



# Quarterly Investment Performance Analysis

Wyoming State Treasurer's Office

Period Ended: December 31, 2023





## Memorandum

To	Wyoming State Loan and Investment Board
From	RVK, Inc.
Subject	Investment Performance Analysis – Summary of Contents
Date	December 31, 2023

To assist in your review of the Investment Performance Analysis for the quarter ended December 31, 2023, we have provided below an outline and summary of the information contained within each section of this report.

### MEMORANDUM – Investment Performance Analysis Commentary

- This two-page memo provides a written summary of significant observations regarding performance of the State’s Funds and an overview of performance during the quarter for each of the State’s asset classes.

### TAB 1 – Market Environment

- This section is intended to review capital markets in general (i.e. not specific to Wyoming), and includes a written summary of events during the quarter, including economic influences and review of equity and bond markets as a whole. This section also includes various charts and exhibits displaying key characteristics of major market indices representing the broad range of available asset classes, including alternative investments such as absolute return and real estate. Also included is an asset class summary that describes the structure of each of the State’s composites. Lastly, this section includes a review of the benchmarks referenced within the quarterly report.

### TAB 2 – Total Fund

- This section provides an overview of all of the State’s investments, both permanent and non-permanent. Exhibits include an outline of the aggregate asset allocation – by manager, by investment fund, by asset class, and compared to peers. This section also includes Total Fund performance compared to other plan sponsors and highlights the risk and return profile of the State.

### TAB 3 – Investment Funds

- This section details the asset allocation versus target of each of the State’s investment funds. In addition, a summary page highlighting the performance of each fund compared to the respective total fund index is included.

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#### **TAB 4 – Total Equity**

- This section summarizes the State’s allocation to traditional equity managers – both domestic and international – and details the performance of each manager versus both their corresponding benchmark as well as their direct peer universe. Attribution pages are also incorporated, which outline the allocation by sector (or region) for each sub-composite and the corresponding performance.

#### **TAB 5 – Alternative Assets**

- This section includes allocation and performance information for the State’s alternative investments, which include real estate, absolute return, and private equity strategies.

#### **TAB 6 – Total Fixed Income**

- Similar to the equity section, this section summarizes the allocation to and performance of each of the State’s fixed income managers, including the internally managed portfolio. Characteristics pages are also included for each sub-composite.

#### **TAB 7 – Cash and Cash Equivalents**

- This two-page summary outlines the performance of the State’s cash portfolios compared to current T-Bill rates and a custom blended index for JP Morgan.

#### **Tab 8 – Investment Manager Profile Pages**

- This section contains a number of portfolio characteristic pages for the State’s investment managers, including historical strategy performance prior to the State’s investment. These pages include such characteristics as risk, upside/downside capture, market capitalization, allocation by sector and more.

#### **TAB 9 – Investment Policy Objective Review**

- The section provides a compliance check for the Total Fund, and for each individual manager portfolio, versus the guidelines and expectations outlined in the State’s Master Investment Policy and Sub-Policies.

#### **APPENDIX**

- The appendix includes a glossary, providing definitions and other information on data included throughout the report, including financial terms and ratios, indices, and peers groups. The addendum page in the appendix includes important comments specific to Wyoming regarding market value, performance, and allocation information provided throughout the report.

# WYOMING STATE TREASURER'S OFFICE

*FOURTH QUARTER 2023*

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## Memorandum

To	Wyoming State Loan and Investment Board
From	RVK, Inc.
Subject	Investment Performance Analysis Commentary
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Outlined below please find a summary of significant observations regarding performance of the State's Funds for the quarter ended December 31, 2023. We hope this summary will facilitate your review of our Investment Performance Analysis Report.

The Total Fund returned 5.1%, net of fees, during the quarter as all major asset classes, excepting real estate, posted strong positive returns. Long-term performance for the Total Fund remains strong, with the State earning returns of 5.3% and 4.7% per annum over the trailing seven- and ten-year periods.

Each of the State's permanent fund investment pools tracked their respective benchmarks during the quarter, cumulatively returning 5.7%. The State's non-permanent generated 3.3%. Overall, both the permanent and non-permanent funds largely tracked their benchmarks.

The US 10-year Treasury yield fell 71 basis points during the quarter to end the year at 3.9%, matching its yield at the start of the year. The Bloomberg US Aggregate Bond Index gained 6.8% in Q4 and 5.5% for the calendar year. The State's core fixed income managers tracked the broad market index, trailing by 36 basis points, collectively returning 6.46%. Emerging Market Debt and Long Duration Fixed Income sectors provided strong positive returns for the quarter. Low Duration Fixed Income bet the benchmark by 7 basis points.

Following negative returns in Q3, US equity ended the year on a high note, with the Russell 3000 returning 12.1% in Q4 and 26.0% for the calendar year. Stocks in the high beta, growth, and quality factor groups performed best in 2023, according to data S&P Global. The State's All Cap Domestic Equity composite provided a 11.66% return, tracking the benchmark within a few basis points, and the Small Cap composite returned 12.96%, trailing the Russell 2000 Index by 103 basis points.

Emerging market equities lagged developed markets in Q4. Value stocks outperformed their growth counterparts, and small-cap outperformed large-cap. Within China, despite a reported uptick in economic growth for Q3 and continued stimulus, The MSCI China Index remained in negative territory. The State's International Equity composite returned 9.83% over the quarter. Harding Loevner led in performance during the quarter, generating 11.24% and Arrowstreet ended the year strongly with 22.21% returns.

MLPs generated 4.31% for the period. Both the active and passive Harvest funds trailed the custom benchmark, with the passive fund outpacing the active during the quarter, 4.89% to



3.84%. Cohen & Steers Preferred Stock outpaced the Preferred Stock Custom Index by 0.43%, with 7.15% for the quarter.

In Q4, core private real estate generated a negative return of -4.8%, as reported by the NFI-ODCE Index, with the total return comprising of 1.0% from income and -5.8% from price appreciation. The State's core real estate composite earned -3.81% during the quarter, outperforming the NCREIF ODCE Index by 1.19%. Clarion and UBS returned -4.53% and -4.15%, each exceeding the benchmark, while MS Prime returned -2.20%, leading the benchmark by 2.80%.

Diversified hedge funds finished the quarter returning 2.65%, underperforming the HFRI FOF Composite Index by 0.50%. Grosvenor Diversified Hedge Funds and Internal Diversified Hedge Funds returned 3.35% and 2.18%, respectively. The Infrastructure Composite was significantly positive, returning 8.34%, outperforming the benchmark by 6.37%. This was led by a strong return in the Grosvenor E fund, 11.19%.

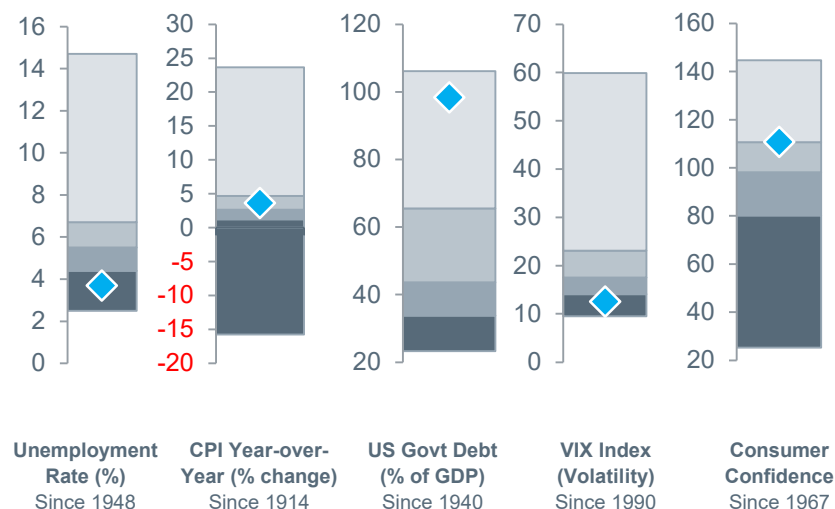
# Capital Markets Review



**Fourth Quarter Economic Environment**

In Q4, most risk assets rebounded from subdued conditions in the previous quarter to finish the year with significant positive returns—a stark turnaround compared to performance in 2022. For instance, the MSCI All Country World Index, a broad measure of the global stock market, returned 22.2% in 2023 compared to returns of -18.4% in 2022. Fixed income markets also ended the year firmly in positive territory. Despite the positive market performance, some recent indicators of economic activity have provided investors reason for caution. For example, commodity prices and energy stocks broadly declined amidst slowing inflation. The manufacturing Purchasing Managers' Index (PMI) remained in contractionary territory throughout the year. However, other economic indicators were more positive, with the services PMI remaining in expansionary territory and corporate earnings proving more resilient than expected. The labor market remained healthy as the unemployment rate finished the year at 3.7%. The Dec. Consumer Price Index (CPI) report showed a higher than expected uptick in monthly inflation and annual inflation of 3.4%. The annual level represents a significant drop compared to the CPI measure of 6.5% in Dec. 2022. The Federal Open Market Committee (FOMC) anticipates further progress in bringing inflation down to target levels, with the current forecast for their preferred inflation measure, the PCE Price Index, projecting a decline to 2.4% by the end of 2024.

**Key Economic Indicators**



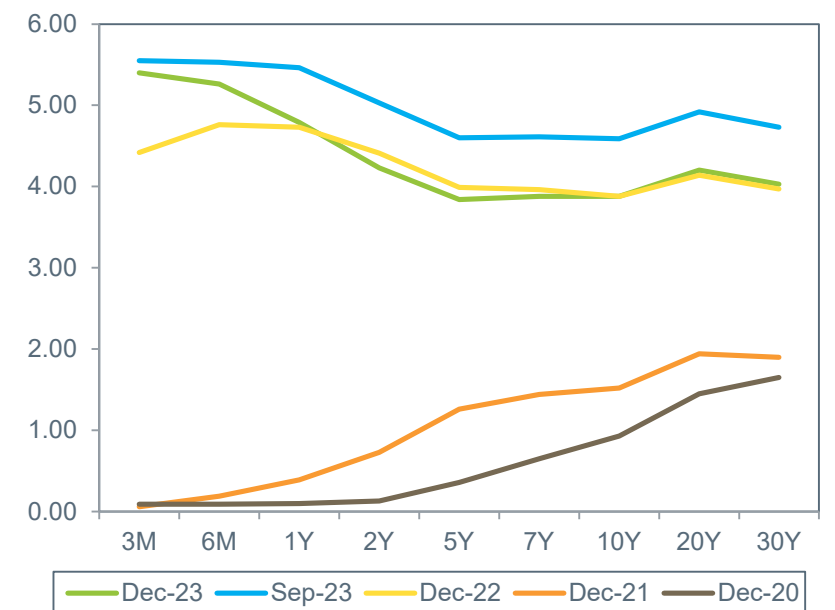
**Economic Indicators**

	Dec-23	Sep-23	Dec-22	Dec-20	20 Yr
Federal Funds Rate (%)	5.33	—	5.33	4.33	0.09
Breakeven Infl. - 5 Yr (%)	2.14	▼	2.25	2.38	1.97
Breakeven Infl. - 10 Yr (%)	2.17	▼	2.34	2.30	1.99
CPI YoY (Headline) (%)	3.4	▼	3.7	6.5	1.4
Unemployment Rate (%)	3.7	▼	3.8	3.5	6.7
Real GDP YoY (%)	3.1	▲	2.9	0.9	-1.5
PMI - Manufacturing	47.2	▼	49.0	48.4	60.5
USD Total Wtd Idx	118.77	▼	122.77	121.40	111.33
WTI Crude Oil per Barrel (\$)	71.7	▼	90.8	80.3	48.5
Gold Spot per Oz (\$)	2,068	▲	1,872	1,824	1,898

**Market Performance (%)**

	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	11.69	26.29	26.29	15.69	12.03
Russell 2000	14.03	16.93	16.93	9.97	7.16
MSCI EAFE (Net)	10.42	18.24	18.24	8.16	4.28
MSCI EAFE SC (Net)	11.14	13.16	13.16	6.58	4.80
MSCI Emg Mkts (Net)	7.86	9.83	9.83	3.68	2.66
Bloomberg US Agg Bond	6.82	5.53	5.53	1.10	1.81
ICE BofAML 3 Mo US T-Bill	1.37	5.02	5.02	1.88	1.25
NCREIF ODCE (Gross)	-4.83	-12.02	-12.02	4.25	7.29
FTSE NAREIT Eq REIT (TR)	16.22	13.73	13.73	7.39	7.65
HFRI FOF Comp	3.41	6.35	6.35	5.14	3.25
Bloomberg Cmnty (TR)	-4.63	-7.91	-7.91	7.23	-1.11

**Treasury Yield Curve (%)**





Fourth Quarter Review

Broad Market

Following negative returns in Q3, US equity ended the year on a high note, with the Russell 3000 returning 12.1% in Q4 and 26.0% for the calendar year. Performance was driven by a group of the largest, growth-oriented companies commonly referred to as the "Magnificent 7." Stocks in the high beta, growth, and quality factor groups performed best in 2023, according to data from S&P Global. However, value and momentum factors also provided significant absolute returns during the year.

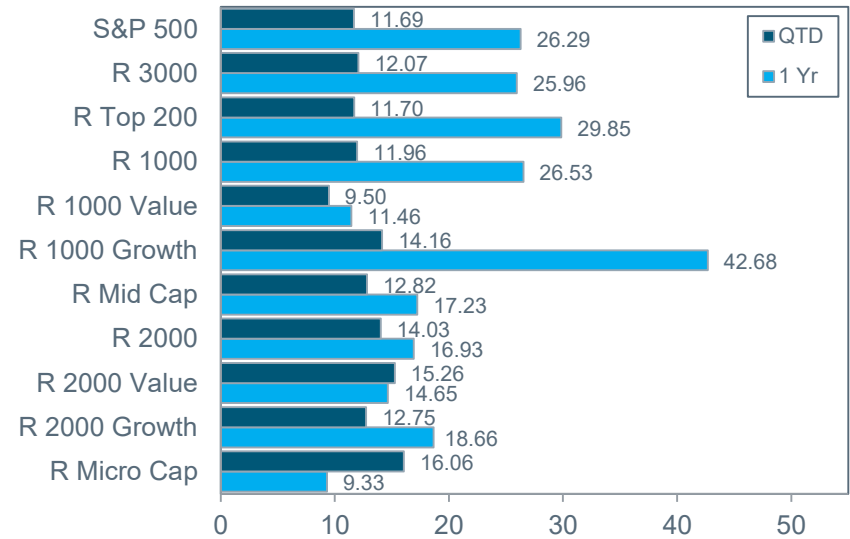
Market Cap

Although small cap stocks fared better than large cap stocks in Q4, they finished the year with a lower calendar year return of 16.9% versus 26.5% for large cap stocks, as measured by the Russell 2000 and Russell 1000, respectively.

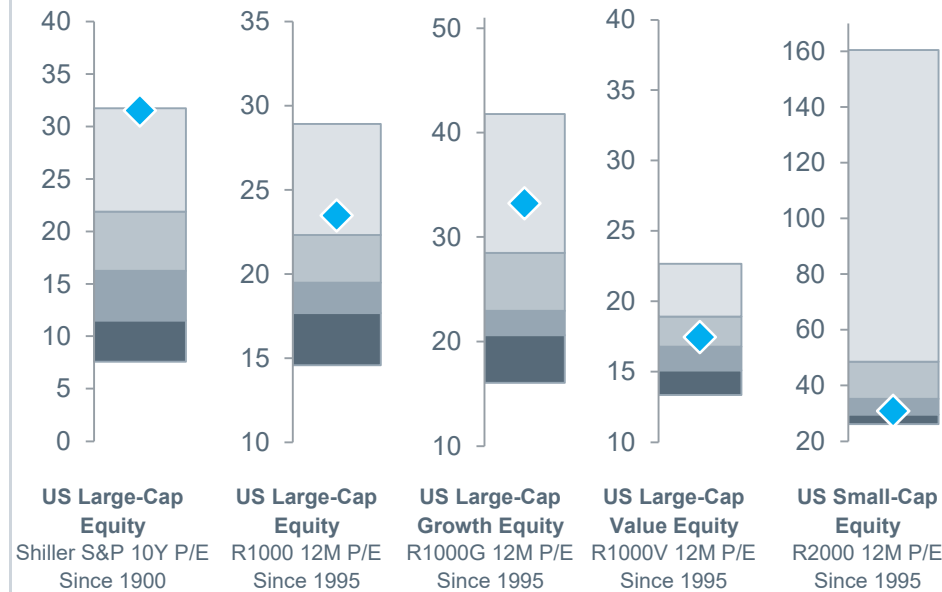
Style and Sector

Across active managers, median peer group performance suggests that many strategies did not outperform their respective benchmarks for Q4 and the calendar year. Given the strong returns delivered by growth indexes, growth-oriented managers generally had lower rates of success. In contrast, value-oriented managers were relatively more effective in providing excess returns compared to their benchmarks.

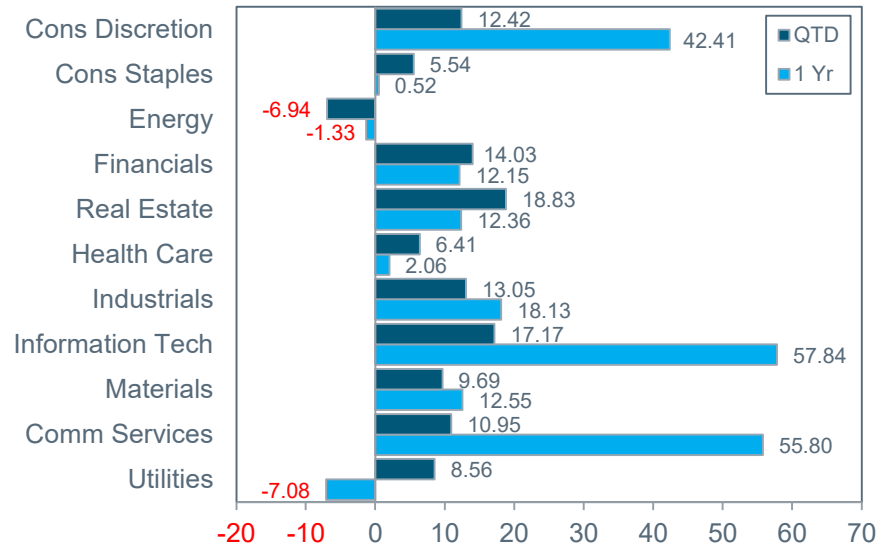
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



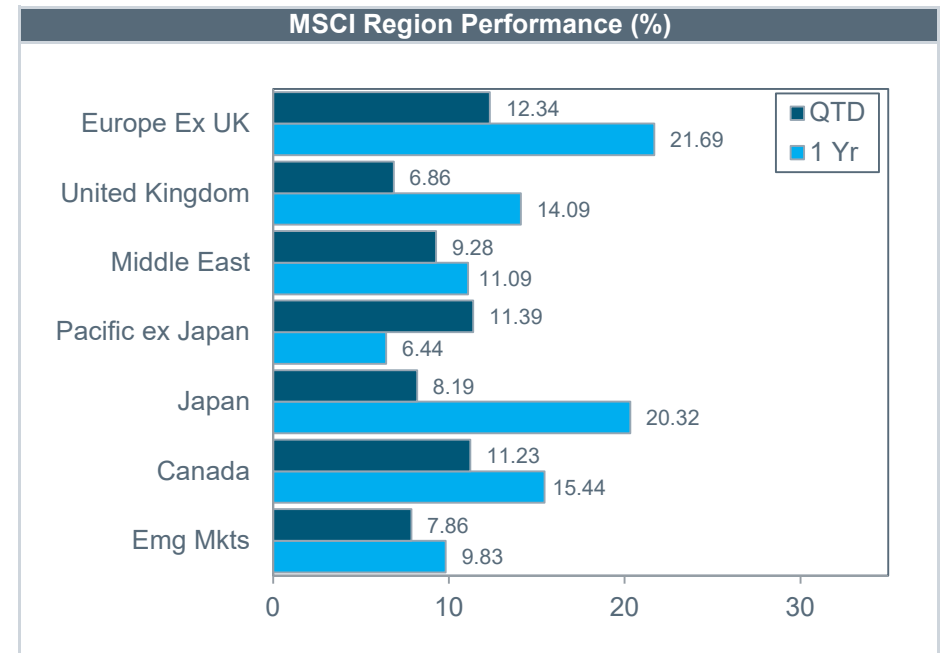
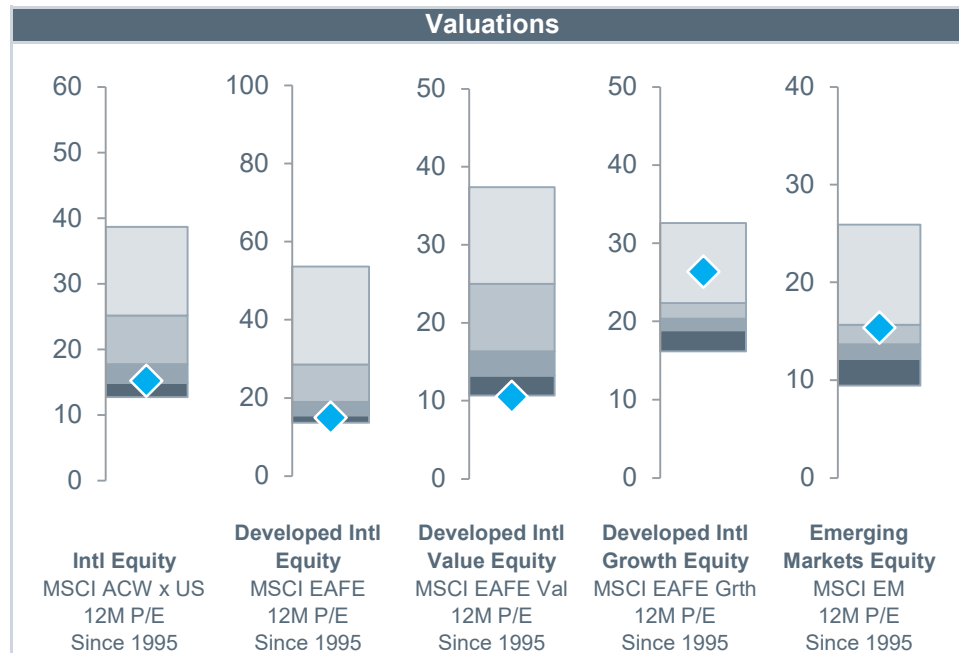
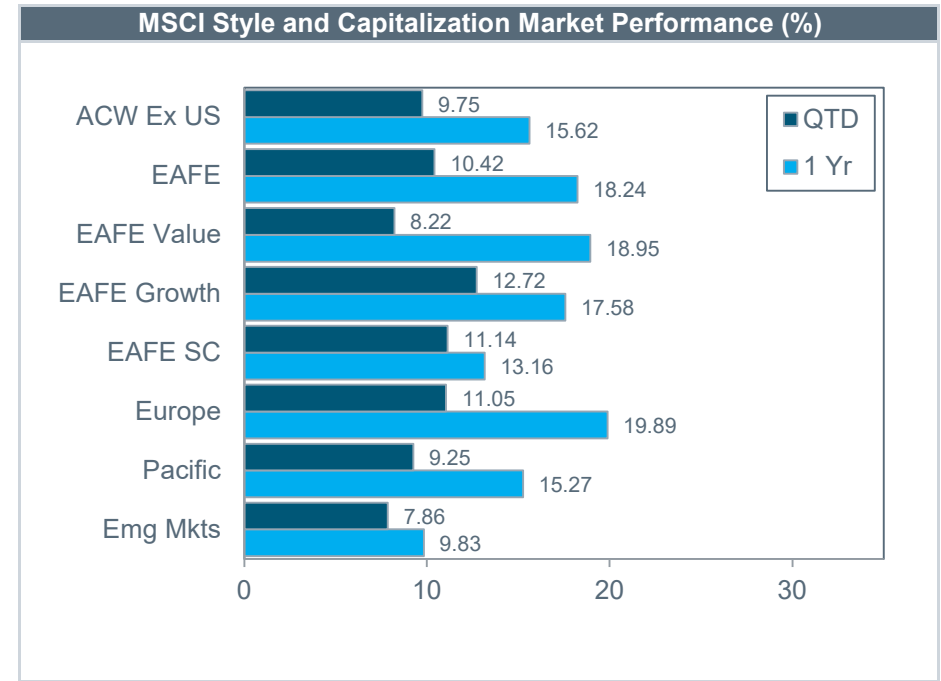
Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

### Fourth Quarter Review

**Developed Markets**  
 Developed international markets trailed their US counterparts in Q4. Growth stocks outperformed value stocks during the quarter; however, value outpaced growth for the calendar year.

**Emerging Markets**  
 Emerging market equities lagged developed markets in Q4. Value stocks outperformed their growth counterparts, and small-cap outperformed large-cap. Within China, despite a reported uptick in economic growth for Q3 and continued governmental stimulus, the MSCI China Index remained in negative territory in Q4 as investor sentiment remain muted. The majority of active emerging market managers outperformed their benchmarks for the quarter and the calendar year.

**Market Cap & Style**  
 All developed market sectors delivered positive absolute performance during the quarter except for energy, which had a negative return in Q4 in spite of initially rallying following the start of the Israel/ Hamas war in October. Despite continued pledges of production cuts by OPEC, weak results were driven by waning global demand, moderating inflation, and a mild European winter. The European Central Bank and Bank of England have both pushed back against near-term rate cuts as the Eurozone continues to see persistently high price and wage growth.



Valuation data courtesy of Bloomberg Professional Service.  
 P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.  
 All returns are shown net of foreign taxes on dividends.



**Fourth Quarter Review**

**Broad Market**

The fixed income market surged in Q4, fueled by moderating economic data, cooling inflation, and investor expectations for more accommodative FOMC policy, along with an increased likelihood of a soft landing for the US economy. The Bloomberg US Aggregate Bond Index gained 6.8% in Q4 and 5.5% for the calendar year. The US 10-year Treasury yield fell 71 basis points during the quarter to end the year at 3.9%, matching its yield at the start of year. Longer duration assets responded to the rate environment and the potential for rate cuts in 2024 with sharply positive results in Q4.

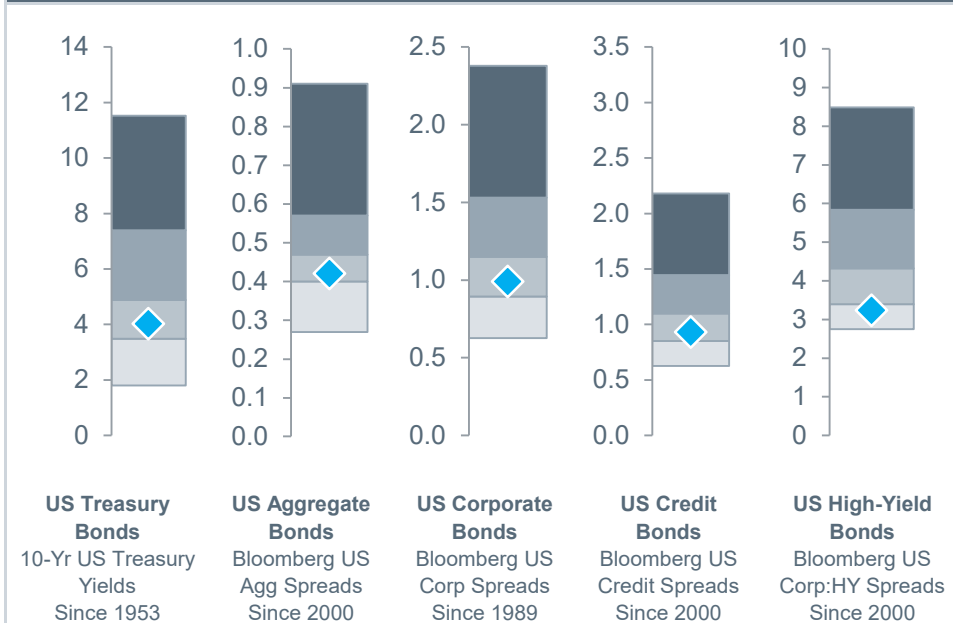
**Credit Market**

Across plus sectors, spreads tightened and risk assets rallied amid falling rates. The Bloomberg US Corporate Investment Grade Index returned 8.5% in Q4 and 8.5% for the calendar year, while the Bloomberg US Corporate High Yield Index returned 7.2% in Q4 and 13.5% for the calendar year.

**Emerging Market Debt**

Emerging market debt experienced a robust rally in Q4. The JPMorgan EMBI Global Diversified Index, which follows hard currency emerging markets, returned 9.2% in Q4 and 11.1% for the calendar year. The JPMorgan GBI-EM Global Diversified Index, reflecting local currency emerging markets, gained 8.1% in Q4 and 12.7% for the calendar year.

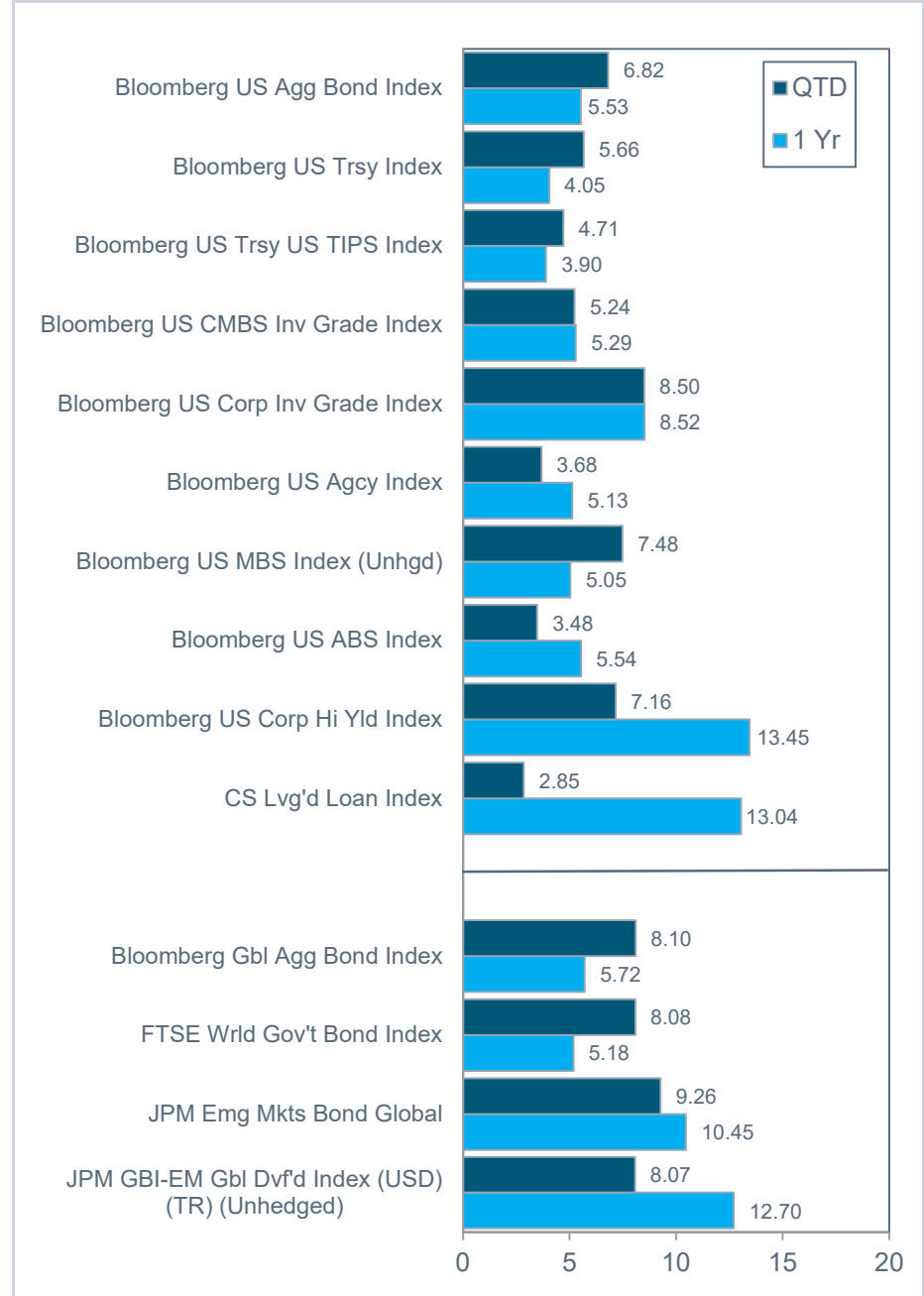
**Valuations**



Valuation data courtesy of Bloomberg Professional Service.

Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

**Fixed Income Performance (%)**



**Fourth Quarter Review - Absolute Return**

**General Market - Hedge Funds**

In Q4, results were more mixed amidst a broad market rally. Credit Arbitrage, Equity Activist, and Directional Quant peer groups indicated the highest returns while most other strategy groups posted modest single-digit gains. Due to the combination of rising equity markets and a reasonable short selling environment supported by elevated rates, both long-biased and market neutral Long/Short Equity managers generated strong market capture despite generally limited exposure to the "Magnificent 7" stocks. Income-oriented strategies provided attractive returns for the first time in years, as managers took advantage of elevated interest rates. Additionally, rates volatility created opportunity for relative value trading.

**General Market - Global Tactical Asset Allocation (GTAA)**

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely posted significant gains in Q4. However, nearly all active managers underperformed a US-centric 60/40 blend of equity and fixed income both in Q4 and for the calendar year. The top-performing long-biased GTAA strategies in Q4 featured higher allocations to US equities and exposure to the technology sector. Underperforming managers tended to have larger emerging markets exposure and significant value tilts.

**Fourth Quarter Review - Real Assets**

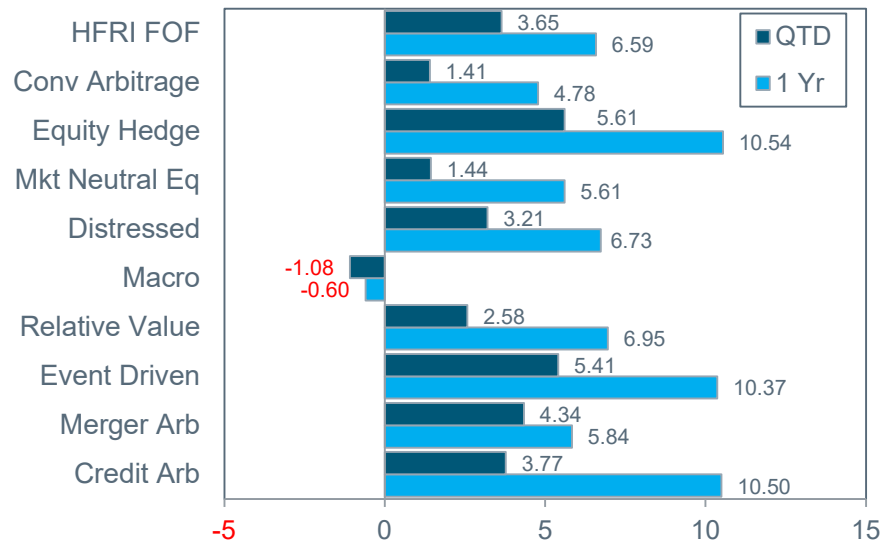
**General Market - Diversified Inflation Strategies (DIS)**

Diversified Inflation Strategy managers tracked closely by RVK reported positive performance. Managers that had larger exposures to listed infrastructure and real estate equities outperformed peers most significantly, while those with larger exposure to the energy and agriculture commodity sector tended to underperform peers.

