



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

**Fourth Quarter 2024**

**Fund Evaluation Report**

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  - Disclaimer, Glossary, and Notes

# **Economic and Market Update**

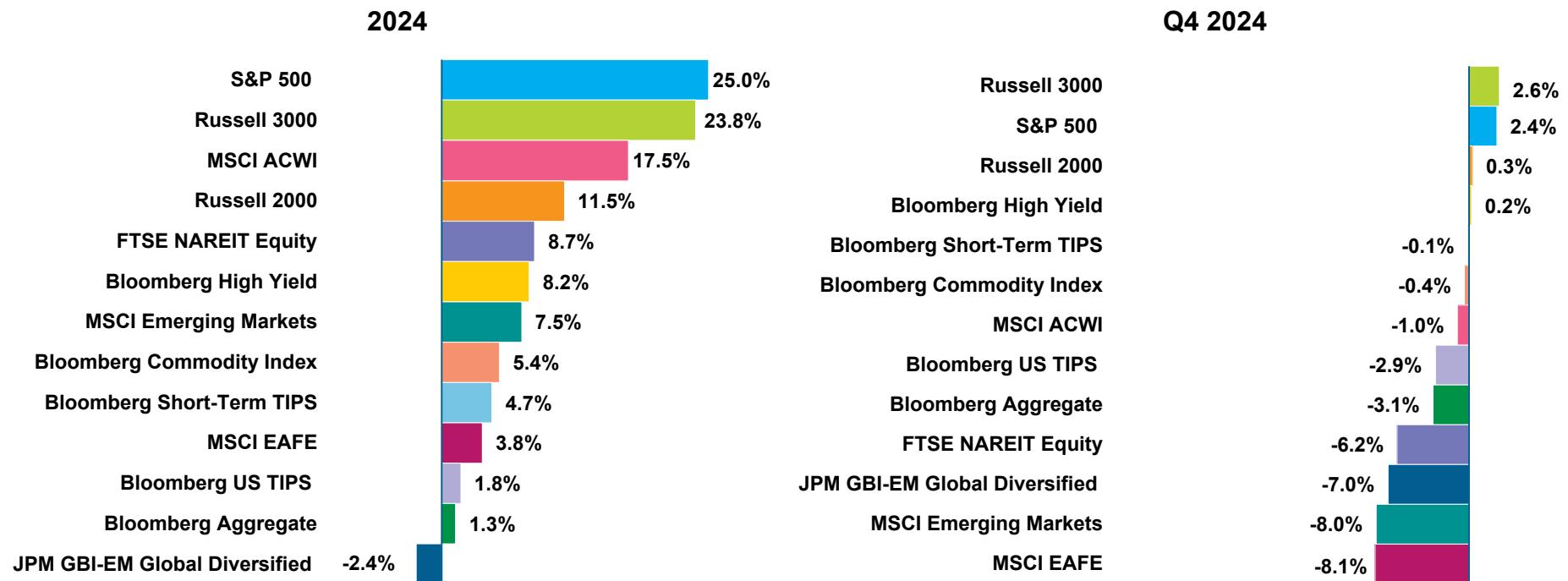
Data as of December 31, 2024

## Commentary

**Although most major markets finished 2024 in positive territory, in the fourth quarter, with the exception of US stocks, the majority of markets declined.**

- Trump's victory along with a now Republican controlled Congress, supported US equity markets in the fourth quarter on anticipation of pro-growth policies. Domestic equity markets (Russell 3000) posted a return of 2.6% in the quarter and an impressive 23.8% for the year driven by large cap technology stocks.
- Non-US developed stocks sold-off in the fourth quarter (MSCI EAFE: -8.1%) largely driven by the strength of the US dollar, as well as slowing growth in Europe and the potential for trade wars. For the year, they trailed US equities by a wide 20% margin (3.8% versus 23.8%).
- Emerging market stocks also fell (MSCI Emerging Markets: -8.0%) in the fourth quarter, again driven by the strong dollar and concerns about US tariffs. In 2024, emerging markets beat developed international markets (7.5% versus 3.8%) but significantly trailed the US.
- The Federal Reserve cut its policy rate another 0.25% in December, but its Summary of Economic Projections and hawkish comments provoked a repricing of future rate cuts and their timing.
- Most fixed income markets fell for the quarter with interest rates rising given fears of inflation from the proposed policies of the incoming US administration. The broad US bond market (Bloomberg Aggregate) declined 3.1% for the quarter, reducing its 2024 gain to 1.3%. For the year, most major bond markets delivered positive returns on cooling global inflation.
- Looking ahead, uncertainty related to the policies of the new Trump Administration and its impact on the economy, inflation, and Fed policy will be key. The path of China's economy and concerns over elevated valuations and technology driven concentration in the US equity market will also be important focuses of 2025.

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



- In 2024, most major assets classes posted gains, led by the S&P 500's 25.0% return.
- Markets had mixed returns in the fourth quarter. US equities rose on optimism over potential pro-growth policies from the incoming administration while inflation concerns and a strong dollar, respectively, weighed on bonds and international equities.

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

Domestic Equity Returns<sup>1</sup>

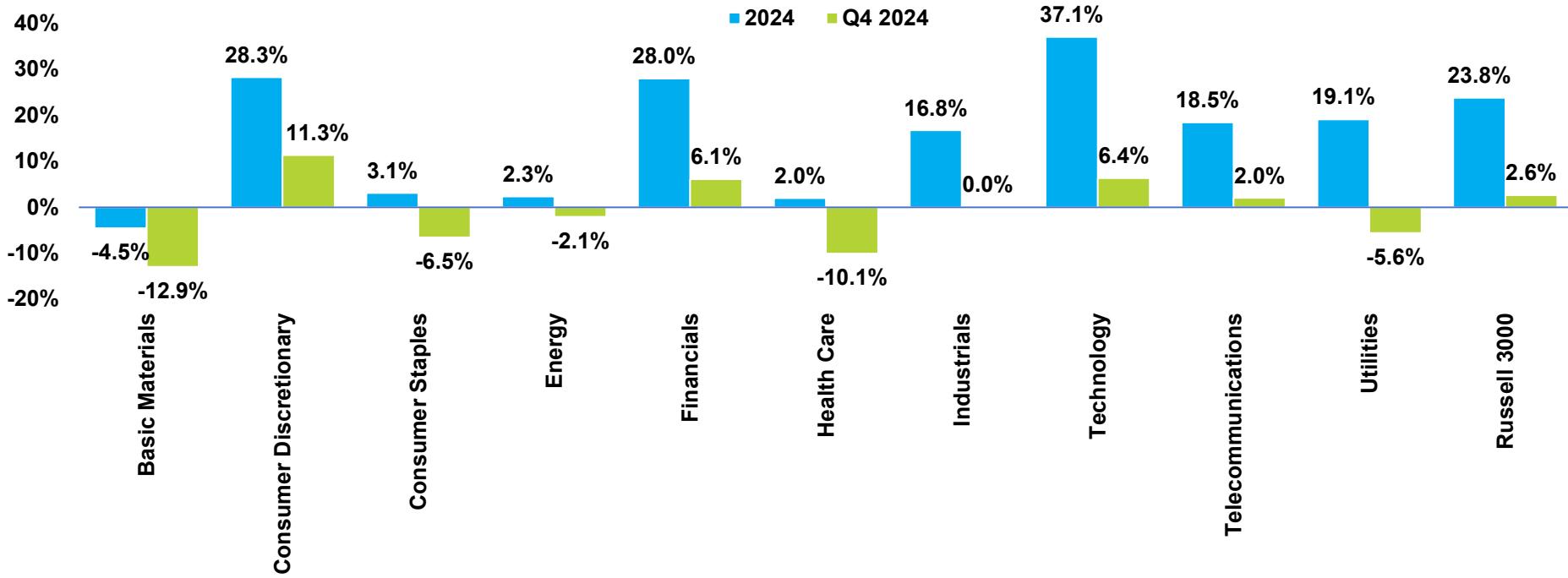
Domestic Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.4	2.4	25.0	8.9	14.5	13.1
Russell 3000	-3.1	2.6	23.8	8.0	13.9	12.5
Russell 1000	-2.8	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	0.9	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	-6.8	-2.0	14.4	5.6	8.7	8.5
Russell MidCap	-7.0	0.6	15.3	3.8	9.9	9.6
Russell MidCap Growth	-6.2	8.1	22.1	4.0	11.5	11.5
Russell MidCap Value	-7.3	-1.7	13.1	3.9	8.6	8.1
Russell 2000	-8.3	0.3	11.5	1.2	7.4	7.8
Russell 2000 Growth	-8.2	1.7	15.2	0.2	6.9	8.1
Russell 2000 Value	-8.3	-1.1	8.1	1.9	7.3	7.1

## US Equities: The Russell 3000 rose 2.6% in the fourth quarter, bringing the year-to-date results to +23.8%.

- US stocks rose broadly in the fourth quarter on a post-election rally. However, value stocks did not participate and ended the quarter lower. In the large cap space, the Russell 1000 Value index's omission of several "Magnificent 7" stocks, such as NVIDIA, Amazon, and Tesla, drove much of the divergence.
- For the full year, US equities gained 23.8%. NVIDIA was the leading contributor among all stocks in the Russell 3000 index. The stock appreciated 171% during the year and was responsible for 20% of total index gains. The "Magnificent 7" stocks contributed just under 50% of the 2024 index gains.
- Growth stocks outperformed value stocks across the market cap spectrum in 2024, which was more pronounced in the large cap space. Larger companies (Russell 1000) produced more than double the returns of smaller companies (Russell 2000) for the year.

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

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



- US equity sectors experienced mixed results in the final quarter of the year but all sectors except materials, experienced gains in 2024.
- Technology stocks rose 37.1% last year, which led all sectors. Within technology, NVIDIA and Broadcom accounted for more than half of the sector's contribution to overall index gains.
- After technology, consumer discretionary (+28.3%) and financials (+28.0%) were next driven by Amazon and Tesla and a steepening yield curve/strong economy, respectively.

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

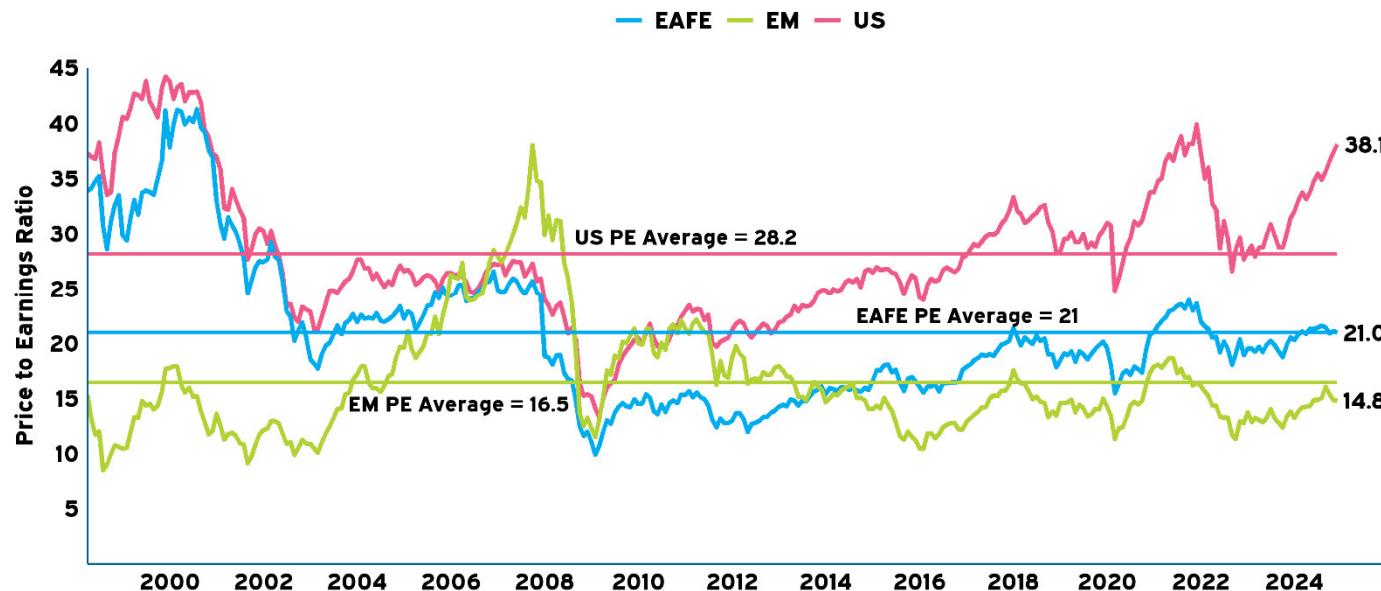
Foreign Equity Returns<sup>1</sup>

Foreign Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	-1.9	-7.6	5.5	0.8	4.1	4.8
MSCI EAFE	-2.3	-8.1	3.8	1.6	4.7	5.2
MSCI EAFE (Local Currency)	0.4	-0.6	11.3	6.3	7.5	7.1
MSCI EAFE Small Cap	-2.3	-8.4	1.8	-3.2	2.3	5.5
MSCI Emerging Markets	-0.1	-8.0	7.5	-1.9	1.7	3.6
MSCI Emerging Markets (Local Currency)	1.2	-4.4	13.1	1.6	4.5	6.0
MSCI EM ex China	-1.2	-8.1	3.6	0.1	4.4	4.7
MSCI China	2.7	-7.7	19.4	-6.1	-3.4	1.9

**Foreign Equity: Developed international equities (MSCI EAFE) fell -8.1% in the fourth quarter but rose 3.8% for the year, while emerging market equities (MSCI Emerging Markets) fell -8.0% in the quarter but returned 7.5% for the year.**

- Continued strength in the US dollar weighed on developed market shares, with declines in local terms significantly lower (-0.6% versus -8.1%). An unstable political environment, potential tariffs from the US, and weak growth all weighed on eurozone equities. Japan was a bright spot, outperforming the US for the quarter, with renewed yen weakness boosting the outlook for exporters.
- Emerging markets reacted poorly to Mr. Trump's win in the fourth quarter, due largely to tariff fears and the Fed's decreased likelihood of reducing rates in 2025. A strong dollar also weighed on results but not as much as in developed markets. China declined less than the broader index for the quarter (-7.7% versus -8.0%).
- Over the full 2024 calendar year, international equities significantly trailed US equities.

