HYAS GROUP

City of Spokane
Spokane Employees' Retirement System

December 31, 2024

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Section 1 | Market Overview

HYASGROUP

FOURTH QUARTER 2024 MARKETS AND ECONOMIC UPDATE

GLOBAL ECONOMIC LANDSCAPE[1]

- The Federal Open Markets Committee (FOMC) lowered the target federal funds rate by 0.25% to 4.375% in its December meeting. The statement accompanying this meeting signaled the Fed is intent on pausing before resuming rate cuts. This hawkish turn and emphasis on caution appeared to reflect the incorporation of potential changes to trade, immigration, and fiscal policy by some members that led to a firmer inflation path and, in turn, a firmer policy rate path. In reflection of this reassessment, the Summary of Economic Projections produced by the FOMC shifted to an expectation of only two cuts next year instead of four, with inflation not reaching the 2% target until 2027.
- The United States continued to post broadly strong economic growth into the fourth quarter, with wages, employment, working hours, and spending all showing signs of expansion. Average three-month payroll growth as of November for example came in above both the third and second quarters of 2024. Similarly, income increased at a greater annual rate in the fourth quarter than the third (5.5% versus 4.5%). Such strength may reduce the need for policy accommodation stemming from the Fed.
- Conditions in the Eurozone indicate the potential for more expansionary monetary policy, with inflation and manufacturing and services cooling but not contracting around year-end. In this backdrop, the European Central Bank (ECB) reduced its target interest rate by 0.25% to 3.00% in December 2024 and removed reference from its statement to the need for restrictive policies being necessary. ECB President Christine Lagarde has mentioned that 1.75% to 2.00% might be a suitable resting point for long-term rates, implying that a few more cuts may be in store.
- Japan appears poised to join the company of rate-hiking central banks. Core inflation stood at 2.7% year-over-year as of November 2024 marking an increase over 2.3% in October. Though these developments may augment the case for rate-hikes, the Bank of Japan's wording has been carefully constructed to refrain from fully committing to doing so; leaving room for pausing in the event that economic policies or growth become more challenging.

FIXED INCOME MARKETS[2]

- Overall, US Treasuries underperformed the Bloomberg Aggregate Index in 2024, as policymakers have seemingly achieved a rare economic soft landing. The Treasury yield curve also steepened and disinverted, as long-end yields surged while the short-end declined with the start of the easing cycle. The Fed cut rates three times for a total of 1.00%; 0.50% in September and 0.25% cuts in November and December. The estimated term premium increased from -0.33% to 0.49% over 2024. The steepening yield curve reflects investors' expectations for strong growth, higher inflation, and fewer rate cuts—all pointing to higher-for-longer rates for the long end.

[1] *Source: Morgan Stanley, The Global 360, January 6, 2025*
[2] *Source: Morgan Stanley, Fixed Income Insights, January 7, 2025*

- In the second and third quarters, agency Mortgage-Backed Securities (MBS) enjoyed a stretch of outperformance, supported by declining rate volatility and improving demand. These constructive conditions proved short-lived, however, as sharply rising US Treasury yields in the fourth quarter weighed on agency MBS's total returns. For the full year, the sector generated moderate outperformance relative to duration-matched US Treasuries with the Bloomberg Agency MBS index generated 0.38% of excess return.
- International investment-grade bonds gained 4.5% in 2024, significantly outperforming their US counterparts. European government bonds, and particularly the Eurozone, paced the outperformance. Unlike in the US, weaker economic prospects in the Eurozone continued to drive expectations of greater monetary policy easing. Like the Fed, the ECB cut its policy interest rates by 1.00% via four 0.25% cuts in 2024, but investors expect the ECB to continue normalizing rates into 2025. European bonds outperformed other major regions on expected macro weakness, particularly in Germany but offset by comparatively stronger growth in Spain and Italy.
- High Yield corporate bonds registered an eighth consecutive quarter of positive returns (0.2%), gaining 8.2% in 2024. High Yield corporates benefited from stronger-than-expected economic growth and their shorter duration, higher coupons, and strong net demand ($25.8 billion in inflows for 2024 vs -$7.0 billion in outflows for 2023). Furthermore, default rates reached a two-year low. Riskier CCC-rated bonds outperformed both BBs and Bs, returning 15.0%, compared to 7.4% for Bs and 6.3% for BBs.

EQUITY MARKETS[3]

- The MSCI USA Index's 12-month forward Price to Earnings (P/E) ratio hit 21.9x as of Dec. 31, 2024, a 2.7% premium to its 12-month moving average. By comparison, the MSCI All-Country World ex-USA Index's forward P/E ratio sat at 13.4x— a 1.8% discount to its 12-month moving average. US equities' P/E momentum and their 64% premium to non-US equities have approached late-1990s levels. This pricing reflects expectations that US equities will continue to deliver far better operating performance in 2025 than global counterparts. Nonetheless, extended US equity market valuations do not leave much room for error, should corporate or policy execution prove more challenging than expected.
- The rally in the MSCI Japan Index priced in Japanese yen began in April 2023, generating a total return of 46% through Dec. 21, 2024. Out of that total, the Financials sector, which comprises nearly 20% of the index's market capitalization, has contributed 10%, powered by the sector's 100% return. In decades prior, the sector had underperformed the broader Japanese equity index, as declining interest rates negatively impacted bank profitability, creating a significant drag on Japan's overall equity returns.
- The MSCI Europe ex-UK Index's 12-month forward P/E ratio reached nearly 15.3x in April, as investors anticipated the ECB's first rate cut in June. Still, despite continued expectations for easing, valuations have moved lower since then, suggesting that these rate cuts belie a weakening macro backdrop, rather than a panacea for equities. On a global scale, central bank easing may not prove overly helpful for equity investors. In particular, the latest data in the eurozone shows manufacturing contracting and overall growth losing momentum. Meanwhile, domestic inflationary pressures remain high, owing to wage pressures and persistent services inflation—all adding to worries about stagflation.
- China's economy faces many macro challenges: high debt, slowing growth, weakening exports, deflation, a housing market crisis, depressed consumer sentiment and, more recently, concerns around the potential for new US tariffs. Nonetheless, the 12-month forward P/E of about 10x, the second-lowest among the top 15 largest equity markets, may already capture those fears. Moreover, the index's forward P/E has reached its lowest absolute level since

[3]*Source: Morgan Stanley, Five Drivers to Watch in 2025, January 8, 2025*

2006, reflecting a discount of about 12% relative to the long-term average. This valuation level implies the risk of Chinese stocks becoming "value traps", with the potential for structurally impaired earnings. A more aggressive policy response that addresses weak consumer spending and the inventory housing glut looks crucial. If delivered, Chinese equities could surprise to the upside in 2025.

ALTERNATIVE INVESTMENTS

- Private equity secondaries, which serve as a means for existing investors to sell out of otherwise illiquid partnerships, saw their highest volume in record in the first half of 2024. Muted initial public offering (IPO) and exit environments have caused distributions from private equity funds to slow, leading to liquidity constraints for some investors and reduced capital for new capital calls. This situation has increased secondary market supply, allowing secondary market players to invest in quality private equity assets at favorable prices.[4]
- The oil market was broadly balanced in 2024, with aggregate crude oil and refined products inventories practically unchanged from start to end. While demand is expected to modestly increase in 2025, global supply may decrease by modestly greater extents, reducing the potential for inventory surpluses. Although this, in isolation, would work against prices via inventory build-up, other factors such as potential for further production cuts and geopolitical risk may partially offset this trend.[5]
- Real Estate Investment Trusts (REITs) returned +4.9% in 2024 (vs +25.0% for the S&P 500 Index) as real rates spiked higher into year-end, leading to a -8.0% sell off in December. REIT returns were driven primarily by the +4% dividend yield as modest earnings growth was offset by multiple contraction (i.e. falling share prices). REIT multiples ended the year at 17.8x which is a -17% discount to the S&P 500 Index versus their average over the past five years to be roughly equal. We note REITs have now underperformed the S&P 500 Index 3 years in a row and 5 out of the last 6 years.[6]

Disclosure:
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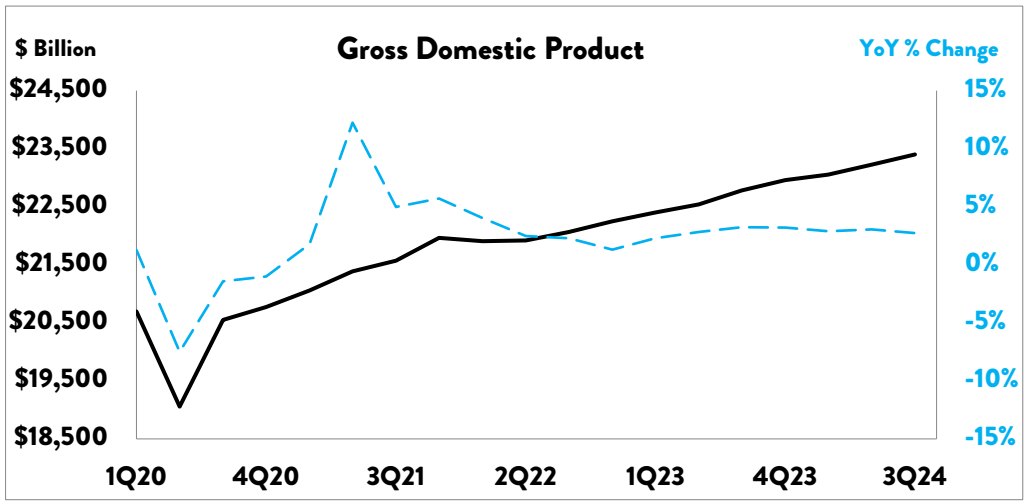
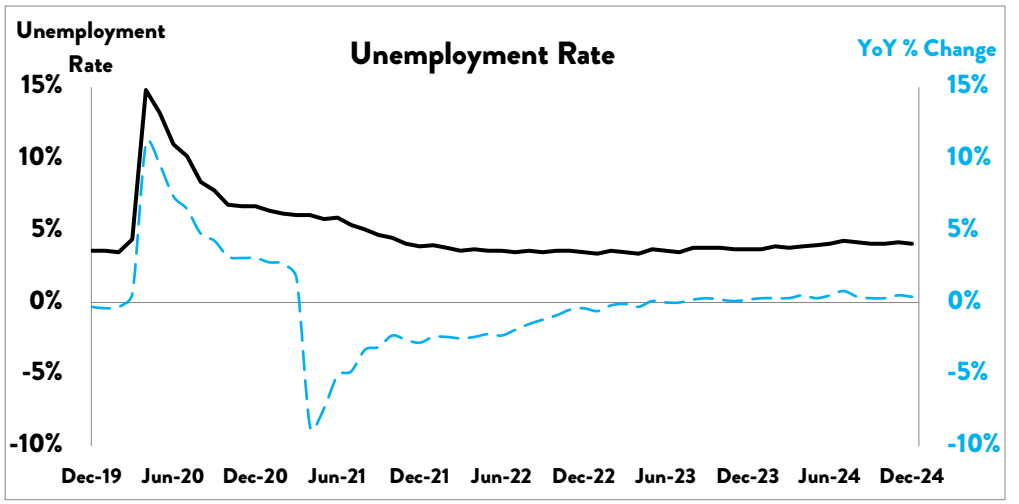
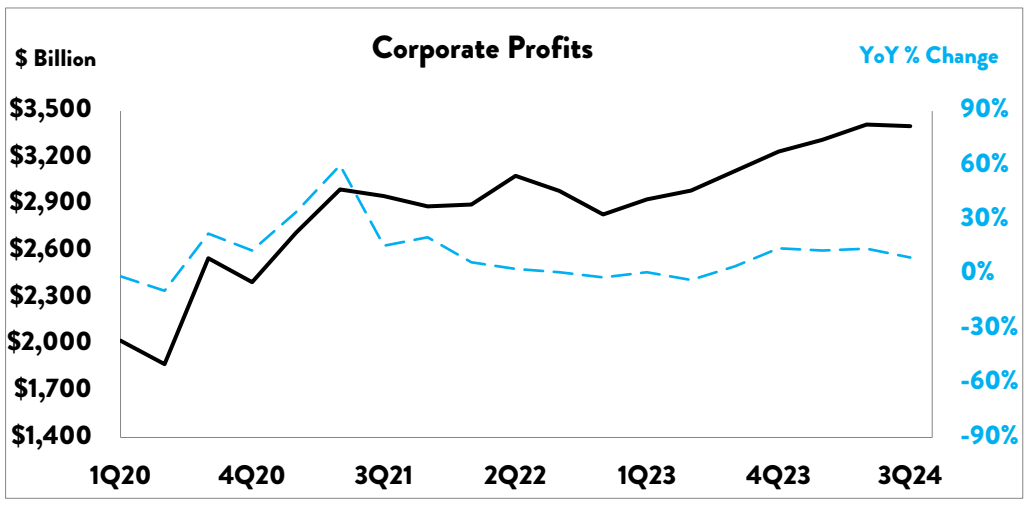
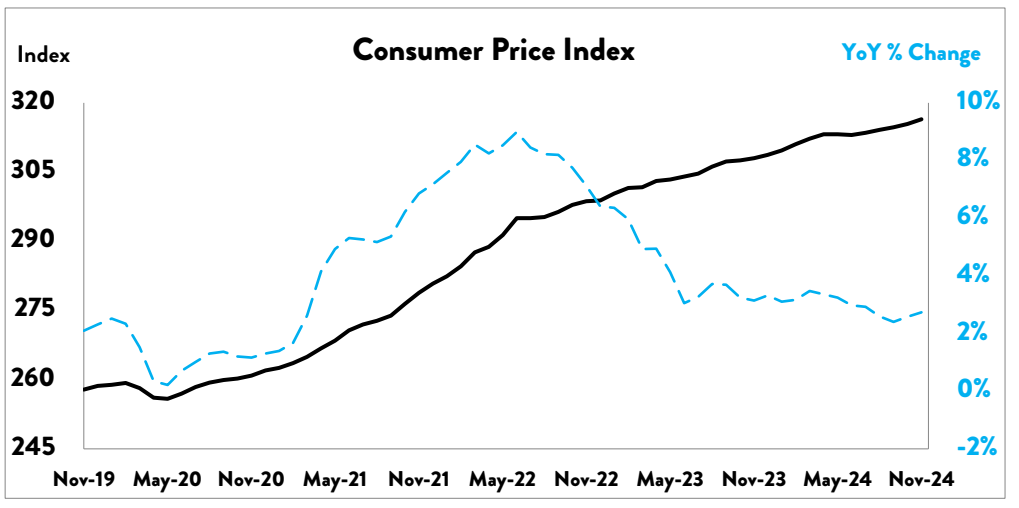
[4]*Source: Morgan Stanley, Daily Positioning, November 7, 2024*
[5]*Source: Morgan Stanley, The Oil Manual, January 5, 2025*
[6]*Source: Morgan Stanley, The REIT Cheat Sheet, January 6, 2025*

4Q2024 Economic Data









Key: ——— Economic Series - - - - Year-Over-Year Change

Labor Market Statistics (Monthly)					
Category	**Recent**	**5-Yr High**	**5-Yr Low**	**5-Yr Avg.**	**Date**
Jobs Added/Lost Monthly	256,000	4,505,000	-20,493,000	121,300	Dec-24
Unemployment Rate	4.1%	14.8%	3.4%	4.9%	Dec-24
Median Unemployment Length (Weeks)	9.8	22.2	4.0	11.2	Dec-24
Average Hourly Earnings	$35.69	$35.69	$28.43	$32.17	Dec-24

Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	**Recent**	**5-Yr High**	**5-Yr Low**	**% Off Peak**	**Date**
Gas: Price per Gallon	$3.02	$4.84	$1.80	-37.6%	Dec-24
Spot Oil	$70.12	$114.84	$16.55	-38.9%	Dec-24
Case-Shiller Home Price Index	334.3	334.3	219.7	52.2%*	Oct-24
Medical Care CPI	569.2	569.2	510.9	11.4%*	Nov-24

