

## San Jose Federated City Employees' Retirement System

As of December 31, 2024

Quarterly Review

**Table of Contents**

- 1. Economic and Market Update**
- 2. Executive Summary**
  - Aggregate Plan Overview
  - Manager Highlights
  - Third Quarter Manager Summary
  - Watch List
  - Market Environment–4Q24 Overview
- 3. 4Q24 Review**
- 4. Glossary and Notes**

# **Economic and Market Update**

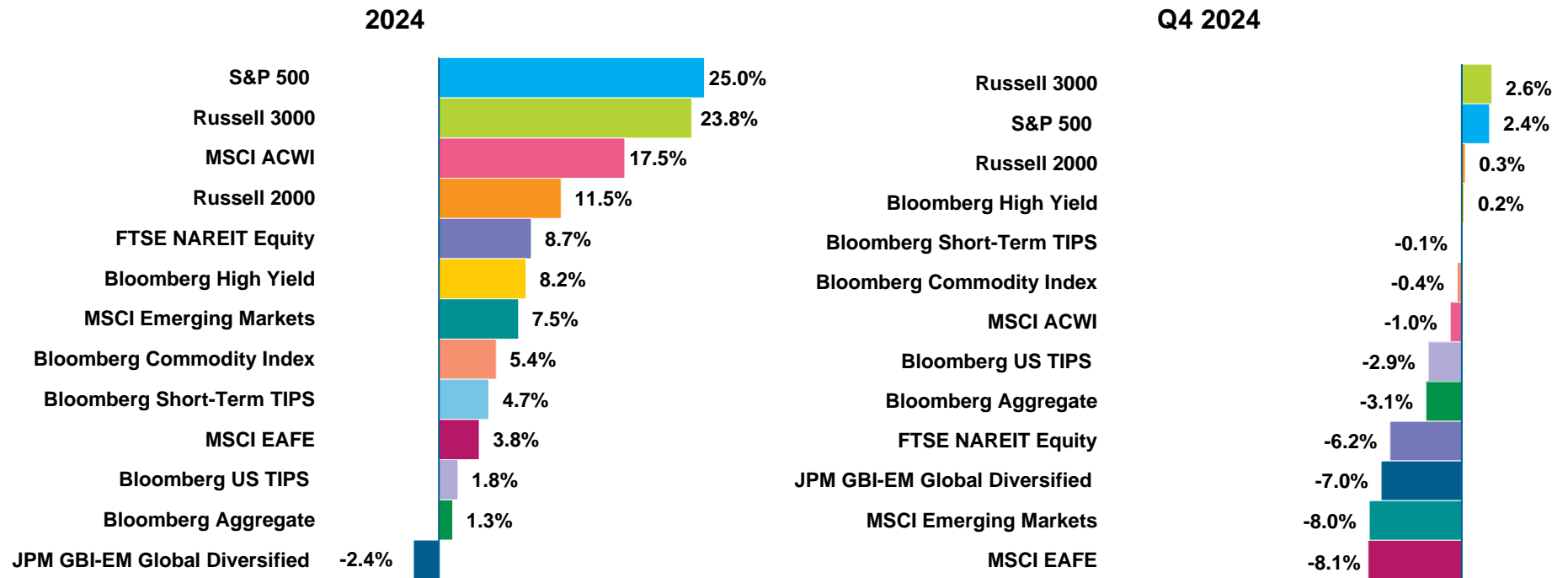
## Data as of December 31, 2024

## 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>

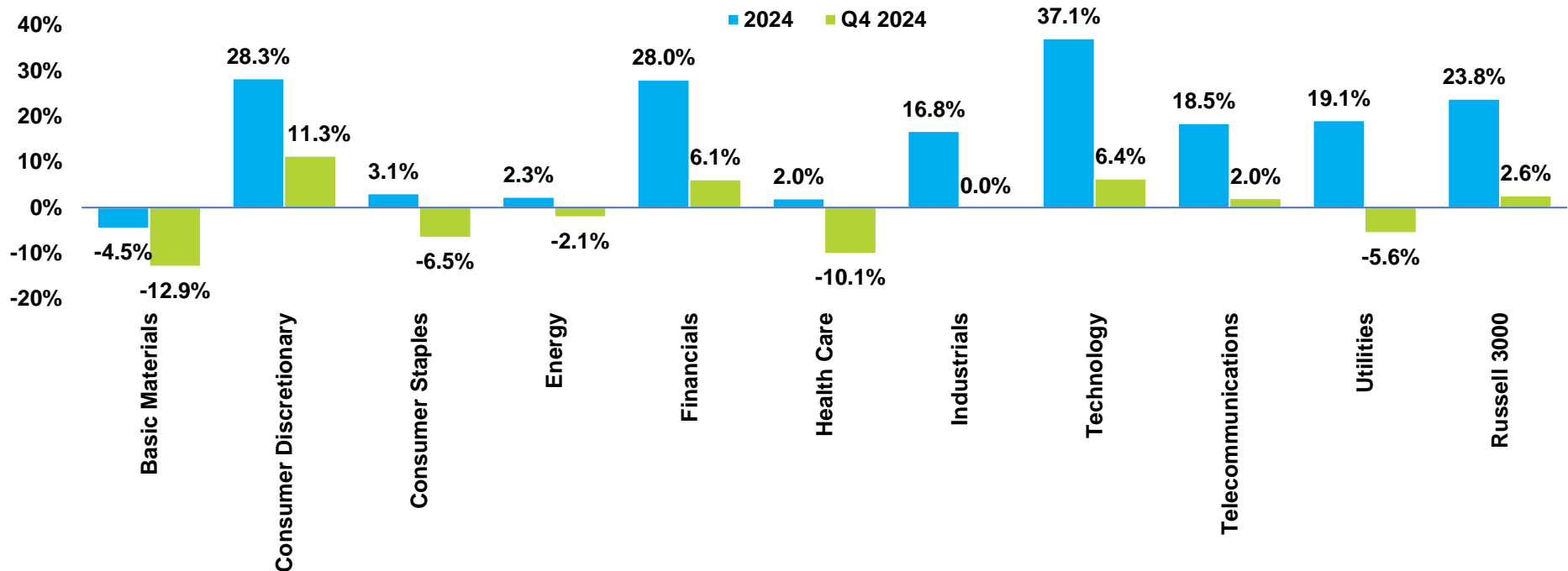
Domestic Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.4	2.4	25.0	8.9	14.5	13.1
Russell 3000	-3.1	2.6	23.8	8.0	13.9	12.5
Russell 1000	-2.8	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	0.9	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	-6.8	-2.0	14.4	5.6	8.7	8.5
Russell MidCap	-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

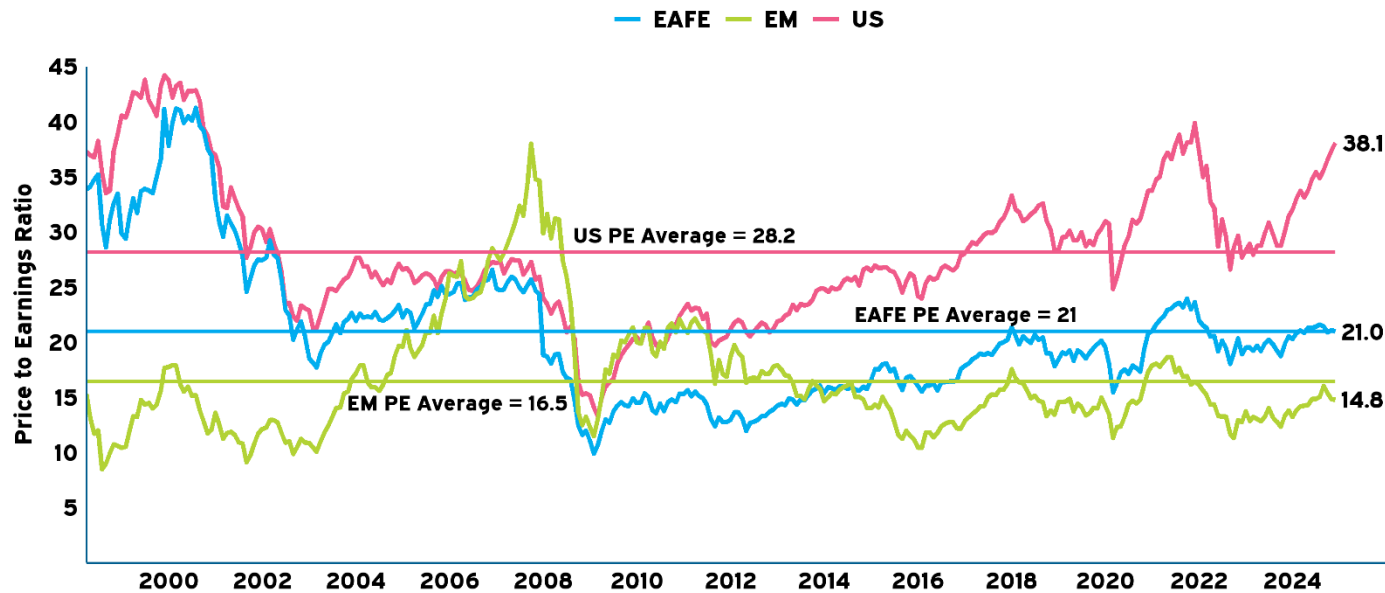
**Foreign Equity: Developed international equities (MSCI EAFE) fell -8.1% in the fourth quarter but rose 3.8% for the year, while emerging market equities (MSCI Emerging Markets) fell -8.0% in the quarter but returned 7.5% for the year.**

- 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.

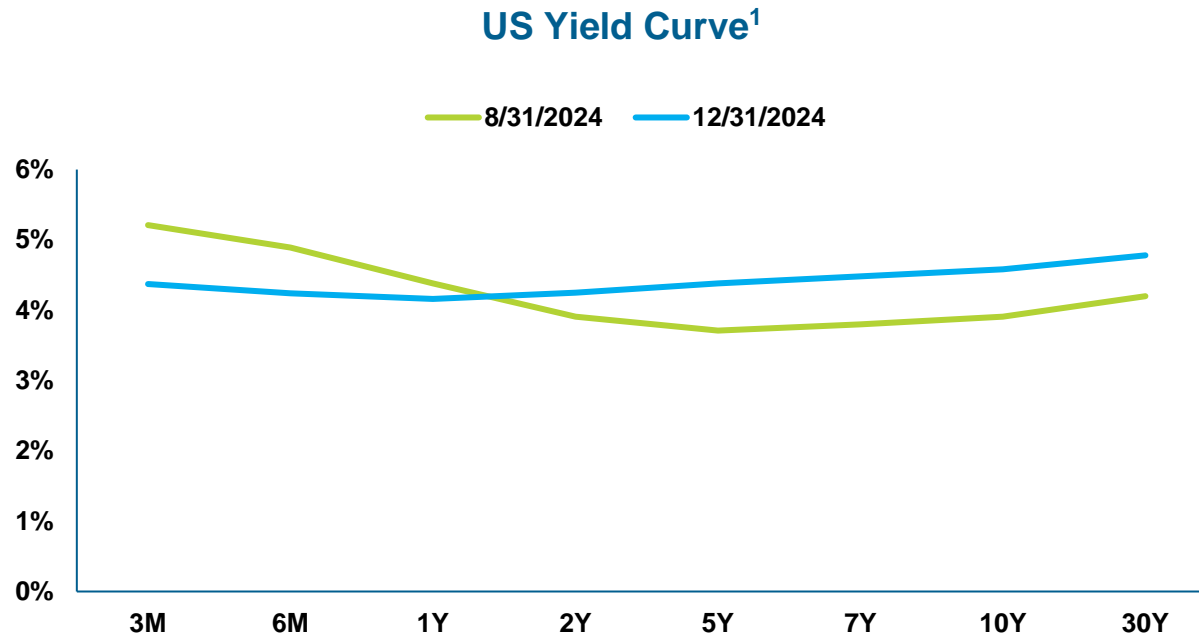
### Fixed Income Returns<sup>1</sup>

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.

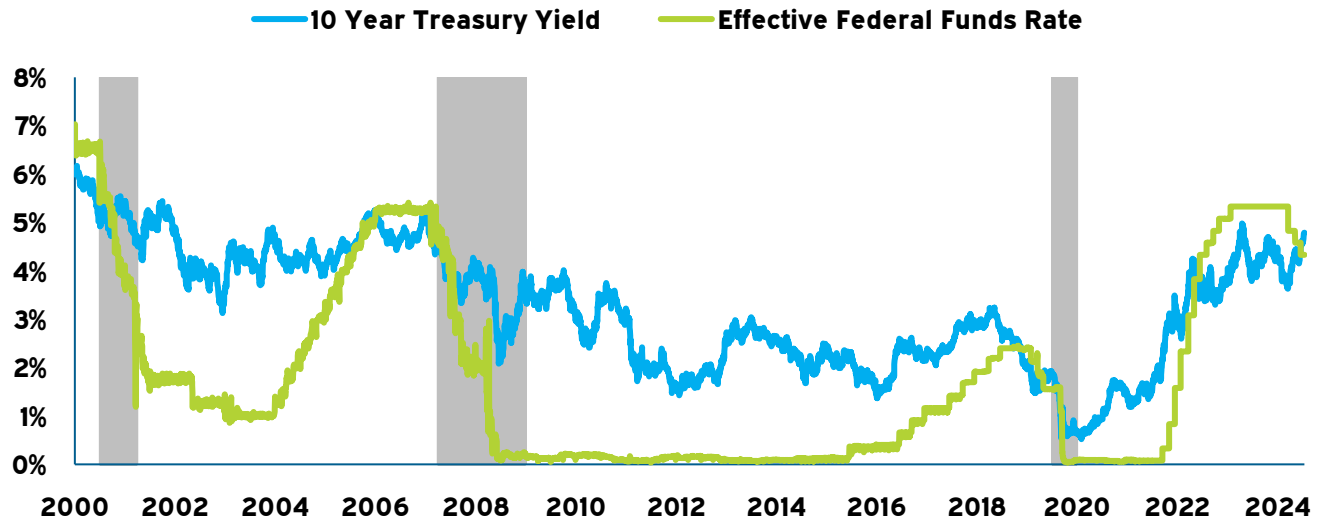
<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



- 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.

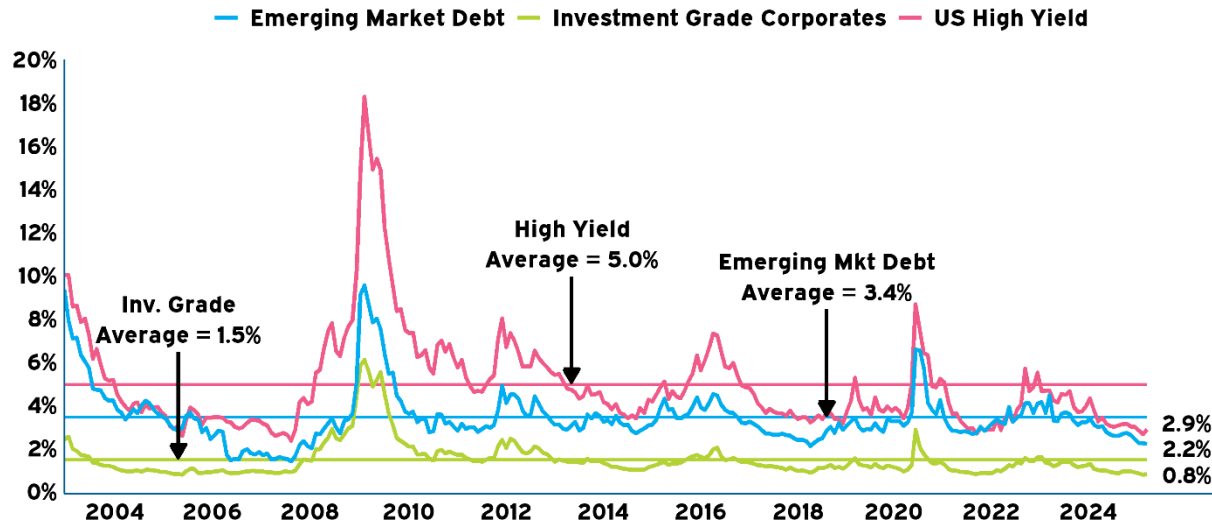
**10-Year Treasury Yield versus Fed Funds Rate<sup>1</sup>**



- 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.

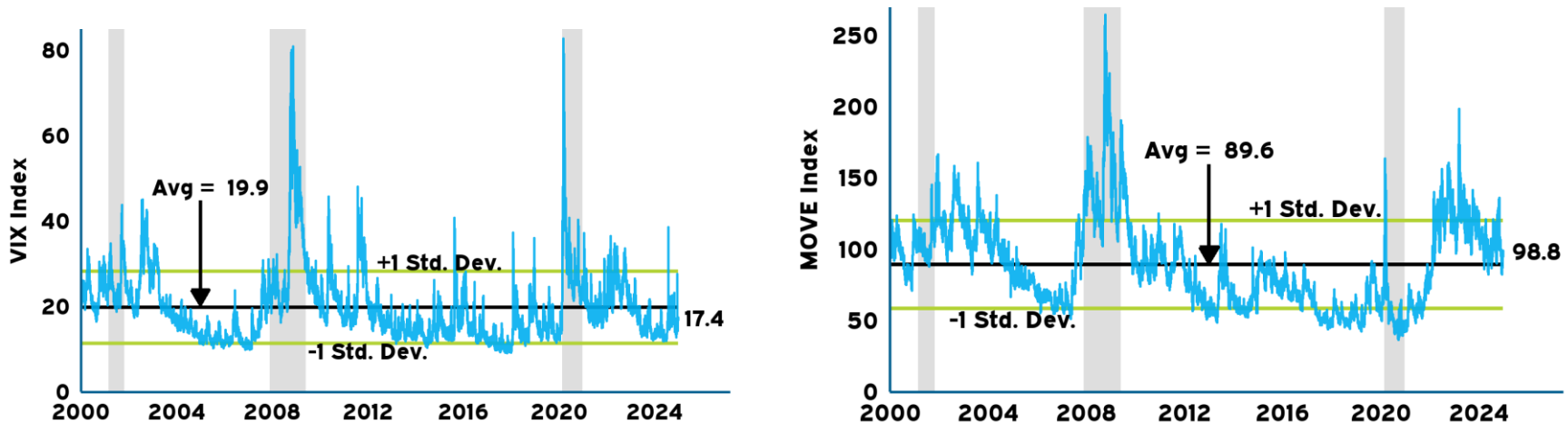
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- 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.