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

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

- Valuations in US stocks continued to move higher over the quarter while valuations for international equities fell.
- US stocks, priced at 38.1 times earnings, continue to trade well above their long-run PE average of 28.2.
- Non-US developed market valuations are trading at their long-term average. Emerging market stock valuations declined the most over the quarter (16.1 to 14.8) and remain below their 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 December 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.

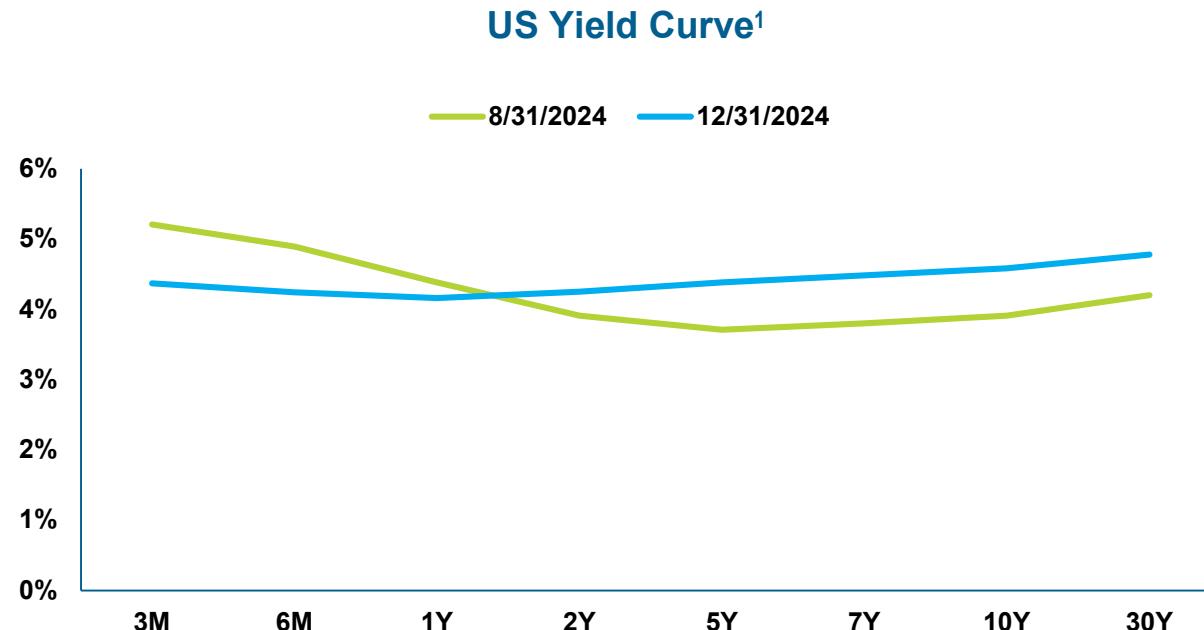
Fixed Income Returns<sup>1</sup>

Fixed Income	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.7	2.0	-1.9	0.1	1.7	5.1	5.9
Bloomberg Aggregate	-1.6	-3.1	1.3	-2.4	-0.3	1.3	4.9	6.1
Bloomberg US TIPS	-1.6	-2.9	1.8	-2.3	1.9	2.2	4.6	6.5
Bloomberg Short-term TIPS	-0.1	-0.1	4.7	2.1	3.3	2.6	4.4	2.4
Bloomberg US Long Treasury	-5.3	-8.6	-6.4	-12.0	-5.2	-0.6	4.9	14.9
Bloomberg High Yield	-0.4	0.2	8.2	2.9	4.2	5.2	7.5	3.5
JPM GBI-EM Global Diversified (USD)	-1.9	-7.0	-2.4	-1.0	-1.9	-0.4	--	--

## Fixed Income: The Bloomberg Universal index fell 2.7% in the quarter, bringing the year-to-date return to +2.0%.

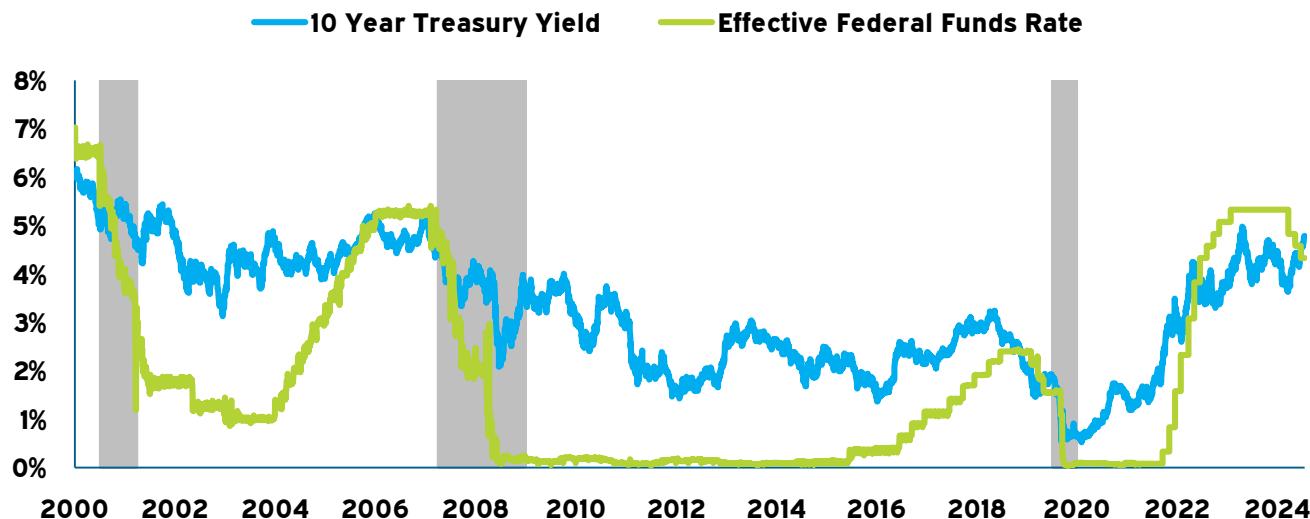
- Fixed income indexes largely declined over the quarter due to rising interest rates as investors considered proposed policies like tariffs and deportations and their respective risks to inflation.
- The broad US bond market (Bloomberg Aggregate) fell 3.1% over the quarter, with TIPS performing similarly at longer maturities. Long-term Treasury bonds experienced the largest declines, with a drop of 8.6%.
- High yield bonds outperformed as investor risk appetite remained robust, while emerging market debt weakened on uncertainty about the path of proposed US tariffs by the incoming administration as well as by higher US interest rates.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



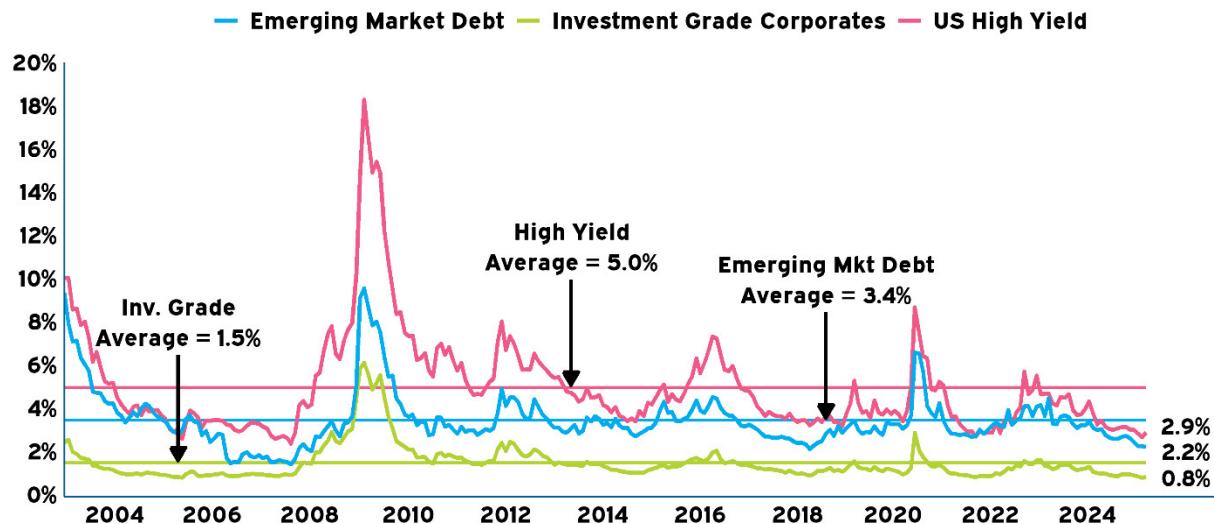
- With the exception of the very shortest maturities, US Treasury yields rose in the fourth quarter driven by resilient growth and increased inflation expectations. Term premium (a measure of interest rate uncertainty) spiking over the quarter was a key driver of higher rates.
- Over the quarter, the more policy sensitive 2-year Treasury yield rose from 3.64% to 4.24%, while the 10-year Treasury yield rose from 3.78% to 4.57%.
- The yield curve was no longer inverted (short-term interest rates higher than long-term interest rates) at year-end given expectations for the Fed to continue to reduce rates and resilient economic growth and persistent inflation.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2024. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

10-Year Treasury Yield versus Fed Funds Rate<sup>1</sup>

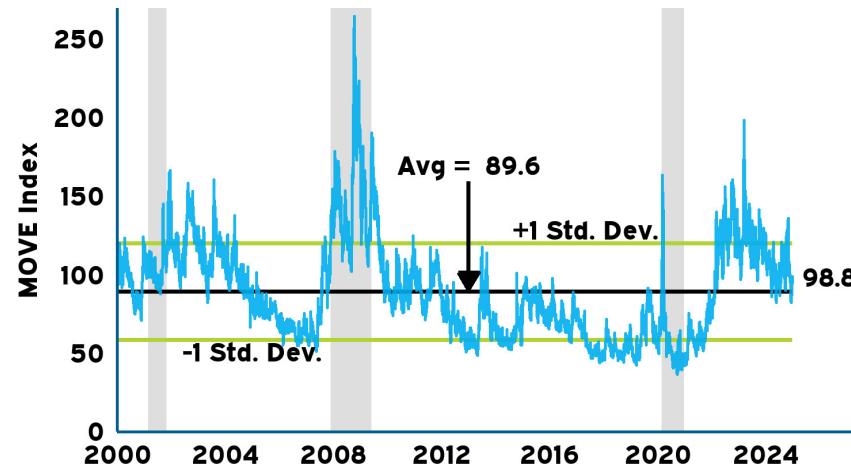
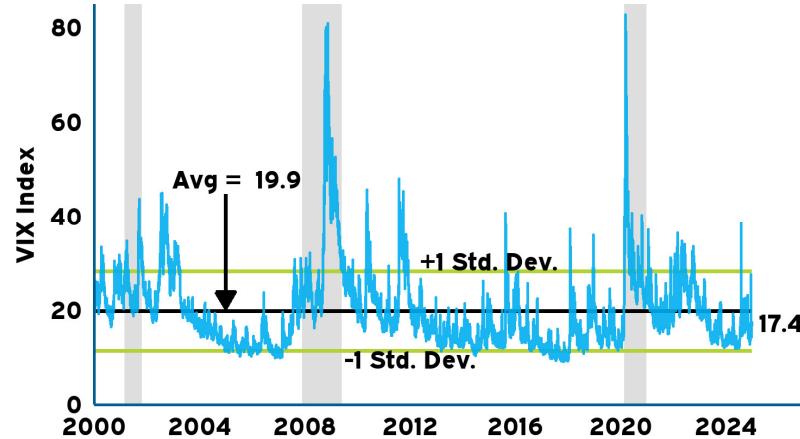
- Typically, when the Fed cuts interest rates, the yield on the ten-year Treasury follows as rate cuts often come in an environment of falling inflation and rising unemployment.
- The recent dynamic has been very unusual with the Fed cutting interest rates by a total of 1.0% since September and the ten-year Treasury increasing by a similar amount over the same time period.
- Questions remain about why this is happening with some saying it is related to fiscal concerns and others pointing to lower demand for our debt from overseas. It is also possible the market feels the Fed has overcut rates already.

<sup>1</sup> Source: FRED. Data is as of January 15, 2025.

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

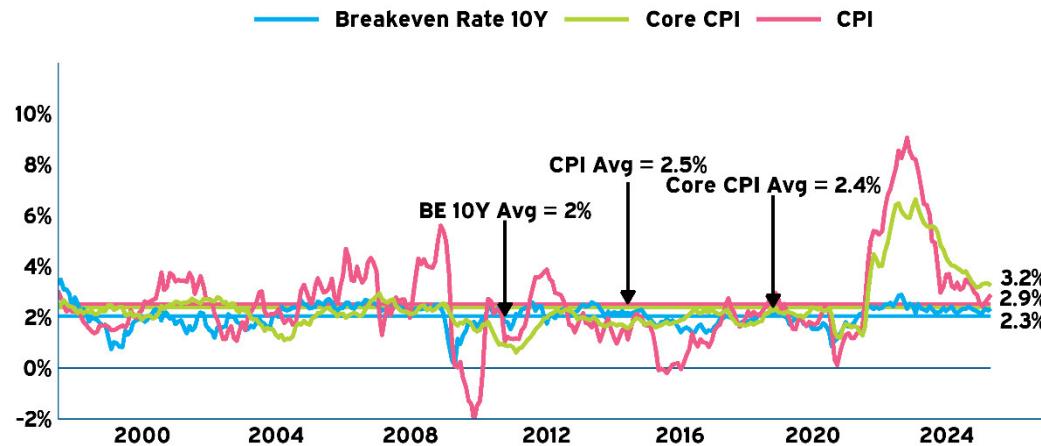
- Spreads (the yield above a comparable maturity Treasury) all continued to tighten over the quarter.
- All yield spreads remained below their respective long-run averages, particularly high yield (2.9% versus 5.0%).
- Although spreads are tight, absolute yields remain at above-average levels compared to the last two decades.