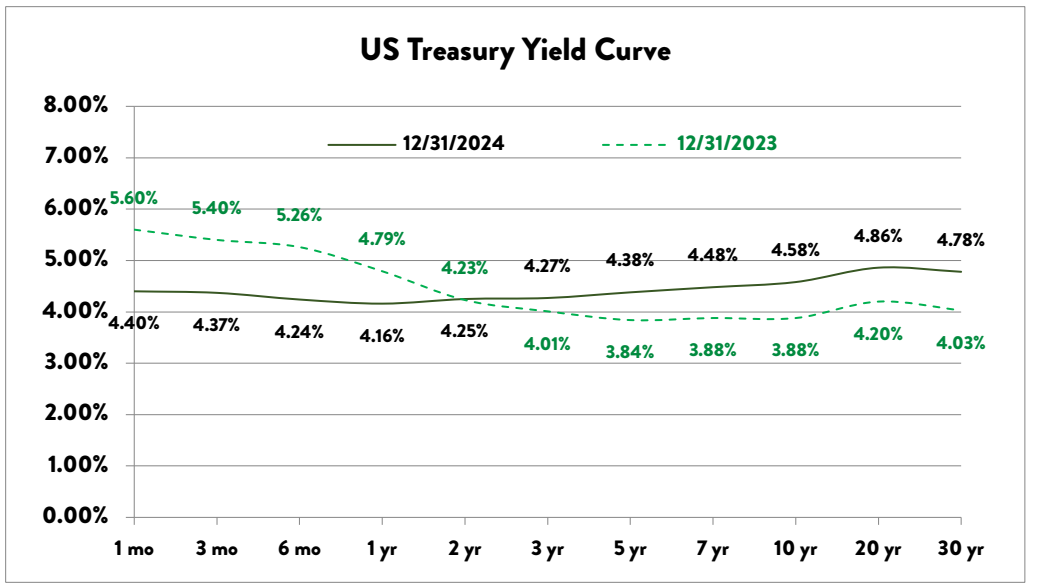
**% Off Low*

Morningstar data as of 12/31/2024

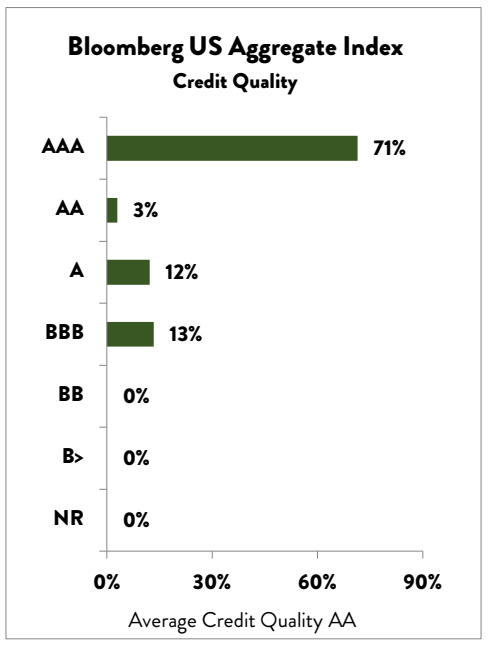
4Q2024 Bond Market Data

Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	1.13%	5.18%	5.18%	4.16%	2.56%	1.82%
Bloomberg US Aggregate	-3.06%	1.25%	1.25%	-2.41%	-0.33%	1.35%
Bloomberg Short US Treasury	1.13%	5.26%	5.26%	3.76%	2.44%	1.80%
Bloomberg Int. US Treasury	-1.70%	2.42%	2.42%	-0.50%	0.48%	1.23%
Bloomberg Long US Treasury	-8.62%	-6.41%	-6.41%	-11.96%	-5.20%	-0.64%
Bloomberg US TIPS	-2.88%	1.84%	1.84%	-2.30%	1.87%	2.24%
Bloomberg US Credit	-3.04%	2.03%	2.03%	-2.20%	0.23%	2.29%
Bloomberg US Mortgage-Backed	-3.16%	1.20%	1.20%	-2.13%	-0.74%	0.91%
Bloomberg US Asset-Backed	-0.05%	5.02%	5.02%	1.98%	2.01%	2.12%
Bloomberg US 20-Yr Municipal	-1.29%	1.36%	1.36%	-0.94%	1.14%	2.76%
Bloomberg US High Yield	0.17%	8.19%	8.19%	2.92%	4.21%	5.17%
Bloomberg Global	-5.10%	-1.69%	-1.69%	-4.52%	-1.96%	0.15%
Bloomberg International	-6.84%	-4.22%	-4.22%	-6.28%	-3.37%	-0.90%
Bloomberg Emerging Market	-1.47%	6.58%	6.58%	-0.49%	0.63%	3.20%

Source: Morningstar



Source: Department of US Treasury



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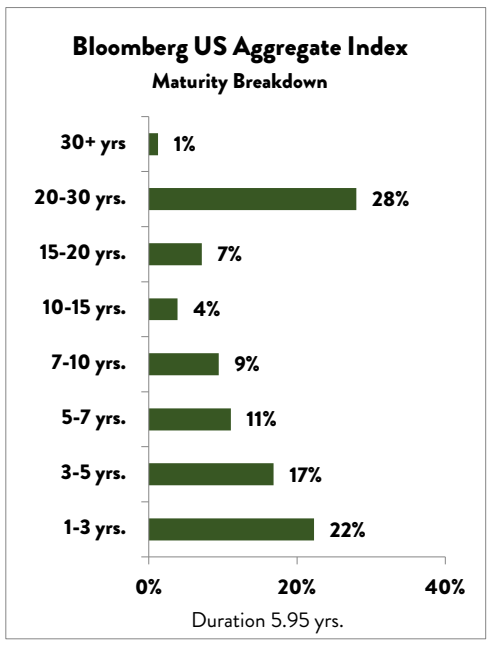

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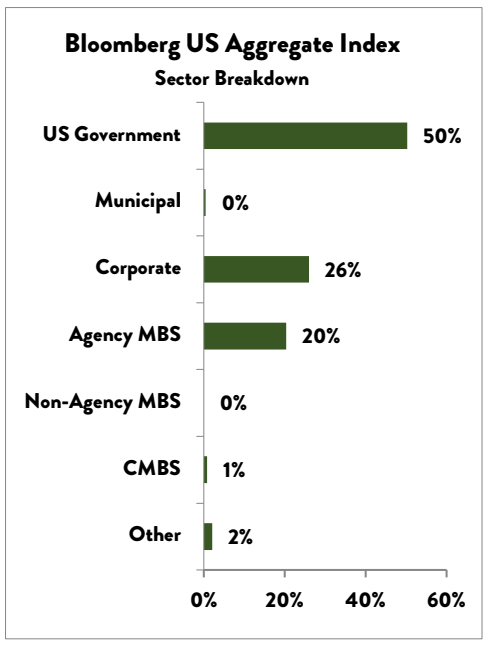

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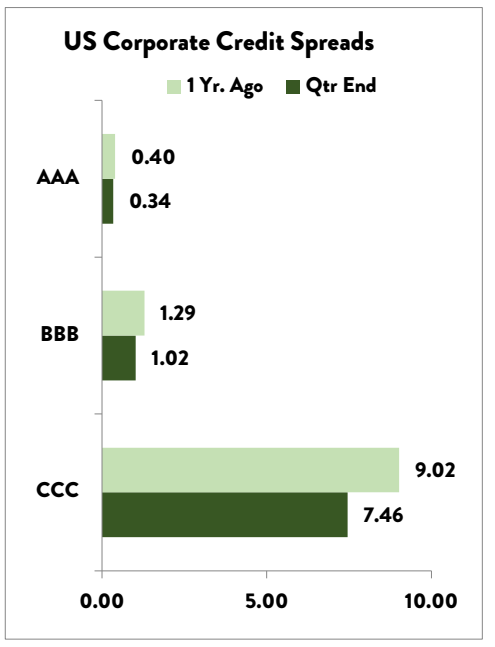


Source: Federal Reserve / Bank of America

4Q2024 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

S&P 500 Index

Wgt.	Sector	QTR	YTD	1 yr.
11%	Consumer Discretionary	14.25%	30.14%	30.14%
9%	Communication Services	8.87%	40.23%	40.23%
14%	Financials	7.09%	30.56%	30.56%
32%	Information Technology	4.84%	36.61%	36.61%
8%	Industrials	-2.27%	17.47%	17.47%
3%	Energy	-2.44%	5.72%	5.72%
6%	Consumer Staples	-3.26%	14.87%	14.87%
2%	Utilities	-5.51%	23.43%	23.43%
2%	Real Estate	-7.94%	5.23%	5.23%
10%	Health Care	-10.30%	2.58%	2.58%
2%	Materials	-12.42%	-0.04%	-0.04%

S&P Midcap 400 Index

Wgt.	Sector	QTR	YTD	1 yr.
5%	Energy	12.12%	13.12%	13.12%
18%	Financials	6.32%	25.36%	25.36%
4%	Consumer Staples	4.49%	17.79%	17.79%
11%	Information Technology	2.82%	24.38%	24.38%
1%	Communication Services	0.45%	3.76%	3.76%
3%	Utilities	-0.14%	31.45%	31.45%
14%	Consumer Discretionary	-0.84%	9.42%	9.42%
21%	Industrials	-1.39%	13.48%	13.48%
9%	Health Care	-3.68%	5.26%	5.26%
6%	Materials	-6.61%	-2.47%	-2.47%
7%	Real Estate	-7.53%	5.15%	5.15%

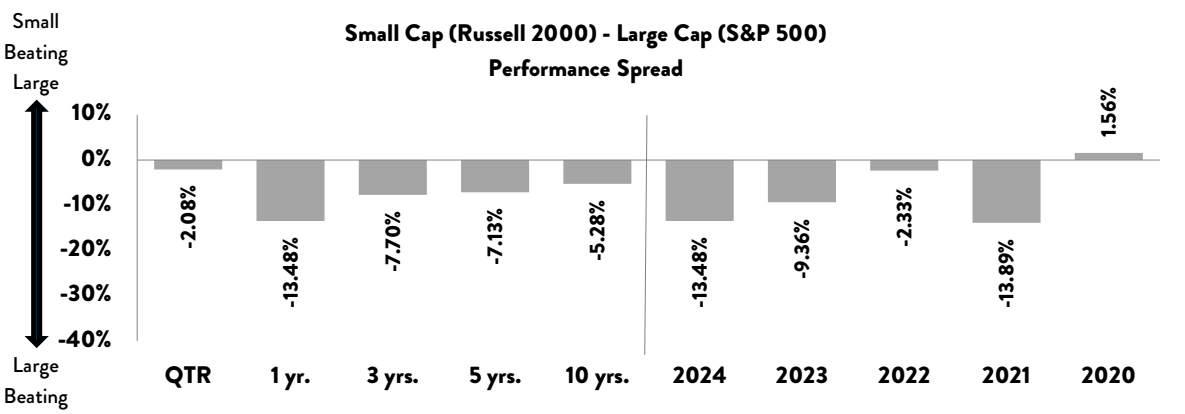
S&P Smallcap 600 Index

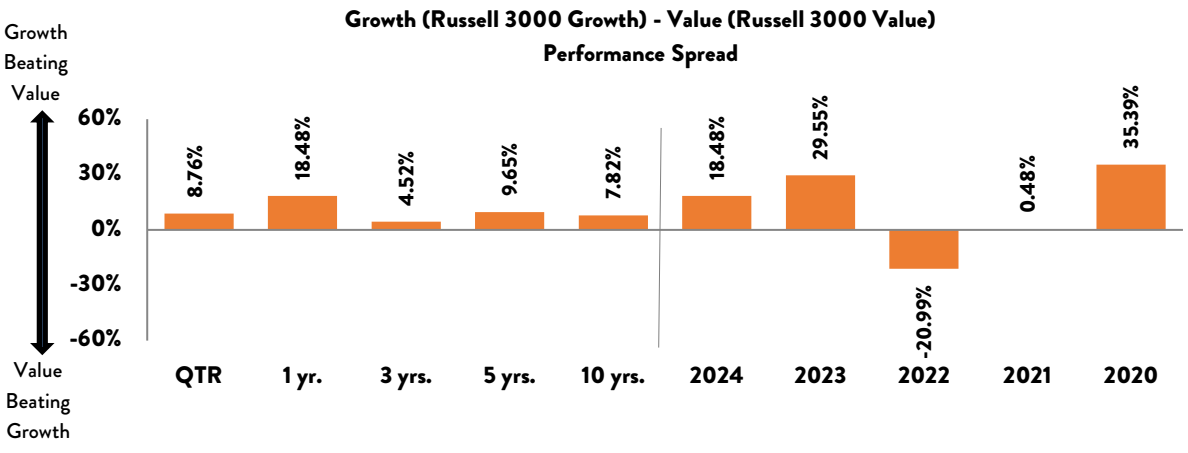
Wgt.	Sector	QTR	YTD	1 yr.
19%	Financials	3.92%	19.00%	19.00%
18%	Industrials	1.95%	17.16%	17.16%
3%	Consumer Staples	1.18%	1.22%	1.22%
3%	Communication Services	0.77%	16.80%	16.80%
12%	Information Technology	-0.41%	-0.81%	-0.81%
5%	Energy	-0.61%	-5.01%	-5.01%
15%	Consumer Discretionary	-1.38%	6.80%	6.80%
11%	Health Care	-3.88%	3.92%	3.92%
2%	Utilities	-5.01%	1.98%	1.98%
8%	Real Estate	-6.20%	7.96%	7.96%
4%	Materials	-7.96%	1.02%	1.02%

Source: Morningstar

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized 3 yrs.	Annualized 5 yrs.	Annualized 10 yrs.
S&P 500	2.41%	25.02%	25.02%	8.94%	14.53%	13.10%
Russell 1000 Value	-1.98%	14.37%	14.37%	5.63%	8.68%	8.49%
Russell 1000 Growth	7.07%	33.36%	33.36%	10.47%	18.96%	16.78%
Russell Mid Cap	0.62%	15.34%	15.34%	3.79%	9.92%	9.63%
Russell Mid Cap Value	-1.75%	13.07%	13.07%	3.88%	8.59%	8.10%
Russell Mid Cap Growth	8.14%	22.10%	22.10%	4.04%	11.47%	11.54%
Russell 2000	0.33%	11.54%	11.54%	1.24%	7.40%	7.82%
Russell 2000 Value	-1.06%	8.05%	8.05%	1.94%	7.29%	7.14%
Russell 2000 Growth	1.70%	15.15%	15.15%	0.21%	6.86%	8.09%
Russell 3000	2.63%	23.81%	23.81%	8.01%	13.86%	12.55%
DJ US Select REIT	-5.93%	8.10%	8.10%	-3.02%	3.40%	4.89%

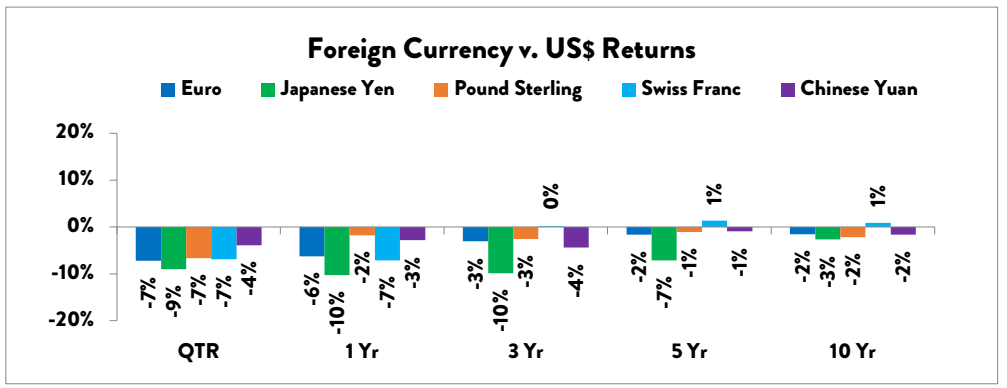




4Q2024 International Market Data

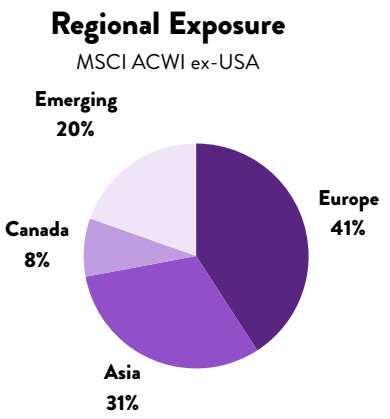
Index Performance Data (net)

