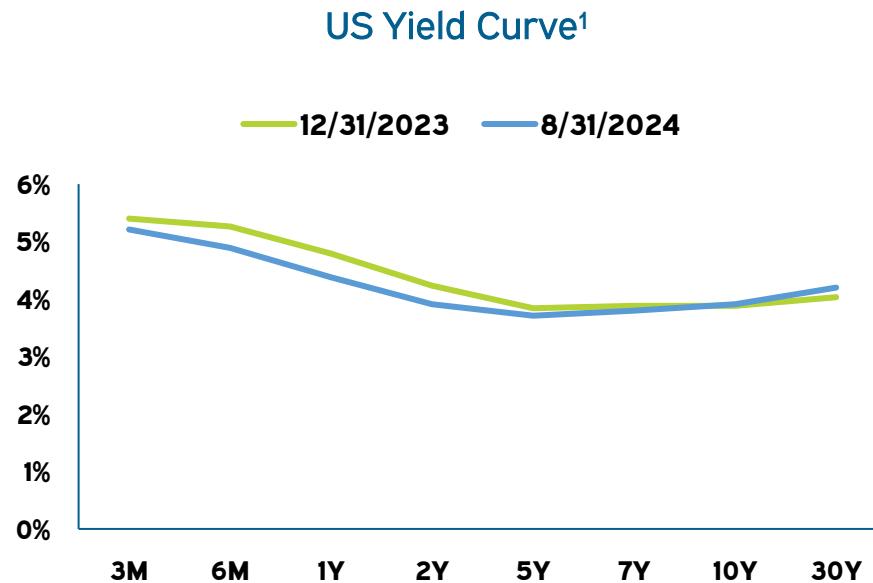
Fixed Income Returns<sup>1</sup>

Fixed Income	August (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.5	3.8	3.5	7.9	-1.8	0.3	1.9	4.7	6.0
Bloomberg Aggregate	1.4	3.8	3.1	7.3	-2.1	0.0	1.6	4.4	6.2
Bloomberg US TIPS	0.8	2.6	3.3	6.2	-1.3	2.0	2.1	4.0	6.9
Bloomberg Short-term TIPS	0.6	1.5	3.8	6.3	2.2	3.3	2.2	4.1	2.5
Bloomberg High Yield	1.6	3.6	6.3	12.6	2.5	4.5	4.6	7.3	3.5
JPM GBI-EM Global Diversified (USD)	3.1	5.4	1.5	6.0	-1.7	0.1	-0.3	--	--

## Fixed Income: The Bloomberg Universal index rose +1.5% in August, bringing the year-to-date return to +3.5%.

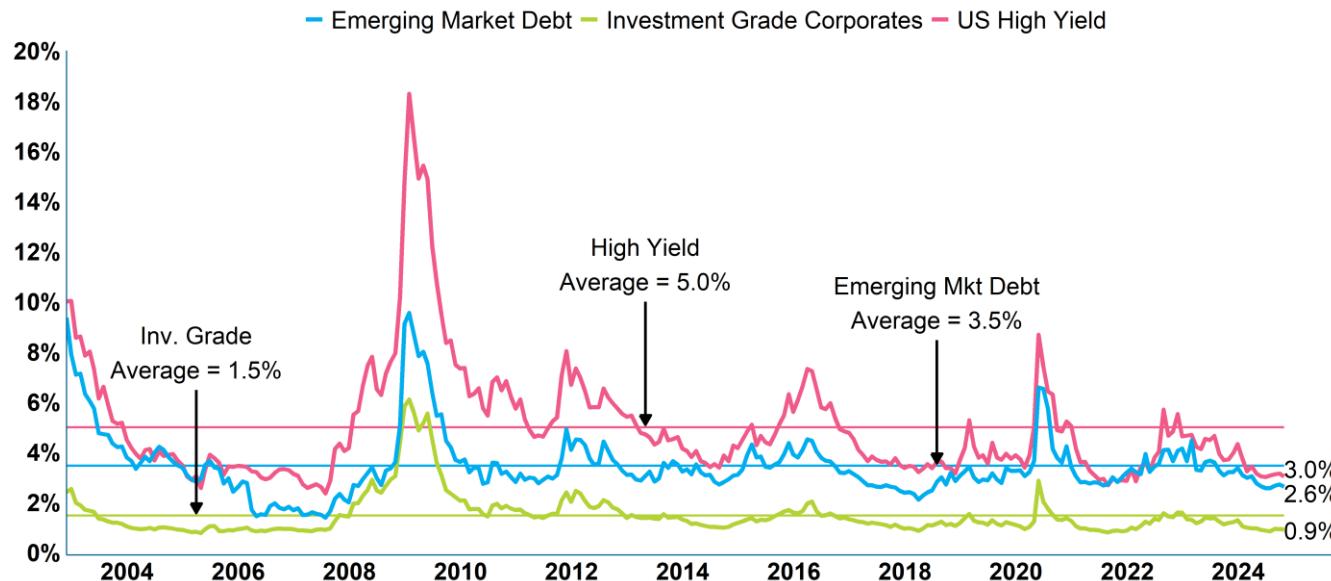
- Fixed income indexes rose in August, driven by market participants' expectations for a shift towards more accommodative monetary policy in the coming months largely due to continued easing of inflationary pressures and heightened concerns regarding a weakening labor market.
- The broad US bond market (Bloomberg Aggregate) rose +1.4% over the month, with the broad TIPS market gaining +0.8%. The less interest rate sensitive short-term TIPS index increased +0.6%.
- Riskier bonds led the way during the month, as risk appetite remains strong with emerging market and high yield bonds gaining +3.1% and +1.6%, respectively.

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



- Weaker economic data and comments from Chair Powell in August that rate cuts were likely coming in September supported a bond rally for the month.
- Interest rates finished the month lower but largely off the levels reached during the start of the month volatility. The more policy sensitive 2-year Treasury yield declined from 4.26% at the end of July to 3.92% in August. The 10-year Treasury yield fell less in August declining from 4.03% to 3.90%.
- The yield curve was relatively flat at month-end after a long period of inversion, as shorter-dated yields declined the most over the month.