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

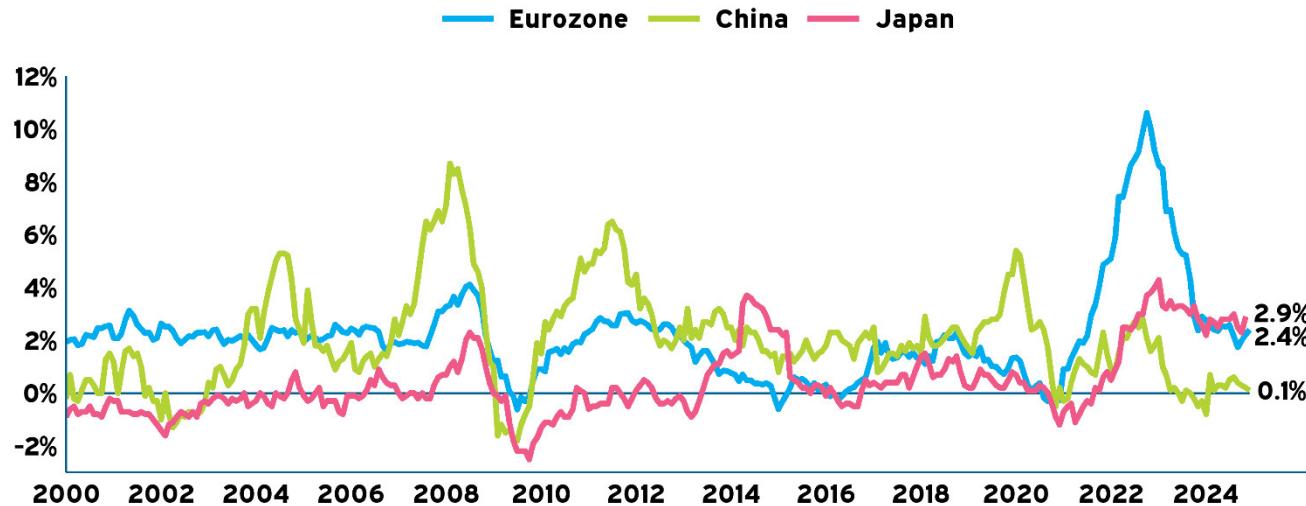
- Bond and equity volatility experienced several spikes over the quarter ahead of the election but finished lower after the clear results.
- Volatility levels (VIX) in the US stock market finished the quarter below its long-run average, while volatility in the bond market (MOVE) ended December above its long-run average.

<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 31, 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2024.

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

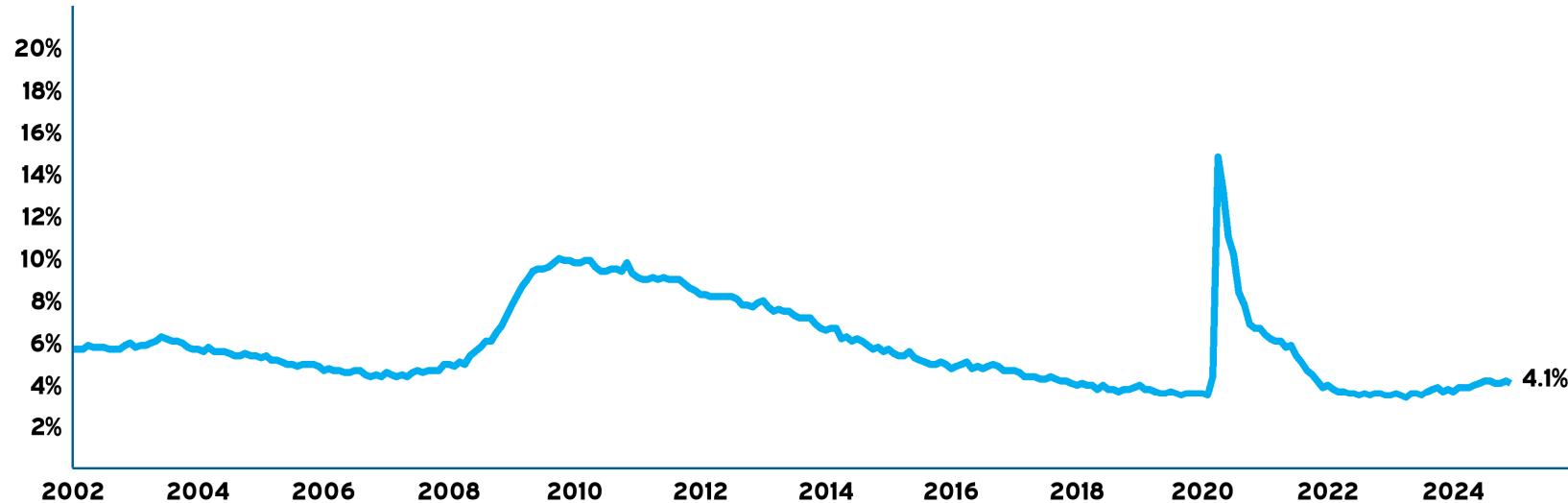
- In December, inflation rose 0.4% month-over-month with energy prices accounting for 40% of the monthly increase.
- Year-over-year inflation increased from 2.4% to 2.9% over the quarter largely driven by base year effects. In the December reading shelter (+4.6%), transportation (+7.3%), and medical care (+3.4%) contributed to the annual gain while energy prices (-0.5%) fell over the past year despite the December (+2.6%) gains.
- Year-over-year core inflation (excluding food and energy) fell slightly over the quarter (3.3% to 3.2%).
- Inflation expectations (breakevens) rose over the quarter from the September lows of 2.0%, on continued uncertainty regarding the likelihood and magnitude of potential policies of the next US president.

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

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

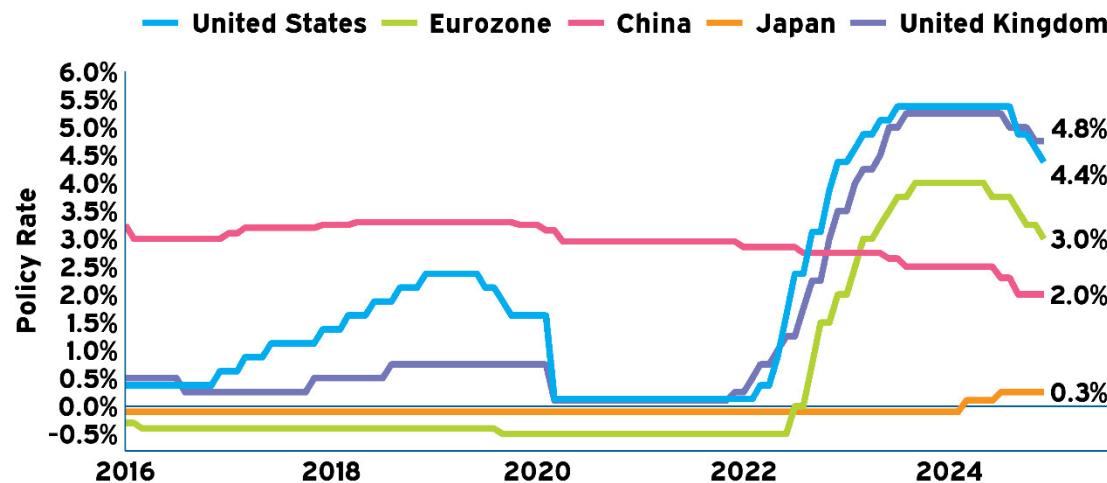
- In the eurozone, inflation rose each month over the quarter (1.7% to 2.4%) but levels remain below the US. The increase was largely driven by last year's significant fall in energy prices no longer being included in the calculation.
- Inflation in Japan rose over the quarter due in part to an increase in food prices and the end of energy subsidies driving electricity and gas prices higher.
- Inflation in China grinded lower in the fourth quarter (0.4% to 0.1%). China continues to experience deflationary pressures despite recent stimulus measures.

<sup>1</sup> Source: Bloomberg. Data is as December 2024, except Japan which is as of November 2024.

US Unemployment<sup>1</sup>

- The unemployment rate stayed stable over the quarter at 4.1% with close to 500k jobs added to the economy since the end of September.
- In December, the health care (+46K), retail (+43k), and government (+33K) sectors added jobs, while retail – which lost jobs in November – rebounded (+43K) jobs.
- Job openings (8.1M) rose over last month's openings (7.7M) but are well below pandemic highs (>12M); the number of openings exceeds the number of unemployed workers looking for work (6.9M).
- Separations (5.1M) and hires (5.3M) remain steady and average hourly wages continue to grow at approximately 3.9% a year.

<sup>1</sup> Source: FRED and BLS. Data is as of December 31, 2024.

Policy Rates<sup>1</sup>

- In the US, the Fed reduced interest rates by 0.25% twice over the quarter to a range of 4.25% to 4.50%, in moves largely expected by investors. Going forward, questions remain about the timing and amount of additional cuts given the strength of the economy and persistent above-target inflation.
- The Bank of England left rates unchanged in December after their November 0.25% cut, while the European Central Bank cut rates by another 0.25% in early December.
- After exiting negative interest rates in 2024 and making several rate increases, rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2024. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.

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

- Over the quarter, the US dollar sharply strengthened (+8.0%) versus other currencies.
- A rise in interest rates driven by potential inflationary impacts of proposed higher tariffs, lower taxes, and immigration policies from candidate, and now president-elect Trump, drove the dollar's gains.

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

## Summary

### Key Trends:

- According to the International Monetary Fund's (IMF) October report, global growth in 2025 is expected to be similar to 2024 at around 3.2% with most major economies predicted to avoid a recession.
- Questions remain about what policies will be implemented by the new administration in the US. Although deregulation and tax cuts could support growth, these policies, along with higher tariffs and restrictive immigration, could fan inflation. This will likely lead to additional uncertainty regarding the timing and pace of interest rate cuts in the coming year.
- US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.
- A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.
- We have started to see divergences in monetary policy. Some central banks, such as the Fed, European Central Bank, and the Bank of England, have started to cut interest rates and others, like the Bank of Japan, have increased interest rates. This disparity will likely influence capital flows and currencies.
- China appears to have shifted focus to more policy support for the economy/asset prices with a suite of fiscal and financial policy stimulus measures. Thus far, these efforts have not increased weak consumer spending or helped the lingering trouble in the real estate sector. It is still not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.

## **Executive Summary**

## Executive Summary

- In December, equity and bond markets declined, driven in part by the Federal Reserve's outlook for fewer rate cuts in 2025 and uncertainty related to policies of the incoming administration.
- The below table reflects the latest valuation data through December 2024.

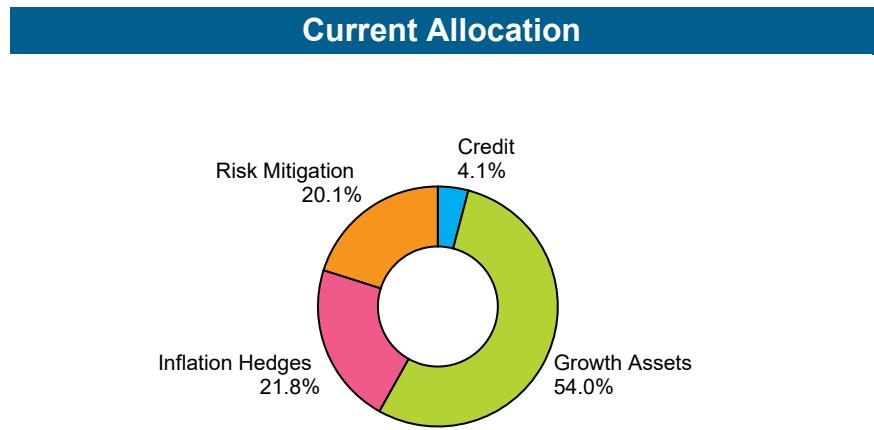
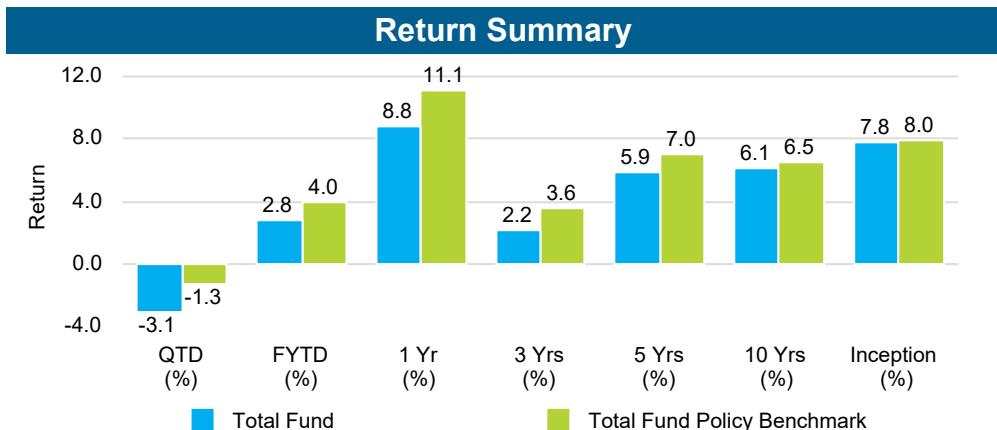
NERS	December 31, 2024	November 30, 2024	October 31, 2024
Total Fund Balance	\$1.35 Billion	\$1.40 Billion	\$1.38 Billion
Funded Status	87%	90%	89%
NERS Assumed Rate of Return	6.75%	6.75%	6.75%
FYTD Rate of Return	2.8%	5.7%	3.9%
12 Months Trailing Rate of Return	8.8%	16.0%	20.6%
Monthly Rate of Return	-2.7%	1.7%	-2.1%
Monthly Gains/Losses	-\$37.9 million	\$24.0 million	-\$29.1 million
Monthly Net Cash Flow	-\$7.9 million	-\$8.4 million	-\$8.0 million

- The Actuarial Determined Contribution rates for Fiscal Year 2025 are:
  - NERS: \$34.4 million
  - VRS: 7.84%
- As of December 31, the System was inside of its target asset allocation ranges for all asset classes.