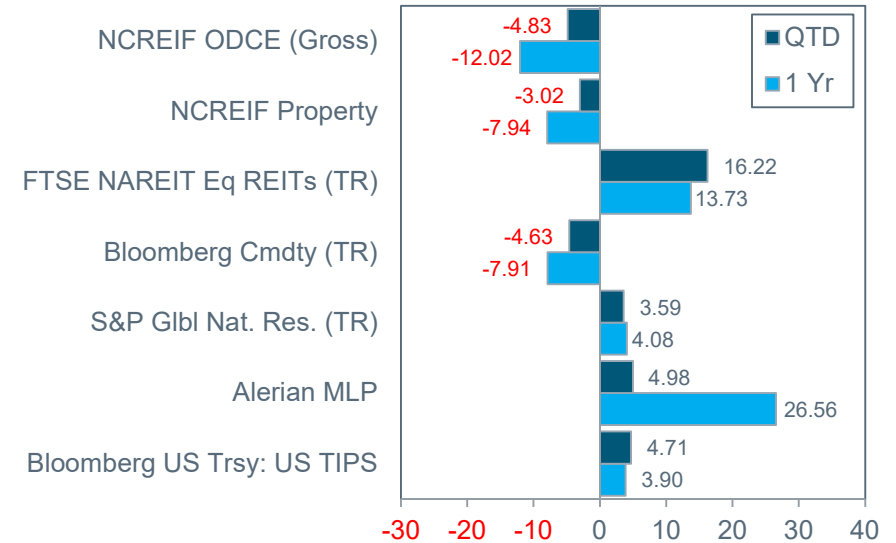
**General Market - Real Estate**

In Q4, core private real estate generated a negative return of -4.8% (on a preliminary and gross of fee basis), as reported by the NFI-ODCE Index, with the total return comprising of 1.0% from income and -5.8% from price appreciation. The income return improved slightly on a percentage basis from the prior quarter, but continues to trend at the lower end of historical levels due to elevated borrowing costs and expenses. Publicly traded real estate outperformed private market counterparts, delivering returns of 17.6% in Q4 as measured by the FTSE/NAREIT All REITs Index. Private real estate markets continued to experience similar trends as the prior five quarters. Significant headwinds persisted due to lingering disruptions in capital markets from 2022.

**HFRI Hedge Fund Performance (%)**



**Real Asset Performance (%)**



	2015	2016	2017	2018	2019	2020	2021	2022	CYTD (As of 12/23)	Sharpe Ratio		Annualized Statistics (02/2006 - 12/2023)				
										Asset Class	Historical 10 Years Sharpe Ratio	Forecasted Sharpe Ratio	Return	Standard Deviation	Sharpe Ratio	
Best	15.02	21.95	27.19	10.40	31.49	21.68	39.92	26.26	26.29	S&P 500 Index - US Large Cap	0.75	0.19	S&P 500 Index - US Large Cap	9.90	15.47	0.60
	6.01	21.31	21.83	8.35	25.53	19.96	39.33	7.47	20.23	Russell 2000 Index - US Small Cap	0.38	0.16	Russell 2000 Index - US Small Cap	7.77	20.43	0.40
	5.47	13.24	18.44	1.87	21.51	18.40	28.71	1.46	16.93	International Equity Custom Index - International	0.25	0.28	International Equity Custom Index - International	3.89	17.22	0.23
	1.38	11.96	15.21	0.44	17.64	10.88	22.17	-0.68	16.28	Cambridge US PE Index - Private Equity	1.21	0.24	Cambridge US PE Index - Private Equity	13.16	10.74	1.08
	0.55	10.16	14.65	0.01	13.82	10.65	14.82	-3.34	12.72	NCREIF ODCE Index - Real Estate	0.95	Core 0.20 / Non-Core 0.19	NCREIF ODCE Index - Real Estate	6.17	7.97	0.62
	0.18	9.94	9.11	-4.02	13.47	7.97	7.82	-5.27	10.99	HFRI FOF Comp Index	0.41	0.31	HFRI FOF Comp Index	2.88	5.38	0.30
	-0.27	8.77	7.77	-4.25	8.72	7.51	6.17	-12.04	9.28	Preferred Stock Custom Index	0.48	0.22	Preferred Stock Custom Index	4.63	15.54	0.28
	-0.69	4.50	7.62	-4.38	8.64	3.12	5.71	-13.01	8.57	MLP Custom Index	0.17	0.15	MLP Custom Index	7.86	24.16	0.38
	-4.41	2.65	4.12	-6.21	8.39	1.50	4.66	-13.90	6.07	Bloomberg US Agg Bond Index - Fixed Income	0.14	0.28	Bloomberg US Agg Bond Index - Fixed Income	3.15	4.19	0.43
	-5.66	1.94	3.54	-11.01	7.55	1.19	0.05	-16.00	5.53	Bank Loans Custom Index	0.56	0.43	Bank Loans Custom Index	4.75	7.27	0.48
	-14.92	0.51	0.84	-11.67	5.34	0.67	-1.85	-18.11	5.02	EMD Custom Index	-0.05	0.39	EMD Custom Index	3.72	11.97	0.25
Worst	-35.07	0.38	-5.58	-14.20	2.47	-25.60	-3.26	-20.44	-12.02	JP Morgan Cash Custom Index - Cash Equiv	0.58	0.00	JP Morgan Cash Custom Index - Cash Equiv	1.62	0.57	1.09

The International Equity Custom Index consists of the MSCI EAFE Index (USD) (Gross) through July 2010 and the MSCI ACW Ex US Index (USD) (Net) thereafter.

The Preferred Stock Custom Index consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.

The MLP Custom Index consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter.

The Bank Loans Custom Index consists of S&P LSTA Lvqd Loan Index through 06/30/2021, the S&P LSTA US Lvqd Loan 100 Index through 6/30/2023, and the CREDIT SUISSE Leveraged Loan Index thereafter.

The EMD Custom Index consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvf'd Index, 1/3 JPM CEMBI Brd Dvf'd Index, and 1/3 JPM EMBI Gbl Dvf'd Index thereafter.

The JP Morgan Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return.

The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.



## ASSET CLASS SUMMARY

**US Equity:** The **US Equity** structure employs a core-satellite approach, which gains passive, low-cost beta exposure at its core. The core component of the portfolio utilizes passive management intended to replicate a broad market index. The Small Cap investment managers include active management intended to provide alpha. Similarly, the asset class recently added internally managed portfolios within large cap and small cap, which draw upon staff expertise in managing equity portfolios.

**International Equity:** The **International Equity** structure follows an ACWI Ex US approach, which offers coverage of the broad international equity market, including developed and emerging markets. The International Equity portfolio is comprised of both passive and active management styles. The mix of passive and active management helps to minimize costs, while striving to maximize the probability of alpha generation at a similar absolute risk level.

**Private Equity:** The **Private Equity** asset class has primarily been accessed through fund of funds and customized fund of one structure. Investments also include exposure to direct co-investments and secondaries. Recent commitments within this asset class have added global diversification to the portfolio.

**Private Credit:** The **Private Credit** portfolio provides access to unique economic drivers and is generally less correlated to traditional markets. The composite is comprised of funds that limit exposure to default risk through unlevered portfolios and are limited in size to mitigate manager or vintage year concentration.

**Real Estate:** The **Real Estate** portfolio currently consists of Core and Non-Core Real Estate investments. The overall asset class structure has remained relatively conservative with regard to asset types and the use of financial leverage. Core Real Estate has historically been focused on diversified US markets, lower leverage, and higher occupancy rates, while Non-Core Real Estate investments allow for greater investment flexibility.

**Diversified Hedge Funds:** The **Diversified Hedge Funds** structure historically consisted of multi-Hedge Fund of Fund investments. In 2015, the portfolio began a transition to a core-satellite approach, utilizing a single Fund of Fund manager and satellite direct Hedge Funds. Initial funding was completed in July 2018 for a custom fund of one, consisting of a discretionary multi-strategy FoF portfolio and a non-discretionary portfolio of direct hedge funds managed by the Treasurer's Office. An increase in the use of direct Hedge Funds is anticipated to lower external management expenses and allow for greater control over the program.

**Infrastructure:** The **Infrastructure** portfolio consists of open-end core infrastructure funds investing in private infrastructure assets globally. The funds will invest in existing infrastructure assets across primarily OECD countries, which includes North America, Western Europe, and the developed countries of Asia Pacific.

**Opportunistic:** The **Opportunistic Investment** sleeve is currently comprised of a specialized investment fund and internally managed investment fund. Opportunistic investments are episodic in nature and are intended to capitalize on market dislocations or rare investment opportunities.

**Preferred Stock:** The **Preferred Stock** portfolio consists of a single, specialized preferred stock investment manager. The portfolio invests in a diversified portfolio of preferred securities including exchange-traded and over-the-counter preferreds and contingent convertibles (CoCos). The investment team seeks to take advantage of the various term structures of preferreds in order to optimize the yield and interest rate sensitivity of the portfolio.

**MLPs:** The **MLPs** portfolio consists of two portfolios with a specialized investment manager. The passive strategy is designed to replicate the market index, whereas the active strategy investment objective is to deliver both high yield and stable growth through the disciplined application of its fundamental bottom-up analysis as well as its trading strategies and investments in MLP and energy infrastructure assets.

**Fixed Income:** The **Fixed Income** portfolio employs a core-satellite approach. Serving as “the anchor” to the portfolio, Core Fixed Income aims to preserve capital, by providing relatively “safe” investments and stable income. Core Fixed Income has disaggregated segments comprised of investment grade corporate, MBS, and government. The Internally Managed Portfolio also provides liquidity and safety of capital. The satellite portfolios serve as dedicated specialists. Bank Loans provide diversification from traditional fixed income investments and the potential for enhanced return. Investments in Emerging Market Debt diversify US Dollar exposure and provide opportunities to capitalize on global growth trends. Opportunistic Fixed Income is employed to capitalize on market dislocations, such as European Debt.

## INDEX GLOSSARY

**MSCI ACW:** The **MSCI All Country World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The index consists of the 23 developed countries that make up the MSCI World Index as well as the following emerging market countries: *Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.*

**Russell 3000:** The **Russell 3000 Index** is a market-capitalization weighted index of 3,000 widely held equity securities designed to measure performance of the entire US stock market.

**State Street All Cap Custom Index:** The **State Street All Cap Custom Index** consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter.

**S&P 500:** The **S&P 500 Index (Cap Wtd)** is a commonly recognized, market-capitalization weighted index of 500 widely held equity securities designed to measure broad US equity performance.

**All Cap US Equity Custom Index:** The **All Cap US Equity Custom Index** consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter.

**Russell 2000:** The **Russell 2000 Index** measures the performance of the small-cap segment of the US equity market. It includes approximately 2,000 of the smallest securities by market cap from the Russell 3000 Index.

**International Equity Custom Index:** The **International Equity Custom Index** consists of the MSCI EAFE Index through July 2010, the MSCI ACW Ex US Index through July 2023, and an active blend of the MSCI ACW Ex US Index and MSCI ACW Ex US Ex China Index thereafter.

**MSCI EAFE:** The **MSCI EAFE (Europe, Australasia, Far East) Index** is designed to measure equity market performance of 21 developed countries, excluding the US & Canada: *Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.*

**MSCI ACW Ex US:** The **MSCI ACW (All Country World) Ex US Index** consists of large cap and mid cap representation within the same countries that comprise the MSCI ACW Index, excluding the United States.

**MSCI ACW Ex US ex China:** The **MSCI ACW (All Country World) Ex US Ex China Index** consists of large cap and mid cap representation within the same countries that comprise the MSCI ACW Index, excluding the United States and China.

**MSCI ACW Ex US IM:** The **MSCI ACW (All Country World) Ex US Investable Market Index** consists of large cap, mid cap, and small cap representation within the same countries that comprise the MSCI ACW Index, excluding the United States.

**S&P US Preferred Stock:** The **S&P US Preferred Stock Index** covers the US market of capital stock that pays dividends at a specified rate and has a preference over common stock in the payment of dividends and the liquidation of assets.



**Preferred Stock Custom Index:** The **Preferred Stock Custom Index** consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.

**S&P MLP:** The **S&P MLP Index** is a float-adjusted, cap-weighted index of energy MLPs and publicly traded limited liability companies, which have a similar legal structure to MLPs and share the same tax benefits. Constituents must have a minimum float-adjusted market cap of USD 300 million.

**MLP Custom Index:** The **MLP Custom Index** consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter.

**Alerian MLP Index:** The **Alerian MLP Index** is an index of energy infrastructure Master Limited Partnerships (MLPs). It is a capped, float-adjusted, capitalization-weighted index, whose constituents represent approximately 85% of the total float-adjusted market capitalization.

**Alerian Midstream Energy Index:** The **Alerian Midstream Energy Index** is an index of energy infrastructure Master Limited Partnerships (MLPs), whose constituents earn the majority of their cash flow from midstream activities involving energy commodities.

**NCREIF ODCE:** The **NCREIF ODCE (Open End Diversified Core) Index** is an index of investment returns reporting on both a historical and current basis the results of 38 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NCREIF ODCE Index is capitalization-weighted and performance is time-weighted.

**NCREIF Property:** The **NCREIF Property Index** prepared by the National Council of Real Estate Investment Fiduciaries is a quarterly time series composite return measure for over 6,000 individual commercial real estate properties acquired in the private market for investment purposes. Total performance represents returns from appreciation and income, and includes multi-family, office, retail, and industrial properties.

**HFRI FOF Comp Index:** The **HFRI FOF (Fund of Funds) Comp Index** average is created by Hedge Fund Research, Inc. and contains over 800 funds of hedge funds that are each invested in multiple investment strategies.

**Bloomberg US Agg Bond:** The **Bloomberg US Aggregate Bond Index** covers the US dollar-denominated, investment-grade, fixed-rate, taxable bond market of SEC-registered securities: US Treasury and agency bonds, domestic corporate debt, and mortgage-backed securities.

**Bloomberg US Agg Int Index:** The **Bloomberg US Aggregate Intermediate Index** covers the sub-section of the Bloomberg US Aggregate Bond Index with remaining maturities between one and ten years.

**PIMCO Custom Index:** The **PIMCO Custom Index** consists of the Bloomberg US Agg Bond Index through February 2018, the Bloomberg US Agg Int Index through June 2019, the Bloomberg US Agg Bond Index through 03/26/2020, account performance from 03/27/2020 through 04/03/2020, the BB US Agg Index through 11/29/21, account performance from 11/29/21 through 12/07/21, and the Bloomberg US Agg Bond Index through 06/30/2022, account performance on 07/01/2022, and the Bloomberg US Agg Bond Index thereafter.

**Payden & Rygel Custom Index:** The **Payden & Rygel Custom Index** consists of the Bloomberg US Corp Inv Grade Index through 03/25/2020, account performance from 03/26/2020 through 03/31/2020, and Bloomberg US Corp Inv Grade Index thereafter.

**Internal Intermediate Govt Fixed Income Portfolio Index:** The **Internal Intermediate Govt Fixed Income Portfolio Index** currently consists of the Bloomberg US Treasury Index. November 2019 performance consists of the Internal Intermediate Govt Fixed Income Portfolio. Prior to November 2019, the index consists of Bloomberg US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the Bloomberg US Gov't Crdt Bond Index.

**S&P/LSTA Leveraged Loan:** The **S&P/LSTA Leveraged Loan Index** reflects the market-weighted performance of institutional leveraged loans in the US loan market.

**Bank Loans Custom Index:** The **Bank Loans Custom Index** performance consists of S&P LSTA Lvgd Loan Index through 06/30/2021, and the S&P LSTA US Lvgd Loan 100 Index thereafter. The portfolio holdings characteristics consist of the Credit Suisse Leveraged Loan Index as of 03/31/2023.

**CS Western European Hi Yld:** The **Credit Suisse Western European High Yield Index** is designed to mirror the investable universe of the Western European high yield debt market. The index includes issues denominated in \$US and Western European currencies.

**EMD Custom Index:** The **EMD Custom Index** consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvf'd Index, 1/3 JPM CEMBI Brd Dvf'd Index, and 1/3 JPM EMBI Gbl Dvf'd Index thereafter.

**JP Morgan EMB (JEMB) Hard Currency/Local Currency 50/50:** The **JP Morgan EMB (JEMB) Hard Currency/Local Currency 50/50** consists of 50% JPM GBI-EM Gbl Dvf'd Index, 25% JPM CEMBI Brd Dvf'd Index, and 25% JPM EMBI Gbl Dvf'd Index.

**Goldman Sachs Index:** The **Goldman Sachs Index** consists of JPM CEMBI Brd Dvf'd Index through 11/22/2020, account performance from 11/23/2020 through 11/30/2020, and the JPM CEMBI Brd Dvf'd Index thereafter.

**JP Morgan GBI-EM Gbl Dvf'd:** The **JPMorgan GBI-EM Global Diversified Total Return Index (Unhedged)** is a global emerging markets index that consists of regularly traded, liquid fixed-rate, domestic currency government bonds.

**JP Morgan CEMBI Broad Diversified Index:** The **JP Morgan CEMBI Broad Diversified Index** is an index that is comprised of the corporate segment of emerging markets debt.

**JP Morgan Emerging Markets Bond Global Diversified Index:** The **JP Morgan Global Diversified Index** is an index comprised of the hard currency segment of emerging markets debt.

**Bloomberg US Govt/Credit: Long Trm Bond:** The **Bloomberg US Gov't/Credit Long Term Bond Index** covers the non-securitized component of the US Aggregate Index, with maturities of 10 years or more. It includes investment grade, US dollar-denominated, fixed-rate Treasuries, government-related and corporate securities.

**Bloomberg US Govt: Long Trm Bond:** The **Bloomberg US Gov't Long Term Bond Index** covers public US government obligations with remaining maturities of ten years or more.

**Bloomberg US Credit: Long Trm Bond:** The **Bloomberg US Credit Long Term Bond Index** covers public US investment grade corporate bonds with remaining maturities of ten years or more.

**Bloomberg US Govt: Int Trm Bond:** The **Bloomberg US Gov't Intermediate Term Bond Index** covers public US government obligations with remaining maturities between one and ten years.

**Bloomberg US Corp Int Trm Bond:** The **Bloomberg US Corporate Intermediate Term Bond Index** covers US investment grade corporate bonds with remaining maturities between one and ten years.

**Bloomberg US Gov't/Credit 1-3 Yr Bond Index:** The **Bloomberg US Gov't/Credit 1-3 Year Bond Index** covers all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of between one and three years and are publicly issued.

**Bloomberg US Gov't 1-3 Yr Bond Index:** The **Bloomberg US Gov't 1-3 Year Bond Index** covers public US government obligations with remaining maturities between one and three years.

**Bloomberg US Credit 1-3 Yr Bond Index:** The **Bloomberg US Credit 1-3 Year Bond Index** covers public investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of between one and three years.

**Bloomberg US MBS Index:** The **Bloomberg US MBS Index** covers the public U.S. mortgage backed securities market.

**Bloomberg US Corp Inv Grade Index:** The **Bloomberg US Corp Inv Grade Index** covers the public U.S. investment grade corporate bond market.

**Low Duration Fixed Income Custom Index:** The **Low Duration Fixed Income Custom Index** consists of the Bloomberg US Gov't Crdt 1-3 Yr Bond Index through 06/30/2019 and the Bloomberg US Gov't 1-3 Yr Bond Index thereafter.

**Transition Fixed Income Custom Index:** The **Transition Fixed Income Custom Index** consists of 50% JPM CLOIE IG Idx, 40% BB 1 – 3 Yr Crdt, and 10% ICE BofA 0-2 Yr Dur BB-B Index.

**PIMCO Low Duration Custom Index:** The **PIMCO Low Duration Custom Index** consists of 50% JPM CLOIE IG Idx, 40% BB 1 – 3 Yr Crdt, and 10% ICE BofA 0-2 Yr Dur BB-B Index through 11/30/2021, account performance on 12/1/2021-12/13/2021, and 50% JPM CLOIE IG Idx, 40% BB 1 – 3 Yr Crdt, and 10% ICE BofA 0-2 Yr Dur BB-B Index thereafter.

**Opportunistic Investments Index:** The **Opportunistic Investments Index** is the weighted average of the permanent funds' target allocation indices, excluding the opportunistic allocation.

**JP Morgan Cash Custom Index:** The **JP Morgan Cash Custom Index** is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.

**JP Morgan Blended Index:** The **JP Morgan Blended Index** consists of an equal-weighted allocation to the ICE BofAML 1-3 Year US Treasury Index, ICE BofAML 1-3 Year Agencies Index, and ICE BofAML 0-3 Year Weighted Average Life Mortgage Index.

# Total Fund



Wyoming State Treasurer's Office  
Asset Allocation, Performance & Schedule of Investable Assets

As of December 31, 2023

Asset Allocation & Performance			
	Allocation		Performance (%)
	Market Value (\$)	%	FYTD
<b>Total Fund</b>	<b>27,954,246,860</b>	<b>100.00</b>	<b>4.71</b>
<b>All Cap US Equity Composite</b>	<b>2,212,945,878</b>	<b>7.92</b>	<b>8.01</b>
State Street All Cap	2,011,502,525	7.20	8.00
Internal Domestic Equity Quantamental	31,380	0.00	4.32
Internal Domestic Equity Quantitative	94,019,666	0.34	8.67
SPDR S&P 500 ETF Trust	107,392,307	0.38	8.19
UW Portfolio Mgmt Program	2,010,076	0.01	6.53
<b>Small Cap US Equity Composite</b>	<b>569,461,219</b>	<b>2.04</b>	<b>7.62</b>
Van Berkom	311,534,449	1.11	7.30
BlackRock Small Cap	469,902	0.00	9.17
Internal Small Cap Equity Quantamental	129,421,618	0.46	8.63
Internal Small Cap Equity Quantitative	128,035,250	0.46	7.72
<b>Int'l Equity Composite</b>	<b>3,595,517,831</b>	<b>12.86</b>	<b>6.55</b>
Northern Trust	1,745,097,322	6.24	6.67
Arrowstreet	1,130,360,916	4.04	8.55
Harding Loevner	560,621,705	2.01	3.51
Internal International Equity ETF	57,739,251	0.21	6.72
Internal International Equity Quantitative	101,698,636	0.36	N/A
<b>Preferred Stock Composite</b>	<b>132,539,228</b>	<b>0.47</b>	<b>7.64</b>
Cohen & Steers Preferred Stock	132,539,228	0.47	8.15
<b>MLPs Composite</b>	<b>1,135,805,530</b>	<b>4.06</b>	<b>11.90</b>
Harvest Fund Advisors	624,747,672	2.23	11.90
Harvest Fund Advisors Passive	511,057,858	1.83	11.99
<b>Private Equity Composite</b>	<b>1,362,197,816</b>	<b>4.87</b>	<b>6.33</b>
Access Venture Partners II LP	202,359	0.00	N/A
Cheyenne Equity Capital LP	84,659,425	0.30	N/A
Hamilton Lane Wyoming Nowood LP	114,666,101	0.41	N/A
NB Sauger LP	124,697,156	0.45	N/A
BlackRock LTPC, L.P.	696,763,842	2.49	N/A
Valor Equity Partners V LP	65,916,351	0.24	N/A
GTCR Fund XIII	54,806,004	0.20	N/A
Veritas Capital Vantage Fund	19,301,379	0.07	N/A
Veritas Capital VIII LP	27,506,834	0.10	N/A
StepStone Fund V	29,463,773	0.11	N/A
Nautic Partners X LP	28,064,905	0.10	N/A
Dragoneer Opp Fund VI	15,463,499	0.06	N/A
Accel KKR Growth Capital Partners IV	8,960,541	0.03	N/A
Morgan Stanley Ashbridge Secondaries II LP	63,556,920	0.23	N/A
BVP Forge Institutional LP	20,369,721	0.07	N/A

Asset Allocation & Performance			
	Allocation		Performance (%)
	Market Value (\$)	%	FYTD
Banner Ridge Secondaries Fund V	7,799,006	0.03	N/A
<b>Private Credit Composite</b>	<b>283,253,307</b>	<b>1.01</b>	<b>5.71</b>
BlackRock GCO Fund II LP	74,610,102	0.27	N/A
Atalaya Asset Income Evergreen LP	60,411,835	0.22	N/A
AG Direct Lending Evergreen LP	55,472,865	0.20	N/A
Ares Pathfinder Fund II	10,152,817	0.04	N/A
KLCP Domestic III LP	56,371,064	0.20	N/A
Strategic Value Capital Solutions Fund II	26,234,624	0.09	N/A
<b>Core Real Estate Composite</b>	<b>1,306,239,718</b>	<b>4.67</b>	<b>-4.73</b>
Clarion Lion Properties LP	766,699,979	2.74	-5.67
UBS Trumbull	146,956,407	0.53	-5.64
Morgan Stanley Prime Property LLC	392,583,332	1.40	-2.41
<b>Non-Core Real Estate Composite</b>	<b>602,616,146</b>	<b>2.16</b>	<b>-4.32</b>
SC Core LP	99,224,931	0.35	N/A
Realterm Logistics Income LP	296,600,774	1.06	N/A
M&G Real Estate Debt III LP	1,589,905	0.01	N/A
Northwood Real Estate Partners (Series IV) LP	195,944,160	0.70	N/A
Hammes Partners IV LP	963,284	0.00	N/A
<b>Infrastructure Composite</b>	<b>277,582,315</b>	<b>0.99</b>	<b>20.48</b>
Macquarie Infrastructure	193,429,947	0.69	9.02
MGIF Co-Investment 3	27,099,441	0.10	2.65
Grosvenor Silvery Lupine Fund Class E LLC	57,052,927	0.20	80.67
<b>Diversified Hedge Funds Composite</b>	<b>1,224,541,272</b>	<b>4.38</b>	<b>4.40</b>
PAAMCO - Jackalope Fund	68,585	0.00	0.08
Grosvenor Diversified Hedge Funds	491,168,036	1.76	4.32
Internal Diversified Hedge Funds	733,304,651	2.62	4.46
<b>Core Fixed Income Composite</b>	<b>3,588,416,331</b>	<b>12.84</b>	<b>3.47</b>
Internal Intermediate Gov't Fixed Income	1,144,764,065	4.10	2.42
Payden & Rygel IGC	583,904,956	2.09	4.98
JP Morgan MBS	743,236,635	2.66	3.69
IShares Core US Agg Bond ETF	9,981	0.00	3.31
PIMCO	1,116,500,694	3.99	3.57
<b>SAP Treasury Composite</b>	<b>4,773,394,089</b>	<b>17.08</b>	<b>3.10</b>
Internal SAP Fixed Income Portfolio	4,773,394,089	17.08	3.10

Allocations may not sum up to 100% exactly due to rounding. Performance shown is net of fees and excludes Public Purpose Investments (PPIs) and operational cash. Market value shown for Public Purpose Investments (PPIs) is as of 03/31/2024. Investment manager fees are accounted for on a quarterly basis. Wyoming State Treasurer's Office fiscal year ends on June 30th. Fiscal year begins 7/1/2023.



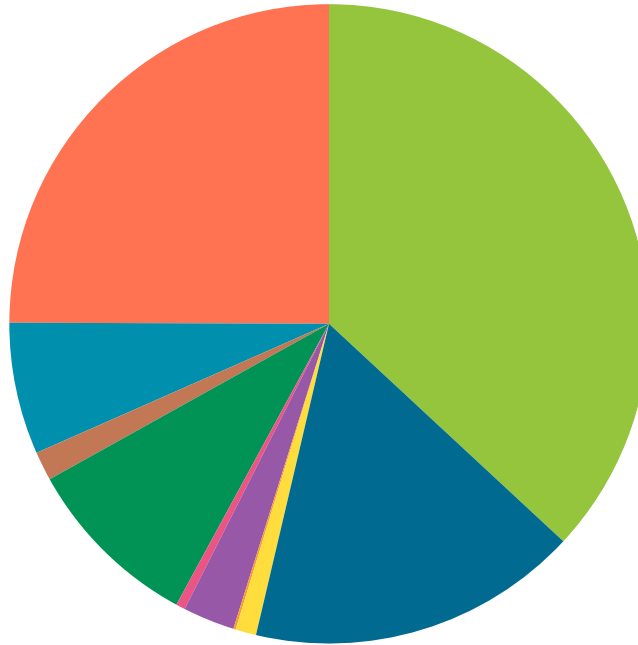
Asset Allocation & Performance			
	Allocation		Performance (%)
	Market Value (\$)	%	FYTD
<b>Bank Loans Composite</b>	<b>640,967,274</b>	<b>2.29</b>	<b>5.35</b>
Credit Suisse SMA	204,123,708	0.73	6.03
Octagon SMA	205,452,128	0.73	4.68
KKR	231,391,439	0.83	5.59
<b>Emerging Market Debt Composite</b>	<b>108,474,665</b>	<b>0.39</b>	<b>5.37</b>
Global Evolution	108,474,665	0.39	5.37
Global Evolution Hard	144,340,284	0.52	7.17
Goldman Sachs	197,629,984	0.71	5.79
Eaton Vance	249,342,118	0.89	4.98
Finisterre	253,548,278	0.91	3.94
Wellington	91,468,426	0.33	5.75
<b>Long Duration Fixed Income Composite</b>	<b>829,691,992</b>	<b>2.97</b>	<b>2.52</b>
Internal Long Duration Fixed Income	410,424,899	1.47	-0.74
Metlife	419,267,093	1.50	5.40
<b>Low Duration Fixed Income Composite</b>	<b>657,415,590</b>	<b>2.35</b>	<b>3.51</b>
Low Duration Fixed Income	657,415,590	2.35	3.51
<b>Grosvenor Silvery Lupine Fund</b>	<b>9,915,114</b>	<b>0.04</b>	<b>-15.90</b>
<b>Transition Low Duration Composite</b>	<b>1,000,567,517</b>	<b>3.58</b>	<b>4.31</b>
PIMCO Transition Low Duration	1,000,567,517	3.58	4.33
<b>Opportunistic Investments Composite</b>	<b>124,680,303</b>	<b>0.45</b>	<b>16.91</b>
<b>Cash Equivalents</b>	<b>2,213,604,936</b>	<b>7.92</b>	<b>2.73</b>
<b>Public Purpose Investments</b>	<b>366,079,624</b>	<b>1.31</b>	<b>N/A</b>

Schedule of Investable Assets - Total Fund Composite Ex Public Purpose Investments				
Beginning MV (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending MV (\$)	Unit Value
26,446,922,883	-59,987,083	1,201,231,437	27,588,167,237	104.55

Allocations may not sum up to 100% exactly due to rounding. Performance shown is net of fees and excludes Public Purpose Investments (PPIs) and operational cash. Market value shown for Public Purpose Investments (PPIs) is as of 03/31/2024. Investment manager fees are accounted for on a quarterly basis. Wyoming State Treasurer's Office fiscal year ends on June 30th. Fiscal year begins 7/1/2023.