Index (US$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	**-7.60%**	**5.53%**	**5.53%**	**0.82%**	**4.10%**	**4.80%**
MSCI EAFE	**-8.11%**	**3.82%**	**3.82%**	**1.65%**	**4.73%**	**5.20%**
Europe	**-9.74%**	**1.79%**	**1.79%**	**1.20%**	**4.90%**	**4.98%**
United Kingdom	-6.82%	7.54%	7.54%	5.30%	4.37%	3.81%
Germany	-5.71%	10.22%	10.22%	1.73%	4.34%	4.12%
France	-10.26%	-5.33%	-5.33%	-0.13%	4.38%	6.25%
Pacific	**-5.47%**	**7.04%**	**7.04%**	**2.38%**	**4.27%**	**5.63%**
Japan	-3.60%	8.31%	8.31%	2.80%	4.81%	6.25%
Hong Kong	-9.80%	0.08%	0.08%	-6.68%	-3.74%	1.53%
Australia	-11.39%	1.23%	1.23%	3.26%	5.54%	5.48%
Canada	**-1.81%**	**11.89%**	**11.89%**	**4.02%**	**8.35%**	**5.63%**
MSCI EM	**-8.01%**	**7.50%**	**7.50%**	**-1.92%**	**1.70%**	**3.64%**
MSCI EM Latin America	**-15.84%**	**-26.38%**	**-26.38%**	**2.10%**	**-3.36%**	**0.34%**
MSCI EM Asia	**-7.89%**	**11.96%**	**11.96%**	**-1.63%**	**3.01%**	**4.81%**
MSCI EM Eur/Mid East	**-1.14%**	**5.55%**	**5.55%**	**-8.94%**	**-2.87%**	**1.32%**
MSCI ACWI Value ex-US	**-7.31%**	**6.04%**	**6.04%**	**4.37%**	**4.50%**	**4.07%**
MSCI ACWI Growth ex-US	**-7.88%**	**5.07%**	**5.07%**	**-2.67%**	**3.44%**	**5.35%**
MSCI ACWI Sm Cap ex-US	**-7.66%**	**3.36%**	**3.36%**	**-1.47%**	**4.30%**	**5.66%**



Exchange Rates	QTR	3Q24	2Q24	1Q24	4Q23	3Q23
Japanese Yen	157.37	143.25	160.88	151.22	140.92	149.43
Euro	0.97	0.90	0.93	0.93	0.90	0.94
British Pound	0.80	0.75	0.79	0.79	0.78	0.82
Swiss Franc	0.91	0.84	0.90	0.90	0.84	0.91
Chinese Yuan	7.30	7.02	7.27	7.22	7.10	7.30

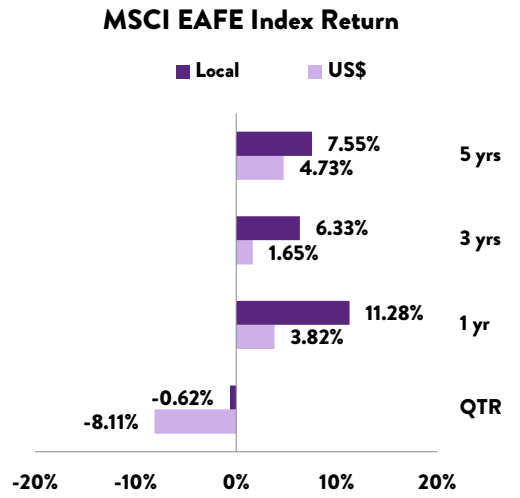
Source: Federal Reserve Bank of St. Louis

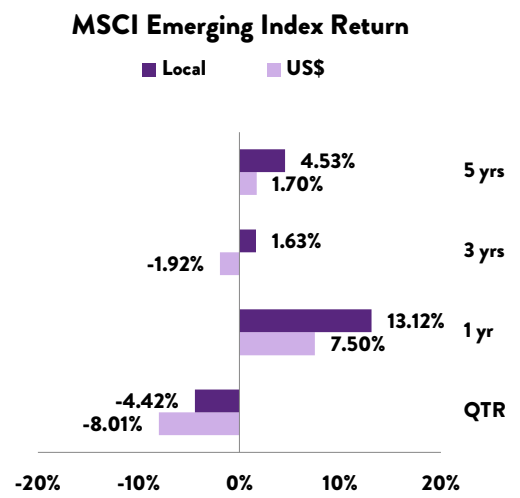


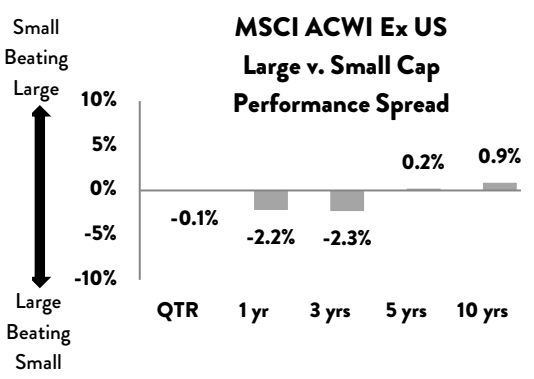
Top 10 Countries (MSCI AC World ex-USA)

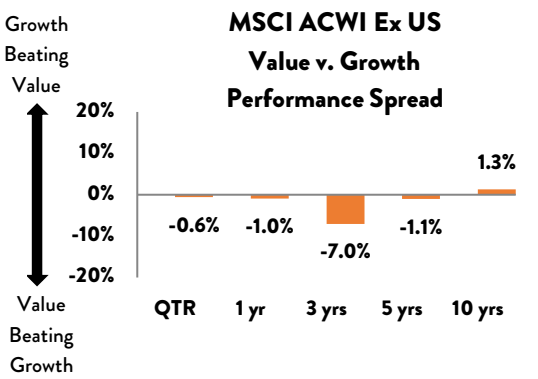
Japan	14%
UK	9%
Canada	8%
China	8%
France	7%
Switzerland	6%
Taiwan	6%
Germany	6%
India	6%
Australia	5%

Source: Morningstar









Performance Source: Morningstar

Historical Market Returns

Ranked by Performance

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	4Q24
Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Core Real Estate 7.36%	Large Cap 31.49%	Small Cap 19.96%	Large Cap 28.71%	Commod. 16.09%	Large Cap 26.29%	Large Cap 25.02%	Large Cap 2.41%
High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Cash 1.69%	Mid Cap 30.54%	Large Cap 18.40%	Commod. 27.11%	Core Real Estate 6.54%	Mid Cap 17.23%	Mid Cap 15.34%	Cash 1.13%
Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	US Bonds 0.01%	Small Cap 25.52%	Emerging Markets 18.31%	Mid Cap 22.58%	Cash 2.05%	Small Cap 16.93%	Small Cap 11.54%	Core Real Estate 0.96%
Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Intl 21.51%	Mid Cap 17.10%	Core Real Estate 21.06%	High Yield -11.19%	Global Balanced 16.35%	Global Balanced 10.63%	Mid Cap 0.62%
Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76%	Global Balanced 15.87%	TIPS -1.26%	Global Balanced 18.86%	Global Balanced 13.93%	Small Cap 14.82%	TIPS -11.85%	Intl 15.62%	High Yield 8.19%	Small Cap 0.33%
Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	Emerging Markets 18.42%	TIPS 10.99%	Global Balanced 10.94%	US Bonds -13.01%	High Yield 13.45%	Emerging Markets 7.50%	High Yield 0.17%
Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	High Yield 14.32%	Intl 10.65%	Intl 7.82%	Intl -16.00%	Emerging Markets 9.83%	Intl 5.53%	Commod. -0.45%
Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	Global Balanced -5.30%	US Bonds 8.72%	Global Bonds 9.20%	TIPS 5.96%	Global Bonds -16.25%	Global Bonds 5.72%	Commod. 5.38%	Global Balanced -1.82%
TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap -4.41%	TIPS 4.68%	Core Real Estate 6.66%	Mid Cap -9.06%	TIPS 8.43%	US Bonds 7.51%	High Yield 5.28%	Global Balanced -16.40%	US Bonds 5.53%	Cash 5.18%	TIPS -2.88%
Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Small Cap -11.01%	Commod. 7.69%	High Yield 7.11%	Cash 0.05%	Mid Cap -17.32%	Cash 5.27%	TIPS 1.84%	US Bonds -3.06%
US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl -5.66%	US Bonds 2.65%	TIPS 3.01%	Commod. -11.25%	Global Bonds 6.84%	Cash 0.37%	US Bonds -1.54%	Large Cap -18.11%	TIPS 3.90%	US Bonds 1.25%	Global Bonds -5.10%
Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl -3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -14.20%	Core Real Estate 4.41%	Core Real Estate 0.35%	Emerging Markets -2.54%	Emerging Markets -20.09%	Commod. -7.91%	Global Bonds -1.69%	Intl -7.60%
Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -14.58%	Cash 2.30%	Commod. -3.12%	Global Bonds -4.71%	Small Cap -20.44%	Core Real Estate -12.73%	Core Real Estate -2.27%	Emerging Markets -8.01%

Global Balanced is composed of 60% MSCI World Stock Index, 35% BBgBarc Global Aggregate Bond Index, and 5% US 90-Day T-Bills.

Source: Morningstar; Core Real Estate Source: NCREIF

4Q2024 Portfolio Activity

The majority of portfolio turnover for equities and fixed income occurred in 2Q and 3Q of 2024. The theme for activity in 4Q and going forward is related to transforming the alternative investments of the portfolio. The objectives are:

- To redeem from Hedge Fund fund of fund exposures and reallocate to multiple high conviction strategies to build our own 'multi-strategy' portfolio with better liquidity terms and lower fees.
- Build ~3% allocations to both Private Credit and Private Equity investments, taking advantage of Morgan Stanley's unique access to the highest quality managers.

Activity

- Received cash from redemptions of **Contrarian Fund, Contrarian Emerging Markets Fund**, and **Beach Point**.
- Added $6M to **Loomis Sayles Core Plus Fixed Income CIT**.
- Invested $5M in **WorldQuant Global Equity Active Extension** (Hedge Fund)
  - Quantitative trading strategy that goes long and short global equities in attempt to beat the MSCI World Index.
- Invested $4M in **Apollo Debt Solutions BDC** (Private Credit)
  - Core private credit strategy focused on senior secured large corporate direct origination.
- Subscribed $5M to **Millennium International Ltd** (Hedge Fund)
  - This is one of the few Hedge Funds that utilizes a call structure. $500k of the $5M commitment has been called to date.
  - One of the most sought-after multi-strategy funds investing across RV Fundamental Equity, Quantitative Strategies, Equity Arbitrage, and Fixed Income & Commodities.

Performance Commentary

Segall Bryant Core Fixed Income slightly outperformed due to overweight positions in higher-coupon MBS and underweight positions in lower coupon MBS vs. the benchmark. Sector selection of overweight corporates and underweight Treasuries also had a positive impact on performance.

Loomis Sayles Core Plus Bond slightly underperformed due to longer-than-benchmark duration posture as yields pushed sharply higher in reaction to stronger economic data and an election outcome that boosted market expectations for both growth and inflation. Sector allocation also detracted from performance as an out-of-benchmark position in LATAM non-dollar continued to underperform. Security selection was positive with good results from both the securitized agency and investment grade credit sectors.

Hotchkis & Wiley High Yield outperformed as credit selection was positive across 15 of 19 high yield market sectors, most notably in basic industry, media and capital goods, which was partially offset by negative selection in energy and transportation. From a ratings perspective, credit selection was positive across all high yield rating cohorts, partially offset by negative selection effects within the nonrated cohort.

BlackRock High Yield outperformed due to sector selection with an allocation to bank loans and positioning in B and BB rated securities. An overweight position and security selection in aerospace & defense sector was the most additive, followed by underweight holdings and selection in midstream and retailers. The allocation in investment grade bonds detracted from performance. By sector, security selection in metals & mining was the weakest performer, followed by underweight positions and security selection in media & entertainment and leisure.

Boston Partners Large Cap Value declined slightly for the quarter but outperformed its benchmark. Stock picks in the Financials sector and our underweight to Health Care were among the areas driving outperformance, while our stock selection in the Technology and Consumer Discretionary sectors generally held back relative results. Standout individual contributors during the quarter included Alphabet and JP Morgan. Alphabet's business momentum continued to exceed expectations with cloud and YouTube revenues increasing and margins expanding. We believe the stock's current valuation more than compensates shareholders for ongoing regulatory risk. JP Morgan's business momentum remained strong and was unmatched in the global banking industry. The company continued to gain market share in commercial loans and capital markets activities. The prospect of less regulation under the new administration bodes well for additional capital return to shareholders and for accretive acquisitions. We increased our position during the quarter.

Columbia Dividend Income declined for the quarter but slightly beat the benchmark. Within Financials, outperformance as largely due to bank holdings including JP Morgan, Wells Fargo and Morgan Stanley. The steepening yield curve should help support bank net interest income. In addition, the new administration is expected to take a less aggressive approach to regulating bank activity and capital requirements. In Consumer Staples, Walmart was among the top individual contributors for the quarter although Mondelez International was one of the top detractors, as margins for the global snack company have been pressured by higher cocoa prices. Positioning in Consumer Discretionary weighted most heavily on relative performance, most notably a lack of exposure to non-dividend payers Tesla and Amazon. Selection within Information Technology also detracted, primarily driven by a lack of exposure to AI-driven chipmaker NVIDIA and Apple, both of which do not meet the fund's dividend-focused thresholds.

Allspring Special SCV declined during the quarter and slightly underperformed the benchmark on a net basis. Stock selection in Health Care as well as an underweight to Health Care and an overweight to Industrials contributed most positively to performance. Mueller Industries is an industrial corporation whose holdings manufacture vital goods for important markets such as air, water, oil, and gas distribution. Despite a recent $600M acquisition, the balance sheet has almost $1 billion of net cash, which we feel positions Mueller well to continue its strategy of consolidating smaller niche players in the industry while also buying back stock and paying dividends. Stock selection in Industrials and Materials as well as an overweight to Materials were the largest detractors from relative performance.

Earnest Partners Small/Mid Core significantly underperformed the benchmark as speculative technology and crypto names in the benchmark rallied post the election. Not owning Supermicro and Lumen Technologies cost the portfolio hundreds of basis points this year. Cryptocurrency mining stocks are benefiting from investors anticipating more favorable regulatory environment for digital assets. For example, MicroStrategy (now called Strategy), Riot Platforms, CleanSpark and Cipher Mining were all up over 100% in the week following the election. This surge; however, overlooks the inherent volatility in crypto prices and the high, often unsustainable, operating costs associated with mining. The aforementioned pockets of the market have performed exceptionally well this year. However, the results were more a function of speculation, not fundamentals. This environment is not conducive to our investment approach.

EuroPacific Growth declined over 7% for the quarter but outperformed the benchmark. The top positive contributing sectors were Industrials, Technology, and Consumer Discretionary. The top detracting sectors were Financials, Health Care, and Energy. From an industry perspective Aerospace & Defense, Hotels and Software added value, while Banks, Pharmaceuticals and Oil & Gas detracted. From a country perspective, Germany, France, and Taiwan added value, while Denmark and Japan detracted.

Artisan International Value declined nearly 7% for the quarter but outperformed the benchmark. The environment in Q4 was terrible for international investors. The US dollar strengthened significantly relative to most currencies, which created a headwind to international investing. The largest holding, Arch Capital, a Bermuda-based property casualty insurance company increased 31% in 2024, making it the largest positive contributor to performance. While the insurance market is expected to face challenges as pricing peaks, we anticipate Arch will continue achieving returns of 15%-20% over the next few years.

Victory Trivalent Intl Small Cap declined over 7% for the quarter but outperformed the benchmark. International small cap equities were down on global growth concerns and heightened uncertainty surrounding potential trade tariffs following the Trump victory in the U.S. elections. Security selection was positive as excess returns were generated in three of five regions and seven of the eleven economic sectors. From a style perspective, the Fund's overall exposure to value, business momentum and quality factors contributed to relative performance, with business momentum generating the strongest signal. At the sector level, notable outperformance was generated in Technology and Consumer Discretionary. Technology was boosted by a sizable position in Celestica, which remains a top contributor for the year. The Canadian electronics manufacturing company remains a beneficiary of hyperscaler spending on data center equipment.