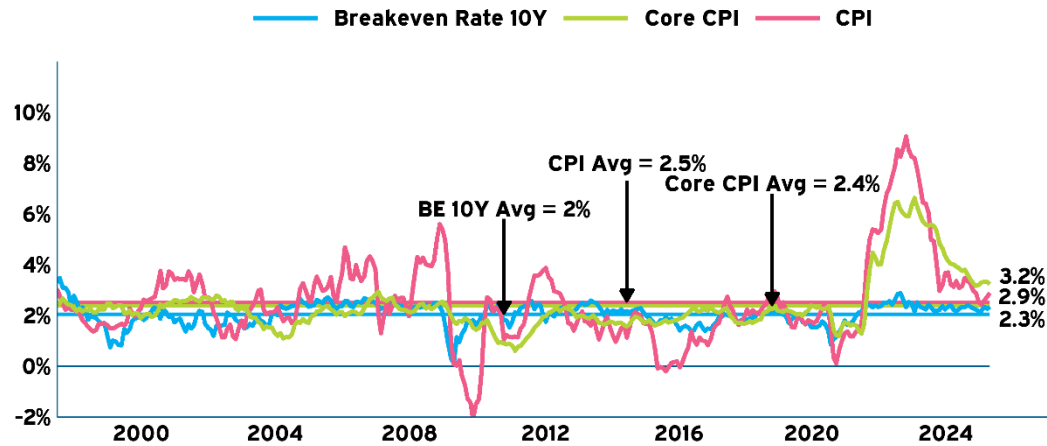
**Equity and Fixed Income Volatility<sup>1</sup>**



- 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.

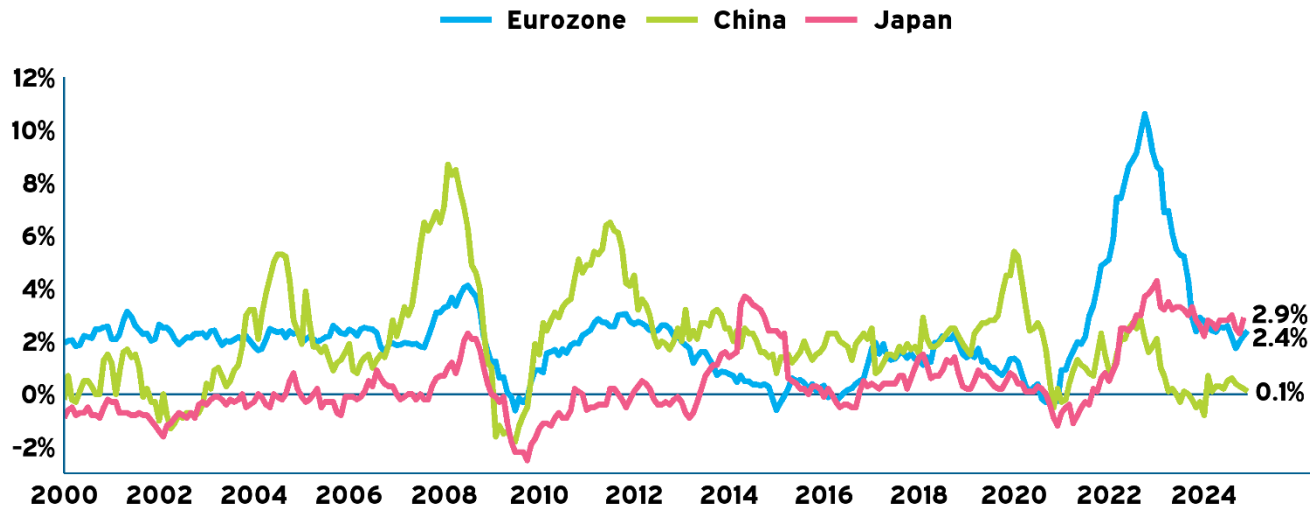
**US Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- 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>**

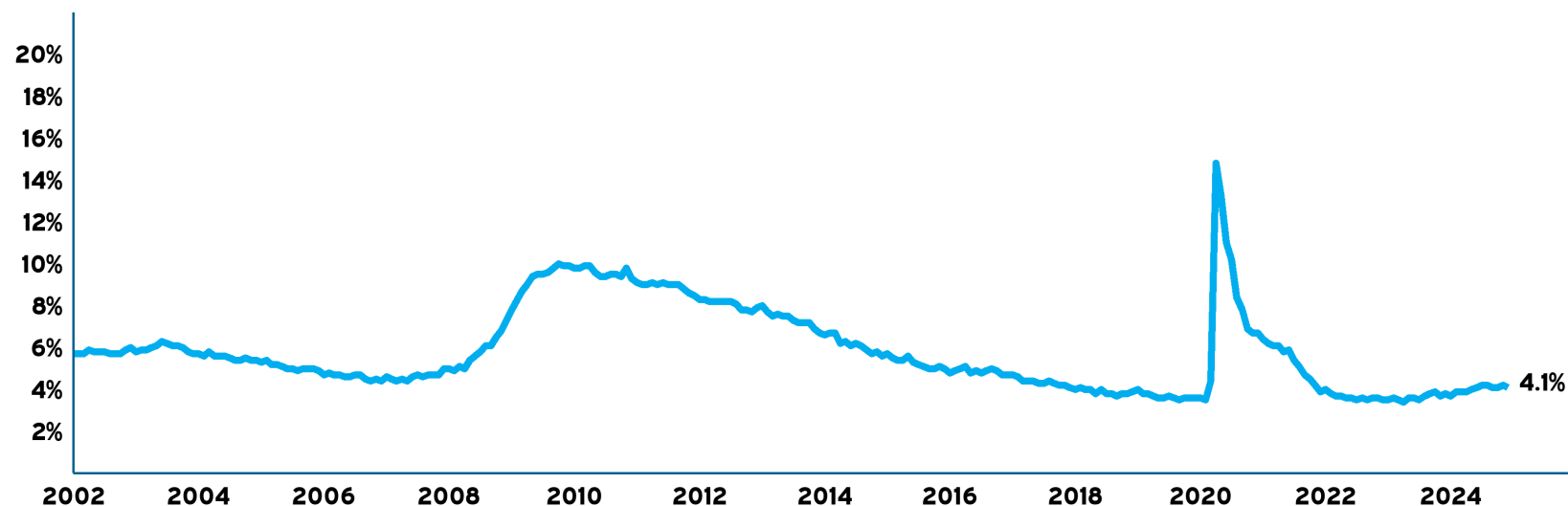


- In the eurozone, inflation rose each month over the quarter (1.7% to 2.4%) but levels remain below the US. The increase was largely driven by last year’s significant fall in energy prices no longer being included in the calculation.
- Inflation in Japan rose over the quarter due in part to an increase 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.



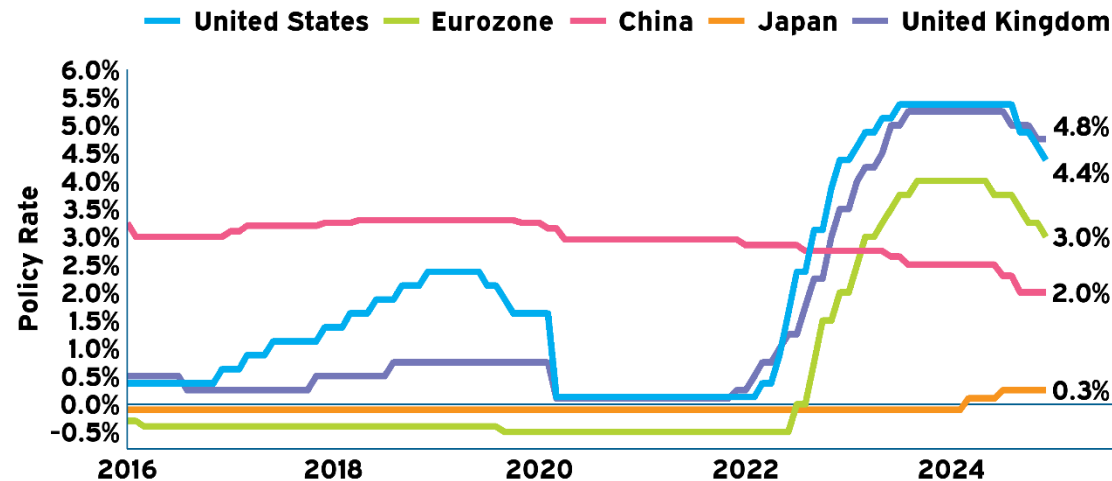
### US Unemployment<sup>1</sup>



- 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.

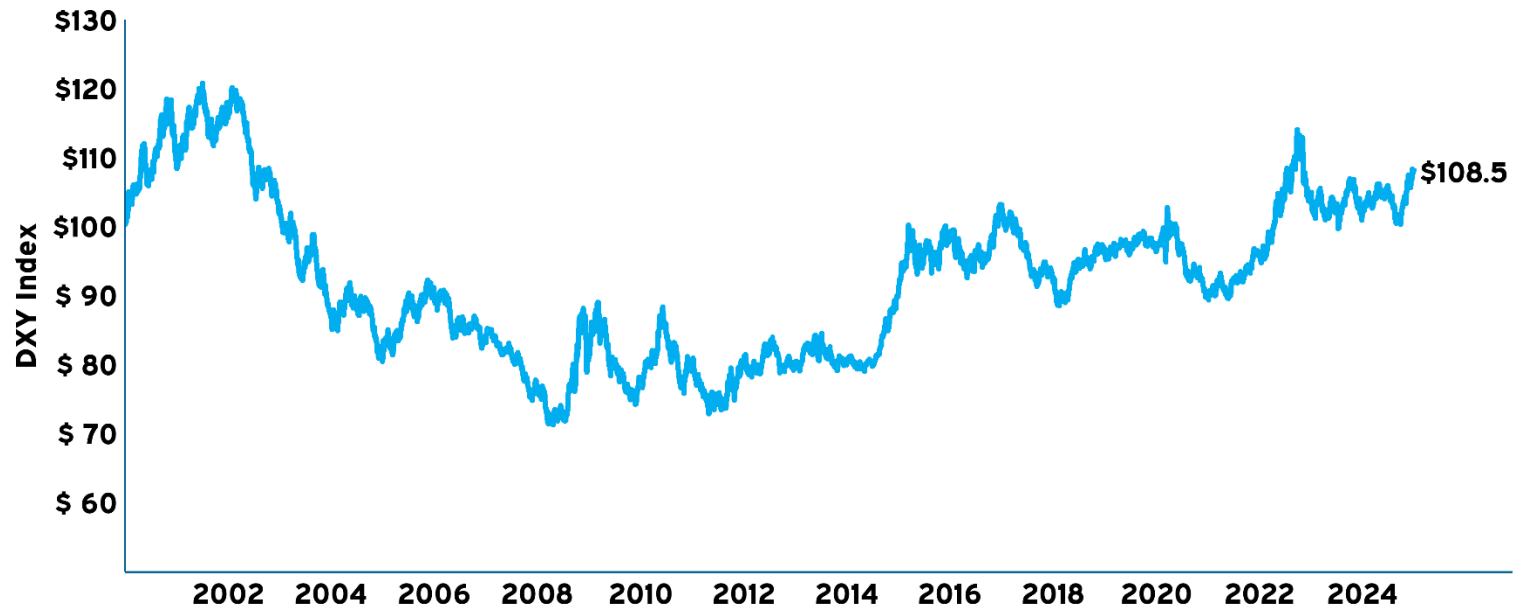
### Policy Rates<sup>1</sup>



- 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**  
**As of December 31, 2024**

**The value of the San Jose Federated City Employees' Retirement System assets on December 31, 2024 was \$3.23 billion, down from the end of the prior quarter (\$3.27 billion). The System had net cash inflows of \$8.0 million and \$48.0 million of investment losses during the quarter. During 2024, the Plan had \$240.2 million in investment gains.**

- The System's net of fees performance for the quarter was -1.4%, compared to the Policy Benchmark return of -1.5% and the Investable Benchmark Portfolio return of -1.6%. The peer median return was -0.9%. The Plan ranked in the 80th percentile of the peer group for the quarter and ranks in the top quartile for the trailing 5-year period.
- The Retirement System returned +8.1% over the trailing one-year period, compared to the Policy Benchmark return of +8.3% and the Investable Benchmark Portfolio return of +7.8%. The Retirement System's standard deviation of returns was 4.6% over the trailing one-year period, exhibiting much lower volatility vs. the peer median (5.3%).
  - Growth returned -1.2% for the quarter and +10.4% over the one-year trailing period, compared to the -1.4% and +11.0% returns for the Growth Benchmark over the same periods, respectively.
  - Low Beta returned +0.4% for the quarter and +4.8% over the one-year trailing period, compared to the +0.6% and +5.1% returns for the Low Beta Benchmark over the same periods, respectively.
  - Other assets returned -2.5% for the quarter and -2.6% over the one-year trailing period, compared to the -2.9% and -1.8% returns for the Other Benchmark over the same periods, respectively.
- During the quarter, the Plan added three new investments: Silver Point Specialty Credit III, L.P. (Private Debt), Pelican Energy Partners Base Zero, L.P. (Real Assets), and Primary Wave Music IP Fund 4, L.P. (Real Assets).
- During the quarter, the Plan fully liquidated two investments: Octagon CLO Opp Fund IV (Private Debt), Octagon CLO Opportunity Fund V, L.P. (Private Debt).

**Burgundy US Small Cap**

→ Burgundy US Small Cap returned +4.0% for the quarter, outperforming the Russell 2000 Value Index, which returned -1.1% over the same period. Additionally, the fourth quarter performance ranked the strategy in the 9th percentile of the eVestment US Small Cap Value Equity peer universe. Burgundy ending 2024 up 18.8%, security selection within industrials and financials helped the strategy to outperform the benchmark by 10.7% over the year.

**Wellington Iguazu Partners LP Fund**

→ Wellington Iguazu Partners LP Fund returned 3.0% for the quarter, outperforming the broader 50% JPM EMBI GD + 50% JPM GBI EM GD index by 7.5%. This quarter's return ranked in the top 2nd percentile of the eVestment All Emg Mkts Fixed Income peer universe. Iguazu generated positive returns over the fourth quarter due to the outperformance of local markets strategies. The local markets book added +5.2% (gross of fees), driven by a long USD position at the beginning of the quarter.

**Morgan Stanley Intl Equity**

→ Morgan Stanley Intl Equity returned -4.4% for the quarter, outperforming the MSCI ACWI ex US benchmark by 320 basis points, ranking in the top 11th percentile of the eVestment ACWI ex-US All Cap Equity peer universe. During the quarter, stock selection in communication services and information technology, as well as a sector underweight allocation to materials, contributed positively to the relative performance of the portfolio. The top contributor was Shopify which rallied after posting quarterly results and guidance for revenue growth above expectations.

### Fourth Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Meketa Recommendation <sup>1</sup>	Comments
Artisan Global Value	Global Equity	---	---	---
Artisan Global Opportunities	Global Equity	---	Hold	Watch List
Burgundy US Small Cap	US Equity	---	---	---
Oberweis International Opps	International Equity	---	Hold	Watch List
Morgan Stanley Int'l Equity	International Equity	---	Hold	Watch List
First Eagle Int'l Equity	International Equity	Yes	Hold	Hired two new Senior credit Analysts, and High Yield PM left the firm.
Dimensional EM Value	Emerging Markets Equity	Yes	Hold	One portfolio manager left the firm.
GQG Partners Global EM	Emerging Markets Equity	---	---	---
RWC Emerging Markets Equity	Emerging Markets Equity	---	Hold	Watch List
Wellington EM Systematic	Emerging Markets Equity	--- <sup>2</sup>	---	---
Kotak India Midcap	Emerging Markets Equity	--- <sup>2</sup>	Hold	Watch List
Unifi India	Emerging Markets Equity	--- <sup>2</sup>	---	---
Mellon High Yield Beta	High Yield Bonds	--- <sup>2</sup>	---	---
Columbia High Yield	High Yield Bonds	---	---	---
Wellington Iguazu Partners LP	Emerging Markets Debt	--- <sup>2</sup>	---	---
Payden EMD Blended Currency	Emerging Markets Debt	---	---	---
BlackRock Core Property	Core Real Estate	--- <sup>2</sup>	Hold	Watch List
Clarion Lion Properties	Core Real Estate	--- <sup>2</sup>	Hold	Watch List
TA Realty Core Property	Core Real Estate	--- <sup>2</sup>	---	---
Clarion Lion Industrial Trust	Core Real Estate	--- <sup>2</sup>	---	---
Voya Securitized Credit	Investment Grade Bonds	---	---	---
Invesco Core Bonds	Investment Grade Bonds	---	Hold	Watch List

<sup>1</sup> The Meketa Investment Group recommendations are based on the noted organizational or resource changes at each manager.

<sup>2</sup> Placement on the Watch List includes qualitative reasons and manager underperformance versus the appropriate benchmark over a three- and or five-year period as outlined in the Investment Policy Statement.



### Watch List<sup>1,2</sup>

Investment Manager	Asset Class	Watch List Status	Comments
Artisan Global Opportunities	Global Equity	Monitoring	Underperformance
Oberweis International Opps	International Equity	Monitoring	Underperformance
Morgan Stanley Intl Equity	International Equity	Monitoring	Underperformance
Redwheel Emerging Markets Equity	Emerging Markets Equity	Monitoring	Underperformance
Kotak India Midcap	Emerging Markets Equity	Monitoring	Underperformance
Invesco Core Bonds	Investment Grade Bonds	Monitoring	Underperformance
BlackRock Core Property	Core Real Estate	Monitoring	Underperformance
Clarion Lion Properties	Core Real Estate	Monitoring	Underperformance

<sup>1</sup> Watch List excludes Private Markets and Passive Funds.

<sup>2</sup> Placement on the Watch List includes qualitative reasons and manager underperformance versus the appropriate benchmark over a three- and or five-year period as outlined in the Investment Policy Statement.

**Artisan Global Opportunities**

- Over the three-year period, Artisan (+0.0%) has underperformed the MSCI ACWI Growth NR by 570 basis points. Over the five-year period, Artisan (+10.1%) has underperformed the MSCI ACWI Growth NR by 300 basis points. Since inception in July 2017, Artisan has underperformed the benchmark by 200 basis points per year, on average, but ranked in the 22nd percentile compared to peers.

**Oberweis International Opps**

- Over the three-year period, Oberweis (-9.7%) has underperformed the MSCI World ex USA Small Cap Growth NR by 360 basis points. Since inception in November 2015, Oberweis has outperformed the benchmark by 70 basis points per year, on average, and ranked in the 46th percentile compared to peers.