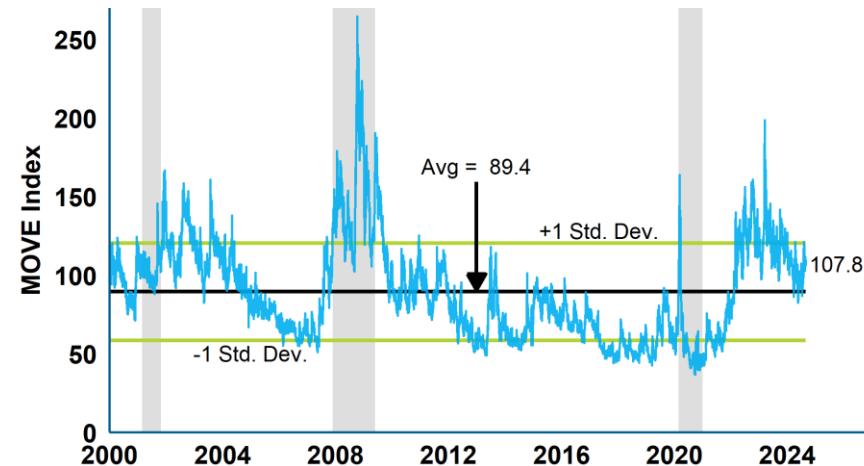
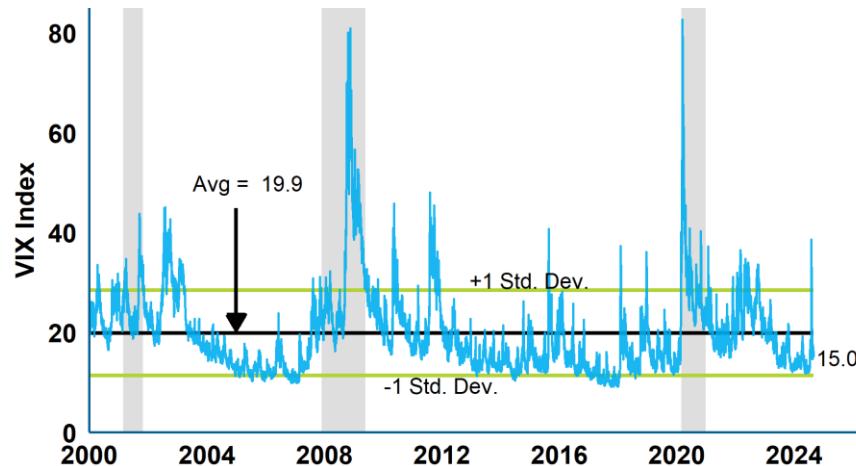
<sup>1</sup> Source: Bloomberg. Data is as of August 31, 2024.

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

- Corporate bonds, particularly high yield, generally outperformed government bonds for the month given the prospective for materially lower interest rates.
- Spreads (the yield above a comparable maturity Treasury) widened significantly at the start of the month in the volatile environment but declined after.
- Overall spreads finished largely where they started the month despite the volatility. All 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 of August 31, 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>



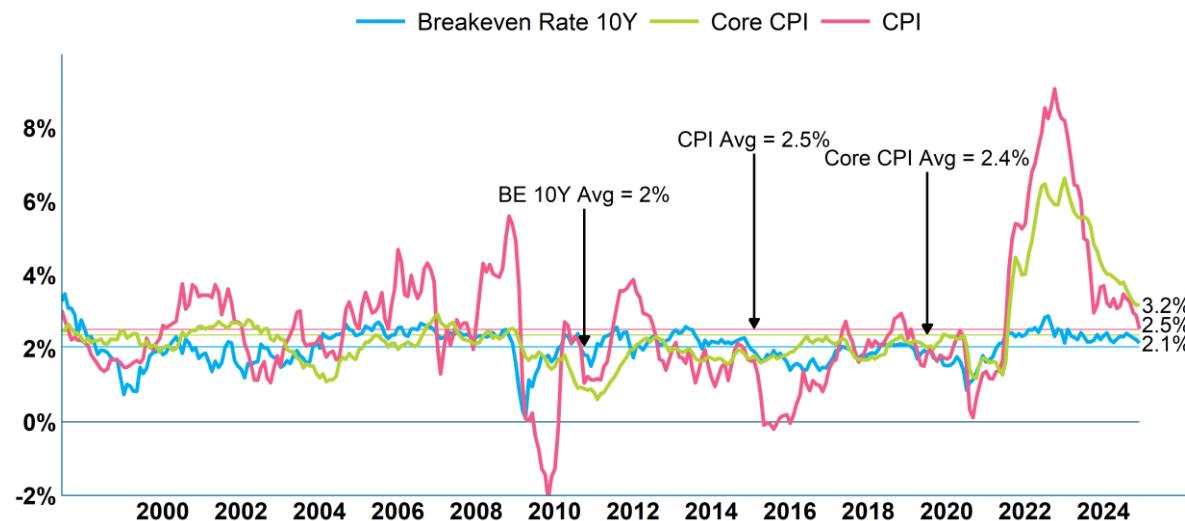
- Equity market volatility fell slightly overall in August but this masks the significant volatility in the first part of the month related to the weaker than expected labor report in the US and pressures on the yen carry trade.
- Volatility levels (MOVE) in the bond market also fluctuated through the month finishing off their peak but at a level higher than where they started. Uncertainty in bond markets remain above the long-run average as markets continue to reprice interest rate cuts for the rest of 2024.

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

Recent Market Volatility: US Dollar versus Japanese Yen<sup>1</sup>

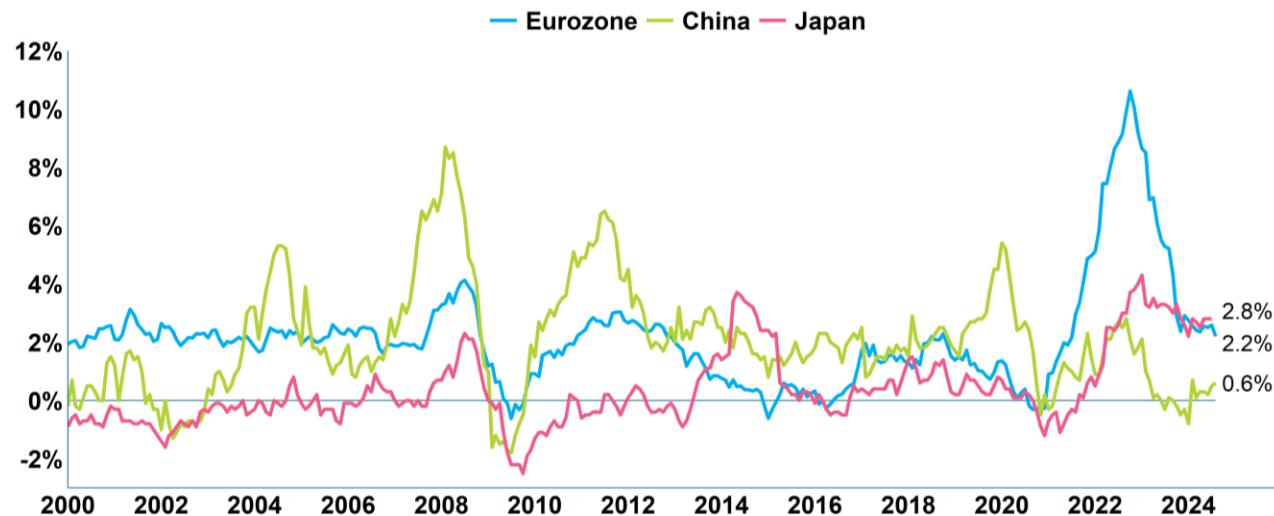
- Given relatively lower interest rates in Japan many have entered the so-called “yen carry trade” borrowing cheaply in Japan and investing in other areas with perceived higher returns.
- This has traditionally involved taking the borrowed proceeds and investing them in Treasuries, but recently has expanded to investing in the US stock market particularly the technology sector.
- When the Bank of Japan signaled, it would continue to increase interest rates with expectations growing for the Fed to cut rates, many unwound this trade contributing to the significant market volatility (in addition to the unemployment miss) at the start of the month.
- With expectations for significant rate cuts ahead in the US the yen has further strengthened after month-end.