## **Performance Summary**

#### Portfolio Objective

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



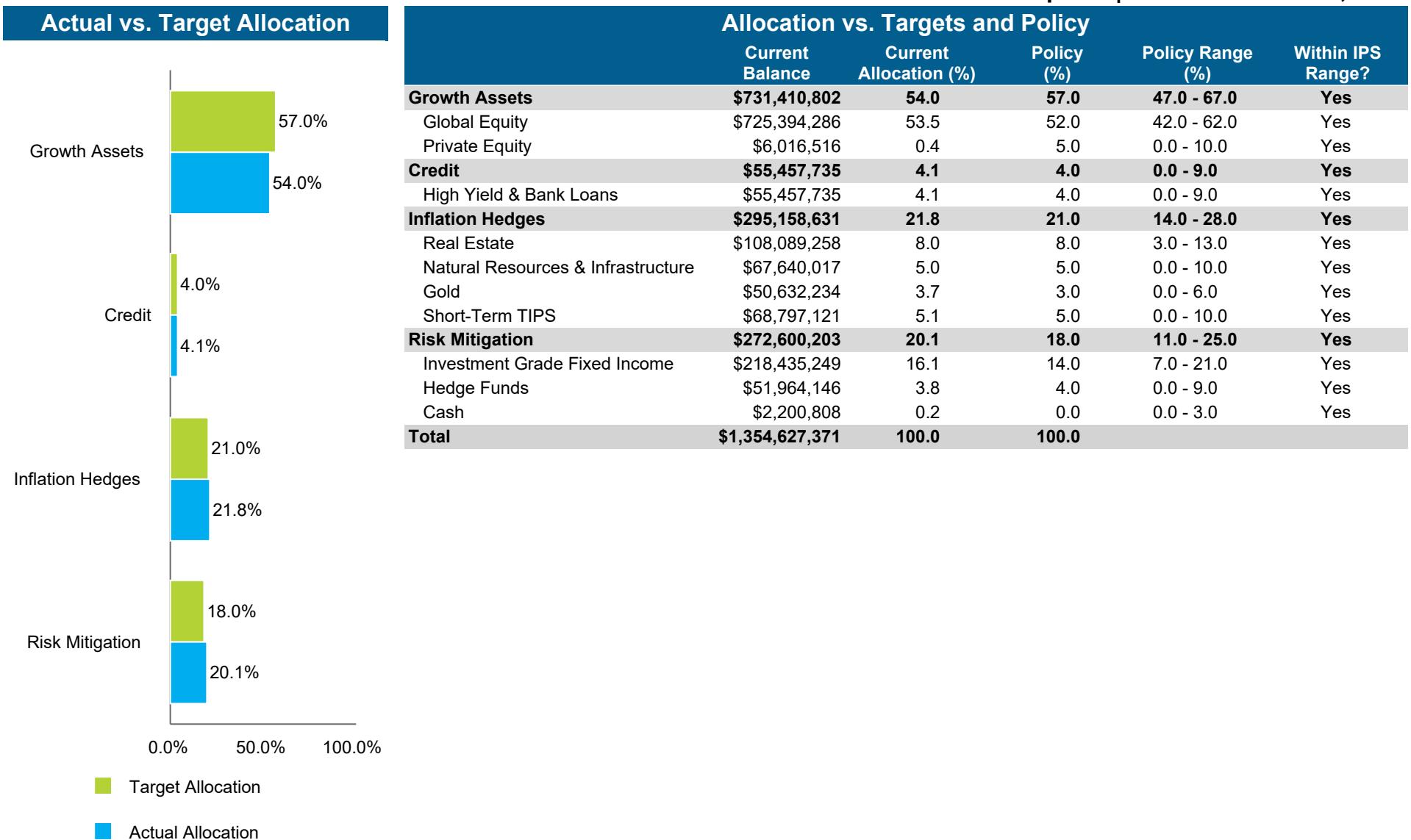
	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	-3.1	2.8	8.8	2.2	5.9	6.1	7.8	10/01/1990
Total Fund Policy Benchmark	-1.3	4.0	11.1	3.6	7.0	6.5	8.0	

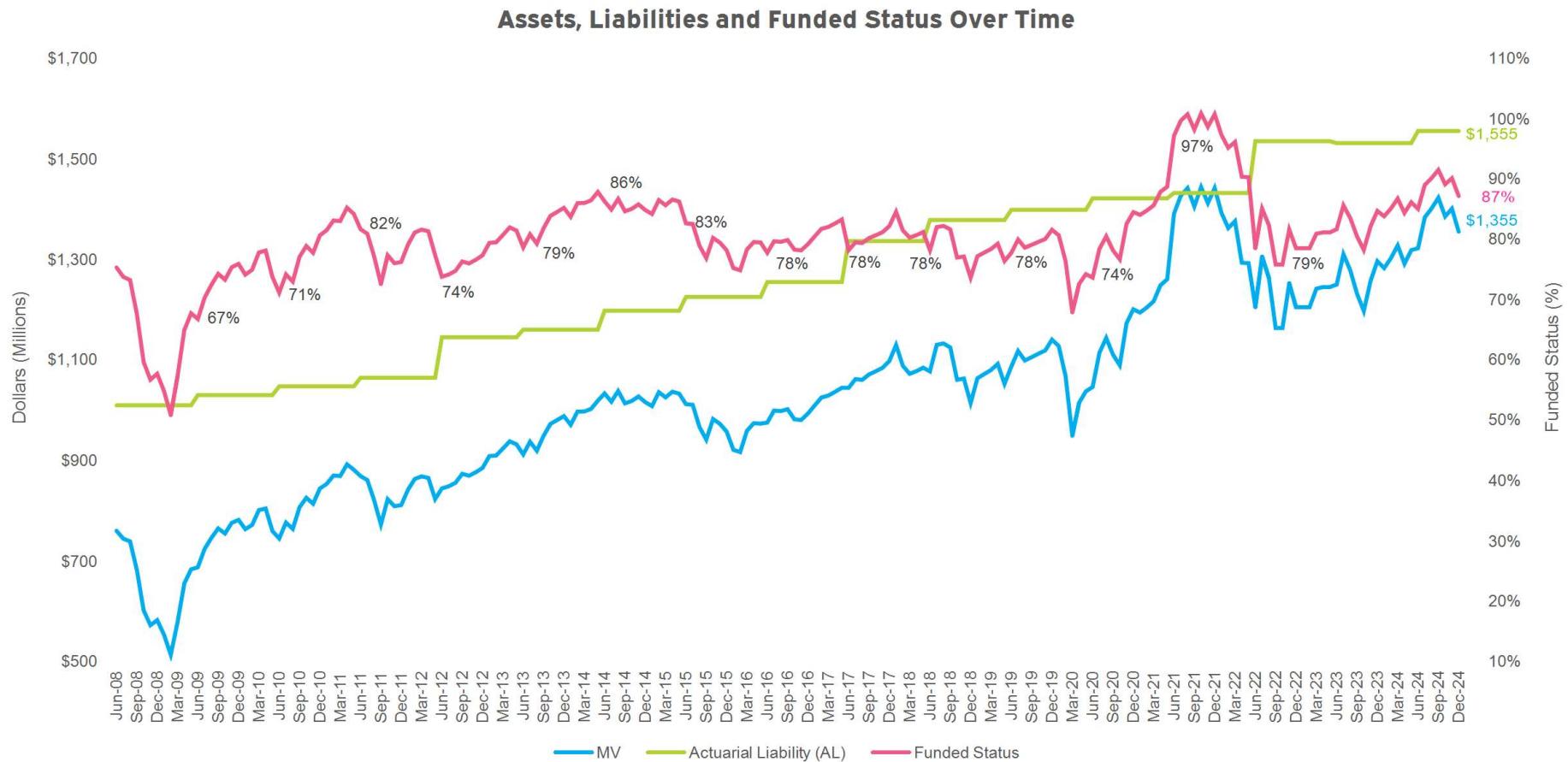
#### Summary of Cash Flows

Total Fund	Quarter-To-Date		Year-To-Date	
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Beginning Market Value	1,421,972,563			1,295,810,106
Net Cash Flow		-24,408,537		-54,355,265
Net Investment Change			-42,936,655	113,172,530
Ending Market Value			1,354,627,371	1,354,627,371



## Performance Update | As of December 31, 2024





As of June 30, 2023, Total Plan Actuarial Liability (AL) is \$1.555 billion and the Actuarial Value of assets (AVA) is \$1.324 billion for an Actuarial Funded Ratio (AVA/AL) of 85%. Using the Market Value of Assets (MVA), the Market Funded Ratio (MVA/AL) was approximately 90% in November, 2024 and 87% in December, 2024.

## Performance Update | As of December 31, 2024

	Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,354,627,371</b>	<b>100.0</b>	<b>-3.1</b>	<b>2.8</b>	<b>8.8</b>	<b>2.2</b>	<b>5.9</b>	<b>6.1</b>	<b>7.8</b>		Oct-90
Total Fund Policy Benchmark			-1.3	4.0	11.1	3.6	7.0	6.5	8.0		
Total Fund Actual Allocation Benchmark			-1.8	3.6	10.1	--	--	--	--		
Total Fund Public Benchmark			-1.7	4.6	12.3	3.2	6.7	6.6	8.1		
<b>Growth Assets</b>	<b>731,410,802</b>	<b>54.0</b>	<b>-2.9</b>	<b>3.7</b>	<b>14.2</b>	--	--	--	<b>14.2</b>		Dec-22
Growth Assets Custom Benchmark			-0.5	6.1	18.1	--	--	--	16.7		
<b>Global Equity</b>	<b>725,394,286</b>	<b>53.5</b>	<b>-2.9</b>	<b>3.7</b>	<b>14.2</b>	<b>4.0</b>	<b>9.3</b>	<b>9.0</b>	<b>9.2</b>		Oct-90
Global Equity Policy Benchmark			-1.2	5.5	16.4	4.9	9.7	9.0	9.5		
<b>Private Equity</b>	<b>6,016,516</b>	<b>0.4</b>									
MSCI ACWI + 3% 1Q Lag			7.4	11.3	35.6	--	--	--	27.7		
<b>Credit</b>	<b>55,457,735</b>	<b>4.1</b>	<b>0.2</b>	<b>3.6</b>	<b>7.1</b>	--	--	--	<b>9.3</b>		May-23
Credit Custom Benchmark			1.2	4.9	8.6	--	--	--	10.4		
<b>High Yield &amp; Bank Loans</b>	<b>55,457,735</b>	<b>4.1</b>	<b>0.2</b>	<b>3.6</b>	<b>7.1</b>	--	--	--	<b>9.3</b>		May-23
High Yield & Bank Loans Custom Benchmark			1.2	4.9	8.6	--	--	--	10.4		
<b>Inflation Hedges</b>	<b>295,158,631</b>	<b>21.8</b>	<b>-3.4</b>	<b>2.6</b>	<b>4.1</b>	--	--	--	<b>-1.6</b>		Dec-22
Inflation Hedges Custom Benchmark			-3.4	0.5	1.7	--	--	--	-1.5		
<b>Real Estate</b>	<b>108,089,258</b>	<b>8.0</b>	<b>-1.6</b>	<b>4.5</b>	<b>1.4</b>	<b>-4.2</b>	<b>0.3</b>	<b>3.3</b>	<b>5.5</b>		Apr-11
NCREIF ODCE (Net)			1.0	1.0	-2.3	-3.1	2.0	4.9	6.8		
<b>Natural Resources &amp; Infrastructure</b>	<b>67,640,017</b>	<b>5.0</b>	<b>-7.7</b>	<b>-4.0</b>	<b>-1.7</b>	--	--	--	<b>-0.7</b>		Apr-23
S&P Global LargeMidcap Resources & Commodities NR USD			-10.8	-6.8	-5.5	--	--	--	-3.3		
<b>Gold</b>	<b>50,632,234</b>	<b>3.7</b>	<b>-5.7</b>	<b>8.4</b>	<b>18.3</b>	--	--	--	<b>10.1</b>		Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			-7.2	8.1	19.3	--	--	--	12.1		
<b>Short-Term TIPS</b>	<b>68,797,121</b>	<b>5.1</b>	<b>-0.1</b>	<b>2.4</b>	<b>4.8</b>	--	--	--	<b>4.3</b>		Mar-23
Blmbg. U.S. TIPS 0-5 Year			-0.1	2.4	4.7	--	--	--	4.9		

See benchmark history page for benchmark detail.

## Performance Update | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>272,600,203</b>	<b>20.1</b>	<b>-4.0</b>	<b>0.5</b>	<b>-0.6</b>	--	--	--	<b>2.0</b>	Dec-22
<i>Risk Mitigation Custom Benchmark</i>			-2.3	1.3	1.8	--	--	--	2.7	
<b>Investment Grade Fixed Income</b>	<b>218,435,249</b>	<b>16.1</b>	<b>-4.4</b>	<b>1.6</b>	<b>-0.1</b>	<b>-2.9</b>	<b>-0.4</b>	<b>1.4</b>	<b>5.0</b>	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			-3.1	2.0	1.3	-2.4	-0.3	1.3	5.0	
<b>Intermediate-Term Bonds</b>	<b>170,815,356</b>	<b>12.6</b>	<b>-3.1</b>	<b>2.4</b>	<b>2.0</b>	<b>-1.9</b>	<b>0.2</b>	<b>1.7</b>	<b>5.1</b>	Oct-90
<i>Blmbg. U.S. Aggregate Index</i>			-3.1	2.0	1.3	-2.4	-0.3	1.3	5.0	
<b>Long-Term Bonds</b>	<b>47,619,894</b>	<b>3.5</b>	<b>-8.7</b>	<b>-1.5</b>	<b>-6.3</b>	--	--	--	<b>-2.7</b>	Mar-23
<i>Blmbg. U.S. Treasury: Long</i>			-8.6	-1.5	-6.4	--	--	--	-2.7	
<b>Hedge Funds</b>	<b>51,964,146</b>	<b>3.8</b>	<b>-2.3</b>	<b>-3.0</b>	<b>-3.2</b>	--	--	--	<b>-0.4</b>	Apr-23
<i>Hedge Fund Custom Benchmark</i>			0.4	-0.9	3.3	--	--	--	3.1	
<b>Cash</b>	<b>2,200,808</b>	<b>0.2</b>								

