



INVESTMENT GROUP

## Employees' Retirement System of the City of Norfolk

Meeting Materials

May 1, 2024

Fund Evaluation Report

## Agenda

**1. Economic and Market Update**

**2. Executive Summary**

**3. Performance Summary**

- March 31, 2024
- February 29, 2024

**4. Appendix**

- Corporate Update
- Disclaimer, Glossary, and Notes

# **Economic and Market Update**

**Data as of March 31, 2024**

## Commentary

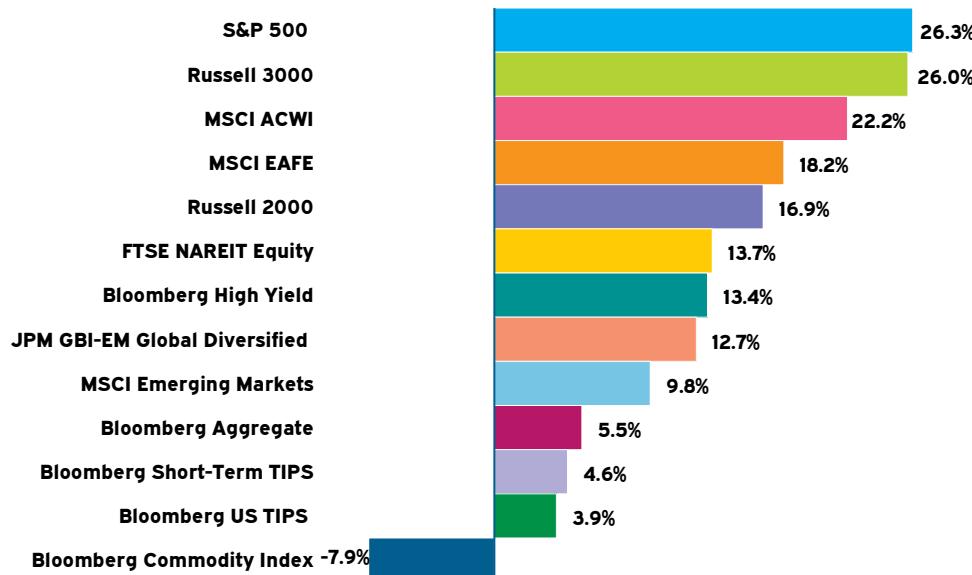
→ Resilient economic data drove global equities higher and pushed out the timing of the expected first Fed rate cut, weighing on bonds.

- Major central banks have largely paused interest rate hikes with expectations that many will still cut rates, but the uneven pace of falling inflation and economic growth could desynchronize the pace of rate cuts.
- In general, inflation pressures have eased in most countries from their pandemic peaks, but some uncertainty remains and levels are still above most central bank targets. Headline inflation in the US rose in March (3.2% to 3.5%) by more than expected, while core inflation was unchanged (3.8%) when it was predicted to decline to 3.7%. Notably, prices in China were up only slightly in March, as the impacts of the recent holiday faded.
- US equity markets (Russell 3000 index) rose 10.0% in the first quarter after a very strong 2023 (+26.0%). The technology sector continued to perform well, with energy gaining on geopolitical tensions.
- Non-US developed equity markets increased 5.8% in the quarter, helped by Japanese equities which hit multi-decade highs. A strengthening US dollar drove the weaker relative results for US investors with returns in local currency terms 4.2% higher (10.0% versus 5.8%).
- Emerging market equities (+2.4%) had the weakest equity returns, depressed by China (-2.2%). While policy efforts to support mainland stock prices helped to stabilize Chinese equities, recent efforts by the US to discourage investments in China weighed on results. The stronger dollar also hurt performance in emerging markets for US investors with returns in local currency terms 2.1% higher.
- Rising interest rates weighed on bonds with the broad US bond market declining 0.8% for the quarter.

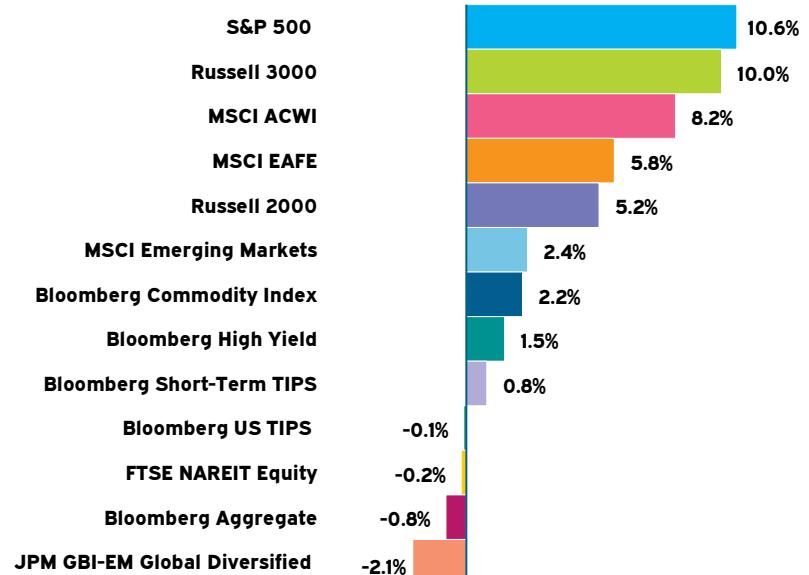
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel will be key.

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

2023



Q1 2024



- In the first quarter, global equity markets continued their strong performance from 2023 with the US leading the way.
- Resilient economic data weighed on bond markets domestically and dashed hopes of a near-term cut in interest rates.

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

Domestic Equity Returns<sup>1</sup>

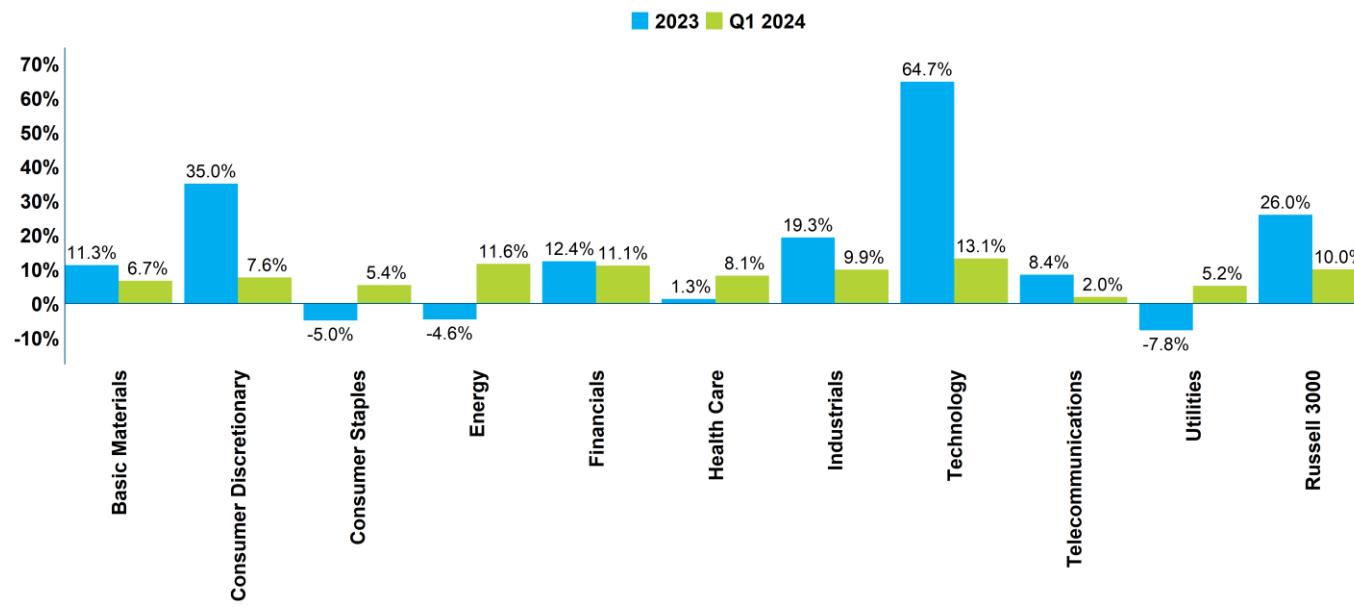
Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.2	10.6	29.9	11.5	15.1	13.0
Russell 3000	3.2	10.0	29.3	9.8	14.3	12.3
Russell 1000	3.2	10.3	29.9	10.5	14.8	12.7
Russell 1000 Growth	1.8	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	20.3	8.1	10.3	9.0
Russell MidCap	4.3	8.6	22.3	6.1	11.1	9.9
Russell MidCap Growth	2.4	9.5	26.3	4.6	11.8	11.4
Russell MidCap Value	5.2	8.2	20.4	6.8	9.9	8.6
Russell 2000	3.6	5.2	19.7	-0.1	8.1	7.6
Russell 2000 Growth	2.8	7.6	20.3	-2.7	7.4	7.9
Russell 2000 Value	4.4	2.9	18.8	2.2	8.2	6.9

## US Equities: The Russell 3000 increased an impressive 10.0% in the first quarter of the year.

- US equities continued their ascent after a strong finish to 2023. The gains were driven by strong economic data and corporate earnings, despite signs of interest rates remaining higher for longer.
- Growth stocks outperformed value stocks across the market cap spectrum. Technology stocks continued to be a key driver of results, with NVIDIA and Microsoft alone contributing nearly 30% of the quarter's gains.
- Large cap stocks produced almost double the return of their small cap peers during the first quarter. The underperformance of small cap financials contributed to this dynamic as fear of further turmoil for regional banks resurfaced.

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

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



- All sectors posted positive returns in the first quarter. The technology sector (13.1%) continued to lead the way due to the influence of the so-called “Magnificent Seven”.
- Technology was followed by energy (11.6%) and financials (11.1%), driven respectively by increased geopolitical tensions and the strong economic environment. Traditionally defensive sectors like consumer staples (5.4%) and utilities (5.2%) joined the rally but trailed other sectors.

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

Foreign Equity Returns<sup>1</sup>

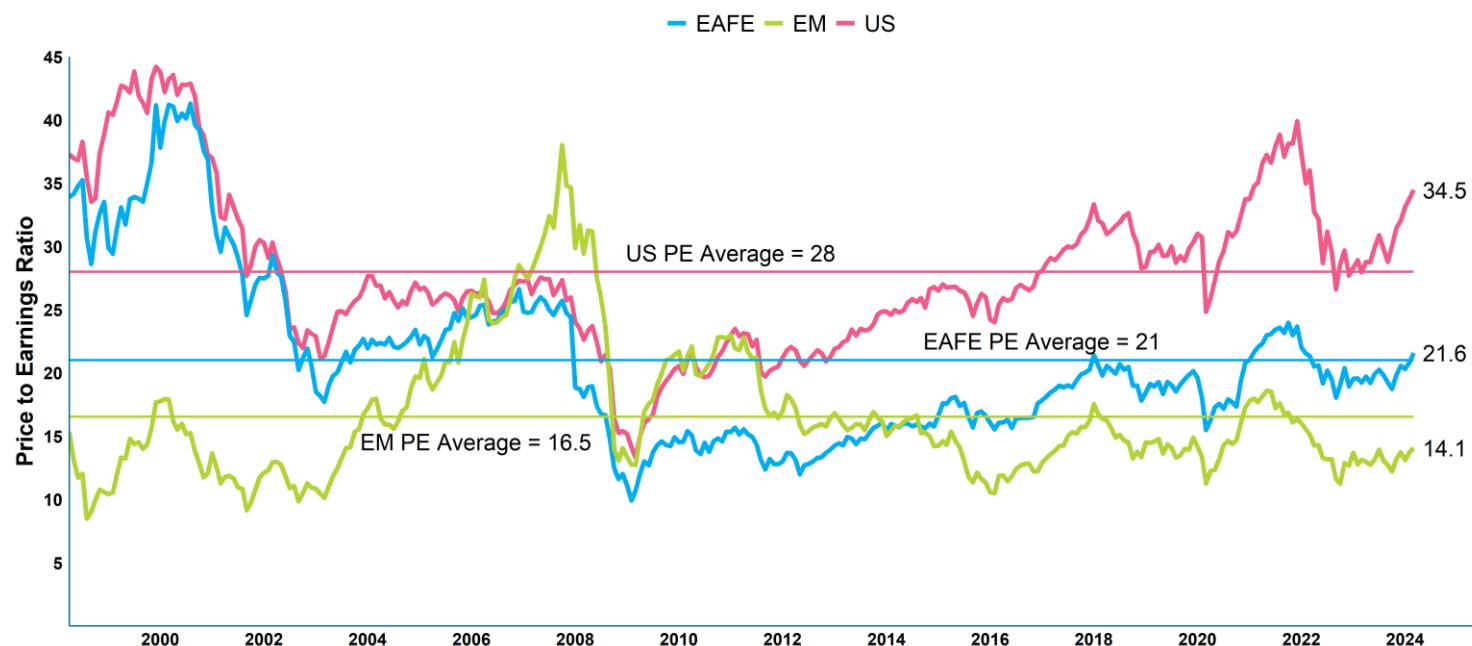
Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	3.1	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	15.3	4.8	7.3	4.8
MSCI EAFE (Local Currency)	4.0	10.0	18.8	9.4	9.4	7.7
MSCI EAFE Small Cap	3.7	2.4	10.4	-1.4	4.9	4.7
MSCI Emerging Markets	2.5	2.4	8.2	-5.1	2.2	2.9
MSCI Emerging Markets (Local Currency)	3.0	4.5	10.6	-2.4	4.4	5.7
MSCI EM ex. China	3.0	4.0	20.5	2.2	6.4	4.2
MSCI China	0.9	-2.2	-17.1	-18.9	-6.3	1.2

**Foreign Equity: Developed international equities (MSCI EAFE) gained 5.8% during the quarter and emerging market equities (MSCI EM) rose 2.4%.**

- Developed international equity markets matched the US for the quarter in local terms but the appreciation of the dollar decreased returns for US investors by over 4.0% (5.8% versus 10.0%). Eurozone and UK equities had gains for the quarter, but Japan was the real standout performer, with the TOPIX returning 18.1% in local terms and the Nikkei breaking the 40,000 level for the first time.
- Emerging market equities again trailed developed markets largely due to China falling 2.2%. Slowing growth, issues in the property sector, and recent efforts by the US to discourage investments into China all weighed on results. Outside of China, interest rate sensitive markets like Brazil were particularly impacted by expectations of delayed interest rate cuts by the Fed. Stripping out China, emerging markets returned 4.0% in the quarter.

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

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



- At the end of the first quarter, the US equity price-to-earnings ratio increased further above its 21st century average, as price appreciation exceeded earnings growth.
- International market valuations also rose in the quarter and remain well below the US. In the case of developed markets, valuations are now slightly above the long-term average, while emerging market valuations remain well below its long-term average.

<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 March 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.