**Morgan Stanley Intl Equity**

- Over the three-year period, Morgan Stanley International Equity (-5.4%) has underperformed the MSCI World ex USA NR by 620 basis points. Since inception in April 2021, Morgan Stanley has underperformed the benchmark by 420 basis points per year, on average, and ranked in the 88th percentile compared to peers.

**Redwheel Emerging Markets Equity**

- Over the three-year period, Redwheel (-7.5%) has underperformed the MSCI Emerging Markets Index by 560 basis points. Over the five-year period, Redwheel (+0.4%) has underperformed the MSCI Emerging Markets Index by 130 basis points. Since inception in September 2019, Redwheel has underperformed the benchmark by 110 basis points per year, on average, and ranked in the 80th percentile compared to peers.

**Kotak India Midcap**

→ Over the three-year period, Kotak India Midcap (+12.0%) has underperformed the MSCI India Midcap benchmark by 60 basis points. Since inception in July 2021, Kotak has underperformed the benchmark by 10 basis points per year, on average, but ranked in the 1st percentile compared to peers.

**Invesco Core Bonds**

→ Over the three-year period, Invesco (-2.5%) has underperformed the Bloomberg US Aggregate Index by 10 basis points. Since inception in March 2021, Invesco has performed in line with the benchmark each year, on average.

**BlackRock Core Property**

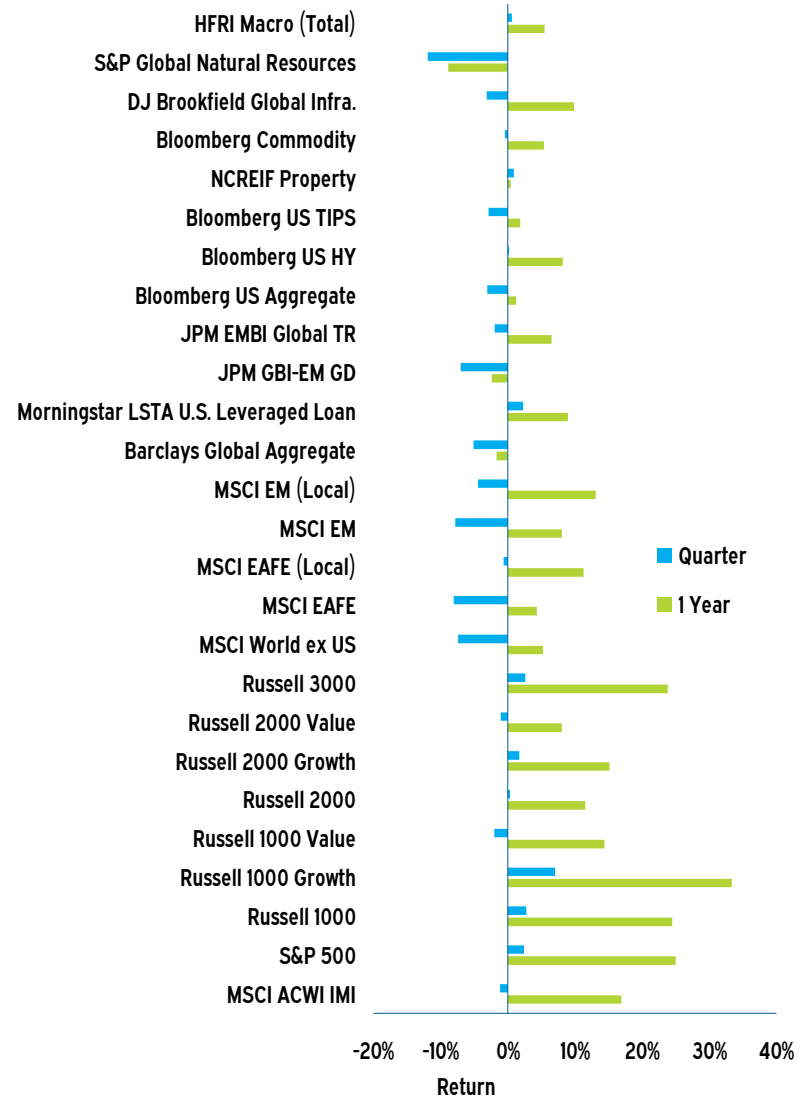
→ Over the three-year period, BlackRock Core Property Fund (-1.5%) has underperformed the Core Real Estate Benchmark 2 by 40 basis points. Since inception in February 2019, Blackrock has performed in line with the benchmark each year, on average.

**Clarion Lion Properties Fund**

→ Over the three-year period, Clarion Lion Properties Fund (-2.2%) has underperformed the Core Real Estate Benchmark 2 by 110 basis points. Since inception in May 2019, Clarion has performed in line with the benchmark each year, on average

### Market Environment – 4Q24 Overview

Benchmark	Scope	4Q24 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
<b>Global Equity</b>						
MSCI ACWI IMI	World	-1.1	16.9	5.4	10.2	9.5
<b>Domestic Equity</b>						
S&P 500	Large Core	2.4	25.0	8.9	14.5	13.1
Russell 1000	Large Core	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	Large Growth	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	Large Value	-2.0	14.4	5.6	8.7	8.5
Russell 2000	Small Core	0.3	11.5	1.2	7.4	7.8
Russell 2000 Growth	Small Growth	1.7	15.2	0.2	6.9	8.1
Russell 2000 Value	Small Value	-1.1	8.1	1.9	7.3	7.1
Russell 3000	All Cap Core	2.6	23.8	8.0	13.9	12.5
<b>International Equity</b>						
MSCI World ex US	World ex-US	-7.4	5.3	2.5	5.6	5.8
MSCI EAFE	International Developed	-8.1	4.3	2.2	5.2	5.7
MSCI EAFE (Local)	International Developed (Local Currency)	-0.6	11.3	6.3	7.6	7.1
MSCI EM	Emerging Markets	-7.8	8.1	-1.5	2.1	4.0
MSCI EM (Local)	Emerging Markets (Local Currency)	-4.4	13.1	1.6	4.5	6.0
<b>Global Fixed Income</b>						
Barclays Global Aggregate	Global Core Bonds	-5.1	-1.7	-4.5	-2.0	0.2
Morningstar LSTA U.S. Leveraged Loan	Bank Loans	2.3	9.0	7.0	5.9	5.1
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	-7.0	-2.4	-1.0	-1.9	0.4
JPM EMBI Global TR	Emerging Market Bonds	-1.9	6.5	-0.9	0.1	3.1
<b>Domestic Fixed Income</b>						
Bloomberg US Aggregate	Core Bonds	-3.1	1.3	-2.4	-0.3	1.3
Bloomberg US HY	High Yield	0.2	8.2	2.9	4.2	5.2
Bloomberg US TIPS	Inflation	-2.9	1.8	-2.3	1.9	2.2
<b>Other</b>						
NCREIF Property	Real Estate	0.9	0.4	-0.8	3.1	5.7
Bloomberg Commodity	Commodities	-0.4	5.4	4.1	6.8	1.3
DJ Brookfield Global Infrastructure	Infrastructure	-3.1	9.9	2.4	3.6	4.7
S&P Global Natural Resources	Natural Resources	-11.9	-8.9	1.1	5.1	4.6
HFRI Macro	Hedge Funds	0.6	5.5	4.6	5.4	3.1



## 4Q24 Review



	Current Balance (\$)	Current Allocation (%)	Russell Overlay Net position (%)	Policy (%)
<b>Growth</b>	2,435,380,178	75.4%	75.9%	75.0%
Public Equity	1,537,342,028	47.6%	48.1%	49.0%
Private Markets	731,621,087	22.7%	22.7%	21.0%
Emerging Markets Debt	98,702,529	3.1%	3.1%	3.0%
High Yield Bonds	67,714,533	2.1%	2.1%	2.0%
<b>Low Beta</b>	277,187,662	8.6%	6.0%	8.0%
Market Neutral Strategies	94,306,701	2.9%	2.9%	3.0%
Immunized Cash Flows / Cash	182,880,961	5.7%	3.1%	5.0%
<b>Other</b>	515,951,114	16.0%	17.9%	17.0%
Core Real Estate	152,936,003	4.7%	4.7%	5.0%
TIPS	61,577,844	1.9%	1.9%	2.0%
Investment Grade Bonds	203,924,965	6.3%	7.4%	6.0%
Long Term Govt Bonds	97,512,302	3.0%	3.9%	4.0%
<b>Total</b>	<b>3,228,518,954</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

1. Data in the column titled "Russell Overlay Net Position" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.

2. All data on this page is from Russell Investments. Data on subsequent pages is from the custodian.

Asset Class Net Performance Summary										
	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund Aggregate</b>	<b>3,232,151,937</b>	<b>100.0</b>	<b>-1.4</b>	<b>2.5</b>	<b>8.1</b>	<b>3.0</b>	<b>8.1</b>	<b>6.2</b>	<b>6.9</b>	<b>Jan-94</b>
Policy Benchmark			-1.5	3.1	8.3	3.1	7.9	6.6	7.1	
Investable Benchmark Portfolio			-1.6	2.8	7.8	2.5	7.3	6.0	--	
Low-Cost Passive Portfolio			-2.8	4.0	10.4	2.5	6.2	--	--	
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			-2.8	3.9	8.9	1.2	5.1	5.6	--	
Liability Benchmark Portfolio			-8.6	-1.5	-6.4	-12.0	-5.2	--	--	
InvMetrics All Public DB Plans > \$1B Median			-0.9	3.8	9.0	2.9	6.9	6.9	7.4	
InvMetrics All Public DB Plans > \$1B Rank			80	95	74	47	13	83	96	
<b>Growth</b>	<b>2,426,696,972</b>	<b>75.1</b>	<b>-1.2</b>	<b>3.0</b>	<b>10.4</b>	<b>3.8</b>	<b>9.6</b>	<b>--</b>	<b>8.4</b>	<b>Jul-15</b>
Growth Benchmark			-1.4	3.6	11.0	4.2	9.5	--	9.0	
<b>Public Equity</b>	<b>1,529,312,138</b>	<b>47.3</b>	<b>-2.5</b>	<b>3.6</b>	<b>14.3</b>	<b>3.8</b>	<b>8.9</b>	<b>8.0</b>	<b>8.5</b>	<b>May-10</b>
Public Equity Benchmark			-2.5	4.4	14.7	4.0	8.7	8.5	8.8	
<b>Global Equity</b>	<b>223,428,068</b>	<b>6.9</b>	<b>-2.5</b>	<b>2.5</b>	<b>13.6</b>	<b>4.2</b>	<b>9.7</b>	<b>--</b>	<b>9.8</b>	<b>Jul-15</b>
MSCI AC World IMI Index (Net)			-1.2	5.5	16.4	4.9	9.7	9.0	9.1	
eV All Global Equity Median			-3.1	3.7	11.1	3.2	8.4	8.3	8.4	
eV All Global Equity Rank			44	63	40	42	37	--	29	
<b>US Equity</b>	<b>651,886,767</b>	<b>20.2</b>	<b>2.7</b>	<b>9.1</b>	<b>23.5</b>	<b>8.1</b>	<b>13.3</b>	<b>--</b>	<b>12.0</b>	<b>Jul-15</b>
MSCI USA IMI (Net)			2.5	8.7	23.3	7.6	13.5	12.1	12.5	
eV All US Equity Median			0.6	7.9	15.4	5.2	10.5	9.8	10.1	
eV All US Equity Rank			28	31	26	24	27	--	30	
<b>International Equity</b>	<b>317,244,011</b>	<b>9.8</b>	<b>-6.9</b>	<b>1.0</b>	<b>5.6</b>	<b>-1.3</b>	<b>4.6</b>	<b>--</b>	<b>4.7</b>	<b>Jul-15</b>
MSCI World ex U.S. IMI Index (Net)			-7.5	0.0	4.4	1.2	4.8	5.3	5.0	
eV ACWI ex-US All Cap Equity Median			-6.9	-0.3	4.7	0.0	4.5	5.4	5.1	
eV ACWI ex-US All Cap Equity Rank			50	27	40	62	48	--	64	

Fiscal Year begins July 1.

Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.

Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Emerging Markets Equity</b>	<b>336,753,292</b>	<b>10.4</b>	<b>-7.5</b>	<b>-2.7</b>	<b>7.3</b>	<b>0.4</b>	<b>4.4</b>	<b>--</b>	<b>3.7</b>	<b>Jul-15</b>
<i>MSCI Emerging Markets IMI (Net)</i>			-7.9	-0.3	7.1	-1.4	2.5	3.9	3.7	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	4.2	4.1	
<i>eV Emg Mkts Equity Rank</i>			63	80	46	37	31	--	63	
<b>Private Markets</b>	<b>731,600,507</b>	<b>22.6</b>	<b>1.4</b>	<b>1.5</b>	<b>4.1</b>	<b>4.5</b>	<b>11.4</b>	<b>--</b>	<b>9.4</b>	<b>Jul-15</b>
<i>Private Markets Benchmark</i>			1.4	1.5	4.1	4.5	11.4	--	10.5	
<i>MSCI ACWI IMI (Net) +1%</i>			-1.0	6.0	17.5	6.0	10.8	10.1	10.2	
<b>Private Markets ex Russell 3000</b>	<b>731,600,507</b>	<b>22.6</b>	<b>1.4</b>	<b>1.5</b>	<b>4.1</b>	<b>5.1</b>	<b>12.6</b>	<b>--</b>	<b>9.6</b>	<b>Jul-15</b>
<b>Private Equity</b>	<b>375,622,433</b>	<b>11.6</b>	<b>1.1</b>	<b>0.1</b>	<b>4.9</b>	<b>4.7</b>	<b>16.2</b>	<b>12.7</b>	<b>9.7</b>	<b>Jan-06</b>
<b>Venture Capital</b>	<b>35,750,686</b>	<b>1.1</b>	<b>0.2</b>	<b>1.8</b>	<b>-4.4</b>	<b>-3.9</b>	<b>--</b>	<b>--</b>	<b>-3.8</b>	<b>Jun-21</b>
<b>Private Debt</b>	<b>115,507,663</b>	<b>3.6</b>	<b>3.0</b>	<b>4.7</b>	<b>10.2</b>	<b>8.8</b>	<b>11.0</b>	<b>5.0</b>	<b>5.6</b>	<b>Dec-10</b>
<i>Morningstar LSTA U.S. Leveraged Loan Index +2%</i>			2.8	5.4	11.1	9.1	8.0	7.2	7.1	
<b>Growth Real Estate</b>	<b>123,189,829</b>	<b>3.8</b>	<b>-1.1</b>	<b>-0.2</b>	<b>-4.9</b>	<b>2.1</b>	<b>6.8</b>	<b>--</b>	<b>11.5</b>	<b>Jul-15</b>
<i>NCREIF Property Index</i>			0.9	1.7	0.4	-0.8	3.1	5.7	5.2	
<b>Private Real Assets</b>	<b>81,529,896</b>	<b>2.5</b>	<b>4.7</b>	<b>6.5</b>	<b>7.3</b>	<b>9.5</b>	<b>9.6</b>	<b>--</b>	<b>8.4</b>	<b>Jul-15</b>
<b>Emerging Markets Debt</b>	<b>98,056,127</b>	<b>3.0</b>	<b>-1.0</b>	<b>3.0</b>	<b>3.6</b>	<b>3.2</b>	<b>3.8</b>	<b>--</b>	<b>3.8</b>	<b>Jul-15</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			-4.5	2.7	2.0	-0.9	-0.8	1.8	2.1	
<i>eV All Emg Mkts Fixed Inc Median</i>			-1.8	3.6	6.1	0.2	0.8	2.9	2.9	
<i>eV All Emg Mkts Fixed Inc Rank</i>			30	61	65	12	6	--	24	
<b>High Yield Bonds</b>	<b>67,728,199</b>	<b>2.1</b>	<b>-0.2</b>	<b>4.3</b>	<b>7.1</b>	<b>3.0</b>	<b>5.0</b>	<b>3.4</b>	<b>2.5</b>	<b>Jun-14</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.2	5.5	8.2	2.9	4.2	5.2	4.7	
<b>Low Beta</b>	<b>271,426,872</b>	<b>8.4</b>	<b>0.4</b>	<b>1.7</b>	<b>4.8</b>	<b>5.2</b>	<b>4.3</b>	<b>--</b>	<b>3.3</b>	<b>Jul-15</b>
<i>Low Beta Benchmark</i>			0.6	3.0	5.1	3.1	2.2	--	1.5	

Returns for the Fixed income, Private Debt, and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.

Please see the Appendix for composition of the Private Markets Benchmark.

Private Equity composite includes Russell 3000 proxy performance history prior to October 1, 2018.



## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Immunized Cash Flows</b>	<b>98,039,576</b>	<b>3.0</b>	<b>0.0</b>	<b>2.8</b>	<b>4.1</b>	<b>1.7</b>	<b>1.5</b>	<b>--</b>	<b>2.0</b>	<b>Oct-18</b>
<i>Bloomberg U.S. Gov/Credit 1-3 Year Index</i>			<i>0.0</i>	<i>2.9</i>	<i>4.4</i>	<i>1.7</i>	<i>1.6</i>	<i>1.6</i>	<i>2.1</i>	
<b>Market Neutral Strategies</b>	<b>95,832,112</b>	<b>3.0</b>	<b>0.7</b>	<b>-0.6</b>	<b>5.9</b>	<b>10.8</b>	<b>9.4</b>	<b>6.5</b>	<b>6.3</b>	<b>Nov-12</b>
<i>Market Neutral Strategies Benchmark</i>			<i>1.6</i>	<i>3.3</i>	<i>6.9</i>	<i>5.5</i>	<i>3.4</i>	<i>2.0</i>	<i>2.1</i>	
<b>Relative Value</b>	<b>95,832,112</b>	<b>3.0</b>	<b>0.7</b>	<b>-0.6</b>	<b>5.9</b>	<b>10.8</b>	<b>8.0</b>	<b>6.6</b>	<b>6.5</b>	<b>Oct-14</b>
<i>HFRI Relative Value (Total) Index</i>			<i>1.9</i>	<i>4.5</i>	<i>8.6</i>	<i>4.9</i>	<i>5.1</i>	<i>4.5</i>	<i>4.3</i>	
<i>Relative Value Arbitrage Median</i>			<i>1.2</i>	<i>4.0</i>	<i>7.4</i>	<i>3.7</i>	<i>4.7</i>	<i>4.0</i>	<i>3.9</i>	
<i>Relative Value Arbitrage Rank</i>			<i>65</i>	<i>100</i>	<i>75</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	
<b>Cash</b>	<b>77,555,184</b>	<b>2.4</b>	<b>1.1</b>	<b>2.7</b>	<b>5.3</b>	<b>3.5</b>	<b>2.2</b>	<b>1.7</b>	<b>6.6</b>	<b>Jan-06</b>
<i>90 Day U.S. Treasury Bill</i>			<i>1.2</i>	<i>2.6</i>	<i>5.3</i>	<i>3.9</i>	<i>2.5</i>	<i>1.8</i>	<i>1.6</i>	
<b>Other</b>	<b>515,960,643</b>	<b>16.0</b>	<b>-2.5</b>	<b>0.0</b>	<b>-2.6</b>	<b>-2.3</b>	<b>-0.7</b>	<b>0.8</b>	<b>1.4</b>	<b>Jul-04</b>
<i>Other Benchmark</i>			<i>-2.9</i>	<i>0.6</i>	<i>-1.8</i>	<i>-2.0</i>	<i>-0.9</i>	<i>--</i>	<i>--</i>	
<b>Investment Grade Bonds</b>	<b>204,443,346</b>	<b>6.3</b>	<b>-1.7</b>	<b>2.8</b>	<b>3.7</b>	<b>-0.7</b>	<b>1.1</b>	<b>--</b>	<b>1.1</b>	<b>Dec-19</b>
<i>Custom IG Bonds Benchmark</i>			<i>-2.5</i>	<i>2.2</i>	<i>1.9</i>	<i>-1.3</i>	<i>0.2</i>	<i>--</i>	<i>0.2</i>	
<b>TIPS</b>	<b>61,577,844</b>	<b>1.9</b>	<b>-0.1</b>	<b>2.4</b>	<b>4.7</b>	<b>2.1</b>	<b>3.2</b>	<b>2.5</b>	<b>2.1</b>	<b>Jul-14</b>
<i>Blmbg. U.S. TIPS 0-5 Year</i>			<i>-0.1</i>	<i>2.4</i>	<i>4.7</i>	<i>2.1</i>	<i>3.3</i>	<i>2.6</i>	<i>2.2</i>	
<b>Core Private Real Estate</b>	<b>152,568,476</b>	<b>4.7</b>	<b>0.0</b>	<b>-1.1</b>	<b>-8.3</b>	<b>0.8</b>	<b>3.4</b>	<b>--</b>	<b>5.7</b>	<b>Jul-15</b>
<i>Core Real Estate Benchmark</i>			<i>0.0</i>	<i>-0.7</i>	<i>-8.1</i>	<i>-1.1</i>	<i>1.8</i>	<i>--</i>	<i>4.4</i>	
<b>Long-Term Government Bonds</b>	<b>97,370,976</b>	<b>3.0</b>	<b>-8.6</b>	<b>-1.5</b>	<b>-6.2</b>	<b>-11.8</b>	<b>--</b>	<b>--</b>	<b>-9.4</b>	<b>Jun-20</b>
<i>Blmbg. U.S. Treasury: Long</i>			<i>-8.6</i>	<i>-1.5</i>	<i>-6.4</i>	<i>-12.0</i>	<i>-5.2</i>	<i>-0.6</i>	<i>-9.5</i>	
<b>Overlay</b>	<b>18,067,451</b>	<b>0.6</b>								

Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets. Please see the Appendix for composition of the Low Beta Benchmark, Immunized Cash Flows Benchmark, Market Neutral Strategies Benchmark, and Other Benchmark.

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund Aggregate</b>	<b>3,232,151,937</b>	<b>100.0</b>	<b>-1.4</b>	<b>2.5</b>	<b>8.1</b>	<b>3.0</b>	<b>8.1</b>	<b>6.2</b>	<b>6.9</b>	<b>Jan-94</b>
<i>Policy Benchmark</i>			-1.5	3.1	8.3	3.1	7.9	6.6	7.1	
<i>Investable Benchmark Portfolio</i>			-1.6	2.8	7.8	2.5	7.3	6.0	--	
<i>Low-Cost Passive Portfolio</i>			-2.8	4.0	10.4	2.5	6.2	--	--	
<i>60/40 MSCI ACWI IMI/BBgBarc Global Aggregate</i>			-2.8	3.9	8.9	1.2	5.1	5.6	--	
<i>Liability Benchmark Portfolio</i>			-8.6	-1.5	-6.4	-12.0	-5.2	--	--	
<i>InvMetrics All Public DB Plans &gt; \$1B Median</i>			-0.9	3.8	9.0	2.9	6.9	6.9	7.4	
<i>InvMetrics All Public DB Plans &gt; \$1B Rank</i>			80	95	74	47	13	83	96	
<b>Growth</b>	<b>2,426,696,972</b>	<b>75.1</b>	<b>-1.2</b>	<b>3.0</b>	<b>10.4</b>	<b>3.8</b>	<b>9.6</b>	<b>--</b>	<b>8.4</b>	<b>Jul-15</b>
<i>Growth Benchmark</i>			-1.4	3.6	11.0	4.2	9.5	--	9.0	
<b>Public Equity</b>	<b>1,529,312,138</b>	<b>47.3</b>	<b>-2.5</b>	<b>3.6</b>	<b>14.3</b>	<b>3.8</b>	<b>8.9</b>	<b>8.0</b>	<b>8.5</b>	<b>May-10</b>
<i>Public Equity Benchmark</i>			-2.5	4.4	14.7	4.0	8.7	8.5	8.8	
<b>Global Equity</b>	<b>223,428,068</b>	<b>6.9</b>	<b>-2.5</b>	<b>2.5</b>	<b>13.6</b>	<b>4.2</b>	<b>9.7</b>	<b>--</b>	<b>9.8</b>	<b>Jul-15</b>
<i>MSCI AC World IMI Index (Net)</i>			-1.2	5.5	16.4	4.9	9.7	--	9.1	
<i>eV All Global Equity Median</i>			-3.1	3.7	11.1	3.2	8.4	--	8.4	
<i>eV All Global Equity Rank</i>			44	63	40	42	37	--	29	
<i>Artisan Global Value</i>	109,672,351	3.4	-3.8	2.0	11.5	7.8	10.0	9.2	10.6	Mar-11
<i>MSCI AC World Index Value (Net)</i>			-4.7	4.3	10.8	4.6	6.4	6.2	6.3	
<i>eV All Global Equity Median</i>			-3.1	3.7	11.1	3.2	8.4	8.3	8.4	
<i>eV All Global Equity Rank</i>			57	67	49	11	34	39	17	
<i>Artisan Global Opportunities</i>	113,755,717	3.5	-1.1	3.1	16.0	0.0	10.1	--	11.2	Jul-17
<i>MSCI AC World Index Growth (Net)</i>			2.6	6.8	24.2	5.7	13.1	--	13.2	
<i>eV All Global Equity Median</i>			-3.1	3.7	11.1	3.2	8.4	--	8.8	
<i>eV All Global Equity Rank</i>			31	57	32	74	33	--	22	

Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter. Please see final page of the performance report for composition of the Policy Benchmark. Throughout the report performance will be shown for funds after one full month of investment.

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>US Equity</b>	<b>651,886,767</b>	<b>20.2</b>	<b>2.7</b>	<b>9.1</b>	<b>23.5</b>	<b>8.1</b>	<b>13.3</b>	<b>--</b>	<b>12.0</b>	<b>Jul-15</b>
<i>MSCI USA IMI (Net)</i>			2.5	8.7	23.3	7.6	13.5	--	12.5	
<i>eV All US Equity Median</i>			0.6	7.9	15.4	5.2	10.5	--	10.1	
<i>eV All US Equity Rank</i>			28	31	26	24	27	--	30	
Northern Trust Russell 3000 PE	612,222,283	18.9	2.6	9.0	23.8	8.0	--	--	20.5	Apr-20
<i>Russell 3000 Index</i>			2.6	9.0	23.8	8.0	--	--	20.4	
Burgundy US Small Cap	39,664,484	1.2	4.0	10.7	18.8	--	--	--	19.3	Jun-23
<i>Russell 2000 Value Index</i>			-1.1	9.0	8.1	--	--	--	18.3	
<i>eV US Small Cap Value Equity Median</i>			-0.4	8.2	10.2	--	--	--	18.6	
<i>eV US Small Cap Value Equity Rank</i>			9	25	8	--	--	--	40	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>International Equity</b>	<b>317,244,011</b>	<b>9.8</b>	<b>-6.9</b>	<b>1.0</b>	<b>5.6</b>	<b>-1.3</b>	<b>4.6</b>	<b>--</b>	<b>4.7</b>	<b>Jul-15</b>
<i>MSCI World ex U.S. IMI Index (Net)</i>			-7.5	0.0	4.4	1.2	4.8	--	5.0	
<i>eV ACWI ex-US All Cap Equity Median</i>			-6.9	-0.3	4.7	0.0	4.5	--	5.1	
<i>eV ACWI ex-US All Cap Equity Rank</i>			50	27	40	62	48	--	64	
Oberweis Intl Opportunities	41,594,437	1.3	-6.0	3.2	8.2	-9.7	4.6	--	6.0	Nov-15
<i>MSCI World ex U.S. Small Cap Growth Index (Net)</i>			-7.6	1.6	2.6	-6.1	2.1	--	5.3	
<i>eV ACWI ex-US All Cap Equity Median</i>			-6.9	-0.3	4.7	0.0	4.5	--	5.8	
<i>eV ACWI ex-US All Cap Equity Rank</i>			31	12	26	100	47	--	46	
Northern Trust MSCI World ex US	185,405,439	5.7	-7.5	-0.3	4.8	2.4	5.7	--	7.2	Nov-16
<i>MSCI World ex U.S. (Net)</i>			-7.4	-0.2	4.7	1.9	5.1	--	6.7	
Morgan Stanley Intl Equity	36,555,781	1.1	-4.4	4.6	7.3	-5.4	--	--	-2.4	Apr-21
<i>MSCI AC World ex USA (Net)</i>			-7.6	-0.1	5.5	0.8	--	--	1.8	
<i>eV ACWI ex-US All Cap Equity Median</i>			-6.9	-0.3	4.7	0.0	--	--	1.5	
<i>eV ACWI ex-US All Cap Equity Rank</i>			11	7	31	90	--	--	88	
First Eagle International Equity	53,688,354	1.7	-6.7	2.0	5.2	--	--	--	7.1	Jun-22
<i>MSCI World ex U.S. (Net)</i>			-7.4	-0.2	4.7	--	--	--	6.6	
<i>eV ACWI ex-US All Cap Equity Median</i>			-6.9	-0.3	4.7	--	--	--	5.8	
<i>eV ACWI ex-US All Cap Equity Rank</i>			48	18	45	--	--	--	25	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Emerging Markets Equity</b>	<b>336,753,292</b>	<b>10.4</b>	<b>-7.5</b>	<b>-2.7</b>	<b>7.3</b>	<b>0.4</b>	<b>4.4</b>	<b>--</b>	<b>3.7</b>	<b>Jul-15</b>
<i>MSCI Emerging Markets IMI (Net)</i>			-7.9	-0.3	7.1	-1.4	2.5	--	3.7	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	--	4.1	
<i>eV Emg Mkts Equity Rank</i>			63	80	46	37	31	--	63	
Dimensional Fund Adv EM Value	52,189,171	1.6	-7.6	-2.3	6.2	3.4	5.0	--	5.9	Nov-16
<i>MSCI Emerging Markets Value (Net)</i>			-9.2	-1.8	4.5	0.2	2.0	--	4.0	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	--	5.1	
<i>eV Emg Mkts Equity Rank</i>			67	76	59	15	27	--	34	
GQG Global Emerging Markets	66,964,204	2.1	-7.0	-7.7	6.8	2.9	7.3	--	7.7	Jul-17
<i>MSCI Emerging Markets (Net)</i>			-8.0	0.0	7.5	-1.9	1.7	--	3.3	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	--	3.8	
<i>eV Emg Mkts Equity Rank</i>			52	99	54	19	14	--	6	
Northern Trust MSCI EM IMI	40,898,252	1.3	-7.5	-0.3	6.6	-1.5	2.4	--	3.2	Oct-18
<i>MSCI Emerging Markets IMI (Net)</i>			-7.9	-0.3	7.1	-1.4	2.5	--	3.4	
Redwheel Emerging Markets Equity	54,913,073	1.7	-11.5	-4.6	-1.2	-7.5	0.4	--	3.0	Sep-19
<i>MSCI Emerging Markets (Net)</i>			-8.0	0.0	7.5	-1.9	1.7	--	4.1	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	--	5.1	
<i>eV Emg Mkts Equity Rank</i>			99	94	91	95	81	--	80	
Wellington Emerging Markets Systematic Equity	73,131,702	2.3	-5.6	3.3	15.8	2.0	5.4	--	7.4	Sep-19
<i>MSCI Emerging Markets (Net)</i>			-8.0	0.0	7.5	-1.9	1.7	--	4.1	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	2.9	--	5.1	
<i>eV Emg Mkts Equity Rank</i>			27	11	5	24	25	--	24	
Kotak India Midcap	21,439,988	0.7	-5.2	2.0	23.3	12.0	--	--	12.8	Jul-21
<i>MSCI India Midcap</i>			-8.2	-0.2	21.6	12.6	--	--	12.9	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	-1.1	--	--	-3.1	
<i>eV Emg Mkts Equity Rank</i>			21	23	1	1	--	--	1	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Unifi India	27,216,902	0.8	-6.1	-6.6	-0.2	--	--	--	17.0	Apr-23
<i>MSCI India (Net)</i>			-11.3	-4.9	11.2	--	--	--	22.9	
<i>eV Emg Mkts Equity Median</i>			-7.0	-0.2	7.0	--	--	--	8.2	
<i>eV Emg Mkts Equity Rank</i>			34	98	89	--	--	--	6	
<b>Private Markets</b>	<b>731,600,507</b>	<b>22.6</b>	<b>1.4</b>	<b>1.5</b>	<b>4.1</b>	<b>4.5</b>	<b>11.4</b>	<b>--</b>	<b>9.4</b>	<b>Jul-15</b>
<i>Private Markets Benchmark</i>			1.4	1.5	4.1	4.5	11.4	--	10.5	
<i>MSCI ACWI IMI (Net) +1%</i>			-1.0	6.0	17.5	6.0	10.8	--	10.2	
<b>Private Markets ex Russell 3000</b>	<b>731,600,507</b>	<b>22.6</b>	<b>1.4</b>	<b>1.5</b>	<b>4.1</b>	<b>5.1</b>	<b>12.6</b>	<b>--</b>	<b>9.6</b>	<b>Jul-15</b>
<b>Private Equity</b>	<b>375,622,433</b>	<b>11.6</b>	<b>1.1</b>	<b>0.1</b>	<b>4.9</b>	<b>4.7</b>	<b>16.2</b>	<b>12.7</b>	<b>9.7</b>	<b>Jan-06</b>
Pathway Private Eq Fund VIII	232,449	0.0	-4.7	-22.9	-24.6	-20.0	-12.3	-6.9	0.9	Jul-09
Pantheon Global Secondary III	428,444	0.0	-0.3	-0.9	-1.8	-2.6	-7.7	-2.0	0.8	Jul-09
Great Hill Equity Partners IV	1,190,383	0.0	0.5	5.4	0.3	-2.3	9.5	24.9	24.4	Jul-09
Partners Group Secondary 2008	32,462	0.0	-12.5	-8.7	-10.7	-12.6	-1.6	0.5	5.1	Jul-09
Partners Group Secondary 2011	2,048,316	0.1	2.7	5.4	8.8	-5.9	6.1	6.9	12.4	Nov-12
PE Strategic Partnership, LP	357,399,943	11.1	1.9	1.2	6.5	5.3	17.6	--	14.2	Aug-17
Innovation Endeavors III	8,241,146	0.3	-23.2	-31.1	-36.1	-6.1	20.8	--	9.5	Jun-18
Crestline Portfolio Financing	2,668,491	0.1	0.8	3.1	11.1	8.9	9.7	--	9.6	Jul-18
Pantheon USA Fund VII, LP	3,380,799	0.1	0.2	-8.3	-6.8	-3.1	7.9	8.6	10.5	Jul-09
<b>Venture Capital</b>	<b>35,750,686</b>	<b>1.1</b>	<b>0.2</b>	<b>1.8</b>	<b>-4.4</b>	<b>-3.9</b>	<b>--</b>	<b>--</b>	<b>-3.8</b>	<b>Jun-21</b>
Innovation Endeavors IV	2,924,069	0.1	-1.3	-0.6	-5.0	-2.1	--	--	-4.3	Jun-21
Transpose Platform SJFED	23,725,567	0.7	1.0	4.3	-9.0	-5.4	--	--	-4.7	Aug-21

Returns for the Private Debt and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Soma Capital Fund III LP	2,843,611	0.1	-2.4	-4.3	-11.9	-2.2	--	--	-2.2	Dec-21
Fin VC Horizons II	4,926,704	0.2	0.2	-0.5	13.7	--	--	--	-1.5	Apr-22
Cross Link Ventures X	607,628	0.0	1.4	5.5	-15.2	--	--	--	-25.8	Sep-23
Innovation Endeavors V, L.P.	595,634	0.0	-4.5	-8.7	--	--	--	--	-8.7	Apr-24
Crosslink Endeavour Fund II	127,473	0.0	-15.0	-15.0	--	--	--	--	-15.0	Jul-24
<b>Private Debt</b>	<b>115,507,663</b>	<b>3.6</b>	<b>3.0</b>	<b>4.7</b>	<b>10.2</b>	<b>8.8</b>	<b>11.0</b>	<b>5.0</b>	<b>5.6</b>	<b>Dec-10</b>
<i>Morningstar LSTA U.S. Leveraged Loan Index +2%</i>			2.8	5.4	11.1	9.1	8.0	7.2	7.1	
White Oak Direct Lending	27,897,895	0.9	1.8	-1.6	-7.6	1.3	18.8	7.7	7.0	Feb-11
Blackstone/GSO Cap Partners	4,071,264	0.1	-0.1	-4.1	-7.0	3.3	-13.3	-7.1	-1.7	Mar-11
Medley Opportunity Fund II LP	75,358	0.0	-57.7	-58.1	-60.7	-25.5	-18.8	-11.4	-6.6	Jun-11
Cross Ocean USD ESS Fund II LP	936,087	0.0	53.6	52.1	50.6	15.0	13.1	--	12.0	Aug-16
Crestline Co-Investment	25,591	0.0	1.6	5.5	8.7	14.9	13.2	--	12.9	Apr-19
Cross Ocean USD ESS Fund III, L.P.	11,149,322	0.3	1.3	8.1	17.3	12.7	15.6	--	13.7	Jul-19
Arbour Lane Credit Opportunity Fund II, L.P.	7,310,622	0.2	0.7	4.1	24.7	12.3	--	--	17.9	May-20
Eagle Point Defensive Income Fund	7,137,724	0.2	4.2	6.8	19.0	7.1	--	--	7.2	Jul-20
HPS Special Situations Opportunity Fund	5,884,612	0.2	3.3	5.2	10.3	12.8	--	--	16.6	Dec-20
Crestline Portfolio Financing Fund II	5,682,385	0.2	1.9	3.8	8.4	10.6	--	--	9.5	Dec-20
SVP Special Situations V	7,438,259	0.2	5.2	10.6	22.1	15.5	--	--	12.2	Jun-21
Arbour Lane COF III	10,270,344	0.3	4.7	9.6	21.3	7.9	--	--	7.5	Nov-21
Angelo Gordon CS II	7,286,662	0.2	4.0	5.4	14.0	--	--	--	7.2	Feb-22

### Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Octagon CLO Opp Fund IV	1	0.0	3.3	6.3	19.1	--	--	--	13.0	Mar-22
Eagle Point DIF II	9,654,293	0.3	6.1	9.3	18.2	--	--	--	12.4	Sep-22
HPS SP SIT OPP II	2,845,751	0.1	2.1	9.2	8.3	--	--	--	9.3	Dec-22
Charlesbank Credit Opportunities Fund III, L.P.	2,665,895	0.1	5.9	5.9	40.6	--	--	--	40.6	Jan-24
Invesco Credit Partners Fund III, L.P.	2,374,018	0.1	1.8	2.2	--	--	--	--	12.5	Mar-24
Silver Point Distressed Opportunity Partners II	628,750	0.0	10.3	42.8	--	--	--	--	42.8	Jul-24
Silver Point Specialty Credit Fund III, L.P.	2,172,829	0.1	--	--	--	--	--	--	-6.1	Dec-24
<b>Growth Real Estate</b>	<b>123,189,829</b>	<b>3.8</b>	<b>-1.1</b>	<b>-0.2</b>	<b>-4.9</b>	<b>2.1</b>	<b>6.8</b>	<b>--</b>	<b>11.5</b>	<b>Jul-15</b>
DRA Growth & Income Fund VII	6,061	0.0	-1.0	13.8	-76.5	-36.6	-4.6	13.2	13.8	Apr-12
DRA Growth & Income Fund VIII	1,363,359	0.0	1.8	-13.1	-47.5	-29.9	-17.6	-4.5	-4.5	Jan-15
Tristan - EPISO IV	9,665,324	0.3	-7.7	-4.0	-21.4	-7.2	-0.4	--	3.5	Jan-16
DRA Growth & Income Fund IX	5,925,852	0.2	-1.9	-1.8	-6.8	2.1	11.5	--	12.0	Feb-17
GEM Realty Fund VI	4,878,433	0.2	1.5	0.5	-0.4	0.6	8.4	--	5.0	Dec-17
Torchlight Debt Opportunity VI	23,294,793	0.7	1.2	2.8	5.0	7.3	7.2	--	5.8	May-18
Tristan - EPISO V	8,751,629	0.3	-7.7	-6.5	-22.0	-6.4	-12.1	--	-24.9	May-19
DRA Growth & Income Fund X	9,254,802	0.3	-1.9	-2.6	-3.0	7.4	--	--	15.0	Apr-20
Rockpoint Real Estate Fund VI, L.P.	5,926,188	0.2	0.3	1.3	-1.3	2.7	--	--	7.9	Jun-20
Exeter Industrial Value Fund V	8,072,404	0.2	-0.1	2.9	3.4	11.3	--	--	18.2	Oct-20
Torchlight Debt Fund VII	6,011,744	0.2	0.4	0.9	2.4	3.9	--	--	3.2	Feb-21

Returns for the Private Debt and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.



### Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
H.I.G. Realty Partners IV, L.P.	10,713,471	0.3	0.8	2.1	6.3	--	--	--	33.7	Feb-22
Praedium X MidInc	7,010,747	0.2	0.1	0.5	-0.8	--	--	--	-7.9	Apr-22
AIGGRE Fund IV	7,867,402	0.2	0.1	0.0	-1.9	--	--	--	8.4	Jun-22
GCP SecureSpace Property Partners, L.P	3,843,697	0.1	-1.2	-2.0	-0.7	--	--	--	-5.2	Sep-22
Centerbridge RE II	4,413,992	0.1	3.5	5.4	7.8	--	--	--	-0.9	Jul-22
EQT Exeter Industrial Value VI	3,027,558	0.1	-1.6	-0.6	-19.4	--	--	--	-18.1	Dec-23
DRA Growth Income Fund XI	3,162,373	0.1	-2.0	-4.2	-21.9	--	--	--	-20.4	Dec-23

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Private Real Assets</b>	<b>81,529,896</b>	<b>2.5</b>	<b>4.7</b>	<b>6.5</b>	<b>7.3</b>	<b>9.5</b>	<b>9.6</b>	<b>--</b>	<b>8.4</b>	<b>Jul-15</b>
Global Infra Part III-A/B, LP	17,892,238	0.6	6.7	6.4	10.0	12.2	10.4	--	6.8	Sep-16
Lime Rock Partners VIII	2,983,256	0.1	0.8	5.9	5.7	17.2	12.6	--	10.1	Dec-18
Kimmeridge Energy Fund V, L.P.	3,280,424	0.1	-9.9	-9.5	-16.1	8.3	17.3	--	9.9	Aug-19
Global Infra Partners IV	3,222,788	0.1	4.4	6.8	12.6	9.8	-51.4	--	-62.1	Oct-19
Lime Rock New Energy, L.P.	4,932,905	0.2	16.7	24.1	49.5	-1.9	--	--	15.8	Aug-20
Orion Mine Finance III	3,495,067	0.1	2.1	0.2	-4.8	7.1	--	--	7.6	Sep-20
Real Assets Coinvest I	45,000	0.0	0.0	0.0	0.0	-66.5	--	--	-53.8	Oct-20
Tembo Cap Mining III	5,329,654	0.2	21.7	38.0	37.8	19.7	--	--	18.1	Oct-21
Mountain Capital II	2,164,909	0.1	-1.2	-2.6	6.6	2.4	--	--	2.4	Jan-22
Aether Seed Partners I	2,745,906	0.1	2.0	1.6	14.0	--	--	--	97.6	May-22
Hull Street Energy II	5,470,117	0.2	-3.8	-0.1	26.7	--	--	--	-7.9	Jul-22
Kimmeridge Fund VI	5,186,996	0.2	-0.8	-0.9	-11.7	--	--	--	-2.2	Oct-22
HIG Infrastructure Partners	6,076,498	0.2	-0.2	6.4	-3.0	--	--	--	-12.9	Jan-23
Paine Schwartz Food Chain Fund VI	2,559,236	0.1	1.7	2.6	3.4	--	--	--	-2.3	Apr-23
Ridgewood Water & Strategic Infrastructure Fund II, L.P.	1,945,742	0.1	1.4	3.2	4.1	--	--	--	-16.1	Sep-23
Orion Mine Finance Fund IV, L.P.	1,517,841	0.0	6.9	14.8	9.3	--	--	--	7.4	Oct-23
Scout Energy Partners VI, L.P.	3,126,055	0.1	3.8	5.8	2.0	--	--	--	1.6	Oct-23
Lime Rock IX	1,131,680	0.0	7.1	3.2	4.6	--	--	--	4.3	Dec-23

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Seraya Partners Fund I, L.P.	3,834,766	0.1	23.2	25.7	26.7	--	--	--	26.7	Jan-24
Primary Wave Music IP Fund 4, L.P.	2,470,953	0.1	--	--	--	--	--	--	-3.1	Nov-24
Pelican Energy Partners Base Zero, L.P.	2,111,216	0.1	--	--	--	--	--	--	-8.0	Nov-24
Crestline Co-Investment II	6,648	0.0								
<b>Emerging Markets Debt</b>	<b>98,056,127</b>	<b>3.0</b>	<b>-1.0</b>	<b>3.0</b>	<b>3.6</b>	<b>3.2</b>	<b>3.8</b>	<b>--</b>	<b>3.8</b>	<b>Jul-15</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			-4.5	2.7	2.0	-0.9	-0.8	--	2.1	
<i>eV All Emg Mkts Fixed Inc Median</i>			-1.8	3.6	6.1	0.2	0.8	--	2.9	
<i>eV All Emg Mkts Fixed Inc Rank</i>			30	61	65	12	6	--	24	
Wellington Iguazu Partners LP Fund	40,390,420	1.2	3.0	2.5	4.9	4.5	6.3	--	6.9	May-19
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			-4.5	2.7	2.0	-0.9	-0.8	--	0.8	
<i>eV All Emg Mkts Fixed Inc Median</i>			-1.8	3.6	6.1	0.2	0.8	--	2.0	
<i>eV All Emg Mkts Fixed Inc Rank</i>			2	70	58	5	1	--	1	
Payden EMD Blended Currency	57,665,706	1.8	-3.7	3.7	2.9	-0.2	--	--	-1.1	Dec-20
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			-4.5	2.7	2.0	-0.9	--	--	-1.3	
<i>eV All Emg Mkts Fixed Inc Median</i>			-1.8	3.6	6.1	0.2	--	--	0.0	
<i>eV All Emg Mkts Fixed Inc Rank</i>			69	47	70	64	--	--	75	

Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.  
 Crestline Co-Investment II funded January, 2021.

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>High Yield Bonds</b>	<b>67,728,199</b>	<b>2.1</b>	<b>-0.2</b>	<b>4.3</b>	<b>7.1</b>	<b>3.0</b>	<b>5.0</b>	<b>3.4</b>	<b>2.5</b>	<b>Jun-14</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.2	5.5	8.2	2.9	4.2	5.2	4.7	
Mellon High Yield Beta	6,219,440	0.2	0.0	5.3	7.7	3.1	--	--	5.8	Jul-20
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.2	5.5	8.2	2.9	--	--	5.6	
<i>eV US High Yield Fixed Inc Median</i>			0.2	4.6	7.7	3.0	--	--	5.3	
<i>eV US High Yield Fixed Inc Rank</i>			71	20	46	47	--	--	34	
Columbia High Yield	61,508,760	1.9	-0.2	4.2	7.0	3.0	--	--	3.8	Dec-20
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.2	5.5	8.2	2.9	--	--	3.9	
<i>eV US High Yield Fixed Inc Median</i>			0.2	4.6	7.7	3.0	--	--	3.8	
<i>eV US High Yield Fixed Inc Rank</i>			85	73	68	51	--	--	50	
<b>Low Beta</b>	<b>271,426,872</b>	<b>8.4</b>	<b>0.4</b>	<b>1.7</b>	<b>4.8</b>	<b>5.2</b>	<b>4.3</b>	<b>--</b>	<b>3.3</b>	<b>Jul-15</b>
<i>Low Beta Benchmark</i>			0.2	1.8	4.7	2.9	3.0	--	2.0	
<b>Immunized Cash Flows</b>	<b>98,039,576</b>	<b>3.0</b>	<b>0.0</b>	<b>2.8</b>	<b>4.1</b>	<b>1.7</b>	<b>1.5</b>	<b>--</b>	<b>2.0</b>	<b>Oct-18</b>
<i>Bloomberg U.S. Gov/Credit 1-3 Year Index</i>			0.0	2.9	4.4	1.7	1.6	--	2.1	
Insight Immunized Cash Flow	98,039,576	3.0	0.0	2.8	4.1	1.7	1.5	--	1.6	Jul-19
<i>Bloomberg U.S. Gov/Credit 1-3 Year Index</i>			0.0	2.9	4.4	1.7	1.6	--	1.7	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Market Neutral Strategies</b>	<b>95,832,112</b>	<b>3.0</b>	<b>0.7</b>	<b>-0.6</b>	<b>5.9</b>	<b>10.8</b>	<b>9.4</b>	<b>6.5</b>	<b>6.3</b>	<b>Nov-12</b>
<i>Market Neutral Strategies Benchmark</i>			0.6	0.0	5.5	4.6	5.4	3.1	3.0	
<b>Relative Value</b>	<b>95,832,112</b>	<b>3.0</b>	<b>0.7</b>	<b>-0.6</b>	<b>5.9</b>	<b>10.8</b>	<b>8.0</b>	<b>6.6</b>	<b>6.5</b>	<b>Oct-14</b>
<i>HFRI Relative Value (Total) Index</i>			1.9	4.5	8.6	4.9	5.1	4.5	4.3	
<i>Relative Value Arbitrage Median</i>			1.2	4.0	7.4	3.7	4.7	4.0	3.9	
<i>Relative Value Arbitrage Rank</i>			65	100	75	1	1	1	1	
DE Shaw Composite Fund, LLC	48,536,829	1.5	4.7	8.6	14.5	16.5	17.7	14.1	14.0	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			1.4	4.4	9.8	4.4	7.0	5.3	5.2	
Hudson Bay	10,952,795	0.3	2.5	3.9	5.9	6.5	9.6	--	8.6	Aug-17
<i>HFRI Relative Value (Total) Index</i>			1.9	4.5	8.6	4.9	5.1	--	4.6	
Crabel Advanced Trend	36,342,488	1.1	-4.7	-12.6	-4.2	4.4	--	--	2.4	Jun-21
<i>Barclay CTA Index</i>			-0.1	-0.6	3.5	3.3	--	--	2.9	
<b>Cash</b>	<b>77,555,184</b>	<b>2.4</b>	<b>1.1</b>	<b>2.7</b>	<b>5.3</b>	<b>3.5</b>	<b>2.2</b>	<b>1.7</b>	<b>6.6</b>	<b>Jan-06</b>
<i>90 Day U.S. Treasury Bill</i>			1.2	2.6	5.3	3.9	2.5	1.8	1.6	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Other</b>	<b>515,960,643</b>	<b>16.0</b>	<b>-2.5</b>	<b>0.0</b>	<b>-2.6</b>	<b>-2.3</b>	<b>-0.7</b>	<b>0.8</b>	<b>1.4</b>	<b>Jul-04</b>
<i>Other Benchmark</i>			-1.9	1.6	0.3	-2.3	-0.6	--	--	
<b>Investment Grade Bonds</b>	<b>204,443,346</b>	<b>6.3</b>	<b>-1.7</b>	<b>2.8</b>	<b>3.7</b>	<b>-0.7</b>	<b>1.1</b>	<b>--</b>	<b>1.1</b>	<b>Dec-19</b>
<i>Custom IG Bonds Benchmark</i>			-2.5	2.2	1.9	-1.3	0.2	--	0.2	
Voya Securitized Credit	45,354,439	1.4	-0.8	3.3	7.0	-0.1	--	--	2.1	Jun-20
<i>Blmbg. U.S. Securitized: MBS, ABS, and CMBS</i>			-3.0	2.3	1.5	-2.0	--	--	-1.4	
Invesco Core Bonds	109,076,425	3.4	-2.8	2.0	1.9	-2.5	--	--	-1.7	Mar-21
<i>Blmbg. U.S. Aggregate Index</i>			-3.1	2.0	1.3	-2.4	--	--	-1.7	
BlackRock 1-3 Year Gov/Credit	50,012,483	1.5	0.0	--	--	--	--	--	0.8	Sep-24
<i>Bloomberg U.S. Government 1-3 Year Index</i>			-0.1	--	--	--	--	--	0.7	
<b>TIPS</b>	<b>61,577,844</b>	<b>1.9</b>	<b>-0.1</b>	<b>2.4</b>	<b>4.7</b>	<b>2.1</b>	<b>3.2</b>	<b>2.5</b>	<b>2.1</b>	<b>Jul-14</b>
<i>BBg U.S. TIPS 0-5 Years</i>			-0.1	2.4	4.7	2.1	3.3	--	--	
Northern Trust 0-5 Year TIPS	61,577,844	1.9	-0.1	2.4	4.7	2.1	3.2	2.5	2.1	Jul-14
<i>Blmbg. U.S. TIPS 0-5 Year</i>			-0.1	2.4	4.7	2.1	3.3	2.6	2.2	

## Total Fund | As of December 31, 2024

	Market Value \$	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Core Private Real Estate</b>	<b>152,568,476</b>	<b>4.7</b>	<b>0.0</b>	<b>-1.1</b>	<b>-8.3</b>	<b>0.8</b>	<b>3.4</b>	<b>--</b>	<b>5.7</b>	<b>Jul-15</b>
Core Real Estate Benchmark			0.0	-0.7	-8.1	-1.1	1.8	--	4.4	
BlackRock Core Property Fund	22,933,743	0.7	-1.3	-3.8	-14.2	-1.5	1.9	--	2.2	Feb-19
Core Real Estate Benchmark 2			0.0	-0.7	-8.1	-1.1	1.8	--	2.2	
Clarion Lion Properties Fund	47,349,582	1.5	0.0	-1.9	-9.1	-2.2	1.8	--	2.1	May-19
Core Real Estate Benchmark 2			0.0	-0.7	-8.1	-1.1	1.8	--	2.1	
Clarion Lion Industrial Trust	10,877,720	0.3	-0.9	-1.5	-4.4	8.7	--	--	8.0	Oct-21
Core Real Estate Benchmark 3			0.0	-0.7	-8.1	-1.1	--	--	-1.0	
TA Realty Core Property Fund	71,407,431	2.2	0.4	0.7	-5.9	2.9	--	--	2.6	Oct-21
Core Real Estate Benchmark 3			0.0	-0.7	-8.1	-1.1	--	--	-1.0	
<b>Long-Term Government Bonds</b>	<b>97,370,976</b>	<b>3.0</b>	<b>-8.6</b>	<b>-1.5</b>	<b>-6.2</b>	<b>-11.8</b>	<b>--</b>	<b>--</b>	<b>-9.4</b>	<b>Jun-20</b>
Blmbg. U.S. Treasury: Long			-8.6	-1.5	-6.4	-12.0	--	--	-9.5	
BlackRock Long-Term Gov Bonds	97,370,976	3.0	-8.6	-1.5	-6.2	-11.8	--	--	-9.4	Jun-20
Blmbg. U.S. Treasury: Long			-8.6	-1.5	-6.4	-12.0	--	--	-9.5	
<b>Overlay</b>	<b>18,067,451</b>	<b>0.6</b>								
Russell Investments Overlay	18,065,051	0.6								