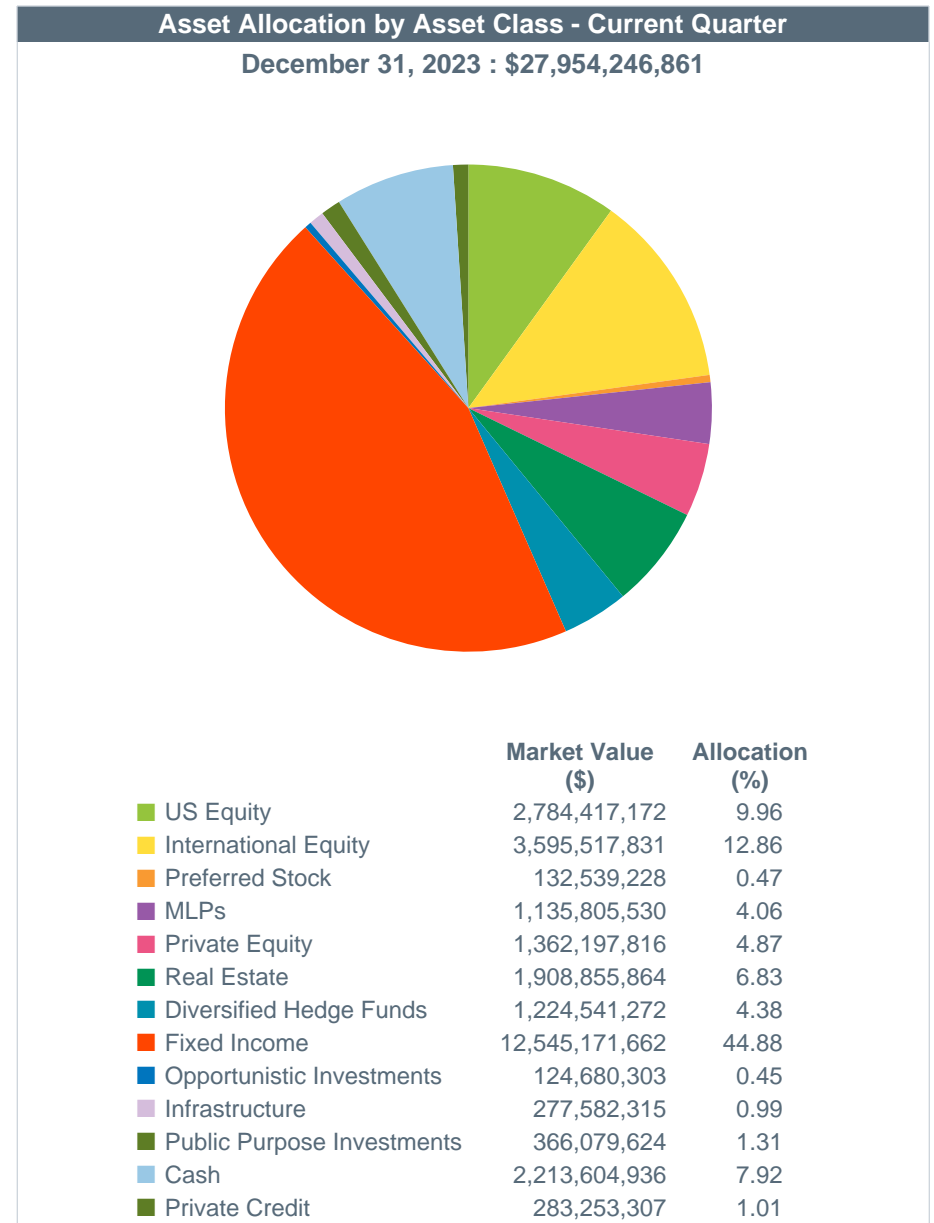
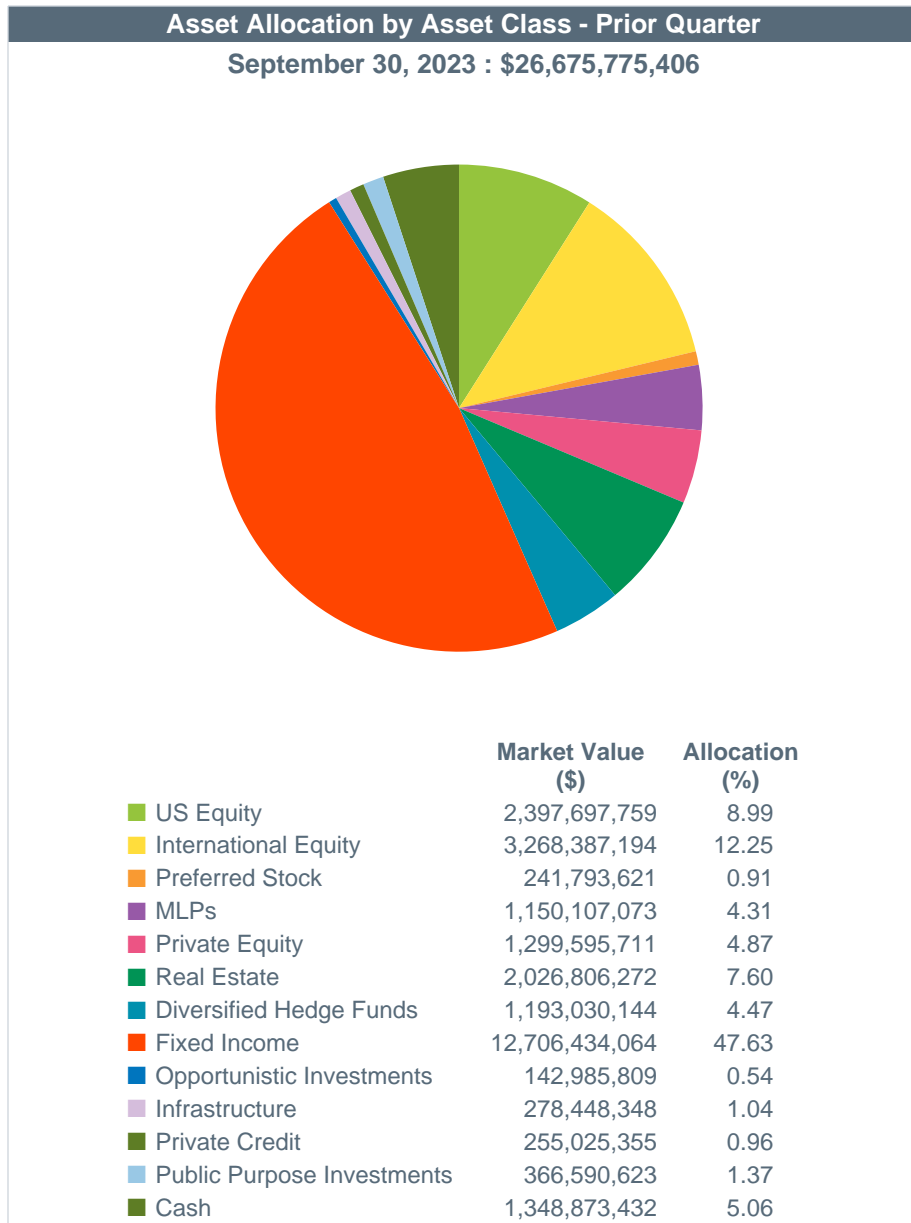


December 31, 2023 : \$27,954,246,861



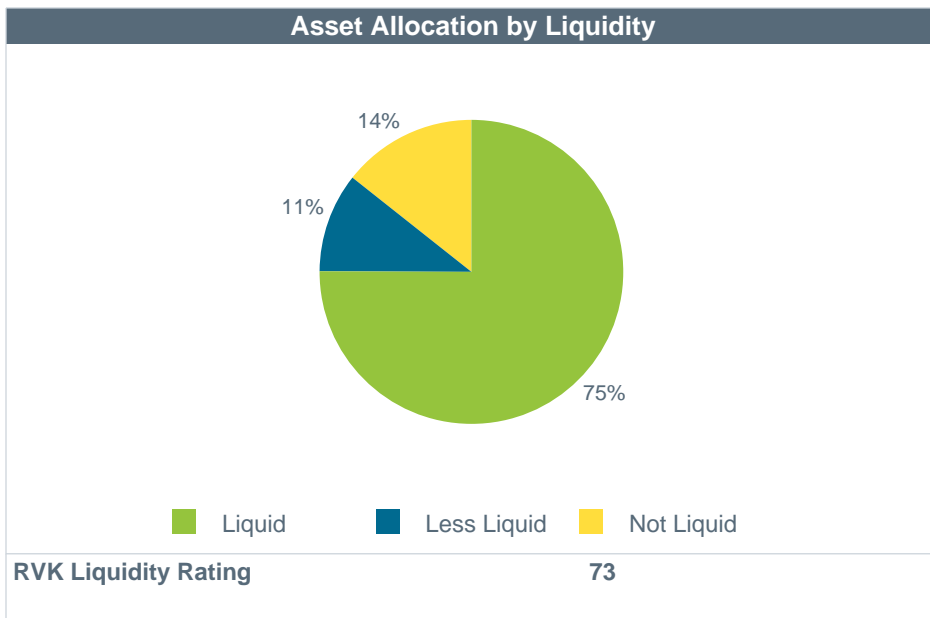
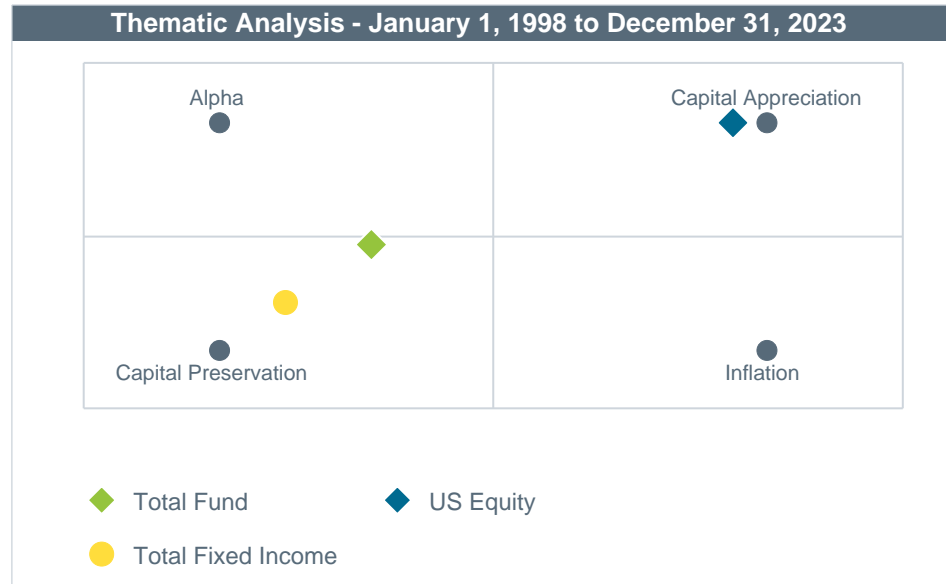
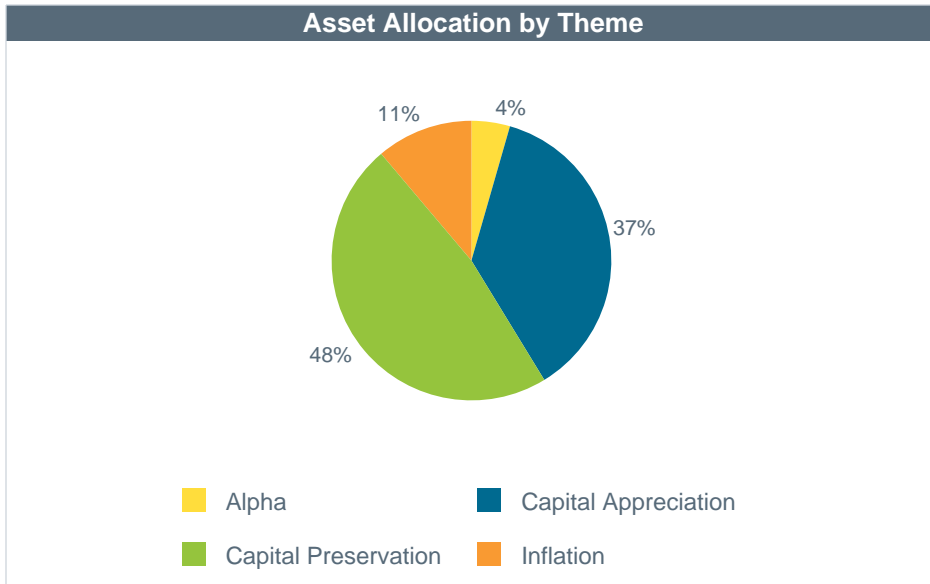
	Market Value (\$)	Allocation (%)
Permanent Mineral Trust	10,317,987,613	36.91
Common School PLF	4,686,028,309	16.76
Permanent Land Fund	292,265,584	1.05
University Permanent Land Fund	33,248,524	0.12
Hathaway Scholarship	733,618,547	2.62
Higher Education	129,685,242	0.46
Workers Compensation Fund	2,515,074,666	9.00
Pool A	409,952,669	1.47
LSRA	1,864,985,756	6.67
State Agency Pool	6,971,399,951	24.94

Allocations shown may not sum up to 100% exactly due to rounding.



Allocations shown may not sum up to 100% exactly due to rounding.





### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.48	1.00		
C	-0.11	0.11	1.00	
D	0.45	0.80	0.18	1.00

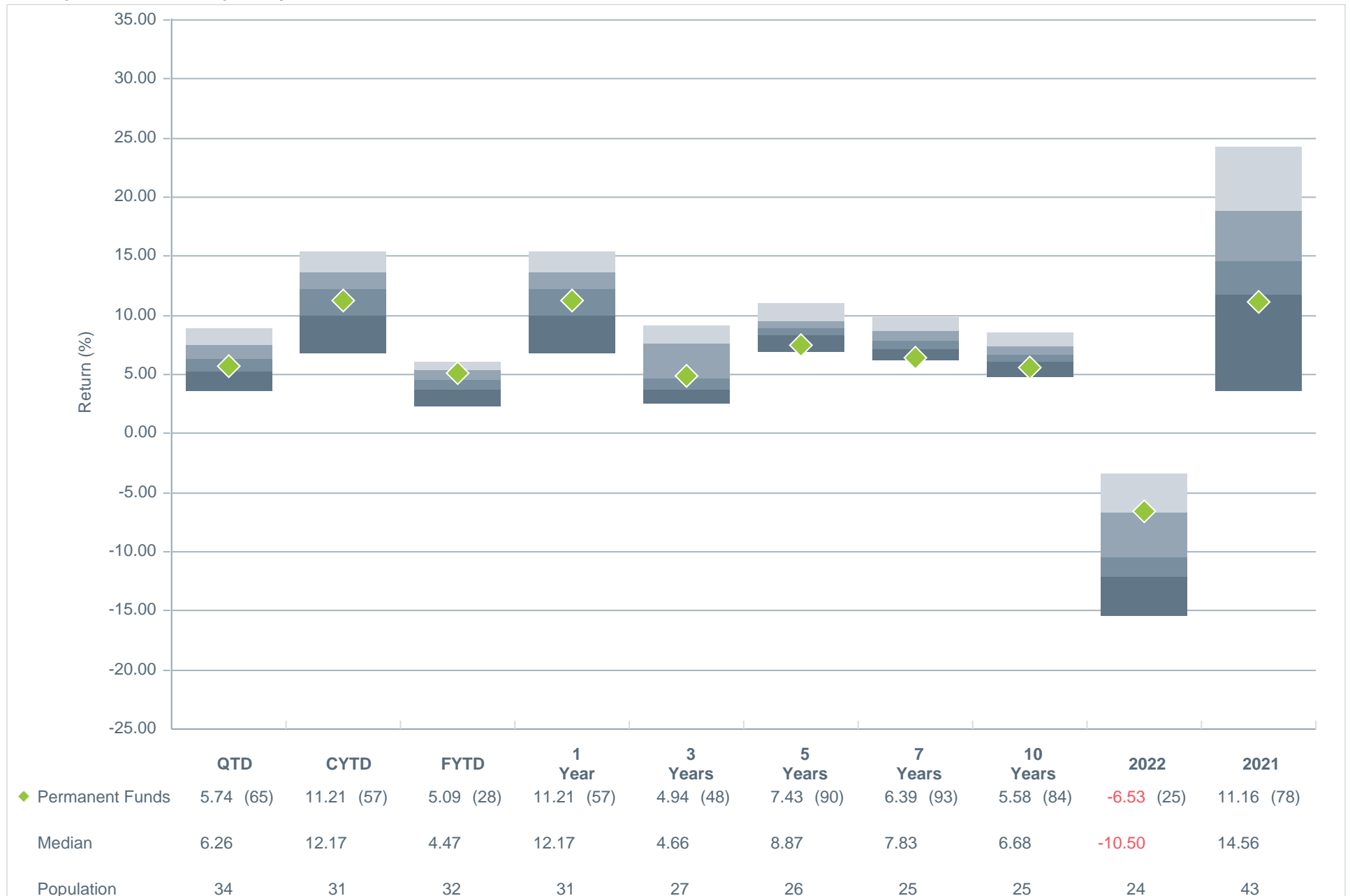
A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Govt Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding these metrics. Allocations may not sum to 100% exactly due to rounding.



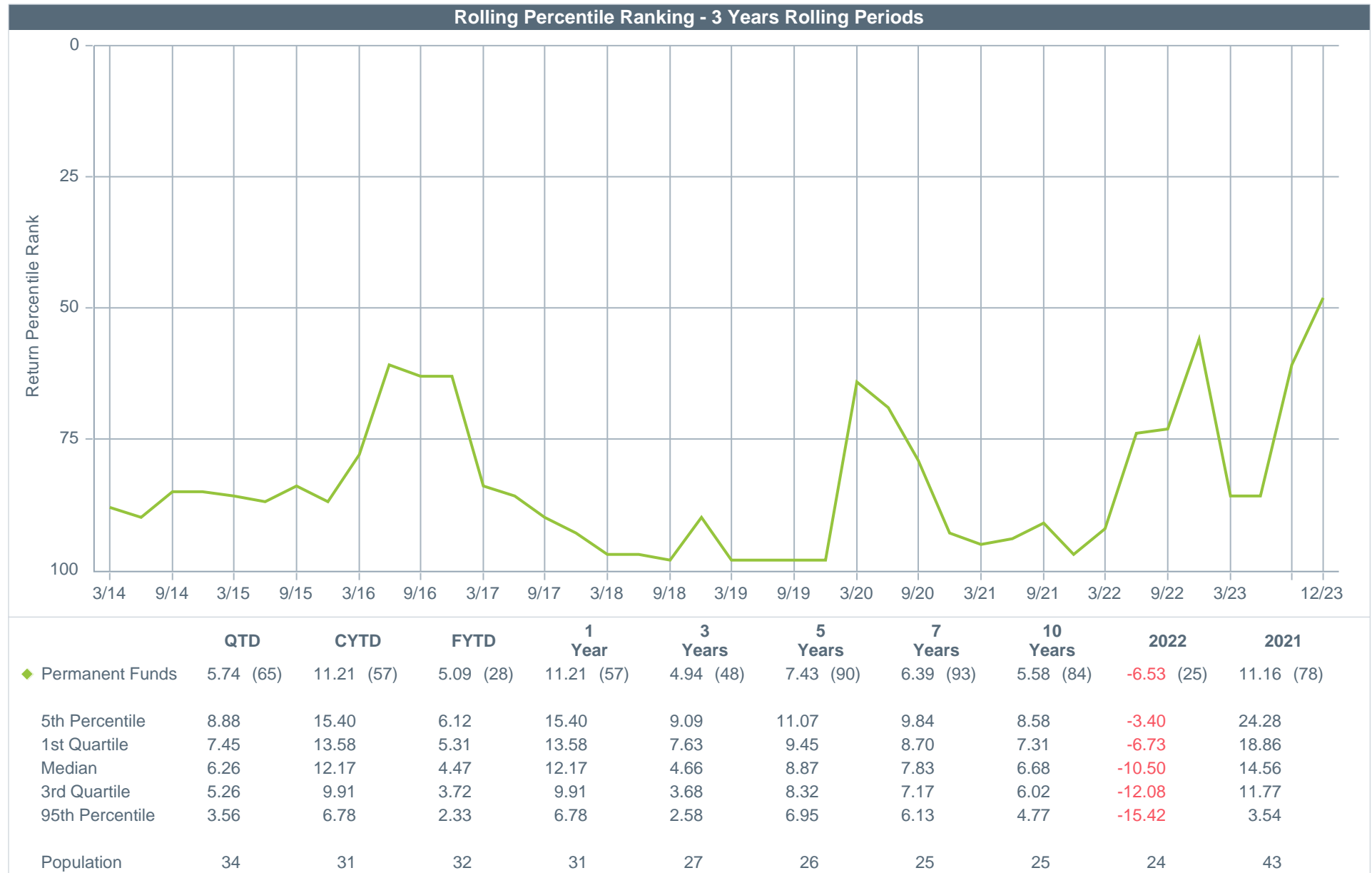
Wyoming State Treasurer's Office  
 All Endowment & Foundation > \$1B-Total Fund  
 Plan Sponsor Peer Group Analysis

As of December 31, 2023

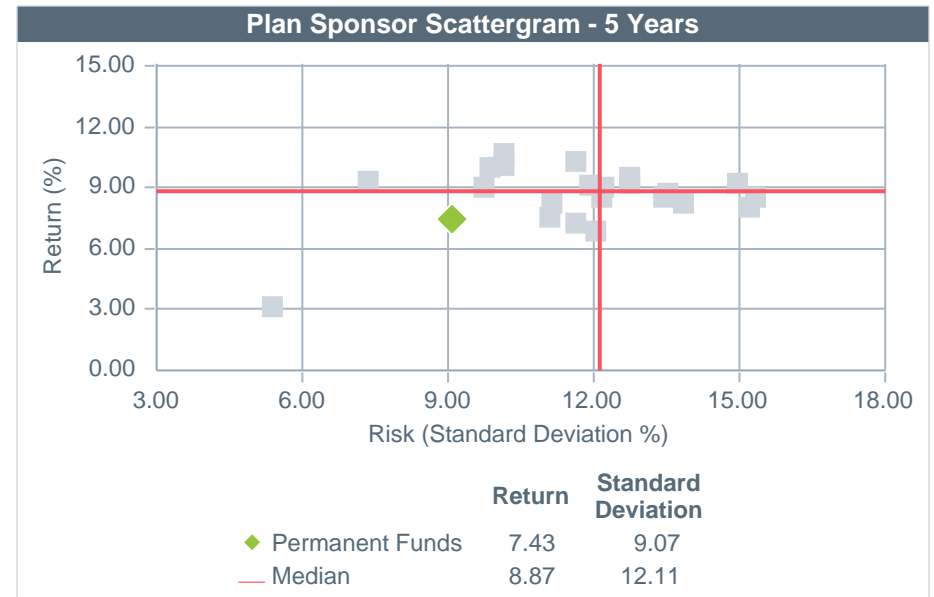
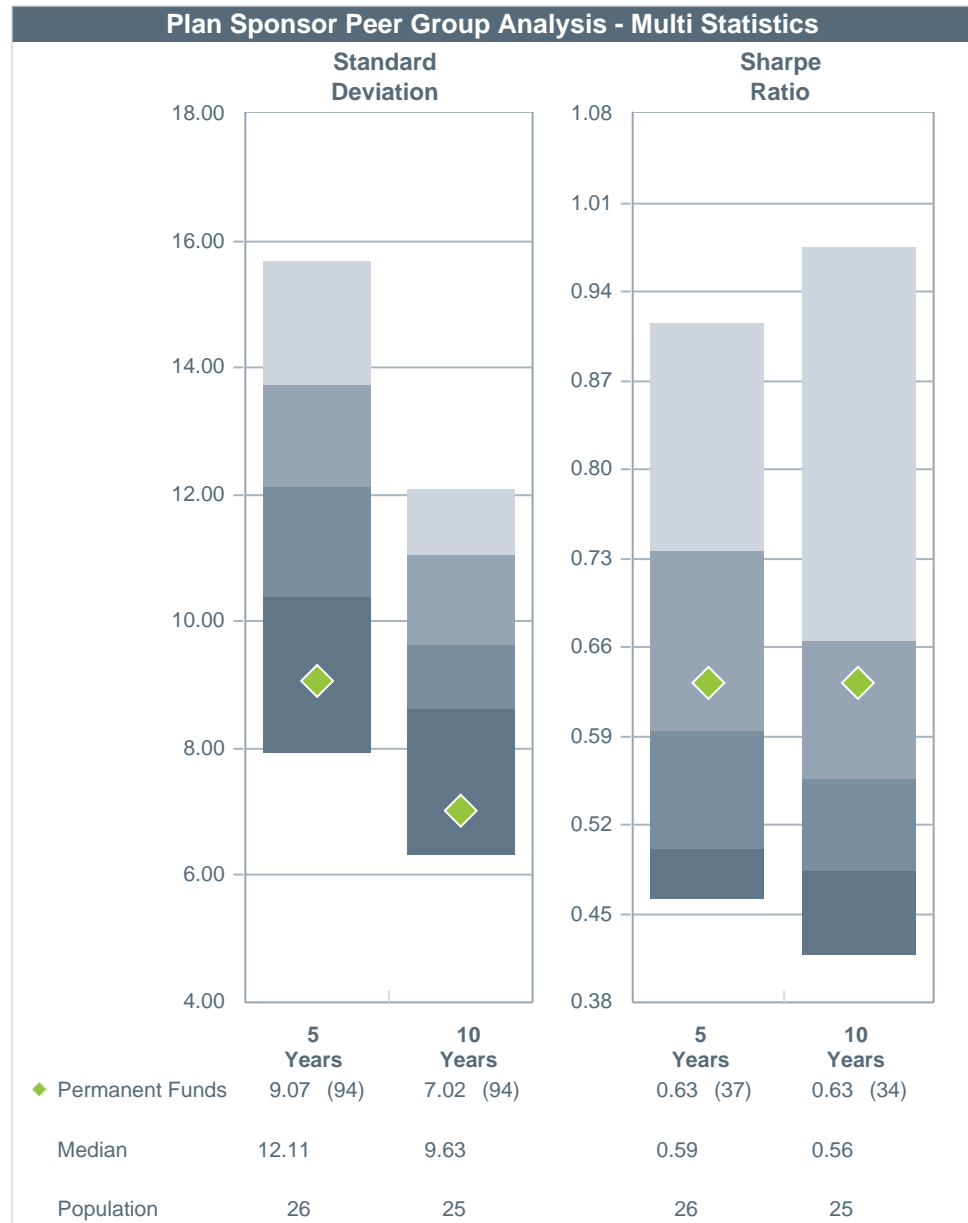


Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.  
 Wyoming State Treasurer's Office fiscal year ends on June 30th.

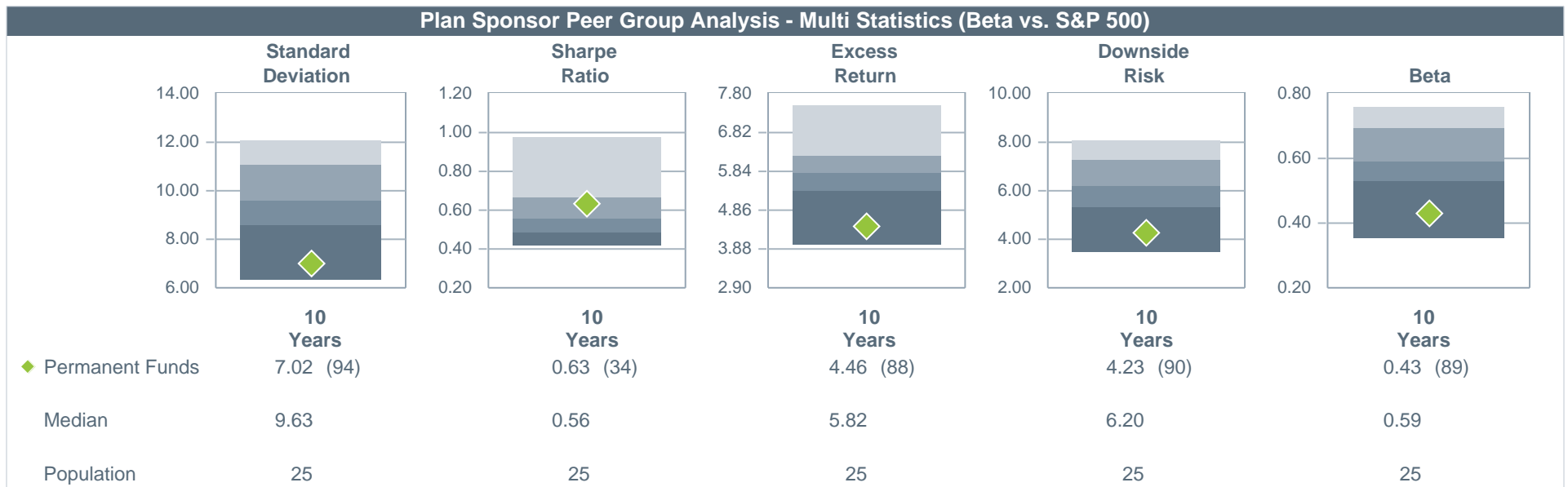
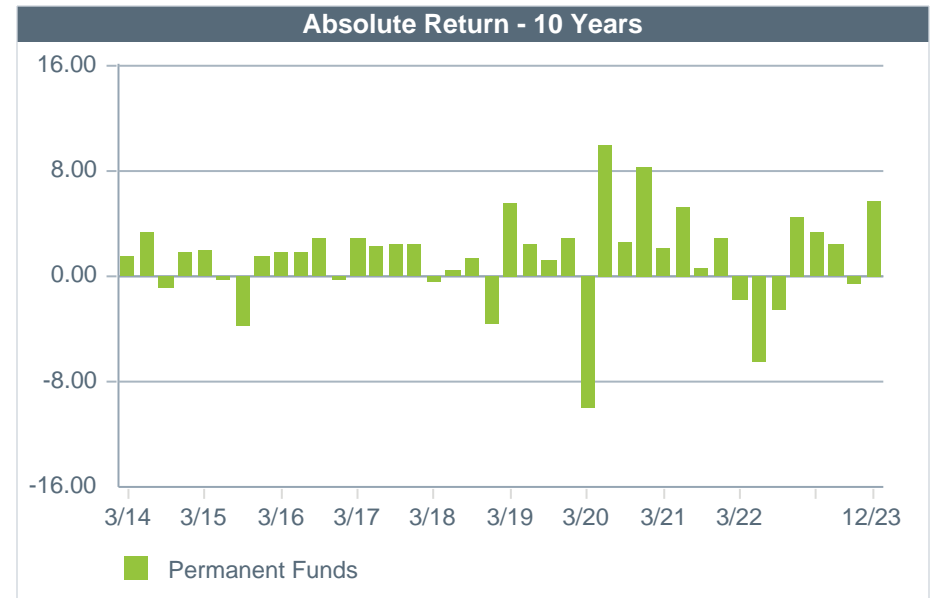
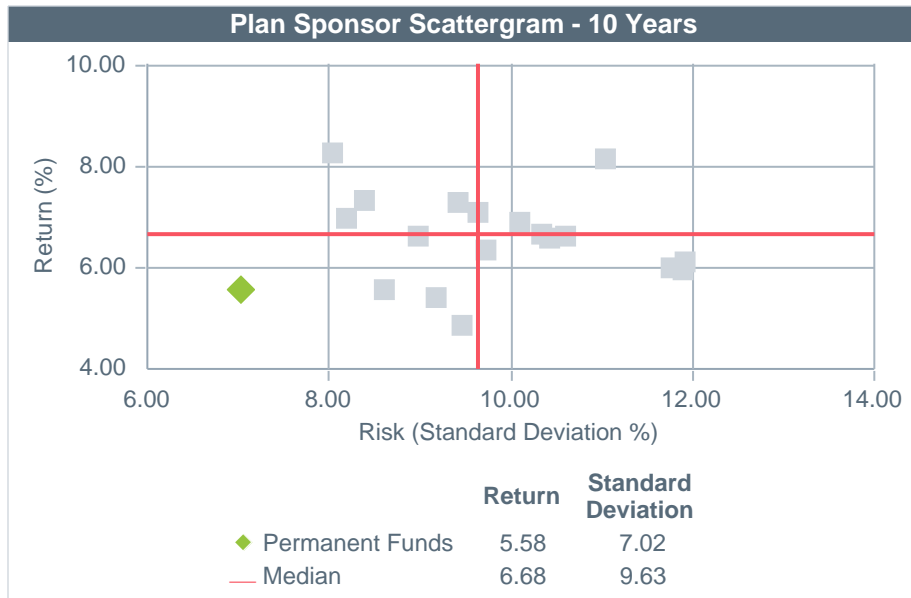




Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Wyoming State Treasurer's Office fiscal year ends on June 30th.



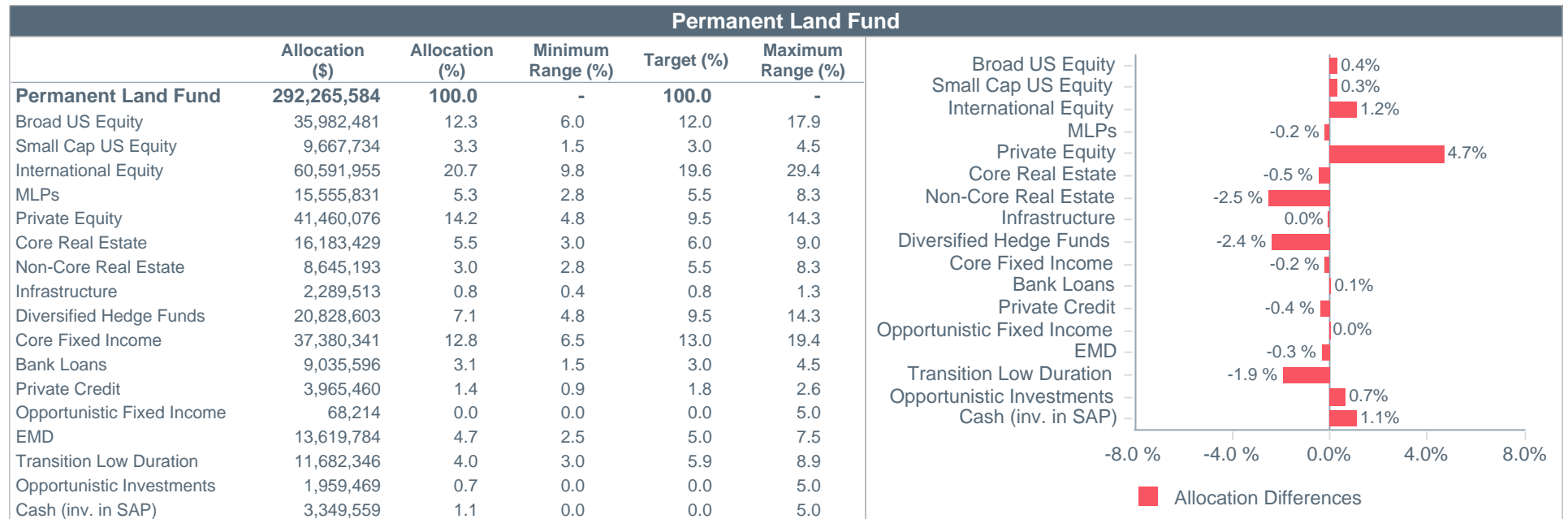
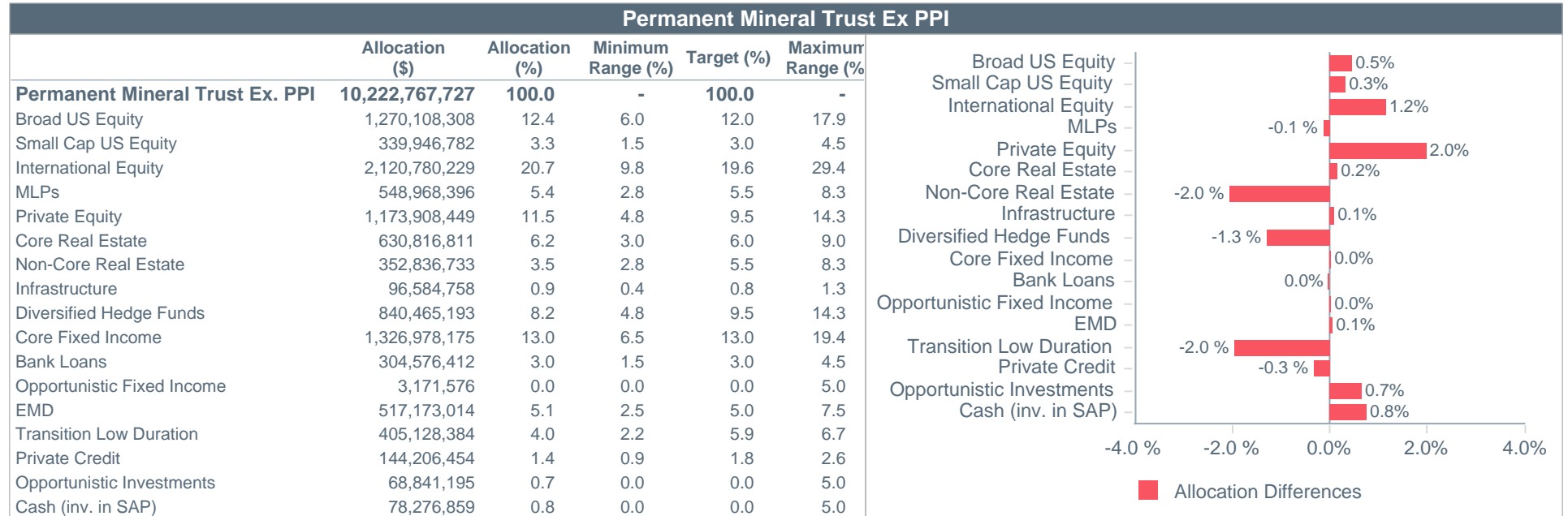
Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