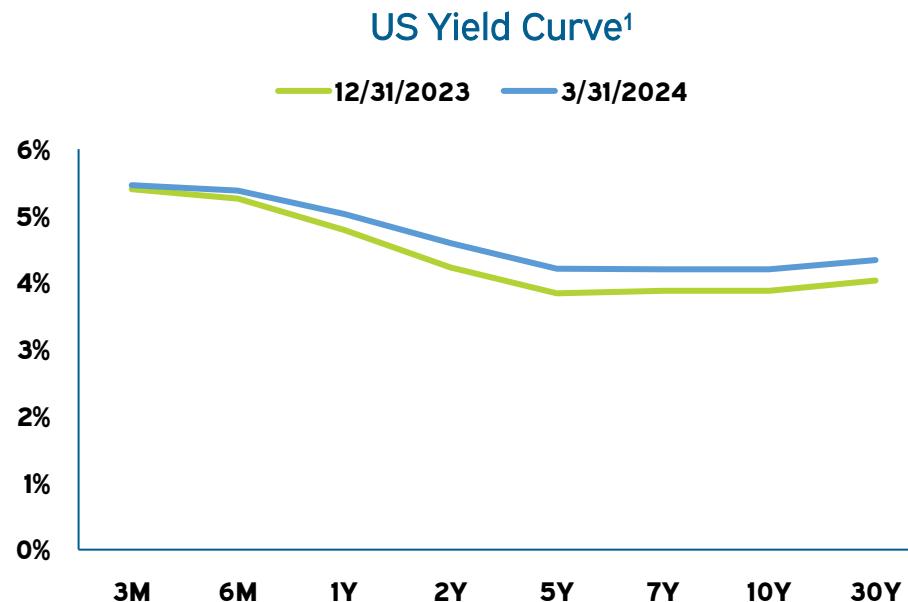
### Fixed Income Returns<sup>1</sup>

Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	1.0	-0.5	2.7	-2.1	0.7	1.8	5.1	6.0
Bloomberg Aggregate	0.9	-0.8	1.7	-2.5	0.4	1.5	4.8	6.2
Bloomberg US TIPS	0.8	-0.1	0.5	-0.5	2.5	2.2	4.6	6.8
Bloomberg Short-term TIPS	0.6	0.8	3.2	2.3	3.2	2.1	4.8	2.4
Bloomberg High Yield	1.2	1.5	11.2	2.2	4.2	4.4	7.7	3.7
JPM GBI-EM Global Diversified (USD)	0.0	-2.1	4.9	-1.6	0.1	-0.3	6.4	5.0

### Fixed Income: The Bloomberg Universal index fell 0.5% in the first quarter.

- Strong economic growth and inflation readings above forecasts shifted interest rate expectations pushing back the anticipated start date of rate cuts as well as the number of cuts for 2024.
- In this environment the broad US bond market (Bloomberg Aggregate) fell 0.8% with TIPS declining only slightly (0.1%).
- High yield bonds (1.5%) led the way for the quarter as risk appetite continues to be robust and overall yields remain attractive despite the recent tightening of spreads to Treasury equivalents.

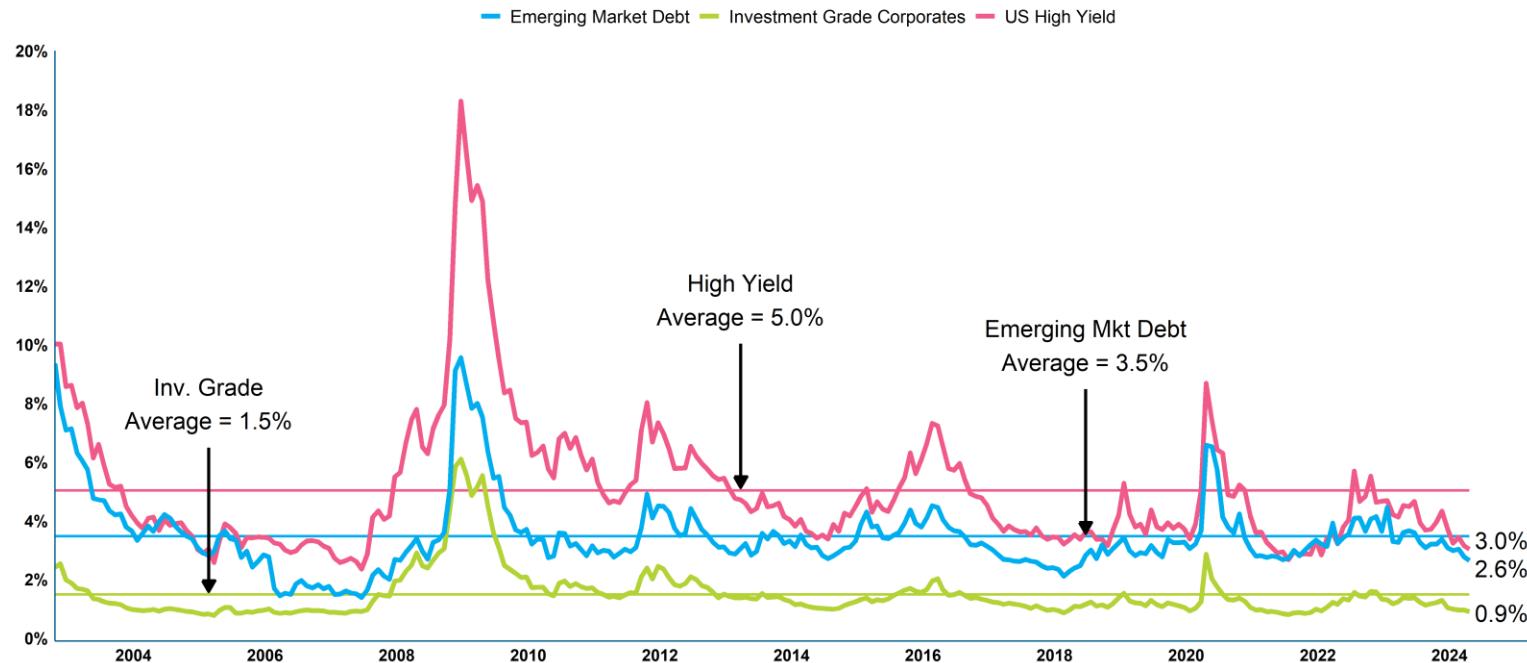
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Overall interest rates moved higher over the quarter due to the strong economic data and the related shifts in monetary policy expectations.
- The more policy sensitive two-year Treasury yield rose from 4.3% to 4.6% in the first quarter while the ten-year Treasury yield increased from 3.9% to 4.2%.
- The yield curve remained inverted at quarter-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.4% at the end of the quarter.

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

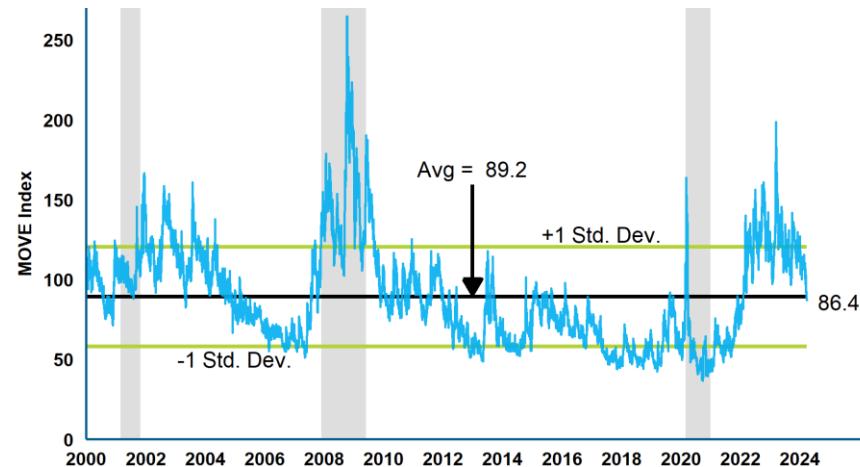
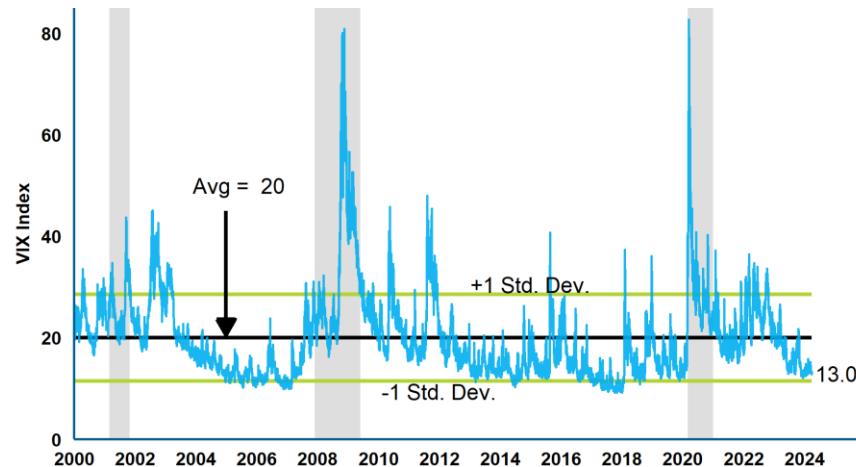
### Credit Spreads vs. US Treasury Bonds<sup>1</sup>



- A positive economic outlook along with expectations of lower interest rates has led to an increased risk appetite. This has benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- This trend continued in the first quarter particularly for riskier bonds. High yield spreads fell from 3.2% to 3.0% and emerging market spreads dropped from 3.0% to 2.6%. Spreads for investment grade corporate bonds fell only slightly over the quarter (1.0% to 0.9%).
- All spreads remain below their respective long-run averages, particularly within high yield.

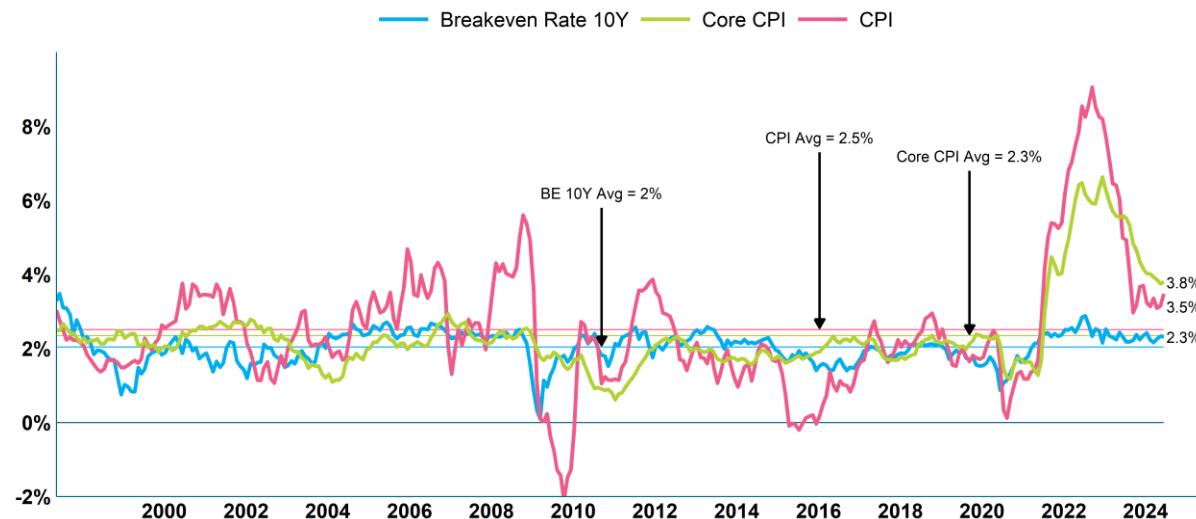
<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

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



- Volatility in equities (VIX) finished the quarter close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) fell significantly over the quarter to a level below the long run average (86.4 versus 89.2). Declining volatility surrounding policy expectations and the more positive growth outlook both contributed to lower volatility in the bond market.

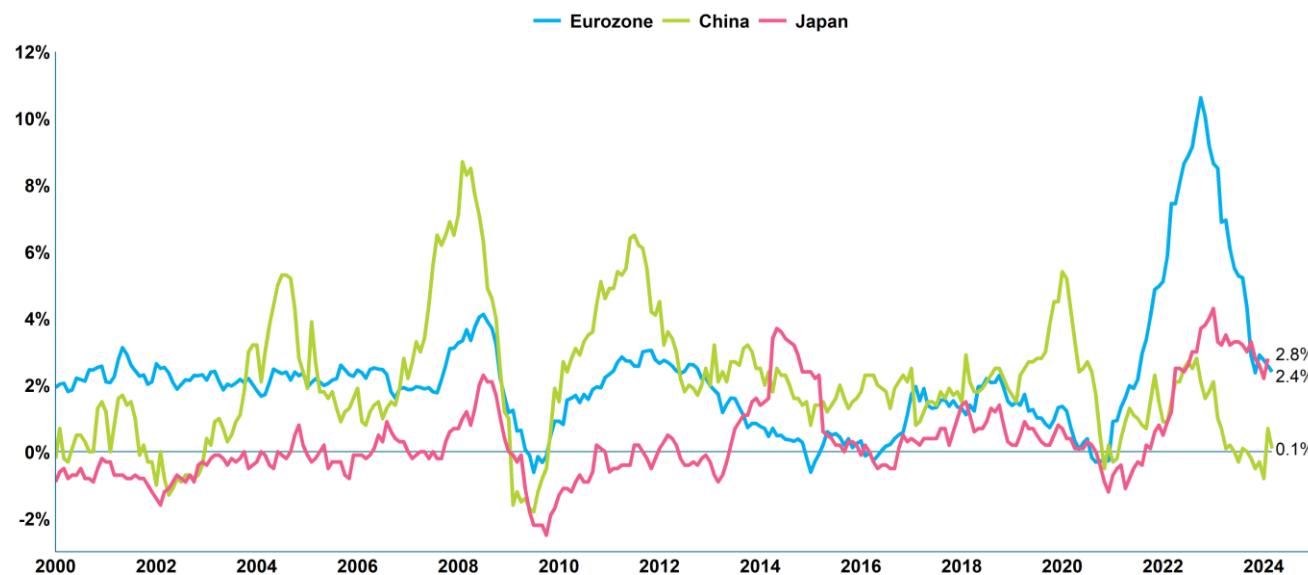
<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of March 2024. The average line indicated is the average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

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

- Year-over-year headline inflation rose in March (3.2% to 3.5%) and came in slightly above expectations. Prices in service sectors, particularly shelter, remain a key driver of inflation staying above the Fed's 2% average target, with a recent rise in energy prices contributing too.
- Month-over-month inflation rose 0.4% which was the same as February, but above expectations of a 0.3% reading.
- Core inflation (excluding food and energy) remained at 3.8% but also came in above expectations. Core goods prices dropped, while core services including shelter and transportation prices continued to show persistence.
- Inflation expectations (breakevens) have remained relatively stable despite the significant volatility in inflation.

