



INVESTMENT GROUP

# Employees' Retirement System of the City of Norfolk

Meeting Materials

September 11, 2024

Fund Evaluation Report

## Agenda

**1. Economic and Market Update****2. Executive Summary****3. Performance Summary**

- July 31, 2024

**4. High Yield Education****5. Asset Allocation Considerations****6. Appendices**

- June 30, 2024, Fund Evaluation Report
- Corporate Update
- Disclaimer, Glossary, and Notes

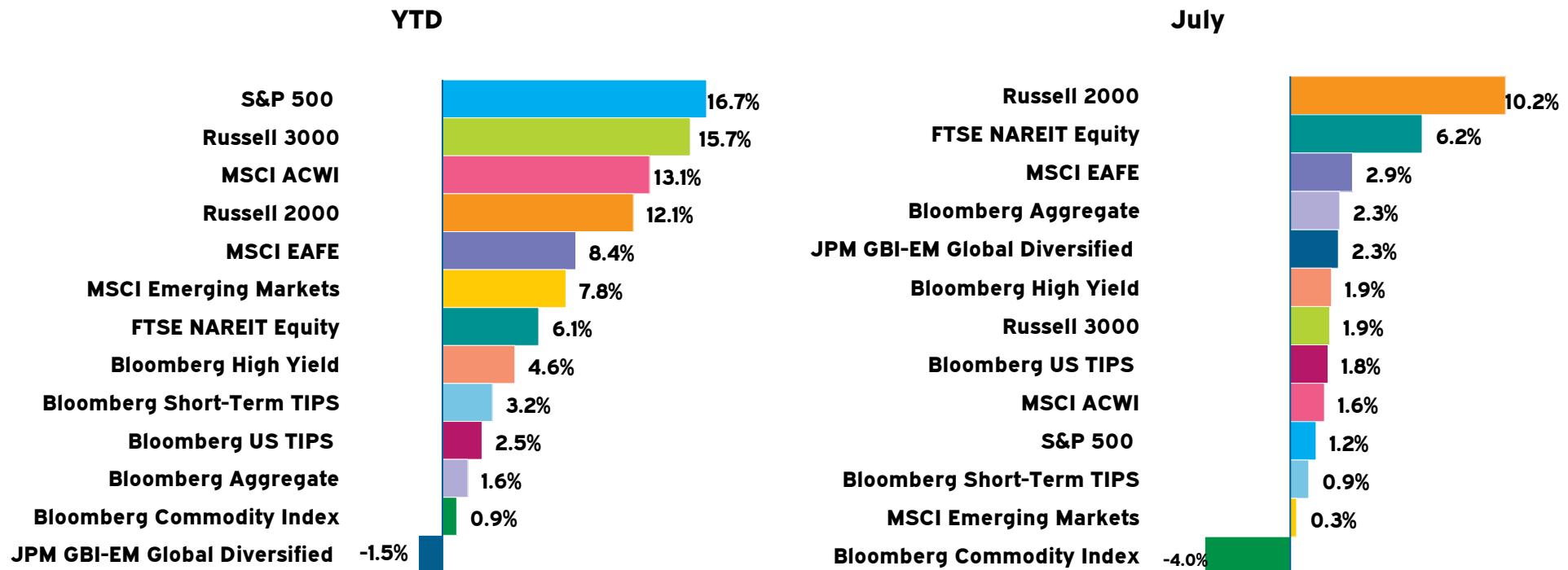
# **Economic and Market Update**

## **Data as of July 31, 2024**

## Commentary

- Hints from the Fed that it would lower interest rates given continued declines in inflation drove markets higher. Notably there was a rotation in the US equity market away from mega cap tech stocks particularly toward small cap stocks.
- Central bank policy divergence continued with the Bank of Japan hiking rates while the Bank of England and the People's Bank of China cut policy rates following the European Central Bank; while inflation continues to moderate, it remains above target in most countries while slowing growth has fanned recession concerns.
- In July, the broad market (Russell 3000: +1.9%) significantly trailed small cap stocks (Russell 2000: +10.2%) as smaller companies particularly benefited from increased expectations for a "soft landing" of the US economy.
- Non-US developed equity markets rallied in July (+2.9%) outperforming the broad US market. A weakening US dollar was a key driver of results.
- Emerging market equities were up slightly in July (+0.3%) as Chinese stocks declined (-1.6%).
- Fixed income markets posted positive returns in July on expectations for policy rate cuts this fall as inflation pressures recede.
- Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the yen-carry trade, and the many looming elections will be key factors.

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



- In July, improving inflation and dovish comments from the Fed helped most asset classes post positive returns. There was a notable shift within equity markets toward value and small cap stocks and away from the mega-cap tech stocks that have been recently driving markets higher.
- Just over mid-way through 2024, US stocks have significantly outperformed other asset classes on a year-to-date basis.

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

Domestic Equity Returns<sup>1</sup>

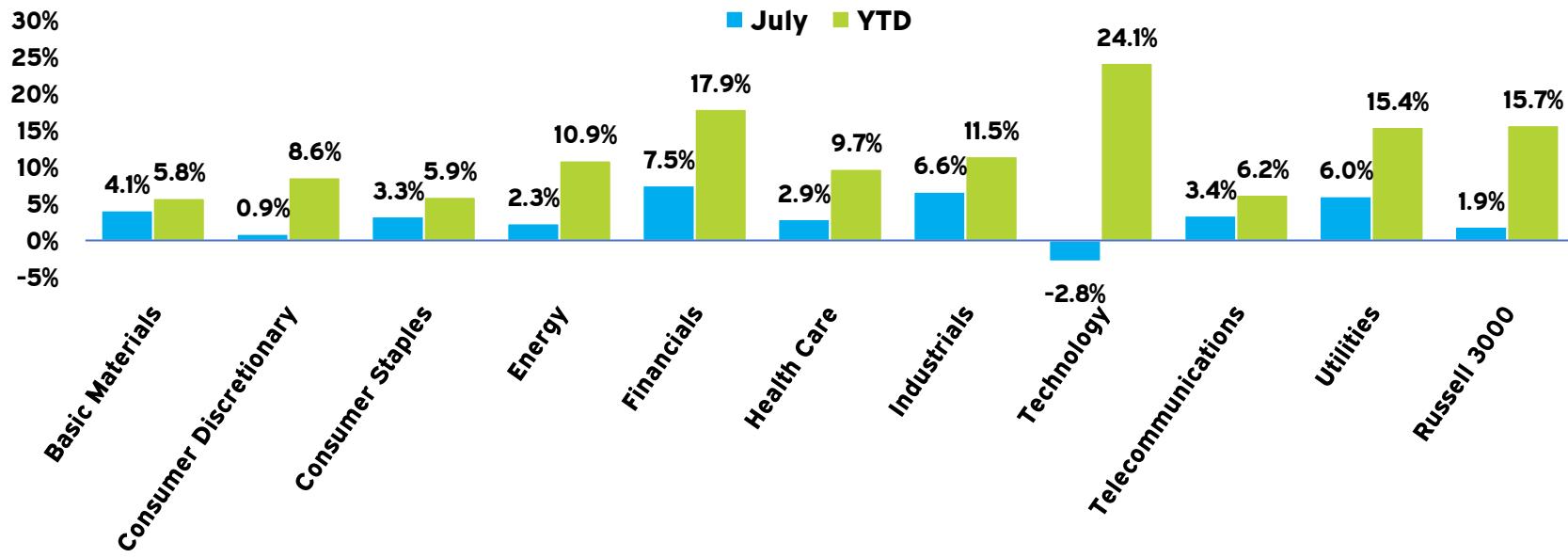
Domestic Equity	July (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.2	16.7	22.1	9.6	15.0	13.1
Russell 3000	1.9	15.7	21.1	8.1	14.2	12.6
Russell 1000	1.5	15.9	21.5	8.5	14.6	12.8
Russell 1000 Growth	-1.7	18.6	26.9	9.4	18.4	16.3
Russell 1000 Value	5.1	12.1	14.8	7.0	9.9	9.0
Russell MidCap	4.7	9.9	13.7	3.7	10.2	9.9
Russell MidCap Growth	0.6	6.6	12.3	-0.2	9.5	10.9
Russell MidCap Value	6.0	10.9	13.8	5.5	9.6	8.5
Russell 2000	10.2	12.1	14.3	1.9	8.9	8.7
Russell 2000 Growth	8.2	13.0	12.8	-1.1	7.6	8.9
Russell 2000 Value	12.2	11.2	15.7	4.6	9.5	8.1

## US Equities: The Russell 3000 rose 1.9% in July, bringing the year-to-date results to 15.7%.

- US stocks gained in July, as softening inflation data increased expectations for interest rate cuts this year.
- Notably there was a sharp rotation in the market during the month, from the technology sector toward small cap and value stocks.
- Small cap stocks particularly benefited from their domestic focus and hopes for a “soft landing” of the economy and on expectations of lower interest rates.
- Value stocks outperformed growth stocks across the market cap spectrum for the month, driven in part by banks. Growth stocks like pharmaceutical and software companies, also contributed to this dynamic.

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

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



- In July, all sectors saw a positive performance except the technology sector which fell in the month.
- On the prospect of lower interest rates financials (+7.5%), industrials (+6.6%), and utilities (+6.0%) were top performers in July.
- Technology (-2.8%) and consumer discretionary (+0.9%) sectors trailed. Concerns over whether the run-up in artificial intelligence related technology stocks will be matched by earnings weighed on that sector.
- All sectors have positive returns for the year-to-date period. Technology stocks (+24.1%) continue to lead the broader market, followed by financials (+17.9%).

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

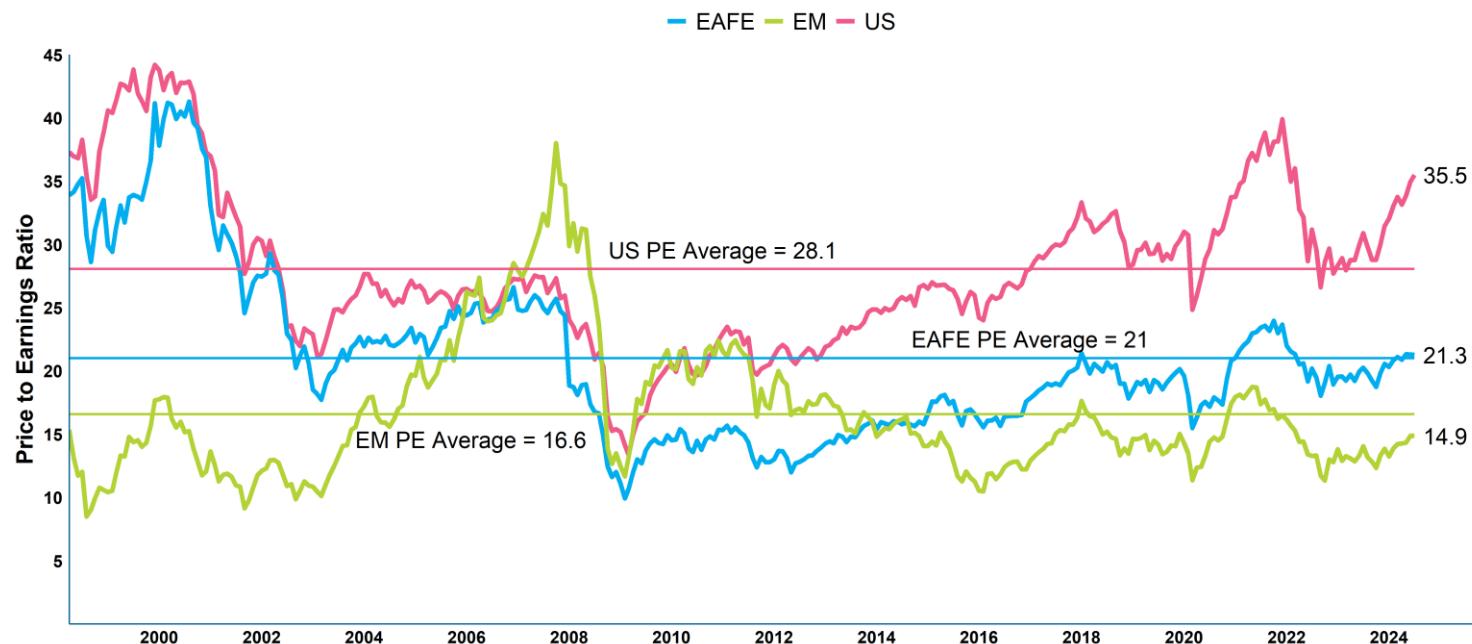
Foreign Equity Returns<sup>1</sup>

Foreign Equity	July (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.3	8.1	9.7	1.8	6.3	4.2
MSCI EAFE	2.9	8.4	11.2	3.6	7.4	4.8
MSCI EAFE (Local Currency)	0.8	11.9	14.1	8.2	9.0	7.5
MSCI EAFE Small Cap	5.7	6.2	9.1	-2.1	5.5	5.1
MSCI Emerging Markets	0.3	7.8	6.3	-2.7	3.4	2.6
MSCI Emerging Markets (Local Currency)	0.6	11.7	10.4	0.7	5.9	5.6
MSCI EM ex. China	0.8	9.3	14.5	2.5	7.2	4.0
MSCI China	-1.3	3.4	-12.4	-13.8	-4.4	0.5

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.9% in July, while emerging market equities (MSCI Emerging Markets) gained just 0.3%.**

- Developed market equities saw strong returns in July outpacing US shares. Most of the gains for US investors came from a weakening US dollar. Results were also driven in part by strong performance in the UK, due to promising PMIs and rising business confidence. Eurozone stocks rose only slightly for the month while Japan's TOPIX was volatile, reaching a record high only to experience a sharp correction.
- Emerging markets saw marginal positive returns but lagged most developed peers. China continued to see negative performance, as the real estate crisis showed no signs of abating. South Korea and Taiwan also experienced negative returns as technology stocks sold off globally. India saw strong performance following a very positive jobs report. The country grew to 80% of China's index weight as of month-end.

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

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

- The market rally in July lifted price-to-earnings ratios in the US (35.5) further 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 July 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.

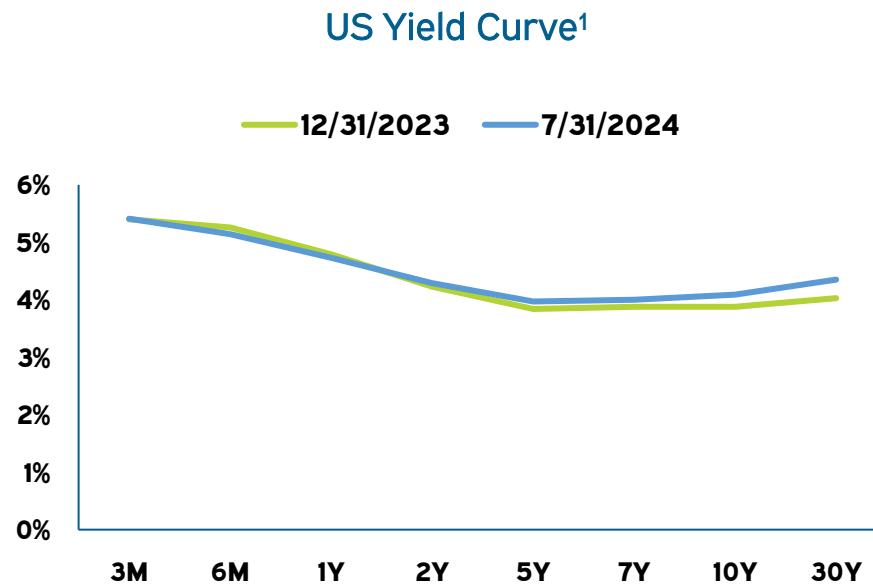
Fixed Income Returns<sup>1</sup>

Fixed Income	July (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	2.3	2.0	5.7	-2.3	0.5	1.9	4.9	6.0
Bloomberg Aggregate	2.3	1.6	5.1	-2.6	0.2	1.6	4.6	6.2
Bloomberg US TIPS	1.8	2.5	4.4	-1.6	2.4	2.1	4.3	6.9
Bloomberg Short-term TIPS	0.9	3.2	5.8	2.0	3.3	2.1	4.5	2.6
Bloomberg High Yield	1.9	4.6	11.1	2.2	4.2	4.6	7.6	3.6
JPM GBI-EM Global Diversified (USD)	2.3	-1.5	0.1	-2.4	-1.0	-0.5	--	--

**Fixed Income: The Bloomberg Universal index rose +2.3% in July, lifting the year-to-date return into positive territory (+2.0%).**

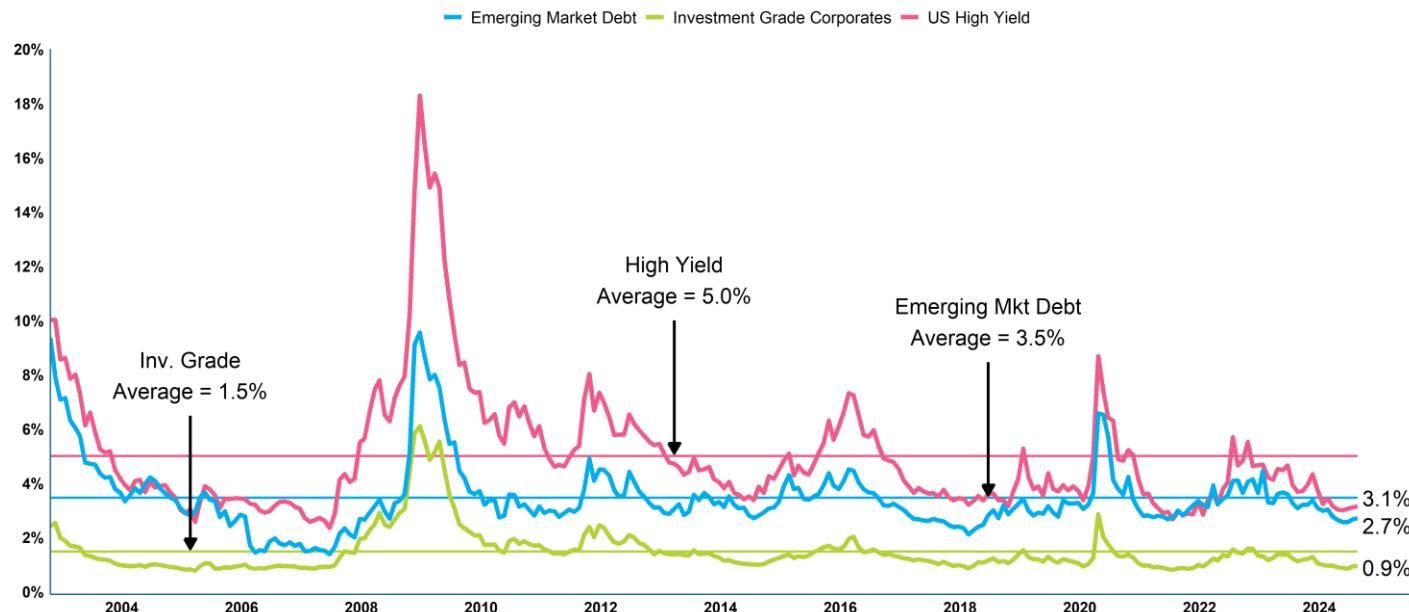
- Fixed income indexes rose in July, driven by market participants' expectations for a shift towards more accommodative monetary policy in the coming months largely due to easing inflationary pressures.
- The broad US bond market (Bloomberg Aggregate) rose 2.3% over the month, with the broad TIPS market gaining 1.8%. The less interest rate sensitive short-term TIPS index increased 0.9%.
- High yield bonds (+1.9%) and emerging market bonds (+2.3%) also rose, as risk appetite remains strong.