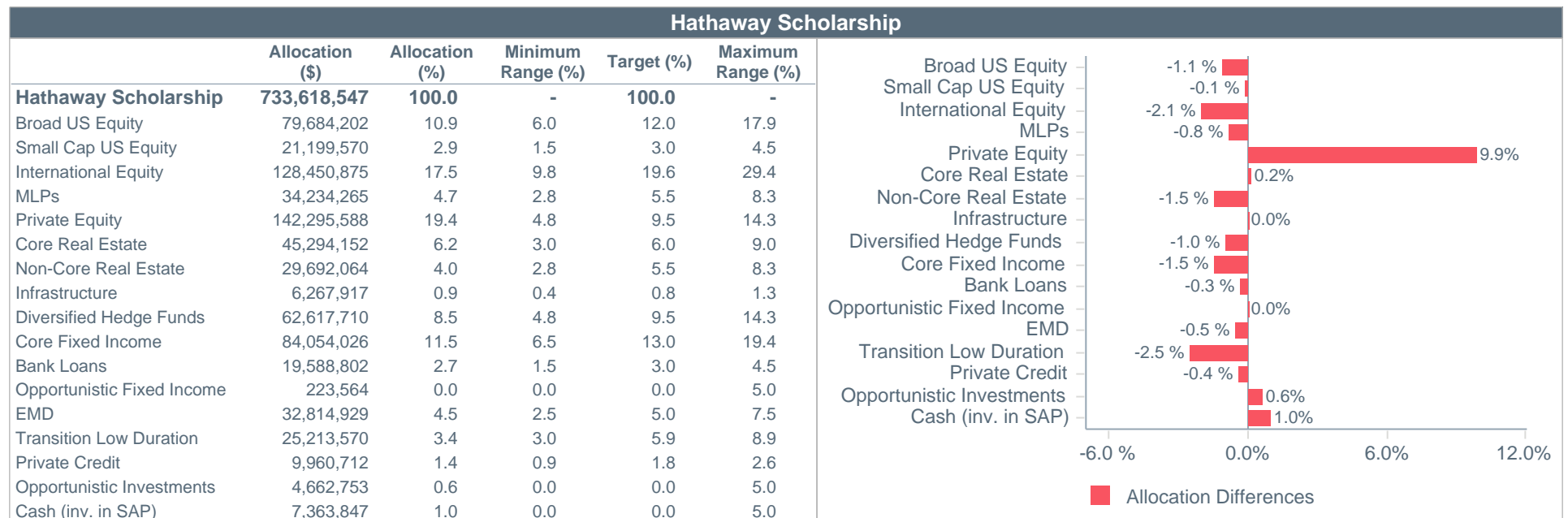
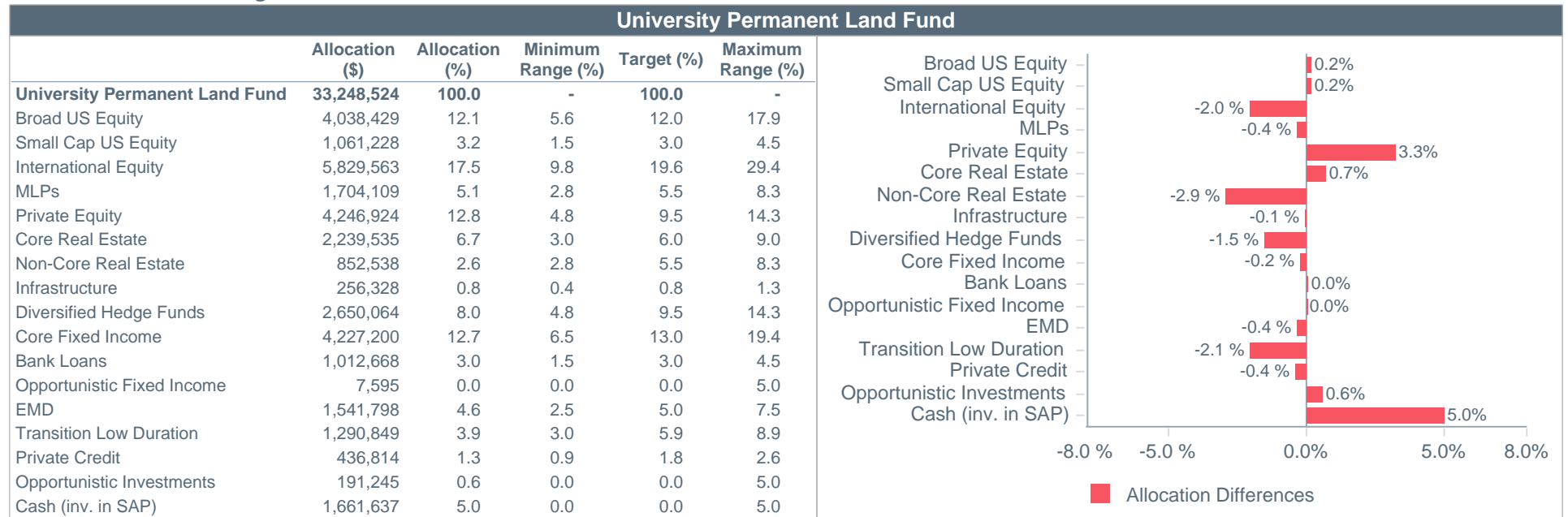
Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

Investment Profile		Target Allocation								
<b>Fund Type:</b> Permanent Fund <b>Main Objective:</b> Produce maximized long-term investment income and capital gains while providing an appropriate level of safety and liquidity. <b>Primary Investment Goals:</b> Capital appreciation, total return, and protection against inflation. Capital preservation and liquidity are important secondary goals. <b>Long-Term Target Equity Allocation:</b> 73% <b>Spending Policy</b> <ul style="list-style-type: none"> <li>• <b>Permanent Mineral Trust Fund:</b> 5% of the five-year trailing average market value, calculated on the first day of the fiscal year. In fiscal year 2023, the spending rate will be 4.75%. In fiscal year 2024 and thereafter, the spending rate will be 4.5%.</li> <li>• <b>Hathaway Scholarship:</b> The amount necessary to fully fund scholarships awarded under W.S. 21-16-1301 <i>et seq.</i></li> </ul>				<b>Minimum Range (%)</b>		<b>Target (%)</b>		<b>Maximum Range (%)</b>		
		<b>Permanent Mineral Trust</b>		-		100.00		-		
		Broad US Equity		5.98		11.95		17.93		
		Small Cap US Equity		1.50		3.00		4.50		
		International Equity		9.79		19.57		29.35		
		MLPs		2.75		5.50		8.25		
		Private Equity		4.75		9.50		14.25		
		Core Real Estate		3.00		6.00		9.00		
		Non-Core Real Estate		2.75		5.50		8.25		
		Infrastructure		0.42		0.83		1.25		
		Diversified Hedge Funds		4.75		9.50		14.25		
		Core Fixed Income		6.48		12.96		19.44		
		Bank Loans		1.50		3.00		4.50		
		Opportunistic Fixed Income		0.00		0.00		5.00		
		EMD		2.50		5.00		7.50		
		Transition Low Duration		2.97		5.93		8.90		
		Private Credit		0.88		1.75		2.63		
Thematic Allocation		Risk Metrics								
		<b>5 Years</b>				<b>10 Years</b>				
		<b>PMTF</b>	<b>PLF</b>	<b>UPLF</b>	<b>Hath</b>	<b>PMTF</b>	<b>PLF</b>	<b>UPLF</b>	<b>Hath</b>	
		Sharpe Ratio	0.7	0.7	0.6	0.8	0.6	0.7	0.6	0.7
		Standard Deviation	9.9	9.5	10.6	9.5	7.6	7.4	8.2	7.4
Comparative Performance										
		Allocation			Performance (%)					
		Market Value (\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Permanent Mineral Trust</b>		<b>10,317,987,613</b>	<b>5.6</b>	<b>5.2</b>	<b>12.4</b>	<b>12.4</b>	<b>6.1</b>	<b>8.3</b>	<b>7.0</b>	<b>6.0</b>
PMTF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.5	6.5	5.7
Difference			-0.2	0.7	2.1	2.1	1.1	0.8	0.5	0.3
<b>Permanent Land Fund</b>		<b>292,265,584</b>	<b>5.7</b>	<b>5.5</b>	<b>12.8</b>	<b>12.8</b>	<b>6.5</b>	<b>8.4</b>	<b>7.1</b>	<b>6.1</b>
PLF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.4	6.4	5.6
Difference			-0.1	1.0	2.5	2.5	1.5	1.0	0.7	0.5
<b>University Permanent Land Fund</b>		<b>33,248,524</b>	<b>5.3</b>	<b>5.1</b>	<b>12.0</b>	<b>12.0</b>	<b>6.3</b>	<b>8.4</b>	<b>7.3</b>	<b>6.3</b>
UPLF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.5	6.7	5.9
Difference			-0.5	0.6	1.7	1.7	1.3	0.9	0.6	0.4
<b>Hathaway Scholarship</b>		<b>733,618,547</b>	<b>5.2</b>	<b>5.5</b>	<b>13.3</b>	<b>13.3</b>	<b>7.3</b>	<b>8.9</b>	<b>7.3</b>	<b>6.1</b>
Hathaway - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.4	6.3	5.5
Difference			-0.6	1.0	3.0	3.0	2.3	1.5	1.0	0.6

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Allocations shown may not sum up to 100% exactly due to rounding. Market value shown for PMTF excludes Public Purpose Investments (PPIs). Asset class targets shown represent 12/01/2023 interim targets.

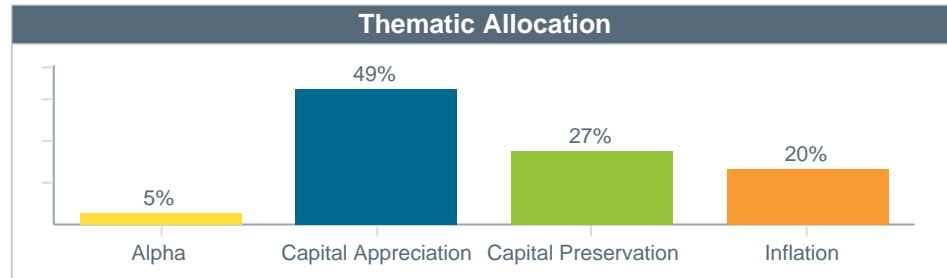


Allocations shown may not sum up to 100% exactly due to rounding. Asset class targets shown represent 12/01/2023 interim targets.



Investment Profile
<p><b>Fund Type:</b> Permanent Fund</p> <p><b>Main Objective:</b> Produce maximized long-term investment income and capital gains while providing an appropriate level of safety and liquidity.</p> <p><b>Primary Investment Goals:</b> Income generation, capital appreciation, total return, and protection against inflation. Capital preservation and liquidity are important secondary goals.</p> <p><b>Long-Term Target Equity Allocation:</b> 62%</p> <p><b>Spending Policy</b></p> <ul style="list-style-type: none"> <li>• <b>Common School Permanent Land Fund:</b> 5% of the five-year trailing average market value, calculated on the first day of the fiscal year. In fiscal year 2025, the spending rate will be 4.75%. In fiscal year 2026 and thereafter, the spending rate will be 4.5%.</li> <li>• <b>Higher Education:</b> 4.75% of the five-year trailing average market value, calculated on the first day of the fiscal year.</li> </ul>

Target Allocation	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Common School PLF</b>	-	<b>100.00</b>	-
Broad US Equity	5.00	10.00	15.00
Small Cap US Equity	1.17	2.35	3.50
International Equity	8.17	16.34	24.51
Preferred Stock	1.00	2.00	3.00
MLPs	3.50	7.00	10.50
Core Real Estate	5.25	10.50	15.75
Non-Core Real Estate	1.75	3.50	5.25
Infrastructure	0.88	1.75	2.63
Diversified Hedge Funds	2.50	5.00	7.50
Core Fixed Income	7.27	14.55	21.82
Bank Loans	1.50	3.00	4.50
Opportunistic Fixed Income	0.00	0.00	5.00
EMD	3.50	7.00	10.50
Transition Low Duration	7.59	15.18	22.77
Private Credit	0.92	1.83	2.75



	5 Years		10 Years	
	CSPLF	HiEd	CSPLF	HiEd
Sharpe Ratio	0.6	0.6	0.6	0.6
Standard Deviation	8.5	8.5	6.6	6.7
Beta	0.4	0.4	0.4	0.4

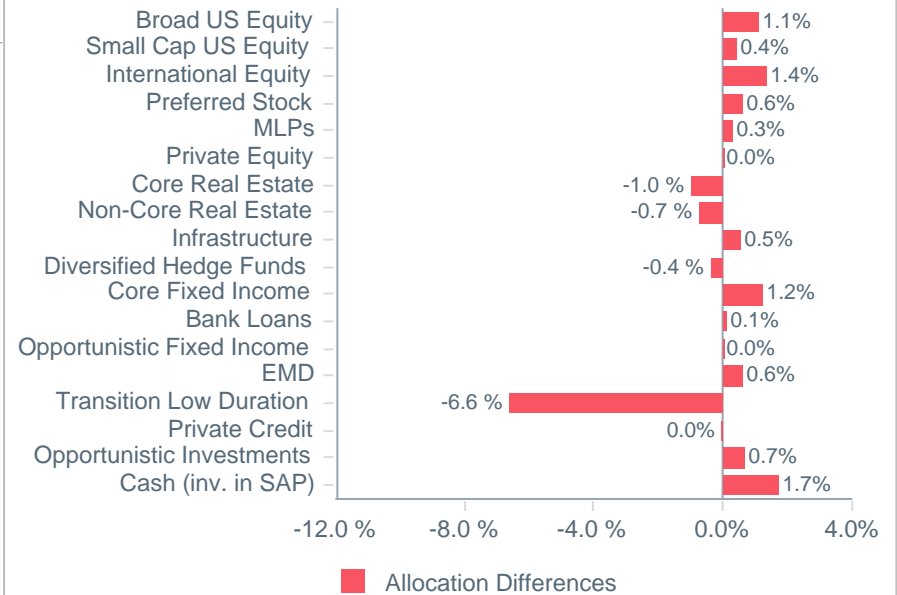
	Allocation		Performance (%)							
	Market Value (\$)	(\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Common School Perm Land Fund</b>	<b>4,686,028,309</b>		<b>5.2</b>	<b>5.2</b>	<b>10.0</b>	<b>10.0</b>	<b>4.7</b>	<b>6.7</b>	<b>5.9</b>	<b>5.3</b>
CSPLF - Total Fund Index			5.3	4.4	9.1	9.1	3.9	6.0	5.4	5.0
Difference			-0.1	0.8	0.9	0.9	0.8	0.7	0.5	0.3
<b>Higher Education</b>	<b>129,685,242</b>		<b>5.3</b>	<b>5.2</b>	<b>10.1</b>	<b>10.1</b>	<b>4.8</b>	<b>6.6</b>	<b>5.6</b>	<b>5.0</b>
Higher Education - Total Fund Index			5.3	4.4	9.1	9.1	3.9	6.0	5.2	4.8
Difference			0.0	0.8	1.0	1.0	0.9	0.6	0.4	0.2

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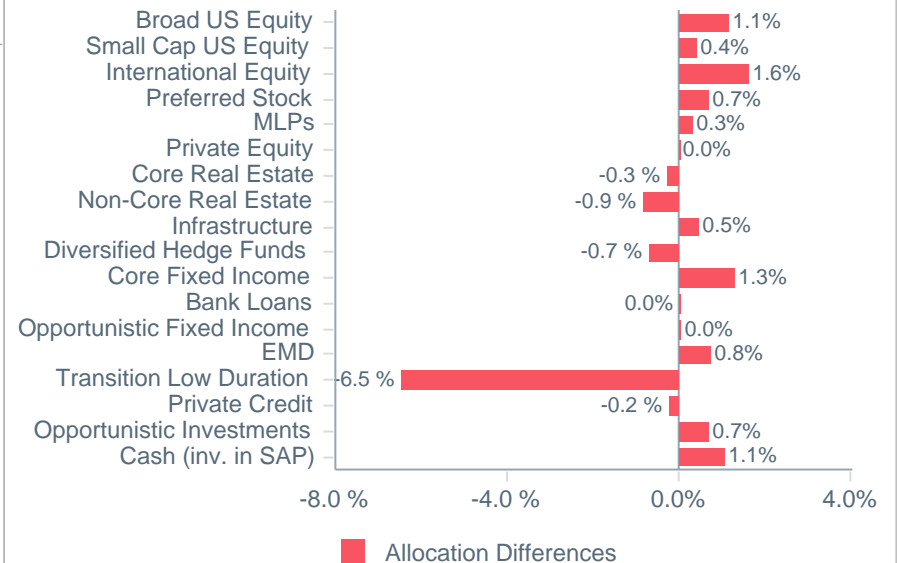
**Common School PLF Ex. PPI**

	Allocation (\$)	Allocation (%)	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Common School PLF Ex. PPI</b>	<b>4,667,668,571</b>	<b>100.0</b>	<b>-</b>	<b>100.0</b>	<b>-</b>
Broad US Equity	519,105,412	11.1	5.0	10.0	15.0
Small Cap US Equity	128,743,176	2.8	1.2	2.4	3.5
International Equity	826,728,092	17.7	8.2	16.3	24.5
Preferred Stock	122,191,394	2.6	1.0	2.0	3.0
MLPs	340,215,287	7.3	3.5	7.0	10.5
Private Equity	120,832	0.0	0.0	0.0	0.0
Core Real Estate	443,846,639	9.5	5.3	10.5	15.8
Non-Core Real Estate	128,974,513	2.8	1.8	3.5	5.3
Infrastructure	106,923,279	2.3	0.9	1.8	2.6
Diversified Hedge Funds	215,196,789	4.6	2.5	5.0	7.5
Core Fixed Income	736,617,061	15.8	7.3	14.5	21.8
Bank Loans	145,589,483	3.1	1.5	3.0	4.5
Opportunistic Fixed Income	1,387,786	0.0	0.0	0.0	5.0
EMD	355,530,204	7.6	3.5	7.0	10.5
Transition Low Duration	399,647,234	8.6	7.6	15.2	22.8
Private Credit	84,084,152	1.8	0.9	1.8	2.8
Opportunistic Investments	31,619,862	0.7	0.0	0.0	5.0
Cash (inv. in SAP)	81,147,376	1.7	0.0	0.0	5.0



**Higher Education**

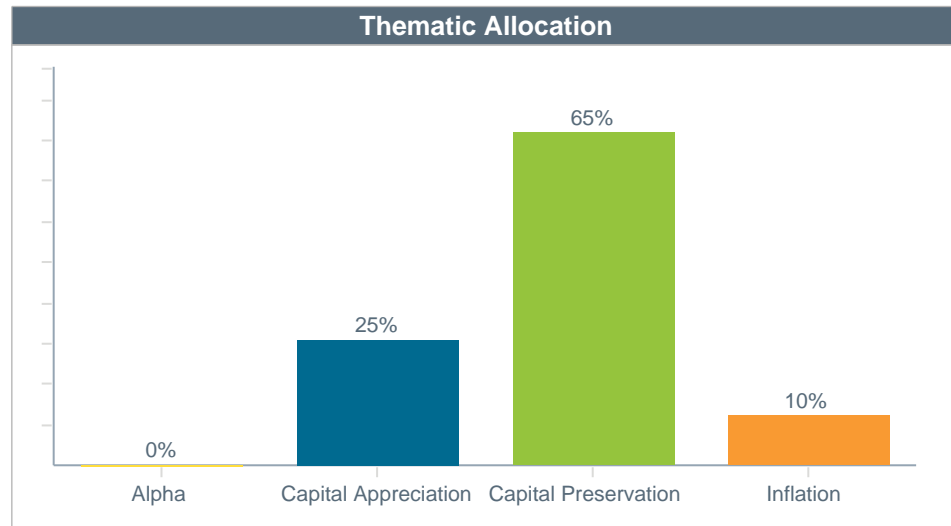
	Allocation (\$)	Allocation (%)	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Higher Education</b>	<b>129,685,242</b>	<b>100.0</b>	<b>-</b>	<b>100.0</b>	<b>-</b>
Broad US Equity	14,459,282	11.1	5.0	10.0	15.0
Small Cap US Equity	3,578,317	2.8	1.2	2.4	3.5
International Equity	23,292,454	18.0	8.2	16.3	24.5
Preferred Stock	3,473,208	2.7	1.0	2.0	3.0
MLPs	9,513,585	7.3	3.5	7.0	10.5
Private Equity	4,560	0.0	0.0	0.0	0.0
Core Real Estate	13,274,963	10.2	5.3	10.5	15.8
Non-Core Real Estate	3,428,204	2.6	1.8	3.5	5.3
Infrastructure	2,865,639	2.2	0.9	1.8	2.6
Diversified Hedge Funds	5,555,032	4.3	2.5	5.0	7.5
Core Fixed Income	20,547,991	15.8	7.3	14.5	21.8
Bank Loans	3,879,527	3.0	1.5	3.0	4.5
Opportunistic Fixed Income	46,176	0.0	0.0	0.0	5.0
EMD	10,069,767	7.8	3.5	7.0	10.5
Transition Low Duration	11,303,238	8.7	7.6	15.2	22.8
Private Credit	2,078,618	1.6	0.9	1.8	2.8
Opportunistic Investments	926,028	0.7	0.0	0.0	5.0
Cash (inv. in SAP)	1,388,652	1.1	0.0	0.0	5.0



Allocations shown may not sum up to 100% exactly due to rounding. Market value shown for CSPLF excludes Public Purpose Investments (PPIs). Asset class targets shown represent 12/01/2023 interim targets.

Investment Profile
<p><b>Fund Type:</b> Permanent Fund</p> <p><b>Main Objective:</b> Provide a return that assures the Workers' Compensation Fund will be self-funding or nearly self-funding in order to substantially reduce or eliminate the need for employer contributions.</p> <p><b>Primary Investment Goals:</b> Long-term return, safety of capital, yield and capital appreciation.</p> <p><b>Long-Term Target Equity Allocation:</b> 34%</p> <p><b>Actuarial Discount Rate:</b> 2.5%*</p> <p><b>Funded Status:</b> &gt;100%*</p> <p><b>Duration of Liabilities:</b> 11.4 years*</p> <p>*As of the most recent report.</p>

Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Workers Comp Long-Term Reserve</b>	-	<b>100.00</b>	-
Broad US Equity	6.63	13.25	19.88
Small Cap US Equity	0.67	1.33	2.00
International Equity	10.11	20.22	30.33
Private Equity	0.00	0.00	1.00
Private Credit	1.47	2.94	4.40
MLP	4.90	9.80	14.70
Opportunistic Investments	0.00	0.00	2.00
Infrastructure	1.47	2.93	4.40
Real Estate Core	5.59	11.18	16.78
Real Estate Value Added	4.52	9.03	13.55
Core Fixed Income	1.00	2.00	3.00
EMD	5.59	11.18	16.77



Fixed Income Characteristics vs. BB US Agg Bond Index		
	Portfolio	Benchmark
Effective Duration	N/A	6.2
Avg. Quality	N/A	Aa2/Aa3
Yield To Maturity (%)	N/A	4.5
Coupon Rate (%)	N/A	3.1

Risk Metrics		
	5 Years	10 Years
Sharpe Ratio	0.4	0.5
Standard Deviation	8.4	6.3
Beta	0.4	0.3

Comparative Performance									
	Allocation				Performance (%)				
	Market Value (\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Workers' Compensation Fund</b>	<b>2,515,074,666</b>	<b>7.5</b>	<b>4.1</b>	<b>8.4</b>	<b>8.4</b>	<b>0.2</b>	<b>5.2</b>	<b>4.7</b>	<b>4.2</b>
WC - Total Fund Index		8.1	3.8	8.0	8.0	-0.5	4.6	4.2	4.0
Difference		-0.6	0.3	0.4	0.4	0.7	0.6	0.5	0.2

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**Wyoming State Treasurer's Office  
Asset Allocation**

**As of December 31, 2023**

	<b>Asset Allocation (\$000)</b>	<b>Asset Allocation (%)</b>
<b>Workers Compensation Fund</b>	<b>2,515,075</b>	<b>100.00</b>
Broad US Equity	122,945	4.89
Small Cap US Equity	13,169	0.52
International Equity	200,177	7.96
MLPs	86,112	3.42
Core Real Estate	142,757	5.68
Non-Core Real Estate	67,763	2.69
Infrastructure	62,395	2.48
Liability Driven Fixed Income	1,485,348	59.06
Opportunistic Fixed Income	10	0.00
EMD	114,054	4.53
Transition Low Duration	127,981	5.09
Private Credit	30,782	1.22
Opportunistic Investments	16,480	0.66
Cash (inv. in SAP)	24,739	0.98

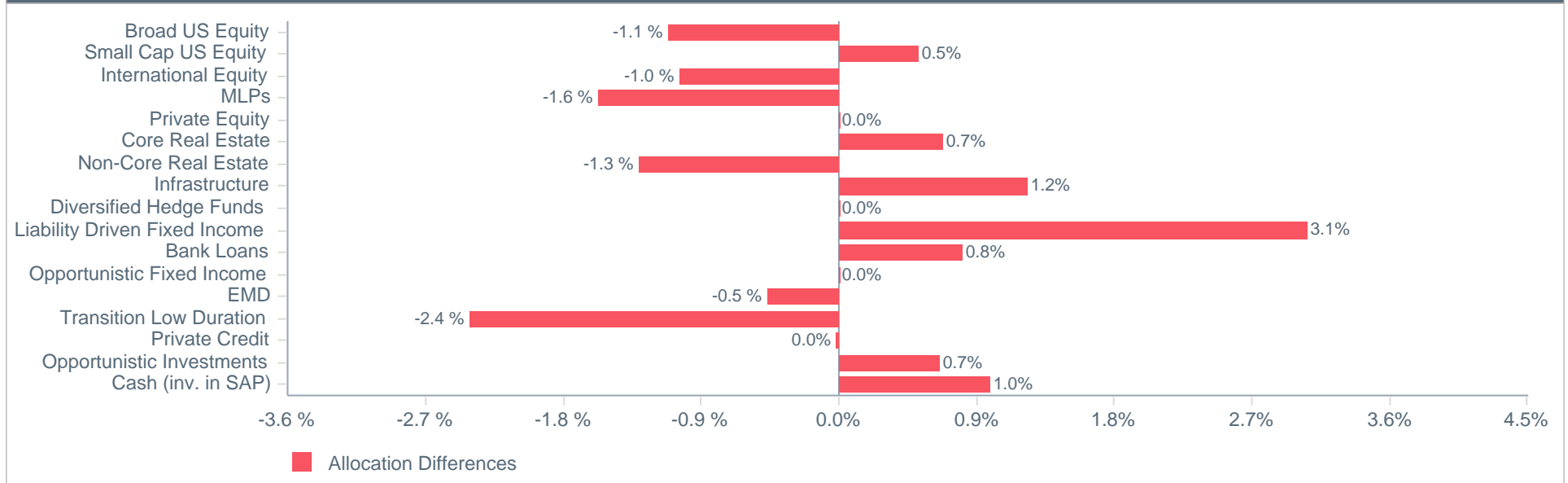
Allocations shown may not sum up to 100% exactly due to rounding. The Total LSRA pool has no target allocation.



Asset Allocation vs. Target

	Allocation (\$)	Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)
<b>Workers Comp Long-Term Reserve</b>	<b>1,025,147,810</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
Broad US Equity	122,944,926	11.99	6.63	13.25	19.88
Small Cap US Equity	11,123,448	1.09	0.67	1.33	2.00
International Equity	200,176,624	19.53	10.11	20.22	30.33
Private Equity	78,951	0.01	0.00	0.00	1.00
Private Credit	30,781,958	3.00	1.47	2.94	4.40
MLP	86,111,991	8.40	4.90	9.80	14.70
Opportunistic Investments	16,479,750	1.61	0.00	0.00	2.00
Infrastructure	62,394,880	6.09	1.47	2.93	4.40
Real Estate Core	142,757,134	13.93	5.59	11.18	16.78
Real Estate Value Added	67,762,704	6.61	4.52	9.03	13.55
Core Fixed Income	22,206,333	2.17	1.00	2.00	3.00
EMD	114,054,260	11.13	5.59	11.18	16.77
Opportunistic Fixed Income	9,976	0.00	0.00	0.00	1.00
Transition Low Duration Fixed Income	127,981,058	12.48	6.94	13.88	20.82
Bank Loans	20,283,817	1.98	1.13	2.25	3.38
Cash (inv. in SAP)	-	0.00	0.00	0.00	1.00

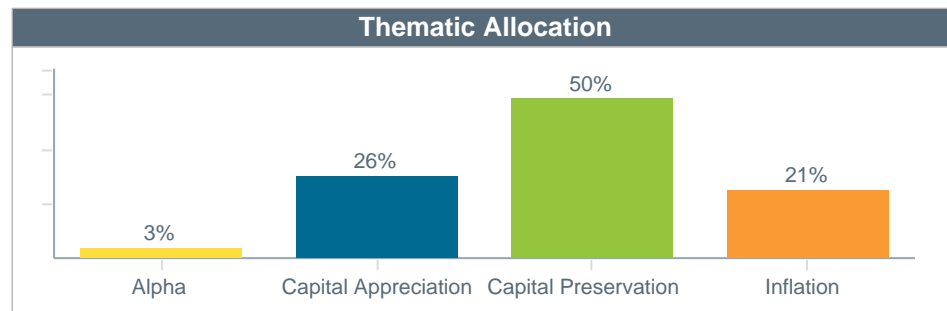
Asset Allocation vs. Target Differences



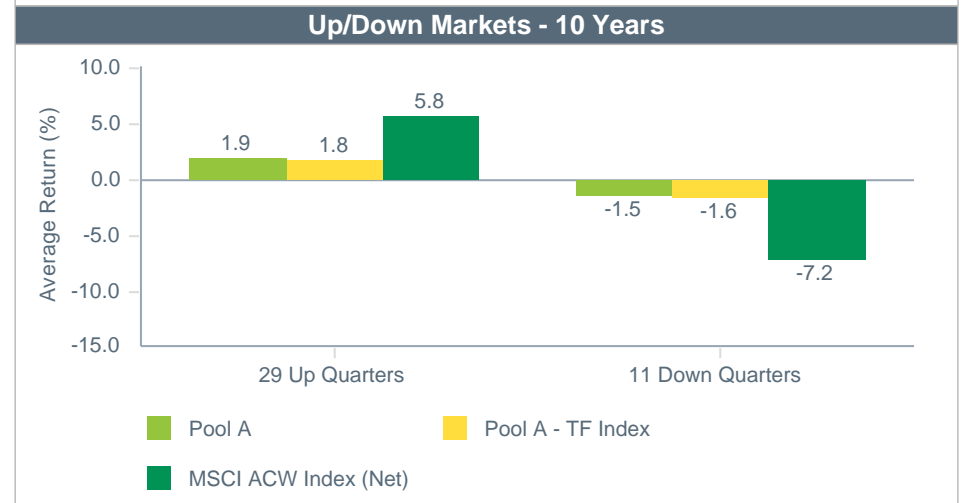
Allocations shown may not sum up to 100% exactly due to rounding. Asset class targets shown represent 12/01/2023 interim targets.

Investment Profile	
<b>Fund Type:</b> Non-Permanent Fund	
<b>Main Objective:</b> Provide a diverse array of securities including equities, while maintaining adequate liquidity, stability, and return on investment.	
<b>Primary Investment Goal:</b> Pool A is intended to be moderately liquid and safely invested but also be invested for return and growth.	
<b>Target Equity Allocation:</b> 50%	
<b>Participating Funds:</b>	
<ul style="list-style-type: none"> <li>• Tobacco Settlement Trust Fund</li> <li>• Wildlife and Natural Resource Trust Account</li> <li>• Cultural Trust Fund</li> <li>• Public Television Matching Fund Account</li> <li>• Game and Fish Fund Trust Account</li> </ul>	

Risk Metrics		
	5 Years	10 Years
Sharpe Ratio	0.5	0.5
Standard Deviation	6.8	5.2
Beta	0.3	0.3



Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Pool A</b>	-	<b>100.00</b>	-
Broad US Equity	2.50	5.00	7.50
Small Cap US Equity	1.00	2.00	3.00
International Equity	5.00	10.00	15.00
Preferred Stock	1.15	2.30	3.45
MLPs	2.50	5.00	7.50
Core Real Estate	3.50	7.00	10.50
Non-Core Real Estate	2.50	5.00	7.50
Diversified Hedge Funds	2.50	5.00	7.50
Core Fixed Income	15.63	31.25	64.88
Bank Loans	5.63	11.25	16.88
Transition Low Duration	2.00	4.00	6.00
Low Duration Fixed Income	2.35	4.70	7.05
Private Credit	1.25	2.50	3.75



Comparative Performance									
	Allocation				Performance (%)				
	Market Value (\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Pool A</b>	<b>409,952,669</b>	<b>5.5</b>	<b>4.7</b>	<b>9.2</b>	<b>9.2</b>	<b>2.9</b>	<b>5.2</b>	<b>4.2</b>	<b>3.8</b>
Pool A - Total Fund Index		4.8	3.8	7.6	7.6	2.2	4.5	3.6	3.4
Difference		0.7	0.9	1.6	1.6	0.7	0.7	0.6	0.4

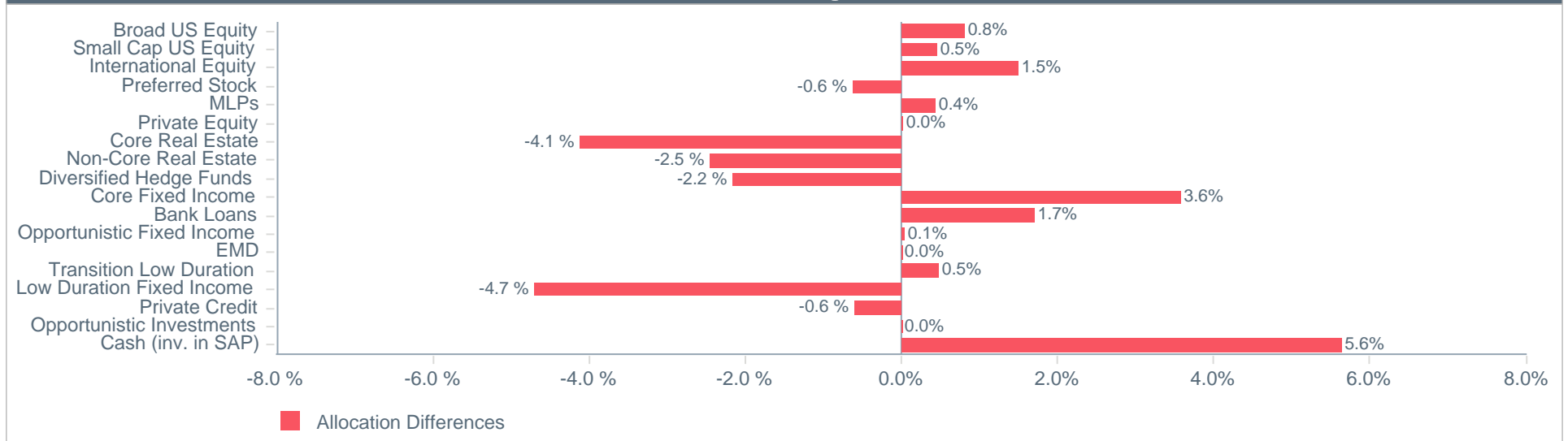
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Asset Allocation vs. Target

	Allocation (\$)	Allocation (%)	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>Pool A</b>	<b>409,952,669</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
Broad US Equity	23,801,430	5.81	2.50	5.00	7.50
Small Cap US Equity	10,103,535	2.46	1.00	2.00	3.00
International Equity	47,154,039	11.50	5.00	10.00	15.00
Preferred Stock	6,874,625	1.68	1.15	2.30	3.45
MLPs	22,253,071	5.43	2.50	5.00	7.50
Private Equity	47,173	0.01	0.00	0.00	0.00
Core Real Estate	11,827,055	2.88	3.50	7.00	10.50
Non-Core Real Estate	10,424,196	2.54	2.50	5.00	7.50
Diversified Hedge Funds	11,620,226	2.83	2.50	5.00	7.50
Core Fixed Income	142,819,256	34.84	15.63	31.25	46.88
Bank Loans	53,134,497	12.96	5.63	11.25	16.88
Opportunistic Fixed Income	209,285	0.05	0.00	0.00	5.00
EMD	-	0.00	0.00	0.00	0.00
Transition Low Duration	18,320,838	4.47	2.00	4.00	6.00
Low Duration Fixed Income	-	0.00	2.35	4.70	7.05
Private Credit	7,739,139	1.89	1.25	2.50	3.75
Opportunistic Investments	-	0.00	0.00	0.00	5.00

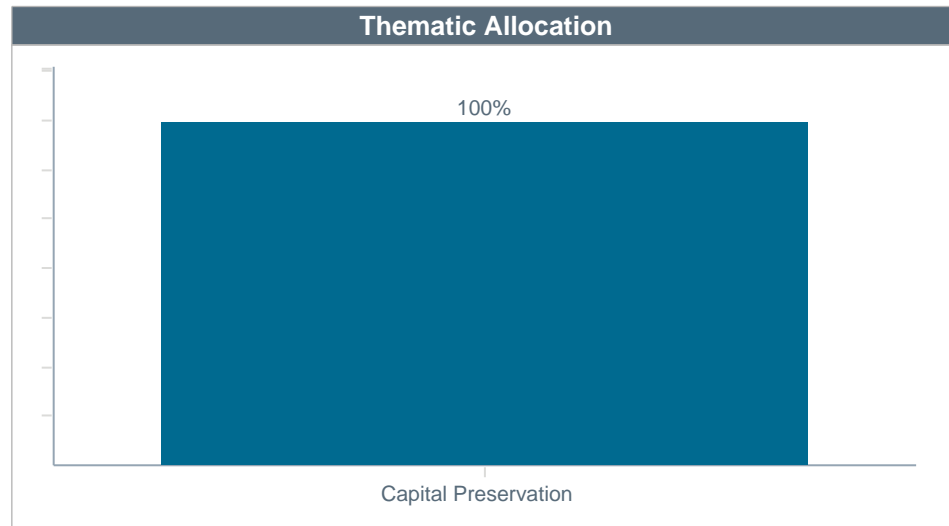
Asset Allocation vs. Target Differences



Allocations shown may not sum up to 100% exactly due to rounding. Asset class targets shown represent 12/01/2023 interim targets.