<sup>1</sup> Source: Bloomberg. Data as of August 31, 2024.

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

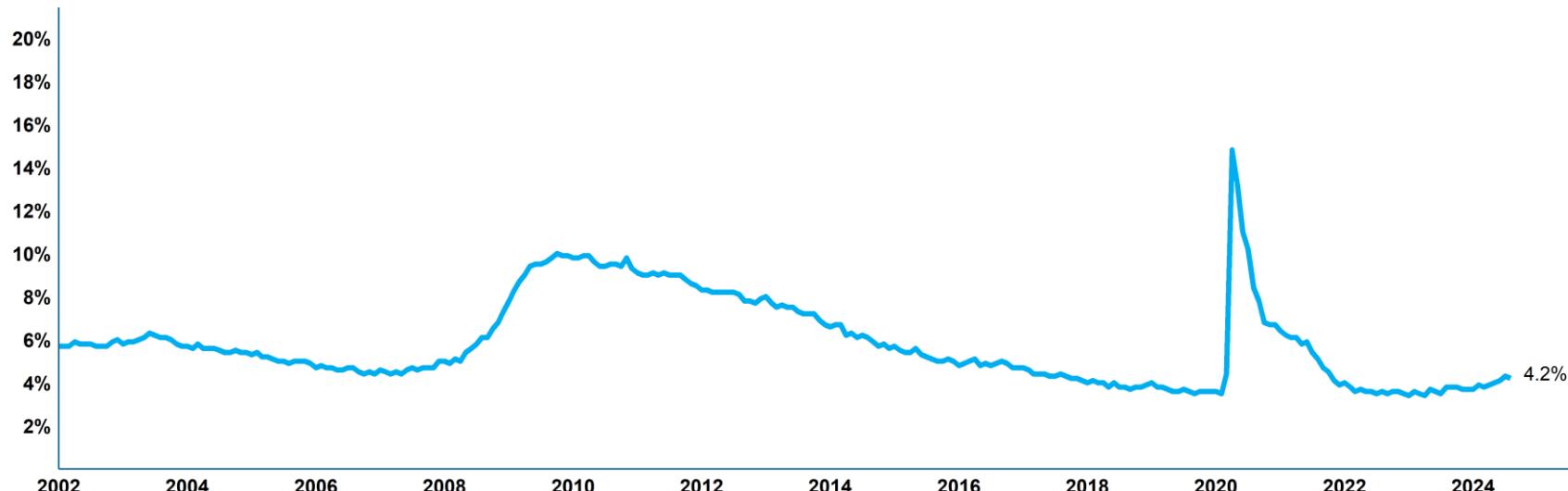
- Year-over-year headline inflation continued to fall in August (2.9% to 2.5%), coming in at expectations.
- Month-over-month inflation increased 0.2% in August the same as in July. Shelter and transportation costs posted the largest gains rising 0.5% and 0.9%, respectively. Energy prices (-0.8%) fell for the month while food prices increased (0.1%).
- Core inflation (excluding food and energy) rose 0.3% (slightly above expectations) in August and 3.2% (at expectations) from a year prior.
- 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 August 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>

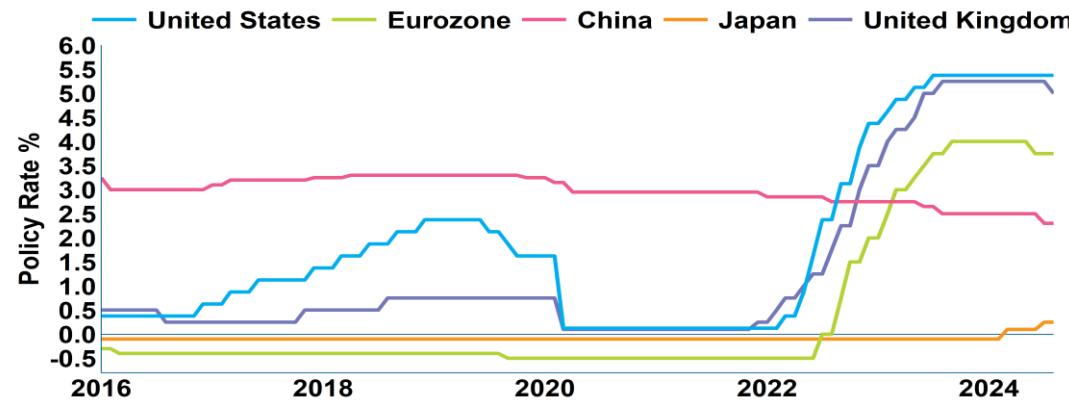
- In the eurozone, inflation fell from 2.5% to 2.2% in August, potentially clearing the way for further rate cuts from the ECB.
- Inflation in Japan remained steady at 2.8% in August for the third straight month. The Bank of Japan made some dovish comments in early August to calm markets, but in early September they signaled a willingness to raise interest rates in the future given inflation levels.
- In China, inflation was slightly up compared to last month representing the seventh straight month of positive price increases after declines late last year. Recent extreme weather has caused supply issues and contributed to higher prices. Inflation in China remains much lower than other countries though 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 August 31, 2024, except Japan which is as of July 31, 2024.

**US Unemployment<sup>1</sup>**

- The unemployment rate fell slightly from 4.3% to 4.2% as the number of people on temporary layoff declined. Compared to a year ago the rate increased by 0.4% (3.8% to 4.2%).
- Construction (+34K), healthcare (+31K), and social services (+13K) sectors added jobs in August while manufacturing reduced jobs (-24k). The total number of jobs created was 142,000 compared to estimates of 165,000.
- The US labor market continues to show signs of slowing with the number of job openings falling to 7.7 million (the peak was over 12 million) and the rate of people quitting jobs is falling.
- The change in average hourly earnings from a year prior remains strong though (around 3.8%), and initial jobless claims are subdued.

<sup>1</sup> Source: FRED. Data is as August 31, 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. Chair Powell cautioned though against assuming that the 0.5% initial cut would be the pace that policymakers would continue at. In their statement they highlighted that they would make additional interest rate cut decisions based on incoming data. Market participants are pricing in two to three additional cuts in 2024.
- The Bank of England (BoE) and European Central Bank (ECB) by contrast have both already 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% after decades at near-zero rates.
- China's central bank continues to pursue an easing policy given slowing economic growth and low inflation.

<sup>1</sup> Source: Bloomberg. Data is as of August 31, 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 by over 2% in August on weak economic data and the prospect of rate cuts from the Fed later this year.
- 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.

<sup>1</sup> Source: Bloomberg. Data as of August 31, 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 to three rate cuts this year after the Fed's initial 0.5% reduction. Uncertainty remains though regarding the timing and pace of interest rate cuts in the coming year.
- We have started to see divergences in monetary policy. Some central banks, such as the 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, while the Fed appears on the verge of starting rate cuts. This disparity will likely influence capital flows and currencies.
- US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs are 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.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and ongoing weakness in the real estate sector. Japan's recent tightening of monetary policy along with changes in corporate governance in the country could influence relative results.