## Performance Update | As of December 31, 2024

	Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
<b>Total Fund</b>	<b>1,354,627,371</b>	<b>100.0</b>	<b>-3.1</b>	<b>2.8</b>	<b>8.8</b>	<b>2.2</b>	<b>5.9</b>	<b>6.1</b>	<b>7.8</b>		Oct-90
Total Fund Policy Benchmark			-1.3	4.0	11.1	3.6	7.0	6.5	8.0		
Total Fund Actual Allocation Benchmark			-1.8	3.6	10.1	--	--	--	--		
Total Fund Public Benchmark			-1.7	4.6	12.3	3.2	6.7	6.6	8.1		
<b>Growth Assets</b>	<b>731,410,802</b>	<b>54.0</b>	<b>-2.9</b>	<b>3.7</b>	<b>14.2</b>	--	--	--	<b>14.2</b>		Dec-22
Growth Assets Custom Benchmark			-0.5	6.1	18.1	--	--	--	16.7		
<b>Global Equity</b>	<b>725,394,286</b>	<b>53.5</b>	<b>-2.9</b>	<b>3.7</b>	<b>14.2</b>	<b>4.0</b>	<b>9.3</b>	<b>9.0</b>	<b>9.2</b>		Oct-90
Global Equity Policy Benchmark			-1.2	5.5	16.4	4.9	9.7	9.0	9.5		
SSgA Russell 1000 Growth Index	23,194,227	1.7	7.0	10.4	33.3	--	--	--	36.8		Mar-23
<i>Russell 1000 Growth Index</i>			7.1	10.5	33.4	--	--	--	36.9		
SSgA Russell 1000 Value Index	39,569,139	2.9	-2.0	7.2	14.3	--	--	--	13.2		Mar-23
<i>Russell 1000 Value Index</i>			-2.0	7.3	14.4	--	--	--	13.3		
DF Dent Small Cap Growth Fund	16,109,162	1.2	-1.4	10.5	--	--	--	--	9.5		Jun-24
<i>Russell 2000 Growth Index</i>			1.7	10.3	--	--	--	--	10.1		
DFA U.S. Small Cap Value Portfolio	5,042,100	0.4	--	--	--	--	--	--	1.6		Nov-24
<i>Russell 2000 Value Index</i>			--	--	--	--	--	--	0.5		
SSgA Russell 3000 Index	180,661,853	13.3	2.6	9.0	23.7	--	--	--	24.4		Mar-23
<i>Russell 3000 Index</i>			2.6	9.0	23.8	--	--	--	24.5		
SSgA MSCI EAFE	101,746,045	7.5	-8.1	-1.4	4.0	--	--	--	8.7		Mar-23
<i>MSCI EAFE</i>			-8.1	-1.4	3.8	--	--	--	8.4		
SSgA Emerging Markets Index	37,412,443	2.8	-7.8	-0.3	6.8	--	--	--	8.4		Mar-23
<i>MSCI Emerging Markets</i>			-8.0	0.0	7.5	--	--	--	8.9		
ABS China Direct	8,750,883	0.6	-7.8	8.3	10.6	--	--	--	-3.5		Mar-23
<i>MSCI China</i>			-7.7	14.0	19.4	--	--	--	3.2		
ABS EM ex China Direct	21,309,494	1.6	-7.5	-6.2	1.9	--	--	--	12.3		Mar-23
<i>MSCI EM ex China</i>			-8.1	-4.5	3.6	--	--	--	11.8		

## Performance Update | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All-Cap	27,158,576	2.0	-8.5	-1.4	-0.1	--	--	--	5.5	Apr-23
<i>MSCI AC World Index</i>				-1.0	5.6	17.5	--	--	18.1	
First Eagle Global Equity	112,178,537	8.3	-5.8	3.7	11.7	--	--	--	11.1	Apr-23
<i>MSCI AC World Index</i>				-1.0	5.6	17.5	--	--	18.1	
Artisan Global Opportunities	95,141,803	7.0	-1.5	2.7	15.6	--	--	--	16.9	Apr-23
<i>MSCI AC World Index</i>				-1.0	5.6	17.5	--	--	18.1	
J. Stern & Co. World Stars Global Equity Fund	57,120,024	4.2	-3.0	0.4	--	--	--	--	14.0	Feb-24
<i>MSCI AC World IMI Index</i>				-1.2	5.5	--	--	--	16.1	
<b>Private Equity</b>	<b>6,016,516</b>	<b>0.4</b>								
<i>MSCI ACWI + 3% 1Q Lag</i>				7.4	11.3	35.6	--	--	27.7	
<i>NexPhase Capital Fund V, L.P.</i>										
<i>Vitruvian Investment Partnership V</i>										
<i>Lexington Capital Partners X, L.P.</i>										
<i>Flagship Pioneering Fund VIII, L.P.</i>										
<i>Gauge Capital IV, L.P.</i>										
<i>KPS Special Situations Fund VI, L.P.</i>										
<b>Credit</b>	<b>55,457,735</b>	<b>4.1</b>	<b>0.2</b>	<b>3.6</b>	<b>7.1</b>	--	--	--	<b>9.3</b>	<b>May-23</b>
<i>Credit Custom Benchmark</i>				1.2	4.9	8.6	--	--	10.4	
<b>High Yield &amp; Bank Loans</b>	<b>55,457,735</b>	<b>4.1</b>	<b>0.2</b>	<b>3.6</b>	<b>7.1</b>	--	--	--	<b>9.3</b>	<b>May-23</b>
<i>High Yield &amp; Bank Loans Custom Benchmark</i>				1.2	4.9	8.6	--	--	10.4	
<i>Sculptor Credit Opportunities Overseas Fund</i>	25,854,838	1.9	-1.0	-0.7	2.6	--	--	--	4.8	May-23
<i>Blmbg. Global High Yield Index</i>				-0.4	5.8	9.2	--	--	11.5	
<i>Brigade High Income Fund</i>	29,602,897	2.2	1.2	7.1	10.9	--	--	--	12.8	May-23
<i>60% Barclays U.S. Corporate High Yield &amp; 40% S&amp;P UBS Lev Loans</i>				1.0	5.0	8.5	--	--	10.3	

Private Equity asset market values are based on September 30, 2024 fair market values and adjusted for subsequent cash flows.

## Performance Update | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Inflation Hedges</b>	<b>295,158,631</b>	<b>21.8</b>	<b>-3.4</b>	<b>2.6</b>	<b>4.1</b>	--	--	--	<b>-1.6</b>	<b>Dec-22</b>
Inflation Hedges Custom Benchmark			-3.4	0.5	1.7	--	--	--	-1.5	
<b>Real Estate</b>	<b>108,089,258</b>	<b>8.0</b>	<b>-1.6</b>	<b>4.5</b>	<b>1.4</b>	<b>-4.2</b>	<b>0.3</b>	<b>3.3</b>	<b>5.5</b>	<b>Apr-11</b>
NCREIF ODCE			1.0	1.0	-2.3	-3.1	2.0	4.9	6.8	
JP Morgan Asset Management Strategic Property Fund	44,597,273	3.3	1.5	2.1	-2.6	-5.1	0.6	4.1	6.3	Apr-11
NCREIF ODCE			1.0	1.0	-2.3	-3.1	2.0	4.9	6.8	
UBS Trumbull Property Fund	20,622,545	1.5	0.8	0.6	-2.4	-4.8	-1.1	2.0	3.6	Dec-11
NCREIF ODCE			1.0	1.0	-2.3	-3.1	2.0	4.9	6.6	
Morgan Stanley Prime Property Fund	20,000,001	1.5								
SSgA US REIT	22,869,439	1.7	-6.0	8.6	7.9	--	--	--	8.7	Mar-23
Dow Jones U.S. Select RESI			-5.9	8.7	8.0	--	--	--	8.8	
<b>Natural Resources &amp; Infrastructure</b>	<b>67,640,017</b>	<b>5.0</b>	<b>-7.7</b>	<b>-4.0</b>	<b>-1.7</b>	--	--	--	<b>-0.7</b>	<b>Apr-23</b>
S&P Global LargeMid Commodity & Resources			-10.8	-6.8	-5.5	--	--	--	-3.3	
SSgA S&P Global LargeMidCap Natural Resources Index	50,510,884	3.7	-10.8	-6.8	-5.4	--	--	--	-3.2	Apr-23
S&P Global LargeMid Commodity & Resources			-10.8	-6.8	-5.5	--	--	--	-3.3	
JP Morgan Infrastructure Investments Fund	17,129,133	1.3	2.8	5.2	10.6	--	--	--	11.2	Oct-23
Dow Jones Brookfield Global Infrastructure			-3.1	10.8	9.9	--	--	--	18.2	
<b>Gold</b>	<b>50,632,234</b>	<b>3.7</b>	<b>-5.7</b>	<b>8.4</b>	<b>18.3</b>	--	--	--	<b>10.1</b>	<b>Apr-23</b>
60% Gold (Spot)/ 40% FTSE Gold Mines			-7.2	8.1	19.3	--	--	--	12.1	
First Eagle Institutional Gold Fund, LP	50,632,234	3.7	-5.7	8.4	18.3	--	--	--	10.1	Apr-23
60% Gold (Spot)/ 40% FTSE Gold Mines			-7.2	8.1	19.3	--	--	--	12.1	
<b>Short-Term TIPS</b>	<b>68,797,121</b>	<b>5.1</b>	<b>-0.1</b>	<b>2.4</b>	<b>4.8</b>	--	--	--	<b>4.3</b>	<b>Mar-23</b>
Blmbg. U.S. TIPS 0-5 Year			-0.1	2.4	4.7	--	--	--	4.9	
Vanguard Short-Term TIPS Index	68,797,121	5.1	-0.1	2.4	4.8	--	--	--	4.0	Apr-23
Blmbg. U.S. TIPS 0-5 Year			-0.1	2.4	4.7	--	--	--	4.0	

## Performance Update | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Risk Mitigation</b>	<b>272,600,203</b>	<b>20.1</b>	<b>-4.0</b>	<b>0.5</b>	<b>-0.6</b>	--	--	--	<b>2.0</b>	Dec-22
Risk Mitigation Custom Benchmark			-2.3	1.3	1.8	--	--	--	2.7	
<b>Investment Grade Fixed Income</b>	<b>218,435,249</b>	<b>16.1</b>	<b>-4.4</b>	<b>1.6</b>	<b>-0.1</b>	<b>-2.9</b>	<b>-0.4</b>	<b>1.4</b>	<b>5.0</b>	Oct-90
Blmbg. U.S. Aggregate Index			-3.1	2.0	1.3	-2.4	-0.3	1.3	5.0	
<b>Intermediate-Term Bonds</b>	<b>170,815,356</b>	<b>12.6</b>	<b>-3.1</b>	<b>2.4</b>	<b>2.0</b>	<b>-1.9</b>	<b>0.2</b>	<b>1.7</b>	<b>5.1</b>	Oct-90
Blmbg. U.S. Aggregate Index			-3.1	2.0	1.3	-2.4	-0.3	1.3	5.0	
SSgA US Aggregate Bond	43,351,568	3.2	-3.0	2.0	1.4	-2.4	-0.3	1.4	2.6	Jan-09
Blmbg. U.S. Aggregate Index			-3.1	2.0	1.3	-2.4	-0.3	1.3	2.6	
Wellington Core Bond	95,880,831	7.1	-3.0	2.3	2.4	--	--	--	3.0	May-23
Blmbg. U.S. Aggregate Index			-3.1	2.0	1.3	--	--	--	1.9	
Brandywine U.S. Fixed Income	31,582,956	2.3	-3.5	3.5	1.2	--	--	--	2.0	Jun-23
Blmbg. U.S. Aggregate Index			-3.1	2.0	1.3	--	--	--	2.7	
<b>Long-Term Bonds</b>	<b>47,619,894</b>	<b>3.5</b>	<b>-8.7</b>	<b>-1.5</b>	<b>-6.3</b>	--	--	--	<b>-2.7</b>	Mar-23
Blmbg. U.S. Treasury: Long			-8.6	-1.5	-6.4	--	--	--	-2.7	
SSgA Long US Treasury Index	47,619,894	3.5	-8.7	-1.5	-6.3	--	--	--	-2.7	Mar-23
Blmbg. U.S. Treasury: Long			-8.6	-1.5	-6.4	--	--	--	-2.7	
<b>Hedge Funds</b>	<b>51,964,146</b>	<b>3.8</b>	<b>-2.3</b>	<b>-3.0</b>	<b>-3.2</b>	--	--	--	<b>-0.4</b>	Apr-23
Hedge Fund Custom Benchmark			0.4	-0.9	3.3	--	--	--	3.1	
36 South Kohinoor Series (Cayman) Fund	13,360,769	1.0	-0.6	-0.9	0.4	--	--	--	0.6	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			0.1	2.7	1.2	--	--	--	-2.2	
BH-DG Systematic Trading Master Fund	15,545,953	1.1	-6.5	-10.9	-12.2	--	--	--	-4.0	Apr-23
SG Trend Index			0.3	-5.6	2.6	--	--	--	3.5	
Lombard Odier Bear Convexity	5,794,411	0.4	-0.1	0.6	2.6	--	--	--	-1.4	Apr-23
CBOE Eurekahedge Long Volatility Hedge Fund Index			0.1	2.7	1.2	--	--	--	-2.2	
Alpstone Global Macro Fund	17,263,013	1.3	-0.4	2.1	0.1	--	--	--	2.0	May-23
HFRI Macro (Total) Index			0.6	0.0	5.5	--	--	--	4.1	
<b>Cash</b>	<b>2,200,808</b>	<b>0.2</b>								
Cash	2,200,808	0.2								