Investment Profile
<p><b>Fund Type:</b> Non-Permanent Fund</p> <p><b>Main Objective:</b> Produce an investment return so that State agencies have the advantage of better income from their invested funds, while maintaining stability.</p> <p><b>Primary Investment Goal:</b> Capital preservation, yield, and liquidity</p> <p><b>Liquidity Constraints:</b> The Fund must meet the day-to-day cash flow needs of the State</p> <p><b>Maximum Equity Allocation:</b> 0%</p> <p><b>Current Target Equity Allocation:</b> 0%</p>

Target Allocation			
	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)
<b>State Agency Pool Excluding PPI</b>	-	<b>100.00</b>	-
SAP Fixed Income	100.00	100.00	100.00
Core Fixed Income	0.00	0.00	0.00
Low Duration Fixed Income	0.00	0.00	0.00
Bank Loans	0.00	0.00	0.00
Opportunistic Fixed Income	0.00	0.00	0.00
EMD	0.00	0.00	0.00
Cash Equivalents	0.00	0.00	0.00



Fixed Income Characteristics vs. BB US Agg Bond Index		
	Portfolio	Benchmark
Effective Duration	N/A	6.2
Avg. Quality	N/A	Aa2/Aa3
Yield To Maturity (%)	N/A	4.5
Coupon Rate (%)	N/A	3.1

Risk Metrics		
	5 Years	10 Years
Sharpe Ratio	0.0	0.4
Standard Deviation	2.2	2.1
Beta	0.0	0.0

**Comparative Performance**

	Allocation	Performance (%)							
	Market Value (\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>State Agency Pool</b>	<b>6,971,399,951</b>	<b>2.4</b>	<b>3.1</b>	<b>4.6</b>	<b>4.6</b>	<b>0.6</b>	<b>1.9</b>	<b>1.9</b>	<b>2.1</b>
State Agency Pool - Actual Allocation Index		2.3	3.2	4.8	4.8	0.6	2.0	1.8	2.1
Difference		0.1	-0.1	-0.2	-0.2	0.0	-0.1	0.1	0.0

Performance shown is net of fees and annualized for periods greater than one year. Wyoming State Treasurer's Office fiscal year ends on June 30th. Beta is calculated relative to the MSCI ACW Index (Net). Calculations are based on quarterly periodicity. Allocations shown may not sum up to 100% exactly due to rounding.

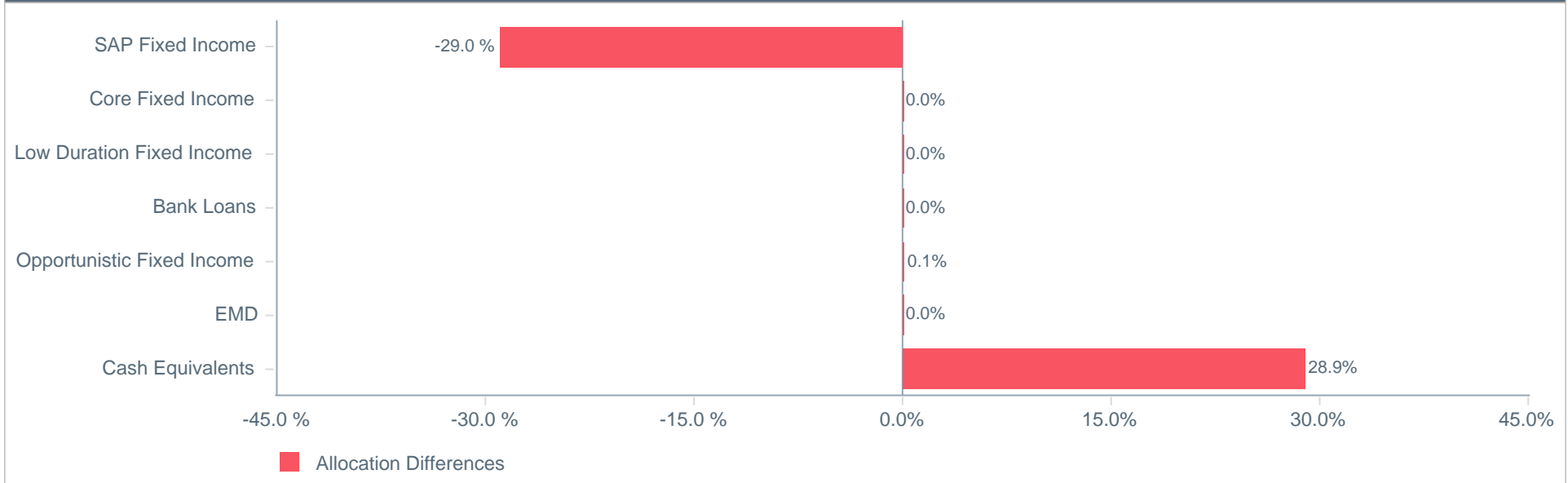




**Asset Allocation vs. Target**

	Allocation (\$)	Allocation (%)	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>State Agency Pool Excluding PPI</b>	<b>6,718,899,951</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
SAP Fixed Income	4,773,394,089	71.04	100.00	100.00	100.00
Core Fixed Income	-	0.00	0.00	0.00	0.00
Low Duration Fixed Income	-	0.00	0.00	0.00	0.00
Bank Loans	-	0.00	0.00	0.00	0.00
Opportunistic Fixed Income	4,790,942	0.07	0.00	0.00	0.00
EMD	-	0.00	0.00	0.00	0.00
Cash Equivalents	1,940,714,920	28.88	0.00	0.00	0.00

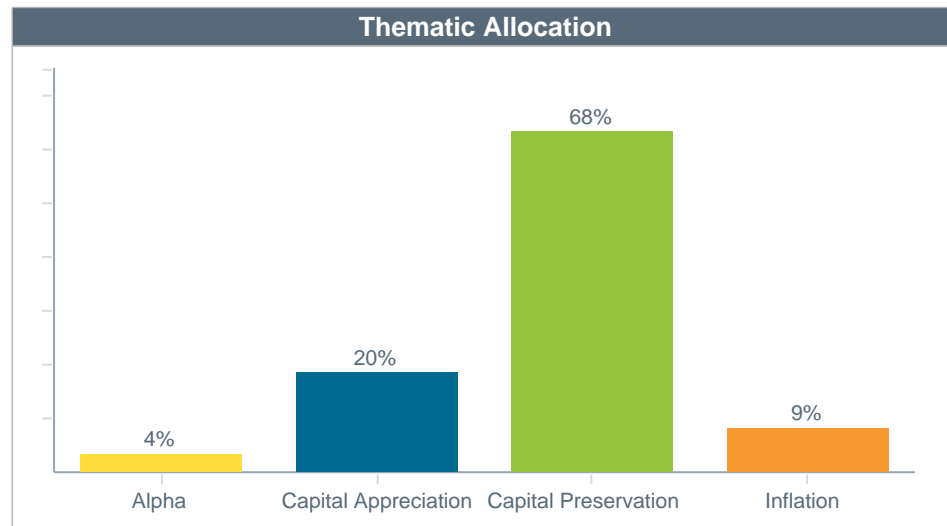
**Asset Allocation vs. Target Differences**



Allocations shown may not sum up to 100% exactly due to rounding. Market value shown excludes Public Purpose Investments (PPIs).

Investment Profile
<b>Fund Type:</b> Non-Permanent Fund
<b>Main Objective:</b> LSRA will be invested to obtain the highest possible return while seeking to preserve the balance necessary to address potential budget shortfalls or a budget deficit.
<b>Primary Investment Goal:</b> liquidity, capital preservation, and capital appreciation.
<b>LSRA LT Reserve Target Equity Allocation:</b> 87.5%
<b>Spending Policy:</b> Legislative Appropriation
<b>Participating Funds:</b>
<ul style="list-style-type: none"> <li>• Long Term Reserve</li> <li>• Intermediate Term Reserve: 100% Core Fixed Income</li> <li>• Short Term Reserve: 100% Low Duration Fixed Income</li> </ul>

Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
<b>LSRA Long Term Reserve</b>	-	<b>100.00</b>	-
Broad US Equity	17.00	22.00	27.00
Small Cap US Equity	4.00	6.00	8.00
International Equity	21.00	28.00	35.00
Bank Loans	10.00	12.50	15.00
Private Equity	0.00	0.00	0.00
MLPs	10.00	12.50	15.00
Diversified Hedge Funds	15.00	19.00	23.00
Opportunistic Investments	0.00	0.00	0.00
Cash (inv. in SAP)	0.00	0.00	0.00



Risk Metrics		
	Since Incep.	Inception Date
Standard Deviation	6.9	07/01/2019
Beta	0.3	
Sharpe Ratio	0.2	

Comparative Performance									
	Allocation			Performance (%)					
	Market Value (\$) (\$)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>LSRA</b>	<b>1,864,985,756</b>	<b>5.4</b>	<b>4.7</b>	<b>9.6</b>	<b>9.6</b>	<b>2.0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
LSRA - Total Fund Index		5.6	4.5	8.6	8.6	1.6	N/A	N/A	N/A
Difference		-0.2	0.2	1.0	1.0	0.4	N/A	N/A	N/A

Performance shown is net of fees and annualized for periods greater than one year. Wyoming State Treasurer's Office fiscal year ends on June 30th. Beta is calculated relative to the MSCI ACW Index (Net). Calculations are based on quarterly periodicity. Allocations shown may not sum up to 100% exactly due to rounding. Target Allocation represents long term reserve.



**Wyoming State Treasurer's Office**  
**Asset Allocation**

**As of December 31, 2023**

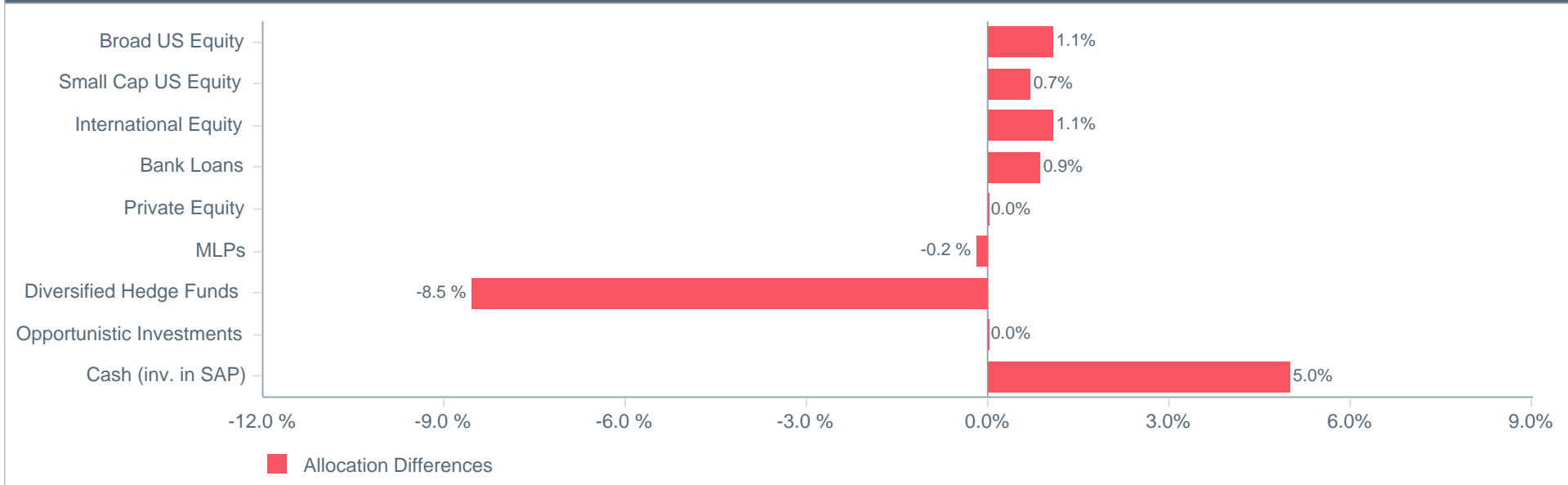
	<b>Asset Allocation (\$)</b>	<b>Asset Allocation (%)</b>
<b>LSRA</b>	<b>1,864,985,756</b>	<b>100.00</b>
Broad US Equity	144,831,483	7.77
Small Cap US Equity	41,991,899	2.25
International Equity	182,514,000	9.79
Core Fixed Income	580,135,786	31.11
Bank Loans	83,866,474	4.50
Low Duration Fixed Income	657,415,590	35.25
Private Equity	35,261	0.00
MLPs	77,248,997	4.14
Diversified Hedge Funds	65,607,654	3.52
Opportunistic Investments	-	0.00
Cash (inv. in SAP)	31,338,611	1.68

Allocations shown may not sum up to 100% exactly due to rounding. The Total LSRA pool has no target allocation.

Asset Allocation vs. Target

	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)
<b>LSRA Long Term Reserve</b>	<b>627,434,380</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
Broad US Equity	144,831,483	23.08	17.00	22.00	27.00
Small Cap US Equity	41,991,899	6.69	4.00	6.00	8.00
International Equity	182,514,000	29.09	21.00	28.00	35.00
Bank Loans	83,866,474	13.37	10.00	12.50	15.00
Private Equity	35,261	0.01	0.00	0.00	0.00
MLPs	77,248,997	12.31	10.00	12.50	15.00
Diversified Hedge Funds	65,607,654	10.46	15.00	19.00	23.00
Opportunistic Investments	-	0.00	0.00	0.00	0.00
Cash (inv. in SAP)	31,338,611	4.99	0.00	0.00	0.00

Asset Allocation vs. Target Differences



Allocations shown may not sum up to 100% exactly due to rounding. Market value shown excludes Public Purpose Investments (PPIs).

**Wyoming State Treasurer's Office  
Asset Allocation**

**As of December 31, 2023**

	<b>Asset Allocation (\$)</b>	<b>Asset Allocation (%)</b>	<b>Minimum Allocation (%)</b>	<b>Target Allocation (%)</b>	<b>Maximum Allocation (%)</b>
<b>LSRA Intermediate Term Reserve</b>	<b>580,135,786</b>	<b>100.00</b>	-	<b>100.00</b>	-
Core Fixed Income	580,135,786	100.00	100.00	100.00	100.00

Allocations shown may not sum up to 100% exactly due to rounding.

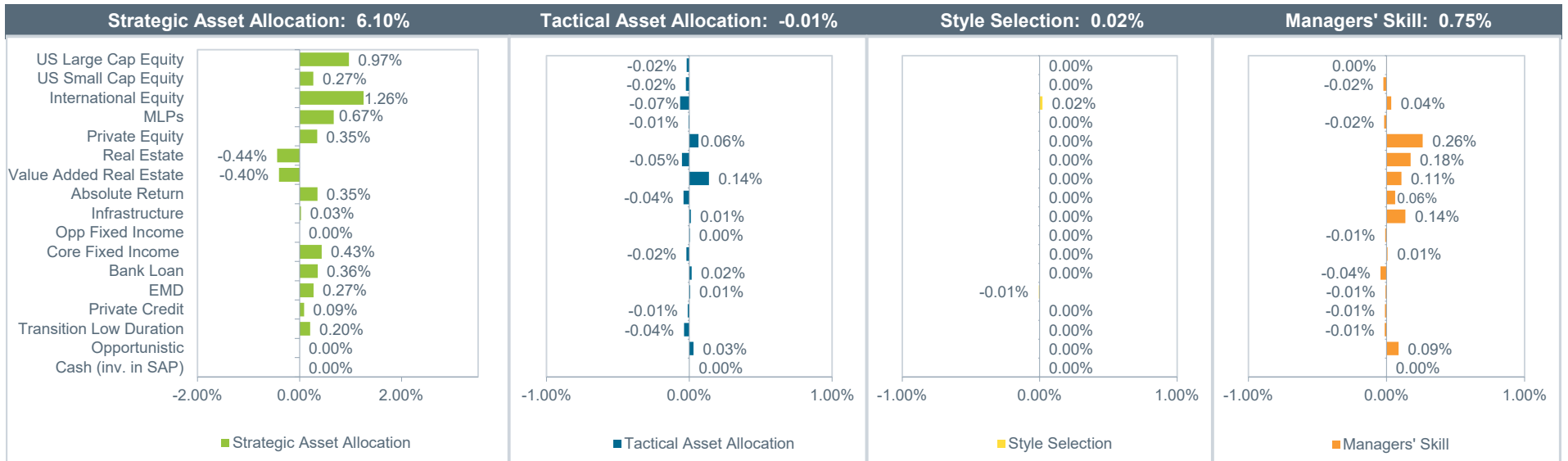
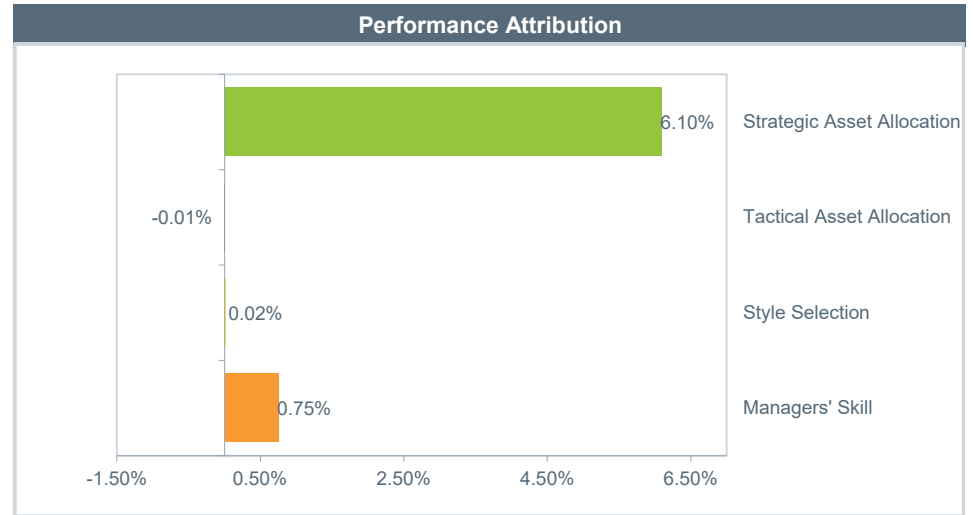
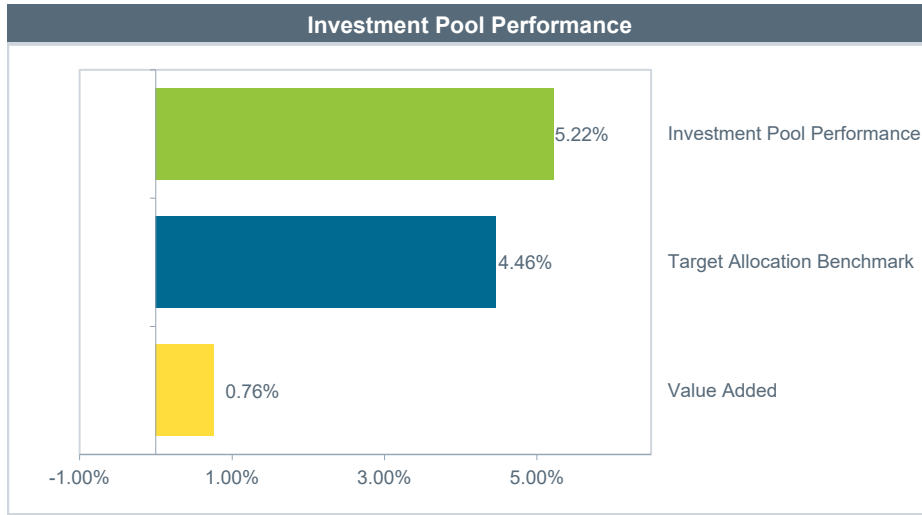
**Wyoming State Treasurer's Office  
Asset Allocation**

**As of December 31, 2023**

	<b>Asset Allocation (\$)</b>	<b>Asset Allocation (%)</b>	<b>Minimum Allocation (%)</b>	<b>Target Allocation (%)</b>	<b>Maximum Allocation (%)</b>
<b>LSRA Short Term Reserve</b>	<b>657,415,590</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
Low Duration Fixed Income	657,415,590	100.00	100.00	100.00	100.00

Allocations shown may not sum up to 100% exactly due to rounding.

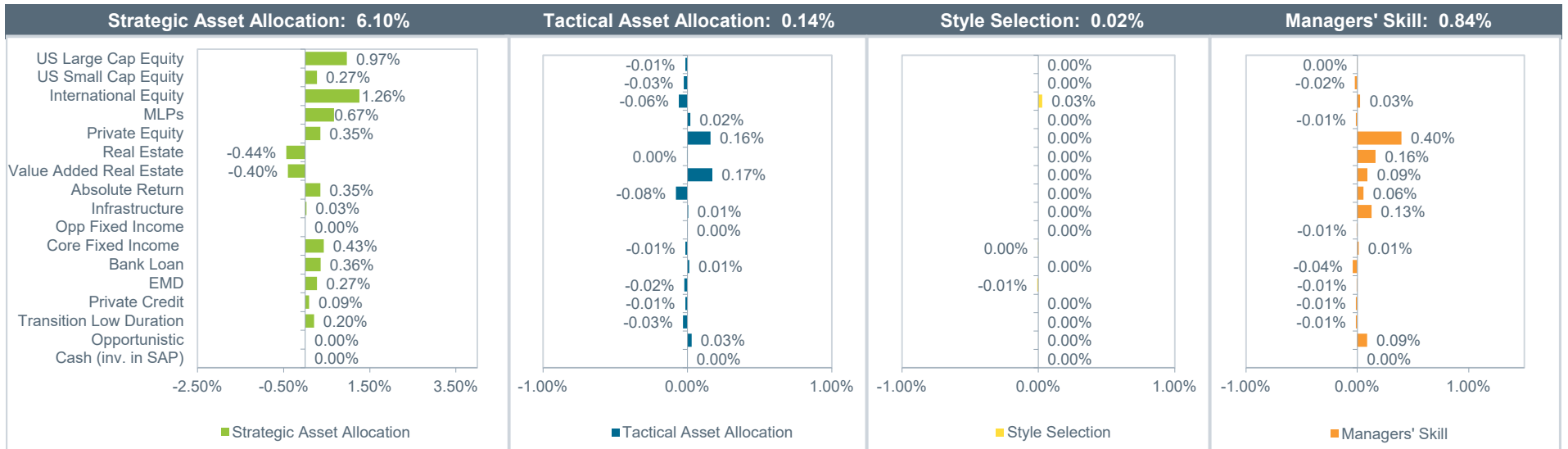
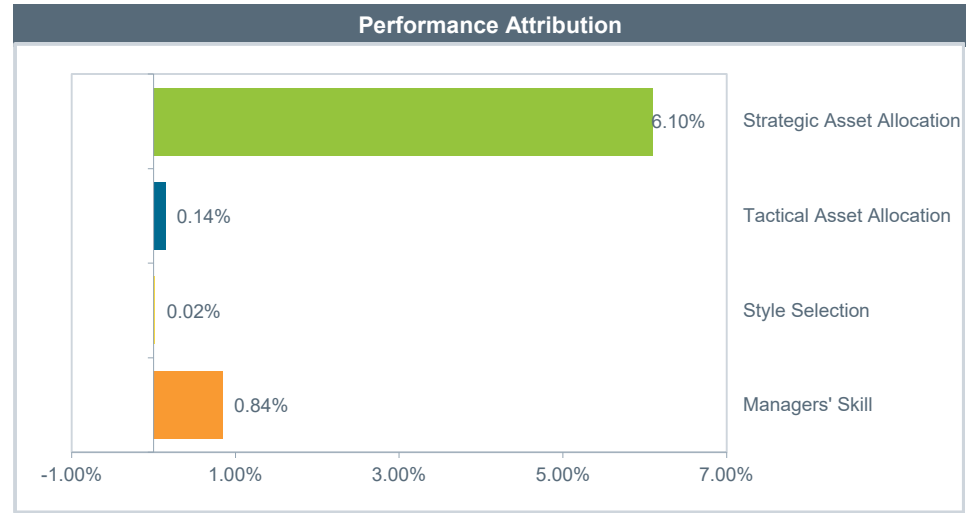
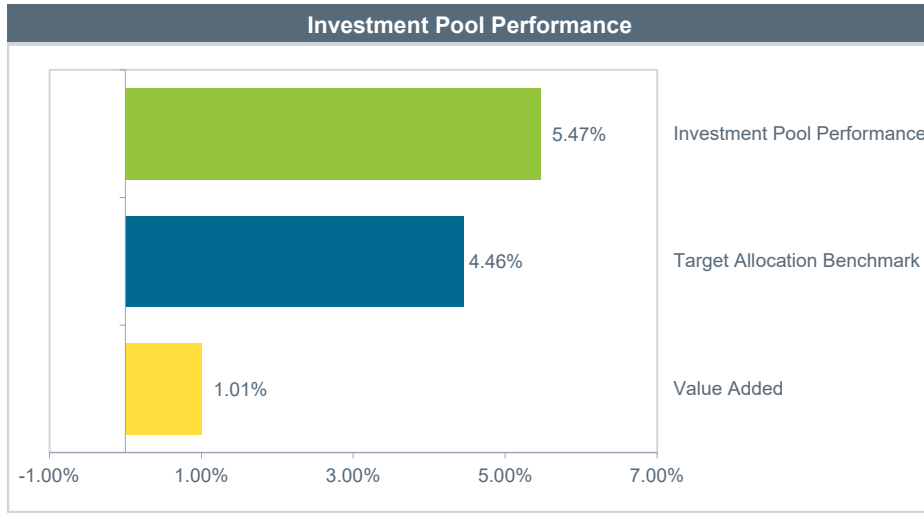
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Permanent Mineral Trust Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Permanent Land Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**

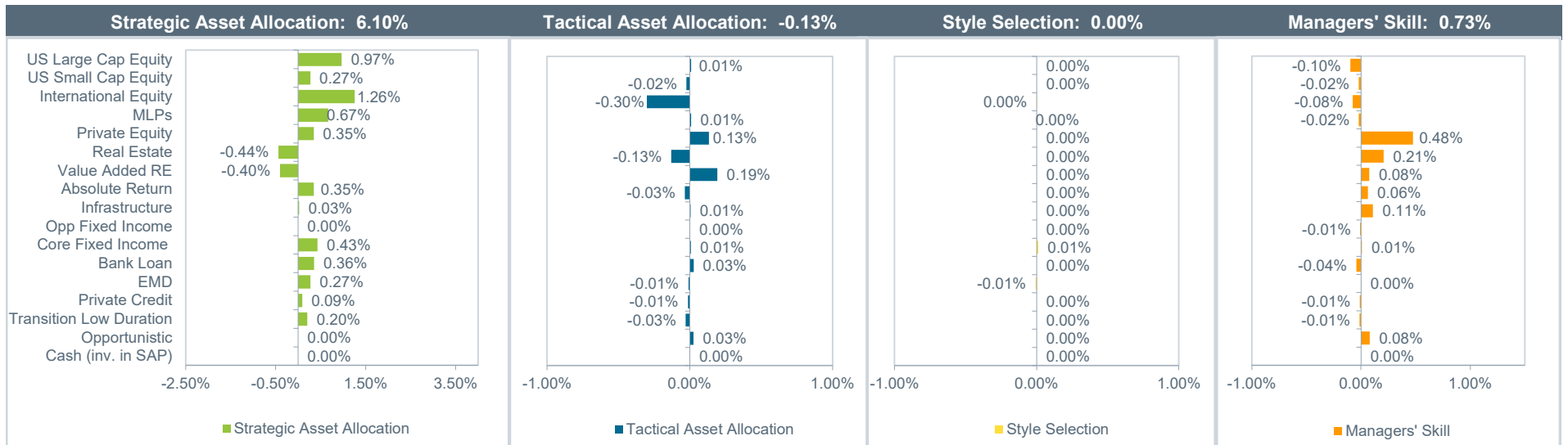
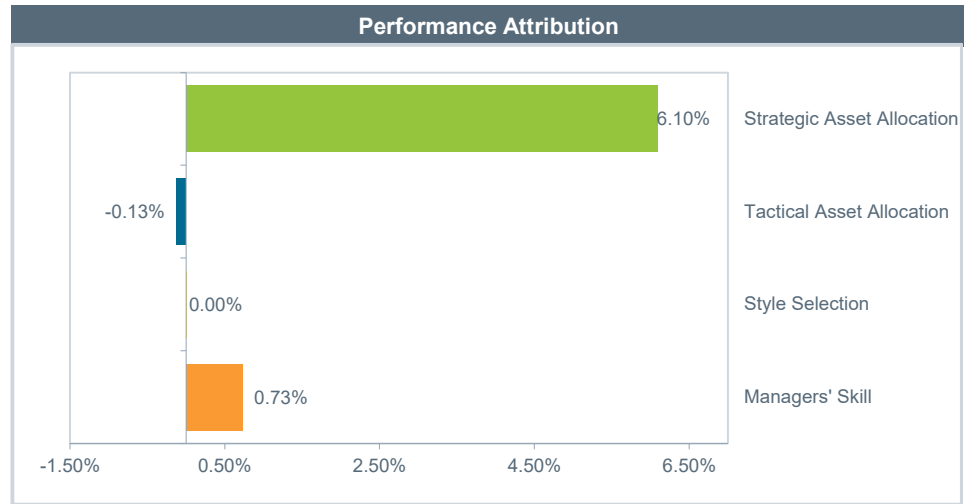
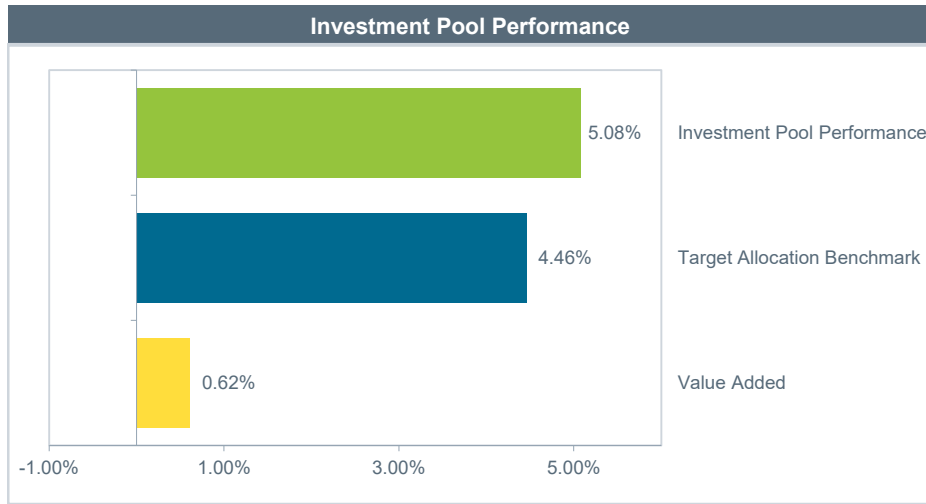


Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.