<sup>1</sup> Source: Bloomberg. Data is as of July 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.



- After rates significantly increased over the first six months of the year, they dramatically fell in July on weaker economic data and expectations for rate cuts.
- The more policy sensitive 2-year Treasury yield declined by a material 50 basis points and finished the month at 4.26%. The 10-year Treasury also saw a notable decline, dropping by 37 basis points to end the month at 4.03%.
- The yield curve remained inverted at month-end, with the spread between the 2-year and 10-year Treasury at roughly -22 basis points.

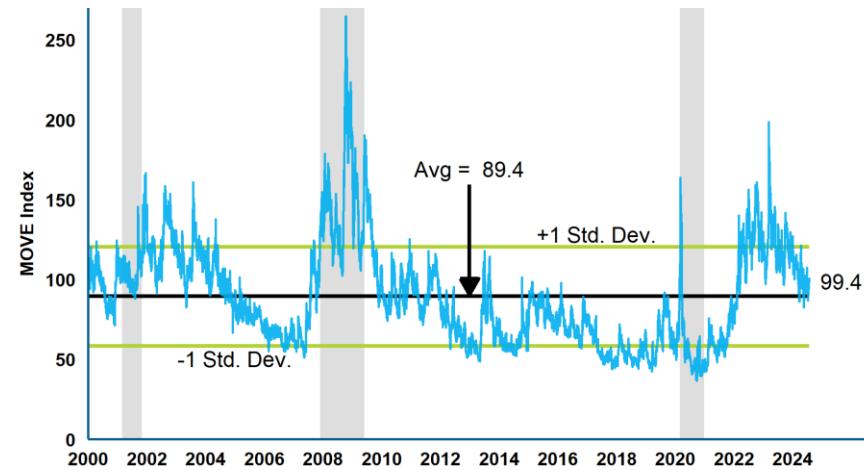
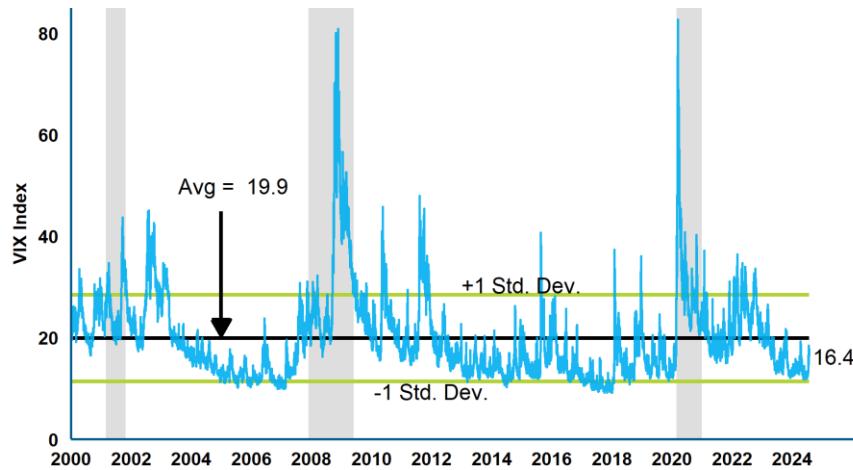
<sup>1</sup> Source: Bloomberg. Data is as of July 31, 2024.

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

- Investor demand for risk exposure in credit markets remained strong in July despite signs of weakness in the economic outlook. The prospect of lower rates was supportive for corporate bonds.
- Spreads (the yield above a comparable maturity Treasury) stayed relatively steady over the month, near post-pandemic lows. 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 July 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>



- Despite a small increase over the month, equity market volatility remains subdued as inflation tracks lower and the economy remains resilient.
- Uncertainty in the bond markets rose as markets repriced interest rate cuts for the rest of 2024 and volatility in bonds (MOVE) rose slightly in July and remains above its long-run average.

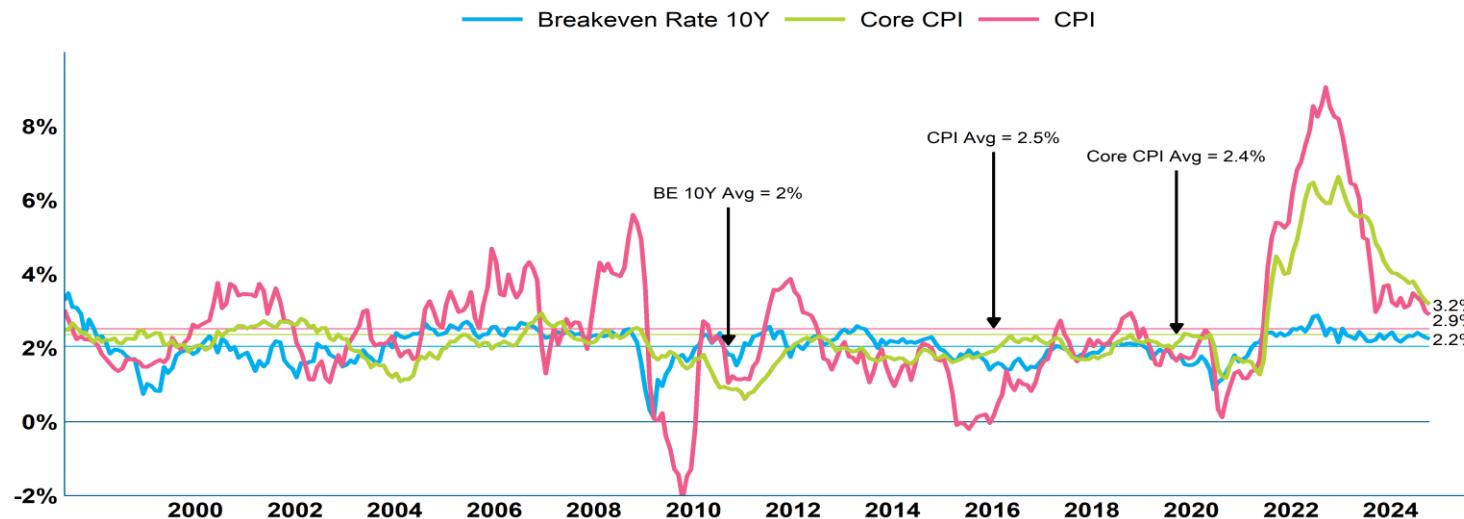
<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of July 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and July 2024.

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



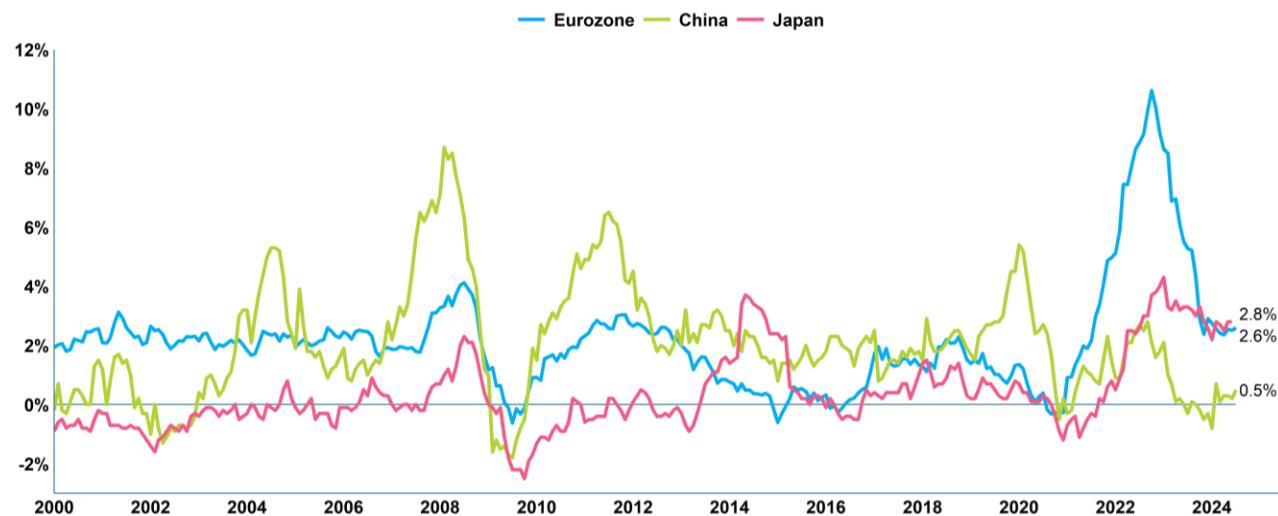
- Given relatively lower interest rates in Japan many have entered into the so-called “yen carry trade” borrowing cheaply in Japan and investing in other areas with perceived higher returns.
- This has traditionally involved taking the borrowed proceeds and investing them in Treasuries, but recently 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) after month-end.
- Since then, the yen has stabilized and slightly weakened but questions remain about the path ahead for the Japanese currency.

<sup>1</sup> Source: Bloomberg. Data as of August 15, 2024.

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

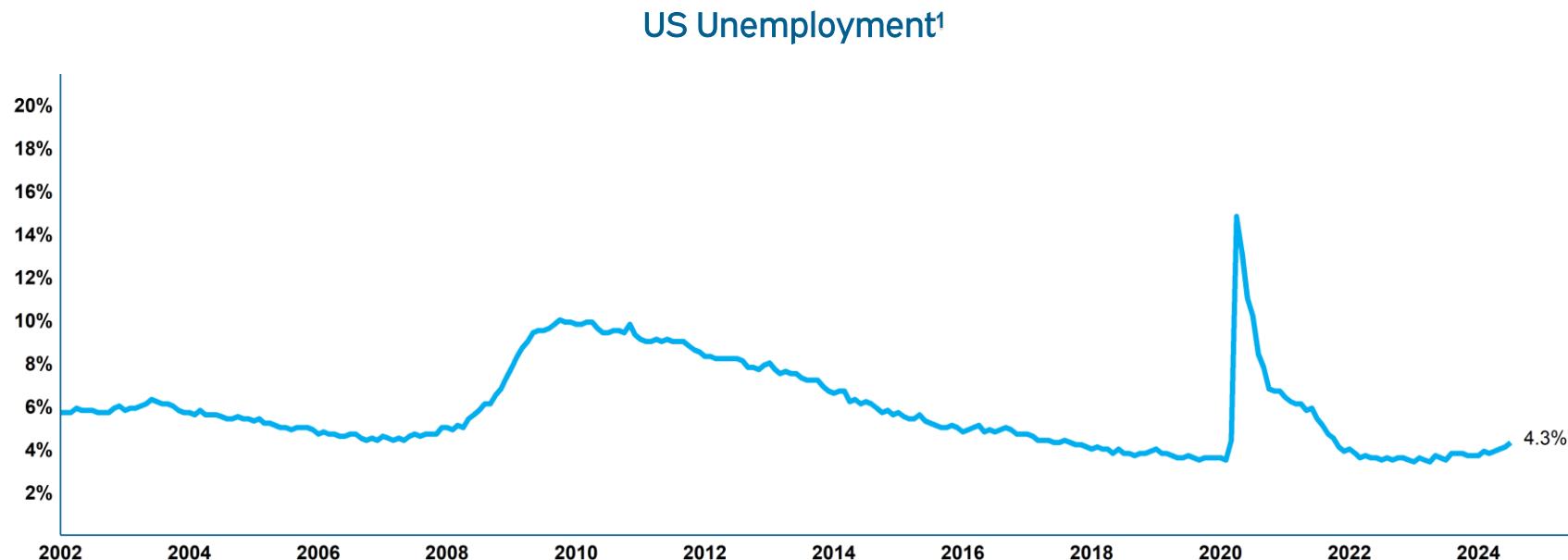
- Year-over-year headline inflation continued to fall in July (3.0% to 2.9%), coming in again below expectations.
- Month-over-month inflation increased 0.2% after declining 0.1% in June, with shelter costs accounting for ninety percent of the increase. Energy prices were flat for the month while food prices rose 0.2%.
- Core inflation (excluding food and energy) also declined in July (3.3% to 3.2%) and came in at consensus expectations. Price increases for shelter and motor vehicle insurance accounted for most of the monthly rise while prices in used cars, airline fares, and medical care fell.
- 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 July 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>

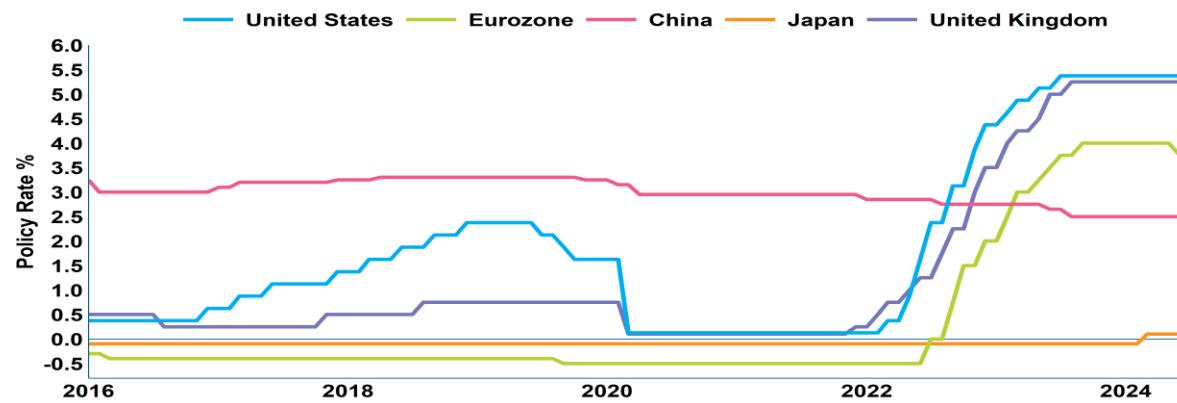
- In the eurozone, inflation increased unexpectedly in July, from 2.5% to 2.6%, when expectations were for it to decline to 2.4%. An increase in energy costs was the main driver of higher prices.
- Inflation in Japan remained steady at 2.8% in June. It is still near levels not seen in a decade creating a delicate balancing act for the Bank of Japan to keep prices under control while not creating significant strength in the yen.
- China appears to have emerged from deflationary pressures, but inflation levels remain well below other major economies due to slowing economic growth. Annual inflation levels have been positive for the last six readings signaling some modest improvement in domestic demand. The July year-over-year number came in at 0.5%, above the prior reading of 0.2%.

<sup>1</sup> Source: Bloomberg. Data is as of July 31, 2024, except Japan which is as of June 30, 2024.



- The unemployment rate increase caught markets by surprise rising from 4.1% to 4.3%, when expectations were for it to remain at 4.1%.
- The increase in the unemployment rate has not been driven by layoffs but by some returning to the job market and higher immigration.
- There were downward revisions to job gains in May and June, and the economy added just 114,000 jobs (below expectations of 175,000) in July. Construction, warehouse, and healthcare sectors added jobs while technology lost jobs.
- The change in average hourly earnings from a year prior remains strong though (around 3.6%), and initial jobless claims subdued.

<sup>1</sup> Source: FRED. Data is as July 31, 2024.

Policy Rates<sup>1</sup>

- In the US, interest rates have remained at current levels (5.25%-5.50%) for a year now. The most recent "dot plot" (the Fed's expectation on the path of rates) from early July showed a median expectation of roughly one rate cut this year. However, market participants are now pricing in between three and four cuts in 2024 given the improving inflation data and signs of economic weakness.
- The Bank of England (BoE) followed the European Central Bank (ECB) making its first rate cut in July. Like the ECB, the BoE warned about the uncertain path of inflation pressures in the economy.
- Inflation in Japan remained elevated, prompting Bank of Japan (BoJ) officials to raise the policy rate 0.15% to 0.25% after decades at near-zero rates.
- China's central bank surprised markets with another round of interest rate cuts while at the same time naming and shaming banks for purchasing government bonds and driving bond yields lower.

<sup>1</sup> Source: Bloomberg. Data is as of July 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 slightly in July on 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 July 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 between three and four rate cuts this year. Uncertainty remains though regarding the timing and pace of interest rate cuts in the coming year.
- We have started to see some 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 remains on hold. 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 July, US equities rose slightly, with small cap in particular rallying behind the increased expectation of a soft landing and bonds experienced positive returns in July as the expectation of policy rate cuts by the Fed continues to grow.
- The below table reflects the latest valuation data through July 2024.