## Performance Update | As of December 31, 2024

	Fiscal Year Performance					
	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
<b>Total Fund</b>	<b>10.4</b>	<b>8.4</b>	<b>-10.0</b>	<b>25.9</b>	<b>0.6</b>	<b>5.3</b>
<i>Total Fund Policy Benchmark</i>	12.1	9.5	-10.0	26.5	1.3	5.9
<i>Total Fund Actual Allocation Benchmark</i>	11.6	--	--	--	--	--
<i>Total Fund Public Benchmark</i>	14.2	10.5	-14.1	24.1	4.6	6.2
<b>Growth Assets</b>	<b>17.4</b>	--	--	--	--	--
<i>Growth Assets Custom Benchmark</i>	19.3	--	--	--	--	--
<b>Global Equity</b>	<b>17.4</b>	<b>15.8</b>	<b>-16.2</b>	<b>41.6</b>	<b>1.6</b>	<b>5.0</b>
<i>Global Equity Policy Benchmark</i>	18.4	16.1	-16.5	40.9	1.2	4.6
SSgA Russell 1000 Growth Index	33.5	--	--	--	--	--
<i>Russell 1000 Growth Index</i>	33.5	--	--	--	--	--
SSgA Russell 1000 Value Index	13.0	--	--	--	--	--
<i>Russell 1000 Value Index</i>	13.1	--	--	--	--	--
SSgA Russell 3000 Index	23.1	--	--	--	--	--
<i>Russell 3000 Index</i>	23.1	--	--	--	--	--
DF Dent Small Cap Growth Fund	--	--	--	--	--	--
<i>Russell 2000 Growth Index</i>	--	--	--	--	--	--
DFA U.S. Small Cap Value Portfolio	--	--	--	--	--	--
<i>Russell 2000 Value Index</i>	--	--	--	--	--	--
SSgA MSCI EAFE	11.7	--	--	--	--	--
<i>MSCI EAFE</i>	11.5	--	--	--	--	--
SSgA Emerging Markets Index	11.6	--	--	--	--	--
<i>MSCI Emerging Markets</i>	12.5	--	--	--	--	--
ABS China Direct	-6.3	--	--	--	--	--
<i>MSCI China</i>	-1.6	--	--	--	--	--
ABS EM ex China Direct	17.8	--	--	--	--	--
<i>MSCI EM ex China</i>	18.5	--	--	--	--	--
Kopernik Global All-Cap	11.8	--	--	--	--	--
<i>MSCI AC World Index</i>	19.4	--	--	--	--	--
First Eagle Global Equity	10.5	--	--	--	--	--
<i>MSCI AC World Index</i>	19.4	--	--	--	--	--
Artisan Global Opportunities	20.5	--	--	--	--	--
<i>MSCI AC World Index</i>	19.4	--	--	--	--	--
J. Stern & Co. World Stars Global Equity Fund	--	--	--	--	--	--
<i>MSCI AC World IMI Index</i>	--	--	--	--	--	--

## Performance Update | As of December 31, 2024

Fiscal Year 2024   Fiscal Year 2023   Fiscal Year 2022   Fiscal Year 2021   Fiscal Year 2020   Fiscal Year 2019

Private Equity		9.8	--	--	--	--	--	--
NexPhase Capital Fund V, L.P.								
Vitruvian Investment Partnership V								
Lexington Capital Partners X, L.P.								
Flagship Pioneering Fund VIII, L.P.								
Gauge Capital IV, L.P.								
KPS Special Situations Fund VI, L.P.								
Credit		9.8	--	--	--	--	--	--
<i>Credit Custom Benchmark</i>		10.8	--	--	--	--	--	--
High Yield & Bank Loans		9.8	--	--	--	--	--	--
<i>High Yield &amp; Bank Loans Custom Benchmark</i>		10.8	--	--	--	--	--	--
Sculptor Credit Opportunities Overseas Fund		6.4	--	--	--	--	--	--
<i>Blimbg. Global High Yield Index</i>		11.8	--	--	--	--	--	--
Brigade High Income Fund		12.3	--	--	--	--	--	--
<i>60% Barclays U.S. Corporate High Yield &amp; 40% S&amp;P UBS Lev Loans</i>		10.7	--	--	--	--	--	--
Inflation Hedges		1.9	--	--	--	--	--	--
<i>Inflation Hedges Custom Benchmark</i>		1.2	--	--	--	--	--	--
Real Estate		-8.4	-12.1	18.1	3.7	-0.3	1.9	
<i>NCREIF ODCE</i>		-10.0	-10.7	28.3	7.1	1.3	5.5	
JP Morgan Asset Management Strategic Property Fund		-14.9	-11.3	27.5	6.1	1.2	4.6	
<i>NCREIF ODCE</i>		-10.0	-10.7	28.3	7.1	1.3	5.5	
UBS Trumbull Property Fund		-8.6	-15.6	23.5	1.1	-1.9	-0.8	
<i>NCREIF ODCE</i>		-10.0	-10.7	28.3	7.1	1.3	5.5	
Morgan Stanley Prime Property Fund		--	--	--	--	--	--	
<i>NCREIF ODCE (Net)</i>		--	--	--	--	--	--	
SSgA US REIT		7.0	--	--	--	--	--	
<i>Dow Jones U.S. Select REI</i>		7.1	--	--	--	--	--	
Natural Resources & Infrastructure		6.8	--	--	--	--	--	--
<i>S&amp;P Global LargeMid Commodity &amp; Resources</i>		5.2	--	--	--	--	--	--
SSgA S&P Global LargeMidCap Natural Resources Index		5.2	--	--	--	--	--	--
<i>S&amp;P Global LargeMid Commodity &amp; Resources</i>		5.2	--	--	--	--	--	--
JP Morgan Infrastructure Investments Fund		--	--	--	--	--	--	
<i>Dow Jones Brookfield Global Infrastructure</i>		--	--	--	--	--	--	
Gold		15.3	--	--	--	--	--	--
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>		17.8	--	--	--	--	--	--
First Eagle Institutional Gold Fund, LP		15.3	--	--	--	--	--	--
<i>60% Gold (Spot)/ 40% FTSE Gold Mines</i>		17.8	--	--	--	--	--	--

## Performance Update | As of December 31, 2024

	Fiscal Year 2024	Fiscal Year 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019
<b>Short-Term TIPS</b>	<b>5.4</b>	--	--	--	--	--
<i>Blmbg. U.S. TIPS 0-5 Year</i>	<i>5.4</i>	--	--	--	--	--
Vanguard Short-Term TIPS Index	5.4	--	--	--	--	--
<i>Blmbg. U.S. TIPS 0-5 Year</i>	<i>5.4</i>	--	--	--	--	--
<b>Risk Mitigation</b>	<b>0.5</b>	--	--	--	--	--
<i>Risk Mitigation Custom Benchmark</i>	<i>3.2</i>	--	--	--	--	--
<b>Investment Grade Fixed Income</b>	<b>0.9</b>	<b>0.1</b>	<b>-10.5</b>	<b>0.2</b>	<b>8.6</b>	<b>7.6</b>
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
<b>Intermediate-Term Bonds</b>	<b>3.1</b>	<b>0.0</b>	<b>-10.5</b>	<b>0.2</b>	<b>8.6</b>	<b>7.6</b>
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
SSgA US Aggregate Bond	2.6	-0.9	-10.3	-0.3	8.8	7.9
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	<i>-0.9</i>	<i>-10.3</i>	<i>-0.3</i>	<i>8.7</i>	<i>7.9</i>
Wellington Core Bond	4.0	--	--	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	--	--	--	--	--
Brandywine U.S. Fixed Income	0.5	--	--	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>	<i>2.6</i>	--	--	--	--	--
<b>Long-Term Bonds</b>	<b>-5.7</b>	--	--	--	--	--
<i>Blmbg. U.S. Treasury: Long</i>	<i>-5.6</i>	--	--	--	--	--
SSgA Long US Treasury Index	-5.7	--	--	--	--	--
<i>Blmbg. U.S. Treasury: Long</i>	<i>-5.6</i>	--	--	--	--	--
<b>Hedge Funds</b>	<b>-1.2</b>	--	--	--	--	--
<i>Hedge Fund Custom Benchmark</i>	<i>4.8</i>	--	--	--	--	--
36 South Kohinoor Series (Cayman) Fund	0.6	--	--	--	--	--
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>	<i>-3.7</i>	--	--	--	--	--
BH-DG Systematic Trading Master Fund	-4.7	--	--	--	--	--
<i>SG Trend Index</i>	<i>4.1</i>	--	--	--	--	--
Lombard Odier Bear Convexity	-2.9	--	--	--	--	--
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>	<i>-3.7</i>	--	--	--	--	--
Alpstone Global Macro Fund	1.1	--	--	--	--	--
<i>HFRI Macro (Total) Index</i>	<i>5.9</i>	--	--	--	--	--
<b>Cash</b>						

		<b>Risk Return Statistics</b>	
		<b>3 Yrs (%)</b>	<b>5 Yrs (%)</b>
	<b>Total Fund</b>		<b>Total Fund</b>
<b>RETURN SUMMARY STATISTICS</b>			
Maximum Return	5.8		8.3
Minimum Return	-7.3		-10.5
Return	2.2		5.9
Excess Return	-1.0		4.1
Excess Performance	-1.4		-1.1
<b>RISK SUMMARY STATISTICS</b>			
Beta	1.0		0.9
Up Capture	97.4		95.8
Down Capture	106.0		101.4
<b>RISK/RETURN SUMMARY STATISTICS</b>			
Standard Deviation	11.4		12.1
Sortino Ratio	-0.1		0.5
Alpha	-1.4		-0.7
Sharpe Ratio	-0.1		0.3
Excess Risk	11.3		12.1
Tracking Error	1.0		1.6
Information Ratio	-1.3		-0.7
<b>CORRELATION STATISTICS</b>			
R-Squared	1.0		1.0
Actual Correlation	1.0		1.0

Performance Update | As of December 31, 2024

Statistics Summary 3 Years Ending December 31, 2024						
	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Fund	2.2	11.4	-1.3	1.0	-0.1	1.0
Total Fund Policy Benchmark	3.6	11.2	-	1.0	0.0	0.0
Growth Assets	-	-	-	-	-	-
Growth Assets Custom Benchmark	-	-	-	-	-	-
Global Equity	4.0	16.0	-1.0	1.0	0.1	1.0
Global Equity Policy Benchmark	4.9	16.4	-	1.0	0.1	0.0
SSgA Russell 1000 Growth Index	-	-	-	-	-	-
Russell 1000 Growth Index	10.5	20.3	-	1.0	0.4	0.0
SSgA Russell 1000 Value Index	-	-	-	-	-	-
Russell 1000 Value Index	5.6	16.7	-	1.0	0.2	0.0
DF Dent Small Cap Growth Fund	-	-	-	-	-	-
Russell 2000 Growth Index	0.2	24.0	-	1.0	0.0	0.0
DFA U.S. Small Cap Value Portfolio	-	-	-	-	-	-
Russell 2000 Value Index	1.9	23.4	-	1.0	0.0	0.0
SSgA Russell 3000 Index	-	-	-	-	-	-
Russell 3000 Index	8.0	17.6	-	1.0	0.3	0.0
SSgA MSCI EAFE	-	-	-	-	-	-
MSCI EAFE	1.6	16.6	-	1.0	0.0	0.0
SSgA Emerging Markets Index	-	-	-	-	-	-
MSCI Emerging Markets	-1.9	17.5	-	1.0	-0.2	0.0
ABS China Direct	-	-	-	-	-	-
MSCI China	-6.1	32.3	-	1.0	-0.2	0.0
ABS EM ex China Direct	-	-	-	-	-	-
MSCI EM ex China	-0.9	17.1	-	1.0	-0.2	0.0
Kopernik Global All-Cap	-	-	-	-	-	-
MSCI AC World Index	5.4	16.2	-	1.0	0.2	0.0
First Eagle Global Equity	-	-	-	-	-	-
MSCI AC World Index	5.4	16.2	-	1.0	0.2	0.0
Artisan Global Opportunities	-	-	-	-	-	-
MSCI AC World Index	5.4	16.2	-	1.0	0.2	0.0

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

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Credit	-	-	-	-	-	-
Credit Custom Benchmark	-	-	-	-	-	-
High Yield & Bank Loans	-	-	-	-	-	-
High Yield & Bank Loans Custom Benchmark	4.9	5.5	-	1.0	0.2	0.0
Sculptor Credit Opportunities Overseas Fund	-	-	-	-	-	-
Blmbg. Global High Yield Index	2.8	9.4	-	1.0	-0.1	0.0
Brigade High Income Fund	-	-	-	-	-	-
60% Barclays U.S. Corporate High Yield & 40% S&P UBS Lev Loans	4.5	6.1	-	1.0	0.1	0.0
Inflation Hedges	-	-	-	-	-	-
Inflation Hedges Custom Benchmark	-	-	-	-	-	-
Real Estate	-4.2	6.0	-0.2	0.5	-1.3	6.0
NCREIF ODCE	-3.1	7.2	-	1.0	-0.9	0.0
JP Morgan Asset Management Strategic Property Fund	-5.1	5.4	-0.4	0.5	-1.5	5.5
NCREIF ODCE	-3.1	7.2	-	1.0	-0.9	0.0
UBS Trumbull Property Fund	-4.8	7.8	-0.7	1.0	-1.0	2.4
NCREIF ODCE	-3.1	7.2	-	1.0	-0.9	0.0
SSgA US REIT	-	-	-	-	-	-
Dow Jones U.S. Select RESI	-3.1	21.1	-	1.0	-0.2	0.0
Morgan Stanley Prime Property Fund	-	-	-	-	-	-
NCREIF ODCE (Net)	-3.1	7.2	-	1.0	-0.9	0.0
Natural Resources & Infrastructure	-	-	-	-	-	-
S&P Global LargeMid Commodity & Resources	2.2	19.9	-	1.0	0.0	0.0
SSgA S&P Global LargeMidCap Natural Resources Index	-	-	-	-	-	-
S&P Global LargeMid Commodity & Resources	2.2	19.9	-	1.0	0.0	0.0
JP Morgan Infrastructure Investments Fund	-	-	-	-	-	-
Dow Jones Brookfield Global Infrastructure	2.4	17.1	-	1.0	0.0	0.0
Gold	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	7.9	20.5	-	1.0	0.3	0.0
First Eagle Institutional Gold Fund, LP	-	-	-	-	-	-
60% Gold (Spot)/ 40% FTSE Gold Mines	7.9	20.5	-	1.0	0.3	0.0
Short-Term TIPS	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.1	3.2	-	1.0	-0.5	0.0
Vanguard Short-Term TIPS Index	-	-	-	-	-	-
Blmbg. U.S. TIPS 0-5 Year	2.1	3.2	-	1.0	-0.5	0.0