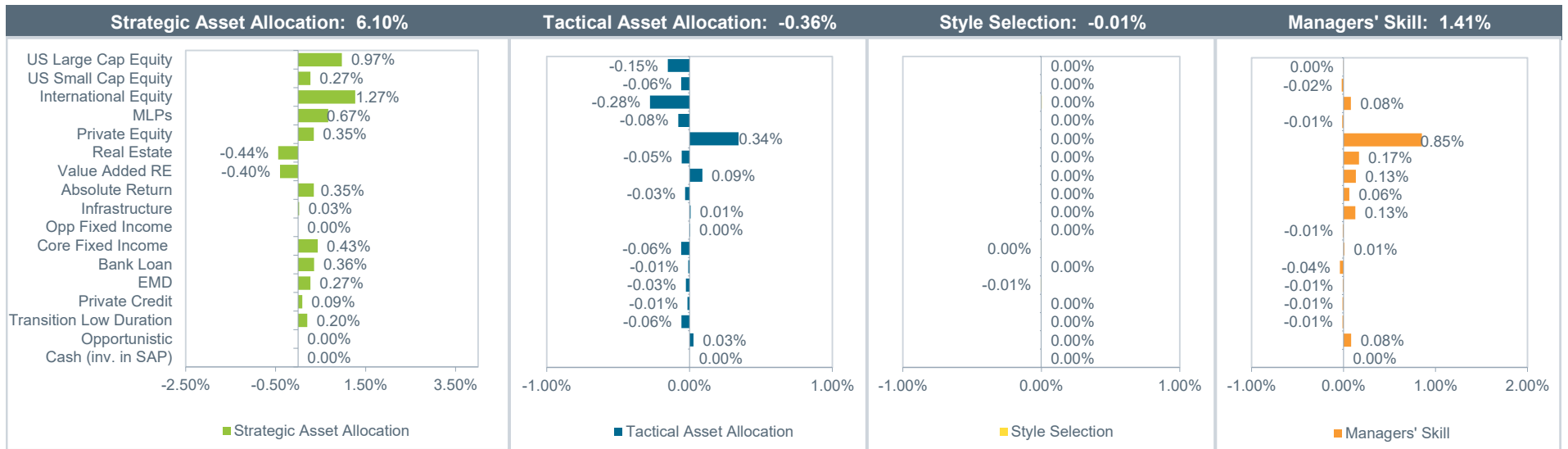
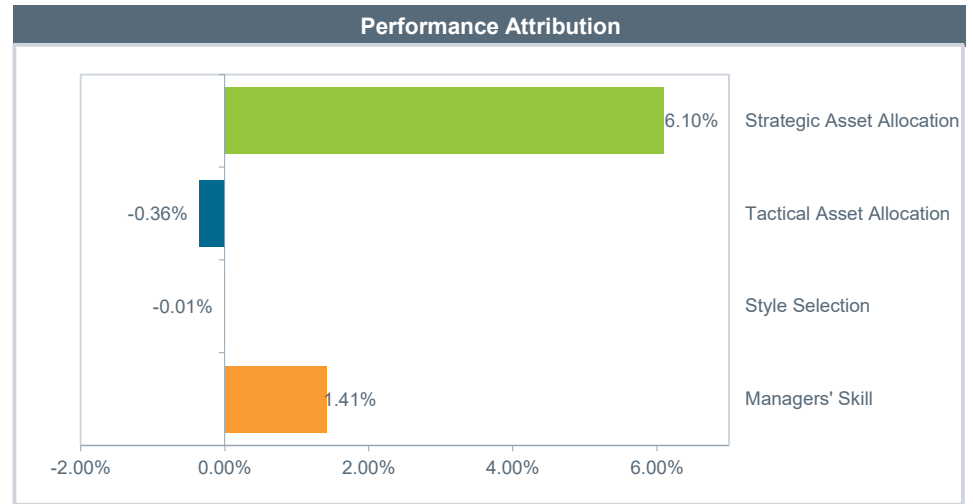
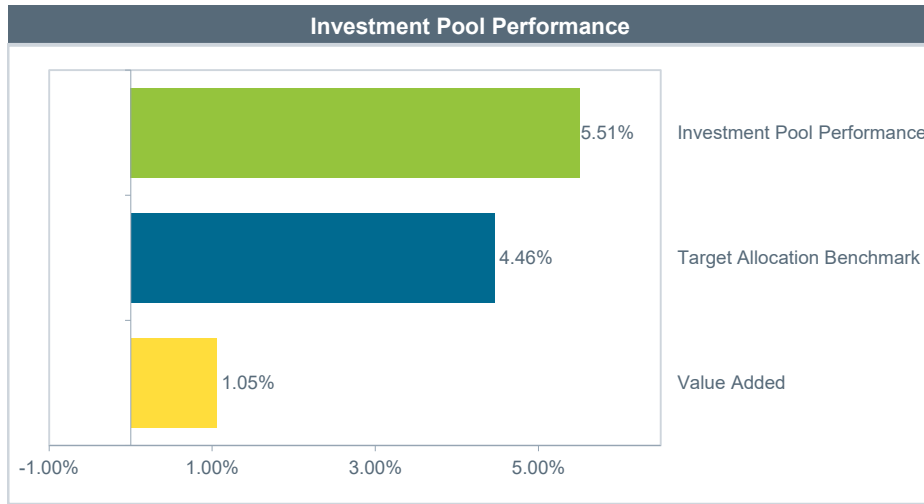
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
University Permanent Land Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



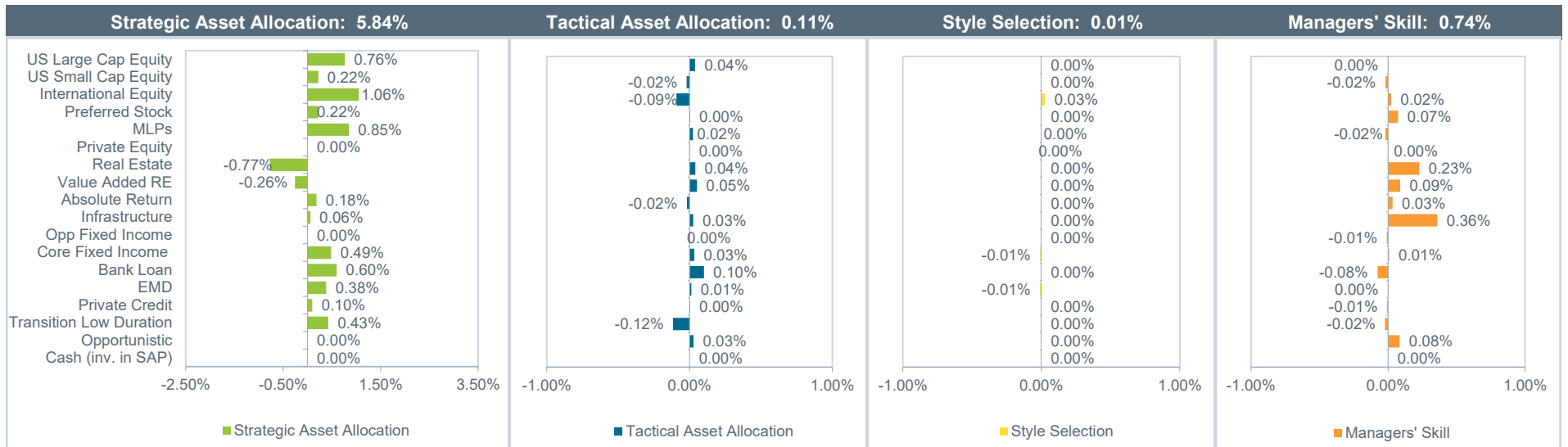
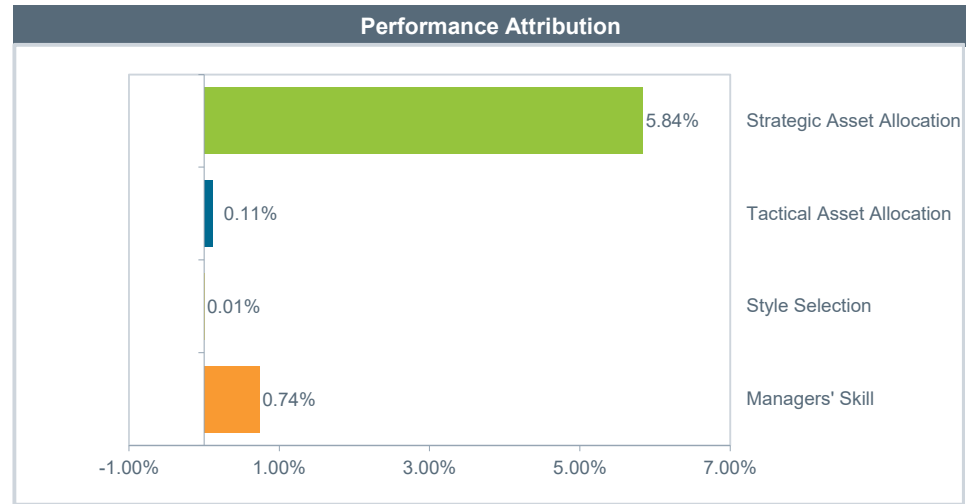
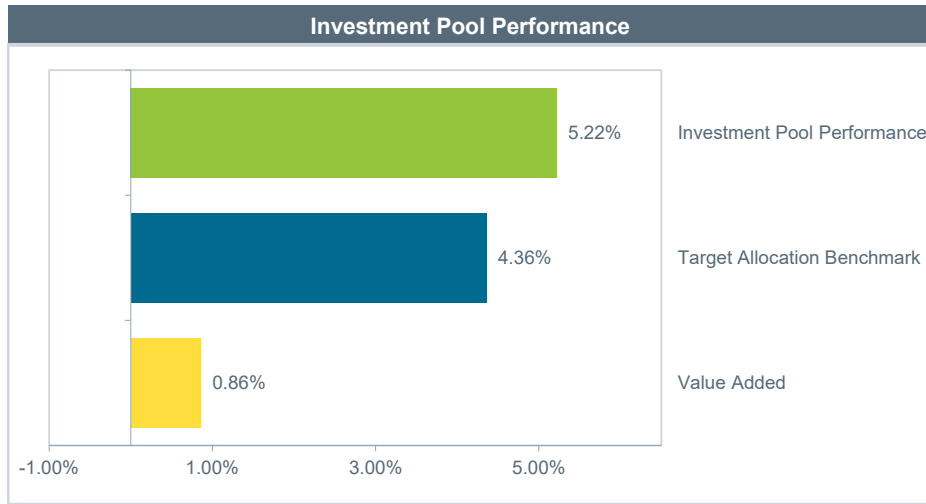
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Hathaway Scholarship Endowment Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



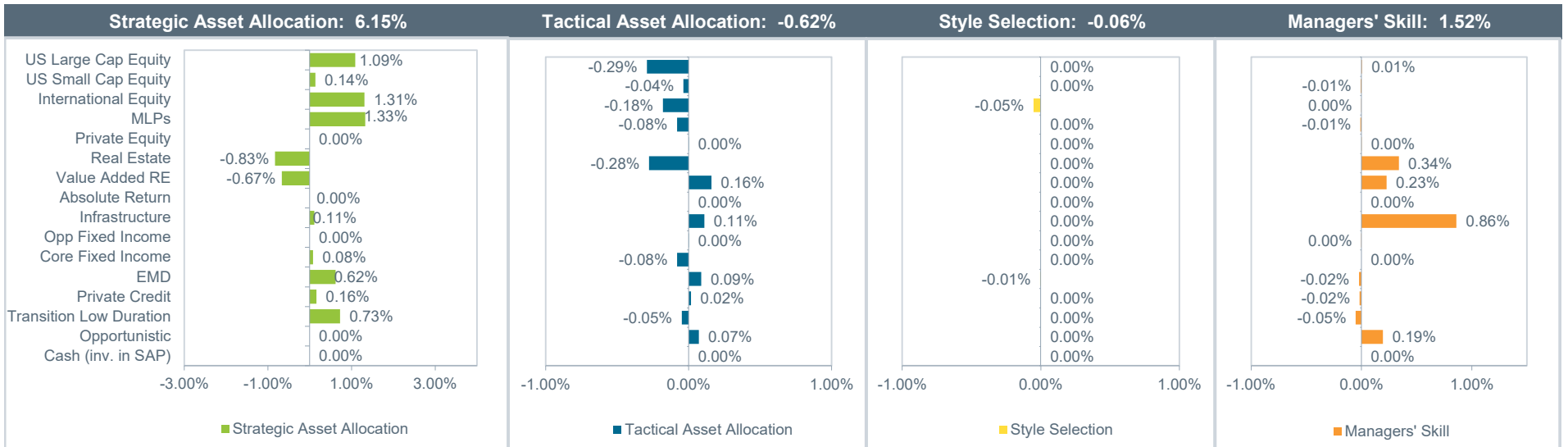
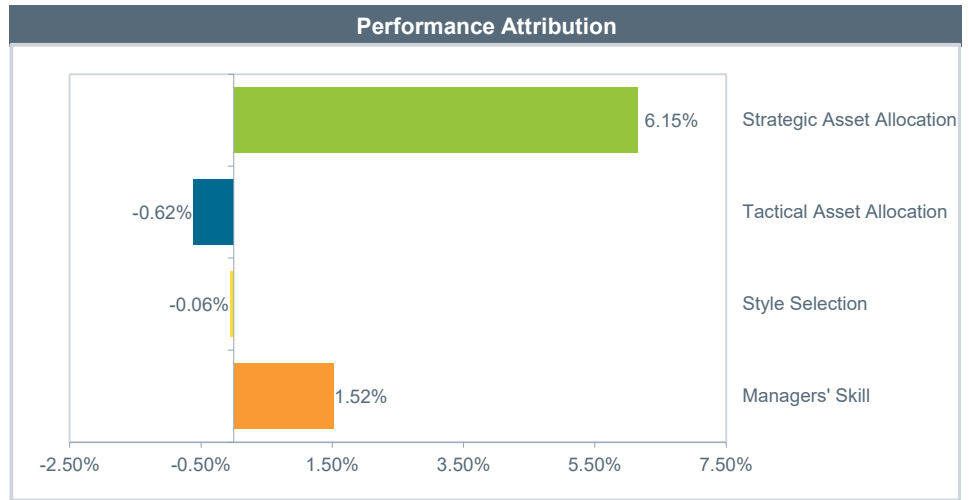
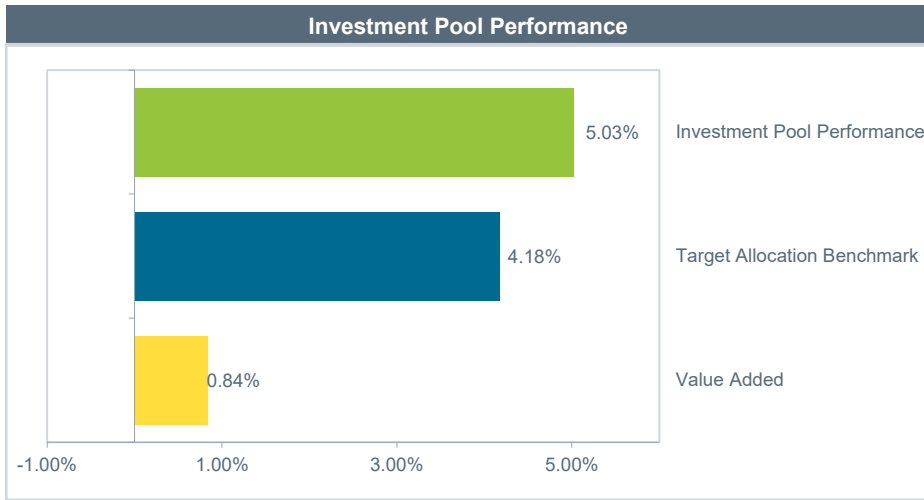
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Common School Permanent Land Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



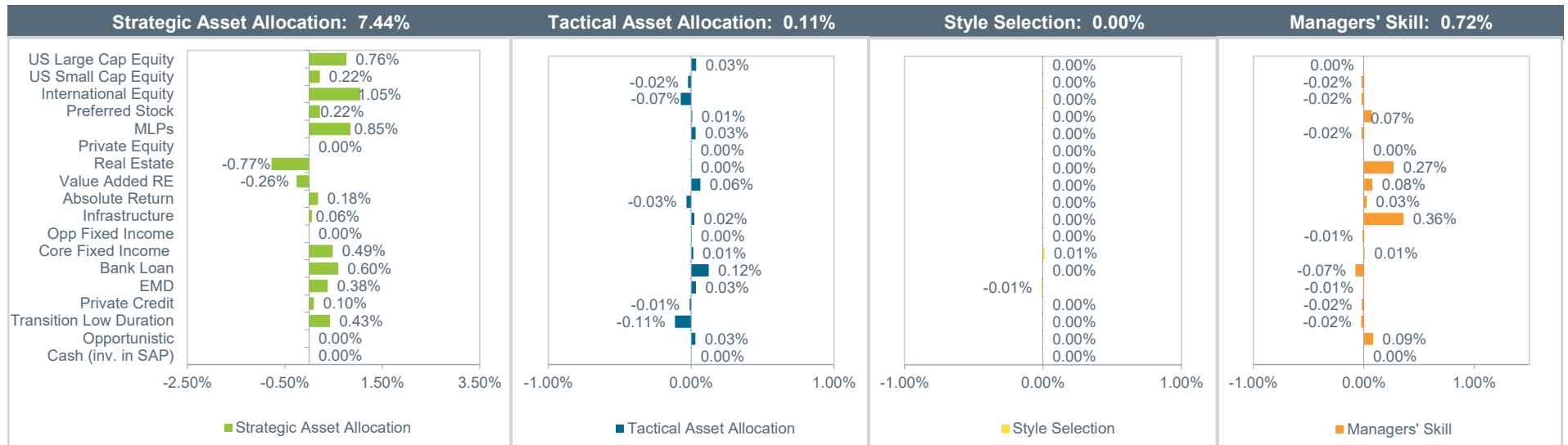
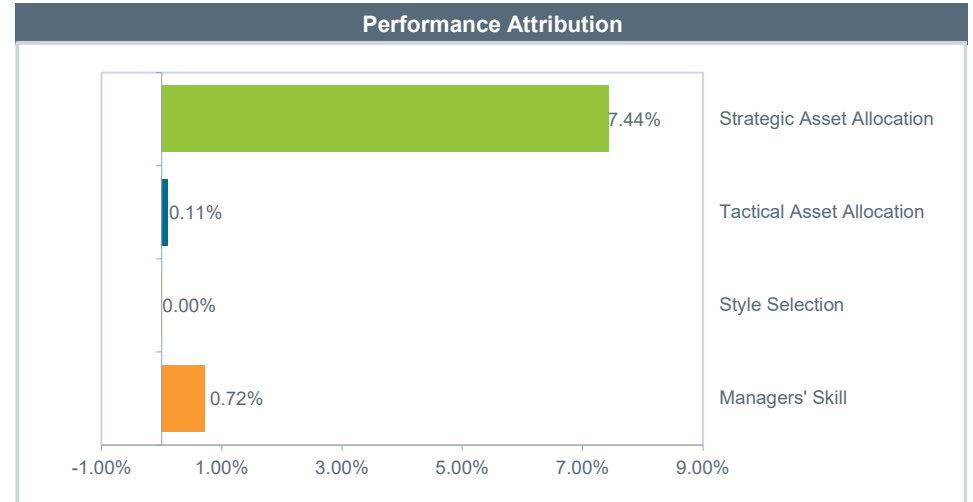
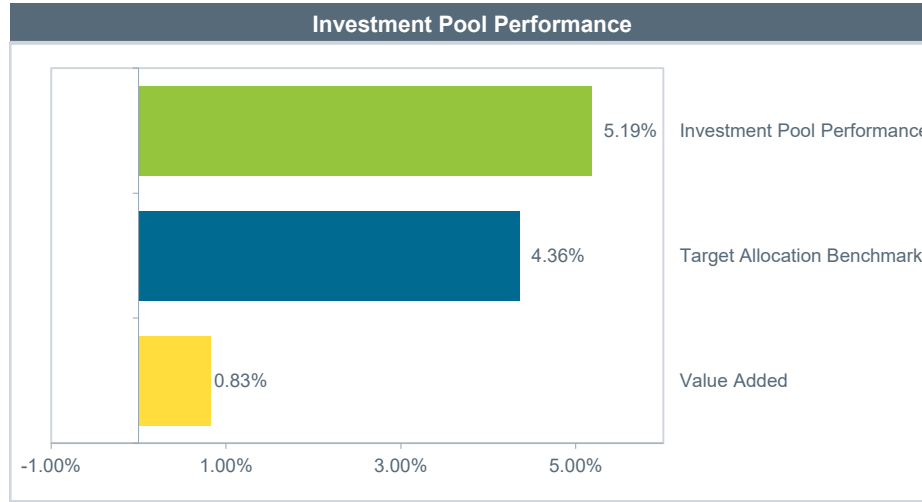
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Workers' Compensation Long-Term Reserve Fund vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



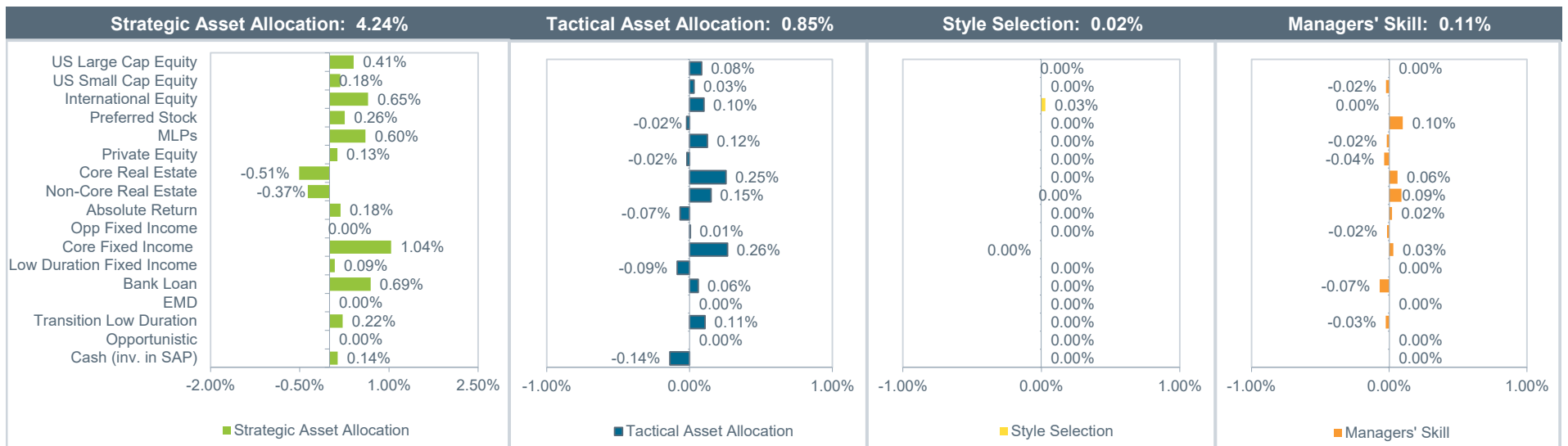
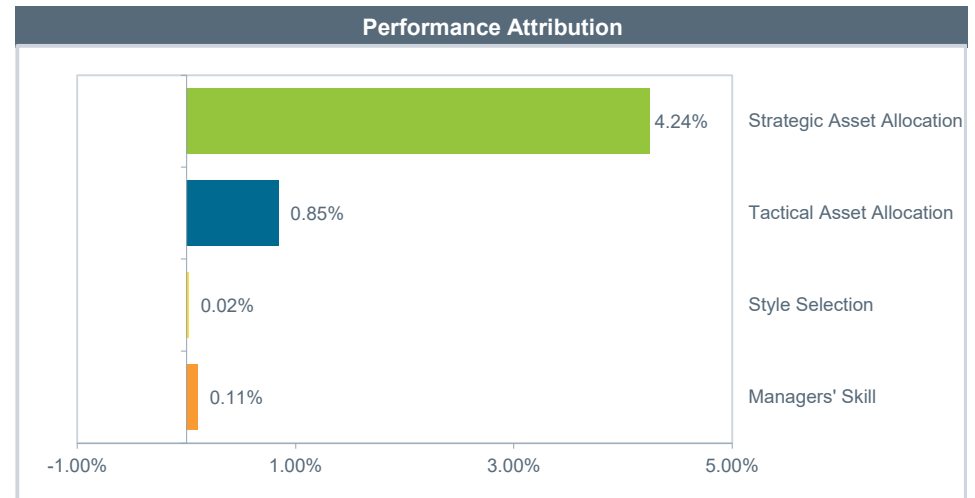
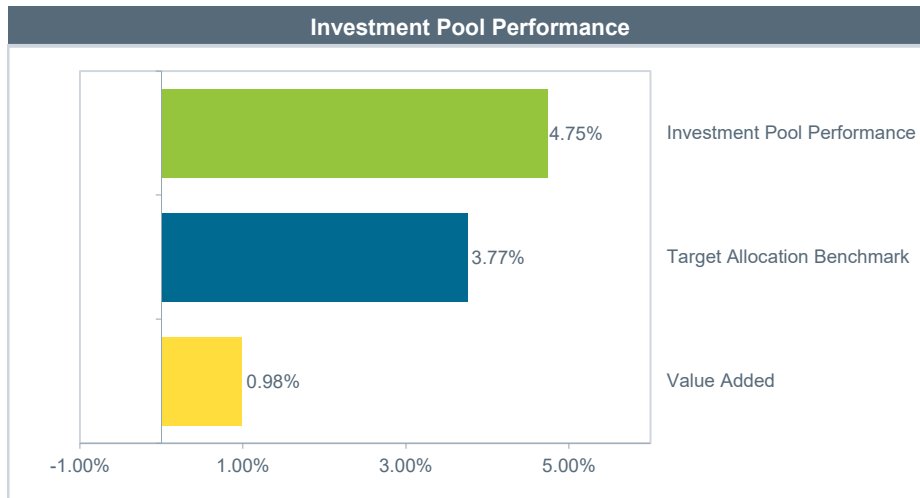
Wyoming State Treasurer's Office  
 Pool Attribution - IDP Methodology  
 Higher Education Endowment Fund vs. Target Allocation Index  
 FYTD Ending December 31, 2023



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



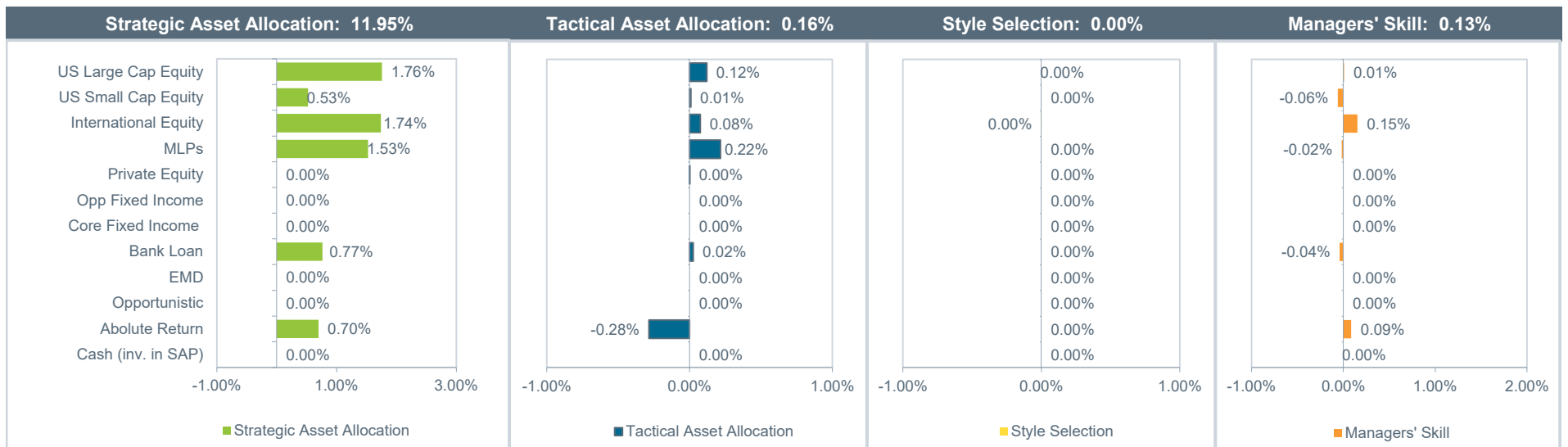
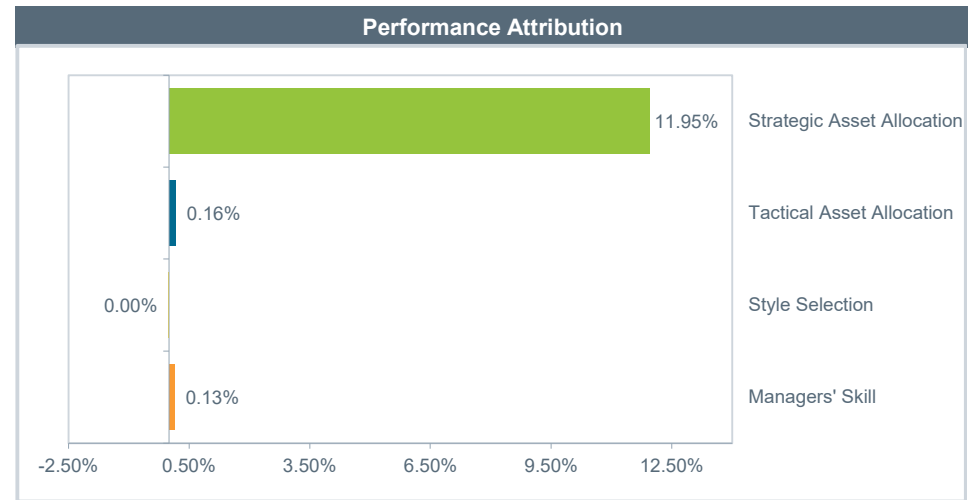
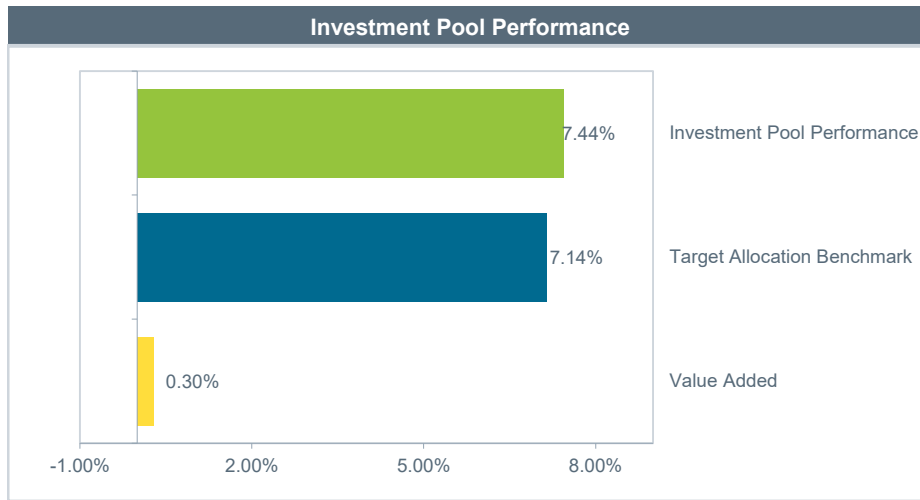
**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
Pool A vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



**Wyoming State Treasurer's Office  
Pool Attribution - IDP Methodology  
LSRA LT Reserve vs. Target Allocation Index  
FYTD Ending December 31, 2023**



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation Index = Target Allocation Benchmark + Tactical Asset Allocation. The underlying parts may not exactly sum to the category totals due to rounding. FY begins 7/1/2023.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