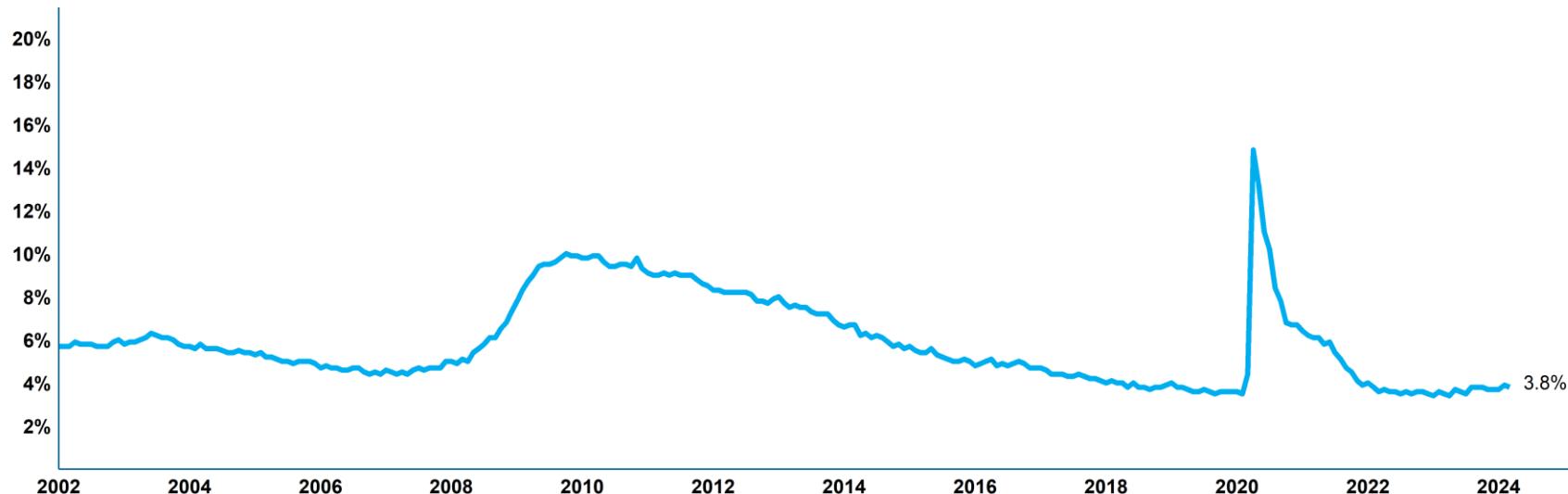
<sup>1</sup> Source: FRED. Data is as March 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

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



- Outside the US, inflation is also easing across major economies from the recent peaks.
- In the eurozone, prices experienced a dramatic decline last year but remain above the central bank's 2% target. In March, inflation fell further (2.6% to 2.4%), a level below the 3.5% year-over-year reading in the US.
- Inflation in Japan has slowly declined from the early 2023 peak of 4.3%, but it remains near levels not seen in a decade. In the most recent reading, inflation rose from 2.4% to 2.8% largely due to the falling impact of government energy subsidies introduced at the same time last year.
- The impacts from spending during the Lunar New Year holiday in China waned in March with inflation falling to just about 0%.

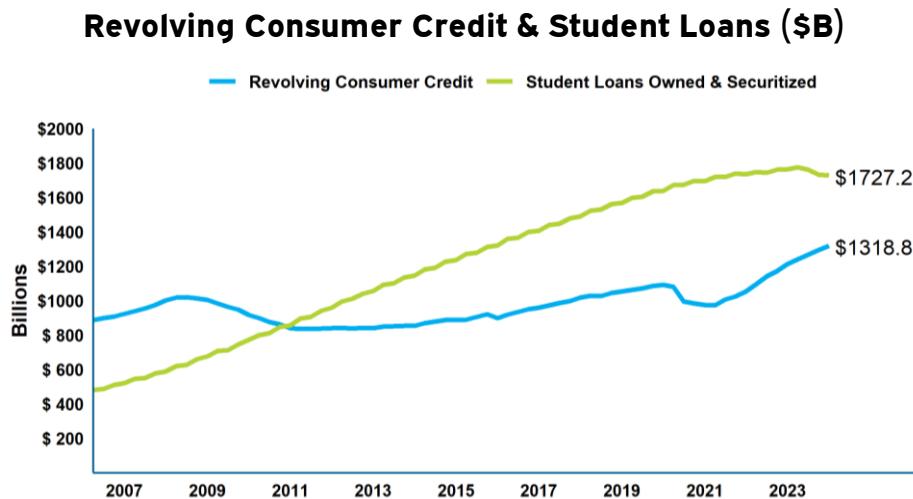
<sup>1</sup> Source: Bloomberg. Data is March 31, 2024, except Japan which is as of February 28, 2024.

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

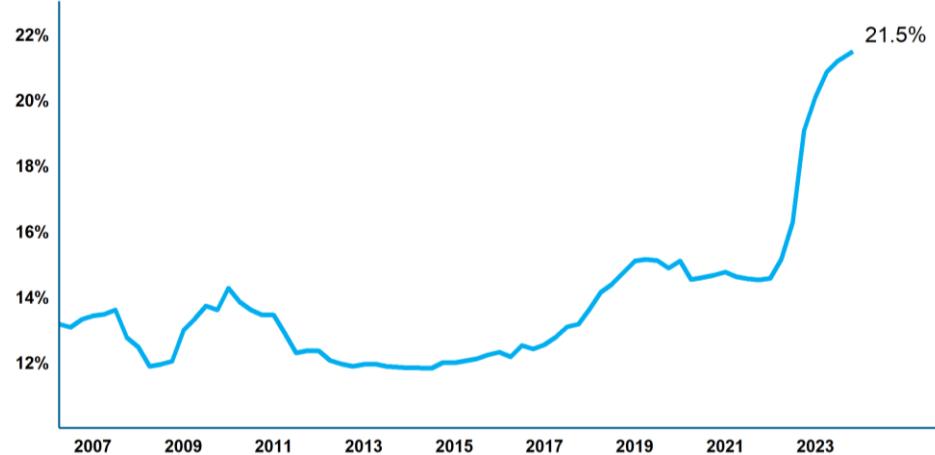
- Overall, the US labor market remains healthy, with the unemployment rate low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- Each of the payroll readings over the quarter exceeded expectations. In March, the number of jobs added in the US was 303,000 compared to a 214,000 forecast. The healthcare (72,000), government (71,000), and construction (39,000) sectors added the most jobs.
- The unemployment rate fell from 3.9% to 3.8%, while wage growth dropped slightly from 4.3% to 4.1% compared to a year prior, a level well off the 6.0% peak but above inflation levels.
- Quit rates have declined, and layoffs are stable, with 1.4 job openings per unemployed worker.

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

### US Consumer Under Stress?<sup>1</sup>

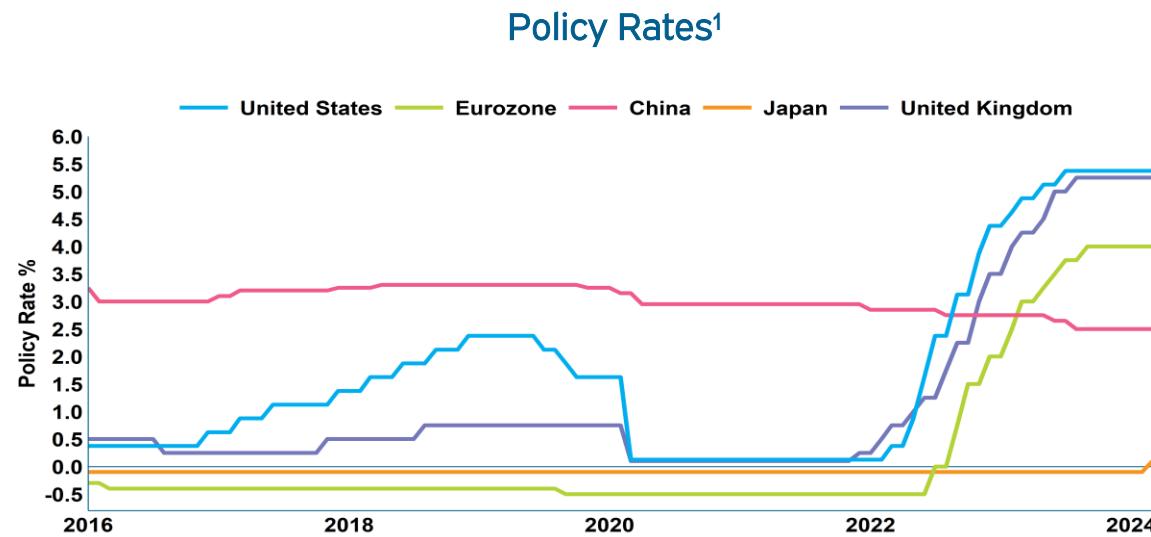


### Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently, we have also seen payment delinquencies on credit cards and auto loans start to increase, particularly for younger people.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of December 31, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in fewer than two rate cuts this year down from close to seven late last year, as economic data has come in better than expectations and inflation persists. Market pricing for the first rate cut has also dramatically changed from an original expectation of a March cut to the probability priced below 50% for a rate cut at all remaining Fed meetings in 2024.
- The European and UK central banks also recently paused their rate increases on slowing inflation. It appears that the ECB could be one of the first central banks to cut rates with expectations close to 90% for a June cut.
- Given the return of inflation driven by wage growth the Bank of Japan (BOJ) recently ended the final negative interest rate policy, stopped purchasing ETFs, and moved away from its yield curve control.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker-than-expected economic data appears to indicate a widespread slowdown.

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

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

- The dollar increased by close to 3% over the quarter versus a basket of major trading partners.
- Strong economic data in the US may delay policy rate cuts this year, which could contribute to continued upward pressure on the dollar as other countries pivot to rate cuts.

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

## Summary

### Key Trends:

- According to the IMF, global growth this year is expected to match the 2023 estimate at around 3.1% with most major economies predicted to avoid a recession. Continued strong economic growth does run the risk of inflation and interest rates staying higher for longer.
- Key economic data in the US is still coming in above forecasts with expectations dramatically evolving for the timing and pace of interest rate cuts. If data remains strong the Federal Reserve may keep rates elevated increasing the risk of an economic slowdown.
- Outside the US we could see other central banks start cutting rates ahead of the Fed, with the ECB particularly in focus. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession.
- 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.
- 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 on-going weakness in the real estate sector which could spill over into key trading partners' economies. 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 March, resilient economic data drove global equities higher, while also pushing out the timing of the first expected Fed rate cut, which negatively impacted the price of bonds.
- The below table reflects the latest estimated valuation data through March 2024.

NERS	March 31, 2024	February 29, 2024	January 31, 2024
Total Fund Balance	\$1.33 Billion <sup>1</sup>	\$1.30 Billion	\$1.28 Billion
Funded Status	87%	85%	84%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%
FYTD Rate of Return	8.9%	6.2%	4.0%
12 Months Trailing Rate of Return	11.8%	10.7%	5.6%
Monthly Rate of Return	2.6%	2.1%	-0.3%
Monthly Gains/Losses	\$33.2 million	\$26.9 million	\$4.3 million
Monthly Net Cash Flow	-\$8.4 million	-\$7.2 million	-\$9.2 million

- The Actuarial Determined Contribution rates for Fiscal Year 2024 are:
  - NERS: 20.96%
  - VRS: 12.94%

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

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<sup>1</sup> March values and performance are preliminary.

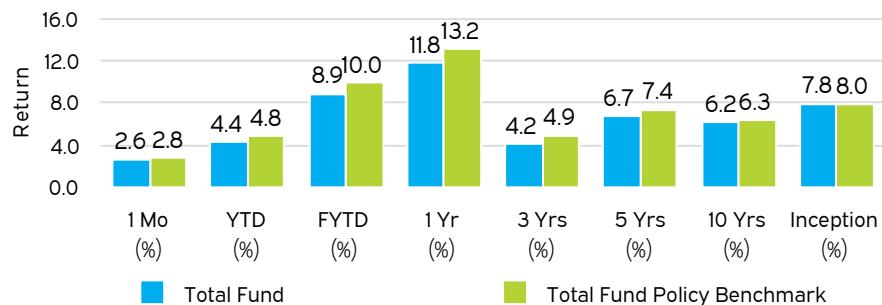
## Performance Summary

**March 31, 2024**

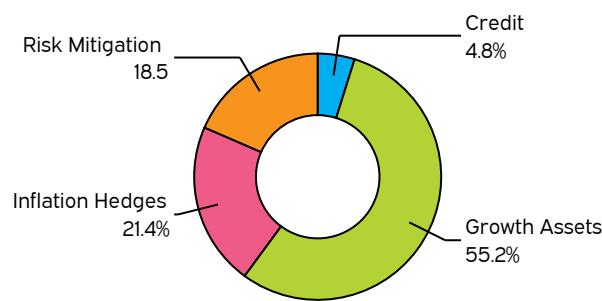
#### Portfolio Objective

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

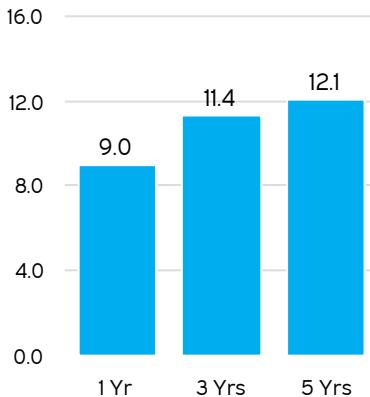


	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	2.6	4.4	8.9	11.8	4.2	6.7	6.2	7.8	10/01/1990
Total Fund Policy Benchmark	2.8	4.8	10.0	13.2	4.9	7.4	6.3	8.0	

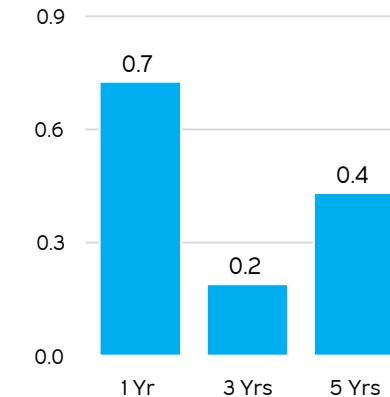
#### Summary of Cash Flows

	Last Month	Year-To-Date	One Year
<b>Total Fund</b>			
Beginning Market Value	1,301,928,826	1,295,810,106	1,241,254,166
Net Cash Flow	-8,402,548	-24,852,486	-55,748,726
Net Investment Change	33,166,503	55,735,162	141,187,342
Ending Market Value	1,326,692,782	1,326,692,782	1,326,692,782