NERS	July 31, 2024	June 30, 2024	May 31, 2024
Total Fund Balance	\$1.38 Billion	\$1.32 Billion	\$1.32 Billion
Funded Status	90%	86%	86%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%
FYTD Rate of Return	2.0%	10.4%	9.4%
12 Months Trailing Rate of Return	10.3%	10.4%	12.7%
Monthly Rate of Return	2.0%	0.9%	2.6%
Monthly Gains/Losses	\$27.1 million	\$11.9 million	\$34.7 million
Monthly Net Cash Flow	\$34.3 million	-\$8.2 million	-\$7.6 million

- The Actuarial Determined Contribution rates for Fiscal Year 2024 are:

- NERS: 20.96%
- VRS: 12.94%

- In the first week of July, a contribution of \$43.1 million was received by State Street and invested in line with the asset allocation policy.
- As of July 31, the System was inside of its target asset allocation ranges for all asset classes.

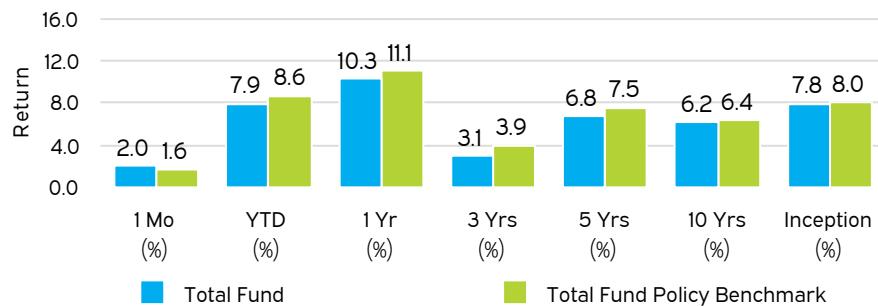
# **Performance Summary**

## **As of July 31, 2024**

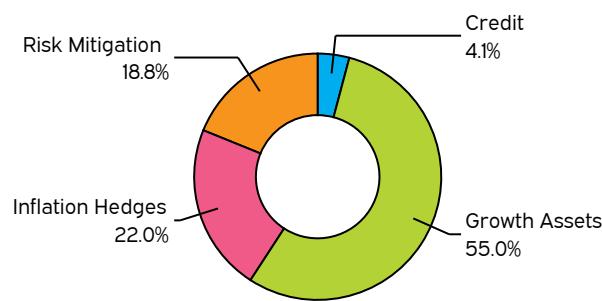
#### Portfolio Objective

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

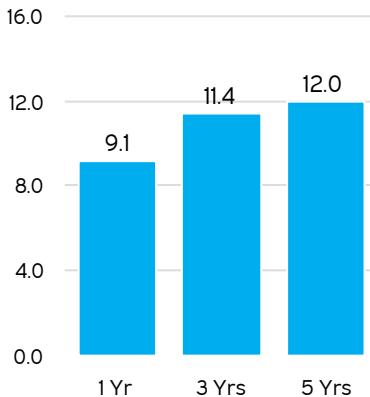


	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	2.0	7.9	10.3	3.1	6.8	6.2	7.8	10/01/1990
Total Fund Policy Benchmark	1.6	8.6	11.1	3.9	7.5	6.4	8.0	

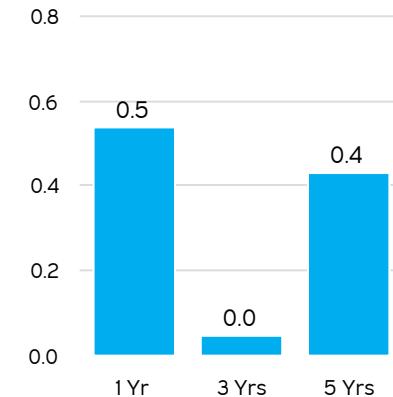
#### Summary of Cash Flows

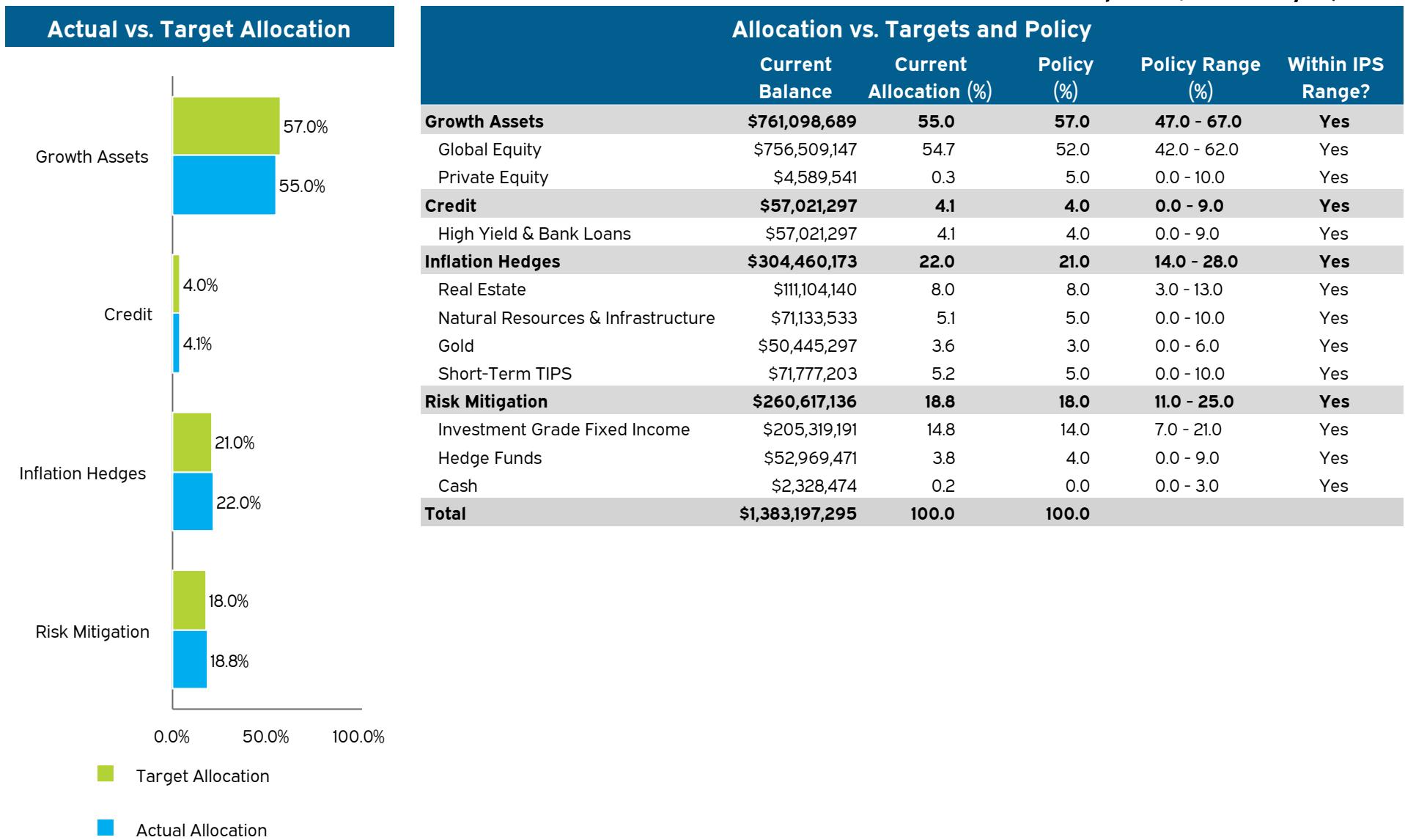
	Last Month	Year-To-Date	One Year
<b>Total Fund</b>			
Beginning Market Value	1,321,625,157	1,295,810,106	1,309,703,594
Net Cash Flow	34,347,797	-14,030,578	-53,934,215
Net Investment Change	27,133,706	101,327,133	127,337,282
Ending Market Value	1,383,197,295	1,383,197,295	1,383,197,295

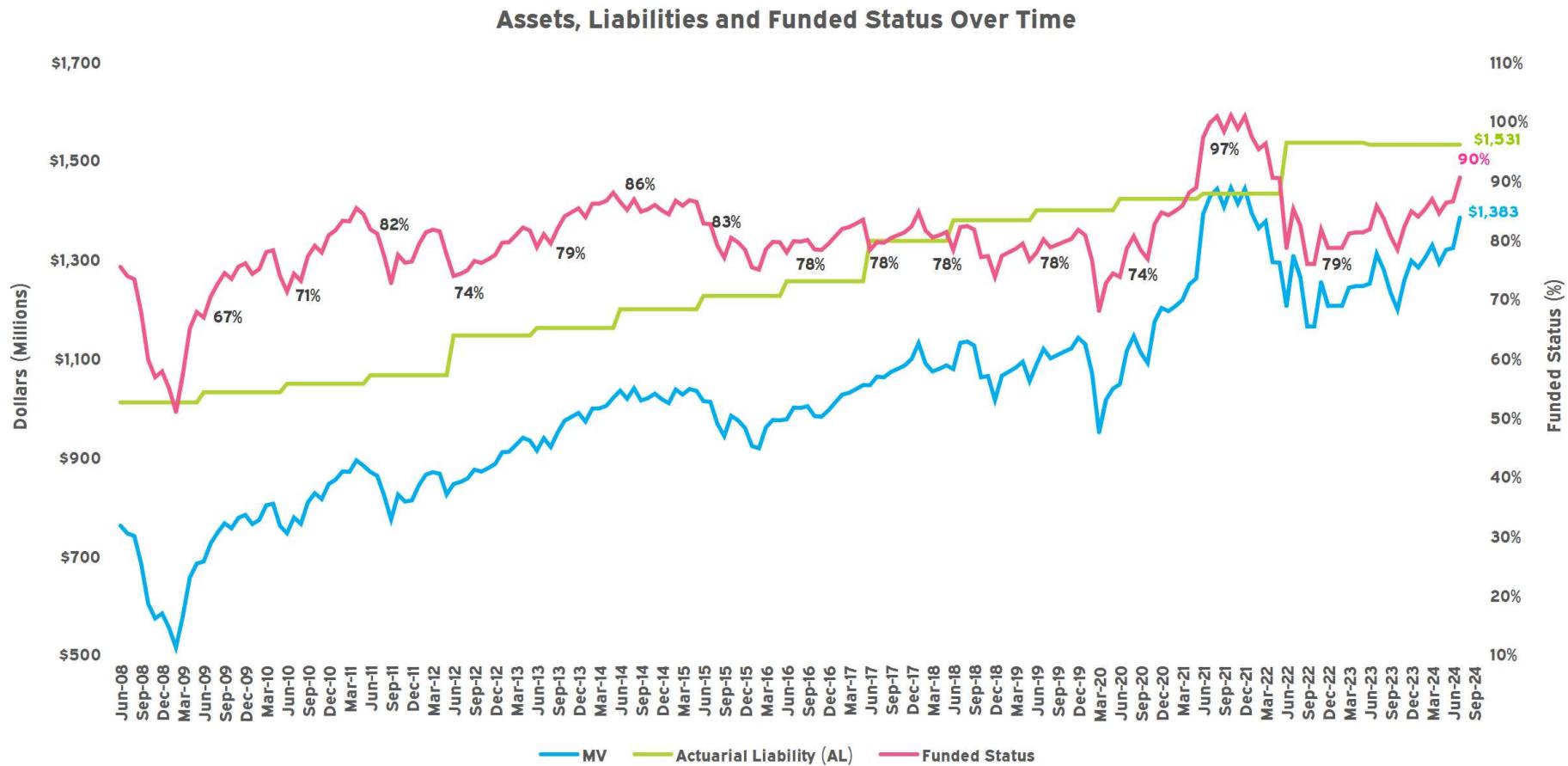
#### Annualized Standard Deviation



#### Sharpe Ratio







As of June 30, 2023, Total Plan Actuarial Liability (AL) is \$1.531 billion and the Actuarial Value of assets (AVA) is \$1.294 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 86% in June 2024 and 90% in July 2024.

	Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,383,197,295</b>	<b>100.0</b>	<b>2.0</b>	<b>7.9</b>	<b>10.3</b>	<b>3.1</b>	<b>6.8</b>	<b>6.2</b>	<b>7.8</b>	<b>Oct-90</b>	
Total Fund Policy Benchmark			1.6	8.6	11.1	3.9	7.5	6.4	8.0		
Total Fund Actual Allocation Benchmark			1.9	8.3	11.0	--	--	--	--		
Total Fund Public Benchmark			2.1	9.6	13.4	3.2	7.5	6.5	8.1		
<b>Growth Assets</b>	<b>761,098,689</b>	<b>55.0</b>	<b>1.9</b>	<b>12.2</b>	<b>15.8</b>	--	--	--	<b>16.9</b>	<b>Dec-22</b>	
Growth Assets Custom Benchmark			1.6	13.1	17.0	--	--	--	18.2		
<b>Global Equity</b>	<b>756,509,147</b>	<b>54.7</b>	<b>1.9</b>	<b>12.2</b>	<b>15.8</b>	<b>4.9</b>	<b>10.7</b>	<b>9.0</b>	<b>9.2</b>	<b>Oct-90</b>	
Global Equity Policy Benchmark			2.1	12.5	16.4	5.2	10.7	8.8	9.5		
<b>Private Equity</b>	<b>4,589,541</b>	<b>0.3</b>									
<b>Credit</b>	<b>57,021,297</b>	<b>4.1</b>	<b>0.9</b>	<b>4.4</b>	<b>9.4</b>	--	--	--	<b>10.3</b>	<b>May-23</b>	
Credit Custom Benchmark			1.3	4.9	10.8	--	--	--	11.0		
<b>High Yield &amp; Bank Loans</b>	<b>57,021,297</b>	<b>4.1</b>	<b>0.9</b>	<b>4.4</b>	<b>9.4</b>	--	--	--	<b>10.3</b>	<b>May-23</b>	
High Yield & Bank Loans Custom Benchmark			1.3	4.9	10.8	--	--	--	11.0		
<b>Inflation Hedges</b>	<b>304,460,173</b>	<b>22.0</b>	<b>2.6</b>	<b>4.1</b>	<b>2.6</b>	--	--	--	<b>-1.9</b>	<b>Dec-22</b>	
Inflation Hedges Custom Benchmark			1.8	3.0	0.8	--	--	--	-1.1		
<b>Real Estate</b>	<b>111,104,140</b>	<b>8.0</b>	<b>2.3</b>	<b>-0.7</b>	<b>-6.6</b>	<b>-1.2</b>	<b>0.1</b>	<b>3.6</b>	<b>5.6</b>	<b>Apr-11</b>	
NCREIF ODCE (Net)			0.0	-3.2	-10.0	1.0	2.3	5.5	7.0		
<b>Natural Resources &amp; Infrastructure</b>	<b>71,133,533</b>	<b>5.1</b>	<b>1.0</b>	<b>3.4</b>	<b>1.0</b>	--	--	--	<b>2.9</b>	<b>Apr-23</b>	
S&P Global LargeMidcap Resources & Commodities NR USD			1.4	2.7	-0.2	--	--	--	1.9		
<b>Gold</b>	<b>50,445,297</b>	<b>3.6</b>	<b>8.0</b>	<b>17.8</b>	<b>20.9</b>	--	--	--	<b>13.1</b>	<b>Apr-23</b>	
60% Gold (Spot)/ 40% FTSE Gold Mines			8.5	19.7	24.4	--	--	--	16.5		
<b>Short-Term TIPS</b>	<b>71,777,203</b>	<b>5.2</b>	<b>0.9</b>	<b>3.2</b>	<b>5.8</b>	--	--	--	<b>4.6</b>	<b>Mar-23</b>	
Blmbg. U.S. TIPS 0-5 Year			0.9	3.2	5.8	--	--	--	5.3		

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 July 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>260,617,136</b>	<b>18.8</b>	<b>1.9</b>	<b>0.8</b>	<b>3.1</b>	--	--	--	<b>3.4</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>			1.6	2.0	4.7	--	--	--	3.6	
<b>Investment Grade Fixed Income</b>	<b>205,319,191</b>	<b>14.8</b>	<b>2.8</b>	<b>1.1</b>	<b>4.4</b>	<b>-2.8</b>	<b>0.2</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	-2.6	0.2	1.6	5.1	
<b>Intermediate-Term Bonds</b>	<b>155,234,850</b>	<b>11.2</b>	<b>2.6</b>	<b>2.2</b>	<b>5.9</b>	<b>-2.2</b>	<b>0.6</b>	<b>1.9</b>	<b>5.2</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	-2.6	0.2	1.6	5.1	
<b>Long-Term Bonds</b>	<b>50,084,341</b>	<b>3.6</b>	<b>3.6</b>	<b>-1.4</b>	<b>-0.1</b>	--	--	--	<b>0.0</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>			3.6	-1.6	-0.1	--	--	--	0.0	
<b>Hedge Funds</b>	<b>52,969,471</b>	<b>3.8</b>	<b>-1.1</b>	<b>-1.3</b>	<b>-1.5</b>	--	--	--	<b>0.9</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>			-1.0	3.2	3.0	--	--	--	4.0	
<b>Cash</b>	<b>2,328,474</b>	<b>0.2</b>								