### Cash Flow Summary Quarter Ending December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
<b>Growth</b>	2,504,351,024	101,342,932	-147,148,277	-45,805,345	-31,848,707	2,426,696,972
Public Equity	1,598,905,376	75,000,000	-105,000,098	-30,000,098	-39,593,140	1,529,312,138
Global Equity	304,101,410	0	-75,000,000	-75,000,000	-5,673,342	223,428,068
Artisan Global Value	159,566,287	0	-45,000,000	-45,000,000	-4,893,936	109,672,351
Artisan Global Opportunities	144,535,123	0	-30,000,000	-30,000,000	-779,406	113,755,717
US Equity	618,604,704	48,000,000	-30,000,000	18,000,000	15,282,062	651,886,767
Northern Trust Russell 3000 PE	580,458,536	48,000,000	-30,000,000	18,000,000	13,763,747	612,222,283
Burgundy US Small Cap	38,146,169	0	0	0	1,518,315	39,664,484
International Equity	320,821,855	19,000,000	0	19,000,000	-22,577,844	317,244,011
Northern Trust MSCI World ex US	180,813,916	19,000,000	0	19,000,000	-14,408,477	185,405,439
Oberweis Intl Opportunities	44,232,185	0	0	0	-2,637,747	41,594,437
Morgan Stanley Intl Equity	38,225,576	0	0	0	-1,669,795	36,555,781
First Eagle International Equity	57,550,178	0	0	0	-3,861,824	53,688,354
Emerging Markets Equity	355,377,407	8,000,000	-98	7,999,902	-26,624,017	336,753,292
Northern Trust MSCI EM IMI	35,763,533	8,000,000	-98	7,999,902	-2,865,183	40,898,252
Dimensional Fund Adv EM Value	56,495,728	0	0	0	-4,306,556	52,189,171
GQG Global Emerging Markets	72,022,442	0	0	0	-5,058,238	66,964,204
Redwheel Emerging Markets Equity	62,067,293	0	0	0	-7,154,220	54,913,073
Wellington Emerging Markets Systematic Equity	77,443,652	0	0	0	-4,311,950	73,131,702
Kotak India Midcap	22,604,795	0	0	0	-1,164,807	21,439,988
Unifi India	28,979,965	0	0	0	-1,763,063	27,216,902



## Total Fund | As of December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Private Markets	738,496,761	26,335,009	-42,140,256	-15,805,247	8,908,994	731,600,507
Private Markets ex Russell 3000	738,496,761	26,335,009	-42,140,256	-15,805,247	8,908,994	731,600,507
Private Equity	383,058,224	3,021,508	-14,107,015	-11,085,507	3,649,716	375,622,433
PE Strategic Partnership, LP	361,324,631	2,400,000	-13,026,978	-10,626,978	6,702,290	357,399,943
Pathway Private Eq Fund VIII	243,996	0	0	0	-11,547	232,449
Pantheon USA Fund VII, LP	3,372,744	0	0	0	8,055	3,380,799
Pantheon Global Secondary III	429,747	0	0	0	-1,303	428,444
Great Hill Equity Partners IV	1,183,895	0	0	0	6,488	1,190,383
Partners Group Secondary 2008	253,534	0	-195,072	-195,072	-26,000	32,462
Partners Group Secondary 2011	2,253,814	0	-264,435	-264,435	58,937	2,048,316
Innovation Endeavors III	10,727,181	621,508	0	621,508	-3,107,543	8,241,146
Crestline Portfolio Financing	3,268,682	0	-620,530	-620,530	20,339	2,668,491
Venture Capital	32,189,562	3,509,600	0	3,509,600	51,524	35,750,686
Innovation Endeavors IV	2,961,725	0	0	0	-37,656	2,924,069
Transpose Platform SJFED	20,021,986	3,509,600	0	3,509,600	193,981	23,725,567
Soma Capital Fund III LP	2,914,417	0	0	0	-70,806	2,843,611
Fin VC Horizons II	4,918,559	0	0	0	8,145	4,926,704
Cross Link Ventures X	599,255	0	0	0	8,373	607,628
Innovation Endeavors V, L.P.	623,620	0	0	0	-27,986	595,634
Crosslink Endeavour Fund II	150,000	0	0	0	-22,527	127,473

## Total Fund | As of December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Private Debt	123,435,956	5,743,351	-16,780,794	-11,037,443	3,109,150	115,507,663
White Oak Direct Lending	27,403,180	0	0	0	494,715	27,897,895
Blackstone/GSO Cap Partners	4,076,611	0	0	0	-5,347	4,071,264
Medley Opportunity Fund II LP	178,275	0	0	0	-102,917	75,358
Cross Ocean USD ESS Fund II LP	1,191,307	267,716	-581,937	-314,221	59,001	936,087
Crestline Co-Investment	1,730,143	0	-1,721,140	-1,721,140	16,587	25,591
Cross Ocean USD ESS Fund III, L.P.	11,754,905	224,210	-757,098	-532,888	-72,695	11,149,322
Arbour Lane Credit Opportunity Fund II, L.P.	7,260,702	0	0	0	49,920	7,310,622
Eagle Point Defensive Income Fund	7,331,245	0	-491,287	-491,287	297,766	7,137,724
HPS Special Situations Opportunity Fund	7,652,150	0	-2,019,407	-2,019,407	251,869	5,884,612
Crestline Portfolio Financing Fund II	5,476,156	274,967	-177,398	97,569	108,660	5,682,385
SVP Special Situations V	6,698,684	375,000	-3,750	371,250	368,325	7,438,259
Arbour Lane COF III	9,446,245	376,620	0	376,620	447,479	10,270,344
Octagon CLO Opp Fund IV	1,360,898	15,279	-1,375,531	-1,360,252	-645	1
Angelo Gordon CS II	6,929,974	225,000	-146,486	78,514	278,174	7,286,662
HPS SP SIT OPP II	2,216,828	583,462	0	583,462	45,461	2,845,751
Eagle Point DIF II	9,266,548	0	-164,978	-164,978	552,723	9,654,293
Octagon CLO Opportunity Fund V, L.P.	9,053,040	0	-9,290,925	-9,290,925	237,885	0
Charlesbank Credit Opporunities Fund III, L.P.	2,056,921	539,982	-50,858	489,124	119,850	2,665,895
Invesco Credit Partners Fund III, L.P.	2,051,813	284,592	0	284,592	37,613	2,374,018
Silver Point Distressed Opportunity Partners II	300,331	273,745	0	273,745	54,674	628,750
Silver Point Specialty Credit Fund III, L.P.	0	2,302,777	0	2,302,777	-129,948	2,172,829

## Total Fund | As of December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Growth Real Estate	123,405,254	3,513,282	-2,367,499	1,145,784	-1,361,209	123,189,829
DRA Growth & Income Fund VII	15,464	0	-9,247	-9,247	-156	6,061
DRA Growth & Income Fund VIII	1,338,790	0	0	0	24,569	1,363,359
Tristan - EPISO IV	10,857,731	0	-364,009	-364,009	-828,398	9,665,324
DRA Growth & Income Fund IX	7,227,724	0	-1,162,631	-1,162,631	-139,241	5,925,852
GEM Realty Fund VI	4,804,126	16,195	0	16,195	58,112	4,878,433
Torchlight Debt Opportunity VI	23,020,747	0	0	0	274,046	23,294,793
Tristan - EPISO V	9,258,994	205,771	0	205,771	-713,137	8,751,629
DRA Growth & Income Fund X	9,438,266	0	0	0	-183,464	9,254,802
Rockpoint Real Estate Fund VI, L.P.	6,112,150	0	-205,295	-205,295	19,333	5,926,188
Exeter Industrial Value Fund V	8,079,006	1,341	0	1,341	-7,942	8,072,404
Torchlight Debt Fund VII	5,986,709	0	0	0	25,035	6,011,744
H.I.G. Realty Partners IV, L.P.	10,427,123	511,841	-305,081	206,759	79,588	10,713,471
Praedium X MidInc	6,482,840	576,850	-57,685	519,165	8,742	7,010,747
AIGGRE Fund IV	8,123,759	0	-263,550	-263,550	7,193	7,867,402
Centerbridge RE II	4,264,296	0	0	0	149,696	4,413,992
GCP SecureSpace Property Partners, L.P	3,455,643	431,109	0	431,109	-43,055	3,843,697
EQT Exeter Industrial Value VI	1,867,318	1,200,000	0	1,200,000	-39,760	3,027,558
DRA Growth Income Fund XI	2,644,568	570,175	0	570,175	-52,370	3,162,373

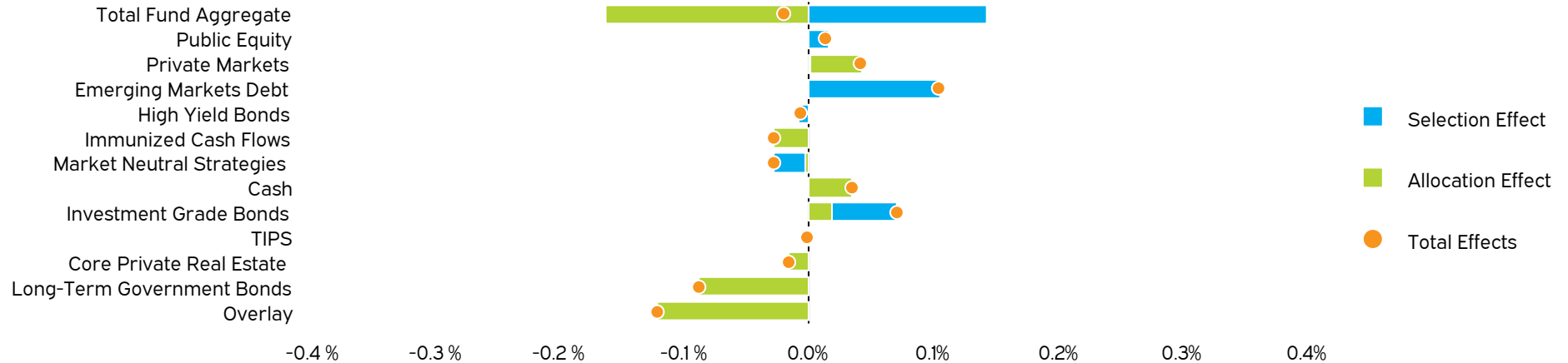
## Total Fund | As of December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Private Real Assets	76,407,764	10,547,268	-8,884,949	1,662,319	3,459,813	81,529,896
Global Infra Part III-A/B, LP	22,551,869	0	-6,042,948	-6,042,948	1,383,317	17,892,238
Lime Rock Partners VIII	3,051,328	0	-93,999	-93,999	25,927	2,983,256
Kimmeridge Energy Fund V, L.P.	3,740,099	81,434	-97,184	-15,750	-443,925	3,280,424
Global Infra Partners IV	3,105,131	0	-20,036	-20,036	137,693	3,222,788
Lime Rock New Energy, L.P.	4,227,654	0	0	0	705,251	4,932,905
Orion Mine Finance III	3,532,724	0	-113,409	-113,409	75,753	3,495,067
Real Assets Coinvest I	45,000	0	0	0	0	45,000
Crestline Co-Investment II	8,856	0	0	0	-2,207	6,648
Tembo Cap Mining III	4,809,397	277,892	-821,675	-543,783	1,064,040	5,329,654
Mountain Capital II	2,277,485	27,631	-114,637	-87,006	-25,570	2,164,909
Aether Seed Partners I	2,097,625	601,946	0	601,946	46,335	2,745,906
Hull Street Energy II	5,417,903	256,346	0	256,346	-204,132	5,470,117
Kimmeridge Fund VI	5,227,643	0	0	0	-40,647	5,186,996
HIG Infrastructure Partners	4,220,402	1,863,660	0	1,863,660	-7,564	6,076,498
Paine Schwartz Food Chain Fund VI	2,496,596	251,625	-231,388	20,237	42,403	2,559,236
Ridgewood Water & Strategic Infrastructure Fund II, L.P.	1,965,575	0	-46,744	-46,744	26,911	1,945,742
Scout Energy Partners VI, L.P.	1,393,062	1,652,862	0	1,652,862	80,131	3,126,055
Lime Rock IX	939,994	124,610	0	124,610	67,076	1,131,680
Orion Mine Finance Fund IV, L.P.	1,487,369	326,765	-393,922	-67,156	97,628	1,517,841
Pelican Energy Partners Base Zero, L.P.	0	2,295,486	0	2,295,486	-184,270	2,111,216
Primary Wave Music IP Fund 4, L.P.	0	2,548,833	0	2,548,833	-77,880	2,470,953
Seraya Partners Fund I, L.P.	3,812,053	238,177	-909,007	-670,831	693,544	3,834,766

## Total Fund | As of December 31, 2024

	Beginning Market Value(\$)	Contributions(\$)	Distributions(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Emerging Markets Debt	99,081,049	0	0	0	-1,024,922	98,056,127
Wellington Iguazu Partners LP Fund	39,217,630	0	0	0	1,172,790	40,390,420
Payden EMD Blended Currency	59,863,419	0	0	0	-2,197,712	57,665,706
High Yield Bonds	67,867,838	7,923	-7,923	0	-139,638	67,728,199
Mellon High Yield Beta	6,217,878	0	0	0	1,562	6,219,440
Columbia High Yield	61,649,960	7,923	-7,923	0	-141,200	61,508,760
Low Beta	232,138,766	231,245,921	-193,061,219	38,184,703	1,103,404	271,426,872
Immunized Cash Flows	103,089,587	0	-4,998,374	-4,998,374	-51,637	98,039,576
Insight Immunized Cash Flow	103,089,587	0	-4,998,374	-4,998,374	-51,637	98,039,576
Market Neutral Strategies	95,150,648	0	0	0	681,464	95,832,112
Relative Value	95,150,648	0	0	0	681,464	95,832,112
DE Shaw Composite Fund, LLC	46,346,817	0	0	0	2,190,012	48,536,829
Hudson Bay	10,687,890	0	0	0	264,905	10,952,795
Crabel Advanced Trend	38,115,941	0	0	0	-1,773,453	36,342,488
Cash	33,898,531	231,245,921	-188,062,845	43,183,077	473,576	77,555,184
Cash Account	33,898,531	231,245,921	-188,062,845	43,183,077	473,576	77,555,184
Other	513,263,191	19,716,958	-4,084,577	15,632,381	-12,934,929	515,960,643
Investment Grade Bonds	208,032,814	1,958	-1,958	0	-3,589,468	204,443,346
Voya Securitized Credit	45,741,047	0	0	0	-386,608	45,354,439
Invesco Core Bonds	112,275,441	1,958	-1,958	0	-3,199,016	109,076,425
BlackRock 1-3 Year Gov/Credit	50,016,327	0	0	0	-3,844	50,012,483
TIPS	61,623,737	0	0	0	-45,893	61,577,844
Northern Trust 0-5 Year TIPS	61,623,737	0	0	0	-45,893	61,577,844
Core Private Real Estate	137,017,622	19,715,000	-4,082,619	15,632,381	-81,526	152,568,476
BlackRock Core Property Fund	23,302,223	0	-69,008	-69,008	-299,471	22,933,743
Clarion Lion Properties Fund	47,688,582	0	-360,289	-360,289	21,289	47,349,582
Clarion Lion Industrial Trust	13,874,037	0	-2,897,379	-2,897,379	-98,938	10,877,720
TA Realty Core Property Fund	52,152,780	19,715,000	-755,943	18,959,057	295,594	71,407,431
Long-Term Government Bonds	106,589,018	0	0	0	-9,218,042	97,370,976
BlackRock Long-Term Gov Bonds	106,589,018	0	0	0	-9,218,042	97,370,976
Overlay	22,349,229	0	0	0	-4,281,778	18,067,451
Russell Investments Overlay	22,346,643	0	0	0	-4,281,592	18,065,051
State Street Terminated Managers	2,586	0	0	0	-186	2,400
<b>Total Fund Aggregate</b>	<b>3,272,102,210</b>	<b>352,305,811</b>	<b>-344,294,073</b>	<b>8,011,738</b>	<b>-47,962,010</b>	<b>3,232,151,937</b>

#### Attribution Summary Chart 3 Months Ending December 31, 2024

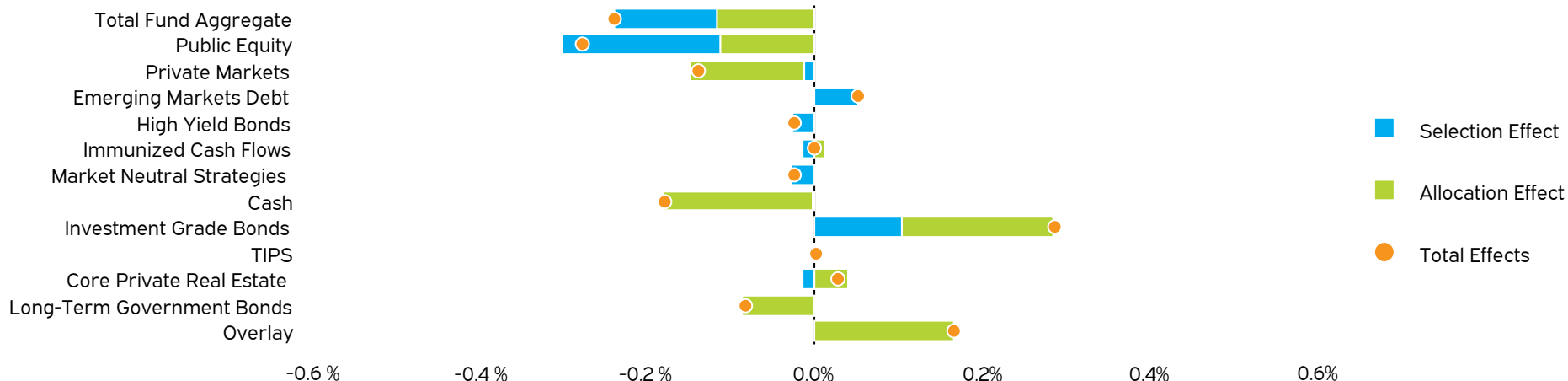


#### Attribution Summary 3 Months Ending December 31, 2024

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effect
Public Equity	-2.5	-2.5	0.0	0.0	0.0	0.0
Private Markets	1.4	1.4	0.0	0.0	0.0	0.0
Emerging Markets Debt	-1.0	-4.5	3.4	0.1	0.0	0.1
High Yield Bonds	-0.2	0.2	-0.4	0.0	0.0	0.0
Immunized Cash Flows	0.0	0.0	0.0	0.0	0.0	0.0
Market Neutral Strategies	0.7	1.6	-0.8	0.0	0.0	0.0
Cash	1.1	1.2	-0.1	0.0	0.0	0.0
Investment Grade Bonds	-1.7	-2.5	0.8	0.1	0.0	0.1
TIPS	-0.1	-0.1	0.0	0.0	0.0	0.0
Core Private Real Estate	0.0	0.0	0.0	0.0	0.0	0.0
Long-Term Government Bonds	-8.6	-8.6	0.0	0.0	-0.1	-0.1
Overlay	-19.2	1.2	-20.3	0.0	-0.1	-0.1
<b>Total Fund Aggregate</b>	<b>-1.4</b>	<b>-1.4</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.2</b>	<b>0.0</b>

Difference in attribution returns and returns in performance summary may occur as a result of the different calculation methodologies that are applied by Paris. Selection effect for each asset class includes prorated residual effects of total portfolio timing and trading.