## Executive Summary

**Executive Summary**

- In August, US equities rose slightly, with large caps outperforming small caps. Value stocks such as healthcare, utilities, and consumer staples outpaced growthier sectors like technology. Bonds experienced positive returns in August as the expectation of policy rate cuts by the Fed continued to grow.
- The below table reflects the latest valuation data through August 2024.

NERS	August 31, 2024	July 31, 2024	June 30, 2024
Total Fund Balance	\$1.40 Billion	\$1.38 Billion	\$1.32 Billion
Funded Status	90%	89%	85%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%
FYTD Rate of Return	3.9%	2.0%	10.4%
12 Months Trailing Rate of Return	14.4%	10.3%	10.4%
Monthly Rate of Return	1.9%	2.0%	0.9%
Monthly Gains/Losses	\$25.7 million	\$27.1 million	\$11.9 million
Monthly Net Cash Flow	-\$8.0 million	\$34.3 million	-\$8.2 million

- The Actuarial Determined Contributions for Fiscal Year 2025 are:

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

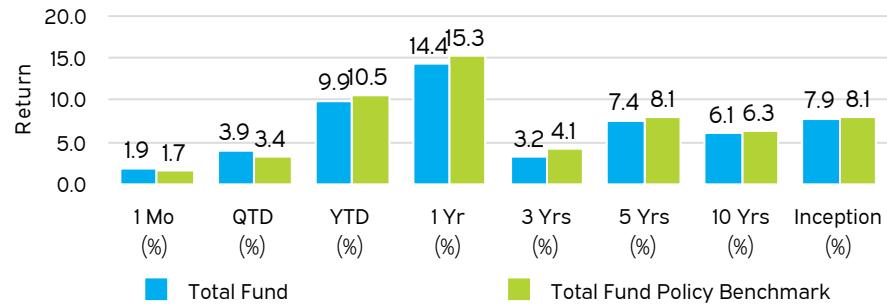
- As of August 31, the System was inside of its target asset allocation ranges for all asset classes.

## Performance Summary

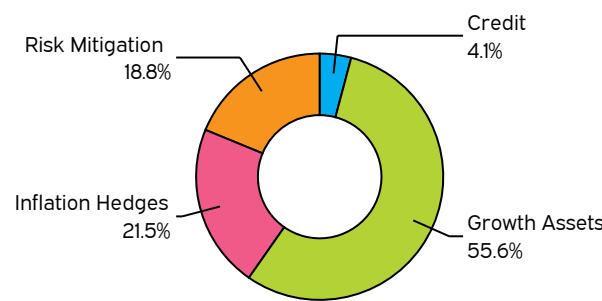
#### Portfolio Objective

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 to generate a return that meets the long-term return objective, while minimizing volatility.

#### Return Summary



#### Current Allocation

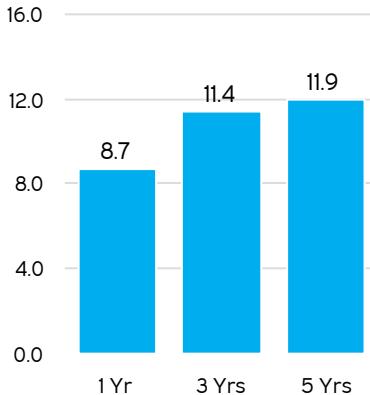


	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	1.9	3.9	9.9	14.4	3.2	7.4	6.1	7.9	10/01/1990
Total Fund Policy Benchmark	1.7	3.4	10.5	15.3	4.1	8.1	6.3	8.1	

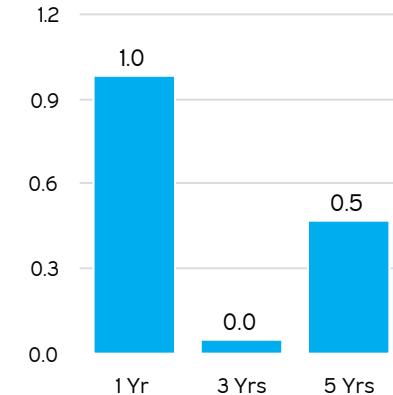
#### Summary of Cash Flows

	Last Month	Year-To-Date	One Year
<b>Total Fund</b>			
Beginning Market Value	1,383,197,295	1,295,810,106	1,277,932,584
Net Cash Flow	-8,004,199	-22,034,777	-54,334,166
Net Investment Change	25,661,859	126,988,992	177,165,902
Ending Market Value	1,400,854,954	1,400,854,954	1,400,854,954