	Trailing Net Performance										
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,383,197,295</b>	<b>100.0</b>	<b>2.0</b>	<b>7.9</b>	<b>10.3</b>	<b>3.1</b>	<b>6.8</b>	<b>6.2</b>	<b>7.8</b>		<b>Oct-90</b>
Total Fund Policy Benchmark			1.6	8.6	11.1	3.9	7.5	6.4	8.0		
Total Fund Actual Allocation Benchmark			1.9	8.3	11.0	--	--	--	--		
Total Fund Public Benchmark			2.1	9.6	13.4	3.2	7.5	6.5	8.1		
<b>Growth Assets</b>	<b>761,098,689</b>	<b>55.0</b>	<b>1.9</b>	<b>12.2</b>	<b>15.8</b>	--	--	--	<b>16.9</b>		<b>Dec-22</b>
Growth Assets Custom Benchmark			1.6	13.1	17.0	--	--	--	18.2		
<b>Global Equity</b>	<b>756,509,147</b>	<b>54.7</b>	<b>1.9</b>	<b>12.2</b>	<b>15.8</b>	<b>4.9</b>	<b>10.7</b>	<b>9.0</b>	<b>9.2</b>		<b>Oct-90</b>
Global Equity Policy Benchmark			2.1	12.5	16.4	5.2	10.7	8.8	9.5		
SSgA Russell 1000 Growth Index	28,176,422	2.0	-1.7	18.6	26.9	--	--	--	38.2		Mar-23
Russell 1000 Growth Index			-1.7	18.6	26.9	--	--	--	38.0		
SSgA Russell 1000 Value Index	32,136,265	2.3	5.1	12.1	14.8	--	--	--	15.8		Mar-23
Russell 1000 Value Index			5.1	12.1	14.8	--	--	--	15.7		
DF Dent Small Cap Growth Fund	16,174,171	1.2	<b>10.9</b>	--	--	--	--	--	<b>9.9</b>		Jun-24
Russell 2000 Growth Index			8.2	--	--	--	--	--	8.0		
SSgA Russell 3000 Index	203,546,071	14.7	1.9	15.6	21.1	--	--	--	26.5		Mar-23
Russell 3000 Index			1.9	15.7	21.1	--	--	--	26.4		
SSgA MSCI EAFE	88,673,888	6.4	2.9	8.6	11.4	--	--	--	14.8		Mar-23
MSCI EAFE (Net)			2.9	8.4	11.2	--	--	--	14.4		
SSgA Emerging Markets Index	37,780,356	2.7	0.7	7.8	6.1	--	--	--	11.8		Mar-23
MSCI Emerging Markets (Net)			0.3	7.8	6.3	--	--	--	11.9		
ABS China Direct	7,805,528	0.6	<b>-3.4</b>	<b>-1.4</b>	<b>-15.6</b>	--	--	--	<b>-11.9</b>		Mar-23
MSCI China (Net)			-1.3	3.3	-12.4	--	--	--	-6.0		
ABS EM ex China Direct	22,649,380	1.6	<b>-0.3</b>	<b>8.3</b>	<b>11.7</b>	--	--	--	<b>21.4</b>		Mar-23
MSCI EM ex China			0.8	9.3	14.5	--	--	--	20.1		

## Performance Update | As of July 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All-Cap	33,517,115	2.4	4.3	5.7	12.3	--	--	--	11.9	Apr-23
<i>MSCI AC World Index (Net)</i>				1.6	13.1	17.0	--	--	20.8	
First Eagle Global Equity	129,678,731	9.4	4.1	12.2	12.3	--	--	--	15.2	Apr-23
<i>MSCI AC World Index (Net)</i>				1.6	13.1	17.0	--	--	20.8	
Artisan Global Opportunities	99,870,254	7.2	-0.9	11.6	17.6	--	--	--	19.5	Apr-23
<i>MSCI AC World Index (Net)</i>				1.6	13.1	17.0	--	--	20.8	
J. Stern & Co. World Stars Global Equity Fund	56,500,968	4.1	-0.7	--	--	--	--	--	12.7	Feb-24
<i>MSCI AC World IMI Index (Net)</i>				2.1	--	--	--	--	12.3	
<b>Private Equity</b>	<b>4,589,541</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.	115,603	0.0								
<b>Credit</b>	<b>57,021,297</b>	<b>4.1</b>	<b>0.9</b>	<b>4.4</b>	<b>9.4</b>	--	--	--	<b>10.3</b>	<b>May-23</b>
<i>Credit Custom Benchmark</i>			1.3	4.9	10.8	--	--	--	11.0	
<b>High Yield &amp; Bank Loans</b>	<b>57,021,297</b>	<b>4.1</b>	<b>0.9</b>	<b>4.4</b>	<b>9.4</b>	--	--	--	<b>10.3</b>	<b>May-23</b>
<i>High Yield &amp; Bank Loans Custom Benchmark</i>			1.3	4.9	10.8	--	--	--	11.0	
Sculptor Credit Opportunities Overseas Fund	25,925,324	1.9	-0.7	2.6	5.2	--	--	--	6.4	May-23
<i>Blmbg. Global High Yield Index</i>				2.0	5.2	11.8	--	--	12.2	
Brigade High Income Fund	31,095,974	2.2	2.2	5.7	12.4	--	--	--	13.1	May-23
<i>60% Barclays U.S. Corporate High Yield &amp; 40% CS Lev Loans</i>			1.5	4.8	10.8	--	--	--	10.9	

## Performance Update | As of July 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Inflation Hedges</b>	<b>304,460,173</b>	<b>22.0</b>	<b>2.6</b>	<b>4.1</b>	<b>2.6</b>	--	--	--	<b>-1.9</b>	<b>Dec-22</b>
Inflation Hedges Custom Benchmark			1.8	3.0	0.8	--	--	--	-1.1	
<b>Real Estate</b>	<b>111,104,140</b>	<b>8.0</b>	<b>2.3</b>	<b>-0.7</b>	<b>-6.6</b>	<b>-1.2</b>	<b>0.1</b>	<b>3.6</b>	<b>5.6</b>	<b>Apr-11</b>
NCREIF ODCE (Net)			0.0	-3.2	-10.0	1.0	2.3	5.5	7.0	
JP Morgan Asset Management Strategic Property Fund	43,676,397	3.2	0.2	-4.5	-14.6	-1.7	0.7	4.3	6.4	Apr-11
NCREIF ODCE (Net)			0.0	-3.2	-10.0	1.0	2.3	5.5	7.0	
UBS Trumbull Property Fund	21,693,572	1.6	0.0	-3.0	-8.6	-1.5	-1.1	2.5	3.7	Dec-11
NCREIF ODCE (Net)			0.0	-3.2	-10.0	1.0	2.3	5.5	6.7	
SSgA US REIT	45,734,171	3.3	5.9	5.2	10.1	--	--	--	9.4	Mar-23
Dow Jones U.S. Select REI			5.8	5.2	10.2	--	--	--	9.4	
<b>Natural Resources &amp; Infrastructure</b>	<b>71,133,533</b>	<b>5.1</b>	<b>1.0</b>	<b>3.4</b>	<b>1.0</b>	--	--	--	<b>2.9</b>	<b>Apr-23</b>
S&P Global LargeMidcap Resources & Commodities Ind			1.4	2.7	-0.2	--	--	--	1.9	
SSgA S&P Global LargeMidCap Natural Resources Index	54,858,256	4.0	1.3	2.8	-0.3	--	--	--	2.0	Apr-23
S&P Global LargeMidcap Resources & Commodities Ind			1.4	2.7	-0.2	--	--	--	1.9	
JP Morgan Infrastructure Investments Fund	16,275,277	1.2	0.0	5.1	--	--	--	--	8.5	Oct-23
DJ Brookfield Listed Public Infrastructure +1%			6.8	6.5	--	--	--	--	19.7	
<b>Gold</b>	<b>50,445,297</b>	<b>3.6</b>	<b>8.0</b>	<b>17.8</b>	<b>20.9</b>	--	--	--	<b>13.1</b>	<b>Apr-23</b>
60% Gold (Spot)/ 40% FTSE Gold Mines			8.5	19.7	24.4	--	--	--	16.5	
First Eagle Institutional Gold Fund, LP	50,445,297	3.6	8.0	17.8	20.9	--	--	--	13.1	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			8.5	19.7	24.4	--	--	--	16.5	
<b>Short-Term TIPS</b>	<b>71,777,203</b>	<b>5.2</b>	<b>0.9</b>	<b>3.2</b>	<b>5.8</b>	--	--	--	<b>4.6</b>	<b>Mar-23</b>
Blmbg. U.S. TIPS 0-5 Year			0.9	3.2	5.8	--	--	--	5.3	
Vanguard Short-Term TIPS Index	71,777,203	5.2	0.9	3.2	5.8	--	--	--	4.2	Apr-23
Blmbg. U.S. TIPS 0-5 Year			0.9	3.2	5.8	--	--	--	4.1	

## Performance Update | As of July 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>260,617,136</b>	<b>18.8</b>	<b>1.9</b>	<b>0.8</b>	<b>3.1</b>	--	--	--	<b>3.4</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>			1.6	2.0	4.7	--	--	--	3.6	
<b>Investment Grade Fixed Income</b>	<b>205,319,191</b>	<b>14.8</b>	<b>2.8</b>	<b>1.1</b>	<b>4.4</b>	<b>-2.8</b>	<b>0.2</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	-2.6	0.2	1.6	5.1	
<b>Intermediate-Term Bonds</b>	<b>155,234,850</b>	<b>11.2</b>	<b>2.6</b>	<b>2.2</b>	<b>5.9</b>	<b>-2.2</b>	<b>0.6</b>	<b>1.9</b>	<b>5.2</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	-2.6	0.2	1.6	5.1	
SSgA US Aggregate Bond	37,690,433	2.7	2.3	1.7	5.1	-2.6	0.2	1.6	2.7	Jan-09
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	-2.6	0.2	1.6	2.7	
Wellington Core Bond	87,387,017	6.3	2.4	2.6	6.5	--	--	--	4.2	May-23
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	--	--	--	2.8	
Brandywine U.S. Fixed Income	30,157,401	2.2	3.3	1.1	4.4	--	--	--	2.6	Jun-23
<i>Blmbg. U.S. Aggregate Index</i>			2.3	1.6	5.1	--	--	--	4.0	
<b>Long-Term Bonds</b>	<b>50,084,341</b>	<b>3.6</b>	<b>3.6</b>	<b>-1.4</b>	<b>-0.1</b>	--	--	--	<b>0.0</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>			3.6	-1.6	-0.1	--	--	--	0.0	
SSgA Long US Treasury Index	50,084,341	3.6	3.6	-1.4	-0.1	--	--	--	0.0	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			3.6	-1.6	-0.1	--	--	--	0.0	
<b>Hedge Funds</b>	<b>52,969,471</b>	<b>3.8</b>	<b>-1.1</b>	<b>-1.3</b>	<b>-1.5</b>	--	--	--	<b>0.9</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>			-1.0	3.2	3.0	--	--	--	4.0	
36 South Kohinoor Series (Cayman) Fund	13,440,237	1.0	-0.3	1.0	0.7	--	--	--	1.3	Apr-23
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>			0.0	-1.4	-2.9	--	--	--	-4.7	
BH-DG Systematic Trading Master Fund	16,756,337	1.2	-4.0	-5.3	-6.5	--	--	--	0.3	Apr-23
<i>SG Trend Index</i>			-2.4	6.1	3.1	--	--	--	7.2	

## Performance Update | As of July 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Lombard Odier Bear Convexity	5,900,723	0.4	2.5	4.5	1.0	--	--	--	-0.5	Apr-23
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>			0.0	-1.4	-2.9	--	--	--	-4.7	
Alpstone Global Macro Fund	16,872,174	1.2	-0.2	-2.1	0.2	--	--	--	0.8	May-23
<i>HFRI Macro (Total) Index</i>			-0.6	4.8	4.6	--	--	--	4.9	
<b>Cash</b>	<b>2,328,474</b>	<b>0.2</b>								
Cash	2,328,474	0.2								

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Total Fund</b>		\$1,383,197,295	\$4,544,999	0.33
<b>Growth Assets</b>		\$761,098,689	\$2,264,841	0.30
<b>Global Equity</b>		\$756,509,147	\$2,254,190	0.30
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$28,176,422	\$5,635	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$32,136,265	\$6,427	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$16,174,171	\$153,655	0.95
SSgA Russell 3000 Index	0.02 % of Assets	\$203,546,071	\$40,709	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$88,673,888	\$35,470	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$37,780,356	\$30,224	0.08
ABS China Direct	0.65 % of Assets	\$7,805,528	\$50,736	0.65
ABS EM ex China Direct	0.50 % of Assets	\$22,649,380	\$113,247	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$33,517,115	\$251,378	0.75
First Eagle Global Equity	0.55 % of Assets	\$129,678,731	\$713,233	0.55
Artisan Global Opportunities	0.60 % of Assets	\$99,870,254	\$599,222	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$56,500,968	\$254,254	0.45
<b>Private Equity</b>		\$4,589,541	\$10,650	0.23
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	\$115,603	\$2,312	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$22,956	\$459	2.00
<b>Credit</b>		\$57,021,297	\$420,952	0.74
<b>High Yield &amp; Bank Loans</b>		\$57,021,297	\$420,952	0.74
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$25,925,324	\$259,253	1.00
Brigade High Income Fund	0.52 % of Assets	\$31,095,974	\$161,699	0.52

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Inflation Hedges</b>		\$304,460,173	\$1,082,056	0.36
<b>Real Estate</b>		\$111,104,140	\$616,868	0.56
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$43,676,397	\$397,455	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	\$45,734,171	\$27,441	0.06
<b>Natural Resources &amp; Infrastructure</b>		\$71,133,533	\$209,473	0.29
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$54,858,256	\$54,858	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$16,275,277	\$154,615	0.95
<b>Gold</b>		\$50,445,297	\$227,004	0.45
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$50,445,297	\$227,004	0.45
<b>Short-Term TIPS</b>		\$71,777,203	\$28,711	0.04
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$71,777,203	\$28,711	0.04
<b>Risk Mitigation</b>		\$260,617,136	\$777,150	0.30
<b>Investment Grade Fixed Income</b>		\$205,319,191	\$214,884	0.10
<b>Intermediate-Term Bonds</b>		\$155,234,850	\$199,859	0.13
SSgA US Aggregate Bond	0.02 % of Assets	\$37,690,433	\$7,538	0.02
Wellington Core Bond	0.12 % of Assets	\$87,387,017	\$104,864	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$30,157,401	\$87,456	0.29

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Long-Term Bonds</b>		\$50,084,341	\$15,025	0.03
SSgA Long US Treasury Index	0.03 % of Assets	\$50,084,341	\$15,025	0.03
<b>Hedge Funds</b>		\$52,969,471	\$562,266	1.06
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$13,440,237	\$134,402	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$16,756,337	\$155,834	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$5,900,723	\$44,255	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$16,872,174	\$227,774	1.35
<b>Cash</b>		<b>\$2,328,474</b>	-	-
Cash		\$2,328,474	-	-

		<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	

## **High Yield Education**

## What are High Yield Bonds?

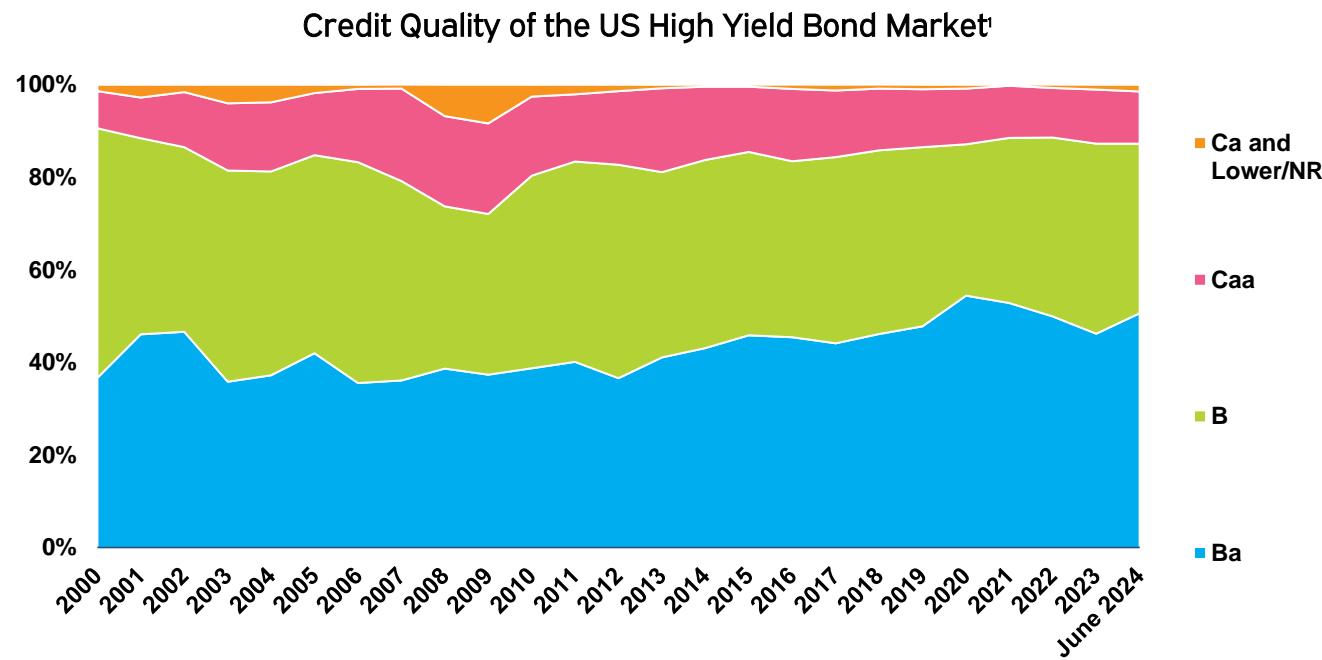
- High yield bonds have become a mainstay of many institutional investors' portfolios.
- The high yield universe includes bonds issued by corporations that are rated below investment grade.
  - Non-investment grade ratings include BB+ / Ba1 or lower.<sup>1</sup>
- These bonds offer a higher yield because they entail higher risk of default.
- The US high yield bond market has nearly 2,000 issues worth ~\$1.3 trillion market value.<sup>2</sup>
  - This represents ~20% of all US corporate bonds tracked by Bloomberg.

<sup>1</sup> The major bond rating agencies (Moody's, S&P, and Fitch) provide letter grades of credit worthiness that indicate how likely it is that debt issues will be repaid.

<sup>2</sup> Source: Barclays Live, as of June 30, 2024. Index: Bloomberg US Corporate High Yield Bonds.

### Market Composition

- The majority of bonds in the high yield market are rated BB or B, while CCC rated bonds represent 10-15%.
- Over the past decade, there has been an improvement in average credit quality.
  - BB-rated bonds increased from 37% (Dec 2000) to 51% (June 2024).
  - This was offset by a reduction in B and CCC-rated bonds.