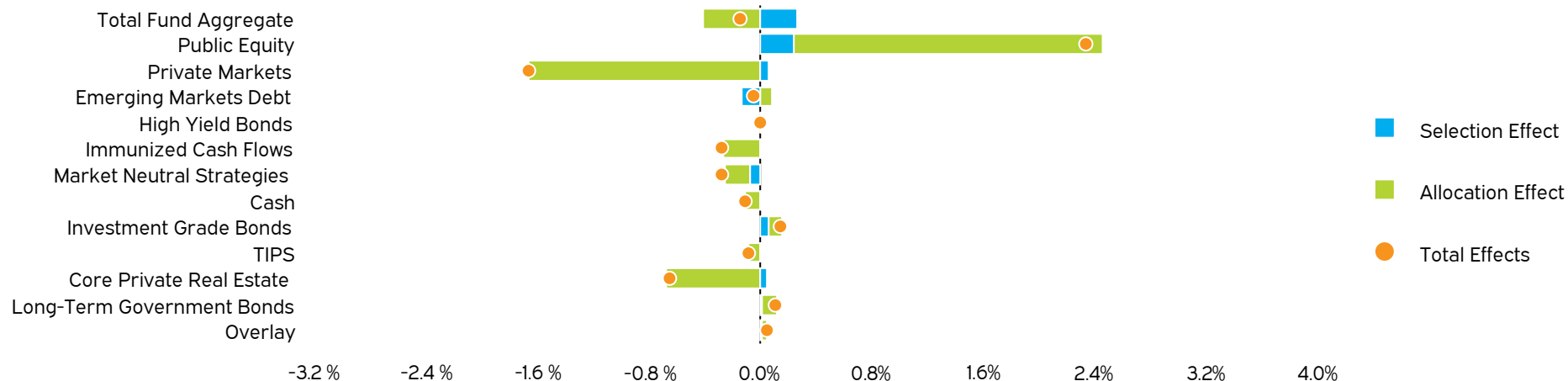
**Attribution Summary Chart**  
1 Year Ending December 31, 2024



**Attribution Summary**  
1 Year Ending December 31, 2024

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effect
Public Equity	14.3	14.7	-0.3	-0.2	-0.1	-0.3
Private Markets	4.1	4.1	0.0	0.0	-0.1	-0.1
Emerging Markets Debt	3.6	2.0	1.6	0.1	0.0	0.1
High Yield Bonds	7.1	8.2	-1.1	0.0	0.0	0.0
Immunized Cash Flows	4.1	4.4	-0.3	0.0	0.0	0.0
Market Neutral Strategies	5.9	6.9	-1.0	0.0	0.0	0.0
Cash	5.3	5.3	0.0	0.0	-0.2	-0.2
Investment Grade Bonds	3.7	1.9	1.8	0.1	0.2	0.3
TIPS	4.7	4.7	0.0	0.0	0.0	0.0
Core Private Real Estate	-8.3	-8.1	-0.2	0.0	0.0	0.0
Long-Term Government Bonds	-6.2	-6.4	0.2	0.0	-0.1	-0.1
Overlay	31.0	5.3	25.8	0.0	0.2	0.2
<b>Total Fund Aggregate</b>	<b>8.1</b>	<b>8.3</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.2</b>

**Attribution Summary Chart**  
3 Years Ending December 31, 2024



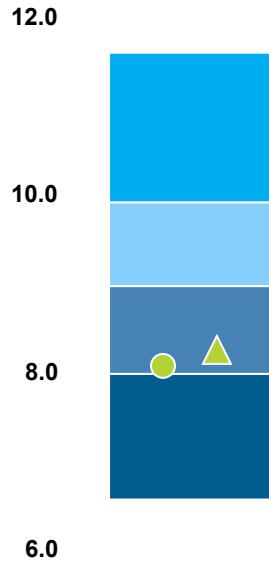
**Attribution Summary**  
3 Years Ending December 31, 2024

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effect
Public Equity	3.8	4.0	-0.2	0.2	2.2	2.3
Private Markets	4.5	4.5	0.0	0.1	-1.7	-1.7
Emerging Markets Debt	3.2	-0.9	4.1	-0.1	0.1	-0.1
High Yield Bonds	3.0	2.9	0.0	0.0	0.0	0.0
Immunized Cash Flows	1.7	1.7	0.0	0.0	-0.3	-0.3
Market Neutral Strategies	10.8	5.5	5.3	-0.1	-0.2	-0.3
Cash	3.5	3.9	-0.4	0.0	-0.1	-0.1
Investment Grade Bonds	-0.7	-1.3	0.6	0.1	0.1	0.1
TIPS	2.1	2.1	0.0	0.0	-0.1	-0.1
Core Private Real Estate	0.8	-1.1	1.9	0.0	-0.7	-0.7
Long-Term Government Bonds	-11.8	-12.0	0.1	0.0	0.1	0.1
Overlay	-19.1	3.9	-23.0	0.0	0.0	0.0
<b>Total Fund Aggregate</b>	<b>3.0</b>	<b>3.1</b>	<b>-0.1</b>	<b>0.2</b>	<b>-0.4</b>	<b>-0.1</b>

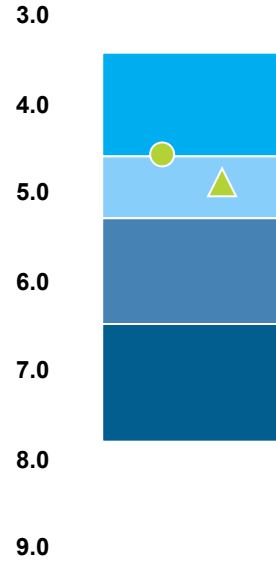


Total Fund | As of December 31, 2024

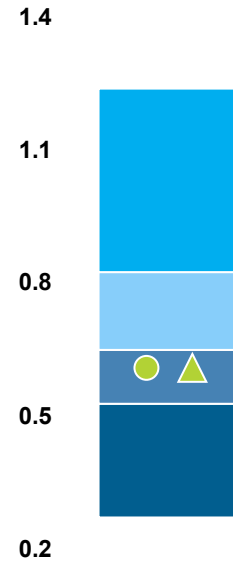
### Annualized Return (%) Trailing 1 Year



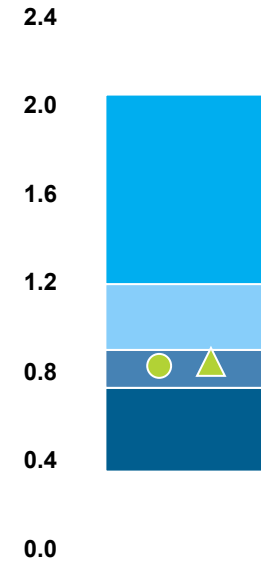
### Annualized St. Dev. Trailing 1 Year



### Sharpe Ratio Trailing 1 Year



### Sortino Ratio Trailing 1 Year



● Total Fund Aggregate	8.1 (74)
▲ Policy Benchmark	8.3 (69)
5th Percentile	11.6
1st Quartile	9.9
Median	9.0
3rd Quartile	8.0
95th Percentile	6.6

● Total Fund Aggregate	4.6 (24)
▲ Policy Benchmark	4.9 (31)
5th Percentile	3.4
1st Quartile	4.6
Median	5.3
3rd Quartile	6.5
95th Percentile	7.8

● Total Fund Aggregate	0.6 (61)
▲ Policy Benchmark	0.6 (61)
5th Percentile	1.2
1st Quartile	0.8
Median	0.7
3rd Quartile	0.5
95th Percentile	0.3

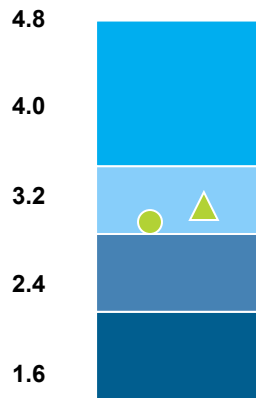
● Total Fund Aggregate	0.8 (64)
▲ Policy Benchmark	0.8 (62)
5th Percentile	2.1
1st Quartile	1.2
Median	0.9
3rd Quartile	0.7
95th Percentile	0.4

Data are compared to the InvMetrics Public DB >\$1B Net Universe. Parentheses contain percentile rankings.

Total Fund | As of December 31, 2024

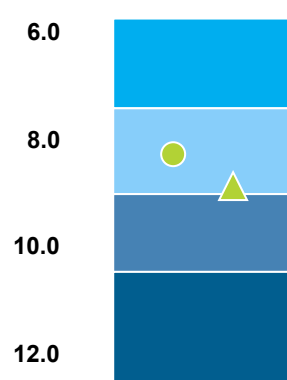
### Annualized Return (%) Trailing 3 Years

5.6



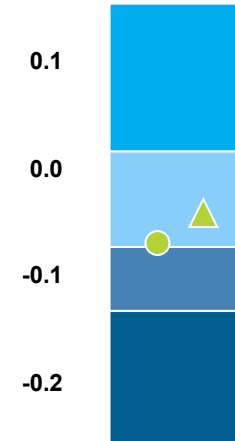
### Annualized St. Dev. Trailing 3 Years

4.0



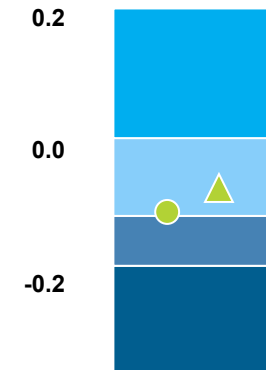
### Sharpe Ratio Trailing 3 Years

0.2



### Sortino Ratio Trailing 3 Years

0.4



● Total Fund Aggregate 3.0 (47)  
▲ Policy Benchmark 3.1 (41)

5th Percentile 4.8  
1st Quartile 3.5  
Median 2.9  
3rd Quartile 2.2  
95th Percentile 1.4

● Total Fund Aggregate 8.3 (36)  
▲ Policy Benchmark 8.9 (49)

5th Percentile 5.7  
1st Quartile 7.4  
Median 9.0  
3rd Quartile 10.5  
95th Percentile 12.5

● Total Fund Aggregate -0.1 (49)  
▲ Policy Benchmark 0.0 (40)

5th Percentile 0.2  
1st Quartile 0.0  
Median -0.1  
3rd Quartile -0.1  
95th Percentile -0.3

● Total Fund Aggregate -0.1 (49)  
▲ Policy Benchmark -0.1 (40)

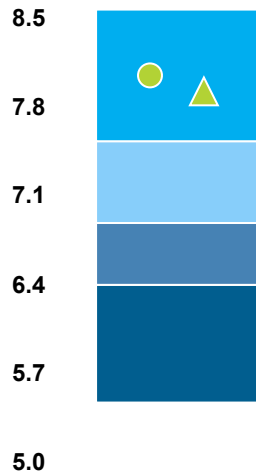
5th Percentile 0.2  
1st Quartile 0.0  
Median -0.1  
3rd Quartile -0.2  
95th Percentile -0.3

Data are compared to the InvMetrics Public DB >\$1B Net Universe. Parentheses contain percentile rankings.

Total Fund | As of December 31, 2024

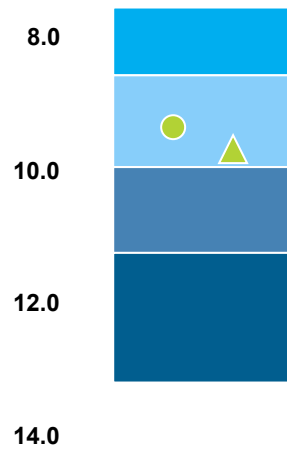
### Annualized Return (%) Trailing 5 Years

9.2



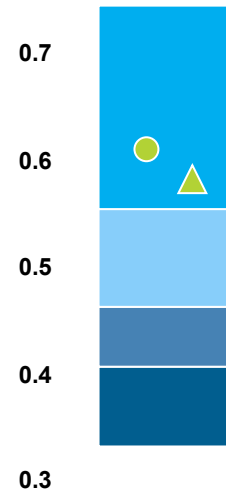
### Annualized St. Dev. Trailing 5 Years

6.0



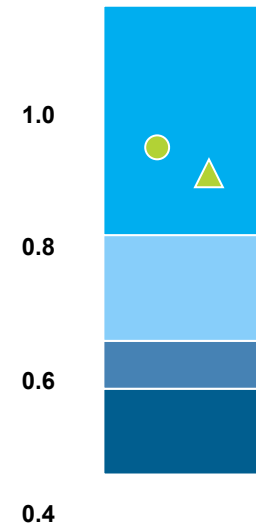
### Sharpe Ratio Trailing 5 Years

0.8



### Sortino Ratio Trailing 5 Years

1.2



● Total Fund Aggregate 8.1 (13)  
▲ Policy Benchmark 7.9 (18)

5th Percentile 8.6  
1st Quartile 7.5  
Median 6.9  
3rd Quartile 6.4  
95th Percentile 5.5

● Total Fund Aggregate 9.4 (35)  
▲ Policy Benchmark 9.7 (41)

5th Percentile 7.6  
1st Quartile 8.6  
Median 10.0  
3rd Quartile 11.2  
95th Percentile 13.2

● Total Fund Aggregate 0.6 (19)  
▲ Policy Benchmark 0.6 (23)

5th Percentile 0.7  
1st Quartile 0.6  
Median 0.5  
3rd Quartile 0.4  
95th Percentile 0.3

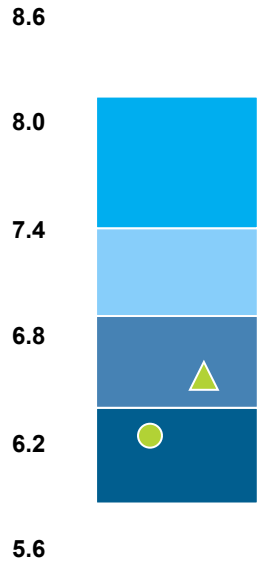
● Total Fund Aggregate 1.0 (16)  
▲ Policy Benchmark 0.9 (20)

5th Percentile 1.2  
1st Quartile 0.8  
Median 0.7  
3rd Quartile 0.6  
95th Percentile 0.5

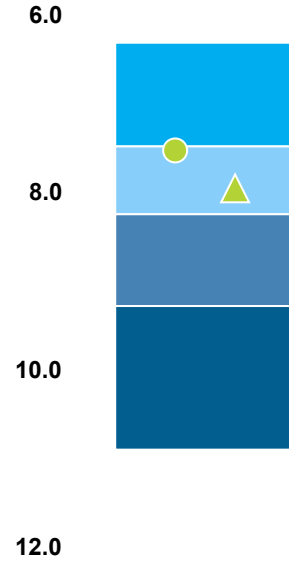
Data are compared to the InvMetrics Public DB >\$1B Net Universe. Parentheses contain percentile rankings.

Total Fund | As of December 31, 2024

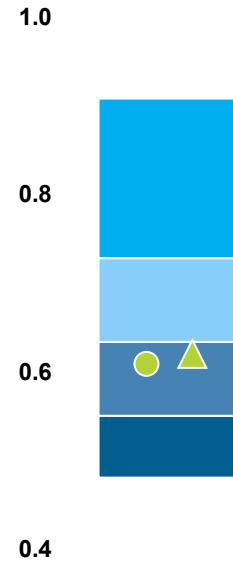
### Annualized Return (%) Trailing 10 Years



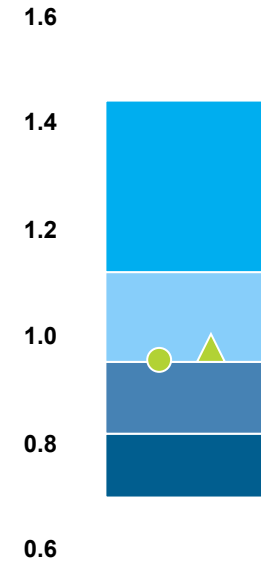
### Annualized St. Dev. Trailing 10 Years



### Sharpe Ratio Trailing 10 Years



### Sortino Ratio Trailing 10 Years



● Total Fund Aggregate 6.2 (83)  
▲ Policy Benchmark 6.6 (70)

5th Percentile 8.1  
1st Quartile 7.4  
Median 6.9  
3rd Quartile 6.4  
95th Percentile 5.9

● Total Fund Aggregate 7.5 (28)  
▲ Policy Benchmark 8.0 (38)

5th Percentile 6.3  
1st Quartile 7.5  
Median 8.3  
3rd Quartile 9.3  
95th Percentile 10.9

● Total Fund Aggregate 0.6 (61)  
▲ Policy Benchmark 0.6 (57)

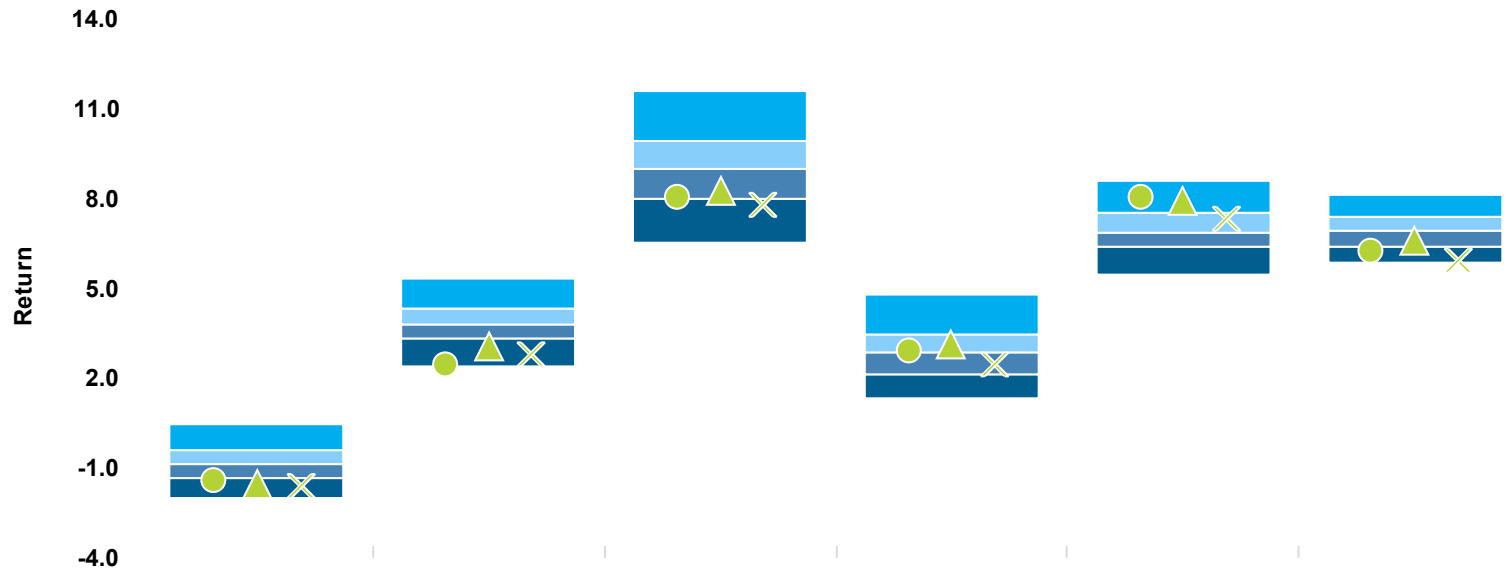
5th Percentile 0.9  
1st Quartile 0.7  
Median 0.6  
3rd Quartile 0.6  
95th Percentile 0.5

● Total Fund Aggregate 1.0 (50)  
▲ Policy Benchmark 1.0 (42)

5th Percentile 1.4  
1st Quartile 1.1  
Median 1.0  
3rd Quartile 0.8  
95th Percentile 0.7

Data are compared to the InvMetrics Public DB >\$1B Net Universe. Parentheses contain percentile rankings.