GQG Emerging Markets outperformed the benchmark for the quarter. Stock selection was positive while sector positioning was negative. Top contributing sectors were Consumer Discretionary, Energy, and Health Care. Top detracting sectors were Utilities, Financials, and Technology. From a country perspective, Korea, China, and Singapore added value, while India and Taiwan detracted. TSMC is a semiconductor manufacturer in Taiwan and remains the largest holding. We believe sentiment toward the shares improved as the company reported a series of strong monthly sales gains versus the prior year and noted that pricing was likely to increase in the coming quarters. In addition, TSMC announced a new share repurchase program.

Polar L/S returned positive 1.22% in OCtober, 2.94% in November, and -0.71% in December.

Weatherlow Offshore returned 3.8% in the quarter, enjoying positive attribution from all four stratedy allocations. Global asset allocation ("GAA" aka "macro") accounted for just over half of the Fund's net return on an average allocation of approximately 21% during the quarter. Long/short equity accounted for almost a quarter of the net return. Event-driven strategies were the next largest contributor as the underlying managers, both equity- and credit-focused, all earned positive returns. Relative value also contributed positively led by systematic trading and convertible bond arbitrage.

Principal Global Investors REIT outperformed in the index. The overweight to U.S. senior housing continued to deliver as these REITs reported strong earnings and upgraded guidance. The underweight to U.S. storage was additive as well. Fewer rate cuts could delay the recovery in single family property transactions which would in turn delay a recovery in storage demand. Detraction came from the underweight to U.S. malls which benefitted from the cyclical rally in the fourth quarter as investors best on pro-growth Trump policies being eventually enacted.

Morgan Stanley Prime Property was up 0.5% in the quarter, underperforming the benchmark by 42 basis points. Prime's overall leased status was 91.8% at year end. Excluding new assets in initial lease-up and one asset completing lease-up after redevelopment, the portfolio's leased status stood at 93.6%. Comparable same store net operating income growth over calendar year 2024 was 5.3% with almost all sectors producing positive growth. Prime ended the quarter with a leverage ratio of 25.9%, a weighted average cost of debt of 4.4% (91% fixed), and a weighted average duration of 6 years. Value add exposure stood at only 6.2% at year end. The fund sold $821.5 million of properties including the sale of an interest in two Washington DC office buildings, the sale of Two Park Avenue in New York, and the sale of our Safeguard Self Storage portfolio in New Orleans. Prime paid out $400 million in redemptions and the redemption queue fell to $2.9 billion, down from $5.3 billion at the beginning of 2024.

Morrison Street Income Fund was down 1% in the quarter. December was a uniformly difficult month for real estate capital markets. The 10-year Treasury rate increased from 3.74% to 4.57%, increasing the cost of capital for property owners, and contributing to an 8% market-wide drop in public REIT share values and a 7% drop in the value of the Fund's REIT preferred securities portfolio. The Fund absorbed a $1.2 million realized loss related to the $700,000 sale of the 2200 Fletcher loan. Nevertheless, the Fund continues to generate significant cash flow, with a distribution return of 1.97% for 4Q.

Morrison Street Fund VI generated a 2.2% total return in the quarter, comprised of 1.82% income return and 0.38% in unrealized appreciation. The Fund's $2.5 million preferred equity investment in the Herald (fka Tremont Lofts) was redeemed in full. The Fund's four realized/partially realized investments have generated a gross IRR of 15.52%, gross profits of $5.99 million and a 1.41x profit multiple.

Morrison Street Fund VII expected to achieve full investment status during the first or second quarter of 2025. The Portfolio represents a collective of quality real estate investment opportunities in varying geographic locations, with exposure to varying product types and deal structures. The final capital call representing approximately 6.6% of committed amounts is expected in the first quarter of 2025. Once the last investment is made, the Fund will be in its asset management phase, completing value-added business plans, and seeking to realize portfolio assets and make associated profit distributions in years 2025 through 2027.

Orbimed Royalty Opportunities closed in August 2011 with total commitments of $602 million. The Fund has made 16 investments totaling $712.3 million or 118% of commitments and has called 100% of its commitments. Cumulative distributions have totaled $567.9 million, which represents 94% of commitments. The Fund is actively seeking to monetize the Fund's remaining 2 holdings and expect the Fund to be liquidated during this calendar year.

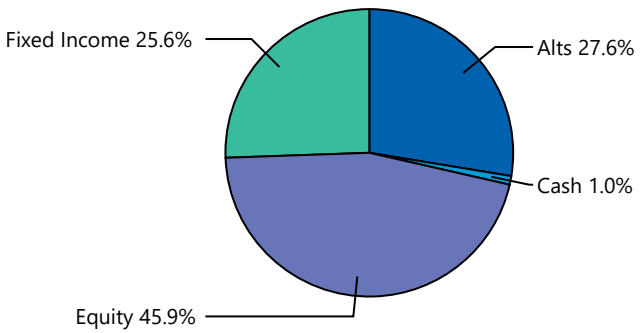
Orbimed Royalty Opps II closed in January of 2015 with total commitments of $924 million. As of quarter-end, the Fund had made 25 investments totaling $1.05 billion of 114% of commitments. Cumulative distributions have totaled $1,025.5 million, equal to 111% of commitments and 133% of paid-in-capital. In November, the Fund received the final Emflaza royalty payment. The fund realized a gross return multiple of 1.42x (net return multiple of 1.32x) on the $14 million investment made in August 2018. In November, the Fund traded out of its holding in Wellpath Holdings as the company encountered various challenges to its business.

Blue Owl Asset Special Opp Fund IX made its initial investments in June 2024, so quarterly performance for Q3 was not meaningful.

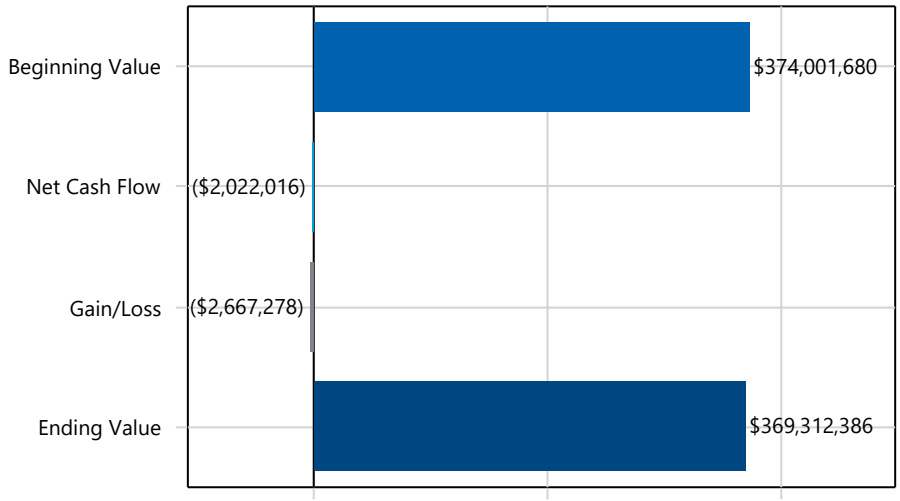
Tortoise Energy Infra Total Return Fund was up almost 12% in the quarter beating the benchmark. The midstream energy sector, as measured by the Alerian Midstream Index, posted a strong gain of 13.4%, contrasting sharply with the broader energy sector, represented by the S&P Energy Select Index, which declined by 2.4%. Midstream management teams exhibited disciplined capital allocation, maintaining robust balance sheets, increasing dividends, strategically repurchasing shares, and investing in high-return capital projects. During the quarter, project opportunities expanded significantly, driven by rising power demand to support the development of data centers fueled by rapid advancements in artificial intelligence. In response to increased demand, new natural gas pipeline projects were anticipated to address the substantial growth in power needs, with natural gas-fired power generation expected to play a vital role. Targa Resources, Cheniere Energy, and Energy Transfer LP are the top 3 holdings and were also the top contributors to performance.

Section 2 | Performance Overview

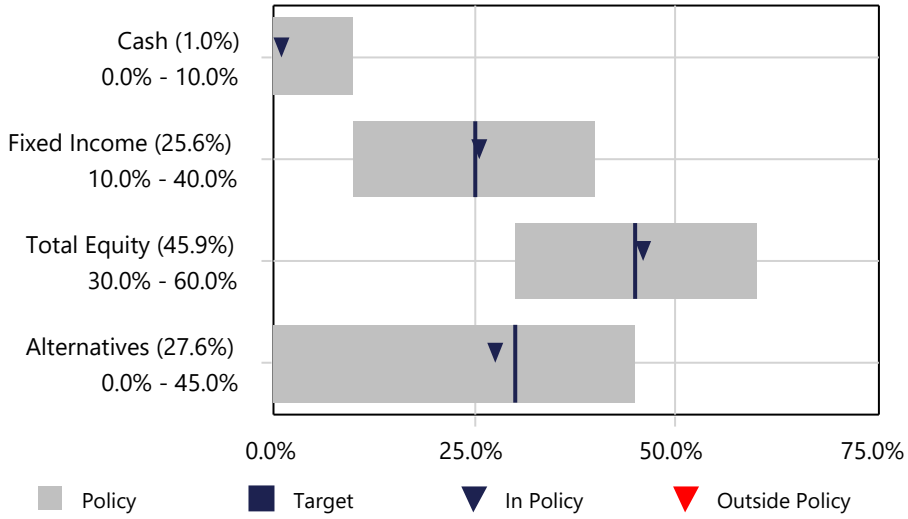
Current Allocation



Current Quarter



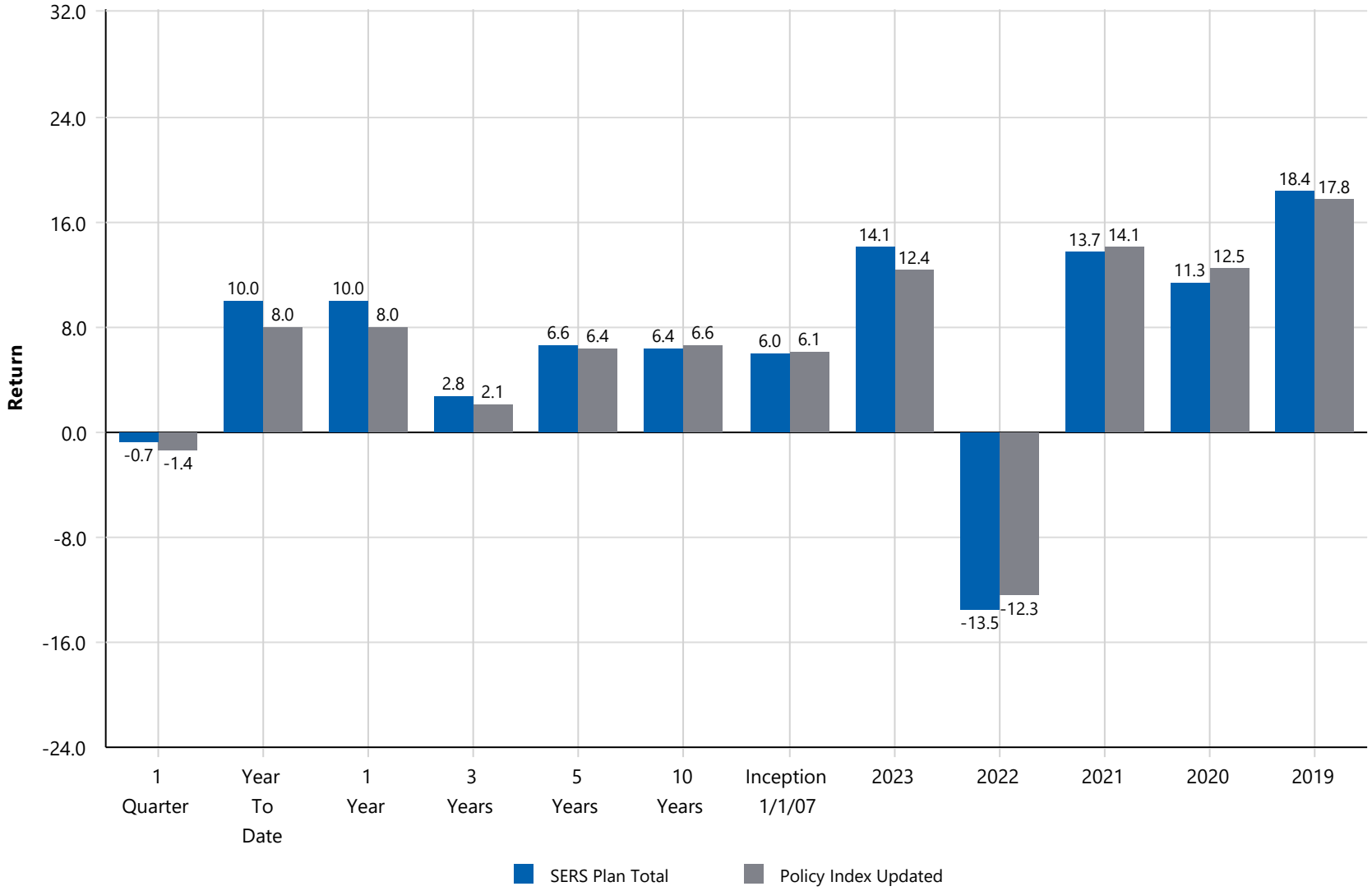
Executive Summary



Policy Benchmark

	Weight (%)
Blmbg. U.S. Aggregate Index	21.00
Blmbg. U.S. Corp: High Yield Index	4.00
S&P 500 Index	16.00
Russell 2500 Index	9.00
MSCI EAFE (Net)	15.00
MSCI Emerging Markets (Net)	5.00
Alerian MLP Index	2.00
HFRX Global Hedge Fund Index	14.00
NCREIF ODCE VW NET	8.00
S&P UBS Leveraged Loan Index	3.00
CA Private Equity	3.00

Return Summary



Performance Net of Fees.
Performance for periods longer than 1 year is annualized.