#### Annualized Standard Deviation



#### Sharpe Ratio

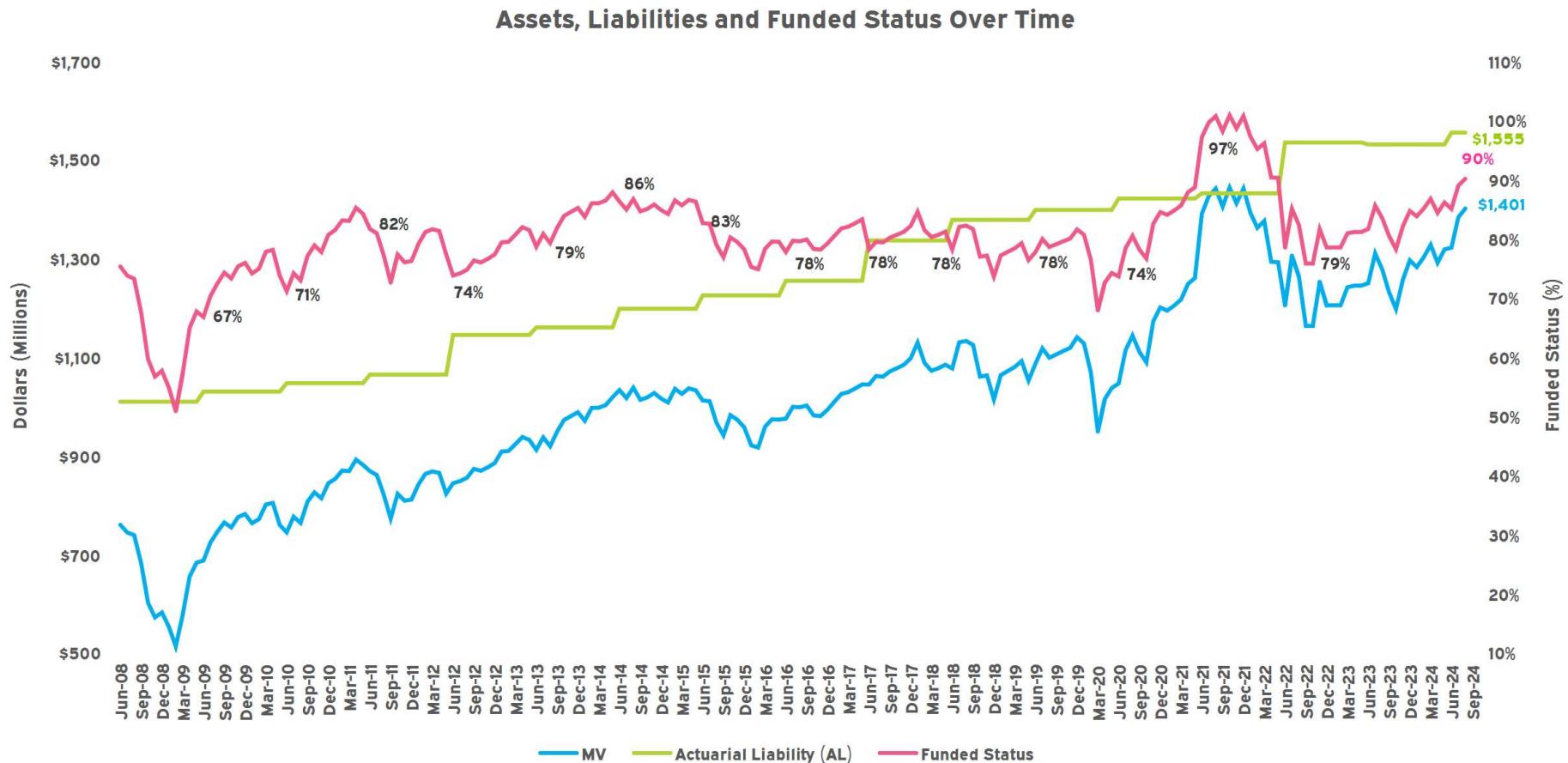


### Performance Update | As of August 31, 2024

Actual vs. Target Allocation		Allocation vs. Targets and Policy				
		Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	Growth Assets	\$778,719,221	55.6	57.0	47.0 - 67.0	Yes
	Global Equity	\$774,039,680	55.3	52.0	42.0 - 62.0	Yes
	Private Equity	\$4,679,541	0.3	5.0	0.0 - 10.0	Yes
Credit	Credit	\$57,707,594	4.1	4.0	0.0 - 9.0	Yes
	High Yield & Bank Loans	\$57,707,594	4.1	4.0	0.0 - 9.0	Yes
	Inflation Hedges	\$301,281,033	21.5	21.0	14.0 - 28.0	Yes
Inflation Hedges	Real Estate	\$110,069,034	7.9	8.0	3.0 - 13.0	Yes
	Natural Resources & Infrastructure	\$71,251,275	5.1	5.0	0.0 - 10.0	Yes
	Gold	\$51,777,551	3.7	3.0	0.0 - 6.0	Yes
Risk Mitigation	Short-Term TIPS	\$68,183,174	4.9	5.0	0.0 - 10.0	Yes
	Risk Mitigation	\$263,147,106	18.8	18.0	11.0 - 25.0	Yes
	Investment Grade Fixed Income	\$208,648,578	14.9	14.0	7.0 - 21.0	Yes
Risk Mitigation	Hedge Funds	\$52,253,684	3.7	4.0	0.0 - 9.0	Yes
	Cash	\$2,244,843	0.2	0.0	0.0 - 3.0	Yes
	<b>Total</b>	<b>\$1,400,854,954</b>	<b>100.0</b>	<b>100.0</b>		

0.0% 50.0% 100.0%

- Target Allocation
- Actual Allocation



As of June 30, 2024, 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 89% in July 2024 and 90% in August 2024.

Asset Class Performance Summary													
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date		
<b>Total Fund</b>	<b>1,400,854,954</b>	<b>100.0</b>	<b>1.9</b>	<b>3.9</b>	<b>9.9</b>	<b>14.4</b>	<b>3.2</b>	<b>7.4</b>	<b>6.1</b>	<b>7.9</b>		<b>Oct-90</b>	
Total Fund Policy Benchmark				1.7	3.4	10.5	15.3	4.1	8.1	6.3		8.1	
Total Fund Actual Allocation Benchmark				1.7	3.6	10.1	15.0	--	--	--		--	
Total Fund Public Benchmark				2.1	4.3	11.9	18.5	3.4	8.0	6.5		8.2	
<b>Growth Assets</b>	<b>778,719,221</b>	<b>55.6</b>	<b>2.3</b>	<b>4.2</b>	<b>14.8</b>	<b>21.6</b>	--	--	--	<b>17.5</b>		<b>Dec-22</b>	
Growth Assets Custom Benchmark				2.5	4.2	15.9	23.3	--	--	--		18.9	
<b>Global Equity</b>	<b>774,039,680</b>	<b>55.3</b>	<b>2.3</b>	<b>4.3</b>	<b>14.8</b>	<b>21.7</b>	<b>4.9</b>	<b>11.8</b>	<b>8.9</b>	<b>9.3</b>		<b>Oct-90</b>	
Global Equity Policy Benchmark				2.3	4.4	15.2	22.6	5.2	11.8	8.7		9.6	
<b>Private Equity</b>	<b>4,679,541</b>	<b>0.3</b>											
<b>Credit</b>	<b>57,707,594</b>	<b>4.1</b>	<b>1.2</b>	<b>2.1</b>	<b>5.7</b>	<b>9.4</b>	--	--	--	<b>10.6</b>		<b>May-23</b>	
Credit Custom Benchmark				1.1	2.5	6.1	11.2	--	--	--		11.1	
<b>High Yield &amp; Bank Loans</b>	<b>57,707,594</b>	<b>4.1</b>	<b>1.2</b>	<b>2.1</b>	<b>5.7</b>	<b>9.4</b>	--	--	--	<b>10.6</b>		<b>May-23</b>	
High Yield & Bank Loans Custom Benchmark				1.1	2.5	6.1	11.2	--	--	--		11.1	
<b>Inflation Hedges</b>	<b>301,281,033</b>	<b>21.5</b>	<b>1.6</b>	<b>4.2</b>	<b>5.7</b>	<b>5.7</b>	--	--	--	<b>-1.0</b>		<b>Dec-22</b>	
Inflation Hedges Custom Benchmark				0.6	2.4	3.6	3.1	--	--	--		-0.7	
<b>Real Estate</b>	<b>110,069,034</b>	<b>7.9</b>	<b>2.7</b>	<b>5.1</b>	<b>1.9</b>	<b>-3.2</b>	<b>-0.8</b>	<b>0.6</b>	<b>3.8</b>	<b>5.7</b>		<b>Apr-11</b>	
NCREIF ODCE (Net)				0.0	0.0	-3.2	-10.0	1.0	2.3	5.5		6.9	
<b>Natural Resources &amp; Infrastructure</b>	<b>71,251,275</b>	<b>5.1</b>	<b>0.2</b>	<b>1.2</b>	<b>3.6</b>	<b>5.6</b>	--	--	--	<b>2.9</b>		<b>Apr-23</b>	
S&P Global LargeMidcap Resources & Commodities NR USD				0.2	1.5	2.9	4.3	--	--	--		1.9	
<b>Gold</b>	<b>51,777,551</b>	<b>3.7</b>	<b>2.6</b>	<b>10.8</b>	<b>21.0</b>	<b>27.3</b>	--	--	--	<b>14.4</b>		<b>Apr-23</b>	
60% Gold (Spot)/ 40% FTSE Gold Mines				3.3	12.1	23.6	33.7	--	--	--		18.1	
<b>Short-Term TIPS</b>	<b>68,183,174</b>	<b>4.9</b>	<b>0.6</b>	<b>1.5</b>	<b>3.8</b>	<b>6.2</b>	--	--	--	<b>4.7</b>		<b>Mar-23</b>	
Blmbg. U.S. TIPS 0-5 Year				0.6	1.5	3.8	6.3	--	--	--		5.4	

Total Fund Public Benchmark consists of 74% MSCI ACWI IMI / 26% Bloomberg US Aggregate. Historical varies. See benchmark history page for additional benchmark detail.