#### Annualized Standard Deviation

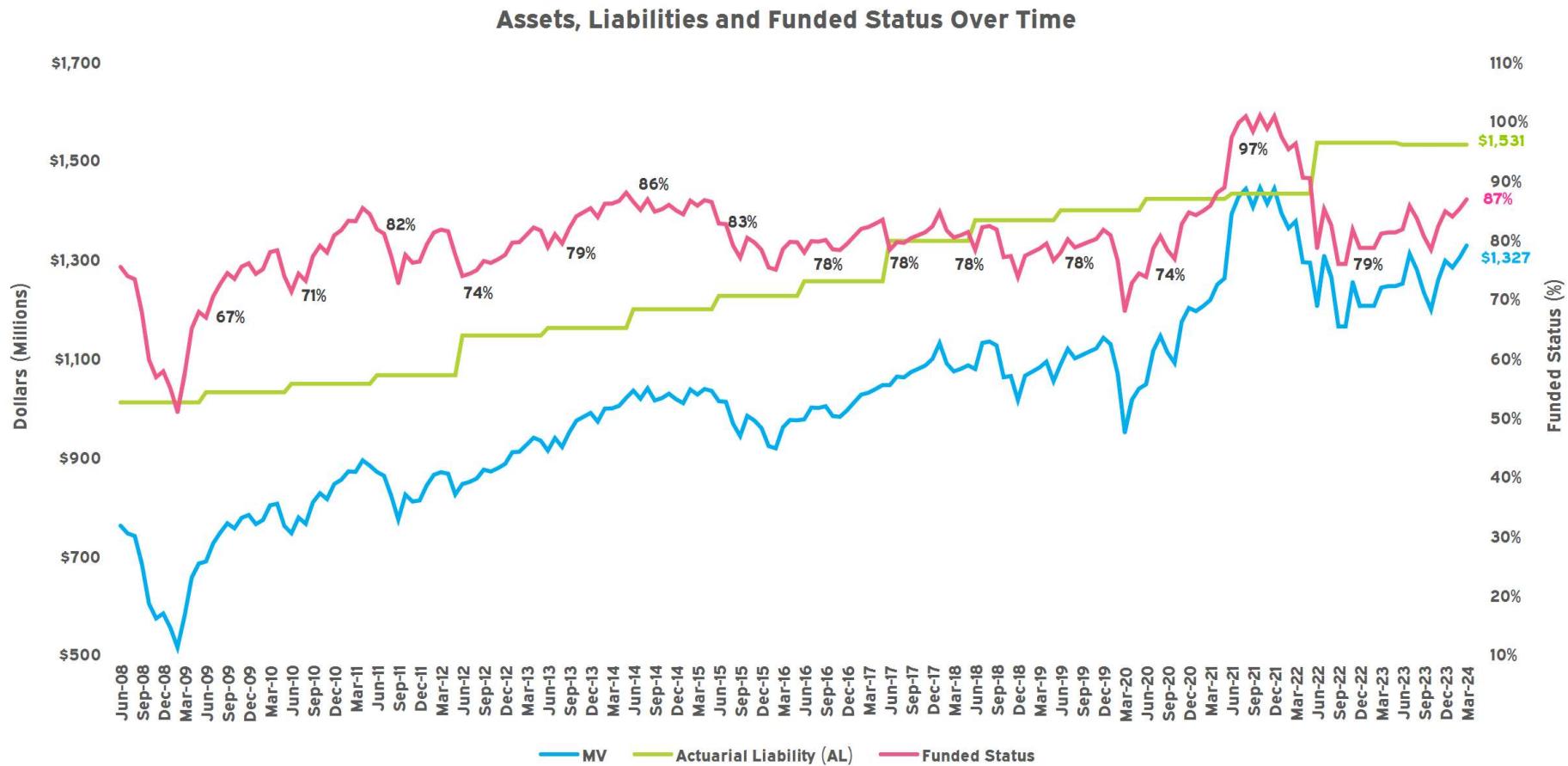


#### Sharpe Ratio



Performance Update | As of March 31, 2024

Actual vs. Target Allocation		Allocation vs. Targets and Policy				
		Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	Target Allocation		55.2%			
	Actual Allocation		57.0%			
Credit	Target Allocation		4.0%			
	Actual Allocation		4.8%			
Inflation Hedges	Target Allocation		21.0%			
	Actual Allocation		21.4%			
Risk Mitigation	Target Allocation		18.0%			
	Actual Allocation		18.5%			
		0.0% 50.0% 100.0%				
 Target Allocation						
 Actual Allocation						



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 85% in February 2024 and 87% in March 2024.

Asset Class Performance Summary												
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,326,692,782</b>	<b>100.0</b>	<b>2.6</b>	<b>4.4</b>	<b>8.9</b>	<b>11.8</b>	<b>4.2</b>	<b>6.7</b>	<b>6.2</b>	<b>7.8</b>	<b>Oct-90</b>	
Total Fund Policy Benchmark			2.8	4.8	10.0	13.2	4.9	7.4	6.3	8.0		
Total Fund Actual Allocation Benchmark			2.7	4.6	9.8	12.8	--	--	--	--		
Total Fund Public Benchmark			2.6	5.5	12.2	16.8	3.9	7.4	6.4	8.1		
<b>Growth Assets</b>	<b>732,821,263</b>	<b>55.2</b>	<b>3.1</b>	<b>8.1</b>	<b>15.2</b>	<b>21.7</b>	--	--	--	<b>18.2</b>	<b>Dec-22</b>	
Growth Assets Custom Benchmark			3.3	8.1	15.9	23.0	--	--	--	19.1		
<b>Global Equity</b>	<b>729,945,322</b>	<b>55.0</b>	<b>3.1</b>	<b>8.1</b>	<b>15.3</b>	<b>21.8</b>	<b>6.2</b>	<b>10.7</b>	<b>8.9</b>	<b>9.2</b>	<b>Oct-90</b>	
Global Equity Policy Benchmark			3.2	7.7	15.6	22.5	6.3	10.6	8.6	9.5		
<b>Private Equity</b>	<b>2,875,941</b>	<b>0.2</b>										
<b>Credit</b>	<b>64,127,679</b>	<b>4.8</b>	<b>1.0</b>	<b>2.3</b>	<b>8.6</b>	--	--	--	--	<b>10.7</b>	<b>May-23</b>	
Credit Custom Benchmark			1.0	2.0	9.2	11.8	--	--	--	10.7		
<b>High Yield &amp; Bank Loans</b>	<b>64,127,679</b>	<b>4.8</b>	<b>1.0</b>	<b>2.3</b>	<b>8.6</b>	--	--	--	--	<b>10.7</b>	<b>May-23</b>	
High Yield & Bank Loans Custom Benchmark			1.0	2.0	9.2	11.8	4.0	4.8	4.5	10.7		
<b>Inflation Hedges</b>	<b>284,573,669</b>	<b>21.4</b>	<b>2.8</b>	<b>-0.1</b>	<b>0.3</b>	<b>-2.0</b>	--	--	--	<b>-5.4</b>	<b>Dec-22</b>	
Inflation Hedges Custom Benchmark			3.0	0.2	0.2	-2.4	--	--	--	-3.4		
<b>Real Estate</b>	<b>102,413,858</b>	<b>7.7</b>	<b>-1.3</b>	<b>-3.2</b>	<b>-8.6</b>	<b>-10.1</b>	<b>-0.9</b>	<b>-0.7</b>	<b>3.6</b>	<b>5.5</b>	<b>Apr-11</b>	
NCREIF ODCE (Net)			-2.6	-2.6	-9.4	-12.0	2.5	2.6	5.8	7.2		
<b>Natural Resources &amp; Infrastructure</b>	<b>70,901,702</b>	<b>5.3</b>	<b>6.3</b>	<b>1.1</b>	<b>5.5</b>	<b>1.6</b>	--	--	--	<b>1.6</b>	<b>Apr-23</b>	
S&P Global LargeMidcap Resources & Commodities NR USD			8.2	1.1	4.9	0.9	8.7	8.6	4.3	0.9		
<b>Gold</b>	<b>44,415,471</b>	<b>3.3</b>	<b>11.4</b>	<b>3.8</b>	<b>9.7</b>	<b>3.8</b>	--	--	--	<b>3.8</b>	<b>Apr-23</b>	
60% Gold (Spot)/ 40% FTSE Gold Mines			13.4	4.2	11.2	6.7	4.5	--	--	6.7		
<b>Short-Term TIPS</b>	<b>66,842,638</b>	<b>5.0</b>	<b>0.6</b>	<b>0.8</b>	<b>3.8</b>	<b>3.1</b>	--	--	--	<b>3.7</b>	<b>Mar-23</b>	
Blmbg. U.S. TIPS 0-5 Year			0.6	0.8	3.9	3.2	2.2	3.2	2.1	4.7		

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 March 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>245,170,171</b>	<b>18.5</b>	<b>1.1</b>	<b>-0.6</b>	<b>1.2</b>	<b>1.1</b>	--	--	--	<b>3.2</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>			1.3	0.6	3.4	3.1	--	--	--	3.4	
<b>Investment Grade Fixed Income</b>	<b>179,293,263</b>	<b>13.5</b>	<b>1.0</b>	<b>-1.3</b>	<b>1.3</b>	<b>0.3</b>	<b>-2.6</b>	<b>0.3</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	5.0	
<b>Intermediate-Term Bonds</b>	<b>130,107,204</b>	<b>9.8</b>	<b>0.9</b>	<b>-0.5</b>	<b>3.0</b>	<b>2.4</b>	<b>-2.1</b>	<b>0.7</b>	<b>1.8</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	5.0	
<b>Long-Term Bonds</b>	<b>49,186,059</b>	<b>3.7</b>	<b>1.1</b>	<b>-3.2</b>	<b>-4.0</b>	<b>-6.3</b>	--	--	--	<b>-1.7</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>			1.2	-3.3	-3.9	-6.1	-8.0	-2.8	1.2	-1.5	
<b>Hedge Funds</b>	<b>64,501,032</b>	<b>4.9</b>	<b>1.4</b>	<b>1.1</b>	<b>0.1</b>	<b>3.7</b>	--	--	--	<b>3.7</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>			2.5	5.4	5.9	7.7	--	--	--	7.7	
<b>Cash</b>	<b>1,375,876</b>	<b>0.1</b>									

Performance Update | As of March 31, 2024

	Trailing Net Performance												Inception Date
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)			
<b>Total Fund</b>	<b>1,326,692,782</b>	<b>100.0</b>	<b>2.6</b>	<b>4.4</b>	<b>8.9</b>	<b>11.8</b>	<b>4.2</b>	<b>6.7</b>	<b>6.2</b>	<b>7.8</b>			<b>Oct-90</b>
<i>Total Fund Policy Benchmark</i>			2.8	4.8	10.0	13.2	4.9	7.4	6.3	8.0			
<i>Total Fund Actual Allocation Benchmark</i>			2.7	4.6	9.8	12.8	--	--	--	--			
<i>Total Fund Public Benchmark</i>			2.6	5.5	12.2	16.8	3.9	7.4	6.4	8.1			
<b>Growth Assets</b>	<b>732,821,263</b>	<b>55.2</b>	<b>3.1</b>	<b>8.1</b>	<b>15.2</b>	<b>21.7</b>	--	--	--	<b>18.2</b>			<b>Dec-22</b>
<i>Growth Assets Custom Benchmark</i>			3.3	8.1	15.9	23.0	--	--	--	19.1			
<b>Global Equity</b>	<b>729,945,322</b>	<b>55.0</b>	<b>3.1</b>	<b>8.1</b>	<b>15.3</b>	<b>21.8</b>	<b>6.2</b>	<b>10.7</b>	<b>8.9</b>	<b>9.2</b>			<b>Oct-90</b>
<i>Global Equity Policy Benchmark</i>			3.2	7.7	15.6	22.5	6.3	10.6	8.6	9.5			
SSgA Russell 1000 Growth Index	30,837,098	2.3	1.8	11.4	23.2	39.0	--	--	--	44.0			Mar-23
<i>Russell 1000 Growth Index</i>			1.8	11.4	23.2	39.0	12.5	18.5	16.0	43.8			
SSgA Russell 1000 Value Index	31,251,162	2.4	5.0	9.0	15.6	20.3	--	--	--	18.1			Mar-23
<i>Russell 1000 Value Index</i>			5.0	9.0	15.6	20.3	8.1	10.3	9.0	18.0			
Fidelity Small Cap Index Fund	15,893,001	1.2	3.6	6.0	--	--	--	--	--	9.4			Feb-24
<i>Russell 2000 Index</i>			3.6	5.2	13.8	19.7	-0.1	8.1	7.6	9.4			
SSgA Russell 3000 Index	182,064,668	13.7	3.2	10.0	19.3	29.3	--	--	--	29.9			Mar-23
<i>Russell 3000 Index</i>			3.2	10.0	19.3	29.3	9.8	14.3	12.3	29.8			
SSgA MSCI EAFE	86,439,780	6.5	3.4	5.9	12.1	15.6	--	--	--	17.0			Mar-23
<i>MSCI EAFE (Net)</i>			3.3	5.8	12.0	15.3	4.8	7.3	4.8	16.6			
SSgA Emerging Markets Index	35,820,727	2.7	2.5	2.3	6.6	7.6	--	--	--	10.2			Mar-23
<i>MSCI Emerging Markets (Net)</i>			2.5	2.4	7.2	8.2	-5.1	2.2	2.9	10.5			
ABS China Direct	7,649,682	0.6	1.7	-3.3	-11.3	-18.5	--	--	--	-16.8			Mar-23
<i>MSCI China (Net)</i>			0.9	-2.2	-8.1	-17.1	-18.9	-6.3	1.2	-12.3			

## Performance Update | As of March 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
ABS EM ex China Direct	21,630,554	1.6	2.1	3.4	12.3	23.1	--	--	--	23.5	Mar-23
<i>MSCI EM ex China</i>			3.0	4.0	13.6	20.5	1.1	5.7	3.8	21.3	
Kopernik Global All-Cap	32,053,790	2.4	0.8	1.1	11.6	11.1	--	--	--	11.1	Apr-23
<i>MSCI AC World Index (Net)</i>			3.1	8.2	16.0	23.2	7.0	10.9	8.7	23.1	
First Eagle Global Equity	123,741,751	9.3	3.9	7.0	9.8	15.2	--	--	--	15.2	Apr-23
<i>MSCI AC World Index (Net)</i>			3.1	8.2	16.0	23.2	7.0	10.9	8.7	23.1	
Artisan Global Opportunities	99,307,949	7.5	3.5	10.9	18.7	26.1	--	--	--	26.1	Apr-23
<i>MSCI AC World Index (Net)</i>			3.1	8.2	16.0	23.2	7.0	10.9	8.7	23.1	
J. Stern & Co. World Stars Global Equity Fund	63,255,160	4.8	2.3	9.4	--	--	--	--	--	10.5	Feb-24
<i>MSCI AC World IMI Index (Net)</i>			3.2	7.7	15.6	22.5	6.3	10.6	8.4	7.5	
<b>Private Equity</b>	<b>2,875,941</b>	<b>0.2</b>									
NexPhase Capital Fund V, L.P.	21,844	0.0									
Vitruvian Investment Partnership V	224,106	0.0									
Lexington Capital Partners X, L.P.	2,569,991	0.2									
Flagship Pioneering Fund VIII, L.P.	60,000	0.0									
<b>Credit</b>	<b>64,127,679</b>	<b>4.8</b>	<b>1.0</b>	<b>2.3</b>	<b>8.6</b>	--	--	--	--	10.7	May-23
<i>Credit Custom Benchmark</i>			1.0	2.0	9.2	11.8	--	--	--	10.7	
<b>High Yield &amp; Bank Loans</b>	<b>64,127,679</b>	<b>4.8</b>	<b>1.0</b>	<b>2.3</b>	<b>8.6</b>	--	--	--	--	10.7	May-23
<i>High Yield &amp; Bank Loans Custom Benchmark</i>			1.0	2.0	9.2	11.8	4.0	4.8	4.5	10.7	
Sculptor Credit Opportunities Overseas Fund	25,882,139	2.0	0.2	1.5	4.4	--	--	--	--	6.9	May-23
<i>Blmbg. Global High Yield Index</i>			1.5	2.1	10.7	12.9	1.2	3.1	3.5	12.2	

Sculptor Credit Opportunities Overseas Fund market value is estimated based on preliminary manager performance.