Return Summary Statistics

	3 Years		5 Years		Since Inception		Inception Date
	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	
Maximum Return	7.99	7.83	13.82	13.76	13.82	16.64	01/01/2007
Minimum Return	-11.14	-10.34	-17.94	-16.12	-17.94	-17.38	
Return	2.78	2.08	6.55	6.42	5.98	6.08	
Cumulative Return	8.57	6.38	37.33	36.51	184.30	189.14	
Active Return	0.78	0.00	0.28	0.00	-0.15	0.00	
Excess Return	-0.50	-1.28	5.04	4.76	5.20	5.35	

Risk/Return Summary Statistics

	3 Years		5 Years		Since Inception		Inception Date
	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	
Standard Deviation	11.27	10.33	14.94	13.89	12.08	12.60	01/01/2007
Alpha	0.55	0.00	-0.25	0.00	0.23	0.00	
Tracking Error	1.25	0.00	1.40	0.00	2.24	0.00	
Information Ratio	0.62	-	0.20	-	-0.07	-	
Beta	1.09	1.00	1.07	1.00	0.94	1.00	
Sharpe Ratio	-0.05	-0.13	0.34	0.34	0.43	0.42	

Correlation Statistics

	3 Years		5 Years		Since Inception		Inception Date
	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	SERS Plan Total	Policy Index Updated	
R-Squared	0.994	1.000	0.996	1.000	0.969	1.000	01/01/2007
Actual Correlation	0.997	1.000	0.998	1.000	0.984	1.000	

As of December 31, 2024

	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
SERS Plan Total	**369,312,386**	**100.00**	**-0.71**	**10.03**	**10.03**	**2.78**	**6.55**	**5.98**	**14.07**	**-13.50**	**13.66**	**11.29**	**18.35**	**-6.27**	**01/01/2007**
Policy Index Updated			-1.41	7.98	7.98	2.08	6.42	6.08	12.39	-12.34	14.08	12.48	17.76	-5.17	
Over/Under			0.70	2.05	2.05	0.69	0.13	-0.10	1.69	-1.17	-0.42	-1.19	0.59	-1.10	
Corporate and Public >250m and < $1Bil Rank			22	32	32	28	36	43	24	34	31	77	66	76	
Cash & Fixed Income	**97,974,989**	**26.53**	**-2.08**	**2.97**	**2.97**	**0.00**	**1.69**	**2.49**	**7.70**	**-9.84**	**1.37**	**7.27**	**8.76**	**-0.70**	**08/01/2012**
Cash	**3,614,306**	**0.98**	**1.13**	**5.07**	**5.07**	**3.76**	**4.96**	**-9.37**	**4.85**	**1.39**	**0.01**	**14.03**	**-16.95**	**-14.29**	**08/01/2012**
90 Day U.S. Treasury Bill			1.17	5.25	5.25	3.89	2.46	1.42	5.02	1.46	0.05	0.67	2.28	1.87	
Over/Under			-0.04	-0.18	-0.18	-0.13	2.50	-10.80	-0.17	-0.06	-0.04	13.36	-19.23	-16.17	
Fidelity Instl Govt Money Market	3,614,306	0.98	1.16	5.17	5.17	3.88	2.38	1.07	5.01	1.49	0.01	0.35	2.09	1.71	01/01/2009
90 Day U.S. Treasury Bill			1.17	5.25	5.25	3.89	2.46	1.13	5.02	1.46	0.05	0.67	2.28	1.87	
Over/Under			-0.01	-0.08	-0.08	-0.02	-0.08	-0.06	0.00	0.03	-0.04	-0.32	-0.19	-0.16	
Money Market-Taxable Rank			23	15	15	19	18	9	16	24	43	25	11	13	
Fixed Income	**94,360,683**	**25.55**	**-2.22**	**2.96**	**2.96**	**-0.10**	**1.50**	**2.58**	**7.73**	**-10.12**	**1.39**	**6.58**	**9.32**	**-0.54**	**08/01/2012**
US Taxable Fixed Income	**70,690,189**	**19.14**	**-3.09**	**1.33**	**1.33**	**-1.80**	**0.38**	**1.22**	**5.69**	**-11.58**	**-1.53**	**9.29**	**9.38**	**0.03**	**08/01/2012**
Blmbg. U.S. Aggregate Index			-3.06	1.25	1.25	-2.41	-0.33	1.42	5.53	-13.01	-1.55	7.51	8.72	0.01	
Over/Under			-0.03	0.08	0.08	0.61	0.70	-0.20	0.16	1.43	0.01	1.78	0.66	0.02	
Segall Bryant Core Bond	38,427,518	10.41	-2.76	-	-	-	-	-0.24	-	-	-	-	-	-	08/01/2024
Blmbg. U.S. Aggregate Index			-3.06	1.25	1.25	-2.41	-0.33	-0.35	5.53	-13.01	-1.55	7.51	8.72	0.01	
Over/Under			0.30	-	-	-	-	0.11	-	-	-	-	-	-	
Intermediate Core Bond Rank			18	-	-	-	-	38	-	-	-	-	-	-	
Loomis Sayles Core Plus Fixed	32,262,671	8.74	-3.56	1.20	1.20	-	-	2.37	-	-	-	-	-	-	06/27/2024
Blmbg. U.S. Aggregate Index			-3.06	1.25	1.25	-2.41	-0.33	1.70	5.53	-13.01	-1.55	7.51	8.72	0.01	
Over/Under			-0.49	-0.05	-0.05	-	-	0.67	-	-	-	-	-	-	
Intermediate Core Bond Rank			95	69	69	-	-	97	-	-	-	-	-	-	
High Yield Bond	**23,670,494**	**6.41**	**0.36**	**7.85**	**7.85**	**3.68**	**3.99**	**4.58**	**12.30**	**-7.99**	**5.68**	**3.24**	**9.23**	**-2.23**	**08/01/2012**
Blmbg. U.S. Corp: High Yield Index			0.17	8.19	8.19	2.92	4.21	5.44	13.45	-11.19	5.28	7.11	14.32	-2.08	
Over/Under			0.19	-0.35	-0.35	0.76	-0.23	-0.86	-1.14	3.20	0.40	-3.87	-5.09	-0.15	

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	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
Hotchkis & Wiley High Yield	16,938,173	4.59	0.36	7.38	7.38	3.12	3.99	4.14	13.08	-9.69	6.83	3.83	9.77	-3.34	06/01/2015
Blmbg. U.S. Corp: High Yield Index			0.17	8.19	8.19	2.92	4.21	4.96	13.45	-11.19	5.28	7.11	14.32	-2.08	
Over/Under			0.19	-0.82	-0.82	0.20	-0.22	-0.82	-0.36	1.50	1.55	-3.29	-4.54	-1.26	
High Yield Bond Rank			34	58	58	32	30	50	19	31	11	75	87	65	
BlackRock High Yield CIT	6,732,321	1.82	0.37	-	-	-	-	3.27	-	-	-	-	-	-	08/02/2024
Blmbg. U.S. Corp: High Yield Index			0.17	8.19	8.19	2.92	4.21	3.46	13.45	-11.19	5.28	7.11	14.32	-2.08	
Over/Under			0.19	-	-	-	-	-0.19	-	-	-	-	-	-	
High Yield Bond Rank			33	-	-	-	-	33	-	-	-	-	-	-	
Total Equity	**169,451,930**	**45.88**	**-1.76**	**13.14**	**13.14**	**3.82**	**9.36**	**10.70**	**20.43**	**-17.87**	**18.90**	**17.54**	**27.37**	**-10.99**	**08/01/2012**
Domestic Equity	**99,971,438**	**27.07**	**2.37**	**19.82**	**19.82**	**6.49**	**12.27**	**12.92**	**23.30**	**-18.25**	**25.73**	**17.45**	**29.14**	**-7.80**	**08/01/2012**
Large Cap Equity	**68,030,432**	**18.42**	**2.85**	**24.93**	**24.93**	**9.21**	**14.59**	**13.84**	**27.30**	**-18.11**	**29.12**	**17.47**	**30.06**	**-7.70**	**08/01/2012**
S&P 500 Index			2.41	25.02	25.02	8.94	14.53	14.53	26.29	-18.11	28.71	18.40	31.49	-4.38	
Over/Under			0.44	-0.09	-0.09	0.27	0.06	-0.68	1.01	0.00	0.42	-0.93	-1.43	-3.31	
SSGA S&P 500 Strategy Idx	43,133,120	11.68	2.40	-	-	-	-	5.84	-	-	-	-	-	-	08/29/2024
S&P 500 Index			2.41	25.02	25.02	8.94	14.53	5.67	26.29	-18.11	28.71	18.40	31.49	-4.38	
Over/Under			0.00	-	-	-	-	0.17	-	-	-	-	-	-	
Large Blend Rank			29	-	-	-	-	55	-	-	-	-	-	-	
SSGA Russell 1000 Growth	14,658,788	3.97	7.06	-	-	-	-	10.12	-	-	-	-	-	-	09/17/2024
Russell 1000 Growth Index			7.07	33.36	33.36	10.47	18.96	10.13	42.68	-29.14	27.60	38.49	36.39	-1.51	
Over/Under			-0.01	-	-	-	-	-0.01	-	-	-	-	-	-	
Large Growth Rank			22	-	-	-	-	21	-	-	-	-	-	-	
Boston Partners	5,104,647	1.38	-0.77	-	-	-	-	2.06	-	-	-	-	-	-	08/01/2024
Russell 1000 Value Index			-1.98	14.37	14.37	5.63	8.68	2.05	11.46	-7.54	25.16	2.80	26.54	-8.27	
Over/Under			1.21	-	-	-	-	0.02	-	-	-	-	-	-	
Large Value Rank			28	-	-	-	-	46	-	-	-	-	-	-	

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	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
Columbia Dividend Income	5,133,877	1.39	-1.09	-	-	-	-	5.75	-	-	-	-	-	-	08/12/2024
Russell 1000 Value Index			-1.98	14.37	14.37	5.63	8.68	5.19	11.46	-7.54	25.16	2.80	26.54	-8.27	
Over/Under			0.89	-	-	-	-	0.56	-	-	-	-	-	-	
Large Value Rank			34	-	-	-	-	4	-	-	-	-	-	-	
Small/Mid Cap Equity	**31,941,006**	**8.65**	**1.37**	**10.70**	**10.70**	**1.50**	**8.00**	**11.09**	**15.92**	**-18.52**	**19.65**	**17.46**	**27.27**	**-8.05**	**08/01/2012**
Russell 2500 Index			0.62	11.99	11.99	2.39	8.77	11.23	17.42	-18.37	18.18	19.99	27.77	-10.00	
Over/Under			0.75	-1.29	-1.29	-0.89	-0.76	-0.14	-1.50	-0.15	1.47	-2.53	-0.49	1.95	
SSGA Small/Mid Cap Index Fund	19,209,934	5.20	4.23	-	-	-	-	5.61	-	-	-	-	-	-	08/01/2024
Russell Small Cap Completeness Index			4.27	17.14	17.14	2.89	10.27	6.35	24.81	-25.49	12.64	32.88	28.04	-9.21	
Over/Under			-0.04	-	-	-	-	-0.74	-	-	-	-	-	-	
SMID Blend Rank			4	-	-	-	-	6	-	-	-	-	-	-	
Allspring Special SCV	6,901,100	1.87	-1.17	6.97	6.97	3.65	7.53	8.10	19.74	-13.06	29.07	0.01	-	-	12/01/2019
Russell 2000 Value Index			-1.06	8.05	8.05	1.94	7.29	7.90	14.65	-14.48	28.27	4.63	22.39	-12.86	
Over/Under			-0.10	-1.09	-1.09	1.71	0.23	0.20	5.09	1.43	0.80	-4.62	-	-	
Small Value Rank			74	71	71	52	72	70	21	66	60	74	-	-	
Earnest Partners S/M Core Eq	5,829,972	1.58	-4.38	-	-	-	-	-2.21	-	-	-	-	-	-	08/01/2024
Russell 2500 Index			0.62	11.99	11.99	2.39	8.77	1.86	17.42	-18.37	18.18	19.99	27.77	-10.00	
Over/Under			-5.01	-	-	-	-	-4.07	-	-	-	-	-	-	
SMID Blend Rank			98	-	-	-	-	87	-	-	-	-	-	-	
International Equity	**69,480,491**	**18.81**	**-7.15**	**4.71**	**4.71**	**0.35**	**5.45**	**7.20**	**16.77**	**-17.36**	**9.68**	**17.63**	**25.02**	**-15.78**	**08/01/2012**
International Developed	**52,912,051**	**14.33**	**-7.30**	**5.42**	**5.42**	**1.65**	**6.25**	**7.52**	**19.07**	**-16.33**	**10.47**	**16.71**	**25.92**	**-16.52**	**08/01/2012**
MSCI EAFE (Net)			-8.11	3.82	3.82	1.65	4.73	6.49	18.24	-14.45	11.26	7.82	22.01	-13.79	
Over/Under			0.82	1.60	1.60	0.00	1.52	1.03	0.83	-1.87	-0.79	8.89	3.91	-2.73	
EuroPacific Growth R6	15,728,085	4.26	-7.03	5.04	5.04	-1.97	3.95	4.73	16.05	-22.72	2.84	25.27	27.40	-14.91	07/01/2008
MSCI AC World ex USA (Net)			-7.60	5.53	5.53	0.82	4.10	3.28	15.62	-16.00	7.82	10.65	21.51	-14.20	
Over/Under			0.56	-0.49	-0.49	-2.79	-0.16	1.46	0.44	-6.72	-4.99	14.61	5.88	-0.71	
Foreign Rank			35	40	40	74	57	24	53	76	92	11	22	43	

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	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
Artisan Int'l Value	16,619,970	4.50	-6.97	6.64	6.64	6.91	9.24	9.27	22.95	-6.80	16.97	8.81	24.20	-15.42	10/01/2008
MSCI AC World ex USA Value (Net)			-7.31	6.04	6.04	4.37	4.50	4.35	17.30	-8.59	10.46	-0.77	15.72	-13.97	
Over/Under			0.34	0.60	0.60	2.54	4.74	4.91	5.65	1.79	6.52	9.58	8.49	-1.45	
Foreign Value Rank			46	29	29	7	3	1	6	24	11	8	8	35	
Victory Trivalent Intl SC Collective Fund	9,855,393	2.67	-7.46	5.13	5.13	-1.90	4.54	7.55	15.19	-22.05	13.66	16.36	29.25	-19.44	12/01/2016
MSCI EAFE Small Cap (Net)			-8.36	1.82	1.82	-3.25	2.30	5.76	13.16	-21.39	10.10	12.34	24.96	-17.89	
Over/Under			0.90	3.32	3.32	1.34	2.24	1.79	2.03	-0.66	3.56	4.01	4.28	-1.55	
Foreign Small/Mid Blend Rank			25	19	19	56	15	2	37	88	33	9	1	44	
SSGA MSCI EAFE Index	10,708,603	2.90	-8.09	-	-	-	-	-1.29	-	-	-	-	-	-	08/09/2024
MSCI EAFE (Net)			-8.11	3.82	3.82	1.65	4.73	0.67	18.24	-14.45	11.26	7.82	22.01	-13.79	
Over/Under			0.03	-	-	-	-	-1.96	-	-	-	-	-	-	
Foreign Large Blend Rank			68	-	-	-	-	8	-	-	-	-	-	-	
Emerging Markets	**16,568,441**	**4.49**	**-6.70**	**2.97**	**2.97**	**-4.61**	**2.49**	**3.03**	**9.52**	**-23.03**	**5.61**	**23.38**	**19.84**	**-**	**07/01/2018**
MSCI Emerging Markets (Net)			-8.01	7.50	7.50	-1.92	1.70	2.57	9.83	-20.09	-2.54	18.31	18.42	-14.57	
Over/Under			1.31	-4.53	-4.53	-2.69	0.79	0.47	-0.31	-2.94	8.15	5.07	1.42	-	
SSGA MSCI Emerging Markets	11,436,979	3.10	-7.73	-	-	-	-	-3.75	-	-	-	-	-	-	08/20/2024
MSCI Emerging Markets (Net)			-8.01	7.50	7.50	-1.92	1.70	-2.12	9.83	-20.09	-2.54	18.31	18.42	-14.57	
Over/Under			0.28	-	-	-	-	-1.62	-	-	-	-	-	-	
Diversified Emerging Mkts Rank			73	-	-	-	-	86	-	-	-	-	-	-	
GQG Partners EM	4,582,324	1.24	-7.34	6.02	6.02	2.74	7.80	6.54	30.17	-21.42	-2.65	37.88	22.49	-14.23	12/01/2017
MSCI Emerging Markets (Net)			-8.01	7.50	7.50	-1.92	1.70	1.87	9.83	-20.09	-2.54	18.31	18.42	-14.57	
Over/Under			0.66	-1.48	-1.48	4.66	6.10	4.67	20.35	-1.33	-0.11	19.58	4.07	0.34	
Diversified Emerging Mkts Rank			64	54	54	7	2	1	1	39	59	6	38	27	
Alternatives	**101,885,468**	**27.59**	**2.40**	**11.88**	**11.88**	**4.30**	**5.45**	**5.24**	**9.77**	**-7.61**	**11.33**	**3.20**	**10.07**	**-1.49**	**08/01/2012**
Hedge Funds	**57,900,337**	**15.68**	**3.06**	**13.54**	**13.54**	**6.14**	**6.56**	**5.02**	**11.73**	**-5.74**	**10.58**	**3.90**	**6.03**	**-2.57**	**08/01/2012**
HFRX Global Hedge Fund Index			0.18	5.27	5.27	1.24	2.81	2.23	3.10	-4.41	3.65	6.81	8.62	-6.72	
Over/Under			2.88	8.27	8.27	4.91	3.75	2.79	8.63	-1.34	6.93	-2.92	-2.60	4.15	