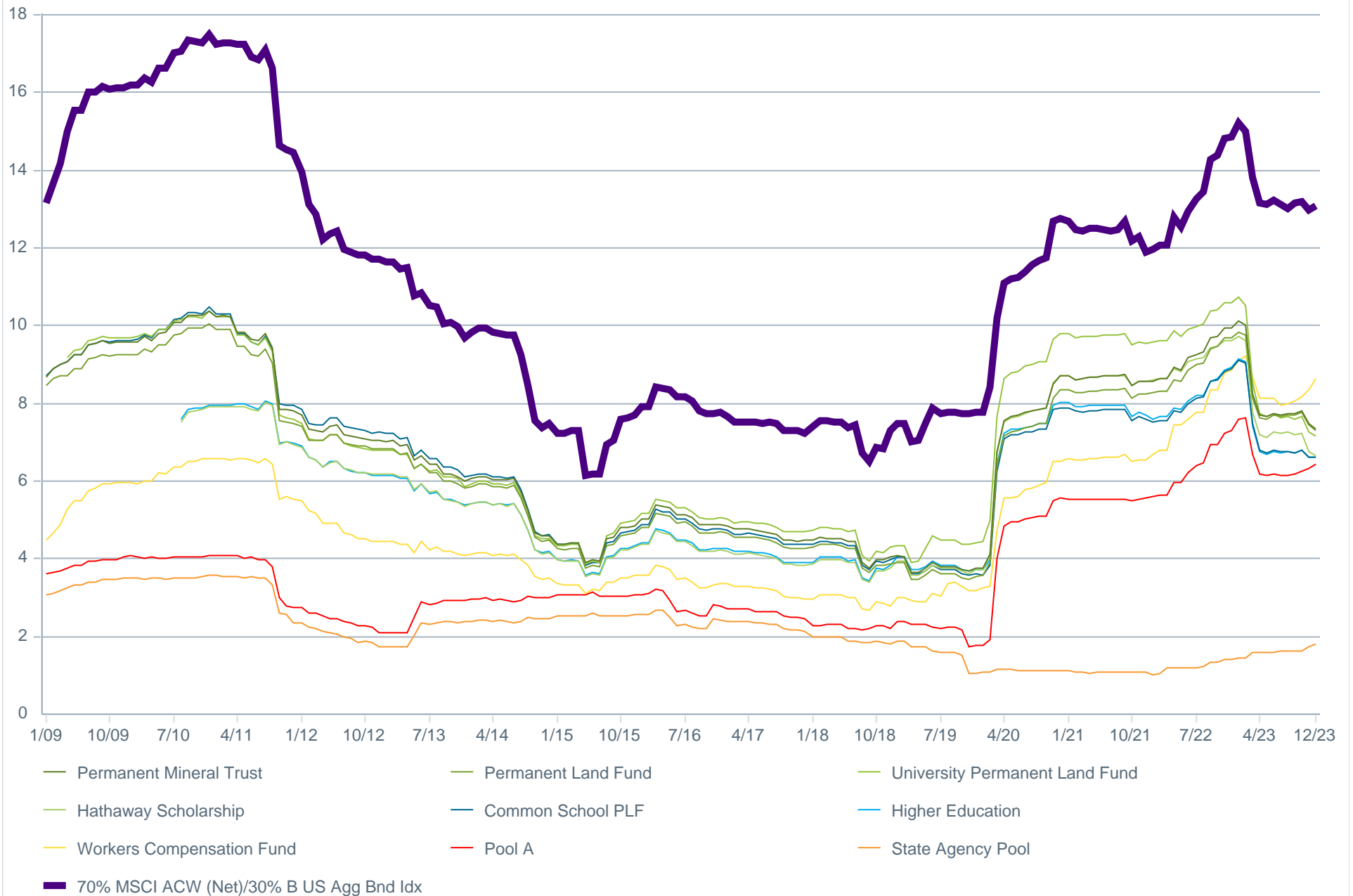
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Permanent Funds</b>	<b>18,707,908,485</b>	<b>66.9</b>	<b>5.7</b>	<b>5.1</b>	<b>11.2</b>	<b>11.2</b>	<b>4.9</b>	<b>7.4</b>	<b>6.4</b>	<b>5.6</b>	<b>6.1</b>	<b>07/01/2002</b>
Permanent Mineral Trust	10,317,987,613	36.9	5.6	5.2	12.4	12.4	6.1	8.3	7.0	6.0	6.3	06/01/2001
PMTF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.5	6.5	5.7	5.6	
Difference			-0.2	0.7	2.1	2.1	1.1	0.8	0.5	0.3	0.7	
<b>Common School Permanent Land Fund</b>	<b>4,686,028,309</b>	<b>16.8</b>	<b>5.2</b>	<b>5.2</b>	<b>10.0</b>	<b>10.0</b>	<b>4.7</b>	<b>6.7</b>	<b>5.9</b>	<b>5.3</b>	<b>6.1</b>	<b>06/01/2001</b>
Common School - Total Fund Index			5.3	4.4	9.1	9.1	3.9	6.0	5.4	5.0	5.3	
Difference			-0.1	0.8	0.9	0.9	0.8	0.7	0.5	0.3	0.8	
<b>Permanent Land Fund</b>	<b>292,265,584</b>	<b>1.0</b>	<b>5.7</b>	<b>5.5</b>	<b>12.8</b>	<b>12.8</b>	<b>6.5</b>	<b>8.4</b>	<b>7.1</b>	<b>6.1</b>	<b>5.9</b>	<b>02/01/2006</b>
PLF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.4	6.4	5.6	5.3	
Difference			-0.1	1.0	2.5	2.5	1.5	1.0	0.7	0.5	0.6	
<b>University Permanent Land Fund</b>	<b>33,248,524</b>	<b>0.1</b>	<b>5.3</b>	<b>5.1</b>	<b>12.0</b>	<b>12.0</b>	<b>6.3</b>	<b>8.4</b>	<b>7.3</b>	<b>6.3</b>	<b>5.8</b>	<b>05/01/2006</b>
University PLF - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.5	6.7	5.9	5.4	
Difference			-0.5	0.6	1.7	1.7	1.3	0.9	0.6	0.4	0.4	
<b>Hathaway Scholarship</b>	<b>733,618,547</b>	<b>2.6</b>	<b>5.2</b>	<b>5.5</b>	<b>13.3</b>	<b>13.3</b>	<b>7.3</b>	<b>8.9</b>	<b>7.3</b>	<b>6.1</b>	<b>6.1</b>	<b>09/01/2007</b>
Hathaway - Total Fund Index			5.8	4.5	10.3	10.3	5.0	7.4	6.3	5.5	5.5	
Difference			-0.6	1.0	3.0	3.0	2.3	1.5	1.0	0.6	0.6	
<b>Higher Education</b>	<b>129,685,242</b>	<b>0.5</b>	<b>5.3</b>	<b>5.2</b>	<b>10.1</b>	<b>10.1</b>	<b>4.8</b>	<b>6.6</b>	<b>5.6</b>	<b>5.0</b>	<b>5.3</b>	<b>09/01/2007</b>
Higher Education - Total Fund Index			5.3	4.4	9.1	9.1	3.9	6.0	5.2	4.8	5.0	
Difference			0.0	0.8	1.0	1.0	0.9	0.6	0.4	0.2	0.3	
<b>Workers Compensation Fund</b>	<b>2,515,074,666</b>	<b>9.0</b>	<b>7.5</b>	<b>4.1</b>	<b>8.4</b>	<b>8.4</b>	<b>0.2</b>	<b>5.2</b>	<b>4.7</b>	<b>4.2</b>	<b>5.2</b>	<b>06/01/2001</b>
Workers Comp - Total Fund Index			8.1	3.8	8.0	8.0	-0.5	4.6	4.2	4.0	4.8	
Difference			-0.6	0.3	0.4	0.4	0.7	0.6	0.5	0.2	0.4	
<b>Workers Comp Long-Term Reserve</b>	<b>1,025,147,810</b>	<b>3.7</b>	<b>4.5</b>	<b>5.0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5.0</b>	<b>07/01/2023</b>
Workers Comp Reserve Assets Target Allocation Index			5.1	4.2	N/A	N/A	N/A	N/A	N/A	N/A	4.2	
Difference			-0.6	0.8	N/A	N/A	N/A	N/A	N/A	N/A	0.8	
<b>Workers Comp Liability Hedging Assets</b>	<b>1,463,142,155</b>	<b>5.2</b>	<b>9.7</b>	<b>3.1</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.1</b>	<b>07/01/2023</b>
Workers Comp LHA Target Allocation Index			10.2	3.4	6.6	6.6	-5.5	1.2	1.5	2.5	3.4	
Difference			-0.5	-0.3	N/A	N/A	N/A	N/A	N/A	N/A	-0.3	
<b>Non-Permanent Funds</b>	<b>9,246,338,375</b>	<b>33.1</b>	<b>3.3</b>	<b>3.6</b>	<b>6.3</b>	<b>6.3</b>	<b>1.2</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>3.5</b>	<b>07/01/2002</b>
<b>Pool A</b>	<b>409,952,669</b>	<b>1.5</b>	<b>5.5</b>	<b>4.7</b>	<b>9.2</b>	<b>9.2</b>	<b>2.9</b>	<b>5.2</b>	<b>4.2</b>	<b>3.8</b>	<b>4.3</b>	<b>01/01/2000</b>
Pool A - Total Fund Index			4.8	3.8	7.6	7.6	2.2	4.5	3.6	3.4	4.7	
Difference			0.7	0.9	1.6	1.6	0.7	0.7	0.6	0.4	-0.4	
<b>LSRA</b>	<b>1,864,985,756</b>	<b>6.7</b>	<b>5.4</b>	<b>4.7</b>	<b>9.6</b>	<b>9.6</b>	<b>2.0</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.2</b>	<b>07/01/2019</b>
LSRA - Total Fund Index			5.6	4.5	8.6	8.6	1.6	N/A	N/A	N/A	2.9	
Difference			-0.2	0.2	1.0	1.0	0.4	N/A	N/A	N/A	0.3	
<b>LSRA Long Term Reserve</b>	<b>627,434,380</b>	<b>2.2</b>	<b>7.7</b>	<b>7.4</b>	<b>18.9</b>	<b>18.9</b>	<b>8.2</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.1</b>	<b>07/01/2019</b>
LSRA Long Term Reserve - Total Fund Index			8.0	7.1	16.8	16.8	7.6	N/A	N/A	N/A	8.0	
Difference			-0.3	0.3	2.1	2.1	0.6	N/A	N/A	N/A	0.1	
<b>LSRA Intermediate Term Reserve</b>	<b>580,135,786</b>	<b>2.1</b>	<b>6.5</b>	<b>3.5</b>	<b>6.0</b>	<b>6.0</b>	<b>-3.5</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.0</b>	<b>08/01/2019</b>
LSRA Int Term Reserve - Total Fund Index			6.8	3.4	5.5	5.5	-3.3	N/A	N/A	N/A	-0.2	
Difference			-0.3	0.1	0.5	0.5	-0.2	N/A	N/A	N/A	0.2	
<b>LSRA Short Term Reserve</b>	<b>657,415,590</b>	<b>2.4</b>	<b>2.6</b>	<b>3.5</b>	<b>4.7</b>	<b>4.7</b>	<b>0.5</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.2</b>	<b>01/01/2020</b>
LSRA Short Term Reserve - Total Fund Index			2.6	3.3	4.3	4.3	-0.1	N/A	N/A	N/A	0.7	
Difference			0.0	0.2	0.4	0.4	0.6	N/A	N/A	N/A	0.5	
<b>State Agency Pool</b>	<b>6,971,399,951</b>	<b>24.9</b>	<b>2.4</b>	<b>3.1</b>	<b>4.6</b>	<b>4.6</b>	<b>0.6</b>	<b>1.9</b>	<b>1.9</b>	<b>2.1</b>	<b>3.4</b>	<b>06/01/2001</b>
State Agency Pool - Actual Allocation Index			2.3	3.2	4.8	4.8	0.6	2.0	1.8	2.1	3.3	
Difference			0.1	-0.1	-0.2	-0.2	0.0	-0.1	0.1	0.0	0.1	
<b>Total Fund</b>	<b>27,954,246,860</b>	<b>100.0</b>	<b>5.1</b>	<b>4.7</b>	<b>9.9</b>	<b>9.9</b>	<b>4.0</b>	<b>6.1</b>	<b>5.3</b>	<b>4.7</b>	<b>5.4</b>	<b>10/01/1996</b>
Wyoming State Total Fund Index			5.2	4.1	8.6	8.6	3.2	5.5	4.9	4.4	5.3	
Difference			-0.1	0.6	1.3	1.3	0.8	0.6	0.4	0.3	0.1	

Performance shown is net of fees and excludes PPIs and operational cash. Wyoming State Treasurer's Office fiscal year ends on June 30th.



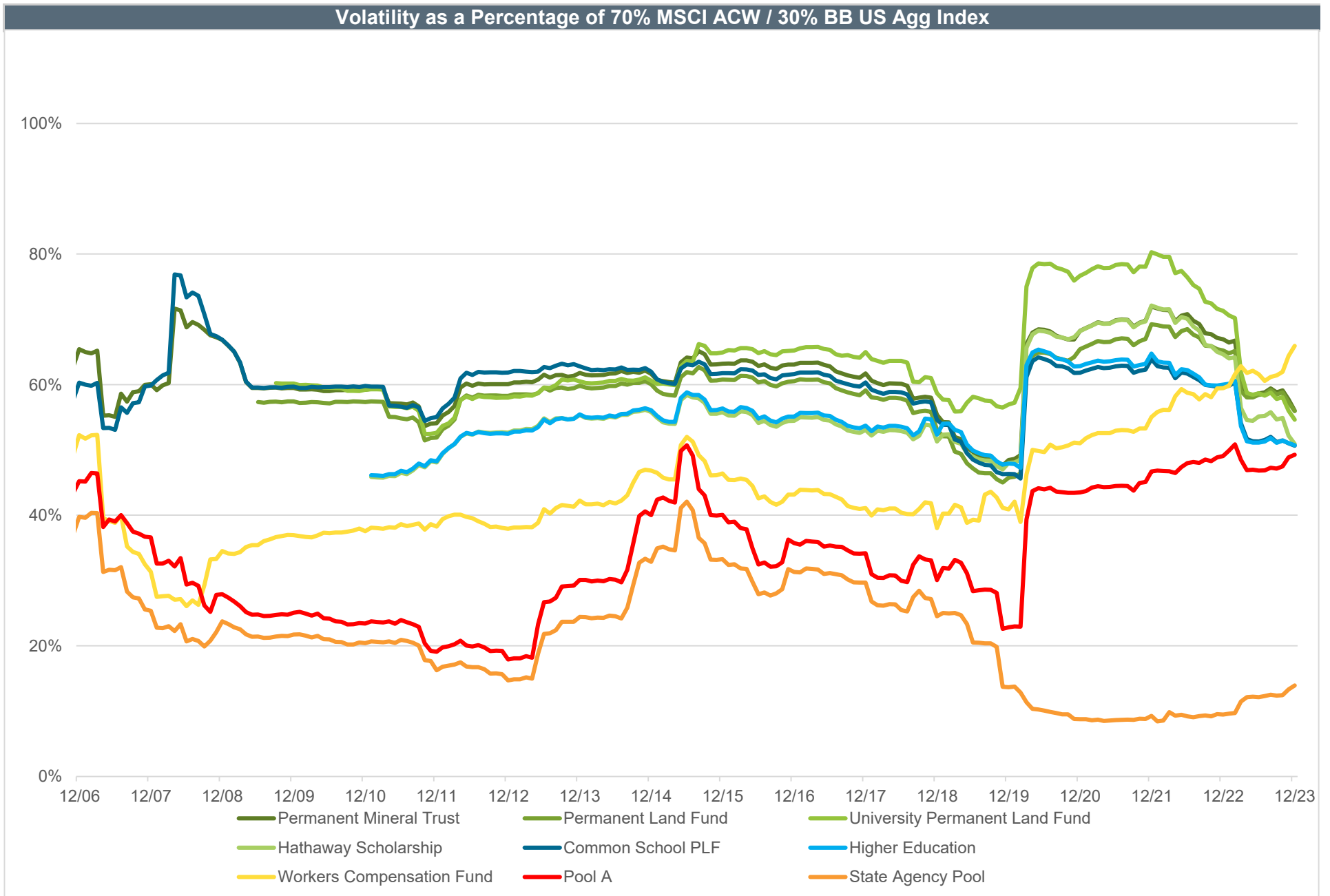


Standard Deviation



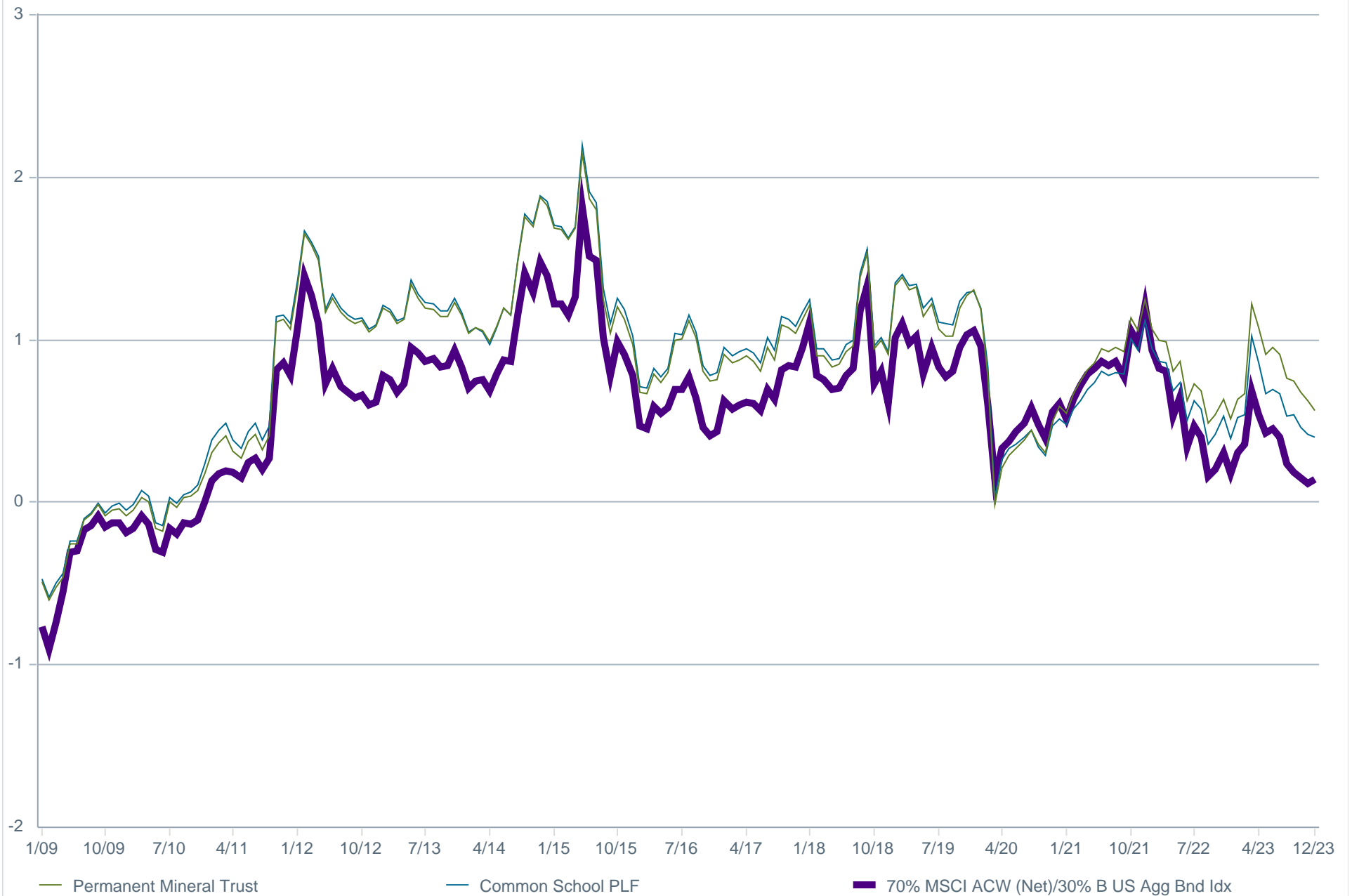
Performance shown is net of fees and excludes Public Purpose Investments (PPIs) and operational cash. Calculation is based on monthly periodicity.





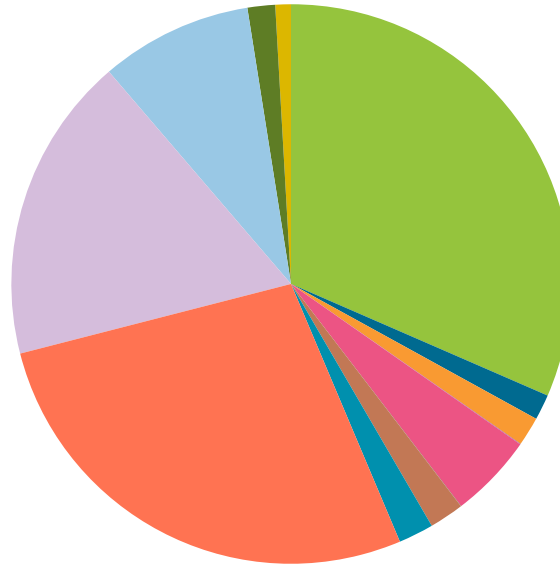
Performance shown is net of fees and excludes PPIs and operational cash. Calculation is based on monthly periodicity.

Sharpe Ratio



Performance shown is net of fees and excludes Public Purpose Investments (PPIs) and operational cash. Calculation is based on monthly periodicity.

December 31, 2023 : \$6,379,935,004



	Market Value (\$)	Allocation (%)
State Street All Cap	2,011,502,525	31.53
Internal Domestic Equity Quantitative	94,019,666	1.47
Internal Domestic Equity Quantamental	31,380	0.00
SPDR S&P 500 ETF Trust	107,392,307	1.68
UW Portfolio Mgmt Program	2,010,076	0.03
Van Berkomp	311,534,449	4.88
BlackRock Small Cap	469,902	0.01
Internal Small Cap Equity Quantitative	128,035,250	2.01
Internal Small Cap Equity Quantamental	129,421,618	2.03
Northern Trust	1,745,097,322	27.35
Arrowstreet	1,130,360,916	17.72
Harding Loevner	560,621,705	8.79
Internal International Equity Quantitative	101,698,636	1.59
Internal International Equity ETF Account	57,739,251	0.91

Allocations shown may not sum up to 100% exactly due to rounding.

Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>All Cap US Equity Composite</b>	<b>2,212,945,878</b>	<b>34.69</b>	<b>11.66</b>	<b>8.01</b>	<b>26.17</b>	<b>26.17</b>	<b>9.78</b>	<b>15.19</b>	<b>12.42</b>	<b>N/A</b>	<b>-18.30</b>	<b>11.80</b>	<b>11/01/2014</b>
All Cap US Equity Custom Index			11.69	8.04	26.29	26.29	10.00	15.60	13.12	11.69	-18.11	11.66	
Difference			-0.03	-0.03	-0.12	-0.12	-0.22	-0.41	-0.70	N/A	-0.19	0.14	
<b>State Street All Cap</b>	<b>2,011,502,525</b>	<b>31.53</b>	<b>11.68</b>	<b>8.00</b>	<b>26.21</b>	<b>26.21</b>	<b>9.95</b>	<b>15.27</b>	<b>12.69</b>	<b>N/A</b>	<b>-18.13</b>	<b>11.32</b>	<b>01/01/2015</b>
State Street All Cap Custom Index			11.69	8.04	26.29	26.29	10.00	15.30	12.69	11.49	-18.11	11.34	
Difference			-0.01	-0.04	-0.08	-0.08	-0.05	-0.03	0.00	N/A	-0.02	-0.02	
<b>Internal Domestic Equity Quantitative</b>	<b>94,019,666</b>	<b>1.47</b>	<b>11.36</b>	<b>8.67</b>	<b>23.86</b>	<b>23.86</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-16.22</b>	<b>6.11</b>	<b>06/01/2021</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	6.68	
Difference			-0.33	0.63	-2.43	-2.43	N/A	N/A	N/A	N/A	1.89	-0.57	
<b>SPDR S&amp;P 500 ETF Trust</b>	<b>107,392,307</b>	<b>1.68</b>	<b>11.61</b>	<b>8.19</b>	<b>26.28</b>	<b>26.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>17.00</b>	<b>12/01/2022</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	17.43	
Difference			-0.08	0.15	-0.01	-0.01	N/A	N/A	N/A	N/A	N/A	-0.43	
<b>UW Portfolio Mgmt Program</b>	<b>2,010,076</b>	<b>0.03</b>	<b>7.98</b>	<b>6.53</b>	<b>20.22</b>	<b>20.22</b>	<b>6.58</b>	<b>11.83</b>	<b>10.08</b>	<b>9.54</b>	<b>-18.28</b>	<b>6.27</b>	<b>04/01/2006</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	9.79	
Difference			-3.71	-1.51	-6.07	-6.07	-3.42	-3.86	-3.34	-2.49	-0.17	-3.52	
<b>Small Cap US Equity Composite</b>	<b>569,461,219</b>	<b>8.93</b>	<b>12.96</b>	<b>7.62</b>	<b>20.66</b>	<b>20.66</b>	<b>6.14</b>	<b>11.42</b>	<b>6.55</b>	<b>N/A</b>	<b>-15.68</b>	<b>6.95</b>	<b>11/01/2014</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	7.61	
Difference			-1.07	-0.56	3.73	3.73	3.92	1.45	-0.78	N/A	4.76	-0.66	
<b>Van Berkomp</b>	<b>311,534,449</b>	<b>4.88</b>	<b>13.43</b>	<b>7.30</b>	<b>22.34</b>	<b>22.34</b>	<b>7.34</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.67</b>	<b>11.67</b>	<b>03/01/2020</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	10.09	
Difference			-0.60	-0.88	5.41	5.41	5.12	N/A	N/A	N/A	7.77	1.58	
<b>BlackRock Small Cap</b>	<b>469,902</b>	<b>0.01</b>	<b>10.21</b>	<b>9.17</b>	<b>16.21</b>	<b>16.21</b>	<b>2.84</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-18.92</b>	<b>11.85</b>	<b>08/01/2020</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	11.10	
Difference			-3.82	0.99	-0.72	-0.72	0.62	N/A	N/A	N/A	1.52	0.75	
<b>Internal Small Cap Equity Quantamental</b>	<b>129,421,618</b>	<b>2.03</b>	<b>12.52</b>	<b>8.63</b>	<b>24.79</b>	<b>24.79</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-21.09</b>	<b>1.02</b>	<b>06/01/2021</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	-2.91	
Difference			-1.51	0.45	7.86	7.86	N/A	N/A	N/A	N/A	-0.65	3.93	

Performance shown is net of fees. International Equity Custom Index consists of the MSCI EAFE Index (Gross) through July 2010 and the MSCI ACW Ex US Index (Net) thereafter. The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter. SSGA Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Internal Small Cap Equity Quantitative</b>	<b>128,035,250</b>	<b>2.01</b>	<b>12.28</b>	<b>7.72</b>	<b>17.21</b>	<b>17.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-15.21</b>	<b>0.00</b>	<b>11/01/2021</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	-4.19	
Difference			-1.75	-0.46	0.28	0.28	N/A	N/A	N/A	N/A	5.23	4.19	

Performance shown is net of fees. International Equity Custom Index consists of the MSCI EAFE Index (Gross) through July 2010 and the MSCI ACW Ex US Index (Net) thereafter. The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter. SSGA Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Int'l Equity</b>	<b>3,595,517,831</b>	<b>56.36</b>	<b>9.83</b>	<b>6.55</b>	<b>18.36</b>	<b>18.36</b>	<b>3.62</b>	<b>9.91</b>	<b>8.31</b>	<b>5.09</b>	<b>-14.53</b>	<b>6.06</b>	<b>01/01/2004</b>
International Equity Custom Index			10.40	6.22	16.28	16.28	1.74	7.20	6.42	3.89	-16.00	5.16	
Difference			-0.57	0.33	2.08	2.08	1.88	2.71	1.89	1.20	1.47	0.90	
<b>Northern Trust</b>	<b>1,745,097,322</b>	<b>27.35</b>	<b>10.94</b>	<b>6.67</b>	<b>17.17</b>	<b>17.17</b>	<b>2.05</b>	<b>7.42</b>	<b>6.67</b>	<b>4.07</b>	<b>-15.88</b>	<b>5.27</b>	<b>08/01/2010</b>
MSCI ACWI Ex US Ex China Index			11.06	6.82	16.93	16.93	1.93	7.33	6.50	3.95	-16.00	5.15	
Difference			-0.12	-0.15	0.24	0.24	0.12	0.09	0.17	0.12	0.12	0.12	
<b>Arrowstreet</b>	<b>1,130,360,916</b>	<b>17.72</b>	<b>7.65</b>	<b>8.55</b>	<b>22.21</b>	<b>22.21</b>	<b>7.62</b>	<b>13.47</b>	<b>N/A</b>	<b>N/A</b>	<b>-10.47</b>	<b>8.08</b>	<b>03/01/2018</b>
MSCI ACW Ex US IM Index (USD) (Net)			9.81	5.98	15.62	15.62	1.53	7.19	6.38	3.97	-16.58	3.15	
Difference			-2.16	2.57	6.59	6.59	6.09	6.28	N/A	N/A	6.11	4.93	
<b>Harding Loevner</b>	<b>560,621,705</b>	<b>8.79</b>	<b>11.24</b>	<b>3.51</b>	<b>15.62</b>	<b>15.62</b>	<b>1.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-17.29</b>	<b>5.63</b>	<b>01/01/2020</b>
MSCI ACW Ex US Index (USD) (Net)			9.75	5.61	15.62	15.62	1.55	7.08	6.33	3.83	-16.00	3.75	
Difference			1.49	-2.10	0.00	0.00	-0.41	N/A	N/A	N/A	-1.29	1.88	
<b>Internal International Equity Quantitative</b>	<b>101,698,636</b>	<b>1.59</b>	<b>7.35</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.19</b>	<b>08/01/2023</b>
MSCI ACW Ex US Index (USD) (Net)			9.75	5.61	15.62	15.62	1.55	7.08	6.33	3.83	-16.00	1.49	
Difference			-2.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.68	
<b>Internal International Equity ETF Account</b>	<b>57,739,251</b>	<b>0.91</b>	<b>11.14</b>	<b>6.72</b>	<b>17.41</b>	<b>17.41</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>24.85</b>	<b>10/01/2022</b>
MSCI ACWI Ex US Ex China Index			11.06	6.82	16.94	16.94	1.93	7.33	6.50	3.95	-16.00	26.11	
Difference			0.08	-0.10	0.47	0.47	N/A	N/A	N/A	N/A	N/A	-1.26	

Performance shown is net of fees. International Equity Custom Index consists of the MSCI EAFE Index (Gross) through July 2010 and the MSCI ACW Ex US Index (Net) thereafter. The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter. SSGA Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>All Cap US Equity Composite</b>	<b>2,212,945,878</b>	<b>34.69</b>	<b>11.67</b>	<b>8.03</b>	<b>26.22</b>	<b>26.22</b>	<b>9.82</b>	<b>15.23</b>	<b>12.49</b>	<b>N/A</b>	<b>-18.27</b>	<b>11.91</b>	<b>11/01/2014</b>
All Cap US Equity Custom Index			11.69	8.04	26.29	26.29	10.00	15.60	13.12	11.69	-18.11	11.66	
Difference			-0.02	-0.01	-0.07	-0.07	-0.18	-0.37	-0.63	N/A	-0.16	0.25	
<b>State Street All Cap</b>	<b>2,011,502,525</b>	<b>31.53</b>	<b>11.69</b>	<b>8.02</b>	<b>26.26</b>	<b>26.26</b>	<b>9.99</b>	<b>15.32</b>	<b>12.74</b>	<b>N/A</b>	<b>-18.10</b>	<b>11.36</b>	<b>01/01/2015</b>
State Street All Cap Custom Index			11.69	8.04	26.29	26.29	10.00	15.30	12.69	11.49	-18.11	11.34	
Difference			0.00	-0.02	-0.03	-0.03	-0.01	0.02	0.05	N/A	0.01	0.02	
IM U.S. All Cap Equity (SA+CF) Median			11.69	8.09	21.68	21.68	8.81	14.11	12.10	10.46	-16.64	10.33	
State Street All Cap Rank			50	53	32	32	36	33	42	N/A	60	39	
<b>Internal Domestic Equity Quantitative</b>	<b>94,019,666</b>	<b>1.47</b>	<b>11.36</b>	<b>8.67</b>	<b>23.86</b>	<b>23.86</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-16.22</b>	<b>6.11</b>	<b>06/01/2021</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	6.68	
Difference			-0.33	0.63	-2.43	-2.43	N/A	N/A	N/A	N/A	1.89	-0.57	
IM U.S. Large Cap Core Equity (SA+CF) Median			11.62	8.25	24.67	24.67	9.82	15.28	13.23	11.84	-16.49	6.06	
Internal Domestic Equity Quantitative Rank			57	43	59	59	N/A	N/A	N/A	N/A	48	50	
<b>SPDR S&amp;P 500 ETF Trust</b>	<b>107,392,307</b>	<b>1.68</b>	<b>11.61</b>	<b>8.19</b>	<b>26.33</b>	<b>26.33</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>17.05</b>	<b>12/01/2022</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	17.43	
Difference			-0.08	0.15	0.04	0.04	N/A	N/A	N/A	N/A	N/A	-0.38	
IM U.S. Large Cap Core Equity (MF) Median			11.92	8.50	25.86	25.86	9.52	15.54	13.39	11.91	-18.00	17.58	
SPDR S&P 500 ETF Trust Rank			62	59	47	47	N/A	N/A	N/A	N/A	N/A	54	
<b>UW Portfolio Mgmt Program</b>	<b>2,010,076</b>	<b>0.03</b>	<b>7.98</b>	<b>6.53</b>	<b>20.22</b>	<b>20.22</b>	<b>6.58</b>	<b>11.83</b>	<b>10.08</b>	<b>9.54</b>	<b>-18.28</b>	<b>6.27</b>	<b>04/01/2006</b>
S&P 500 Index (Cap Wtd)			11.69	8.04	26.29	26.29	10.00	15.69	13.42	12.03	-18.11	9.79	
Difference			-3.71	-1.51	-6.07	-6.07	-3.42	-3.86	-3.34	-2.49	-0.17	-3.52	
IM U.S. Large Cap Core Equity (SA+CF) Median			11.62	8.25	24.67	24.67	9.82	15.28	13.23	11.84	-16.49	9.82	
UW Portfolio Mgmt Program Rank			92	80	71	71	90	89	90	91	69	99	

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Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Small Cap US Equity Composite</b>	<b>569,461,219</b>	<b>8.93</b>	<b>13.09</b>	<b>7.87</b>	<b>21.25</b>	<b>21.25</b>	<b>6.69</b>	<b>11.89</b>	<b>7.02</b>	<b>N/A</b>	<b>-15.28</b>	<b>7.47</b>	<b>11/01/2014</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	7.61	
Difference			-0.94	-0.31	4.32	4.32	4.47	1.92	-0.31	N/A	5.16	-0.14	
<b>Van Berkom</b>	<b>311,534,449</b>	<b>4.88</b>	<b>13.67</b>	<b>7.74</b>	<b>23.36</b>	<b>23.36</b>	<b>8.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.00</b>	<b>12.56</b>	<b>03/01/2020</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	10.09	
Difference			-0.36	-0.44	6.43	6.43	5.99	N/A	N/A	N/A	8.44	2.47	
IM U.S. Small Cap Core Equity (SA+CF) Median			12.75	7.75	17.19	17.19	7.15	12.98	9.51	9.06	-16.11	13.13	
Van Berkom Rank			36	51	9	9	35	N/A	N/A	N/A	16	59	
<b>BlackRock Small Cap</b>	<b>469,902</b>	<b>0.01</b>	<b>10.21</b>	<b>9.29</b>	<b>16.61</b>	<b>16.61</b>	<b>3.26</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-18.56</b>	<b>12.31</b>	<b>08/01/2020</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	11.10	
Difference			-3.82	1.11	-0.32	-0.32	1.04	N/A	N/A	N/A	1.88	1.21	
IM U.S. Small Cap Core Equity (SA+CF) Median			12.75	7.75	17.19	17.19	7.15	12.98	9.51	9.06	-16.11	13.92	
BlackRock Small Cap Rank			88	31	57	57	86	N/A	N/A	N/A	71	70	
<b>Internal Small Cap Equity Quantamental</b>	<b>129,421,618</b>	<b>2.03</b>	<b>12.52</b>	<b>8.63</b>	<b>24.79</b>	<b>24.79</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-21.09</b>	<b>1.02</b>	<b>06/01/2021</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	-2.91	
Difference			-1.51	0.45	7.86	7.86	N/A	N/A	N/A	N/A	-0.65	3.93	
IM U.S. Small Cap Core Equity (SA+CF) Median			12.75	7.75	17.19	17.19	7.15	12.98	9.51	9.06	-16.11	1.15	
Internal Small Cap Equity Quantamental Rank			54	37	5	5	N/A	N/A	N/A	N/A	83	52	
<b>Internal Small Cap Equity Quantitative</b>	<b>128,035,250</b>	<b>2.01</b>	<b>12.28</b>	<b>7.72</b>	<b>17.21</b>	<b>17.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-15.21</b>	<b>0.00</b>	<b>11/01/2021</b>
Russell 2000 Index			14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	-20.44	-4.19	
Difference			-1.75	-0.46	0.28	0.28	N/A	N/A	N/A	N/A	5.23	4.19	
IM U.S. Small Cap Core Equity (SA+CF) Median			12.75	7.75	17.19	17.19	7.15	12.98	9.51	9.06	-16.11	-0.50	
Internal Small Cap Equity Quantitative Rank			55	51	50	50	N/A	N/A	N/A	N/A	38	42	

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Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Int'l Equity</b>	<b>3,595,517,831</b>	<b>56.36</b>	<b>9.89</b>	<b>6.67</b>	<b>18.64</b>	<b>18.64</b>	<b>3.87</b>	<b>10.16</b>	<b>8.54</b>	<b>5.33</b>	<b>-14.32</b>	<b>6.26</b>	<b>01/01/2004</b>
International Equity Custom Index			10.40	6.22	16.28	16.28	1.74	7.20	6.42	3.89	-16.00	5.16	
Difference			-0.51	0.45	2.36	2.36	2.13	2.96	2.12	1.44	1.68	1.10	
<b>Northern Trust</b>	<b>1,745,097,322</b>	<b>27.35</b>	<b>10.95</b>	<b>6.68</b>	<b>17.20</b>	<b>17.20</b>	<b>2.08</b>	<b>7.45</b>	<b>6.70</b>	<b>4.10</b>	<b>-15.86</b>	<b>5.31</b>	<b>08/01/2010</b>
MSCI ACWI Ex US Ex China Index			11.06	6.82	16.93	16.93	1.93	7.33	6.50	3.95	-16.00	5.15	
Difference			-0.11	-0.14	0.27	0.27	0.15	0.12	0.20	0.15	0.14	0.16	
<b>Arrowstreet</b>	<b>1,130,360,916</b>	<b>17.72</b>	<b>7.78</b>	<b>8.79</b>	<b>22.73</b>	<b>22.73</b>	<b>8.07</b>	<b>13.94</b>	<b>N/A</b>	<b>N/A</b>	<b>-10.10</b>	<b>8.53</b>	<b>03/01/2018</b>
MSCI ACW Ex US IM Index (USD) (Net)			9.81	5.98	15.62	15.62	1.53	7.19	6.38	3.97	-16.58	3.15	
Difference			-2.03	2.81	7.11	7.11	6.54	6.75	N/A	N/A	6.48	5.38	
IM All ACWI Ex US (SA+CF) Median			10.24	4.85	17.12	17.12	1.76	8.81	7.77	5.26	-17.00	4.59	
Arrowstreet Rank			91	9	8	8	5	1	N/A	N/A	16	4	
<b>Harding Loevner</b>	<b>560,621,705</b>	<b>8.79</b>	<b>11.36</b>	<b>3.74</b>	<b>16.10</b>	<b>16.10</b>	<b>1.57</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-16.92</b>	<b>6.09</b>	<b>01/01/2020</b>
MSCI ACW Ex US Index (USD) (Net)			9.75	5.61	15.62	15.62	1.55	7.08	6.33	3.83	-16.00	3.75	
Difference			1.61	-1.87	0.48	0.48	0.02	N/A	N/A	N/A	-0.92	2.34	
IM All ACWI Ex US (SA+CF) Median			10.24	4.85	17.12	17.12	1.76	8.81	7.77	5.26	-17.00	4.92	
Harding Loevner Rank			27	71	63	63	55	N/A	N/A	N/A	50	26	
<b>Internal International Equity Quantitative</b>	<b>101,698,636</b>	<b>1.59</b>	<b>7.35</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.19</b>	<b>08/01/2023</b>
MSCI ACW Ex US Index (USD) (Net)			9.75	5.61	15.62	15.62	1.55	7.08	6.33	3.83	-16.00	1.49	
Difference			-2.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.68	
IM All ACWI Ex US (SA+CF) Median			10.24	4.85	17.12	17.12	1.76	8.81	7.77	5.26	-17.00	1.65	
Internal International Equity Quantitative Rank			94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85	
<b>Internal International Equity ETF Account</b>	<b>57,739,251</b>	<b>0.91</b>	<b>11.14</b>	<b>6.72</b>	<b>17.45</b>	<b>17.45</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>24.90</b>	<b>10/01/2022</b>
MSCI ACWI Ex US Ex China Index			11.06	6.82	16.94	16.94	1.93	7.33	6.50	3.95	-16.00	26.11	
Difference			0.08	-0.10	0.51	0.51	N/A	N/A	N/A	N/A	N/A	-1.21	
IM All ACWI Ex US (SA+CF) Median			10.24	4.85	17.12	17.12	1.76	8.81	7.77	5.26	-17.00	26.89	
Internal International Equity ETF Account Rank			29	24	47	47	N/A	N/A	N/A	N/A	N/A	74	

Performance shown is gross of fees. International Equity Custom Index consists of the MSCI EAFE Index (Gross) through July 2010 and the MSCI ACW Ex US Index (Net) thereafter. The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter. SSGA Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.