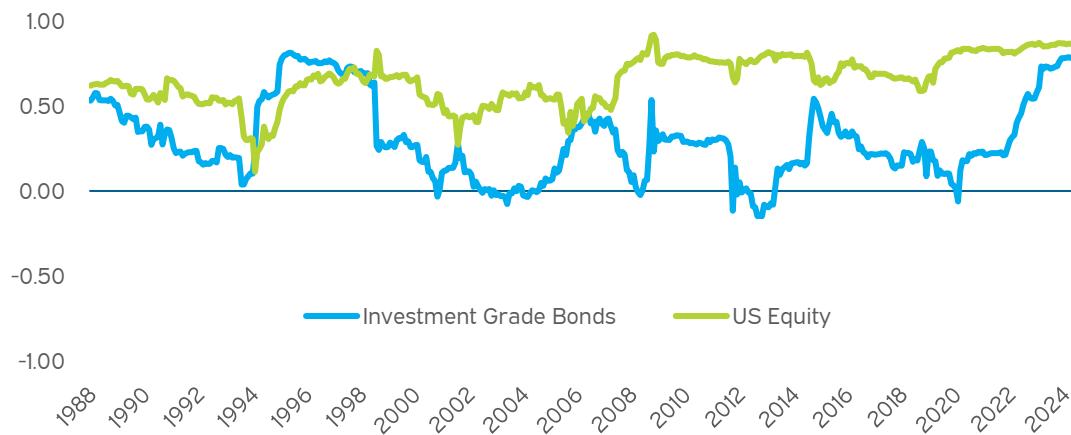
<sup>1</sup> Source: Barclay's Live, as of June 30, 2024. Index: Bloomberg US Corporate High Yield.

## Correlations

- High yield bonds have historically been somewhat uncorrelated with investment grade bonds (averaging 0.32).
- High yield has been positively correlated with US equity (averaging 0.65).
- However, this has varied depending on market conditions.

- Correlations between high yield and other risky asset classes, such as US equities, tend to be higher in stressed markets.
- Credit risk is the primary risk for high yield bonds, and this tends to be inversely related to the health of the overall economy.

Rolling 3-Year Correlation with High Yield Bonds<sup>4</sup>

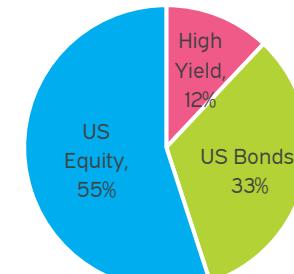
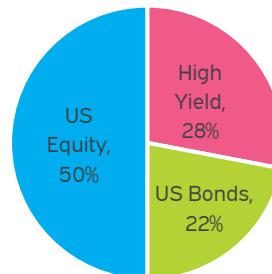
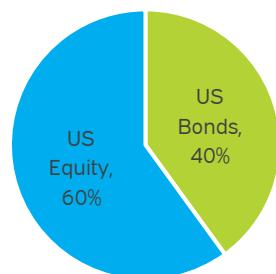


<sup>4</sup> Source: Investment Metrics, as of June 30, 2024. Indexes: Bloomberg US Aggregate, Bloomberg US Corporate High Yield Bond, Russell 3000.

### Role In a Portfolio

- Incorporating high yield bonds can potentially improve risk-adjusted returns in a traditional stock-bond portfolio.
- For example, compared to a 60% US equity / 40% US bond portfolio:
  - Adding a 28% allocation to high yield historically produced better returns for the same risk level.
  - Adding a 12% allocation to high yield historically produced the same return with lower risk.

**High Yield Bonds' Historical Impact When Added to a Portfolio<sup>5</sup>**



60/40 Portfolio	Portfolio with High Yield Higher Return & Same Volatility	Portfolio with High Yield Lower Volatility & Same Return
Annualized Return	9.3%	9.4%
Standard Deviation	11.1%	11.0%

<sup>5</sup> Source: Investment Metrics, as of June 30, 2024. Indexes: Bloomberg US Aggregate, Bloomberg US Corporate High Yield Bond, Russell 3000. Period is January 1, 1985, to June 30, 2024. These scenarios assume an allocation to high yield is taken from both stocks and bonds.

## Summary

- High yield bonds have produced returns and volatility between investment grade bonds and equities.
  - Despite the nickname of “junk” bonds, high yield bonds are less risky than public equities.
  - Because they are more likely to experience a default, they are riskier than investment grade bond issuers.
- Due to their modest correlation with other asset classes and attractive historical returns, the inclusion of high yield bonds in a traditional stock-bond portfolio may allow investors to construct more efficient portfolios.
- Three types of risk permeate the high yield bond market: liquidity risk, interest rate risk, and default risk.
  - The most meaningful is default risk, though default rates overstate the actual loss an investor experiences.
  - Interest rate risk plays only a minor role, because duration is much lower for high yield bonds.
  - Liquidity risk tends to be less impactful until periods of market stress.
- The historical data implies that active management has not been fruitful for the median manager, net of fees.
  - However, there is ample room for above-average managers to add value.
- Investors should consider the different options for accessing the high yield market, ranging from passive strategies to traditional active strategies and even multi-sector credit strategies.

## **Asset Allocation Considerations**

### Background

- The Board approved a 4% target to High Yield and Bank Loans in November 2022. However, given the recent discussion around non-investment grade credit, Meketa has created two alternative asset allocation policies for the Board's consideration.
- Each policy considers the tradeoff between the expected return relative to the risks:
  - Policy A reflects the elimination of Credit from the portfolio and the addition of a 4% target to Investment Grade Corporate Bonds.
  - Policy B reflects the elimination of Credit from the portfolio with the addition of 2% to Global Equity and 2% to Investment Grade Bonds.
- The expected return and standard deviation are very similar in each policy option.
- It is worth noting, Sculptor Credit Opportunities Overseas Fund currently comprises 46% of the High Yield & Bank Loan composite. NERS is invested in a four-year lock-up share class that expires on 3/31/2027. This class provides NERS with significant fee savings.

**Asset Allocation Considerations**
**Asset Allocation Policy Options<sup>1</sup>**

	Current (%)	Policy A (%)	Policy B (%)
<b>Growth/Equity</b>	<b>57</b>	<b>57</b>	<b>59</b>
Global Equity	52	52	54
Private Equity	5	5	5
<b>Credit</b>	<b>4</b>	<b>0</b>	<b>0</b>
High Yield Bonds & Bank Loans	4	0	0
<b>Inflation Hedges</b>	<b>16</b>	<b>16</b>	<b>16</b>
Real Estate	8	8	8
Natural Resources & Infrastructure	5	5	5
Gold Mining	3	3	3
Short-term TIPS	5	5	5
<b>Risk Mitigation</b>	<b>19</b>	<b>23</b>	<b>21</b>
Investment Grade Fixed Income	14	14	16
Investment Grade Corporate Bonds	0	4	0
Hedge Funds	4	4	4
<b>Expected Return (20 years)</b>	<b>8.1</b>	<b>8.0</b>	<b>8.1</b>
<b>Standard Deviation</b>	<b>12.0</b>	<b>11.9</b>	<b>12.1</b>
<b>Probability of Achieving 6.75% over 20 Years</b>	<b>68.5</b>	<b>68.1</b>	<b>68.5</b>

<sup>1</sup> Expected return and standard deviation are based upon Meketa Investment Group's Annual Capital Markets Expectations. Throughout this document, returns for periods longer than one year are annualized.

### Historical Negative Scenario Analysis<sup>1</sup> (Cumulative Return)

Scenario	Investment Grade Bonds (%)	High Yield Bonds (%)	US Large Cap (%)
Post-COVID Rate Hikes (Jan 2022-Oct 2023)	-15.4	-7.1	-9.4
COVID-19 Market Shock (Feb 2020-Mar 2020)	-0.9	-20.8	-33.8
Taper Tantrum (May - Aug 2013)	-3.7	-2.0	3.0
Global Financial Crisis (Oct 2007 - Mar 2009)	8.5	-22.8	-45.8
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	28.6	-6.3	-43.8
LTCM (Jul - Aug 1998)	1.8	-5.0	-15.4
Asian Financial Crisis (Aug 97 - Jan 98)	4.9	5.6	3.6
Rate spike (1994 Calendar Year)	-2.9	-1.0	1.3
Early 1990s Recession (Jun - Oct 1990)	3.8	-12.9	-14.7
Crash of 1987 (Sep - Nov 1987)	2.2	-3.6	-29.5
Strong dollar (Jan 1981 - Sep 1982)	29.9	6.9	-2.3
Volcker Recession (Jan - Mar 1980)	-8.7	-2.3	-4.1
Stagflation (Jan 1973 - Sep 1974)	7.9	-15.5	-42.6

<sup>1</sup> See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.

### Historical Positive Scenario Analysis<sup>1</sup> (Cumulative Return)

Scenario	Investment Grade Bonds (%)	High Yield Bonds (%)	US Large Cap (%)
Covid Recovery (Apr 2020-Dec 2021)	2.6	29.1	89.5
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	9.0	49.1	51.6
Best of Great Moderation (Apr 2003 - Feb 2004)	4.6	21.8	37.2
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	1.7	2.1	50.2
Plummeting Dollar (Jan 1986 - Aug 1987)	14.4	24.9	64.8
Volcker Recovery (Aug 1982 - Apr 1983)	26.4	23.3	59.3
Bretton Wood Recovery (Oct 1974 - Jun 1975)	9.2	19.3	55.1

<sup>1</sup> See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.

### Historical Negative Scenario Analysis<sup>1</sup> (Cumulative Return)

Scenario	Current (%)	Policy A (%)	Policy B (%)
Post-COVID Rate Hikes (Jan 2022-Oct 2023)	-9.0	-9.7	-9.6
COVID-19 Market Shock (Feb 2020-Mar 2020)	-19.8	-19.5	-19.7
Taper Tantrum (May - Aug 2013)	-1.2	-1.4	-1.3
Global Financial Crisis (Oct 2007 - Mar 2009)	-26.9	-26.1	-26.7
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-16.1	-15.0	-16.4
LTCM (Jul - Aug 1998)	-7.8	-7.7	-8.0
Asian Financial Crisis (Aug 97 - Jan 98)	0.8	0.8	0.6
Rate spike (1994 Calendar Year)	2.9	2.6	2.8
Early 1990s Recession (Jun - Oct 1990)	-5.1	-4.7	-4.9
Crash of 1987 (Sep - Nov 1987)	-10.4	-10.2	-10.6
Strong dollar (Jan 1981 - Sep 1982)	0.3	1.3	0.5
Volcker Recession (Jan - Mar 1980)	-4.1	-4.6	-4.3
Stagflation (Jan 1973 - Sep 1974)	-18.6	-18.5	-18.8

→ The performance of the policy options in various downside scenarios are fairly consistent.

<sup>1</sup> In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.

### Historical Positive Scenario Analysis<sup>1</sup> (Cumulative Return)

Scenario	Current (%)	Policy A (%)	Policy B (%)
Covid Recovery (Apr 2020-Dec 2021)	51.6	51.0	52.0
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	37.5	36.7	37.2
Best of Great Moderation (Apr 2003 - Feb 2004)	30.1	29.8	30.4
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	36.6	36.4	37.6
Plummeting Dollar (Jan 1986 - Aug 1987)	61.7	61.6	63.2
Volcker Recovery (Aug 1982 - Apr 1983)	32.7	33.5	33.5
Bretton Wood Recovery (Oct 1974 - Jun 1975)	27.6	27.7	28.1

→ Similarly, in upside scenarios there is not a significant difference between the outcomes with and without below investment grade credit.

<sup>1</sup> In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.

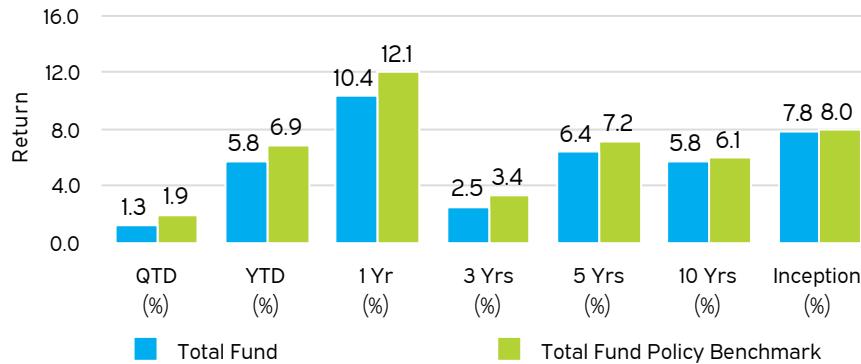
## Appendices

**June 30, 2024**  
**Fund Evaluation Report**

#### 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

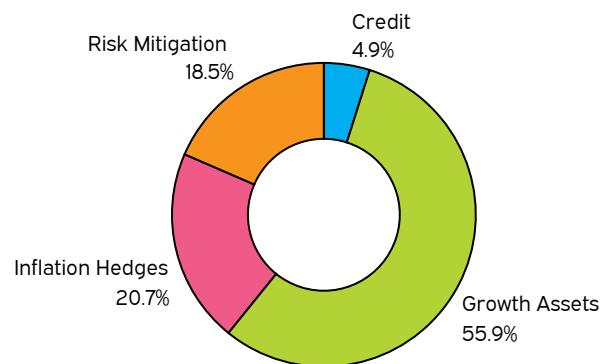


	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	1.3	5.8	10.4	2.5	6.4	5.8	7.8	10/01/1990
Total Fund Policy Benchmark	1.9	6.9	12.1	3.4	7.2	6.1	8.0	

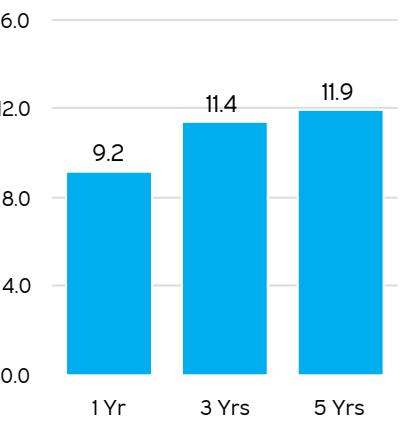
#### Summary of Cash Flows

	Quarter-To-Date	Year-To-Date
<b>Total Fund</b>		
Beginning Market Value	1,327,215,388	1,295,810,106
Net Cash Flow	-23,525,889	-48,378,376
Net Investment Change	17,935,658	74,193,427
Ending Market Value	1,321,625,157	1,321,625,157