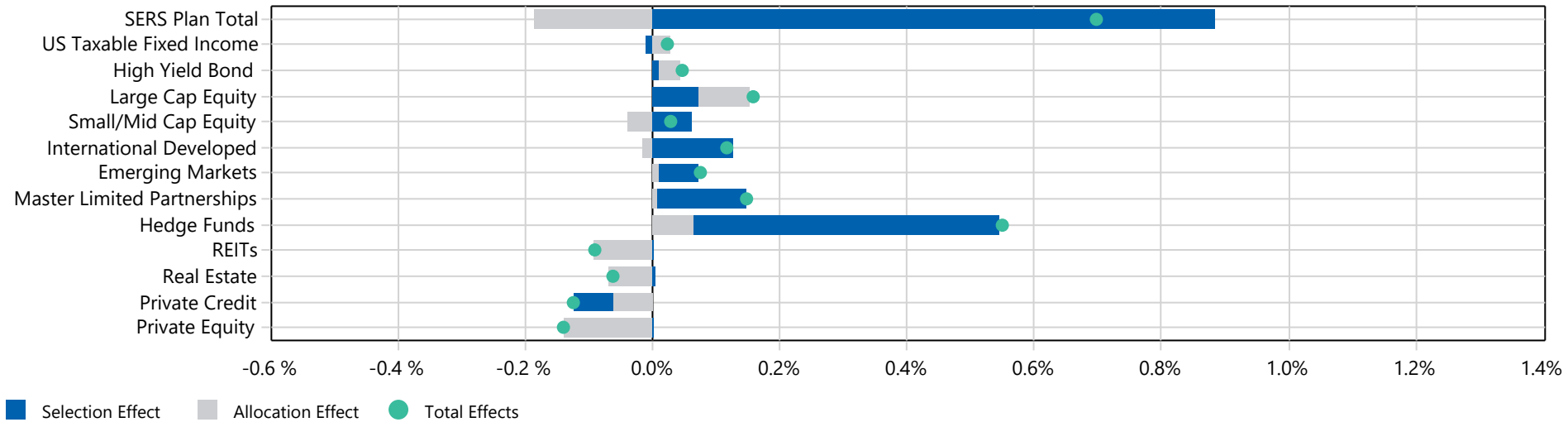
	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
Hedge Funds - Absolute Return	**11,109,549**	**3.01**	**3.54**	**11.48**	**11.48**	**5.29**	**3.30**	**4.16**	**4.81**	**-0.09**	**5.26**	**-4.26**	**8.05**	**-1.32**	**08/01/2012**
HFRX Absolute Return Index			0.78	4.86	4.86	2.87	2.69	2.34	2.95	0.85	2.10	2.72	4.37	-0.49	
Over/Under			2.75	6.62	6.62	2.42	0.62	1.81	1.86	-0.93	3.16	-6.98	3.69	-0.83	
Polar Long/Short Fund	10,609,549	2.87	3.46	11.34	11.34	5.86	6.73	5.34	3.23	3.22	3.25	13.07	8.49	0.24	10/01/2011
HFRI FOF: Conservative Index			1.49	6.60	6.60	4.01	5.21	3.97	5.48	0.08	7.62	6.47	6.30	-0.87	
Over/Under			1.96	4.74	4.74	1.85	1.52	1.37	-2.24	3.14	-4.37	6.60	2.19	1.10	
Millennium International LTD	500,000	0.14	-	-	-	-	-	0.00	-	-	-	-	-	-	12/01/2024
HFRI RV: Multi-Strategy Index			1.81	7.22	7.22	4.20	5.26	0.25	6.31	-0.73	7.03	6.69	5.29	-0.23	
Over/Under			-	-	-	-	-	-0.25	-	-	-	-	-	-	
Hedge Funds - Equity Hedge	**30,255,165**	**8.19**	**3.72**	**15.11**	**15.11**	**4.06**	**8.16**	**5.48**	**7.52**	**-8.95**	**5.57**	**24.46**	**13.35**	**-3.17**	**08/01/2012**
HFRX Equity Hedge Index			0.33	7.83	7.83	3.73	5.53	4.06	6.90	-3.18	12.14	4.60	10.71	-9.42	
Over/Under			3.39	7.28	7.28	0.34	2.63	1.43	0.62	-5.77	-6.57	19.86	2.64	6.24	
Weatherlow Offshore	25,122,185	6.80	3.75	15.14	15.14	4.12	8.18	5.10	7.51	-8.82	5.39	24.58	13.23	-3.10	04/01/2008
HFRI Fund of Funds Composite Index			2.06	9.14	9.14	3.11	5.23	2.70	6.07	-5.31	6.17	10.88	8.39	-4.02	
Over/Under			1.69	6.00	6.00	1.00	2.95	2.41	1.43	-3.52	-0.78	13.69	4.84	0.92	
WMQS Global Eq Ext Offshore	5,132,980	1.39	2.66	-	-	-	-	2.66	-	-	-	-	-	-	10/01/2024
HFRI Equity Hedge (Total) Index			1.35	11.87	11.87	3.84	8.07	1.35	11.37	-10.13	11.67	17.89	13.71	-7.14	
Over/Under			1.31	-	-	-	-	1.31	-	-	-	-	-	-	
Hedge Funds - Equity Return	**16,535,623**	**4.48**	**2.25**	**12.85**	**12.85**	**7.28**	**7.39**	**5.58**	**17.65**	**-7.00**	**18.54**	**-2.43**	**-0.08**	**-3.53**	**10/01/2013**
HFRX Event Driven Index			-0.12	3.74	3.74	-1.13	1.13	0.97	0.48	-7.27	0.48	8.89	9.96	-11.68	
Over/Under			2.37	9.11	9.11	8.41	6.26	4.61	17.17	0.27	18.05	-11.32	-10.05	8.15	
Beach Point Select Fund LP	14,152,724	3.83	2.40	8.76	8.76	4.07	7.05	6.86	11.89	-7.37	14.47	8.97	11.48	0.28	10/01/2013
HFRI ED: Distressed/Restructuring Index			3.37	12.05	12.05	4.98	8.38	5.11	7.86	-4.27	15.61	11.82	2.94	-1.70	
Over/Under			-0.97	-3.29	-3.29	-0.90	-1.33	1.76	4.03	-3.09	-1.15	-2.85	8.54	1.99	
Contrarian Capital Fund I LP	1,996,833	0.54	2.70	15.11	15.11	7.59	8.42	2.26	18.98	-9.06	29.86	-7.38	-9.89	-12.43	10/01/2018
HFRI ED: Distressed/Restructuring Index			3.37	12.05	12.05	4.98	8.38	6.15	7.86	-4.27	15.61	11.82	2.94	-1.70	
Over/Under			-0.67	3.07	3.07	2.61	0.04	-3.89	11.12	-4.79	14.25	-19.20	-12.83	-10.73	

As of December 31, 2024

	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
REITs	**8,587,432**	**2.33**	**-5.20**	**7.99**	**7.99**	**-3.25**	**4.34**	**8.00**	**11.96**	**-25.09**	**40.43**	**-2.75**	**31.26**	**-4.06**	**08/01/2012**
FTSE NAREIT All REITs Index			-8.23	4.33	4.33	-4.49	2.78	6.93	11.48	-25.10	39.88	-5.86	28.07	-4.10	
Over/Under			3.03	3.66	3.66	1.24	1.56	1.08	0.47	0.01	0.55	3.11	3.19	0.04	
Principal Global Investors REIT	8,587,432	2.33	-5.21	7.07	7.07	-3.13	4.26	10.40	13.38	-25.12	39.98	-3.17	31.24	-4.13	01/01/2003
FTSE NAREIT All REITs Index			-8.23	4.33	4.33	-4.49	2.78	8.81	11.48	-25.10	39.88	-5.86	28.07	-4.10	
Over/Under			3.02	2.74	2.74	1.36	1.48	1.60	1.90	-0.02	0.11	2.69	3.17	-0.03	
Real Estate Rank			16	34	34	18	25	1	22	22	68	27	15	15	
Private Investments	**35,397,698**	**9.58**	**3.45**	**8.85**	**8.85**	**4.51**	**2.39**	**6.56**	**2.27**	**2.55**	**-5.33**	**4.14**	**12.63**	**1.51**	**08/01/2012**
Real Estate	**20,237,715**	**5.48**	**1.07**	**4.91**	**4.91**	**4.36**	**4.78**	**8.68**	**1.41**	**6.84**	**14.08**	**-2.62**	**6.60**	**8.63**	**08/01/2012**
NCREIF ODCE VW NET			0.96	-2.27	-2.27	-3.14	1.99	6.30	-12.73	6.55	21.02	0.34	4.39	7.36	
Over/Under			0.11	7.18	7.18	7.50	2.79	2.38	14.14	0.30	-6.94	-2.96	2.21	1.26	
Morgan Stanley Prime Property Fund	6,384,410	1.73	0.54	-0.77	-0.77	0.59	4.59	5.46	-3.46	6.25	21.47	1.24	6.14	8.03	10/01/2007
NCREIF Fund Index-ODCE (VW) (Net)			0.96	-2.27	-2.27	-3.14	1.99	3.72	-12.73	6.55	21.02	0.34	4.39	7.36	
Over/Under			-0.42	1.50	1.50	3.73	2.60	1.74	9.27	-0.30	0.45	0.90	1.75	0.67	
IM U.S. Private Real Estate (SA+CF) Rank			62	33	33	12	19	18	14	45	52	29	45	41	
Morrison Street Fund VI	6,102,183	1.65	2.19	9.28	9.28	10.39	-	6.38	11.57	10.32	8.38	-	-	-	09/01/2020
NCREIF Property Index			0.90	0.43	0.43	-0.82	3.13	3.57	-7.94	5.52	17.70	1.60	6.42	6.72	
Over/Under			1.29	8.85	8.85	11.21	-	2.81	19.51	4.80	-9.32	-	-	-	
Morrison Street Fund VII	5,311,814	1.44	1.42	7.03	7.03	-	-	-0.71	5.01	-	-	-	-	-	12/01/2022
NCREIF Property Index			0.90	0.43	0.43	-0.82	3.13	-4.22	-7.94	5.52	17.70	1.60	6.42	6.72	
Over/Under			0.52	6.60	6.60	-	-	3.51	12.95	-	-	-	-	-	
Morrison Street Income Fund	2,439,308	0.66	-0.90	3.37	3.37	3.80	-	3.73	3.72	4.33	-	-	-	-	12/01/2021
NCREIF Property Index			0.90	0.43	0.43	-0.82	3.13	-0.16	-7.94	5.52	17.70	1.60	6.42	6.72	
Over/Under			-1.80	2.94	2.94	4.62	-	3.89	11.66	-1.20	-	-	-	-	
Private Credit	**6,265,446**	**1.70**	**-2.25**	**-33.60**	**-33.60**	**-10.33**	**-11.96**	**-0.35**	**23.26**	**-11.91**	**-37.21**	**16.83**	**22.49**	**-5.82**	**08/01/2012**
S&P UBS Leveraged Loan Index			2.29	9.02	9.02	6.84	5.72	5.09	13.04	-1.06	5.40	2.78	8.17	1.14	
Over/Under			-4.54	-42.62	-42.62	-17.16	-17.68	-5.44	10.22	-10.85	-42.61	14.06	14.32	-6.96	

	Allocation		Performance (%)												
	Market Value $	%	QTR	YTD	1 Year	3 Years	5 Years	Since Inception	2023	2022	2021	2020	2019	2018	Inception Date
OrbiMed Royalty Opportunities	229,046	0.06	-30.47	-54.69	-54.69	-15.74	-23.28	-7.28	30.22	1.40	-26.70	-39.39	3.96	22.10	06/01/2012
HFRI Fund of Funds Composite Index			2.06	9.14	9.14	3.11	5.23	4.26	6.07	-5.31	6.17	10.88	8.39	-4.02	
Over/Under			-32.53	-63.83	-63.83	-18.85	-28.51	-11.54	24.14	6.71	-32.87	-50.27	-4.43	26.12	
OrbiMed Royalty Opps II	51,387	0.01	-36.02	-69.15	-69.15	-29.55	-18.34	-4.47	8.33	4.63	-2.13	6.10	15.96	15.68	04/01/2015
HFRI Fund of Funds Composite Index			2.06	9.14	9.14	3.11	5.23	3.63	6.07	-5.31	6.17	10.88	8.39	-4.02	
Over/Under			-38.08	-78.29	-78.29	-32.66	-23.58	-8.09	2.26	9.94	-8.31	-4.78	7.58	19.70	
Blue Owl Asset Special Opp Fd TE IX LP	1,991,937	0.54	0.00	-	-	-	-	1.86	-	-	-	-	-	-	07/12/2024
Morningstar LSTA US Leveraged Loan 100			2.49	8.70	8.70	6.91	5.41	4.07	13.20	-0.68	3.54	2.84	10.65	-0.62	
Over/Under			-2.49	-	-	-	-	-2.21	-	-	-	-	-	-	
Apollo Debt Solutions	3,993,076	1.08	-	-	-	-	-	-0.17	-	-	-	-	-	-	11/20/2024
Morningstar LSTA US Leveraged Loan 100			2.49	8.70	8.70	6.91	5.41	0.77	13.20	-0.68	3.54	2.84	10.65	-0.62	
Over/Under			-	-	-	-	-	-0.95	-	-	-	-	-	-	
Master Limited Partnerships	**8,894,537**	**2.41**	**11.84**	**-**	**-**	**-**	**-**	**27.06**	**-**	**-**	**-**	**-**	**-**	**-**	**05/06/2024**
Alerian MLP Index			4.94	24.41	24.41	27.27	15.56	9.51	26.56	30.92	40.17	-28.69	6.56	-12.42	
Over/Under			6.90	-	-	-	-	17.55	-	-	-	-	-	-	
Tortoise Energy Infra Total Return Fund	8,894,537	2.41	11.84	42.91	42.91	25.85	14.62	28.45	14.19	22.13	40.81	-29.51	18.39	-15.14	05/06/2024
Alerian MLP Index			4.94	24.41	24.41	27.27	15.56	9.51	26.56	30.92	40.17	-28.69	6.56	-12.42	
Over/Under			6.90	18.50	18.50	-1.42	-0.94	18.94	-12.37	-8.79	0.64	-0.82	11.83	-2.72	