## Performance Update | As of March 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Brigade High Income Fund	38,245,540	2.9	1.5	2.8	11.5	--	--	--	--	13.4	May-23
60% Barclays U.S. Corporate High Yield & 40% CS Lev Loans			1.0	1.9	9.2	11.7	3.7	4.7	4.5	10.6	
<b>Inflation Hedges</b>	<b>284,573,669</b>	<b>21.4</b>	<b>2.8</b>	<b>-0.1</b>	<b>0.3</b>	<b>-2.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-5.4</b>	<b>Dec-22</b>
Inflation Hedges Custom Benchmark			3.0	0.2	0.2	-2.4	--	--	--	-3.4	
<b>Real Estate</b>	<b>102,413,858</b>	<b>7.7</b>	<b>-1.3</b>	<b>-3.2</b>	<b>-8.6</b>	<b>-10.1</b>	<b>-0.9</b>	<b>-0.7</b>	<b>3.6</b>	<b>5.5</b>	<b>Apr-11</b>
NCREIF ODCE (Net)			-2.6	-2.6	-9.4	-12.0	2.5	2.6	5.8	7.2	
JP Morgan Asset Management Strategic Property Fund	43,189,907	3.3	-3.1	-5.7	-15.8	-17.3	-0.8	0.6	4.5	6.5	Apr-11
NCREIF ODCE (Net)			-2.6	-2.6	-9.4	-12.0	2.5	2.6	5.8	7.2	
UBS Trumbull Property Fund	22,777,023	1.7	-1.9	-1.9	-7.5	-10.8	-0.3	-1.7	2.8	3.9	Dec-11
NCREIF ODCE (Net)			-2.6	-2.6	-9.4	-12.0	2.5	2.6	5.8	7.0	
SSgA US REIT	36,446,928	2.7	1.9	-0.4	7.2	10.3	--	--	--	6.9	Mar-23
Dow Jones U.S. Select RESI			1.9	-0.4	7.4	10.6	3.7	3.0	5.9	7.0	
<b>Natural Resources &amp; Infrastructure</b>	<b>70,901,702</b>	<b>5.3</b>	<b>6.3</b>	<b>1.1</b>	<b>5.5</b>	<b>1.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>1.6</b>	<b>Apr-23</b>
S&P Global LargeMidcap Resources & Commodities Ind			8.2	1.1	4.9	0.9	8.7	8.6	4.3	0.9	
SSgA S&P Global LargeMidCap Natural Resources Index	55,409,494	4.2	8.3	1.3	5.0	1.2	--	--	--	1.2	Apr-23
S&P Global LargeMidcap Resources & Commodities Ind			8.2	1.1	4.9	0.9	8.7	8.6	4.3	0.9	
JP Morgan Infrastructure Investments Fund	15,492,208	1.2	0.0	0.0	--	--	--	--	--	3.3	Oct-23
DJ Brookfield Listed Public Infrastructure +1%			3.0	-0.2	3.5	2.6	4.5	4.8	5.8	12.2	

JP Morgan Infrastructure Investments Fund market value is stale as of 12/31/2023.

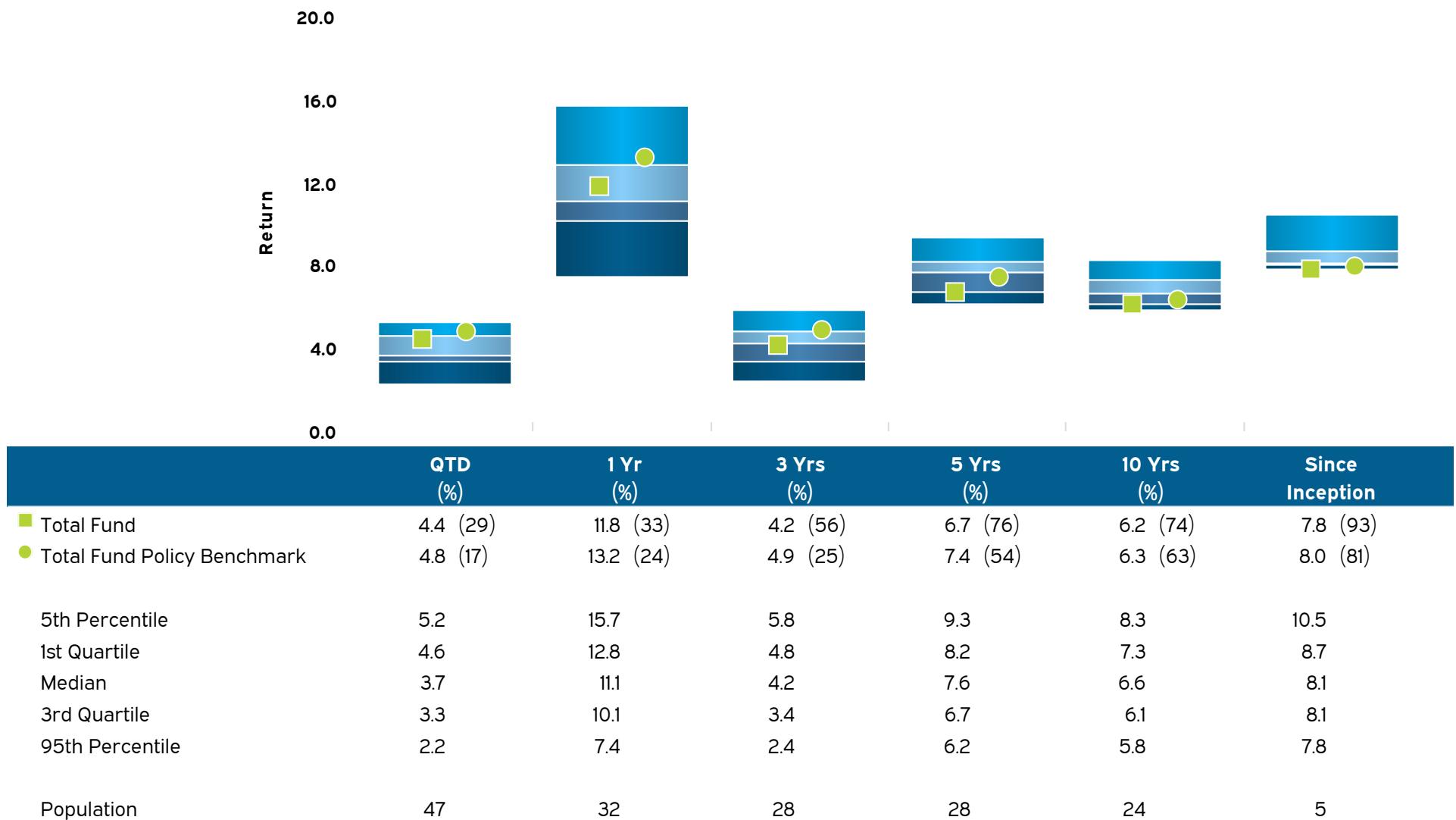
## Performance Update | As of March 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Gold</b>	<b>44,415,471</b>	<b>3.3</b>	<b>11.4</b>	<b>3.8</b>	<b>9.7</b>	<b>3.8</b>	--	--	--	<b>3.8</b>	<b>Apr-23</b>
60% Gold (Spot)/ 40% FTSE Gold Mines			13.4	4.2	11.2	6.7	4.5	--	--	6.7	
First Eagle Institutional Gold Fund, LP	44,415,471	3.3	11.4	3.8	9.7	3.8	--	--	--	3.8	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			13.4	4.2	11.2	6.7	4.5	--	--	6.7	
<b>Short-Term TIPS</b>	<b>66,842,638</b>	<b>5.0</b>	<b>0.6</b>	<b>0.8</b>	<b>3.8</b>	<b>3.1</b>	--	--	--	<b>3.7</b>	<b>Mar-23</b>
Blmbg. U.S. TIPS 0-5 Year			0.6	0.8	3.9	3.2	2.2	3.2	2.1	4.7	
Vanguard Short-Term TIPS Index	66,842,638	5.0	0.6	0.8	3.8	3.1	--	--	--	3.1	Apr-23
Blmbg. U.S. TIPS 0-5 Year			0.6	0.8	3.9	3.2	2.2	3.2	2.1	3.2	
<b>Risk Mitigation</b>	<b>245,170,171</b>	<b>18.5</b>	<b>1.1</b>	<b>-0.6</b>	<b>1.2</b>	<b>1.1</b>	--	--	--	<b>3.2</b>	<b>Dec-22</b>
Risk Mitigation Custom Benchmark			1.3	0.6	3.4	3.1	--	--	--	3.4	
<b>Investment Grade Fixed Income</b>	<b>179,293,263</b>	<b>13.5</b>	<b>1.0</b>	<b>-1.3</b>	<b>1.3</b>	<b>0.3</b>	<b>-2.6</b>	<b>0.3</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	5.0	
<b>Intermediate-Term Bonds</b>	<b>130,107,204</b>	<b>9.8</b>	<b>0.9</b>	<b>-0.5</b>	<b>3.0</b>	<b>2.4</b>	<b>-2.1</b>	<b>0.7</b>	<b>1.8</b>	<b>5.1</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	5.0	
SSgA US Aggregate Bond	36,777,888	2.8	0.9	-0.7	2.5	1.6	-2.5	0.4	1.5	2.6	Jan-09
Blmbg. U.S. Aggregate Index			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	2.6	
Wellington Core Bond	75,406,130	5.7	1.0	-0.1	3.6	--	--	--	--	2.5	May-23
Blmbg. U.S. Aggregate Index			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	1.1	
Brandywine U.S. Fixed Income	17,923,187	1.4	0.9	-1.7	1.0	--	--	--	--	0.2	Jun-23
Blmbg. U.S. Aggregate Index			0.9	-0.8	2.6	1.7	-2.5	0.4	1.5	2.2	

## Performance Update | As of March 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Long-Term Bonds</b>	<b>49,186,059</b>	<b>3.7</b>	<b>1.1</b>	<b>-3.2</b>	<b>-4.0</b>	<b>-6.3</b>	--	--	--	<b>-1.7</b>	<b>Mar-23</b>
Blmbg. U.S. Treasury: Long			1.2	-3.3	-3.9	-6.1	-8.0	-2.8	1.2	-1.5	
SSgA Long US Treasury Index	49,186,059	3.7	1.1	-3.2	-4.0	-6.3	--	--	--	-1.7	Mar-23
Blmbg. U.S. Treasury: Long			1.2	-3.3	-3.9	-6.1	-8.0	-2.8	1.2	-1.5	
<b>Hedge Funds</b>	<b>64,501,032</b>	<b>4.9</b>	<b>1.4</b>	<b>1.1</b>	<b>0.1</b>	<b>3.7</b>	--	--	--	<b>3.7</b>	<b>Apr-23</b>
Hedge Fund Custom Benchmark			2.5	5.4	5.9	7.7	--	--	--	7.7	
36 South Kohinoor Series (Cayman) Fund	21,294,476	1.6	1.0	0.2	-0.6	0.9	--	--	--	0.9	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			0.4	-1.9	-4.1	-6.7	-2.6	1.2	-1.3	-6.7	
BH-DG Systematic Trading Master Fund	18,144,965	1.4	2.5	2.5	-1.0	8.7	--	--	--	8.7	Apr-23
Barclay CTA Index			1.5	3.8	2.8	5.4	4.4	4.9	2.9	5.3	
Lombard Odier Bear Convexity	7,731,566	0.6	-0.8	1.6	-3.2	-3.4	--	--	--	-3.4	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			0.4	-1.9	-4.1	-6.7	-2.6	1.2	-1.3	-6.7	
Alpstone Global Macro Fund	17,330,025	1.3	1.7	0.5	3.6	--	--	--	--	3.8	May-23
HFRI Macro (Total) Index			3.2	6.2	6.7	8.5	6.1	6.4	3.7	7.6	
<b>Cash</b>	<b>1,375,876</b>	<b>0.1</b>									
Cash	1,375,876	0.1									

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



Parentheses contain percentile rankings.

Calculation based on monthly periodicity. The above represents a preliminary cut of the universe data.

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Total Fund</b>		<b>\$1,326,692,782</b>	<b>\$4,422,194</b>	<b>0.33</b>
<b>Growth Assets</b>		<b>\$732,821,263</b>	<b>\$2,081,286</b>	<b>0.28</b>
<b>Global Equity</b>		<b>\$729,945,322</b>	<b>\$2,075,391</b>	<b>0.28</b>
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$30,837,098	\$6,167	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$31,251,162	\$6,250	0.02
Fidelity Small Cap Index Fund	0.03 % of Assets	\$15,893,001	\$3,973	0.03
SSgA Russell 3000 Index	0.02 % of Assets	\$182,064,668	\$36,413	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$86,439,780	\$34,576	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$35,820,727	\$28,657	0.08
ABS China Direct	0.65 % of Assets	\$7,649,682	\$49,723	0.65
ABS EM ex China Direct	0.50 % of Assets	\$21,630,554	\$108,153	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$32,053,790	\$240,403	0.75
First Eagle Global Equity	0.55 % of Assets	\$123,741,751	\$680,580	0.55
Artisan Global Opportunities	0.60 % of Assets	\$99,307,949	\$595,848	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$63,255,160	\$284,648	0.45
<b>Private Equity</b>		<b>\$2,875,941</b>	<b>\$5,895</b>	<b>0.20</b>
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$21,844	\$437	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$224,106	\$4,258	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$2,569,991	-	-
Flagship Pioneering Fund VIII, L.P.	2.00 % of Assets	\$60,000	\$1,200	2.00
<b>Credit</b>		<b>\$64,127,679</b>	<b>\$457,698</b>	<b>0.71</b>
<b>High Yield &amp; Bank Loans</b>		<b>\$64,127,679</b>	<b>\$457,698</b>	<b>0.71</b>
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$25,882,139	\$258,821	1.00
Brigade High Income Fund	0.52 % of Assets	\$38,245,540	\$198,877	0.52

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Inflation Hedges</b>		<b>\$284,573,669</b>	<b>\$1,044,999</b>	<b>0.37</b>
<b>Real Estate</b>		<b>\$102,413,858</b>	<b>\$615,807</b>	<b>0.60</b>
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$43,189,907	\$393,028	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	\$22,777,023	\$200,910	0.88
SSgA US REIT	0.06 % of Assets	\$36,446,928	\$21,868	0.06
<b>Natural Resources &amp; Infrastructure</b>		<b>\$70,901,702</b>	<b>\$202,585</b>	<b>0.29</b>
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$55,409,494	\$55,409	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$15,492,208	\$147,176	0.95
<b>Gold</b>		<b>\$44,415,471</b>	<b>\$199,870</b>	<b>0.45</b>
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$44,415,471	\$199,870	0.45
<b>Short-Term TIPS</b>		<b>\$66,842,638</b>	<b>\$26,737</b>	<b>0.04</b>
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$66,842,638	\$26,737	0.04
<b>Risk Mitigation</b>		<b>\$245,170,171</b>	<b>\$838,211</b>	<b>0.34</b>
<b>Investment Grade Fixed Income</b>		<b>\$179,293,263</b>	<b>\$164,576</b>	<b>0.09</b>
<b>Intermediate-Term Bonds</b>		<b>\$130,107,204</b>	<b>\$149,820</b>	<b>0.12</b>
SSgA US Aggregate Bond	0.02 % of Assets	\$36,777,888	\$7,356	0.02
Wellington Core Bond	0.12 % of Assets	\$75,406,130	\$90,487	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$17,923,187	\$51,977	0.29

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Long-Term Bonds</b>		<b>\$49,186,059</b>	<b>\$14,756</b>	<b>0.03</b>
SSgA Long US Treasury Index	0.03 % of Assets	\$49,186,059	\$14,756	0.03
<b>Hedge Funds</b>		<b>\$64,501,032</b>	<b>\$673,635</b>	<b>1.04</b>
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$21,294,476	\$212,945	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$18,144,965	\$168,748	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$7,731,566	\$57,987	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$17,330,025	\$233,955	1.35
<b>Cash</b>		<b>\$1,375,876</b>	-	-
Cash		\$1,375,876	-	-

		<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.