## Performance Update | As of August 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>263,147,106</b>	<b>18.8</b>	<b>1.0</b>	<b>3.0</b>	<b>1.8</b>	<b>5.2</b>	--	--	--	<b>3.8</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>			0.8	2.4	2.8	6.2	--	--	--	3.9	
<b>Investment Grade Fixed Income</b>	<b>208,648,578</b>	<b>14.9</b>	<b>1.6</b>	<b>4.5</b>	<b>2.8</b>	<b>7.3</b>	<b>-2.2</b>	<b>0.1</b>	<b>1.8</b>	<b>5.2</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			1.4	3.8	3.1	7.3	-2.1	0.0	1.6	5.1	
<b>Intermediate-Term Bonds</b>	<b>157,546,106</b>	<b>11.2</b>	<b>1.5</b>	<b>4.1</b>	<b>3.7</b>	<b>8.1</b>	<b>-1.7</b>	<b>0.4</b>	<b>1.9</b>	<b>5.2</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			1.4	3.8	3.1	7.3	-2.1	0.0	1.6	5.1	
<b>Long-Term Bonds</b>	<b>51,102,472</b>	<b>3.6</b>	<b>2.0</b>	<b>5.7</b>	<b>0.6</b>	<b>4.8</b>	--	--	--	<b>1.3</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>			2.0	5.7	0.4	4.9	--	--	--	1.4	
<b>Hedge Funds</b>	<b>52,253,684</b>	<b>3.7</b>	<b>-1.4</b>	<b>-2.4</b>	<b>-2.6</b>	<b>-2.5</b>	--	--	--	<b>-0.1</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>			-1.5	-2.5	1.6	2.0	--	--	--	2.7	
<b>Cash</b>	<b>2,244,843</b>	<b>0.2</b>									

	Trailing Net Performance												Inception Date
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)			
<b>Total Fund</b>	<b>1,400,854,954</b>	<b>100.0</b>	<b>1.9</b>	<b>3.9</b>	<b>9.9</b>	<b>14.4</b>	<b>3.2</b>	<b>7.4</b>	<b>6.1</b>	<b>7.9</b>			<b>Oct-90</b>
<i>Total Fund Policy Benchmark</i>			1.7	3.4	10.5	15.3	4.1	8.1	6.3	8.1			
<i>Total Fund Actual Allocation Benchmark</i>			1.7	3.6	10.1	15.0	--	--	--	--			
<i>Total Fund Public Benchmark</i>			2.1	4.3	11.9	18.5	3.4	8.0	6.5	8.2			
<b>Growth Assets</b>	<b>778,719,221</b>	<b>55.6</b>	<b>2.3</b>	<b>4.2</b>	<b>14.8</b>	<b>21.6</b>	--	--	--	<b>17.5</b>			<b>Dec-22</b>
<i>Growth Assets Custom Benchmark</i>			2.5	4.2	15.9	23.3	--	--	--	18.9			
<b>Global Equity</b>	<b>774,039,680</b>	<b>55.3</b>	<b>2.3</b>	<b>4.3</b>	<b>14.8</b>	<b>21.7</b>	<b>4.9</b>	<b>11.8</b>	<b>8.9</b>	<b>9.3</b>			<b>Oct-90</b>
<i>Global Equity Policy Benchmark</i>			2.3	4.4	15.2	22.6	5.2	11.8	8.7	9.6			
SSgA Russell 1000 Growth Index	28,761,666	2.1	2.1	0.3	21.1	30.7	--	--	--	37.6			Mar-23
<i>Russell 1000 Growth Index</i>			2.1	0.3	21.1	30.8	--	--	--	37.4			
SSgA Russell 1000 Value Index	40,404,011	2.9	2.7	7.9	15.1	21.1	--	--	--	16.9			Mar-23
<i>Russell 1000 Value Index</i>			2.7	7.9	15.1	21.1	--	--	--	16.8			
DF Dent Small Cap Growth Fund	16,018,150	1.1	-1.0	9.9	--	--	--	--	--	8.9			Jun-24
<i>Russell 2000 Growth Index</i>			-1.1	7.0	--	--	--	--	--	6.8			
SSgA Russell 3000 Index	200,565,792	14.3	2.2	4.1	18.1	26.1	--	--	--	26.7			Mar-23
<i>Russell 3000 Index</i>			2.2	4.1	18.2	26.1	--	--	--	26.6			
SSgA MSCI EAFE	91,545,889	6.5	3.2	6.2	12.1	19.5	--	--	--	16.4			Mar-23
<i>MSCI EAFE (Net)</i>			3.3	6.3	12.0	19.4	--	--	--	16.0			
SSgA Emerging Markets Index	38,050,914	2.7	0.7	1.4	8.6	13.9	--	--	--	11.7			Mar-23
<i>MSCI Emerging Markets (Net)</i>			1.6	1.9	9.5	15.1	--	--	--	12.4			
ABS China Direct	7,720,002	0.6	-1.1	-4.4	-2.4	-10.1	--	--	--	-11.9			Mar-23
<i>MSCI China (Net)</i>			1.0	-0.3	4.4	-2.8	--	--	--	-5.0			
ABS EM ex China Direct	23,028,733	1.6	1.7	1.4	10.1	17.8	--	--	--	21.4			Mar-23
<i>MSCI EM ex China</i>			1.8	2.7	11.3	22.6	--	--	--	20.3			