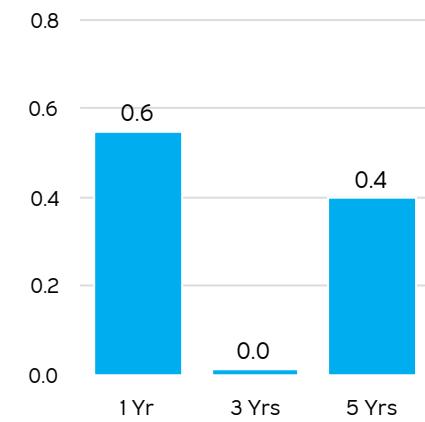
#### Current Allocation



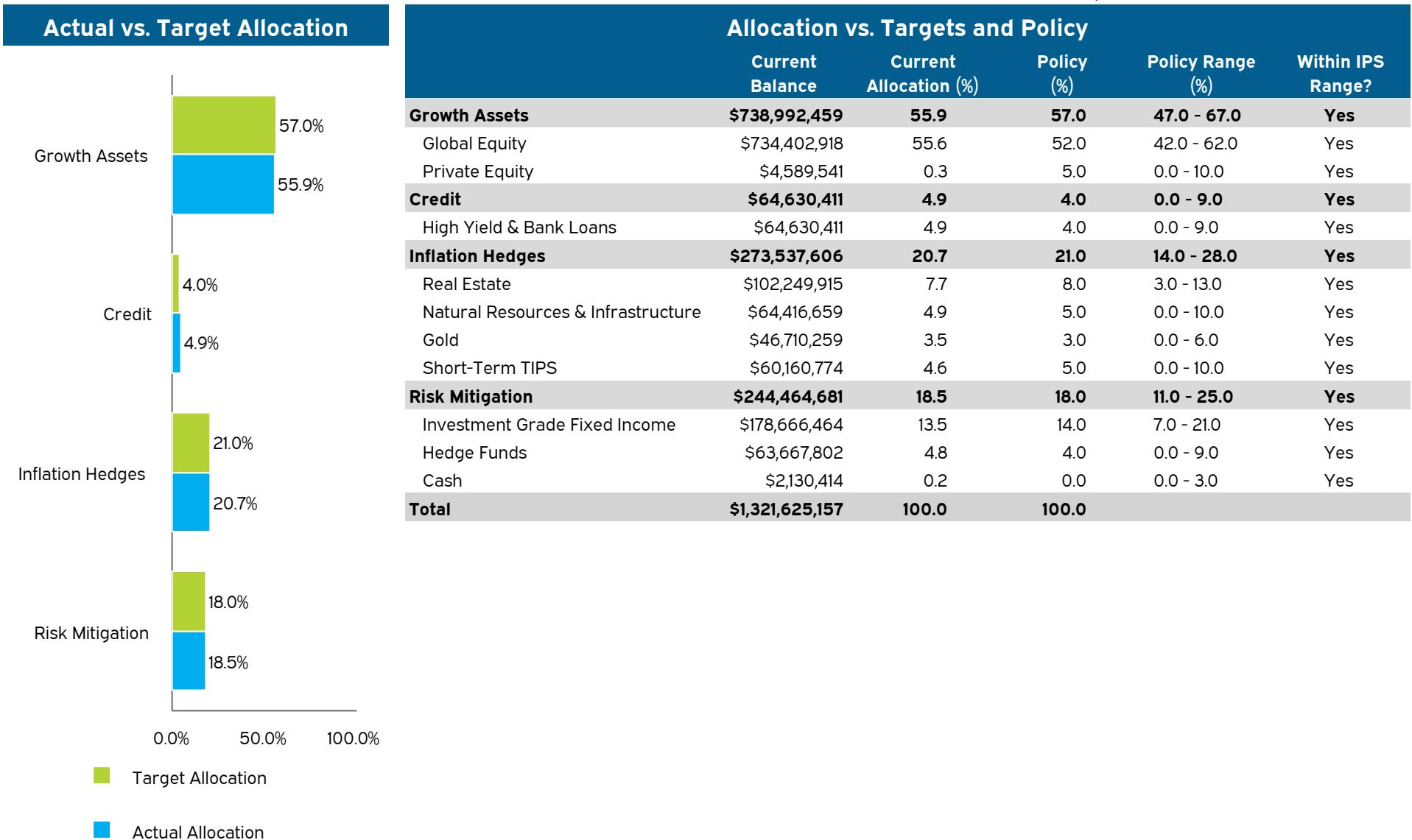
#### Annualized Standard Deviation

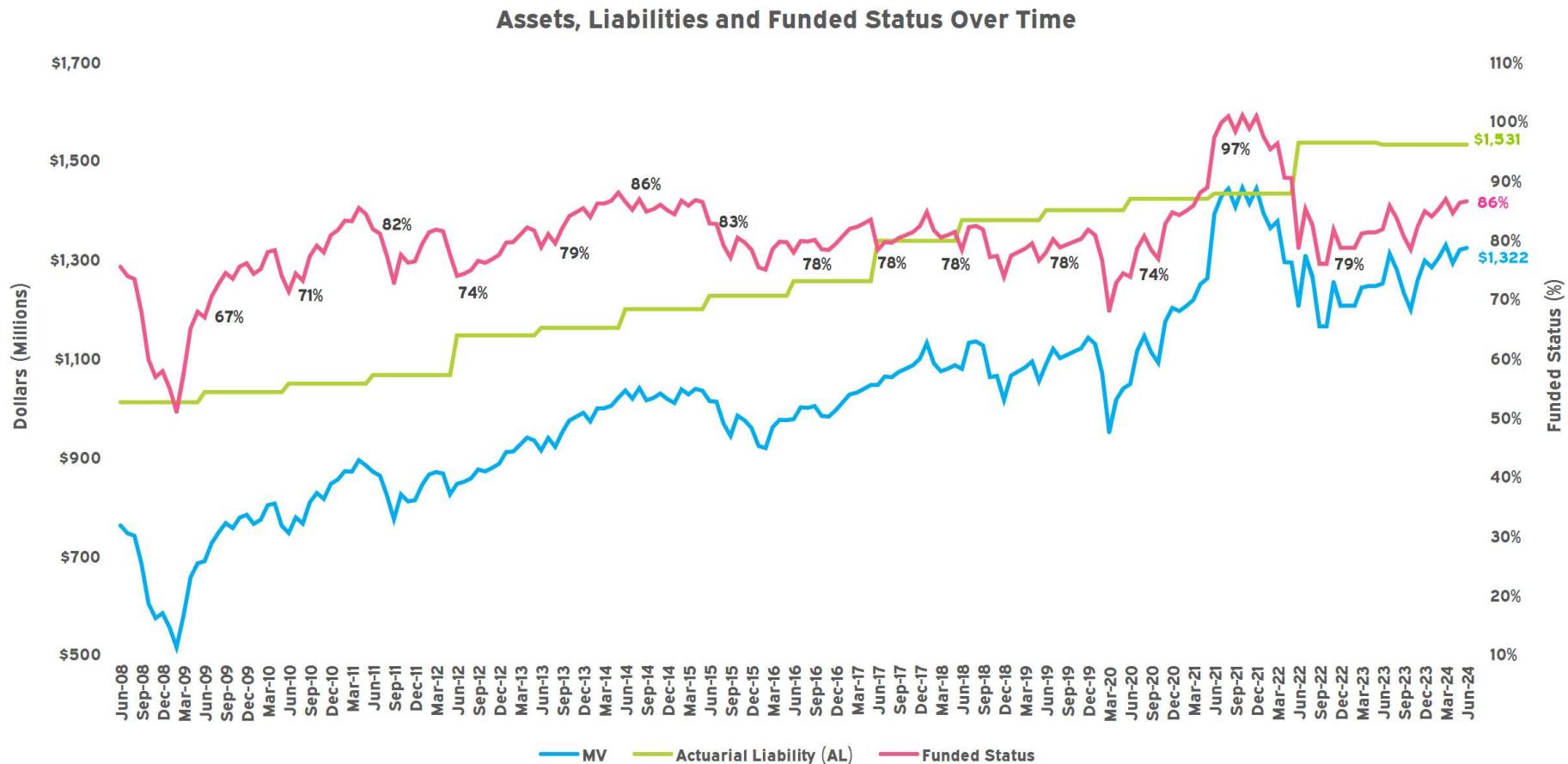


#### Sharpe Ratio



Performance Update | As of June 30, 2024





As of June 30, 2023, Total Plan Actuarial Liability (AL) is \$1.531 billion and the Actuarial Value of assets (AVA) is \$1.294 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 86% in May 2024 and 86% in June 2024.

	Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,321,625,157</b>	<b>100.0</b>	<b>1.3</b>	<b>5.8</b>	<b>10.4</b>	<b>2.5</b>	<b>6.4</b>	<b>5.8</b>	<b>7.8</b>	<b>Oct-90</b>	
Total Fund Policy Benchmark				1.9	6.9	12.1	3.4	7.2	6.1	8.0	
Total Fund Actual Allocation Benchmark				1.6	6.3	11.6	--	--	--	--	
Total Fund Public Benchmark				1.8	7.4	14.2	2.7	7.1	6.2	8.1	
<b>Growth Assets</b>	<b>738,992,459</b>	<b>55.9</b>	<b>1.9</b>	<b>10.1</b>	<b>17.4</b>	--	--	--	<b>16.5</b>	<b>Dec-22</b>	
Growth Assets Custom Benchmark				3.0	11.3	19.3	--	--	--	18.0	
<b>Global Equity</b>	<b>734,402,918</b>	<b>55.6</b>	<b>1.8</b>	<b>10.1</b>	<b>17.4</b>	<b>4.4</b>	<b>10.4</b>	<b>8.6</b>	<b>9.2</b>	<b>Oct-90</b>	
Global Equity Policy Benchmark				2.4	10.3	18.4	4.7	10.4	8.4	9.5	
<b>Private Equity</b>	<b>4,589,541</b>	<b>0.3</b>									
<b>Credit</b>	<b>64,630,411</b>	<b>4.9</b>	<b>1.0</b>	<b>3.5</b>	<b>9.8</b>	--	--	--	<b>10.2</b>	<b>May-23</b>	
Credit Custom Benchmark				1.5	3.5	10.8	--	--	--	10.5	
<b>High Yield &amp; Bank Loans</b>	<b>64,630,411</b>	<b>4.9</b>	<b>1.0</b>	<b>3.5</b>	<b>9.8</b>	--	--	--	<b>10.2</b>	<b>May-23</b>	
High Yield & Bank Loans Custom Benchmark				1.5	3.5	10.8	--	--	--	10.5	
<b>Inflation Hedges</b>	<b>273,537,606</b>	<b>20.7</b>	<b>1.4</b>	<b>1.5</b>	<b>1.9</b>	--	--	--	<b>-3.6</b>	<b>Dec-22</b>	
Inflation Hedges Custom Benchmark				1.0	1.2	1.2	--	--	--	-2.3	
<b>Real Estate</b>	<b>102,249,915</b>	<b>7.7</b>	<b>0.2</b>	<b>-3.0</b>	<b>-8.4</b>	<b>-1.7</b>	<b>-0.3</b>	<b>3.4</b>	<b>5.4</b>	<b>Apr-11</b>	
NCREIF ODCE (Net)				-0.7	-3.2	-10.0	1.0	2.3	5.5	7.0	
<b>Natural Resources &amp; Infrastructure</b>	<b>64,416,659</b>	<b>4.9</b>	<b>0.7</b>	<b>2.4</b>	<b>6.8</b>	--	--	--	<b>2.3</b>	<b>Apr-23</b>	
S&P Global LargeMidcap Resources & Commodities NR USD				0.2	1.3	5.2	--	--	--	0.9	
<b>Gold</b>	<b>46,710,259</b>	<b>3.5</b>	<b>5.2</b>	<b>9.1</b>	<b>15.3</b>	--	--	--	<b>7.2</b>	<b>Apr-23</b>	
60% Gold (Spot)/ 40% FTSE Gold Mines				5.9	10.3	17.8	--	--	--	10.2	
<b>Short-Term TIPS</b>	<b>60,160,774</b>	<b>4.6</b>	<b>1.4</b>	<b>2.3</b>	<b>5.4</b>	--	--	--	<b>4.2</b>	<b>Mar-23</b>	
Blmbg. U.S. TIPS 0-5 Year				1.4	2.3	5.4	--	--	--	4.9	

See benchmark history page for benchmark detail.

## Performance Update | As of June 30, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>244,464,681</b>	<b>18.5</b>	<b>-0.6</b>	<b>-1.2</b>	<b>0.5</b>	--	--	--	<b>2.3</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>				-0.2	0.4	3.2	--	--	--	2.7
<b>Investment Grade Fixed Income</b>	<b>178,666,464</b>	<b>13.5</b>	<b>-0.4</b>	<b>-1.6</b>	<b>0.9</b>	<b>-3.3</b>	<b>-0.3</b>	<b>1.4</b>	<b>5.0</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	-3.0	-0.2	1.3	5.0
<b>Intermediate-Term Bonds</b>	<b>130,310,898</b>	<b>9.9</b>	<b>0.1</b>	<b>-0.4</b>	<b>3.1</b>	<b>-2.6</b>	<b>0.1</b>	<b>1.6</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	-3.0	-0.2	1.3	5.0
<b>Long-Term Bonds</b>	<b>48,355,567</b>	<b>3.7</b>	<b>-1.7</b>	<b>-4.8</b>	<b>-5.7</b>	--	--	--	<b>-2.6</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>				-1.8	-5.0	-5.6	--	--	--	-2.6
<b>Hedge Funds</b>	<b>63,667,802</b>	<b>4.8</b>	<b>-1.3</b>	<b>-0.2</b>	<b>-1.2</b>	--	--	--	<b>1.9</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>				-1.2	4.2	4.7	--	--	--	5.1
<b>Cash</b>	<b>2,130,414</b>	<b>0.2</b>								

	Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,321,625,157</b>	<b>100.0</b>	<b>1.3</b>	<b>5.8</b>	<b>10.4</b>	<b>2.5</b>	<b>6.4</b>	<b>5.8</b>	<b>7.8</b>		<b>Oct-90</b>
<i>Total Fund Policy Benchmark</i>				1.9	6.9	12.1	3.4	7.2	6.1		8.0
<i>Total Fund Actual Allocation Benchmark</i>				1.6	6.3	11.6	--	--	--		--
<i>Total Fund Public Benchmark</i>				1.8	7.4	14.2	2.7	7.1	6.2		8.1
<b>Growth Assets</b>	<b>738,992,459</b>	<b>55.9</b>	<b>1.9</b>	<b>10.1</b>	<b>17.4</b>	--	--	--	<b>16.5</b>		<b>Dec-22</b>
<i>Growth Assets Custom Benchmark</i>				3.0	11.3	19.3	--	--	--		18.0
<b>Global Equity</b>	<b>734,402,918</b>	<b>55.6</b>	<b>1.8</b>	<b>10.1</b>	<b>17.4</b>	<b>4.4</b>	<b>10.4</b>	<b>8.6</b>	<b>9.2</b>		<b>Oct-90</b>
<i>Global Equity Policy Benchmark</i>				2.4	10.3	18.4	4.7	10.4	8.4		9.5
SSgA Russell 1000 Growth Index	32,595,477	2.5	8.3	20.7	33.5	--	--	--		42.8	Mar-23
<i>Russell 1000 Growth Index</i>				8.3	20.7	33.5	--	--	--		42.7
SSgA Russell 1000 Value Index	30,574,771	2.3	-2.2	6.6	13.0	--	--	--		12.6	Mar-23
<i>Russell 1000 Value Index</i>				-2.2	6.6	13.1	--	--	--		12.5
DF Dent Small Cap Growth Fund	14,581,457	1.1	--	--	--	--	--	--		-0.9	Jun-24
<i>Russell 2000 Growth Index</i>				--	--	--	--	--	--		-0.2
SSgA Russell 3000 Index	187,906,261	14.2	3.2	13.5	23.1	--	--	--		26.6	Mar-23
<i>Russell 3000 Index</i>				3.2	13.6	23.1	--	--	--		26.6
SSgA MSCI EAFE	86,159,403	6.5	-0.3	5.5	11.7	--	--	--		13.3	Mar-23
<i>MSCI EAFE (Net)</i>				-0.4	5.3	11.5	--	--	--		12.9
SSgA Emerging Markets Index	37,517,942	2.8	4.7	7.1	11.6	--	--	--		12.0	Mar-23
<i>MSCI Emerging Markets (Net)</i>				5.0	7.5	12.5	--	--	--		12.5
ABS China Direct	8,077,510	0.6	5.6	2.1	-6.3	--	--	--		-10.3	Mar-23
<i>MSCI China (Net)</i>				7.1	4.7	-1.6	--	--	--		-5.4
ABS EM ex China Direct	22,707,103	1.7	5.0	8.6	17.8	--	--	--		23.1	Mar-23
<i>MSCI EM ex China</i>				4.2	8.4	18.5	--	--	--		20.7

## Performance Update | As of June 30, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All-Cap	32,123,472	2.4	0.2	1.3	11.8	--	--	--	9.0	Apr-23
<i>MSCI AC World Index (Net)</i>				2.9	11.3	19.4	--	--	20.8	
First Eagle Global Equity	124,519,019	9.4	0.6	7.7	10.5	--	--	--	12.6	Apr-23
<i>MSCI AC World Index (Net)</i>				2.9	11.3	19.4	--	--	20.8	
Artisan Global Opportunities	100,750,383	7.6	1.5	12.5	20.5	--	--	--	21.8	Apr-23
<i>MSCI AC World Index (Net)</i>				2.9	11.3	19.4	--	--	20.8	
J. Stern & Co. World Stars Global Equity Fund	56,890,120	4.3	2.8	--	--	--	--	--	13.5	Feb-24
<i>MSCI AC World IMI Index (Net)</i>				2.4	--	--	--	--	10.0	
<b>Private Equity</b>	<b>4,589,541</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.	115,603	0.0								
Gauge Capital IV, L.P.	22,956	0.0								
<b>Credit</b>	<b>64,630,411</b>	<b>4.9</b>	<b>1.0</b>	<b>3.5</b>	<b>9.8</b>	--	--	--	<b>10.2</b>	<b>May-23</b>
<i>Credit Custom Benchmark</i>				1.5	3.5	10.8	--	--	10.5	
<b>High Yield &amp; Bank Loans</b>	<b>64,630,411</b>	<b>4.9</b>	<b>1.0</b>	<b>3.5</b>	<b>9.8</b>	--	--	--	<b>10.2</b>	<b>May-23</b>
<i>High Yield &amp; Bank Loans Custom Benchmark</i>				1.5	3.5	10.8	--	--	10.5	
Sculptor Credit Opportunities Overseas Fund	26,116,829	2.0	1.4	3.4	6.4	--	--	--	7.5	May-23
<i>Blmbg. Global High Yield Index</i>				1.0	3.2	11.8	--	--	11.3	
Brigade High Income Fund	38,513,581	2.9	0.7	3.5	12.3	--	--	--	12.1	May-23
<i>60% Barclays U.S. Corporate High Yield &amp; 40% CS Lev Loans</i>				1.4	3.3	10.7	--	--	10.3	

Private Equity asset market values are based on March 31, 2024 fair market values and adjusted for subsequent cash flows.