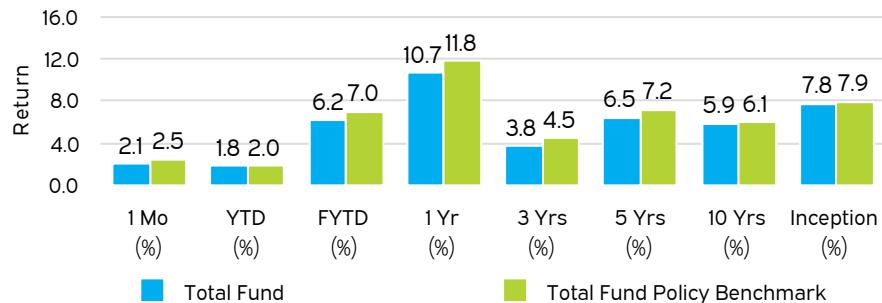
		Benchmark History	Benchmark
From Date	To Date		
<b>Growth Assets</b>			
12/01/2022	Present	91.0% MSCI AC World IMI Index (Net), 9.0% MSCI ACWI + 3% 1Q Lag	
<b>Global Equity</b>			
05/01/2016	Present	100.0% MSCI AC World IMI Index (Net)	
09/01/2009	05/01/2016	60.0% Russell 3000 Index, 40.0% MSCI AC World 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>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	

**February 29, 2024**

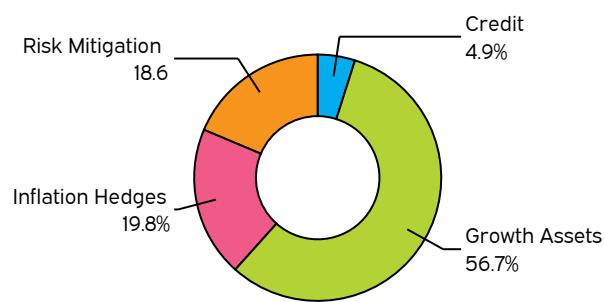
#### Portfolio Objective

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

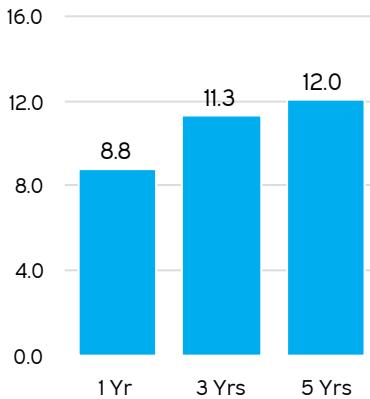


	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	2.1	1.8	6.2	10.7	3.8	6.5	5.9	7.8	10/01/1990
Total Fund Policy Benchmark	2.5	2.0	7.0	11.8	4.5	7.2	6.1	7.9	

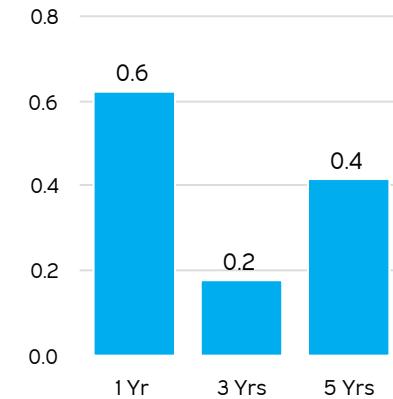
#### Summary of Cash Flows

	Last Month	Year-To-Date	One Year
<b>Total Fund</b>			
Beginning Market Value	1,282,191,614	1,295,810,106	1,228,659,634
Net Cash Flow	-7,233,485	-16,449,939	-56,273,258
Net Investment Change	26,970,698	22,568,659	129,542,450
Ending Market Value	1,301,928,826	1,301,928,826	1,301,928,826

#### Annualized Standard Deviation



#### Sharpe Ratio

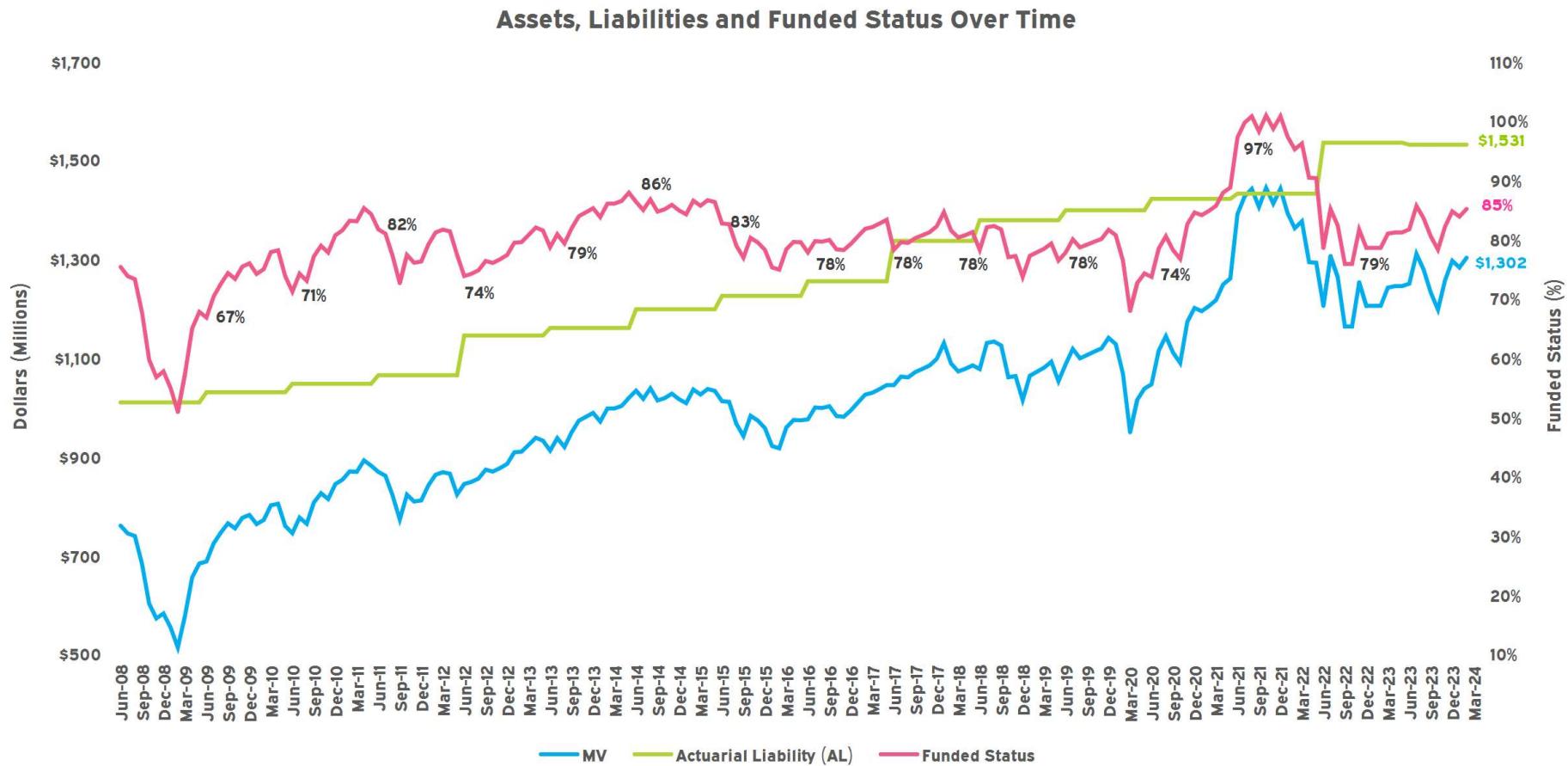


### Performance Update | As of February 29, 2024

Actual vs. Target Allocation		Allocation vs. Targets and Policy				
		Current Balance	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Growth Assets	Growth Assets	\$738,623,820	56.7	57.0	47.0 - 67.0	Yes
	Global Equity	\$735,668,010	56.5	52.0	42.0 - 62.0	Yes
	Private Equity	\$2,955,809	0.2	5.0	0.0 - 10.0	Yes
Credit	Credit	\$63,518,662	4.9	4.0	0.0 - 9.0	Yes
	High Yield & Bank Loans	\$63,518,662	4.9	4.0	0.0 - 9.0	Yes
	Inflation Hedges	\$257,226,852	19.8	21.0	14.0 - 28.0	Yes
Inflation Hedges	Real Estate	\$93,692,994	7.2	8.0	3.0 - 13.0	Yes
	Natural Resources & Infrastructure	\$61,828,186	4.7	5.0	0.0 - 10.0	Yes
	Gold	\$35,234,483	2.7	3.0	0.0 - 6.0	Yes
Risk Mitigation	Short-Term TIPS	\$66,471,189	5.1	5.0	0.0 - 10.0	Yes
	Risk Mitigation	\$242,559,493	18.6	18.0	11.0 - 25.0	Yes
	Investment Grade Fixed Income	\$177,562,832	13.6	14.0	7.0 - 21.0	Yes
Risk Mitigation	Hedge Funds	\$63,611,540	4.9	4.0	0.0 - 9.0	Yes
	Cash	\$1,385,121	0.1	0.0	0.0 - 3.0	Yes
	Total	\$1,301,928,826	100.0	100.0		

0.0% 50.0% 100.0%

Target Allocation  
 Actual Allocation



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 84% in January 2024 and 85% in February 2024.

Asset Class Performance Summary												
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,301,928,826</b>	<b>100.0</b>	<b>2.1</b>	<b>1.8</b>	<b>6.2</b>	<b>10.7</b>	<b>3.8</b>	<b>6.5</b>	<b>5.9</b>	<b>7.8</b>	<b>Oct-90</b>	
Total Fund Policy Benchmark			2.5	2.0	7.0	11.8	4.5	7.2	6.1	7.9		
Total Fund Actual Allocation Benchmark			2.2	1.9	6.9	11.7	--	--	--	--		
Total Fund Public Benchmark			2.7	2.8	9.4	16.7	3.4	7.2	6.2	8.0		
<b>Growth Assets</b>	<b>738,623,820</b>	<b>56.7</b>	<b>4.3</b>	<b>4.8</b>	<b>11.8</b>	<b>21.1</b>	--	--	--	<b>16.6</b>	<b>Dec-22</b>	
Growth Assets Custom Benchmark			4.7	4.6	12.2	21.3	--	--	--	17.4		
<b>Global Equity</b>	<b>735,668,010</b>	<b>56.5</b>	<b>4.3</b>	<b>4.8</b>	<b>11.8</b>	<b>21.1</b>	<b>6.1</b>	<b>10.3</b>	<b>8.6</b>	<b>9.1</b>	<b>Oct-90</b>	
Global Equity Policy Benchmark			4.2	4.4	12.1	21.6	6.1	10.1	8.4	9.4		
<b>Private Equity</b>	<b>2,955,809</b>	<b>0.2</b>										
<b>Credit</b>	<b>63,518,662</b>	<b>4.9</b>	<b>0.7</b>	<b>1.3</b>	<b>7.5</b>	--	--	--	--	<b>9.6</b>	<b>May-23</b>	
Credit Custom Benchmark			0.6	1.0	8.1	11.2	--	--	--	9.6		
<b>High Yield &amp; Bank Loans</b>	<b>63,518,662</b>	<b>4.9</b>	<b>0.7</b>	<b>1.3</b>	<b>7.5</b>	--	--	--	--	<b>9.6</b>	<b>May-23</b>	
High Yield & Bank Loans Custom Benchmark			0.6	1.0	8.1	11.2	3.7	4.7	4.5	9.6		
<b>Inflation Hedges</b>	<b>257,226,852</b>	<b>19.8</b>	<b>-0.6</b>	<b>-2.8</b>	<b>-2.4</b>	<b>-7.1</b>	--	--	--	<b>-7.8</b>	<b>Dec-22</b>	
Inflation Hedges Custom Benchmark			-0.6	-2.7	-2.7	-4.5	--	--	--	-5.9		
<b>Real Estate</b>	<b>93,692,994</b>	<b>7.2</b>	<b>-0.7</b>	<b>-1.9</b>	<b>-7.4</b>	<b>-12.0</b>	<b>-0.2</b>	<b>-0.4</b>	<b>3.9</b>	<b>5.6</b>	<b>Apr-11</b>	
NCREIF ODCE (Net)			0.0	0.0	-7.0	-12.7	4.0	3.3	6.3	7.5		
<b>Natural Resources &amp; Infrastructure</b>	<b>61,828,186</b>	<b>4.7</b>	<b>-0.1</b>	<b>-4.9</b>	<b>-0.8</b>	--	--	--	--	<b>-4.4</b>	<b>Apr-23</b>	
S&P Global LargeMidcap Resources & Commodities NR USD			-0.2	-6.5	-3.0	-7.2	6.3	7.1	3.6	-6.7		
<b>Gold</b>	<b>35,234,483</b>	<b>2.7</b>	<b>-2.2</b>	<b>-6.8</b>	<b>-1.5</b>	--	--	--	--	<b>-6.8</b>	<b>Apr-23</b>	
60% Gold (Spot)/ 40% FTSE Gold Mines			-2.9	-8.1	-1.9	5.4	0.5	--	--	-5.9		
<b>Short-Term TIPS</b>	<b>66,471,189</b>	<b>5.1</b>	<b>-0.2</b>	<b>0.3</b>	<b>3.2</b>	<b>3.5</b>	--	--	--	<b>3.5</b>	<b>Mar-23</b>	
Blmbg. U.S. TIPS 0-5 Year			-0.2	0.2	3.3	4.5	2.2	3.2	1.9	4.5		

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 February 29, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>242,559,493</b>	<b>18.6</b>	<b>-0.9</b>	<b>-1.6</b>	<b>0.1</b>	<b>2.8</b>	--	--	--	<b>2.5</b>	<b>Dec-22</b>
<i>Risk Mitigation Custom Benchmark</i>			-0.6	-0.7	2.1	3.2	--	--	--	2.6	
<b>Investment Grade Fixed Income</b>	<b>177,562,832</b>	<b>13.6</b>	<b>-1.6</b>	<b>-2.2</b>	<b>0.3</b>	<b>2.5</b>	<b>-3.2</b>	<b>0.5</b>	<b>1.5</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	5.0	
<b>Intermediate-Term Bonds</b>	<b>128,903,964</b>	<b>9.9</b>	<b>-1.3</b>	<b>-1.4</b>	<b>2.0</b>	<b>4.2</b>	<b>-2.7</b>	<b>0.8</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
<i>Blmbg. U.S. Aggregate Index</i>			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	5.0	
<b>Long-Term Bonds</b>	<b>48,658,868</b>	<b>3.7</b>	<b>-2.3</b>	<b>-4.2</b>	<b>-5.1</b>	<b>-2.9</b>	--	--	--	<b>-2.9</b>	<b>Mar-23</b>
<i>Blmbg. U.S. Treasury: Long</i>			-2.3	-4.4	-5.0	-2.8	-10.0	-2.0	1.2	-2.8	
<b>Hedge Funds</b>	<b>63,611,540</b>	<b>4.9</b>	<b>0.9</b>	<b>-0.3</b>	<b>-1.3</b>	--	--	--	--	<b>2.3</b>	<b>Apr-23</b>
<i>Hedge Fund Custom Benchmark</i>			2.2	2.8	3.3	2.2	--	--	--	5.0	
<b>Cash</b>	<b>1,385,121</b>	<b>0.1</b>									