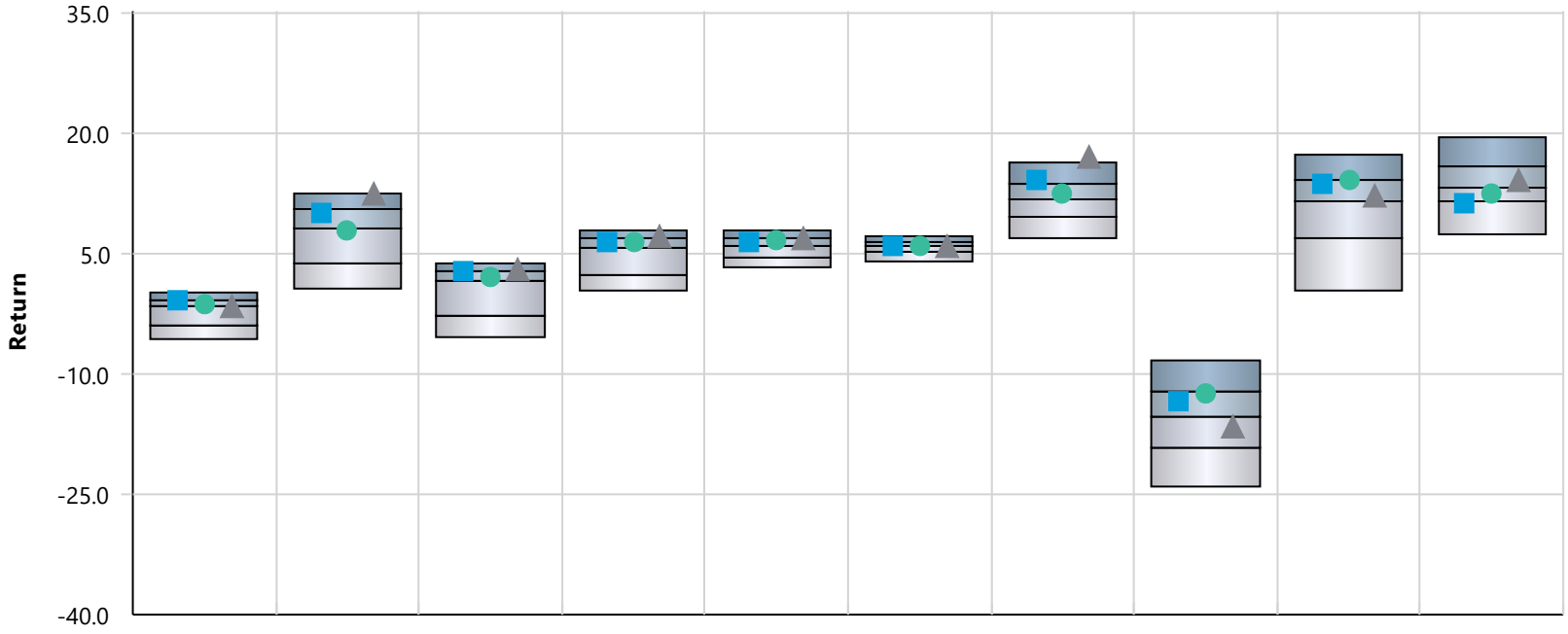
Attribution Effects



Attribution Summary

	Actual Weight (%)	Index Weight (%)	Wtd. Act Return (%)	Wtd. Idx Return (%)	Excess Return (%)	Selection Effect (%)	Alloc. Effect (%)	Total Effect (%)
US Taxable Fixed Income	19.0	21.0	-3.1	-3.1	0.0	0.0	0.0	0.0
High Yield Bond	6.4	4.0	0.4	0.2	0.2	0.0	0.0	0.0
Large Cap Equity	18.2	16.0	2.8	2.4	0.4	0.1	0.1	0.2
Small/Mid Cap Equity	8.8	9.0	1.4	0.6	0.8	0.1	0.0	0.0
International Developed	15.1	15.0	-7.3	-8.1	0.8	0.1	0.0	0.1
Emerging Markets	4.7	5.0	-6.7	-8.0	1.3	0.1	0.0	0.1
Master Limited Partnerships	2.3	2.0	11.8	4.9	6.9	0.1	0.0	0.1
Hedge Funds	16.7	14.0	3.1	0.2	2.9	0.5	0.1	0.6
REITs	2.4	0.0	-5.2	1.0	-6.2	0.0	-0.1	-0.1
Real Estate	5.3	8.0	1.1	1.0	0.1	0.0	-0.1	-0.1
Private Credit	1.0	3.0	-2.3	2.3	-4.5	-0.1	-0.1	-0.1
Private Equity	0.0	3.0	0.0	3.2	-3.2	0.0	-0.1	-0.1
SERS Plan Total	**100.0**	**100.0**	**-0.7**	**-1.4**	**0.7**	**0.9**	**-0.2**	**0.7**

Corporate and Public >250m and < $1Bil



	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	2023	2022	2021	2020
SERS Plan Total	**-0.7 (22)**	**10.0 (32)**	**2.8 (28)**	**6.6 (36)**	**6.4 (45)**	**6.0 (43)**	**14.1 (24)**	**-13.5 (34)**	**13.7 (31)**	**11.3 (77)**
Policy Index Updated	-1.4 (42)	8.0 (51)	2.1 (43)	6.4 (39)	6.6 (40)	6.1 (38)	12.4 (41)	-12.3 (27)	14.1 (26)	12.5 (64)
70/30 ACWI/Bloomberg Agg	-1.6 (50)	12.4 (5)	3.2 (17)	7.1 (22)	7.0 (26)	5.9 (47)	17.1 (3)	-16.6 (59)	12.2 (42)	14.3 (44)
5th Percentile	0.2	12.4	3.9	7.9	7.9	7.1	16.5	-8.3	17.3	19.6
1st Quartile	-0.9	10.5	2.9	7.0	7.0	6.4	13.8	-12.3	14.1	15.8
Median	-1.6	8.1	1.7	5.7	6.1	5.9	11.7	-15.3	11.5	13.3
3rd Quartile	-4.0	3.8	-2.8	2.5	4.4	5.2	9.7	-19.3	6.9	11.4
95th Percentile	-5.7	0.6	-5.5	0.4	3.2	4.1	6.8	-24.0	0.5	7.5
Population	248	245	234	226	193	123	331	366	429	466

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.

Non-Marketable Securities Overview

Partnerships	Vintage Year	Investment Strategy	Capital Commitment $	Drawn Down $	Distributed $	Market Value $	Remaining Commitment	% Funded	IRR (%)
Morrison Street Fund VI, LP	2020	Opportunistic Real Estate	$7,000,000	$6,667,973	$2,851,271	$5,684,756	$332,027	95.26	8.83

Time Weighted Returns

	Performance (%)							
	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception	Inception Date
Morrison Street Fund VI, LP	2.19	9.29	9.29	9.83	21.56	10.38	13.91	10/01/2020
NCREIF Property Index	0.90	0.43	0.43	-3.85	-0.82	-7.94	3.58	

Dollar Weighted Returns

	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception
Morrison Street Fund VI, LP	2.19	9.00	9.00	9.73	10.59	10.36	8.83

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in the value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview

Partnerships	Vintage Year	Investment Strategy	Capital Commitment $	Drawn Down $	Distributed $	Market Value $	Remaining Commitment	% Funded	IRR (%)
Morrison Street Income Fund	2021	Real Estate - Other	$2,760,307	$2,760,307	$707,954	$2,390,899	-	100.00	4.44

Time Weighted Returns

	Performance (%)							
	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception	Inception Date
Morrison Street Income Fund	-0.90	3.36	3.36	3.54	3.76	3.72	4.25	12/01/2021
NCREIF Property Index	0.90	0.43	0.43	-3.85	-0.82	-7.94	-0.16	

Dollar Weighted Returns

	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception
Morrison Street Income Fund	-0.90	3.39	3.39	3.54	4.35	3.68	4.44

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in the value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview

Partnerships	Vintage Year	Investment Strategy	Capital Commitment $	Drawn Down $	Distributed $	Market Value $	Remaining Commitment	% Funded	IRR (%)
Orbimed Royalty Opportunities	2011	Other	$5,000,000	$5,000,000	$4,707,114	$229,045	-	100.00	-0.32

Time Weighted Returns

	Performance (%)														
	1 Quarter	2024	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	2018	Since Inception	Inception Date
Orbimed Royalty Opportunities	-30.47	-54.69	-54.69	-15.74	-21.05	-14.74	-11.41	30.22	1.40	-32.47	-24.08	-12.50	22.03	-6.06	09/01/2011
HFRI Fund of Funds Composite Index	2.06	9.14	9.14	3.11	5.23	4.30	3.79	6.07	-5.31	6.17	10.88	8.39	-4.02	3.86	
S&P 500 Index	2.41	25.02	25.02	8.94	14.53	13.83	13.10	26.29	-18.11	28.71	18.40	31.49	-4.38	14.69	

Dollar Weighted Returns

	1 Quarter	2024	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	2018	Since Inception
Orbimed Royalty Opportunities	-25.67	-50.94	-50.94	-12.08	-18.79	-7.42	-3.88	30.22	3.30	-25.45	-23.36	-12.20	25.47	-0.32

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in the value with the average market value over the time interval. Average capital allows for the timing of each external flow.

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Non-Marketable Securities Overview

Partnerships	Vintage Year	Investment Strategy	Capital Commitment $	Drawn Down $	Distributed $	Market Value $	Remaining Commitment	% Funded	IRR (%)
Orbimed Royalty Opportunities II	2015	Other	$5,000,000	$4,167,500	$5,283,720	$51,387	$832,500	83.35	11.04

Time Weighted Returns

	Performance (%)											
	1 Quarter	2024	1 Year	3 Years	5 Years	2023	2022	2021	2020	2019	Since Inception	Inception Date
Orbimed Royalty Opportunities II	-36.02	-69.15	-69.15	-27.34	-16.49	8.33	14.80	-10.77	18.63	15.45	-3.41	04/01/2015
HFRI Fund of Funds Composite Index	2.06	9.14	9.14	3.11	5.23	6.07	-5.31	6.17	10.88	8.39	3.63	
S&P 500 Index	2.41	25.02	25.02	8.94	14.53	26.29	-18.11	28.71	18.40	31.49	13.35	

Dollar Weighted Returns

	1 Quarter	2024	1 Year	3 Years	5 Years	2023	2022	2021	2020	2019	Since Inception
Orbimed Royalty Opportunities II	-33.99	-64.76	-64.76	-12.02	1.11	7.84	13.49	0.14	6.40	17.10	11.04

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in the value with the average market value over the time interval. Average capital allows for the timing of each external flow.

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Non-Marketable Securities Overview

Partnerships	Vintage Year	Investment Strategy	Capital Commitment $	Drawn Down $	Distributed $	Market Value $	Remaining Commitment	% Funded	IRR (%)
Morrison Street Fund VII	2022	Opportunistic Real Estate	$6,000,000	$5,321,274	$331,695	$5,268,238	$678,726	88.69	5.84

Time Weighted Returns

	Performance (%)							
	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception	Inception Date
Morrison Street Fund VII	1.42	7.03	7.03	6.05	-	5.09	-0.68	12/01/2022
NCREIF Property Index	0.90	0.43	0.43	-3.85	-0.82	-7.94	-4.22	

Dollar Weighted Returns

	1 Quarter	2024	1 Year	2 Years	3 Years	2023	Since Inception
Morrison Street Fund VII	1.64	7.66	7.66	7.12	-	6.00	5.84

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in the value with the average market value over the time interval. Average capital allows for the timing of each external flow.

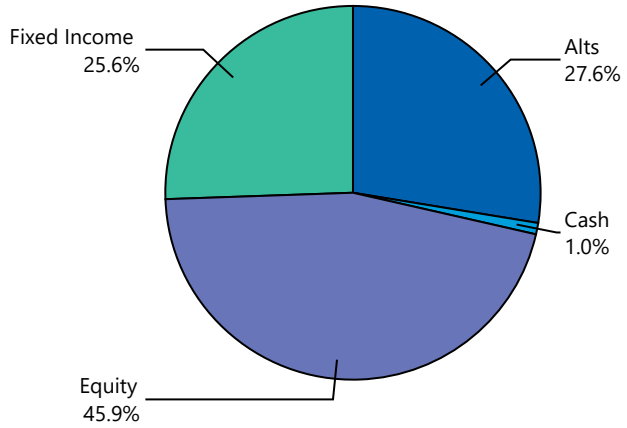
Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Fee Schedule

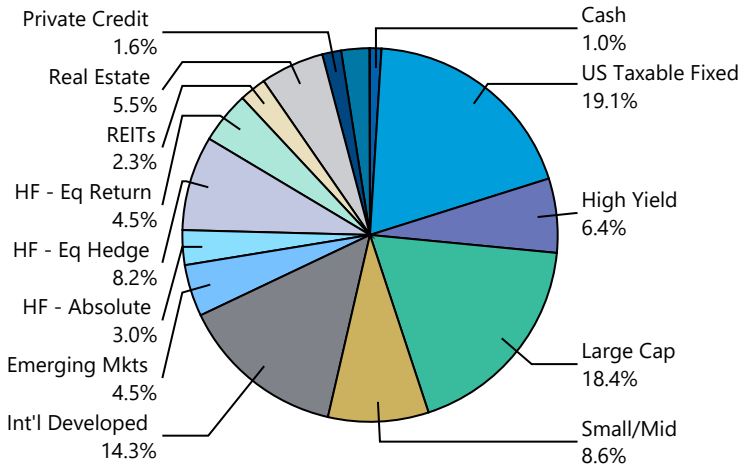
	Vehicle Type	Ticker	Universe Name	Market Value As of 12/31/2024 $	Net Expense Ratio (%)
Fidelity Instl Govt Money Market	Mutual Fund	FIGXX	Money Market-Taxable	$3,614,306	0.18
Segall Bryant Core Bond	Separate Account		Intermediate Core Bond	$38,427,518	0.25
Loomis Sayles Core Plus Fixed	Collective Investment Trust		Intermediate Core Bond	$32,262,671	0.18
Hotchkis & Wiley High Yield	Mutual Fund	HWHZX	High Yield Bond	$16,938,173	0.60
BlackRock High Yield CIT	Collective Investment Trust		High Yield Bond	$6,732,321	0.41
Boston Partners	Separate Account		Large Value	$5,104,647	0.28
SSGA S&P 500 Strategy Idx	Collective Investment Trust		Large Blend	$43,133,120	0.01
Columbia Dividend Income	Separate Account		Large Value	$5,133,877	0.30
SSGA Russell 1000 Growth	Collective Investment Trust		Large Growth	$14,658,788	0.01
SSGA Small/Mid Cap Index Fund	Collective Investment Trust		SMID Blend	$19,209,934	0.02
Allspring Special SCV	Collective Investment Trust		Small Value	$6,901,100	0.75
Earnest Partners S/M Core Eq	Separate Account		SMID Blend	$5,829,972	0.30
EuroPacific Growth R6	Mutual Fund	RERGX	Foreign	$15,728,085	0.47
Artisan Int'l Value	Mutual Fund	APHKX	Foreign Value	$16,619,970	0.97
Victory Trivalent Intl SC Collective Fund	Collective Investment Trust		Foreign Small/Mid Blend	$9,855,393	0.95
SSGA MSCI EAFE Index	Collective Investment Trust		Foreign Large Blend	$10,708,603	0.02
SSGA MSCI Emerging Markets	Collective Investment Trust		Diversified Emerging Mkts	$11,436,979	0.05
GQG Partners EM	Collective Investment Trust		Diversified Emerging Mkts	$4,582,324	0.83
Principal Global Investors REIT	Separate Account		Real Estate	$8,587,432	0.75
Tortoise Energy Infra Total Return Fund	Mutual Fund	TORIX		$8,894,537	0.93

Section 3 | Allocation Review

Current Allocation



Current Implementation Allocation



Implementation Review

	Target Alloc. $	Target Alloc. (%)	Min Alloc. (%)	Max Alloc. (%)	Asset Alloc. $	Asset Alloc. (%)	Difference $	Difference (%)	Within Range
SERS Plan Total	**$369,312,386**	**100.0**			**$369,312,386**	**100.0**		**0.0**	
Cash & Fixed Income	**$92,328,097**	**25.0**			**$97,974,989**	**26.5**	**$5,646,893**	**1.5**	
Cash		**0.0**	**0.0**	**10.0**	**$3,614,306**	**1.0**	**$3,614,306**	**1.0**	**Yes**
Fidelity Instl Govt Money Market					$3,614,306	1.0			
Fixed Income	**$92,328,097**	**25.0**	**10.0**	**40.0**	**$94,360,683**	**25.6**	**$2,032,587**	**0.6**	**Yes**
US Taxable Fixed Income					**$70,690,189**	**19.1**			
Segall Bryant Core Bond					$38,427,518	10.4			
Loomis Sayles Core Plus Fixed					$32,262,671	8.7			
Pimco Dynamic Bond Fund						0.0			
High Yield Bond					**$23,670,494**	**6.4**			
Hotchkis & Wiley High Yield					$16,938,173	4.6			
BlackRock High Yield Bond K						0.0			
BlackRock High Yield CIT					$6,732,321	1.8			
Total Equity	**$166,190,574**	**45.0**	**30.0**	**60.0**	**$169,451,930**	**45.9**	**$3,261,356**	**0.9**	**Yes**
Domestic Equity					**$99,971,438**	**27.1**			
Large Cap Equity					**$68,030,432**	**18.4**			
Boston Partners					$5,104,647	1.4			
SSGA S&P 500 Strategy Idx					$43,133,120	11.7			
Columbia Dividend Income					$5,133,877	1.4			
SSGA Russell 1000 Growth					$14,658,788	4.0			
Small/Mid Cap Equity					**$31,941,006**	**8.6**			
Sterling Mid Cap Value						0.0			
SSGA Small/Mid Cap Index Fund					$19,209,934	5.2			
Allspring Special SCV					$6,901,100	1.9			
Earnest Partners S/M Core Eq					$5,829,972	1.6			
International Equity					**$69,480,491**	**18.8**			
International Developed					**$52,912,051**	**14.3**			
EuroPacific Growth R6					$15,728,085	4.3			
Artisan Int'l Value					$16,619,970	4.5			
Victory Trivalent Intl SC Collective Fund					$9,855,393	2.7			
SSGA MSCI EAFE Index					$10,708,603	2.9			
Emerging Markets					**$16,568,441**	**4.5**			