## Performance Update | As of June 30, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Inflation Hedges</b>	<b>273,537,606</b>	<b>20.7</b>	<b>1.4</b>	<b>1.5</b>	<b>1.9</b>	--	--	--	<b>-3.6</b>	Dec-22
Inflation Hedges Custom Benchmark				1.0	1.2	1.2	--	--	--	-2.3
<b>Real Estate</b>	<b>102,249,915</b>	<b>7.7</b>	<b>0.2</b>	<b>-3.0</b>	<b>-8.4</b>	<b>-1.7</b>	<b>-0.3</b>	<b>3.4</b>	<b>5.4</b>	Apr-11
NCREIF ODCE (Net)				-0.7	-3.2	-10.0	1.0	2.3	5.5	7.0
JP Morgan Asset Management Strategic Property Fund	43,668,784	3.3	1.1	-4.7	-14.9	-1.3	0.7	4.3	6.4	Apr-11
NCREIF ODCE (Net)				-0.7	-3.2	-10.0	1.0	2.3	5.5	7.0
UBS Trumbull Property Fund	22,199,750	1.7	-1.1	-3.0	-8.6	-1.6	-1.1	2.5	3.7	Dec-11
NCREIF ODCE (Net)				-0.7	-3.2	-10.0	1.0	2.3	5.5	6.8
SSgA US REIT	36,381,381	2.8	-0.2	-0.6	7.0	--	--	--	5.4	Mar-23
Dow Jones U.S. Select REI				-0.2	-0.6	7.1	--	--	--	5.5
<b>Natural Resources &amp; Infrastructure</b>	<b>64,416,659</b>	<b>4.9</b>	<b>0.7</b>	<b>2.4</b>	<b>6.8</b>	--	--	--	<b>2.3</b>	Apr-23
S&P Global LargeMidcap Resources & Commodities Ind				0.2	1.3	5.2	--	--	--	0.9
SSgA S&P Global LargeMidCap Natural Resources Index	48,141,382	3.6	0.1	1.4	5.2	--	--	--	1.0	Apr-23
S&P Global LargeMidcap Resources & Commodities Ind				0.2	1.3	5.2	--	--	--	0.9
JP Morgan Infrastructure Investments Fund	16,275,277	1.2	2.3	5.1	--	--	--	--	8.5	Oct-23
DJ Brookfield Listed Public Infrastructure +1%				-0.1	-0.3	--	--	--	--	12.1
<b>Gold</b>	<b>46,710,259</b>	<b>3.5</b>	<b>5.2</b>	<b>9.1</b>	<b>15.3</b>	--	--	--	<b>7.2</b>	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines				5.9	10.3	17.8	--	--	--	10.2
First Eagle Institutional Gold Fund, LP	46,710,259	3.5	5.2	9.1	15.3	--	--	--	7.2	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines				5.9	10.3	17.8	--	--	--	10.2
<b>Short-Term TIPS</b>	<b>60,160,774</b>	<b>4.6</b>	<b>1.4</b>	<b>2.3</b>	<b>5.4</b>	--	--	--	<b>4.2</b>	Mar-23
Blmbg. U.S. TIPS 0-5 Year				1.4	2.3	5.4	--	--	--	4.9
Vanguard Short-Term TIPS Index	60,160,774	4.6	1.4	2.3	5.4	--	--	--	3.7	Apr-23
Blmbg. U.S. TIPS 0-5 Year				1.4	2.3	5.4	--	--	--	3.7

## Performance Update | As of June 30, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>244,464,681</b>	<b>18.5</b>	<b>-0.6</b>	<b>-1.2</b>	<b>0.5</b>	--	--	--	<b>2.3</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>				-0.2	0.4	3.2	--	--	--	2.7
<b>Investment Grade Fixed Income</b>	<b>178,666,464</b>	<b>13.5</b>	<b>-0.4</b>	<b>-1.6</b>	<b>0.9</b>	<b>-3.3</b>	<b>-0.3</b>	<b>1.4</b>	<b>5.0</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	-3.0	-0.2	1.3	5.0
<b>Intermediate-Term Bonds</b>	<b>130,310,898</b>	<b>9.9</b>	<b>0.1</b>	<b>-0.4</b>	<b>3.1</b>	<b>-2.6</b>	<b>0.1</b>	<b>1.6</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	-3.0	-0.2	1.3	5.0
SSgA US Aggregate Bond	36,826,085	2.8	0.1	-0.6	2.6	-3.0	-0.2	1.4	2.6	Jan-09
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	-3.0	-0.2	1.3	2.5
Wellington Core Bond	75,650,793	5.7	0.3	0.2	4.0	--	--	--	2.4	May-23
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	--	--	--	1.0
Brandywine U.S. Fixed Income	17,834,020	1.3	-0.5	-2.2	0.5	--	--	--	-0.2	Jun-23
<i>Blmbg. U.S. Aggregate Index</i>				0.1	-0.7	2.6	--	--	--	2.1
<b>Long-Term Bonds</b>	<b>48,355,567</b>	<b>3.7</b>	<b>-1.7</b>	<b>-4.8</b>	<b>-5.7</b>	--	--	--	<b>-2.6</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>				-1.8	-5.0	-5.6	--	--	--	-2.6
SSgA Long US Treasury Index	48,355,567	3.7	-1.7	-4.8	-5.7	--	--	--	-2.6	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>				-1.8	-5.0	-5.6	--	--	--	-2.6

**Performance Update | As of June 30, 2024**

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Hedge Funds</b>	<b>63,667,802</b>	<b>4.8</b>	<b>-1.3</b>	<b>-0.2</b>	<b>-1.2</b>	--	--	--	<b>1.9</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>				-1.2	4.2	4.7	--	--	--	5.1
36 South Kohinoor Series (Cayman) Fund	21,544,083	1.6	<b>1.2</b>	<b>1.4</b>	<b>0.6</b>	--	--	--	<b>1.7</b>	Apr-23
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>				0.5	-1.5	-3.7	--	--	--	-5.1
BH-DG Systematic Trading Master Fund	17,455,049	1.3	<b>-3.8</b>	<b>-1.4</b>	<b>-4.7</b>	--	--	--	<b>3.6</b>	Apr-23
<i>SG Trend Index</i>				-3.2	8.7	4.0	--	--	--	9.8
Lombard Odier Bear Convexity	7,758,139	0.6	<b>0.3</b>	<b>1.9</b>	<b>-2.9</b>	--	--	--	<b>-2.4</b>	Apr-23
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>				0.5	-1.5	-3.7	--	--	--	-5.1
Alpstone Global Macro Fund	16,910,531	1.3	<b>-2.4</b>	<b>-1.9</b>	<b>1.1</b>	--	--	--	<b>1.1</b>	May-23
<i>HFRI Macro (Total) Index</i>				-0.8	5.4	5.9	--	--	--	5.8
<b>Cash</b>	<b>2,130,414</b>	<b>0.2</b>								
Cash	2,130,414	0.2								

	Fiscal Year Performance					
	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
<b>Total Fund</b>	<b>10.4</b>	<b>8.4</b>	<b>-10.0</b>	<b>25.9</b>	<b>0.6</b>	<b>5.3</b>
<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>
<b>Growth Assets</b>	<b>17.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Growth Assets Custom Benchmark</i>	<i>19.3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
<b>Global Equity</b>	<b>17.4</b>	<b>15.8</b>	<b>-16.2</b>	<b>41.6</b>	<b>1.6</b>	<b>5.0</b>
<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>

**Performance Update | As of June 30, 2024**

	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>	--	--	--	--	--
J. Stern & Co. World Stars Global Equity Fund	--	--	--	--	--	--
<i>MSCI AC World IMI Index (Net)</i>	--	--	--	--	--	--
<b>Private Equity</b>						
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.						
<b>Credit</b>	<b>9.8</b>	--	--	--	--	--
<i>Credit Custom Benchmark</i>	<i>10.8</i>	--	--	--	--	--
<b>High Yield &amp; Bank Loans</b>	<b>9.8</b>	--	--	--	--	--
<i>High Yield &amp; Bank Loans Custom Benchmark</i>	<i>10.8</i>	--	--	--	--	--
Sculptor Credit Opportunities Overseas Fund	6.4	--	--	--	--	--
<i>Blmbg. Global High Yield Index</i>	<i>11.8</i>	--	--	--	--	--
Brigade High Income Fund	12.3	--	--	--	--	--
<i>60% Barclays U.S. Corporate High Yield &amp; 40% CS Lev Loans</i>	<i>10.7</i>	--	--	--	--	--
<b>Inflation Hedges</b>	<b>1.9</b>	--	--	--	--	--
<i>Inflation Hedges Custom Benchmark</i>	<i>1.2</i>	--	--	--	--	--
<b>Real Estate</b>	<b>-8.4</b>	<b>-12.1</b>	<b>18.1</b>	<b>3.7</b>	<b>-0.3</b>	<b>1.9</b>
<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>	--	--	--	--	--

## Performance Update | As of June 30, 2024

	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
<b>Natural Resources &amp; Infrastructure</b>	<b>6.8</b>	--	--	--	--	--
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>	<i>5.2</i>	--	--	--	--	--
SSgA S&P Global LargeMidCap Natural Resources Index	5.2	--	--	--	--	--
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>	<i>5.2</i>	--	--	--	--	--
JP Morgan Infrastructure Investments Fund	--	--	--	--	--	--
<i>DJ Brookfield Listed Public Infrastructure +1%</i>	<i>--</i>	--	--	--	--	--
<b>Gold</b>	<b>15.3</b>	--	--	--	--	--
<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>	--	--	--	--	--
<b>Short-Term TIPS</b>	<b>5.4</b>	--	--	--	--	--
<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>	--	--	--	--	--
<b>Risk Mitigation</b>	<b>0.5</b>	--	--	--	--	--
<i>Risk Mitigation Custom Benchmark</i>	<i>3.2</i>	--	--	--	--	--
<b>Investment Grade Fixed Income</b>	<b>0.9</b>	<b>0.1</b>	<b>-10.5</b>	<b>0.2</b>	<b>8.6</b>	<b>7.6</b>
<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>
<b>Intermediate-Term Bonds</b>	<b>3.1</b>	<b>0.0</b>	<b>-10.5</b>	<b>0.2</b>	<b>8.6</b>	<b>7.6</b>
<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>	--	--	--	--	--
<b>Long-Term Bonds</b>	<b>-5.7</b>	--	--	--	--	--
<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>	--	--	--	--	--

**Performance Update | As of June 30, 2024**

	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
<b>Hedge Funds</b>	<b>-1.2</b>	--	--	--	--	--
<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>	--	--	--	--	--
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>	--	--	--	--	--
<b>Cash</b>						

	<b>Risk Return Statistics</b>	
	<b>3 Yrs</b> (%)	<b>5 Yrs</b> (%)
	<b>Total Fund</b>	<b>Total Fund</b>
<b>RETURN SUMMARY STATISTICS</b>		
Maximum Return	5.8	8.3
Minimum Return	-7.3	-10.5
Return	2.5	6.4
Excess Return	0.1	4.8
Excess Performance	-0.9	-0.8
<b>RISK SUMMARY STATISTICS</b>		
Beta	1.0	0.9
Up Capture	97.7	95.8
Down Capture	103.0	99.6
<b>RISK/RETURN SUMMARY STATISTICS</b>		
Standard Deviation	11.4	11.9
Sortino Ratio	0.0	0.6
Alpha	-0.9	-0.4
Sharpe Ratio	0.0	0.4
Excess Risk	11.3	12.0
Tracking Error	0.9	1.5
Information Ratio	-0.9	-0.5
<b>CORRELATION STATISTICS</b>		
R-Squared	1.0	1.0
Actual Correlation	1.0	1.0

<b>Statistics Summary</b> <b>3 Years Ending June 30, 2024</b>						
	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Fund	2.5	11.4	-0.9	1.0	0.0	0.9
Total Fund Policy Benchmark	3.4	11.3	-	1.0	0.1	0.0
Growth Assets	-	-	-	-	-	-
Growth Assets Custom Benchmark	-	-	-	-	-	-
Global Equity	4.4	16.3	-0.4	1.0	0.2	0.8
Global Equity Policy Benchmark	4.7	16.6	-	1.0	0.2	0.0
SSgA Russell 1000 Growth Index	-	-	-	-	-	-
Russell 1000 Growth Index	11.3	20.9	-	1.0	0.5	0.0
SSgA Russell 1000 Value Index	-	-	-	-	-	-
Russell 1000 Value Index	5.5	16.4	-	1.0	0.2	0.0
DF Dent Small Cap Growth Fund	-	-	-	-	-	-
Russell 2000 Growth Index	-4.9	22.5	-	1.0	-0.2	0.0
SSgA Russell 3000 Index	-	-	-	-	-	-
Russell 3000 Index	8.1	17.8	-	1.0	0.4	0.0
SSgA MSCI EAFE	-	-	-	-	-	-
MSCI EAFE (Net)	2.9	16.7	-	1.0	0.1	0.0
SSgA Emerging Markets Index	-	-	-	-	-	-
MSCI Emerging Markets (Net)	-5.1	17.6	-	1.0	-0.4	0.0
ABS China Direct	-	-	-	-	-	-
MSCI China (Net)	-17.7	30.1	-	1.0	-0.6	0.0

**Performance Update | As of June 30, 2024**

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
ABS EM ex China Direct	-	-	-	-	-	-
MSCI EM ex China	0.3	17.4	-	1.0	-0.1	0.0
Kopernik Global All-Cap	-	-	-	-	-	-
MSCI AC World Index (Net)	5.4	16.5	-	1.0	0.2	0.0
First Eagle Global Equity	-	-	-	-	-	-
MSCI AC World Index (Net)	5.4	16.5	-	1.0	0.2	0.0
Artisan Global Opportunities	-	-	-	-	-	-
MSCI AC World Index (Net)	5.4	16.5	-	1.0	0.2	0.0
Credit	-	-	-	-	-	-
Credit Custom Benchmark	-	-	-	-	-	-
High Yield & Bank Loans	-	-	-	-	-	-
High Yield & Bank Loans Custom Benchmark	3.8	5.5	-	1.0	0.2	0.0
Sculptor Credit Opportunities Overseas Fund	-	-	-	-	-	-
Blmbg. Global High Yield Index	0.5	9.4	-	1.0	-0.2	0.0
Brigade High Income Fund	-	-	-	-	-	-
60% Barclays U.S. Corporate High Yield & 40% CS Lev Loans	3.4	6.0	-	1.0	0.1	0.0
Inflation Hedges	-	-	-	-	-	-
Inflation Hedges Custom Benchmark	-	-	-	-	-	-
Real Estate	-1.7	6.4	-0.5	0.5	-0.7	6.1
NCREIF ODCE (Net)	1.0	9.2	-	1.0	-0.2	0.0
JP Morgan Asset Management Strategic Property Fund	-1.3	6.6	-0.4	0.5	-0.6	7.0
NCREIF ODCE (Net)	1.0	9.2	-	1.0	-0.2	0.0

**Performance Update | As of June 30, 2024**

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
UBS Trumbull Property Fund	-1.6	9.1	-0.9	0.9	-0.4	2.8
NCREIF ODCE (Net)	1.0	9.2	-	1.0	-0.2	0.0
SSgA US REIT	-	-	-	-	-	-
Dow Jones U.S. Select REI	-0.2	21.5	-	1.0	0.0	0.0
Natural Resources & Infrastructure	-	-	-	-	-	-
S&P Global LargeMidcap Resources & Commodities Ind	7.0	19.9	-	1.0	0.3	0.0
SSgA S&P Global LargeMidCap Natural Resources Index	-	-	-	-	-	-
S&P Global LargeMidcap Resources & Commodities Ind	7.0	19.9	-	1.0	0.3	0.0
JP Morgan Infrastructure Investments Fund	-	-	-	-	-	-
DJ Brookfield Listed Public Infrastructure +1%	2.0	16.8	-	1.0	0.0	0.0
Gold	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	5.4	19.9	-	1.0	0.2	0.0
First Eagle Institutional Gold Fund, LP	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	5.4	19.9	-	1.0	0.2	0.0
Short-Term TIPS	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.2	3.2	-	1.0	-0.3	0.0
Vanguard Short-Term TIPS Index	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.2	3.2	-	1.0	-0.3	0.0
Risk Mitigation	-	-	-	-	-	-
Risk Mitigation Custom Benchmark	-	-	-	-	-	-
Investment Grade Fixed Income	-3.3	8.5	-0.1	1.1	-0.7	1.7
Blmbg. U.S. Aggregate Index	-3.0	7.3	-	1.0	-0.8	0.0

**Performance Update | As of June 30, 2024**

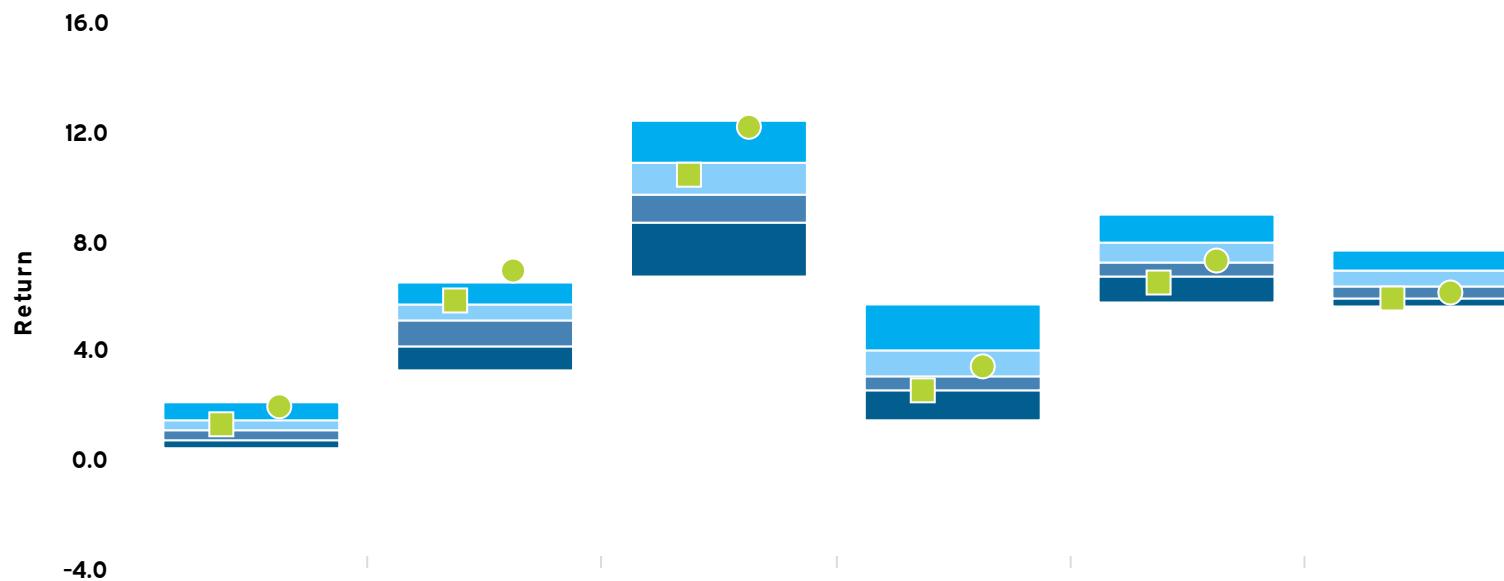
	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Intermediate-Term Bonds	-2.6	7.6	0.8	1.0	-0.7	0.5
Blmbg. U.S. Aggregate Index	-3.0	7.3	-	1.0	-0.8	0.0
SSgA US Aggregate Bond	-3.0	7.3	0.0	1.0	-0.8	0.2
Blmbg. U.S. Aggregate Index	-3.0	7.3	-	1.0	-0.8	0.0
Wellington Core Bond	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-3.0	7.3	-	1.0	-0.8	0.0
Brandywine U.S. Fixed Income	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-3.0	7.3	-	1.0	-0.8	0.0
Long-Term Bonds	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-10.5	15.5	-	1.0	-0.8	0.0
SSgA Long US Treasury Index	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-10.5	15.5	-	1.0	-0.8	0.0
Hedge Funds	-	-	-	-	-	-
Hedge Fund Custom Benchmark	-	-	-	-	-	-
36 South Kohinoor Series (Cayman) Fund	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	-1.4	6.1	-	1.0	-0.7	0.0
BH-DG Systematic Trading Master Fund	-	-	-	-	-	-
SG Trend Index	10.5	12.8	-	1.0	0.6	0.0
Lombard Odier Bear Convexity	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	-1.4	6.1	-	1.0	-0.7	0.0
Alpstone Global Macro Fund	-	-	-	-	-	-
HFRI Macro (Total) Index	4.4	5.0	-	1.0	0.3	0.0