## Performance Update | As of February 29, 2024

	Trailing Net Performance											
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,301,928,826</b>	<b>100.0</b>	<b>2.1</b>	<b>1.8</b>	<b>6.2</b>	<b>10.7</b>	<b>3.8</b>	<b>6.5</b>	<b>5.9</b>	<b>7.8</b>	<b>Oct-90</b>	
Total Fund Policy Benchmark			2.5	2.0	7.0	11.8	4.5	7.2	6.1	7.9		
Total Fund Actual Allocation Benchmark			2.2	1.9	6.9	11.7	--	--	--	--		
Total Fund Public Benchmark			2.7	2.8	9.4	16.7	3.4	7.2	6.2	8.0		
<b>Growth Assets</b>	<b>738,623,820</b>	<b>56.7</b>	<b>4.3</b>	<b>4.8</b>	<b>11.8</b>	<b>21.1</b>	--	--	--	<b>16.6</b>	<b>Dec-22</b>	
Growth Assets Custom Benchmark			4.7	4.6	12.2	21.3	--	--	--	17.4		
<b>Global Equity</b>	<b>735,668,010</b>	<b>56.5</b>	<b>4.3</b>	<b>4.8</b>	<b>11.8</b>	<b>21.1</b>	<b>6.1</b>	<b>10.3</b>	<b>8.6</b>	<b>9.1</b>	<b>Oct-90</b>	
Global Equity Policy Benchmark			4.2	4.4	12.1	21.6	6.1	10.1	8.4	9.4		
SSgA Russell 1000 Growth Index	35,255,843	2.7	6.8	9.5	21.1	45.9	--	--	--	45.9	Mar-23	
Russell 1000 Growth Index			6.8	9.5	21.1	45.9	12.5	18.8	15.7	45.8		
SSgA Russell 1000 Value Index	29,764,600	2.3	3.7	3.8	10.1	14.0	--	--	--	14.0	Mar-23	
Russell 1000 Value Index			3.7	3.8	10.1	14.0	8.4	9.4	8.7	14.0		
Fidelity Small Cap Index Fund	15,343,926	1.2	5.7	2.3	--	--	--	--	--	5.7	Feb-24	
Russell 2000 Index			5.7	1.5	9.9	10.0	-0.9	6.9	7.1	5.7		
SSgA Russell 3000 Index	194,574,765	14.9	5.4	6.6	15.6	28.6	--	--	--	28.6	Mar-23	
Russell 3000 Index			5.4	6.6	15.6	28.6	9.9	13.9	12.0	28.5		
SSgA MSCI EAFE	83,617,520	6.4	1.8	2.4	8.4	14.7	--	--	--	14.7	Mar-23	
MSCI EAFE (Net)			1.8	2.4	8.4	14.4	4.4	6.8	4.4	14.4		
SSgA Emerging Markets Index	34,957,768	2.7	4.8	-0.2	4.0	8.5	--	--	--	8.5	Mar-23	
MSCI Emerging Markets (Net)			4.8	-0.1	4.6	8.7	-6.3	1.9	3.0	8.7		
ABS China Direct	7,522,096	0.6	5.9	-4.9	-12.7	-19.4	--	--	--	-19.4	Mar-23	
MSCI China (Net)			8.4	-3.1	-9.0	-14.1	-20.9	-6.1	1.0	-14.1		

**Performance Update | As of February 29, 2024**

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
ABS EM ex China Direct	21,192,465	1.6	3.4	1.4	10.0	23.1	--	--	--	23.1	Mar-23
<i>MSCI EM ex China</i>			3.6	1.0	10.3	19.7	0.6	5.1	4.0	19.7	
Kopernik Global All-Cap	31,792,482	2.4	2.8	0.3	10.7	--	--	--	--	10.2	Apr-23
<i>MSCI AC World Index (Net)</i>			4.3	4.9	12.5	23.1	6.8	10.5	8.4	19.5	
First Eagle Global Equity	119,050,539	9.1	1.9	3.0	5.7	--	--	--	--	10.9	Apr-23
<i>MSCI AC World Index (Net)</i>			4.3	4.9	12.5	23.1	6.8	10.5	8.4	19.5	
Artisan Global Opportunities	100,740,951	7.7	4.5	7.1	14.7	--	--	--	--	21.8	Apr-23
<i>MSCI AC World Index (Net)</i>			4.3	4.9	12.5	23.1	6.8	10.5	8.4	19.5	
J. Stern & Co. World Stars Global Equity Fund	61,855,056	4.8	8.0	7.0	--	--	--	--	--	8.0	Feb-24
<i>MSCI AC World IMI Index (Net)</i>			4.2	4.4	12.1	21.6	6.1	10.1	8.1	4.2	
<b>Private Equity</b>	<b>2,955,809</b>	<b>0.2</b>									
NexPhase Capital Fund V, L.P.	115,030	0.0									
Vitruvian Investment Partnership V	224,874	0.0									
Lexington Capital Partners X, L.P.	2,615,905	0.2									
<b>Credit</b>	<b>63,518,662</b>	<b>4.9</b>	<b>0.7</b>	<b>1.3</b>	<b>7.5</b>	--	--	--	--	<b>9.6</b>	<b>May-23</b>
<i>Credit Custom Benchmark</i>			0.6	1.0	8.1	11.2	--	--	--	9.6	
<b>High Yield &amp; Bank Loans</b>	<b>63,518,662</b>	<b>4.9</b>	<b>0.7</b>	<b>1.3</b>	<b>7.5</b>	--	--	--	--	<b>9.6</b>	<b>May-23</b>
<i>High Yield &amp; Bank Loans Custom Benchmark</i>			0.6	1.0	8.1	11.2	3.7	4.7	4.5	9.6	
Sculptor Credit Opportunities Overseas Fund	25,825,323	2.0	0.6	1.3	4.2	--	--	--	--	6.6	May-23
<i>Blmbg. Global High Yield Index</i>			0.8	0.6	9.0	12.3	0.4	2.9	3.4	10.5	
Brigade High Income Fund	37,693,338	2.9	0.7	1.3	9.9	--	--	--	--	11.8	May-23
<i>60% Barclays U.S. Corporate High Yield &amp; 40% CS Lev Loans</i>			0.5	0.8	8.0	11.2	3.4	4.6	4.4	9.5	

## Performance Update | As of February 29, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Inflation Hedges</b>	<b>257,226,852</b>	<b>19.8</b>	<b>-0.6</b>	<b>-2.8</b>	<b>-2.4</b>	<b>-7.1</b>	--	--	--	<b>-7.8</b>	<b>Dec-22</b>
<i>Inflation Hedges Custom Benchmark</i>			-0.6	-2.7	-2.7	-4.5	--	--	--	-5.9	
<b>Real Estate</b>	<b>93,692,994</b>	<b>7.2</b>	<b>-0.7</b>	<b>-1.9</b>	<b>-7.4</b>	<b>-12.0</b>	<b>-0.2</b>	<b>-0.4</b>	<b>3.9</b>	<b>5.6</b>	<b>Apr-11</b>
<i>NCREIF ODCE (Net)</i>			0.0	0.0	-7.0	-12.7	4.0	3.3	6.3	7.5	
JP Morgan Asset Management Strategic Property Fund	44,535,356	3.4	-2.5	-2.7	-13.1	-15.9	0.5	1.2	4.9	6.8	Apr-11
<i>NCREIF ODCE (Net)</i>			0.0	0.0	-7.0	-12.7	4.0	3.3	6.3	7.5	
UBS Trumbull Property Fund	23,211,397	1.8	0.0	0.0	-5.8	-15.7	0.7	-1.2	3.2	4.1	Dec-11
<i>NCREIF ODCE (Net)</i>			0.0	0.0	-7.0	-12.7	4.0	3.3	6.3	7.2	
SSgA US REIT	25,946,240	2.0	1.9	-2.3	5.2	5.5	--	--	--	5.5	Mar-23
<i>Dow Jones U.S. Select RESI</i>			1.8	-2.2	5.4	5.7	4.6	3.2	5.8	5.6	
<b>Natural Resources &amp; Infrastructure</b>	<b>61,828,186</b>	<b>4.7</b>	<b>-0.1</b>	<b>-4.9</b>	<b>-0.8</b>	--	--	--	--	<b>-4.4</b>	<b>Apr-23</b>
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>			-0.2	-6.5	-3.0	-7.2	6.3	7.1	3.6	-6.7	
SSgA S&P Global LargeMidCap Natural Resources Index	46,335,977	3.6	-0.1	-6.4	-3.0	--	--	--	--	-6.6	Apr-23
<i>S&amp;P Global LargeMidcap Resources &amp; Commodities Ind</i>			-0.2	-6.5	-3.0	-7.2	6.3	7.1	3.6	-6.7	
JP Morgan Infrastructure Investments Fund	15,492,208	1.2	0.0	0.0	--	--	--	--	--	3.3	Oct-23
<i>DJ Brookfield Listed Public Infrastructure +1%</i>			-0.1	-3.1	0.5	2.0	5.9	4.9	5.6	9.0	

## Performance Update | As of February 29, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Gold</b>	<b>35,234,483</b>	<b>2.7</b>	<b>-2.2</b>	<b>-6.8</b>	<b>-1.5</b>	--	--	--	--	<b>-6.8</b>	<b>Apr-23</b>
60% Gold (Spot)/ 40% FTSE Gold Mines			-2.9	-8.1	-1.9	5.4	0.5	--	--	-5.9	
First Eagle Institutional Gold Fund, LP	35,234,483	2.7	-2.2	-6.8	-1.5	--	--	--	--	-6.8	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			-2.9	-8.1	-1.9	5.4	0.5	--	--	-5.9	
<b>Short-Term TIPS</b>	<b>66,471,189</b>	<b>5.1</b>	<b>-0.2</b>	<b>0.3</b>	<b>3.2</b>	<b>3.5</b>	--	--	--	<b>3.5</b>	<b>Mar-23</b>
Blmbg. U.S. TIPS 0-5 Year			-0.2	0.2	3.3	4.5	2.2	3.2	1.9	4.5	
Vanguard Short-Term TIPS Index	66,471,189	5.1	-0.2	0.3	3.2	--	--	--	--	2.5	Apr-23
Blmbg. U.S. TIPS 0-5 Year			-0.2	0.2	3.3	4.5	2.2	3.2	1.9	2.5	
<b>Risk Mitigation</b>	<b>242,559,493</b>	<b>18.6</b>	<b>-0.9</b>	<b>-1.6</b>	<b>0.1</b>	<b>2.8</b>	--	--	--	<b>2.5</b>	<b>Dec-22</b>
Risk Mitigation Custom Benchmark			-0.6	-0.7	2.1	3.2	--	--	--	2.6	
<b>Investment Grade Fixed Income</b>	<b>177,562,832</b>	<b>13.6</b>	<b>-1.6</b>	<b>-2.2</b>	<b>0.3</b>	<b>2.5</b>	<b>-3.2</b>	<b>0.5</b>	<b>1.5</b>	<b>5.1</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	5.0	
<b>Intermediate-Term Bonds</b>	<b>128,903,964</b>	<b>9.9</b>	<b>-1.3</b>	<b>-1.4</b>	<b>2.0</b>	<b>4.2</b>	<b>-2.7</b>	<b>0.8</b>	<b>1.7</b>	<b>5.1</b>	<b>Oct-90</b>
Blmbg. U.S. Aggregate Index			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	5.0	
SSgA US Aggregate Bond	36,462,886	2.8	-1.4	-1.6	1.6	3.3	-3.2	0.6	1.4	2.5	Jan-09
Blmbg. U.S. Aggregate Index			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	2.5	
Wellington Core Bond	74,673,954	5.7	-1.1	-1.1	2.7	--	--	--	--	1.5	May-23
Blmbg. U.S. Aggregate Index			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	0.2	
Brandywine U.S. Fixed Income	17,767,125	1.4	-2.2	-2.5	0.1	--	--	--	--	-0.6	Jun-23
Blmbg. U.S. Aggregate Index			-1.4	-1.7	1.6	3.3	-3.2	0.6	1.4	1.3	

## Performance Update | As of February 29, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Long-Term Bonds</b>	<b>48,658,868</b>	<b>3.7</b>	<b>-2.3</b>	<b>-4.2</b>	<b>-5.1</b>	<b>-2.9</b>	--	--	--	<b>-2.9</b>	<b>Mar-23</b>
Blmbg. U.S. Treasury: Long			-2.3	-4.4	-5.0	-2.8	-10.0	-2.0	1.2	-2.8	
SSgA Long US Treasury Index	48,658,868	3.7	-2.3	-4.2	-5.1	-2.9	--	--	--	-2.9	Mar-23
Blmbg. U.S. Treasury: Long			-2.3	-4.4	-5.0	-2.8	-10.0	-2.0	1.2	-2.8	
<b>Hedge Funds</b>	<b>63,611,540</b>	<b>4.9</b>	<b>0.9</b>	<b>-0.3</b>	<b>-1.3</b>	--	--	--	--	<b>2.3</b>	<b>Apr-23</b>
Hedge Fund Custom Benchmark			2.2	2.8	3.3	2.2	--	--	--	5.0	
36 South Kohinoor Series (Cayman) Fund	21,085,098	1.6	<b>-1.4</b>	<b>-0.8</b>	<b>-1.6</b>	--	--	--	--	<b>-0.1</b>	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			-2.2	-2.3	-4.5	-6.3	-3.5	1.1	-1.4	-7.1	
BH-DG Systematic Trading Master Fund	17,693,795	1.4	<b>4.2</b>	<b>0.0</b>	<b>-3.4</b>	--	--	--	--	<b>6.0</b>	Apr-23
Barclay CTA Index			2.0	2.3	1.3	1.8	4.0	5.0	2.6	3.8	
Lombard Odier Bear Convexity	7,790,446	0.6	<b>1.7</b>	<b>2.4</b>	<b>-2.4</b>	--	--	--	--	<b>-2.6</b>	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			-2.2	-2.3	-4.5	-6.3	-3.5	1.1	-1.4	-7.1	
Alpstone Global Macro Fund	17,042,200	1.3	<b>0.2</b>	<b>-1.1</b>	<b>1.9</b>	--	--	--	--	<b>2.0</b>	May-23
HFRI Macro (Total) Index			2.4	3.0	3.5	2.3	5.3	6.0	3.3	4.3	
<b>Cash</b>	<b>1,385,121</b>	<b>0.1</b>									
Cash	1,385,121	0.1									