As of December 31, 2024

	Target Alloc. $	Target Alloc. (%)	Min Alloc. (%)	Max Alloc. (%)	Asset Alloc. $	Asset Alloc. (%)	Difference $	Difference (%)	Within Range
ABS Emerging Markets Strategic					$549,137	0.1			
SSGA MSCI Emerging Markets					$11,436,979	3.1			
GQG Partners EM					$4,582,324	1.2			
Alternatives	**$110,793,716**	**30.0**	**0.0**	**45.0**	**$101,885,468**	**27.6**	**-$8,908,248**	**-2.4**	**Yes**
Hedge Funds					**$57,900,337**	**15.7**			
Hedge Funds - Absolute Return					**$11,109,549**	**3.0**			
Polar Long/Short Fund					$10,609,549	2.9			
Millennium International LTD					$500,000	0.1			
Hedge Funds - Equity Hedge					**$30,255,165**	**8.2**			
Weatherlow Offshore					$25,122,185	6.8			
WMQS Global Eq Ext Offshore					$5,132,980	1.4			
Hedge Funds - Equity Return					**$16,535,623**	**4.5**			
Beach Point Select Fund LP					$14,152,724	3.8			
Contrarian Capital Fund I LP					$1,996,833	0.5			
Contrarian Emerging Markets					$386,066	0.1			
REITs					**$8,587,432**	**2.3**			
Principal Global Investors REIT					$8,587,432	2.3			
Private Investments					**$35,397,698**	**9.6**			
Real Estate					**$20,237,715**	**5.5**			
Morgan Stanley Prime Property Fund					$6,384,410	1.7			
Morrison Street Fund VI					$6,102,183	1.7			
Morrison Street Fund VII					$5,311,814	1.4			
Morrison Street Income Fund					$2,439,308	0.7			
Private Credit					**$6,265,446**	**1.7**			
OrbiMed Royalty Opportunities					$229,046	0.1			
OrbiMed Royalty Opps II					$51,387	0.0			
Blue Owl Asset Special Opp Fd TE IX LP					$1,991,937	0.5			
Apollo Debt Solutions					$3,993,076	1.1			
Master Limited Partnerships					**$8,894,537**	**2.4**			
Tortoise Energy Infra Total Return Fund					$8,894,537	2.4			

Section 4 | Summary of Cash Flow

Financial Reconciliation

	Market Value As of 10/01/2024	Contributions	Distributions	Expenses	Net Flows	Return On Investment	Market Value As of 12/31/2024
SERS Plan Total	**374,001,680**	**46,301,541**	**-48,298,707**	**-24,849**	**-2,022,016**	**-2,692,127**	**369,312,386**
Cash & Fixed Income	**91,451,556**	**35,524,899**	**-27,015,397**	**-24,849**	**8,484,652**	**-1,986,069**	**97,974,989**
Cash	**1,055,784**	**29,524,899**	**-27,015,384**	**-24,849**	**2,484,665**	**49,007**	**3,614,306**
Fidelity Instl Govt Money Market	1,055,784	29,524,899	-27,015,384	-24,849	2,484,665	49,007	3,614,306
Fixed Income	**90,395,771**	**6,000,000**	**-13**		**5,999,987**	**-2,035,075**	**94,360,683**
US Taxable Fixed Income	**66,811,278**	**6,000,000**			**6,000,000**	**-2,121,089**	**70,690,189**
Segall Bryant Core Bond	39,518,293					-1,090,775	38,427,518
Loomis Sayles Core Plus Fixed	27,292,985	6,000,000			6,000,000	-1,030,314	32,262,671
High Yield Bond	**23,584,494**		**-13**		**-13**	**86,014**	**23,670,494**
Hotchkis & Wiley High Yield	16,876,572					61,601	16,938,173
BlackRock High Yield Bond K	13		-13		-13		
BlackRock High Yield CIT	6,707,908					24,413	6,732,321
Total Equity	**172,489,629**		**-60**		**-60**	**-3,037,639**	**169,451,930**
Domestic Equity	**97,655,314**		**-60**		**-60**	**2,316,185**	**99,971,438**
Large Cap Equity	**66,147,428**					**1,883,003**	**68,030,432**
SSGA S&P 500 Strategy Idx	42,119,961					1,013,159	43,133,120
SSGA Russell 1000 Growth	13,692,385					966,403	14,658,788
Boston Partners	5,144,409					-39,762	5,104,647
Columbia Dividend Income	5,190,674					-56,797	5,133,877
Small/Mid Cap Equity	**31,507,885**		**-60**		**-60**	**433,181**	**31,941,006**
Sterling Mid Cap Value	1		-60		-60	59	
SSGA Small/Mid Cap Index Fund	18,428,017					781,917	19,209,934
Allspring Special SCV	6,982,599					-81,498	6,901,100
Earnest Partners S/M Core Eq	6,097,269					-267,297	5,829,972
International Equity	**74,834,315**					**-5,353,824**	**69,480,491**
International Developed	**57,076,943**					**-4,164,893**	**52,912,051**
EuroPacific Growth R6	16,918,054					-1,189,969	15,728,085
Artisan Int'l Value	17,864,631					-1,244,662	16,619,970
Victory Trivalent Intl SC Collective Fund	10,644,037					-788,644	9,855,393
SSGA MSCI EAFE Index	11,650,222					-941,619	10,708,603
Emerging Markets	**17,757,372**					**-1,188,931**	**16,568,441**
ABS Emerging Markets Strategic	417,408					131,729	549,137

Quarter To Date Ending December 31, 2024

	Market Value As of 10/01/2024	Contributions	Distributions	Expenses	Net Flows	Return On Investment	Market Value As of 12/31/2024
SSGA MSCI Emerging Markets	12,394,443					-957,464	11,436,979
GQG Partners EM	4,945,521					-363,196	4,582,324
Alternatives	**110,060,495**	**10,776,642**	**-21,283,250**		**-10,506,608**	**2,331,580**	**101,885,468**
Hedge Funds	**71,071,920**	**5,500,000**	**-20,460,278**		**-14,960,278**	**1,788,695**	**57,900,337**
Hedge Funds - Absolute Return	**10,247,436**	**500,000**			**500,000**	**362,114**	**11,109,549**
Polar Long/Short Fund	10,247,436					362,114	10,609,549
Millennium International LTD		500,000			500,000		500,000
Hedge Funds - Equity Hedge	**24,213,060**	**5,000,000**			**5,000,000**	**1,042,105**	**30,255,165**
Weatherlow Offshore	24,213,060					909,126	25,122,185
WMQS Global Eq Ext Offshore		5,000,000			5,000,000	132,980	5,132,980
Hedge Funds - Equity Return	**36,611,425**		**-20,460,278**		**-20,460,278**	**384,476**	**16,535,623**
Beach Point Select Fund LP	15,795,158		-1,974,395		-1,974,395	331,961	14,152,724
Contrarian Capital Fund I LP	13,094,951		-11,150,634		-11,150,634	52,515	1,996,833
Contrarian Emerging Markets	7,721,316		-7,335,250		-7,335,250		386,066
REITs	**9,058,218**					**-470,786**	**8,587,432**
Principal Global Investors REIT	9,058,218					-470,786	8,587,432
Private Investments	**29,930,357**	**5,276,642**	**-822,972**		**4,453,670**	**1,013,671**	**35,397,698**
Real Estate	**19,430,020**	**1,276,642**	**-687,422**		**589,221**	**218,475**	**20,237,715**
Morgan Stanley Prime Property Fund	6,749,363		-401,457		-401,457	36,505	6,384,410
Morrison Street Fund VI	6,162,650		-191,152		-191,152	130,685	6,102,183
Morrison Street Fund VII	4,005,245	1,276,642	-43,576		1,233,066	73,503	5,311,814
Morrison Street Income Fund	2,512,763		-51,237		-51,237	-22,218	2,439,308
Private Credit	**2,547,614**	**4,000,000**	**-135,551**		**3,864,449**	**-146,617**	**6,265,446**
OrbiMed Royalty Opportunities	462,875		-124,653		-124,653	-109,176	229,046
OrbiMed Royalty Opps II	92,802		-10,898		-10,898	-30,517	51,387
Blue Owl Asset Special Opp Fd TE IX LP	1,991,937						1,991,937
Apollo Debt Solutions		4,000,000			4,000,000	-6,924	3,993,076
Master Limited Partnerships	**7,952,722**					**941,814**	**8,894,537**
Tortoise Energy Infra Total Return Fund	7,952,722					941,814	8,894,537

Section 5 | Definitions

As of December 31, 2024

Account Name	From Date	To Date	Benchmark
SERS Plan Total	03/01/2024	Present	21.000% Blmbg. U.S. Aggregate Index, 4.000% Blmbg. U.S. Corp: High Yield Index, 16.000% S&P 500 Index, 9.000% Russell 2500 Index, 15.000% MSCI EAFE (Net), 5.000% MSCI Emerging Markets (Net), 2.000% Alerian MLP Index, 14.000% HFRX Global Hedge Fund Index, 8.000% NCREIF ODCE VW NET, 3.000% S&P UBS Leveraged Loan Index, 3.000% CA Private Equity
	01/01/2023	03/01/2024	17.000% Blmbg. U.S. Aggregate Index, 8.000% Blmbg. U.S. Corp: High Yield Index, 5.000% HFRI FOF: Conservative Index, 16.000% S&P 500 Index, 8.000% Russell 2500 Index, 10.000% MSCI AC World ex USA (Net), 5.000% MSCI AC World ex USA Small Cap (Net), 5.000% MSCI Emerging Markets (Net), 9.000% HFRI Fund of Funds Composite Index, 8.000% HFRI ED: Distressed/Restructuring Index, 3.500% NCREIF ODCE VW NET, 3.500% FTSE NAREIT Comp REIT, 2.000% Alerian MLP Index
	03/01/2019	01/01/2023	10.000% Blmbg. U.S. Aggregate Index, 5.000% Blmbg. U.S. Corp: High Yield Index, 8.000% HFRI FOF: Conservative Index, 21.000% S&P 500 Index, 11.000% Russell 2500 Index, 15.000% MSCI AC World ex USA (Net), 4.000% MSCI AC World ex USA Small Cap (Net), 3.000% MSCI Emerging Markets (Net), 7.000% HFRI Fund of Funds Composite Index, 7.000% HFRI ED: Distressed/Restructuring Index, 6.000% NCREIF ODCE VW NET, 3.000% FTSE NAREIT Comp REIT
	10/01/2016	03/01/2019	10.000% Blmbg. U.S. Aggregate Index, 5.000% Blmbg. U.S. Corp: High Yield Index, 8.000% HFRI FOF: Conservative Index, 21.000% S&P 500 Index, 11.000% Russell 2500 Index, 15.000% MSCI AC World ex USA (Net), 4.000% MSCI AC World ex USA Small Cap (Net), 3.000% MSCI Emerging Markets (Net), 7.000% HFRI Fund of Funds Composite Index, 7.000% HFRI ED: Distressed/Restructuring Index, 9.000% NCREIF ODCE VW NET
	07/01/2010	10/01/2016	1.000% 1 Year U.S. Treasury Note, 5.000% Russell 2000 Index, 8.000% Russell Midcap Index, 34.000% S&P 500 Index, 15.000% Blmbg. U.S. Aggregate Index, 5.000% Blmbg. U.S. Corp: High Yield Index, 3.000% NCREIF Property Index, 17.000% MSCI AC World ex USA (Net), 3.000% FTSE NAREIT All REITs Index, 5.000% Blmbg. Global Aggregate Index, 4.000% S&P GSCI Composite TR Index
	01/01/2007	07/01/2010	1.000% 90 Day U.S. Treasury Bill, 5.000% Russell 2000 Index, 5.000% Russell Midcap Index, 34.000% S&P 500 Index, 13.000% Blmbg. U.S. Aggregate Index, 5.000% Blmbg. U.S. Corp: High Yield Index, 24.000% MSCI AC World ex USA (Net), 4.000% FTSE NAREIT All REITs Index, 6.000% Blmbg. Global Aggregate Index, 3.000% NCREIF Property Index

Statistic Definitions

Annualized Standard Deviation	A statistic used to measure the portfolio's volatility. A statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.
Downside / Upside Deviation	Standard deviation makes no distinction between the “good” or upside deviations, and the “bad” or downside deviations. Both upside and downside deviations have an equal influence on the calculation of standard deviation. Downside deviation seeks to remedy this by ignoring all of the “good” observations and by instead focusing on the “bad” returns. Conversely, Upside deviation ignores all of the "bad" observations and instead focuses on the "good" returns.
Alpha	Measures the relationship between the portfolio performance and the performance of another or benchmark index and equals the excess return while the other portfolio or benchmark index is zero.
Beta	Measures the systematic market risk and is equal to the change in portfolio performance in relation to the change in portfolio performance/index performance.
R-Squared	The "goodness of fit" to a benchmark. The percentage of a manager's return that is "explained" by the benchmark
Tracking Error	Tracking Error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking Error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.
Information Ratio	The Information Ratio is a measure of the risk-adjusted return of a financial security (or asset or portfolio). It is defined as expected active return divided by tracking error, where active return is the excess return and tracking error is the annualized standard deviation of the excess returns.
Sharpe Ratio	Sharpe Ratio is a measure of the excess return per unit of risk in an investment asset or a trading strategy. A higher Sharpe ratio indicates you are receiving more return for the level of risk taken.
Downside Capture Ratio	Measures manager's performance in down markets relative to a particular benchmark. A down- market is defined as those periods (months or quarters) in which market return is < 0.
Upside Capture Ratio	Measures manager's performance in up markets relative to a particular benchmark. An up-market is defined as those periods (months or quarters) in which market return is > 0.
Annualized Excess Return over Risk Free	Difference between the portfolio and the risk-free benchmark's return, annualized.
Annualized Actives Return	Difference between the portfolio and the benchmark's return, annualized
Correlation	A statistic that measures the degree to which two data series move in relation to each other. The higher the correlation the more the data series move in tandem. Correlation ranges from +1 (perfect correlation), to -1 (perfect negative correlation), with zero indicating no correlation at all.

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The underlying fund's internal expenses (also known as the expense ratio) generally covers investment management fees, marketing, and distribution fees (also known as 12b-1 fees) and other operating expenses of the fund. The expense ratios being displayed for mutual funds reflect each fund's prospectus "net" expenses as provided by Morningstar. Such "net" expenses are subject to change and may increase at any time.

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Performance data quoted is historical. Past performance does not guarantee future results. Current performance may be higher or lower than the performance quoted. You can obtain performance data current to the most recent month-end for each fund by visiting the fund company website. The investment return and principal value of an investment will fluctuate such that an investor's shares, when redeemed, may be worth more or less than their original cost. Total

returns include reinvestment of dividends and capital gains and are net of all fund fees and expenses.

Performance figures are based on Net Asset Value (NAV) within a qualified retirement plan. If an individual were to purchase shares outside of a qualified plan, they would likely be subject to all, or a portion of, any applicable sales charges. These charges would lower the performance indicated above.

Each fund's performance may, from time to time, have been affected significantly by material market and economic conditions, including interest rates, market trends, and general business and economic cycles, which may or may not be repeated in the future. Also, keep in mind that any double-digit returns are highly unusual and cannot be sustained. Such returns are primarily achieved during favorable market conditions.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns include the reinvestment of all dividends, but do not reflect the payment of transaction costs, advisory fees or expenses that are associated with an investment. The indices selected by Hyas Group to measure performance are representative of broad asset classes. Hyas Group retains the right to change representative indices at any time. Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment a client selects. Past performance does not guarantee future results.

The "Investment Policy Statement Compliance Report" indicates funds that are on the Plan's Watch List, as based on investment monitoring criteria which is provided to Hyas Group by the plan sponsor. The plan sponsor should inform its Hyas Group Consultant of any changes to the plan's investment policy.

Fund data provided by Morningstar.

Peer Groups. Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a clients investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics. All Peer Group data are provided by Investment Metrics, LLC. The URL below provides all the definitions and methodology about the various Peer Groups https://www.invmetrics.com/style-peer-groups

Peer Group Ranking Methodology. A percentile rank denotes the value of a product in which a certain percent of observations falls within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value. The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

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