**Performance Update | As of August 31, 2024**

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All-Cap	33,186,125	2.4	-1.0	3.3	4.7	11.5	--	--	--	10.4	Apr-23
<i>MSCI AC World Index (Net)</i>				2.5	4.2	16.0	23.4	--	--	--	21.6
First Eagle Global Equity	133,792,697	9.6	3.2	7.4	15.7	18.9	--	--	--	16.8	Apr-23
<i>MSCI AC World Index (Net)</i>				2.5	4.2	16.0	23.4	--	--	--	21.6
Artisan Global Opportunities	103,244,083	7.4	3.4	2.5	15.3	23.8	--	--	--	21.1	Apr-23
<i>MSCI AC World Index (Net)</i>				2.5	4.2	16.0	23.4	--	--	--	21.6
J. Stern & Co. World Stars Global Equity Fund	57,721,617	4.1	2.2	1.5	--	--	--	--	--	15.2	Feb-24
<i>MSCI AC World IMI Index (Net)</i>				2.3	4.4	--	--	--	--	--	14.9
<b>Private Equity</b>	<b>4,679,541</b>	<b>0.3</b>									
NexPhase Capital Fund V, L.P.	258,216	0.0									
Vitruvian Investment Partnership V	142,881	0.0									
Lexington Capital Partners X, L.P.	4,049,885	0.3									
Flagship Pioneering Fund VIII, L.P.	205,603	0.0									
<b>Credit</b>	<b>57,707,594</b>	<b>4.1</b>	<b>1.2</b>	<b>2.1</b>	<b>5.7</b>	<b>9.4</b>	--	--	--	<b>10.6</b>	<b>May-23</b>
<i>Credit Custom Benchmark</i>				1.1	2.5	6.1	11.2	--	--	--	11.1
<b>High Yield &amp; Bank Loans</b>	<b>57,707,594</b>	<b>4.1</b>	<b>1.2</b>	<b>2.1</b>	<b>5.7</b>	<b>9.4</b>	--	--	--	<b>10.6</b>	<b>May-23</b>
<i>High Yield &amp; Bank Loans Custom Benchmark</i>				1.1	2.5	6.1	11.2	--	--	--	11.1
Sculptor Credit Opportunities Overseas Fund	26,078,482	1.9	0.6	-0.1	3.2	4.8	--	--	--	6.4	May-23
<i>Blmbg. Global High Yield Index</i>				2.2	4.2	7.5	14.8	--	--	--	13.2
Brigade High Income Fund	31,629,112	2.3	1.7	3.9	7.6	12.9	--	--	--	13.7	May-23
<i>60% Barclays U.S. Corporate High Yield &amp; 40% CS Lev Loans</i>				1.2	2.7	6.1	11.5	--	--	--	11.2

## Performance Update | As of August 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Inflation Hedges</b>	<b>301,281,033</b>	<b>21.5</b>	<b>1.6</b>	<b>4.2</b>	<b>5.7</b>	<b>5.7</b>	--	--	--	<b>-1.0</b>	<b>Dec-22</b>
<i>Inflation Hedges Custom Benchmark</i>			0.6	2.4	3.6	3.1	--	--	--	-0.7	
<b>Real Estate</b>	<b>110,069,034</b>	<b>7.9</b>	<b>2.7</b>	<b>5.1</b>	<b>1.9</b>	<b>-3.2</b>	<b>-0.8</b>	<b>0.6</b>	<b>3.8</b>	<b>5.7</b>	<b>Apr-11</b>
<i>NCREF ODCE (Net)</i>			0.0	0.0	-3.2	-10.0	1.0	2.3	5.5	6.9	
JP Morgan Asset Management Strategic Property Fund	43,857,932	3.1	0.3	0.5	-4.2	-13.6	-2.1	0.7	4.3	6.4	Apr-11
<i>NCREF ODCE (Net)</i>			0.0	0.0	-3.2	-10.0	1.0	2.3	5.5	6.9	
UBS Trumbull Property Fund	21,693,572	1.5	0.0	0.0	-3.0	-8.6	-1.5	-1.1	2.5	3.7	Dec-11
<i>NCREF ODCE (Net)</i>			0.0	0.0	-3.2	-10.0	1.0	2.3	5.5	6.7	
SSgA US REIT	44,517,529	3.2	6.3	12.6	11.9	21.0	--	--	--	13.4	Mar-23
<i>Dow Jones U.S. Select REI</i>			6.3	12.5	11.9	21.0	--	--	--	13.4	
<b>Natural Resources &amp; Infrastructure</b>	<b>71,251,275</b>	<b>5.1</b>	<b>0.2</b>	<b>1.2</b>	<b>3.6</b>	<b>5.6</b>	--	--	--	<b>2.9</b>	<b>Apr-23</b>
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>			0.2	1.5	2.9	4.3	--	--	--	1.9	
SSgA S&P Global LargeMidCap Natural Resources Index	54,975,998	3.9	0.2	1.5	3.0	4.3	--	--	--	2.0	Apr-23
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>			0.2	1.5	2.9	4.3	--	--	--	1.9	
JP Morgan Infrastructure Investments Fund	16,275,277	1.2	0.0	0.0	5.1	--	--	--	--	8.5	Oct-23
<i>DJ Brookfield Listed Public Infrastructure +1%</i>			4.6	11.7	11.4	--	--	--	--	25.2	
<b>Gold</b>	<b>51,777,551</b>	<b>3.7</b>	<b>2.6</b>	<b>10.8</b>	<b>21.0</b>	<b>27.3</b>	--	--	--	<b>14.4</b>	<b>Apr-23</b>
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>			3.3	12.1	23.6	33.7	--	--	--	18.1	
First Eagle Institutional Gold Fund, LP	51,777,551	3.7	2.6	10.8	21.0	27.3	--	--	--	14.4	Apr-23
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>			3.3	12.1	23.6	33.7	--	--	--	18.1	
<b>Short-Term TIPS</b>	<b>68,183,174</b>	<b>4.9</b>	<b>0.6</b>	<b>1.5</b>	<b>3.8</b>	<b>6.2</b>	--	--	--	<b>4.7</b>	<b>Mar-23</b>
<i>Blmbg. U.S. TIPS 0-5 Year</i>			0.6	1.5	3.8	6.3	--	--	--	5.4	
Vanguard Short-Term TIPS Index	68,183,174	4.9	0.6	1.5	3.8	6.2	--	--	--	4.3	Apr-23
<i>Blmbg. U.S. TIPS 0-5 Year</i>			0.6	1.5	3.8	6.3	--	--	--	4.3	

## Performance Update | As of August 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>263,147,106</b>	<b>18.8</b>	<b>1.0</b>	<b>3.0</b>	<b>1.8</b>	<b>5.2</b>	--	--	--	<b>3.8</b>	<b>Dec-22</b>
Risk Mitigation Custom Benchmark			0.8	2.4	2.8	6.2	--	--	--	3.9	
<b>Investment Grade Fixed Income</b>	<b>208,648,578</b>	<b>14.9</b>	<b>1.6</b>	<b>4.5</b>	<b>2.8</b>	<b>7.3</b>	<b>-2.2</b>	<b>0.1</b>	<b>1.8</b>	<b>5.2</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			1.4	3.8	3.1	7.3	-2.1	0.0	1.6	5.1	
<b>Intermediate-Term Bonds</b>	<b>157,546,106</b>	<b>11.2</b>	<b>1.5</b>	<b>4.1</b>	<b>3.7</b>	<b>8.1</b>	<b>-1.7</b>	<b>0.4</b>	<b>1.9</b>	<b>5.2</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			1.4	3.8	3.1	7.3	-2.1	0.0	1.6	5.1	
SSgA US Aggregate Bond	38,231,377	2.7	1.4	3.8	3.2	7.3	-2.1	0.0	1.6	2.8	Jan-09
Blmbg. U.S. Aggregate Index			1.4	3.8	3.1	7.3	-2.1	0.0	1.6	2.8	
Wellington Core Bond	88,551,698	6.3	1.3	3.8	3.9	8.6	--	--	--	5.0	May-23
Blmbg. U.S. Aggregate Index			1.4	3.8	3.1	7.3	--	--	--	3.7	
Brandywine U.S. Fixed Income	30,763,030	2.2	2.0	5.4	3.1	7.7	--	--	--	4.1	Jun-23
Blmbg. U.S. Aggregate Index			1.4	3.8	3.1	7.3	--	--	--	4.9	
<b>Long-Term Bonds</b>	<b>51,102,472</b>	<b>3.6</b>	<b>2.0</b>	<b>5.7</b>	<b>0.6</b>	<b>4.8</b>	--	--	--	<b>1.3</b>	<b>Mar-23</b>
Blmbg. U.S. Treasury: Long			2.0	5.7	0.4	4.9	--	--	--	1.4	
SSgA Long US Treasury Index	51,102,472	3.6	2.0	5.7	0.6	4.8	--	--	--	1.3	Mar-23
Blmbg. U.S. Treasury: Long			2.0	5.7	0.4	4.9	--	--	--	1.4	
<b>Hedge Funds</b>	<b>52,253,684</b>	<b>3.7</b>	<b>-1.4</b>	<b>-2.4</b>	<b>-2.6</b>	<b>-2.5</b>	--	--	--	<b>-0.1</b>	<b>Apr-23</b>
Hedge Fund Custom Benchmark			-1.5	-2.5	1.6	2.0	--	--	--	2.7	
36 South Kohinoor Series (Cayman) Fund	13,377,739	1.0	-0.5	-0.8	0.5	-1.0	--	--	--	0.9	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			1.4	1.4	-0.1	-3.0	--	--	--	-3.5	
BH-DG Systematic Trading Master Fund	15,894,302	1.1	-5.1	-8.9	-10.2	-8.5	--	--	--	-3.4	Apr-23
SG Trend Index			-4.5	-6.8	1.3	-0.6	--	--	--	3.3	