**Annual Investment Expense Analysis**  
**As of February 29, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Total Fund</b>		<b>\$1,301,928,826</b>	<b>\$4,339,785</b>	<b>0.33</b>
<b>Growth Assets</b>		<b>\$738,623,820</b>	<b>\$2,054,612</b>	<b>0.28</b>
<b>Global Equity</b>		<b>\$735,668,010</b>	<b>\$2,048,039</b>	<b>0.28</b>
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$35,255,843	\$7,051	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$29,764,600	\$5,953	0.02
Fidelity Small Cap Index Fund	0.03 % of Assets	\$15,343,926	\$3,836	0.03
SSgA Russell 3000 Index	0.02 % of Assets	\$194,574,765	\$38,915	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$83,617,520	\$33,447	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$34,957,768	\$27,966	0.08
ABS China Direct	0.65 % of Assets	\$7,522,096	\$48,894	0.65
ABS EM ex China Direct	0.50 % of Assets	\$21,192,465	\$105,962	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$31,792,482	\$238,444	0.75
First Eagle Global Equity	0.55 % of Assets	\$119,050,539	\$654,778	0.55
Artisan Global Opportunities	0.60 % of Assets	\$100,740,951	\$604,446	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$61,855,056	\$278,348	0.45
<b>Private Equity</b>		<b>\$2,955,809</b>	<b>\$6,573</b>	<b>0.22</b>
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$115,030	\$2,301	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$224,874	\$4,273	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$2,615,905	-	-
<b>Credit</b>		<b>\$63,518,662</b>	<b>\$454,259</b>	<b>0.72</b>
<b>High Yield &amp; Bank Loans</b>		<b>\$63,518,662</b>	<b>\$454,259</b>	<b>0.72</b>
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$25,825,323	\$258,253	1.00
Brigade High Income Fund	0.52 % of Assets	\$37,693,338	\$196,005	0.52

**Performance Update | As of February 29, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Inflation Hedges</b>		<b>\$257,226,852</b>	<b>\$1,003,989</b>	<b>0.39</b>
<b>Real Estate</b>		<b>\$93,692,994</b>	<b>\$625,334</b>	<b>0.67</b>
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$44,535,356	\$405,272	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	\$23,211,397	\$204,494	0.88
SSgA US REIT	0.06 % of Assets	\$25,946,240	\$15,568	0.06
<b>Natural Resources &amp; Infrastructure</b>		<b>\$61,828,186</b>	<b>\$193,512</b>	<b>0.31</b>
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$46,335,977	\$46,336	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$15,492,208	\$147,176	0.95
<b>Gold</b>		<b>\$35,234,483</b>	<b>\$158,555</b>	<b>0.45</b>
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$35,234,483	\$158,555	0.45
<b>Short-Term TIPS</b>		<b>\$66,471,189</b>	<b>\$26,588</b>	<b>0.04</b>
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$66,471,189	\$26,588	0.04
<b>Risk Mitigation</b>		<b>\$242,559,493</b>	<b>\$826,925</b>	<b>0.34</b>
<b>Investment Grade Fixed Income</b>		<b>\$177,562,832</b>	<b>\$163,024</b>	<b>0.09</b>
<b>Intermediate-Term Bonds</b>		<b>\$128,903,964</b>	<b>\$148,426</b>	<b>0.12</b>
SSgA US Aggregate Bond	0.02 % of Assets	\$36,462,886	\$7,293	0.02
Wellington Core Bond	0.12 % of Assets	\$74,673,954	\$89,609	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$17,767,125	\$51,525	0.29

**Performance Update | As of February 29, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Long-Term Bonds</b>		<b>\$48,658,868</b>	<b>\$14,598</b>	<b>0.03</b>
SSgA Long US Treasury Index	0.03 % of Assets	\$48,658,868	\$14,598	0.03
<b>Hedge Funds</b>		<b>\$63,611,540</b>	<b>\$663,901</b>	<b>1.04</b>
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$21,085,098	\$210,851	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$17,693,795	\$164,552	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$7,790,446	\$58,428	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$17,042,200	\$230,070	1.35
<b>Cash</b>		<b>\$1,385,121</b>	-	-
Cash		\$1,385,121	-	-

**Performance Update | As of February 29, 2024**

Fund	July '23 - Dec '23	Monthly Management Fees Paid (\$)						FYTD	CYTD
		January	Feb	March	April	May	June		
SSgA MSCI ACWI IMI Index Fund	23,928	9,786	-					33,714	9,786
SSgA Russell 1000 Growth Index	2,700	-	-					2,700	-
SSgA Russell 1000 Value Index	1,396	-	-					1,396	-
SSgA Russell 3000 Index	17,228	-	-					17,228	-
SSgA MSCI EAFE	19,975	-	-					19,975	-
SSgA Emerging Markets Index	15,400	-	-					15,400	-
Fidelity Small Cap Index Fund	-	303	320					622	622
ABS China Direct	13,218	4,287	3,847					21,352	8,134
ABS EM ex China Direct	33,128	8,712	8,542					50,383	17,254
Kopernik Global All-Cap*	137,520	23,649	22,734					183,903	46,383
First Eagle Global Equity	277,410	50,374	54,587					382,371	104,961
Artisan Global Opportunities*	286,823	50,384	50,370					387,577	100,754
J. Stern & Co. World Stars Global Equity	-	1,212	23,204					24,416	24,416
NexPhase Capital Fund V	115,030	-	-					115,030	-
Vitruvian Investment Partnership V	-	-	-					-	-
Lexington Capital Partners X	-	-	-					-	-
Sculptor Credit Opportunities Overseas Fund	128,891	21,738	20,336					170,964	42,074
Brigade High Income Fund*	99,502	16,222	16,334					132,058	32,556
JP Morgan Strategic Property Fund	236,482	113,900	-					350,382	113,900
UBS Turnbull Property Fund	106,806	49,971	-					156,777	49,971
SSgA US REIT	4,590	-	-					4,590	-
SSgA S&P Global LargeMidCap NR Index	18,238	-	-					18,238	-
JP Morgan Infrastructure Investments Fund	33,085	-	-					33,085	-
First Eagle Institutional Gold Fund, LP	80,076	13,806	12,574					106,456	26,380
Vanguard Short-Term TIPS Index*	14,652	2,220	2,216					19,088	4,436
PIMCO Total Return	2,987	-	-					2,987	-
SSgA US Aggregate Bond	8,137	-	-					8,137	-
Wellington Core Bond*	54,548	8,808	8,712					72,068	17,520
Brandywine U.S. Fixed Income	22,424	-	8,258					30,683	8,258
SSgA Long US Treasury Index	7,762	-	-					7,762	-
36 South Kohinoor Series (Cayman) Fund	108,766	17,859	17,586					144,210	35,444
BH-DG Systematic Trading Master Fund	82,191	13,421	12,810					108,421	26,230
Lombard Odier Bear Convexity	29,455	4,791	4,872					39,118	9,664
Alpstone Global Macro	115,295	19,160	19,194					153,649	38,354
<b>Total</b>	<b>2,097,643</b>	<b>430,602</b>	<b>286,495</b>					<b>2,814,740</b>	<b>717,098</b>
<b>Custodial Fee</b>	<b>19,516</b>	<b>2,564</b>	<b>6,597</b>					<b>28,677</b>	<b>9,160</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>Inflation Hedges</b>			
12/01/2022	Present	38.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 24.0% Blmbg. U.S. TIPS 1-5 Year Index, 24.0% S&P Global LargeMidcap Resources & Commodities Ind, 14.0% 60% Gold (Spot)/ 40% FTSE Gold Mines	
<b>Risk Mitigation</b>			
01/01/2024	Present	78.0% Blmbg. U.S. Aggregate Index, 22.0% Hedge Fund Custom Benchmark	
12/01/2022	01/01/2024	78.0% Blmbg. U.S. Aggregate Index, 22.0% HFRI Macro (Total) Index	
<b>Hedge Funds</b>			
01/01/2024	Present	33.3% HFRI Macro (Total) Index, 33.3% SG Trend Index, 33.3% CBOE Eurekahedge Long Volatility Hedge Fund Index	
03/01/2023	01/01/2024	100.0% HFRI Macro (Total) Index	

## Appendix

## Corporate Update



**7**

Offices



**235+**

Employees



**245+**

Clients



**\$1.8T**

Assets Under Advisement



**\$200B**

Assets in Alternative Investments



**98%**

Client Retention Rate

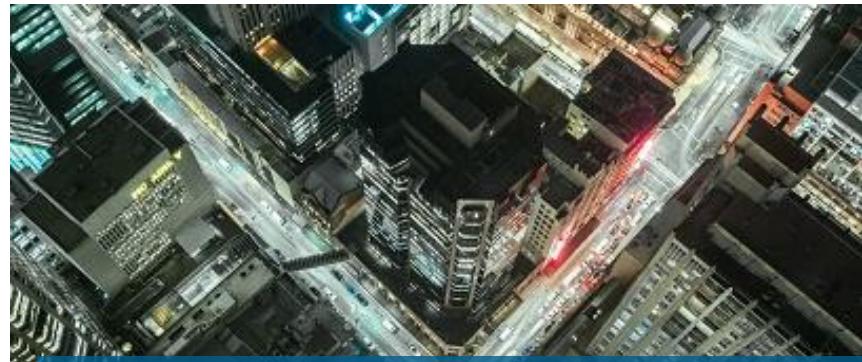


**5:1**

Client | Consultant Ratio

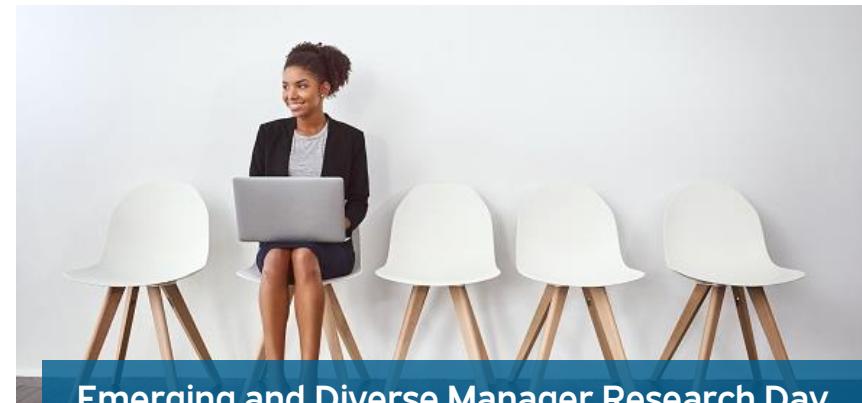
Meketa  
Investment Group  
is proud to work  
for over 15 million  
American families  
everyday!

### UPCOMING EVENTS



**Q4 Investment Perspectives Webcast**

April 2024



**Emerging and Diverse Manager Research Day**

April 2024

Client and employee counts as of December 31, 2023; assets as of September 30, 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 December Connectives “Navigating US China Tensions with Dynamic Portfolio Levers”

Sifting through economic, financial, and political factors is proving to be increasingly challenging for institutional investors as sentiment toward China continues to turn negative in western governments.

While some US investors have decided to actively underweight or even exit China altogether, others are seeking dynamic portfolio and manager solutions.

Read more here:

<https://meketa.com/news/meketa-connectives-navigating-us-china-tensions-with-dynamic-portfolio-levers/>



#### Read our recent white paper “Opportunities in Critical Minerals”

The push toward net-zero emissions has expedited the need for green energy and technology. At the forefront of this green energy boom are critical minerals, the essential inputs to all types of green technologies, especially electric vehicles (“EVs”) and EV batteries.

This research note provides an overview of critical minerals, their uses, current market size, as well as describes the unique opportunity that critical minerals may provide for investors.

Read more here:

<https://meketa.com/leadership/the-opportunity-in-critical-minerals/>



#### Watch our recent webinar “Mission Driven Investing Manager Research Day Roundtable”

As part of Meketa's first Public and Private Markets Mission Driven Investing Manager Research Day, we hosted a one-hour roundtable discussion with a panel of institutional investors speaking about their experiences with mission driven investing. The panel includes perspectives from investors who invest broadly in mission-driven investments, as well as specifically for economic development in a particular state or region and as informed by religious values. Discussion topics include impact and return goals, mission related investment structures, best practices in manager due diligence and other areas relevant for the mission driven investor.

Read more here:

<https://meketa.com/leadership/december-2023-mission-driven-investing-manager-research-day-roundtable/>

### MEKETA VALUES CULTURE

Whether looking for new team members or getting to know our current fellow team mates better, Meketa values the people we work with.



### MEKETA IN THE NEWS

#### Pensions & Investments

##### Asset owners lean on consultants to be educated about ESG

By Palash Ghosh | 11.20.23

[Read full article here](#)

Meketa assists clients in understanding different approaches to sustainability, including focusing on integrating material sustainability financial risks and opportunities, seeking investments that also offer impact on a given environmental or social themes, and investing in products for socially responsible ends that do not include a performance expectation to meet or exceed a market beta, said [Sarah Bernstein](#), head of sustainability. “Some pension funds have specific requests, for example how to respond to ESG and/or anti-ESG legislation; provide analysis on options to address climate risks and opportunities; or address diversity, equity and inclusion concerns,” she added.

One area that is seeing a lot of interest from investors is opportunities around the energy transition. [Lisa Bacon](#), managing principal, private markets consultant and infrastructure program lead at Meketa, said deploying capital into renewables and related infrastructure has been going on for a number of years even before “energy transition” and “decarbonization” became common terms.

In fact, “as both governmental entities and corporates in the U.S. and abroad have established more ambitious goals for reducing greenhouse gases and reaching net-zero carbon emissions, demand for private capital to support investments in assets and companies that will help meet these goals has also increased,” Bacon said. “Opportunities have also arisen in the natural resources sector involving alternative fuels, metals and minerals for batteries and electric chargers, and other sustainable inputs and activities.” Bacon added that Meketa and its clients want to be investing in the areas “where economic activity is increasing and where growth potential supports attractive risk-adjusted returns.”

##### Impact of higher rates top of mind for institutions

By Palash Ghosh | 11.20.23

[Read full article here](#)

Aside from rising interest rates, noted Frank Benham, director of research at [Meketa](#), his firm’s clients are also concerned about the potential for an economic hard landing, as well as both political and economic risks in China.

Regarding China, Amy Hsiang, director of public markets manager research at Meketa, said clients are interested in learning more about emerging markets. “Whether or not translates to actually increasing allocations to emerging markets, only time will tell,” Hsiang said. “We have not seen clients actively avoid China.”

“Clients are increasing exposure to select alternatives like private credit and private equity. This needs to be balanced with an understanding of each clients’ liquidity needs to ensure the portfolio can deliver on all commitments through a market cycle.” John A. Haggerty, director of private market investments at Meketa, noted that in times of uncertainty and market volatility, the issue of placing value on alternative assets naturally receives more scrutiny. “Private market performance lags public market performance in both up markets and down markets,” he said. “So, the gaps have been greater in recent years with the stock market swings, negative in 2022 and positive for much of 2023.”

# FUNDfire

## Corporate Pensions at 'Inflection Point' as Funded Statuses Improve

By Bridget Hickey 11.28.23

[Read full article here](#)

Corporate pension sponsors are at an “inflection point” when it comes to deciding about the future of their plans, said Jonathan Camp, a managing principal at investment consultant Meketa. Companies may choose to hedge their liabilities or transfer risk. Almost 90% of corporate pension respondents to a recent survey by MetLife said they were interested in completely divesting all their defined benefit plan liabilities. However, the news earlier this month that International Business Machines, better known as IBM, is reopening its defined benefit pension as a cash balance plan has sparked a conversation within the industry about whether other companies will follow suit. Companies that are over-funded may opt to follow in IBM’s stead, Camp suggested. He added that one client, (unnamed), re-opened its pension plan more than a year ago. “The benefit of just keeping your frozen pension plan on your books is that it’s very easy to open it back up in a different form in the future, versus if you terminate your plan,” he said. “It will be interesting to see, if now that we have this first mover publicly, if other companies think to themselves, ‘well, you know, I can do that too.’”

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**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.