**Performance Update | Quarter To Date**

	<b>Cash Flow Summary</b>			
	<b>Beginning Market Value</b>	<b>Net Cash Flow</b>	<b>Net Investment Change</b>	<b>Ending Market Value</b>
SSgA Russell 1000 Growth Index	30,837,098	-800,000	2,558,379	32,595,477
SSgA Russell 1000 Value Index	31,251,162	-	-676,391	30,574,771
Fidelity Small Cap Index Fund	15,893,001	-15,428,399	-464,602	-
DF Dent Small Cap Growth Fund	-	14,900,000	-318,543	14,581,457
SSgA Russell 3000 Index	182,064,668	-	5,841,593	187,906,261
SSgA MSCI EAFE	86,439,780	-	-280,377	86,159,403
SSgA Emerging Markets Index	35,820,727	-	1,697,215	37,517,942
ABS China Direct	7,649,682	-	427,828	8,077,510
ABS EM ex China Direct	21,630,554	-	1,076,550	22,707,103
Kopernik Global All-Cap	32,053,790	-	69,682	32,123,472
First Eagle Global Equity	123,741,751	-	777,269	124,519,019
Artisan Global Opportunities	99,307,949	-	1,442,435	100,750,383
J. Stern & Co. World Stars Global Equity Fund	63,255,160	-8,200,000	1,834,959	56,890,120
NexPhase Capital Fund V, L.P.	21,844	252,006	-15,634	258,216
Vitruvian Investment Partnership V	224,106	-	-81,225	142,881
Lexington Capital Partners X, L.P.	2,569,991	816,546	663,348	4,049,885
Flagship Pioneering Fund VIII, L.P.	60,000	60,000	-4,397	115,603
Gauge Capital IV, L.P.	-	22,956	-	22,956
Sculptor Credit Opportunities Overseas Fund	25,985,493	-244,790	376,126	26,116,829
Brigade High Income Fund	38,245,540	-	268,041	38,513,581
JP Morgan Asset Management Strategic Property Fund	43,189,907	-105,886	584,763	43,668,784
UBS Trumbull Property Fund	22,777,023	-325,154	-252,119	22,199,750
SSgA US REIT	36,446,928	-	-65,547	36,381,381
SSgA S&P Global LargeMidCap Natural Resources Index	55,409,494	-7,600,000	331,888	48,141,382
JP Morgan Infrastructure Investments Fund	15,911,461	-	363,816	16,275,277

**Performance Update | Quarter To Date**

	<b>Beginning Market Value</b>	<b>Net Cash Flow</b>	<b>Net Investment Change</b>	<b>Ending Market Value</b>
First Eagle Institutional Gold Fund, LP	44,415,471	-	2,294,788	46,710,259
Vanguard Short-Term TIPS Index	66,842,638	-7,600,000	918,136	60,160,774
SSgA US Aggregate Bond	36,777,888	-	48,198	36,826,085
Wellington Core Bond	75,406,130	-	244,663	75,650,793
Brandywine U.S. Fixed Income	17,923,187	-	-89,167	17,834,020
SSgA Long US Treasury Index	49,186,059	-	-830,492	48,355,567
36 South Kohinoor Series (Cayman) Fund	21,294,476	-	249,608	21,544,083
BH-DG Systematic Trading Master Fund	18,144,965	-	-689,916	17,455,049
Lombard Odier Bear Convexity	7,731,566	-	26,574	7,758,139
Alpstone Global Macro Fund	17,330,025	-	-419,495	16,910,531
Cash	1,375,876	726,831	27,708	2,130,414
<b>Total</b>	<b>1,327,215,388</b>	<b>-23,525,889</b>	<b>17,935,658</b>	<b>1,321,625,157</b>

**InvMetrics All Public DB Plans > \$1B**


	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ Total Fund	1.3 (31)	5.8 (20)	10.4 (33)	2.5 (76)	6.4 (80)	5.8 (75)
● Total Fund Policy Benchmark	1.9 (7)	6.9 (3)	12.1 (9)	3.4 (41)	7.2 (47)	6.1 (65)
5th Percentile	2.0	6.4	12.4	5.6	8.9	7.6
1st Quartile	1.4	5.6	10.8	3.9	7.9	6.9
Median	1.0	5.0	9.6	3.0	7.2	6.3
3rd Quartile	0.7	4.1	8.6	2.5	6.6	5.8
95th Percentile	0.3	3.2	6.6	1.4	5.7	5.5
Population	95	95	95	90	88	83

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

**Annual Investment Expense Analysis**
**As of June 30, 2024**

	<b>Fee Schedule</b>	<b>Market Value</b>	<b>Estimated Fee Value</b>	<b>Estimated Fee</b>
<b>Growth Assets</b>		\$738,992,459	\$2,216,195	0.30
<b>Global Equity</b>		\$734,402,918	\$2,205,545	0.30
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$32,595,477	\$6,519	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$30,574,771	\$6,115	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$14,581,457	\$138,524	0.95
SSgA Russell 3000 Index	0.02 % of Assets	\$187,906,261	\$37,581	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$86,159,403	\$34,464	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$37,517,942	\$30,014	0.08
ABS China Direct	0.65 % of Assets	\$8,077,510	\$52,504	0.65
ABS EM ex China Direct	0.50 % of Assets	\$22,707,103	\$113,536	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$32,123,472	\$240,926	0.75
First Eagle Global Equity	0.55 % of Assets	\$124,519,019	\$684,855	0.55
Artisan Global Opportunities	0.60 % of Assets	\$100,750,383	\$604,502	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$56,890,120	\$256,006	0.45
<b>Private Equity</b>		\$4,589,541	\$10,650	0.23
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	\$115,603	\$2,312	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$22,956	\$459	2.00
<b>Credit</b>		\$64,630,411	\$461,439	0.71
<b>High Yield &amp; Bank Loans</b>		\$64,630,411	\$461,439	0.71
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$26,116,829	\$261,168	1.00

**Performance Update | As of June 30, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Brigade High Income Fund	0.52 % of Assets	\$38,513,581	\$200,271	0.52
<b>Inflation Hedges</b>		<b>\$273,537,606</b>	<b>\$1,052,380</b>	<b>0.38</b>
<b>Real Estate</b>		<b>\$102,249,915</b>	<b>\$615,363</b>	<b>0.60</b>
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$43,668,784	\$397,386	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	\$22,199,750	\$196,148	0.88
SSgA US REIT	0.06 % of Assets	\$36,381,381	\$21,829	0.06
<b>Natural Resources &amp; Infrastructure</b>		<b>\$64,416,659</b>	<b>\$202,757</b>	<b>0.31</b>
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$48,141,382	\$48,141	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$16,275,277	\$154,615	0.95
<b>Gold</b>		<b>\$46,710,259</b>	<b>\$210,196</b>	<b>0.45</b>
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$46,710,259	\$210,196	0.45
<b>Short-Term TIPS</b>		<b>\$60,160,774</b>	<b>\$24,064</b>	<b>0.04</b>
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$60,160,774	\$24,064	0.04
<b>Risk Mitigation</b>		<b>\$244,464,681</b>	<b>\$828,622</b>	<b>0.34</b>
<b>Investment Grade Fixed Income</b>		<b>\$178,666,464</b>	<b>\$164,372</b>	<b>0.09</b>
<b>Intermediate-Term Bonds</b>		<b>\$130,310,898</b>	<b>\$149,865</b>	<b>0.12</b>
SSgA US Aggregate Bond	0.02 % of Assets	\$36,826,085	\$7,365	0.02
Wellington Core Bond	0.12 % of Assets	\$75,650,793	\$90,781	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$17,834,020	\$51,719	0.29

**Performance Update | As of June 30, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Long-Term Bonds</b>		<b>\$48,355,567</b>	<b>\$14,507</b>	<b>0.03</b>
SSgA Long US Treasury Index	0.03 % of Assets	\$48,355,567	\$14,507	0.03
<b>Hedge Funds</b>		<b>\$63,667,802</b>	<b>\$664,251</b>	<b>1.04</b>
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$21,544,083	\$215,441	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$17,455,049	\$162,332	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$7,758,139	\$58,186	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$16,910,531	\$228,292	1.35
<b>Cash</b>		<b>\$2,130,414</b>	<b>-</b>	<b>-</b>
Cash		\$2,130,414	-	-
<b>Total Fund</b>		<b>\$1,321,625,157</b>	<b>\$4,558,636</b>	<b>0.34</b>

Fund	July '23 - Dec '23	Monthly Management Fees Paid (\$)									
		January	Feb	March	April	May	June	FYTD	CYTD		
SSgA MSCI ACWI IMI Index Fund	23,928	9,786	-	-	-	-	-	33,714	9,786		
SSgA Russell 1000 Growth Index	2,700	-	-	1,514	-	-	1,652	5,865	3,166		
SSgA Russell 1000 Value Index	1,396	-	-	707	-	-	1,495	3,598	2,202		
SSgA Russell 3000 Index	17,228	-	-	9,185	-	-	9,354	35,766	18,539		
SSgA MSCI EAFE	19,975	-	-	8,416	-	-	8,402	36,794	16,818		
SSgA Emerging Markets Index	15,400	-	-	6,989	-	-	6,936	29,325	13,925		
Fidelity Small Cap Index Fund	-	303	320	331	308	-	-	1,261	1,261		
DF Dent Small Cap Growth Fund	-	-	-	-	-	11,647	11,544	23,190	23,190		
ABS China Direct	13,218	4,287	3,847	4,074	4,144	4,390	4,533	38,493	25,275		
ABS EM ex China Direct	33,128	8,712	8,542	8,830	9,013	8,879	8,975	86,080	52,952		
Kopernik Global All-Cap*	137,520	23,649	22,734	24,501	24,111	25,181	24,368	282,064	144,544		
First Eagle Global Equity	277,410	50,374	54,587	56,738	55,116	57,127	57,095	608,447	331,037		
Artisan Global Opportunities*	286,823	50,384	50,370	49,654	48,138	48,994	50,375	584,738	297,915		
J. Stern & Co. World Stars Global Equity	-	1,212	23,204	23,730	22,740	23,920	22,572	117,378	117,378		
NexPhase Capital Fund V	115,030	-	-	-	-	-	18,093	133,123	18,093		
Vitruvian Investment Partnership V	-	-	-	-	-	-	-	-	-		
Lexington Capital Partners X	-	-	-	-	-	-	-	-	-		
Flagship Pioneering Fund VIII, L.P.	-	-	-	16,734	-	-	-	16,734	16,734		
Gauge Capital IV, L.P.	-	-	-	-	-	-	14,836	14,836	14,836		
Sculptor Credit Opportunities Overseas Fund	128,891	21,738	20,336	21,738	21,539	22,257	21,539	258,036	129,146		
Brigade High Income Fund*	99,502	16,222	16,334	16,573	16,330	16,584	16,689	198,234	98,732		
JP Morgan Strategic Property Fund	236,482	113,900	-	-	105,886	-	-	456,268	219,786		
UBS Trumbull Property Fund	106,806	49,971	-	-	47,526	-	-	204,303	97,497		
SSgA US REIT	4,590	-	-	2,575	-	-	4,393	11,558	6,968		
SSgA S&P Global LargeMidCap NR Index	18,238	-	-	10,710	-	-	12,341	41,289	23,051		
JP Morgan Infrastructure Investments Fund	33,085	-	-	33,920	-	-	34,784	101,788	68,704		
First Eagle Institutional Gold Fund, LP	80,076	13,806	12,574	15,683	17,335	18,195	17,380	175,048	94,972		
Vanguard Short-Term TIPS Index*	14,652	2,220	2,216	2,228	2,227	1,994	2,005	27,542	12,890		
PIMCO Total Return	2,987	-	-	-	-	-	-	2,987	-		
SSgA US Aggregate Bond	8,137	-	-	2,598	-	-	1,836	12,570	4,433		
Wellington Core Bond*	54,548	8,808	8,712	8,797	8,587	8,749	8,826	107,028	52,479		
Brandywine U.S. Fixed Income	22,424	-	8,258	-	-	10,287	-	40,970	18,546		
SSgA Long US Treasury Index	7,762	-	-	3,516	-	-	3,691	14,969	7,207		
36 South Kohinoor Series (Cayman) Fund	108,766	17,859	17,586	17,769	17,961	17,877	18,029	215,845	107,079		
BH-DG Systematic Trading Master Fund	82,191	13,421	12,810	14,121	13,894	14,248	12,418	163,102	80,911		
Lombard Odier Bear Convexity	29,455	4,791	4,872	4,835	4,802	4,836	4,852	58,443	28,988		
Alpstone Global Macro	115,295	19,160	19,194	19,544	19,752	19,546	19,046	231,536	116,241		
<b>Total</b>	<b>2,097,643</b>	<b>430,602</b>	<b>286,495</b>	<b>386,010</b>	<b>439,407</b>	<b>314,709</b>	<b>418,058</b>	<b>4,372,924</b>	<b>2,275,282</b>		
<b>Custodial Fee</b>	<b>19,516</b>	<b>2,564</b>	<b>6,597</b>	<b>2,548</b>	<b>-</b>	<b>6,739</b>	<b>-</b>	<b>37,964</b>	<b>18,447</b>		

\*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.

		<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	

## **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

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

### UPCOMING EVENTS



**Q3 Investment Perspectives Webcast**

October 2024



**Evolving Asia: Japan, India and EM Ex-China**  
September 2024

Client and employee counts as of June 30, 2024; assets 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.

### THOUGHT LEADERSHIP



#### **Read our Research Note “Exploring the Backbone of Digital Communications: Towers”**

Digital infrastructure refers to the robust communications system of assets that connect, transmit, process, and store data.

There are three primary subsectors: wireless, wired fiber networks, and data centers. This research note, focuses on the wireless sector, specifically the macro cell tower subsector of the digital infrastructure environment.

**Read more here:**  
<https://meketa.com/leadership/exploring-the-backbone-of-digital-communications-towers/>



#### **Read our recent primer on “Growth Equity”**

Growth equity is often overshadowed by its cousins in buyouts and venture capital, but it should not be overlooked.

This paper discusses the characteristics of the asset class and reasons for investing in growth equity. It presents an analysis of major return, risk, and implementation considerations for institutional investors..

**Read more here:**  
<https://meketa.com/leadership/growth-equity-primer/>



#### **Cash balance comeback**

There has been recent news of a plan sponsor announcing a new cash balance provision for their active employees. This bucks the trend of the last few decades when it was common for companies to announce pension plan closures and freezing future benefit accruals.

This has resulted in many companies asking the following questions:

- What is a cash balance pension plan?
- Why would a plan sponsor have interest in implementing a new cash balance provision in the existing defined benefit plan?
- Should other companies with frozen pension plans consider this approach?
- What are some investment considerations for any cash balance pension plan?

**Read more here:**  
<https://meketa.com/leadership/cash-balance-comebacks/>

### MEKETA VALUES COMMUNITY AND SERVICE

Brad Walker, the head of technology at Meketa, recently gave the keynote address to graduates of Per Scholas Boston.

These hardworking students completed a 13-week intensive training to kick-start their tech careers. Brad shared insights from his experiences in the Marine Corps and working in the IT field.

Per Scholas, a non-profit organization, offers free IT training for careers in IT support, cybersecurity, cloud engineering, and software development. Their mission is to advance economic equity through rigorous training for tech careers and to connect skilled talent to leading businesses.



### CELEBRATING THIS QUARTER

#### Meketa employees take part in Habitat for Humanity Build Days on both coasts!

As part of Meketa's volunteer opportunities, each employee is given 8 hours to volunteer in their local communities. During the summer, our Carlsbad office in San Diego and our Boston office in Westwood hosts Habitat for Humanity Build Days.

In Carlsbad, employees traveled to San Diego to help a homeowner with repairs on a home that had suffered from fire damages.

In Boston, our employees traveled to Malden, MA to help with the Greater Boston Build Day.



### MEKETA IN THE NEWS



#### As GP consolidation wave grows, LPs brace for impact

By Zak Bently | 4.2.24

[Read full article here](#)

A fear of the unknown will be prevalent for many LPs across private markets, but it may be that conservative infrastructure investors are the most cautious in this respect.

“In all cases, there’s a little bit of trepidation about what it means, whether there’ll be pressure to launch bigger funds or charge higher fees or go into riskier assets to target more carry,” outlines Lisa Bacon, managing principal of Meketa’s infrastructure programme.



#### Brookfield’s Brian Kingston: The future is debt

Randy Plavajka and Samantha Rowan | 6.3.24

[Read full article here](#)

Meketa Investment Group, a Westwood, Massachusetts-based advisory, has indeed seen more of its clientele shifting toward real estate private credit as part of their overall strategy.

“Real estate credit investments potentially offer a very good risk-adjusted return and now, as property values have come down and traditional lenders are capital-constrained, it is possible to earn attractive returns,” says Colin Hill, managing principal.

Investors include large credit funds [like those offered by Brookfield] within their debt allocations, Hill notes.

The shift toward private real estate credit has been happening gradually over the past 18 to 24 months, Hill adds. “We have seen some investors moving out of equities and moving into debt as a way to better match liabilities and get returns with lower volatility and more current income. I wouldn’t say it is a pendulum swing, but there has been a shift for a lot of our clients to take a couple of points out of equity and reallocate to fixed income,” Hill says.

### WSJ PRO PRIVATE EQUITY

#### Venture Capital

##### *The Search for Venture Funds That Don’t Do AI*

By YULIYA CHERNOVA | 2024

[Read full article here](#)

“They “talk about AI 90% of the time now,” said Ethan Samson, managing principal and private markets consultant and counsel at Meketa Investment Group, referring to venture fund managers that are pitching their funds. Meketa advises large institutional investors such as endowments and pension funds on making venture-fund and other investments.

Samson said Meketa is considering venture funds that specialize in defense, consumer products and life sciences to reach sectors with less generative AI reliance.

“We want to be sure we are not overexposed in that area,” Samson said.

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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.