## Performance Update | As of December 31, 2024

	Return	Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Risk Mitigation	-	-	-	-	-	-
Risk Mitigation Custom Benchmark	-	-	-	-	-	-
Investment Grade Fixed Income	-2.9	9.0	-0.2	1.2	-0.7	1.9
Blmbg. U.S. Aggregate Index	-2.4	7.7	-	1.0	-0.8	0.0
Intermediate-Term Bonds	-1.9	8.0	0.9	1.0	-0.7	0.6
Blmbg. U.S. Aggregate Index	-2.4	7.7	-	1.0	-0.8	0.0
SSgA US Aggregate Bond	-2.4	7.7	0.1	1.0	-0.8	0.2
Blmbg. U.S. Aggregate Index	-2.4	7.7	-	1.0	-0.8	0.0
Wellington Core Bond	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-2.4	7.7	-	1.0	-0.8	0.0
Brandywine U.S. Fixed Income	-	-	-	-	-	-
Blmbg. U.S. Aggregate Index	-2.4	7.7	-	1.0	-0.8	0.0
Long-Term Bonds	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-12.0	15.9	-	1.0	-1.0	0.0
SSgA Long US Treasury Index	-	-	-	-	-	-
Blmbg. U.S. Treasury: Long	-12.0	15.9	-	1.0	-1.0	0.0
Hedge Funds	-	-	-	-	-	-
Hedge Fund Custom Benchmark	-	-	-	-	-	-
36 South Kohinoor Series (Cayman) Fund	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	0.6	6.0	-	1.0	-0.5	0.0
BH-DG Systematic Trading Master Fund	-	-	-	-	-	-
SG Trend Index	7.8	13.2	-	1.0	0.3	0.0
Lombard Odier Bear Convexity	-	-	-	-	-	-
CBOE Eurekahedge Long Volatility Hedge Fund Index	0.6	6.0	-	1.0	-0.5	0.0
Alpstone Global Macro Fund	-	-	-	-	-	-
HFRI Macro (Total) Index	4.6	5.2	-	1.0	0.2	0.0

**Private Market Investments Overview**

Asset Sleeve	Vintage Year	Commitment	Unfunded	Total Contributions	Total Distributions	Unrealized Value	Last Reported Date
Flagship Pioneering Fund VIII, L.P.	2023	\$ 3,000,000	\$ 2,790,000	\$ 210,000	\$ -	\$ 177,850	2024-09-30
Gauge Capital Fund IV	2024	\$ 2,000,000	\$ 1,796,564	\$ 203,436	\$ -	\$ 153,598	2024-09-30
KPS Special Situations Fund VI	2023	\$ 3,000,000	\$ 2,586,150	\$ 413,850	\$ -	\$ 413,850	2024-09-30
Lexington Capital Partners X, L.P.	2022	\$ 8,500,000	\$ 5,248,240	\$ 3,493,058	\$ 175,393	\$ 4,062,512	2024-09-30
Linden Capital Partners VI, L.P.	2024	\$ 3,000,000	\$ 3,000,000	\$ -	\$ -	\$ -	2024-09-30
NexPhase Capital Fund V	2022	\$ 3,000,000	\$ 2,632,964	\$ 367,036	\$ -	\$ 252,183	2024-09-30
Sterling Group Partners VI, L.P.	2024	\$ 2,200,000	\$ 2,200,000	\$ -	\$ -	\$ -	2024-09-30
Vitruvian Investment Partnership V, L.P.	2023	\$ 3,111,130	\$ 2,890,889	\$ 223,927	\$ -	\$ 106,733	2024-09-30
<b>Total Private Equity</b>		<b>\$ 27,811,130</b>	<b>\$ 23,144,806</b>	<b>\$ 4,911,308</b>	<b>\$ 175,393</b>	<b>\$ 5,166,726</b>	<b>2024-09-30</b>
<b>Grand Total</b>		<b>\$ 27,811,130</b>	<b>\$ 23,144,806</b>	<b>\$ 4,911,308</b>	<b>\$ 175,393</b>	<b>\$ 5,166,726</b>	<b>2024-09-30</b>

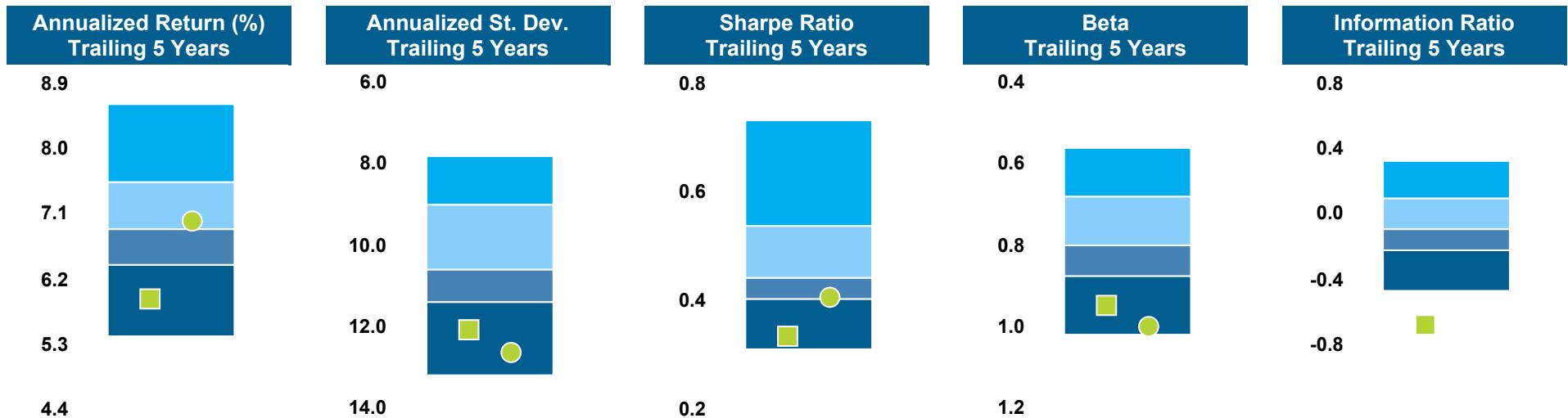
## Performance Update | Quarter To Date

Cash Flow Summary				
	Beginning Market Value(\$)	Net Cash Flow	Net Investment Change	Ending Market Value(\$)
SSgA Russell 1000 Growth Index	29,575,911	-8,000,000	1,618,316	23,194,227
SSgA Russell 1000 Value Index	55,210,242	-15,000,000	-641,103	39,569,139
DF Dent Small Cap Growth Fund	16,343,194	-	-234,031	16,109,162
DFA U.S. Small Cap Value Portfolio	-	5,000,000	42,100	5,042,100
SSgA Russell 3000 Index	176,076,093	-	4,585,759	180,661,853
SSgA MSCI EAFE	92,405,114	18,000,000	-8,659,069	101,746,045
SSgA Emerging Markets Index	40,551,157	-	-3,138,715	37,412,443
ABS China Direct	9,495,496	-	-744,613	8,750,883
ABS EM ex China Direct	23,026,761	-	-1,717,267	21,309,494
Kopernik Global All-Cap	34,614,609	-5,000,000	-2,456,033	27,158,576
First Eagle Global Equity	137,070,494	-18,000,000	-6,891,957	112,178,537
Artisan Global Opportunities	105,077,687	-8,400,000	-1,535,883	95,141,803
J. Stern & Co. World Stars Global Equity Fund	58,893,653	-	-1,773,629	57,120,024
NexPhase Capital Fund V, L.P.	241,778	-	10,405	252,183
Vitruvian Investment Partnership V	127,214	240,205	-19,617	347,802
Lexington Capital Partners X, L.P.	4,029,169	563,720	33,343	4,626,232
Flagship Pioneering Fund VIII, L.P.	193,163	45,000	-15,313	222,850
Gauge Capital IV, L.P.	166,629	-	-13,030	153,599
KPS Special Situations Fund VI, L.P.	413,850	-	-	413,850
Sculptor Credit Opportunities Overseas Fund	26,188,056	-71,317	-261,901	25,854,838
Brigade High Income Fund	32,201,212	-3,000,000	401,685	29,602,897
JP Morgan Asset Management Strategic Property Fund	43,925,048	-101,450	773,675	44,597,273
UBS Trumbull Property Fund	21,650,663	-1,182,529	154,411	20,622,545
Morgan Stanley Prime Property Fund	-	20,000,000	1	20,000,001
SSgA US REIT	45,685,716	-20,000,000	-2,816,278	22,869,439
SSgA S&P Global LargeMidCap Natural Resources Index	56,586,308	-	-6,075,424	50,510,884
JP Morgan Infrastructure Investments Fund	16,662,039	-	467,094	17,129,133
First Eagle Institutional Gold Fund, LP	53,702,453	-	-3,070,219	50,632,234
Vanguard Short-Term TIPS Index	68,863,893	-	-66,771	68,797,121
SSgA US Aggregate Bond	44,708,041	-	-1,356,473	43,351,568

**Performance Update | Quarter To Date**

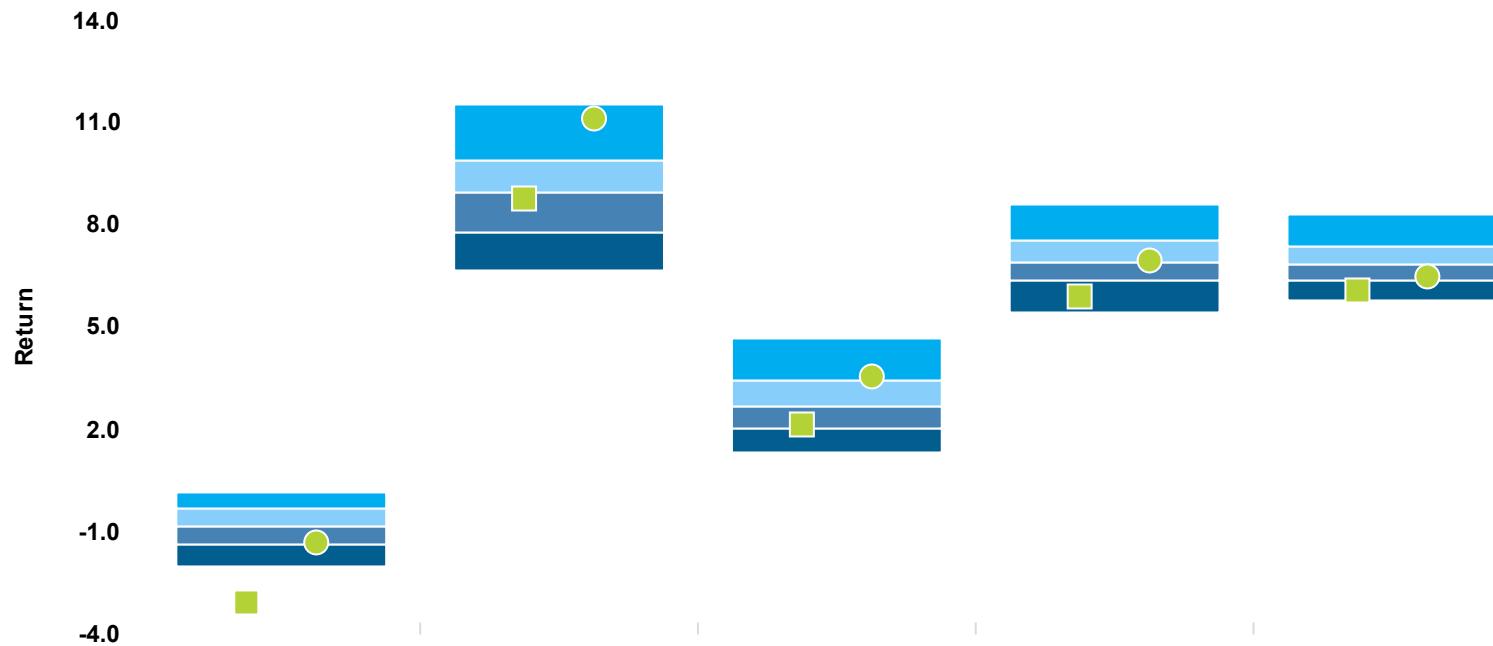
	Beginning Market Value(\$)	Net Cash Flow	Net Investment Change	Ending Market Value(\$)
Wellington Core Bond	89,928,385	8,700,000	-2,747,554	95,880,831
Brandywine U.S. Fixed Income	31,304,623	1,383,084	-1,121,666	31,582,956
SSgA Long US Treasury Index	52,130,756	-	-4,510,862	47,619,894
36 South Kohinoor Series (Cayman) Fund	13,437,670	-	-76,901	13,360,769
BH-DG Systematic Trading Master Fund	16,631,844	-	-1,085,892	15,545,953
Lombard Odier Bear Convexity	5,798,521	-	-4,110	5,794,411
Alpstone Global Macro Fund	17,328,488	-	-65,476	17,263,013
Cash	1,726,633	397,835	76,341	2,200,808
<b>Total</b>	<b>1,421,972,563</b>	<b>-24,425,453</b>	<b>-42,936,655</b>	<b>1,354,627,371</b>

Performance Update | As of December 31, 2024



Total Fund	5.9 (88)	Total Fund	12.1 (85)	Total Fund	0.3 (94)	Total Fund	0.9 (86)	Total Fund	-0.7 (100)
Total Fund Policy Benchmark	7.0 (43)	Total Fund Policy Benchmark	12.6 (90)	Total Fund Policy Benchmark	0.4 (74)	Total Fund Policy Benchmark	1.0 (91)	Total Fund Policy Benchmark	-
5th Percentile	8.6	5th Percentile	7.8	5th Percentile	0.7	5th Percentile	0.6	5th Percentile	0.3
1st Quartile	7.5	1st Quartile	9.0	1st Quartile	0.5	1st Quartile	0.7	1st Quartile	0.1
Median	6.9	Median	10.6	Median	0.4	Median	0.8	Median	-0.1
3rd Quartile	6.4	3rd Quartile	11.4	3rd Quartile	0.4	3rd Quartile	0.9	3rd Quartile	-0.2
95th Percentile	5.4	95th Percentile	13.2	95th Percentile	0.3	95th Percentile	1.0	95th Percentile	-0.5
Population	62	Population	62	Population	62	Population	62	Population	62

## InvMetrics All Public DB Plans &gt; \$1B



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ Total Fund	-3.1 (100)	8.8 (53)	2.2 (71)	5.9 (88)	6.1 (89)
● Total Fund Policy Benchmark	-1.3 (71)	11.1 (9)	3.6 (21)	7.0 (43)	6.5 (71)
5th Percentile	0.2	11.5	4.7	8.6	8.3
1st Quartile	-0.3	9.9	3.4	7.5	7.3
Median	-0.9	9.0	2.7	6.9	6.8
3rd Quartile	-1.4	7.8	2.1	6.4	6.4
95th Percentile	-2.0	6.7	1.4	5.4	5.8
Population	69	68	64	62	59