**Performance Update | As of August 31, 2024**

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Lombard Odier Bear Convexity	5,858,319	0.4	-0.7	1.7	3.7	-0.7	--	--	--	-0.9	Apr-23
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>			1.4	1.4	-0.1	-3.0	--	--	--	-3.5	
Alpstone Global Macro Fund	17,123,324	1.2	1.5	1.3	-0.7	1.9	--	--	--	1.9	May-23
<i>HFRI Macro (Total) Index</i>			-1.5	-2.1	3.2	3.6	--	--	--	3.4	
<b>Cash</b>	<b>2,244,843</b>	<b>0.2</b>									
Cash	2,244,843	0.2									

**Annual Investment Expense Analysis  
As of August 31, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Total Fund</b>		\$1,400,854,954	\$4,602,977	0.33
<b>Growth Assets</b>		\$778,719,221	\$2,314,919	0.30
<b>Global Equity</b>		\$774,039,680	\$2,302,469	0.30
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$28,761,666	\$5,752	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$40,404,011	\$8,081	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$16,018,150	\$152,172	0.95
SSgA Russell 3000 Index	0.02 % of Assets	\$200,565,792	\$40,113	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$91,545,889	\$36,618	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$38,050,914	\$30,441	0.08
ABS China Direct	0.65 % of Assets	\$7,720,002	\$50,180	0.65
ABS EM ex China Direct	0.50 % of Assets	\$23,028,733	\$115,144	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$33,186,125	\$248,896	0.75
First Eagle Global Equity	0.55 % of Assets	\$133,792,697	\$735,860	0.55
Artisan Global Opportunities	0.60 % of Assets	\$103,244,083	\$619,465	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$57,721,617	\$259,747	0.45
<b>Private Equity</b>		<b>\$4,679,541</b>	<b>\$12,450</b>	<b>0.27</b>
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$258,216	\$5,164	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$142,881	\$2,715	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$4,049,885	-	-
Flagship Pioneering Fund VIII, L.P.	2.00 % of Assets	\$205,603	\$4,112	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$22,956	\$459	2.00
<b>Credit</b>		<b>\$57,707,594</b>	<b>\$425,256</b>	<b>0.74</b>
<b>High Yield &amp; Bank Loans</b>		<b>\$57,707,594</b>	<b>\$425,256</b>	<b>0.74</b>
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$26,078,482	\$260,785	1.00
Brigade High Income Fund	0.52 % of Assets	\$31,629,112	\$164,471	0.52

**Performance Update | As of August 31, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Inflation Hedges</b>		\$301,281,033	\$1,087,653	0.36
<b>Real Estate</b>		\$110,069,034	\$617,790	0.56
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$43,857,932	\$399,107	0.91
UBS Trumbull Property Fund	0.96 % of First \$10 M 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	\$21,693,572	\$191,972	0.88
SSgA US REIT	0.06 % of Assets	\$44,517,529	\$26,711	0.06
<b>Natural Resources &amp; Infrastructure</b>		\$71,251,275	\$209,591	0.29
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$54,975,998	\$54,976	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$16,275,277	\$154,615	0.95
<b>Gold</b>		\$51,777,551	\$232,999	0.45
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$51,777,551	\$232,999	0.45
<b>Short-Term TIPS</b>		\$68,183,174	\$27,273	0.04
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$68,183,174	\$27,273	0.04
<b>Risk Mitigation</b>		\$263,147,106	\$775,149	0.29
<b>Investment Grade Fixed Income</b>		\$208,648,578	\$218,452	0.10
<b>Intermediate-Term Bonds</b>		\$157,546,106	\$203,121	0.13
SSgA US Aggregate Bond	0.02 % of Assets	\$38,231,377	\$7,646	0.02
Wellington Core Bond	0.12 % of Assets	\$88,551,698	\$106,262	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$30,763,030	\$89,213	0.29

**Performance Update | As of August 31, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Long-Term Bonds</b>		<b>\$51,102,472</b>	<b>\$15,331</b>	<b>0.03</b>
SSgA Long US Treasury Index	0.03 % of Assets	\$51,102,472	\$15,331	0.03
<b>Hedge Funds</b>		<b>\$52,253,684</b>	<b>\$556,697</b>	<b>1.07</b>
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$13,377,739	\$133,777	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$15,894,302	\$147,817	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$5,858,319	\$43,937	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$17,123,324	\$231,165	1.35
<b>Cash</b>		<b>\$2,244,843</b>	<b>-</b>	<b>-</b>
Cash		\$2,244,843	-	-

		<b>Benchmark History</b>
<b>From Date</b>	<b>To Date</b>	<b>Benchmark</b>
<b>Total Fund</b>		
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 forth in the Fund's investment policy statement, weighted for the Fund's actual investments and performance of the indexes referenced above.

		Benchmark History	Benchmark
From Date	To Date		
<b>Growth Assets</b>			
12/01/2022	Present	91.0% MSCI AC World IMI Index (Net), 9.0% MSCI ACWI + 3% 1Q Lag	
<b>Global Equity</b>			
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	
<b>Credit</b>			
12/01/2022	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% Credit Suisse Leveraged Loan Index	
<b>High Yield &amp; Bank Loans</b>			
12/31/1992	Present	50.0% Blmbg. U.S. Corp: High Yield Index, 50.0% Credit Suisse Leveraged Loan Index	
<b>Inflation Hedges</b>			
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	
<b>Risk Mitigation</b>			
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	
<b>Hedge Funds</b>			
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	

## Appendix

## **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. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

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

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

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

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

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

**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%.

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

**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.