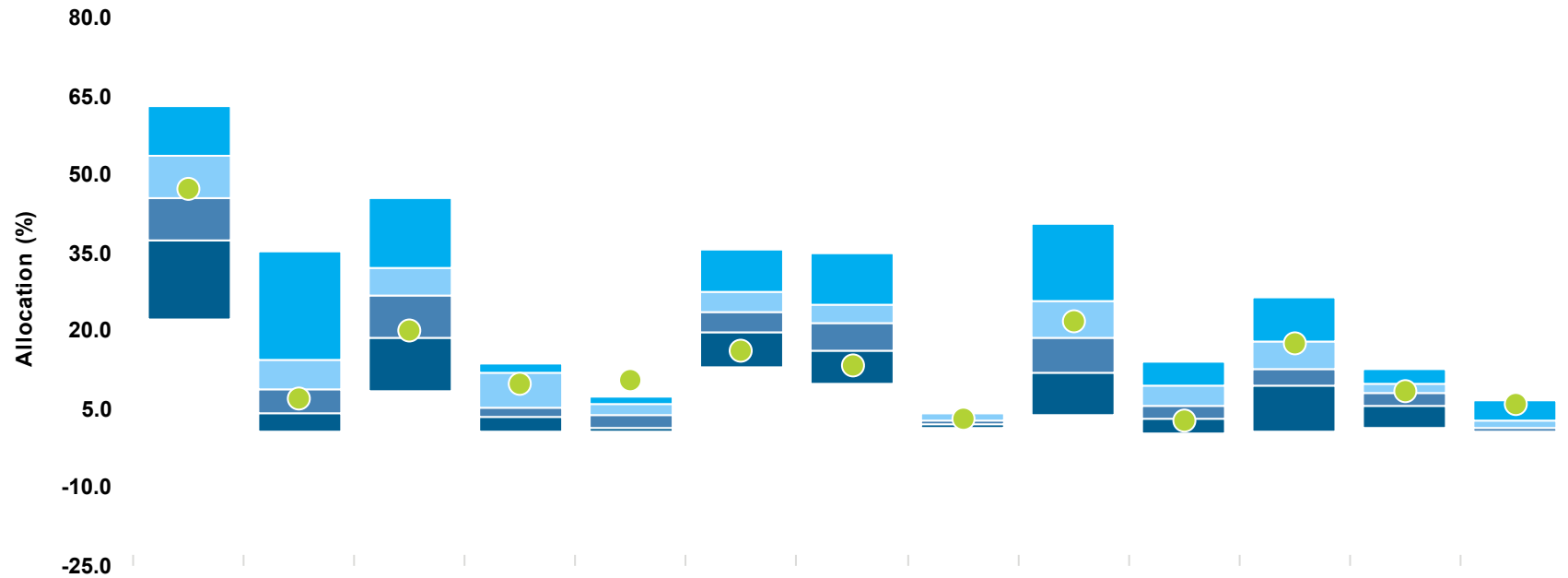
### InvMetrics All Public DB Plans > \$1B (net of fees) Return Comparison Ending December 31, 2024



	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
● Total Fund Aggregate	-1.4 (80)	2.5 (95)	8.1 (74)	3.0 (47)	8.1 (13)	6.2 (83)
▲ Policy Benchmark	-1.5 (84)	3.1 (86)	8.3 (69)	3.1 (41)	7.9 (18)	6.6 (70)
× Investable Benchmark Portfolio	-1.6 (85)	2.8 (94)	7.8 (81)	2.5 (70)	7.3 (34)	6.0 (93)
5th Percentile	0.5	5.3	11.6	4.8	8.6	8.1
1st Quartile	-0.4	4.3	9.9	3.5	7.5	7.4
Median	-0.9	3.8	9.0	2.9	6.9	6.9
3rd Quartile	-1.4	3.3	8.0	2.2	6.4	6.4
95th Percentile	-2.0	2.4	6.6	1.4	5.5	5.9
Population	106	105	105	101	99	94

Parenteses contain percentile rankings.  
Calculation based on monthly periodicity.

#### Total Plan Allocation vs. InvMetrics All Public DB Plans > \$1B As of December 31, 2024



	Total Equity	Global Equity	US Equity	Dev'd ex-US Equity	Emg Mkt Equity	Total Fixed Income	US Fixed	Emg Mkt Fixed	Alternatives	Hedge Funds	Private Equity	Total Real Estate	Cash & Equivalents
● Total Fund Aggregate	47.3 (40)	6.9 (60)	20.2 (69)	9.8 (37)	10.4 (1)	16.4 (91)	13.3 (87)	3.0 (44)	21.8 (41)	3.0 (78)	17.7 (26)	8.5 (40)	6.0 (7)
5th Percentile	63.1	35.4	45.5	13.9	7.5	35.7	35.0	4.8	40.7	14.2	26.5	12.7	6.6
1st Quartile	53.6	14.6	32.2	12.0	6.1	27.4	24.9	4.2	25.6	9.4	17.9	10.0	2.9
Median	45.3	8.7	26.8	5.1	3.8	23.6	21.5	2.9	18.8	5.8	12.7	8.0	1.5
3rd Quartile	37.5	4.3	18.6	3.7	1.6	19.8	16.2	2.2	12.2	3.3	9.5	5.7	0.8
95th Percentile	22.1	0.8	8.5	0.8	0.6	13.0	9.9	1.3	4.0	0.4	0.9	1.6	0.3
Population	108	44	105	35	59	109	108	6	104	51	99	98	100

Parentheses contain percentile rankings.

Benchmark History

Total Fund Aggregate

5/1/2024	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Markets IMI NR USD / 21% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% SOFR +1.5% / 5% Immunized Cash Flow Benchmark / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 6% Custom IG Bonds Benchmark / 4% Bloomberg US Treasury Long TR
3/1/2022	4/30/2024	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Markets IMI NR USD / 21% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% SOFR +1.5% / 5% Immunized Cash Flow Benchmark / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 8% Custom IG Bonds Benchmark / 2% Bloomberg US Treasury Long TR
6/1/2021	2/28/2022	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Markets IMI NR USD / 21% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% LIBOR 3-Month +1.5% / 5% Immunized Cash Flow Benchmark / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 8% Custom IG Bonds Benchmark / 2% Bloomberg US Treasury Long TR
4/1/2020	5/31/2021	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 21% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 5% Immunized Cash Flows Benchmark / 3% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg US Govt Long TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 8% Custom IG Bonds Benchmark
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 15% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 3% BBgBarc Global Aggregate TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
11/1/2017	9/30/2018	28% MSCI ACWI IMI Net USD / 9% Cambridge PE Composite BM / 33% Fixed Income Custom Benchmark / 6% S&P Global Leveraged Loan Index +2% / 8% NCREIF Property Index / 4% Bloomberg Commodity Index TR USD / 1% DJ Brookfield Global Infrastructure Net TR USD / 11% HFRI Macro (Total) Index
7/1/2015	10/31/2017	28% MSCI ACWI IMI Net USD / 9% Cambridge Associates Private Equity Composite / 19% Fixed Income Custom Benchmark / 5% S&P Global Leveraged Loan Index +2% / 7% NCREIF Property Index / 6% Bloomberg Commodity Index TR USD / 5% DJ Brookfield Global Infrastructure Net TR USD / 5% S&P Global LargeMidCap Commodity and Resources GR USD / 11% HFRI Macro (Total) Index / 5% 60/40 MSCI ACWI IMI/BC Global

Low Cost Passive Benchmark		
5/1/2024	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Markets IMI NR USD / 12% Russell 3000 / 3% BBgBarc US Aggregate TR / 3% S&P Global Natural Resources / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 8% FTSE EPRA/NAREIT Global NR USD / 4% BBgBarc US Treasury Long TR / 5% BBgBarc Gov/Credit 1-3 Yr / 3% SOFR Index-Compounded / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 6% Custom IG Bonds Benchmark
4/1/2022	4/30/2024	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Markets IMI NR USD / 12% Russell 3000 / 3% BBgBarc US Aggregate TR / 3% S&P Global Natural Resources / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 8% FTSE EPRA/NAREIT Global NR USD / 2% BBgBarc US Treasury Long TR / 5% BBgBarc Gov/Credit 1-3 Yr / 3% SOFR Index-Compounded / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 8% Custom IG Bonds Benchmark
4/1/2020	3/31/2022	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 12% Russell 3000 / 3% BBgBarc US Aggregate TR / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 3% S&P Global Natural Resources / 2% BBgBarc US Corporate High Yield TR / 8% FTSE EPRA/NAREIT Global NR USD / 2% BBgBarc US Govt Long TR / 5% ICE BofAML 91 days T-Bills TR / 3% 3-month Libor + 1% / 2% BBgBarc US Treasury TIPS 0-5 yr TR / 8% Custom IG Bonds Benchmark
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 15% BBgBarc US Govt/Credit 1-3 Yr. TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 15% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% Bloomberg Commodity Index TR USD / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 17% BBgBarc US Govt/Credit 1-3 Yr. TR



Growth		
6/1/2021	Present	65.33% Public Equity Benchmark / 28.0% Private Markets Benchmark / 4.0% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.67% BBgBarc US Corporate High Yield TR
4/1/2020	5/31/2021	65.33% Public Equity Benchmark / 28% Private Markets Benchmark / 6.67% 50% JPM EMBI GD / 50% JPM GBI-EM / 4.08% BBgBarc US Corporate High Yield TR
11/1/2019	3/31/2020	57.38% Public Equity Benchmark / 37.7% Private Markets Benchmark / 4.92% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2019	10/31/2019	50% Public Equity Benchmark / 41.67% Private Markets Benchmark / 8.33% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2018	9/30/2019	51.73% Public Equity Benchmark / 43.1% Private Markets Benchmark / 5.17% 50% JPM EMBI GD / 50% JPM GBI-EM
11/1/2017	9/30/2018	51.29% MSCI ACWI IMI Net USD / 16.48% Cambridge PE Composite BM / 10.99% S&P Global Leveraged Loan Index +2% / 7.33% NCREIF Property Index / 60.4% 50% JPM EMBI GD (US) / 50% JPM GBIEM GD (Lci) / 60.4% 50% BAML Global HY / 50% S&P Global Leveraged Loan / 1.83% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	10/31/2017	47.23% MSCI ACWI IMI Net USD / 15.18% Cambridge PE Composite BM / 8.43% S&P Global Leveraged Loan Index +2% / 8.43% DJ Brookfield Global Infrastructure Net TR USD / 8.43% S&P Global Natural Resources Index TR USD / 5.9% NCREIF Property Index / 3.2% 50% JPM EMBI GD (US) / 50% JPM GBIEM GD (Lci) / 3.2% 50% BAML Global HY / 50% S&P Global Leveraged Loan
Public Equity		
6/1/2021	Present	51.02% MSCI USA IMI NR USD / 24.49% MSCI World ex USA IMI NR USD / 24.49% MSCI Emerging Market IMI NR USD
4/1/2020	5/31/2021	51.02% MSCI USA IMI NR USD / 24.49% MSCI World ex USA IMI NR USD / 24.49% MSCI Emerging Market IMI Net
11/1/2019	3/31/2020	37.14% MSCI USA IMI NR USD / 28.57% MSCI World ex USA IMI NR USD / 34.29% MSCI Emerging Market IMI Net
10/1/2018	10/31/2019	43.33% MSCI USA IMI NR USD / 23.33% MSCI World ex USA IMI NR USD / 33.33% MSCI Emerging Market IMI Net
5/1/2010	9/30/2018	MSCI ACWI IMI Net USD
Global Equity		
7/1/2015	Present	MSCI ACWI IMI NR USD
US Equity		
7/1/2015	Present	MSCI USA IMI NR USD
International Equity		
7/1/2015	Present	MSCI World ex USA IMI NR USD
Emerging Markets Equity		
7/1/2015	Present	MSCI Emerging Markets IMI NR USD

Marketable Alternative Equity		
10/1/2014	Present	HFRI Equity Hedge (Total) Index
Private Markets		
7/1/2015	Present	Private Markets
Private Markets ex Russell 3000		
No Benchmark Selected		
Private Equity		
10/1/2023	Present	Custom Private Equity BM (100% Cambridge US PE)
1/1/2006	9/30/2023	Burgiss PE
Private Equity ex Russell 3000		
7/1/2018	9/30/2021	Cambridge Associates Global Private Equity Index
Northern Trust Russell 3000		
6/1/2018	Present	Russell 3000
Private Debt		
12/1/2010	Present	S&P Global Leveraged Loan Index +2%
Growth Real Estate		
7/1/2015	Present	NCREIF Property Index
Private Real Assets		
No Benchmark Selected		
Emerging Markets Debt		
7/1/2015	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
High Yield Bonds		
6/1/2020	Present	BBgBarc US Corporate High Yield TR
Low Beta		
4/1/2020	Present	62.5% Immunized Cash Flows Benchmark / 37.5% Market Neutral Strategies Benchmark
12/1/2019	3/31/2020	55.56% ICE BofA 91 Days T-Bills TR / 25.93% Immunized Cash Flows Benchmark / 18.52% Market Neutral Strategies Benchmark
10/1/2019	11/30/2019	60% ICE BofA 91 Days T-Bills TR / 23.33% Immunized Cash Flows Benchmark / 6.67% Market Neutral Strategies Benchmark
10/1/2018	9/30/2019	62.5% ICE BofA 91 Days T-Bills TR / 15.62% Immunized Cash Flows Benchmark / 21.88% Market Neutral Strategies Benchmark
7/1/2015	9/30/2018	HFRI Macro (Total) Index

Short-Term IG Bonds		
10/1/2018	Present	91 Day T-Bills
Immunized Cash Flows		
10/1/2018	Present	Immunized Cash Flows
Market Neutral Strategies		
3/1/2022	Present	SOFR + 1.5%
6/1/2021	2/28/2022	LIBOR 3-Month +1.5%
10/1/2018	5/31/2021	3-Month Libor Total Return USD
11/1/2012	9/30/2018	HFRI Macro (Total) Index
Macro		
10/1/2014	Present	HFRI Macro (Total) Index
Relative Value		
10/1/2014	Present	HFRI Relative Value (Total) Index
Cash		
1/1/2006	Present	ICE BofA 91 Days T-Bills TR
Other		
5/1/2024	Present	29.41% NCREIF ODCE Value Weighted (Net) (1 Qtr Lag) / 35.29% Custom IG Bonds Benchmark / 23.53% BBgBarc US Treasury Long TR / 11.76% Bloomberg US Treasury TIPS 0-5 Years Index
5/1/2021	4/30/2024	29.41% NCREIF ODCE Value Weighted (Net) (1 Qtr Lag) / 47.06% Custom IG Bonds Benchmark / 11.76% BBgBarc US Treasury Long TR / 11.76% BBgBarc US Treasury TIPS 0-5 Yr TR
4/1/2020	4/30/2021	29.41% NCREIF ODCE Equal Weighted / 47.06% Custom IG Bonds Benchmark / 11.76% BBgBarc US Govt Long TR / 11.76% BBgBarc US Treasury TIPS 0-5 Yr TR
12/1/2019	3/31/2020	41.67% NCREIF-ODCE / 16.67% Bloomberg Commodity Index TR USD / 16.67% BBgBarc U.S. TIPS 0-5 Years / 25% BBgBarc Global Aggregate TR
11/1/2019	11/30/2019	55.55% NCREIF-ODCE / 22.22% Bloomberg Commodity Index TR USD / 22.22% BBgBarc U.S. TIPS 0-5 Years
10/1/2018	10/31/2019	50% NCREIF-ODCE / 30% Bloomberg Commodity Index TR USD / 20% BBgBarc U.S. TIPS 0-5 Years
11/1/2017	9/30/2018	76.74% BBgBarc Global Aggregate TR / 11.63% NCREIF Property Index / 11.63% Bloomberg Commodity Index TR USD
7/1/2015	10/31/2017	51.18% BBgBarc Global Aggregate TR / 11.78% NCREIF Property Index / 20.2% Bloomberg Commodity Index TR USD / 16.84% 60/40 MSCI ACWI/BBgBarc Global Aggregate
Investment Grade Bonds		
12/1/2019	Present	Custom IG Bonds Benchmark (25% BBgBarc 1-3 Year Government/Credit, 56% US Aggregate, 19% US Securitized MBS/ABS/CMBS)
TIPS		
3/1/2017	Present	100% BBgBarc US Treasury TIPS 0-5 Yr TR

Core Private Real Estate		
6/1/2021	Present	NCREIF ODCE Value Weighted (Net) (1 Qtr Lag)
7/1/2004	5/31/2021	NCREIF ODCE Equal Weighted (Net)
Commodities		
5/1/2010	Present	Bloomberg Commodity Index TR USD
Long Term Government Bonds		
5/1/2020	Present	BBgBarc US Govt Long TR
Core Bonds		
7/1/2015	Present	BBgBarc Global Aggregate TR
Overlay		
11/1/2011	Present	91 Day T-Bills

## **Glossary and Notes**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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