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

**Performance Update | As of December 31, 2024**
**Annual Investment Expense Analysis  
As of December 31, 2024**

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Growth Assets</b>		\$731,410,802	\$2,124,325	0.29
<b>Global Equity</b>		\$725,394,286	\$2,099,971	0.29
SSgA Russell 1000 Growth Index	0.02 % of Assets	\$23,194,227	\$4,639	0.02
SSgA Russell 1000 Value Index	0.02 % of Assets	\$39,569,139	\$7,914	0.02
DF Dent Small Cap Growth Fund	0.95 % of Assets	\$16,109,162	\$153,037	0.95
DFA U.S. Small Cap Value Portfolio	0.31 % of Assets	\$5,042,100	\$15,631	0.31
SSgA Russell 3000 Index	0.02 % of Assets	\$180,661,853	\$36,132	0.02
SSgA MSCI EAFE	0.04 % of Assets	\$101,746,045	\$40,698	0.04
SSgA Emerging Markets Index	0.08 % of Assets	\$37,412,443	\$29,930	0.08
ABS China Direct	0.65 % of Assets	\$8,750,883	\$56,881	0.65
ABS EM ex China Direct	0.50 % of Assets	\$21,309,494	\$106,547	0.50
Kopernik Global All-Cap	0.75 % of Assets	\$27,158,576	\$203,689	0.75
First Eagle Global Equity	0.55 % of Assets	\$112,178,537	\$616,982	0.55
Artisan Global Opportunities	0.60 % of Assets	\$95,141,803	\$570,851	0.60
J. Stern & Co. World Stars Global Equity Fund	0.45 % of Assets	\$57,120,024	\$257,040	0.45
<b>Private Equity</b>		<b>\$6,016,516</b>	<b>\$24,354</b>	<b>0.40</b>
NexPhase Capital Fund V, L.P.	2.00 % of Assets	\$252,183	\$5,044	2.00
Vitruvian Investment Partnership V	1.90 % of Assets	\$347,802	\$6,608	1.90
Lexington Capital Partners X, L.P.	1.00% on committed capital.	\$4,626,232	-	-
Flagship Pioneering Fund VIII, L.P.	2.00 % of Assets	\$222,850	\$4,457	2.00
Gauge Capital IV, L.P.	2.00 % of Assets	\$153,599	\$3,072	2.00
KPS Special Situations Fund VI, L.P.	1.25 % of Assets	\$413,850	\$5,173	1.25

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Credit</b>		<b>\$55,457,735</b>	<b>\$412,483</b>	<b>0.74</b>
<b>High Yield &amp; Bank Loans</b>		<b>\$55,457,735</b>	<b>\$412,483</b>	<b>0.74</b>
Sculptor Credit Opportunities Overseas Fund	Performance Based 1.00 % and 20.00 %	\$25,854,838	\$258,548	1.00
Brigade High Income Fund	0.52 % of Assets	\$29,602,897	\$153,935	0.52
<b>Inflation Hedges</b>		<b>\$295,158,631</b>	<b>\$1,239,294</b>	<b>0.42</b>
<b>Real Estate</b>		<b>\$108,089,258</b>	<b>\$770,693</b>	<b>0.71</b>
JP Morgan Asset Management Strategic Property Fund	0.91 % of Assets	\$44,597,273	\$405,835	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	\$20,622,545	\$183,136	0.89
Morgan Stanley Prime Property Fund	0.84 % of Assets	\$20,000,001	\$168,000	0.84
SSgA US REIT	0.06 % of Assets	\$22,869,439	\$13,722	0.06
<b>Natural Resources &amp; Infrastructure</b>		<b>\$67,640,017</b>	<b>\$213,238</b>	<b>0.32</b>
SSgA S&P Global LargeMidCap Natural Resources Index	0.10 % of Assets	\$50,510,884	\$50,511	0.10
JP Morgan Infrastructure Investments Fund	0.95 % of Assets	\$17,129,133	\$162,727	0.95
<b>Gold</b>		<b>\$50,632,234</b>	<b>\$227,845</b>	<b>0.45</b>
First Eagle Institutional Gold Fund, LP	0.45 % of Assets	\$50,632,234	\$227,845	0.45
<b>Short-Term TIPS</b>		<b>\$68,797,121</b>	<b>\$27,519</b>	<b>0.04</b>
Vanguard Short-Term TIPS Index	0.04 % of Assets	\$68,797,121	\$27,519	0.04

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

	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Risk Mitigation</b>		<b>\$272,600,203</b>	<b>\$784,298</b>	<b>0.29</b>
<b>Investment Grade Fixed Income</b>		<b>\$218,435,249</b>	<b>\$229,604</b>	<b>0.11</b>
<b>Intermediate-Term Bonds</b>		<b>\$170,815,356</b>	<b>\$215,318</b>	<b>0.13</b>
SSgA US Aggregate Bond	0.02 % of Assets	\$43,351,568	\$8,670	0.02
Wellington Core Bond	0.12 % of Assets	\$95,880,831	\$115,057	0.12
Brandywine U.S. Fixed Income	0.29 % of Assets	\$31,582,956	\$91,591	0.29
<b>Long-Term Bonds</b>		<b>\$47,619,894</b>	<b>\$14,286</b>	<b>0.03</b>
SSgA Long US Treasury Index	0.03 % of Assets	\$47,619,894	\$14,286	0.03
<b>Hedge Funds</b>		<b>\$51,964,146</b>	<b>\$554,694</b>	<b>1.07</b>
36 South Kohinoor Series (Cayman) Fund	Performance Based 1.00 % and 20.00 %	\$13,360,769	\$133,608	1.00
BH-DG Systematic Trading Master Fund	0.93 % of Assets	\$15,545,953	\$144,577	0.93
Lombard Odier Bear Convexity	Performance Based 0.75 % and 27.50 %	\$5,794,411	\$43,458	0.75
Alpstone Global Macro Fund	Performance Based 1.35 % and 20.00 %	\$17,263,013	\$233,051	1.35
<b>Cash</b>		<b>\$2,200,808</b>	-	-
Cash		\$2,200,808	-	-
<b>Total Fund</b>		<b>\$1,354,627,371</b>	<b>\$4,560,401</b>	<b>0.34</b>

## Performance Update | As of December 31, 2024

Fund	Monthly Management Fees Paid (\$)														
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	FYTD	CYTD	
SSgA MSCI ACWI IMI Index Fund	9,786	-	-	-	-	-	-	-	-	-	-	-	-	9,786	
SSgA Russell 1000 Growth Index	-	-	1,514	-	-	1,652	-	-	1,557	-	-	1,442	2,999	6,165	
SSgA Russell 1000 Value Index	-	-	707	-	-	1,495	-	-	1,523	-	-	2,129	3,652	5,854	
SSgA Russell 3000 Index	-	-	9,185	-	-	9,354	-	-	9,071	-	-	9,670	18,740	37,279	
SSgA MSCI EAFFE	-	-	8,416	-	-	8,402	-	-	8,602	-	-	9,088	17,690	34,508	
SSgA Emerging Markets Index	-	-	6,989	-	-	6,936	-	-	7,303	-	-	7,759	15,061	28,987	
Fidelity Small Cap Index Fund	303	320	331	308	-	-	-	-	-	-	-	-	-	1,261	
DF Dent Small Cap Growth Fund	-	-	-	-	11,647	11,544	12,805	12,681	12,938	12,594	13,880	12,753	77,651	100,841	
DFA U.S. Small Cap Growth Fund	-	-	-	-	-	-	-	-	-	1,282	1,414	1,303	3,998	3,998	
ABS China Direct	4,287	3,847	4,074	4,144	4,390	4,533	4,375	4,228	4,182	5,143	4,860	4,656	27,445	52,720	
ABS EM ex China Direct	8,712	8,542	8,830	9,013	8,879	8,975	9,461	9,437	9,595	9,594	9,265	8,998	56,352	109,303	
Kopernik Global All-Cap*	23,649	22,734	24,501	24,111	25,181	24,368	24,555	25,367	25,605	22,460	21,272	20,760	140,018	284,562	
First Eagle Global Equity	50,374	54,587	56,738	55,116	57,127	57,095	59,461	61,347	62,850	53,044	53,711	51,436	341,848	672,885	
Artisan Global Opportunities*	50,384	50,370	49,654	48,138	48,994	50,375	49,935	51,622	52,539	51,585	49,245	47,571	302,498	600,413	
J. Stern & Co. World Stars Global Equity	1,212	23,204	23,730	22,740	23,920	22,572	21,196	21,654	22,093	21,242	21,891	21,428	129,504	246,882	
NexPhase Capital Fund V	-	-	-	-	-	4,922	-	-	-	-	-	-	-	4,922	
Vitruvian Investment Partnership V	-	-	-	-	-	-	-	-	-	-	-	50,046	50,046	50,046	
Lexington Capital Partners X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Flagship Pioneering Fund VIII, L.P.	-	-	16,734	-	-	-	-	-	-	-	-	-	-	16,734	
Gauge Capital IV, L.P.	-	-	-	-	-	14,836	-	-	33,045	-	-	-	-	33,045	47,881
KPS Special Situations Fund VI, L.P.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sculptor Credit Opportunities Overseas Fund	21,738	20,336	21,738	21,539	22,257	21,539	22,001	22,001	21,291	22,061	21,349	22,061	130,762	259,908	
Brigade High Income Fund*	16,222	16,334	16,573	16,330	16,584	16,689	13,475	13,706	13,954	14,019	14,143	12,828	82,124	180,857	
JP Morgan Strategic Property Fund	113,900	-	-	105,886	-	-	100,338	-	-	101,450	-	-	201,788	421,573	
UBS Trumbull Property Fund	49,971	-	-	47,526	-	-	46,216	-	-	45,423	-	-	91,640	189,137	
Morgan Stanley Prime Property Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SSgA US REIT	-	-	2,575	-	-	4,393	-	-	5,279	-	-	6,797	12,076	19,044	
SSgA S&P Global LargeMidCap NR Index	-	-	10,710	-	-	12,341	-	-	12,265	-	-	13,868	26,133	49,184	
JP Morgan Infrastructure Investments Fund	-	-	33,920	-	-	34,784	-	-	33,679	-	-	34,921	68,600	137,304	
First Eagle Institutional Gold Fund, LP	13,806	12,574	15,683	17,335	18,195	17,380	18,911	19,353	19,671	21,015	19,515	19,663	118,128	213,101	
Vanguard Short-Term TIPS Index*	2,220	2,216	2,228	2,227	1,994	2,005	2,393	2,273	2,295	2,286	2,295	13,836	26,726		
SSgA US Aggregate Bond	-	-	2,598	-	-	1,836	-	-	1,819	-	-	2,010	3,829	8,262	
Wellington Core Bond*	8,808	8,712	8,797	8,587	8,749	8,826	10,195	10,331	10,492	11,955	12,086	11,186	66,245	118,725	
Brandywine U.S. Fixed Income	-	8,258	-	-	10,287	-	-	9,979	-	-	16,916	-	26,894	45,440	
SSgA Long US Treasury Index	-	-	3,516	-	-	3,691	-	-	3,555	-	-	3,833	7,388	14,594	
36 South Kohinoor Series (Cayman) Fund	17,859	17,586	17,769	17,961	17,877	18,029	11,245	11,179	11,242	11,359	10,976	11,711	67,712	174,791	
BH-DG Systematic Trading Master Fund	13,421	12,810	14,121	13,894	14,248	12,418	14,479	12,170	12,807	12,185	11,237	12,679	75,557	156,469	
Lombard Odier Bear Convexity	4,791	4,872	4,835	4,802	4,836	4,852	3,690	3,664	3,626	3,579	3,610	3,624	21,793	50,781	
Alpstone Global Macro	19,160	19,194	19,544	19,752	19,546	19,046	19,003	19,285	19,542	19,147	18,955	19,450	115,381	231,622	
<b>Total</b>	<b>430,602</b>	<b>286,495</b>	<b>386,010</b>	<b>439,407</b>	<b>314,709</b>	<b>404,887</b>	<b>443,732</b>	<b>310,277</b>	<b>422,420</b>	<b>441,424</b>	<b>306,619</b>	<b>425,961</b>	<b>2,350,433</b>	<b>4,612,543</b>	
<b>Custodial Fee</b>	<b>2,564</b>	<b>6,597</b>	<b>2,548</b>	<b>-</b>	<b>6,739</b>	<b>-</b>	<b>2,553</b>	<b>4,199</b>	<b>2,585</b>	<b>2,555</b>	<b>4,206</b>	<b>2,603</b>	<b>18,701</b>	<b>37,148</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.  
In some instances, additional expenses are charged but the above table only reflects management fees.

		Benchmark History
From Date	To Date	Benchmark
<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% NCREF 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 LargeMid Commodity & Resources (Net), 2.0% S&P UBS 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% NCREF 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 LargeMid Commodity & Resources (Net), 2.0% S&P UBS 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% NCREF 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% NCREF 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% NCREF 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% NCREF 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.

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

## Appendix

## **Disclaimer, Glossary, and Notes**

THIS REPORT (THE “REPORT”) HAS BEEN PREPARED FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE “RECIPIENT”).

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT, AND IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. THE INFORMATION CONTAINED HEREIN, INCLUDING ANY OPINIONS OR RECOMMENDATIONS, REPRESENTS OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND IS SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK, AND THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

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CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE “FORWARD-LOOKING STATEMENTS,” WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS “MAY,” “WILL,” “SHOULD,” “EXPECT,” “AIM,” “ANTICIPATE,” “TARGET,” “PROJECT,” “ESTIMATE,” “INTEND,” “CONTINUE,” OR “BELIEVE,” OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT.

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

**Credit Risk:** Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

**Jensen's Alpha:** A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

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

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

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

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

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

**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

**Sharpe Ratio:** A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

**STIF Account:** Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

**Tracking Error:** A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

**Yield to Maturity:** The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

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

**Yield to Worst:** The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE):** Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.  
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.