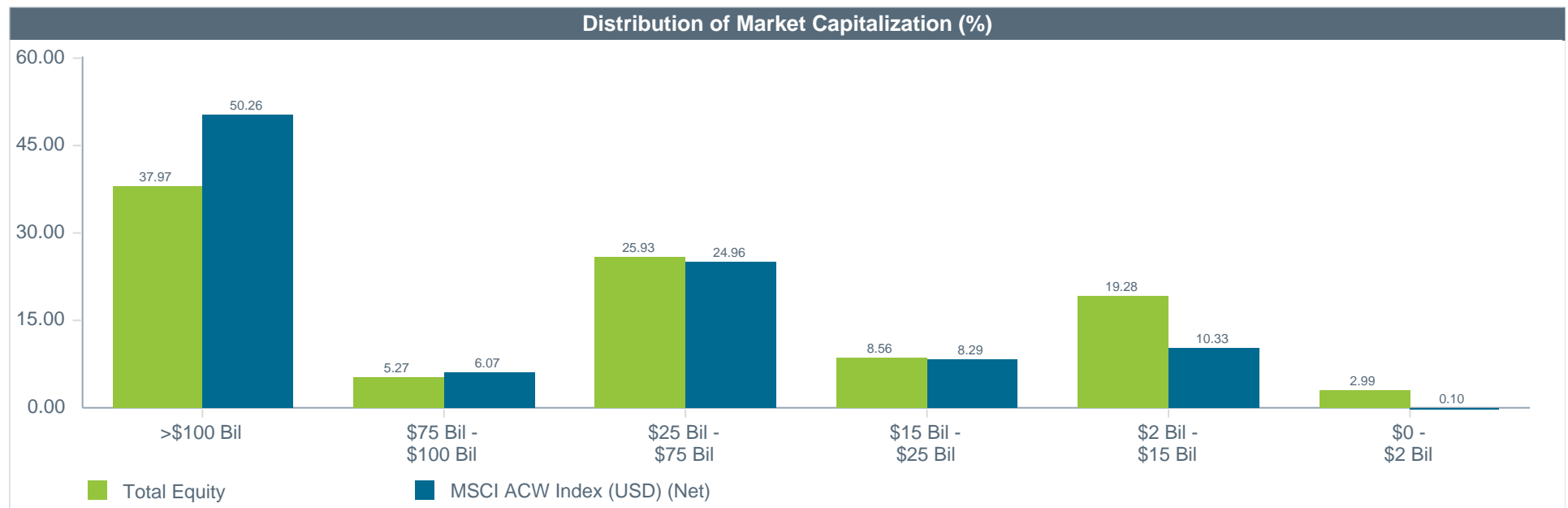


Wyoming State Treasurer's Office  
 Total Equity vs. MSCI ACW Index (USD) (Net)  
 Portfolio Characteristics

As of December 31, 2023

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	2.46	3.95	-1.49	19.34
Apple Inc	2.42	4.47	-2.05	12.60
Amazon.com Inc	1.21	2.10	-0.89	19.52
NVIDIA Corporation	1.09	1.82	-0.73	13.86
Taiwan Semiconductor Mfg (ADR)	0.90	0.71	0.19	20.23
ASML Holding NV	0.88	0.45	0.43	27.54
Samsung Electronics Co Ltd	0.83	0.43	0.40	20.25
Novo Nordisk A/S	0.81	0.50	0.31	13.16
Alphabet Inc	0.75	1.23	-0.48	6.75
Meta Platforms Inc	0.70	1.17	-0.47	17.90
% of Portfolio	12.05	16.83	-4.78	

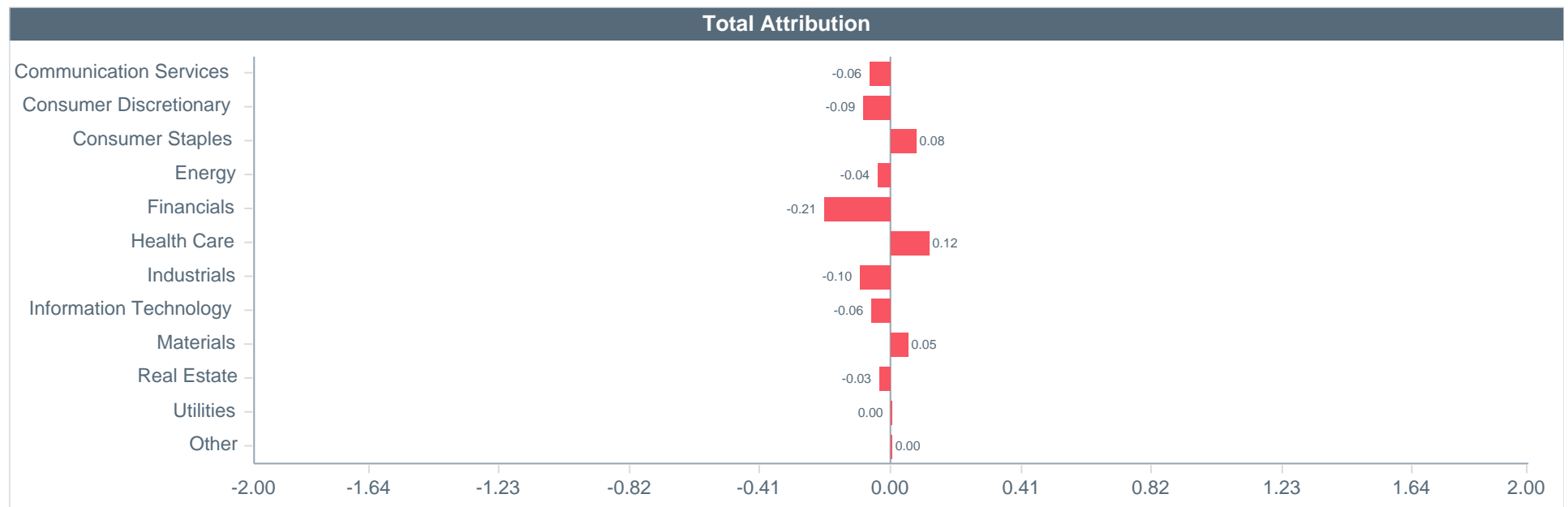
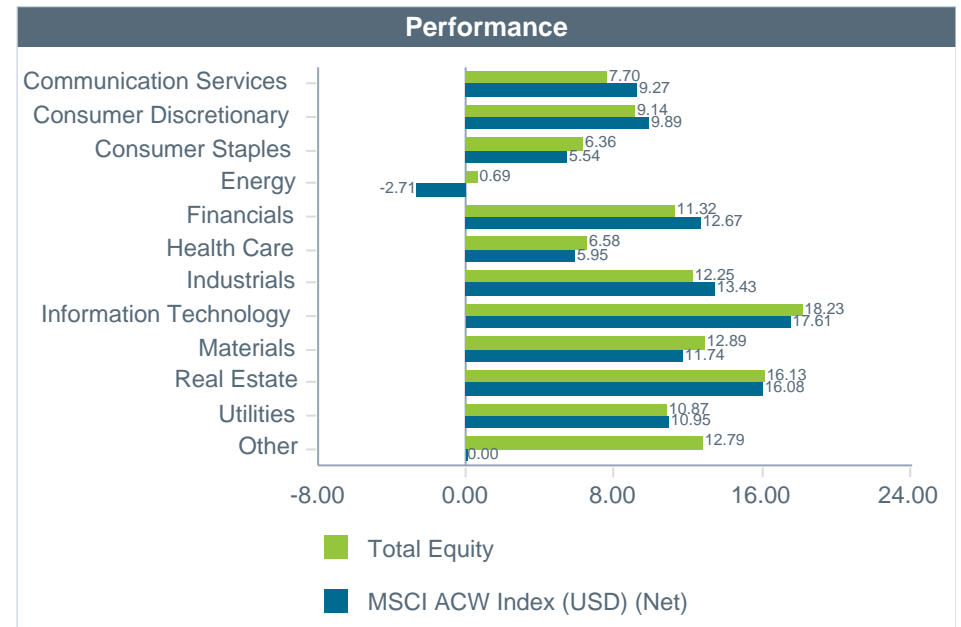
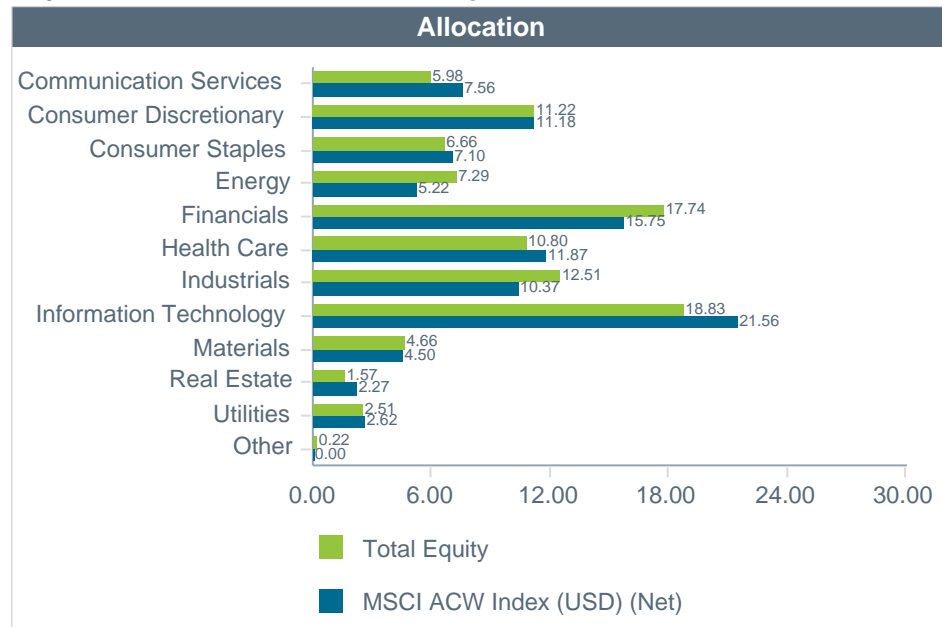
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	299,971	462,723
Median Mkt. Cap (\$M)	7,351	12,992
Price/Earnings Ratio	14.69	18.93
Price/Book Ratio	3.05	3.55
5 Yr. EPS Growth Rate (%)	14.38	14.81
Current Yield (%)	2.58	2.08
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	4,605	2,921



A stock with multiple share classes may be shown twice in the Top Ten Equity Holdings.

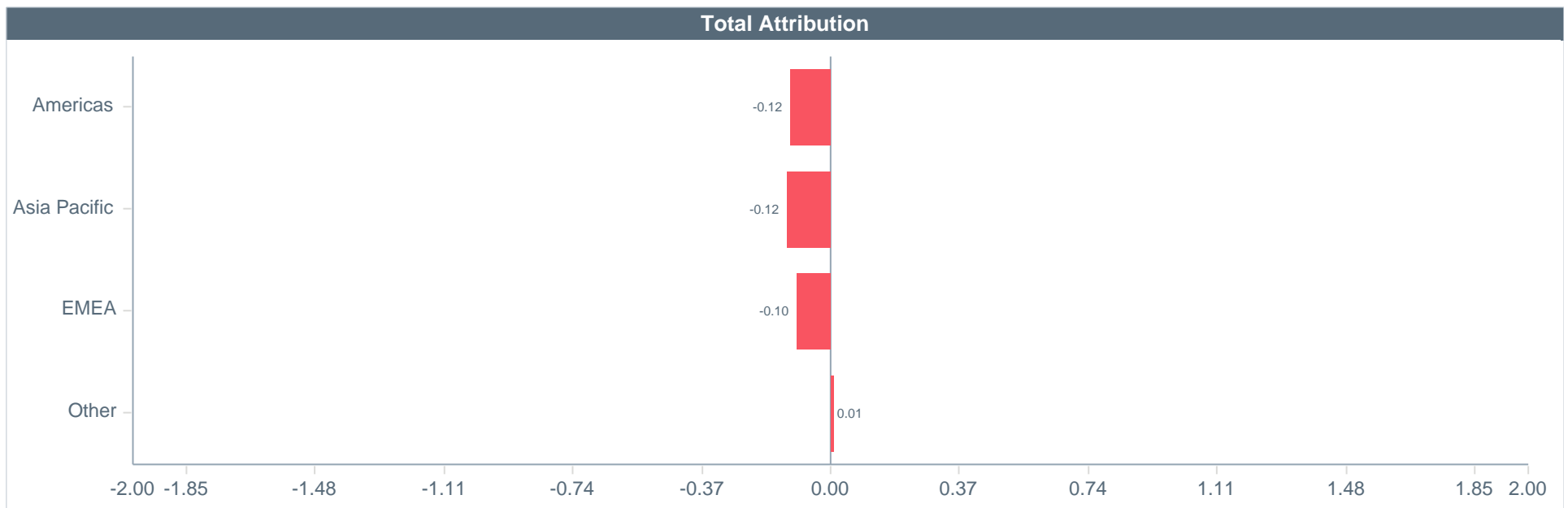
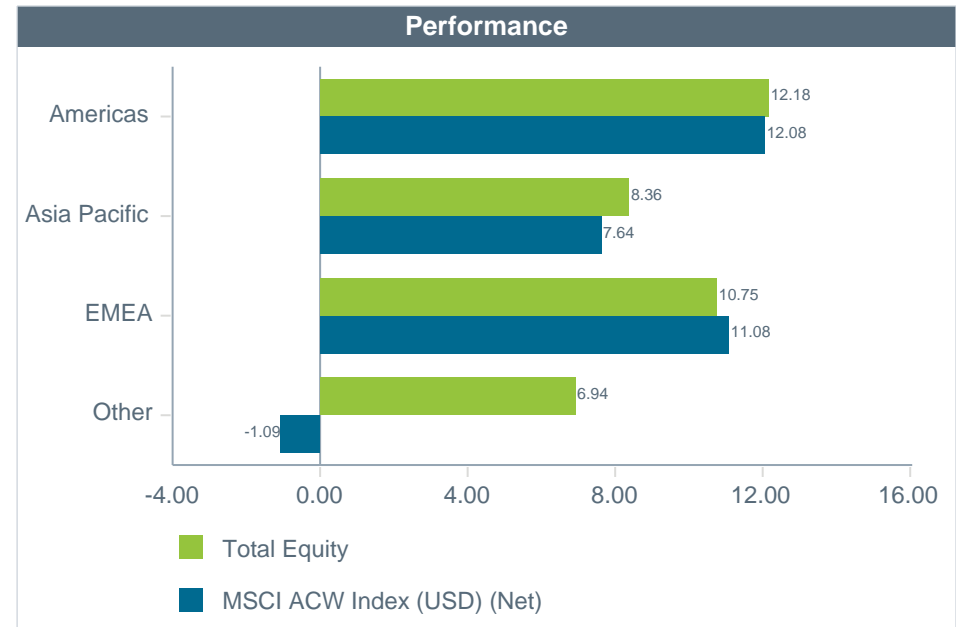
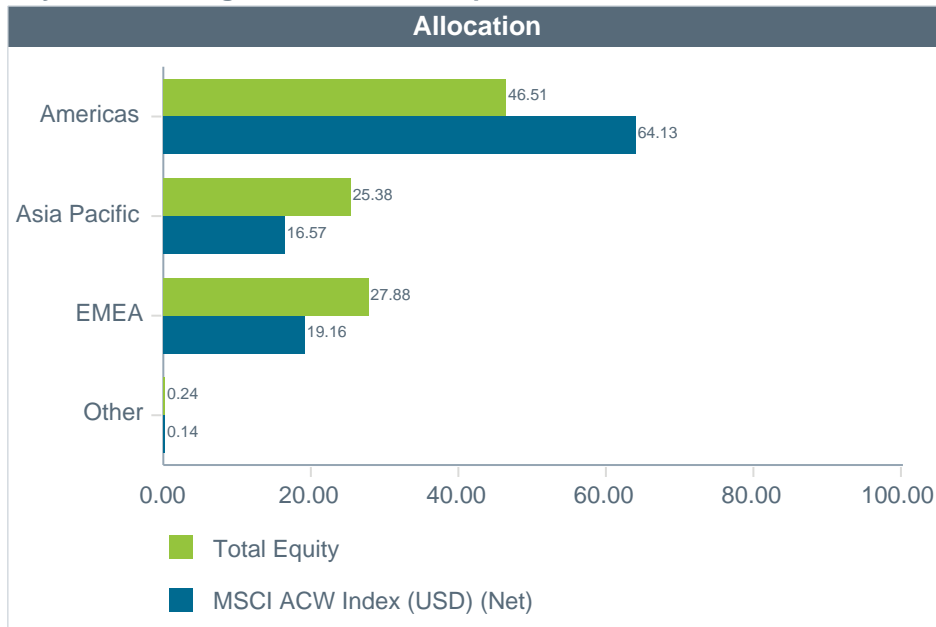
Wyoming State Treasurer's Office  
 Total Equity vs. MSCI ACW Index (USD) (Net)  
 Buy and Hold Sector Attribution Graph

1 Quarter Ending December 31, 2023



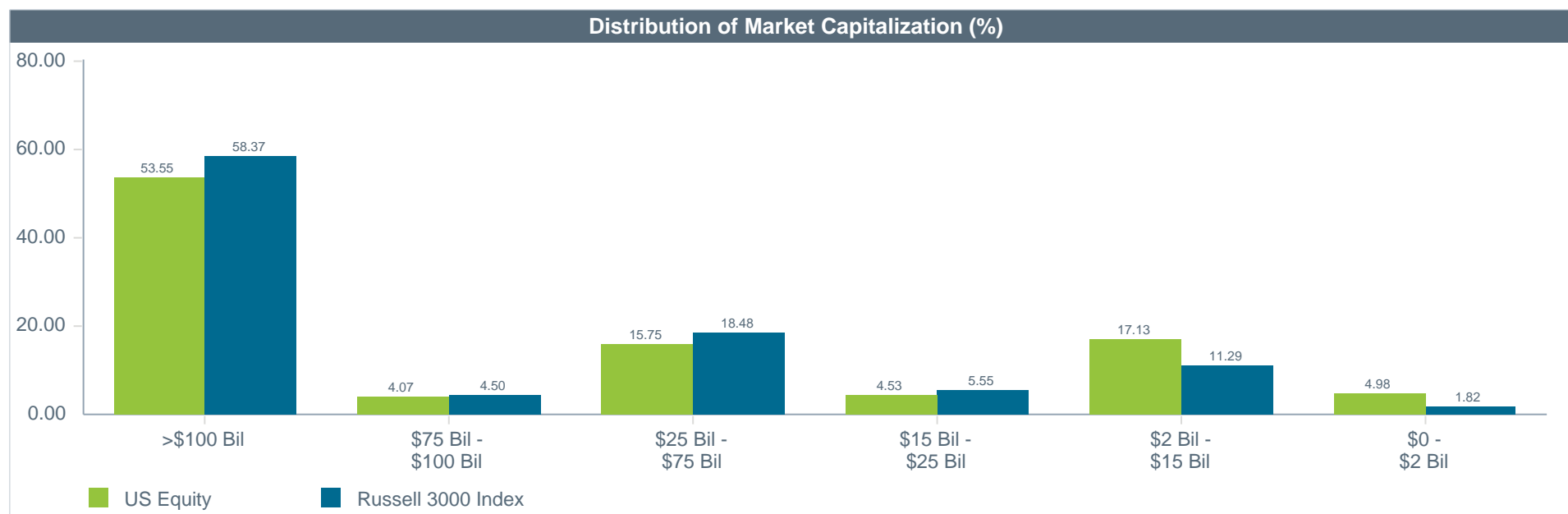
Wyoming State Treasurer's Office  
 Total Equity vs. MSCI ACW Index (USD) (Net)  
 Buy and Hold Region Attribution Graph

1 Quarter Ending December 31, 2023



Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	5.66	6.03	-0.37	19.34
Apple Inc	5.56	6.12	-0.56	12.60
Amazon.com Inc	2.77	2.95	-0.18	19.52
NVIDIA Corporation	2.50	2.53	-0.03	13.86
Alphabet Inc	1.72	1.79	-0.07	6.75
Meta Platforms Inc	1.60	1.69	-0.09	17.90
Alphabet Inc	1.46	1.52	-0.06	6.89
Tesla Inc	1.34	1.48	-0.14	-0.70
Berkshire Hathaway Inc	1.31	1.41	-0.10	1.82
JPMorgan Chase & Co	0.96	1.06	-0.10	18.16
% of Portfolio	24.88	26.58	-1.70	

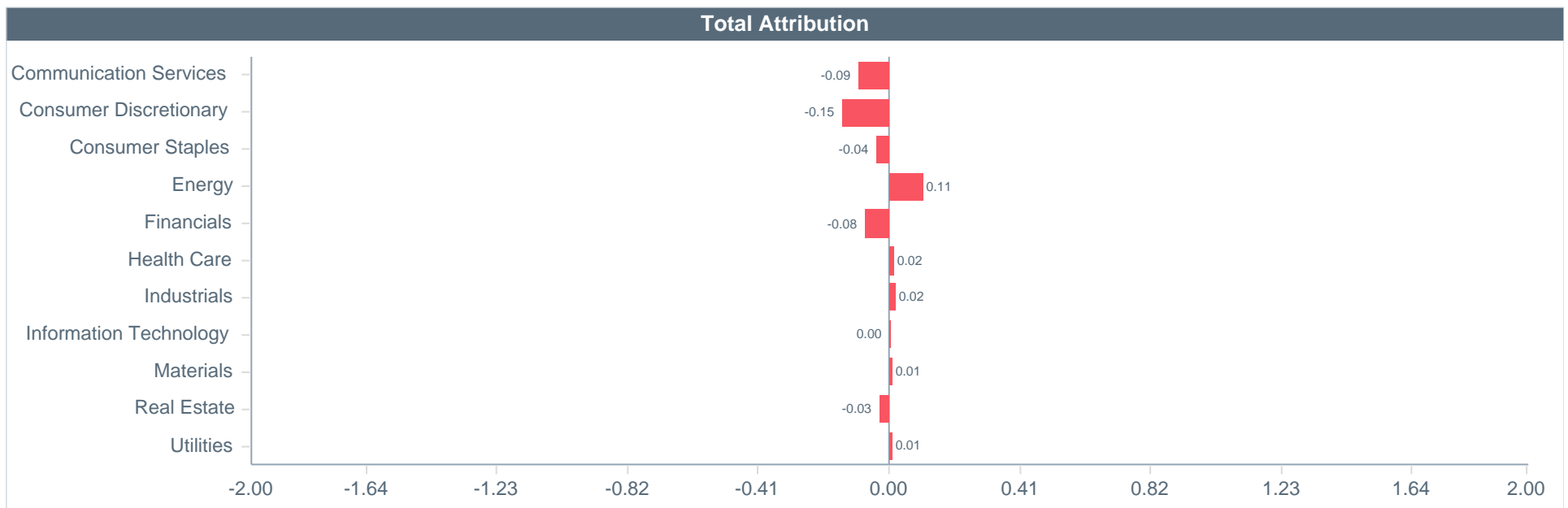
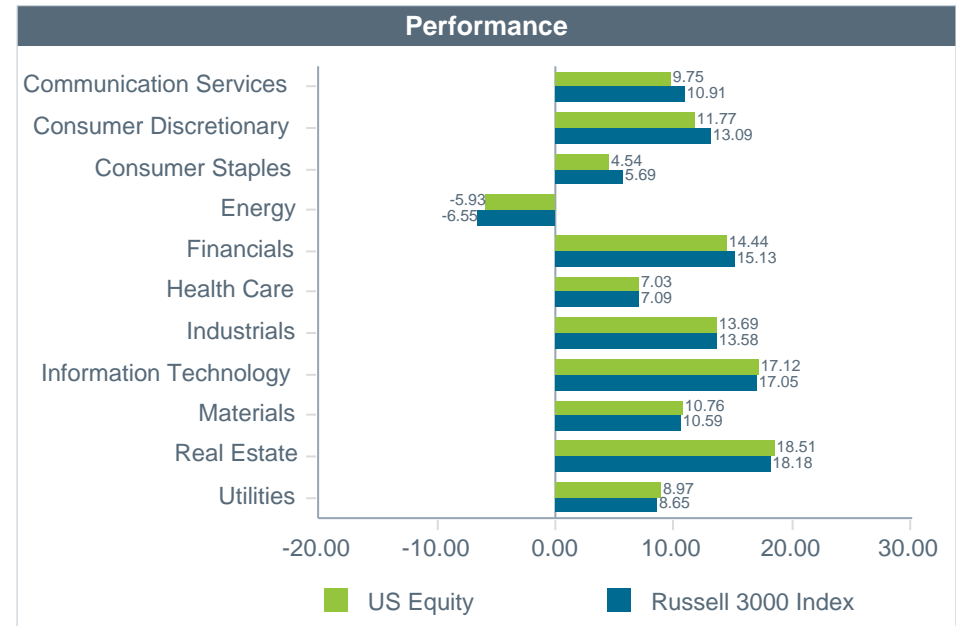
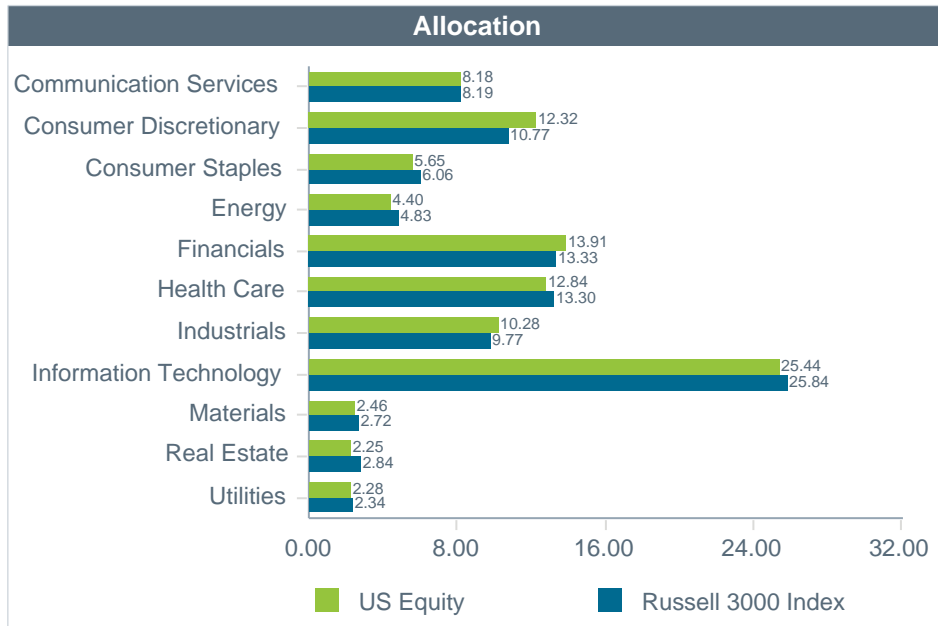
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	573,293	618,101
Median Mkt. Cap (\$M)	3,744	2,175
Price/Earnings Ratio	22.71	22.80
Price/Book Ratio	3.98	4.14
5 Yr. EPS Growth Rate (%)	16.36	16.63
Current Yield (%)	1.39	1.47
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	1,781	2,976



A stock with multiple share classes may be shown twice in the Top Ten Equity Holdings.

Wyoming State Treasurer's Office  
 US Equity vs. Russell 3000 Index  
 Buy and Hold Sector Attribution Graph

1 Quarter Ending December 31, 2023

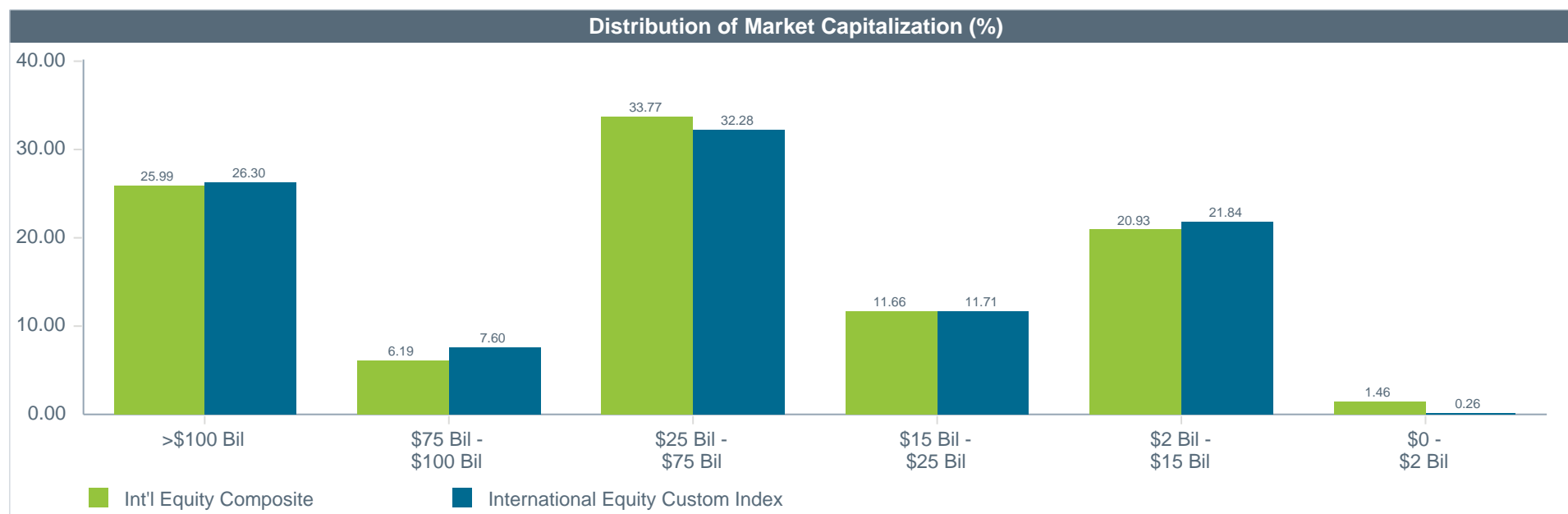


Wyoming State Treasurer's Office  
 Int'l Equity Composite vs. International Equity Custom Index  
 Portfolio Characteristics

As of December 31, 2023

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Taiwan Semiconductor Mfg (ADR)	1.59	1.89	-0.30	20.23
ASML Holding NV	1.55	1.21	0.34	27.54
Samsung Electronics Co Ltd	1.47	1.16	0.31	20.25
Novo Nordisk A/S	1.43	1.34	0.09	13.16
Roche Holding AG	0.99	0.81	0.18	6.11
Shell Plc	0.75	0.86	-0.11	4.14
Allianz SE	0.74	0.43	0.31	11.85
Samsung Electronics Co Ltd	0.71	0.16	0.55	20.25
LOreal SA	0.67	0.48	0.19	19.58
Sony Group Corporation	0.64	0.48	0.16	15.97
% of Portfolio	10.54	8.82	1.72	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	89,667	90,266
Median Mkt. Cap (\$M)	9,356	9,828
Price/Earnings Ratio	11.30	13.62
Price/Book Ratio	2.46	2.49
5 Yr. EPS Growth Rate (%)	12.69	10.40
Current Yield (%)	3.50	3.09
Beta (5 Years, Monthly)	0.99	1.00
Number of Securities	2,858	2,312

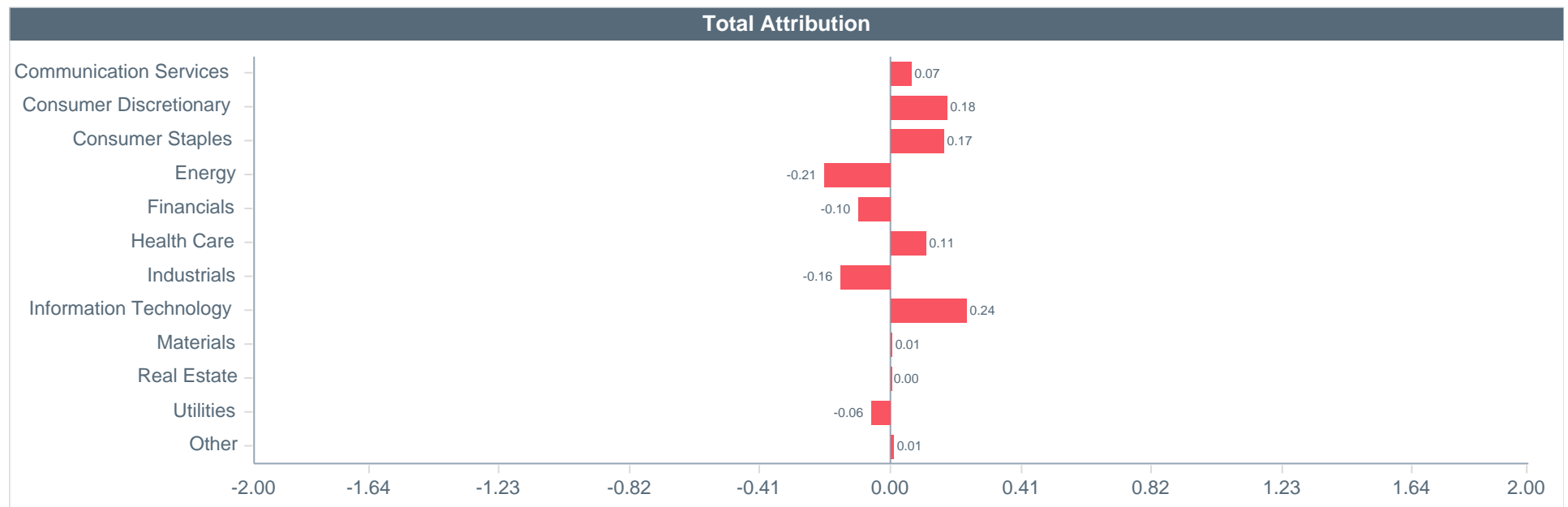
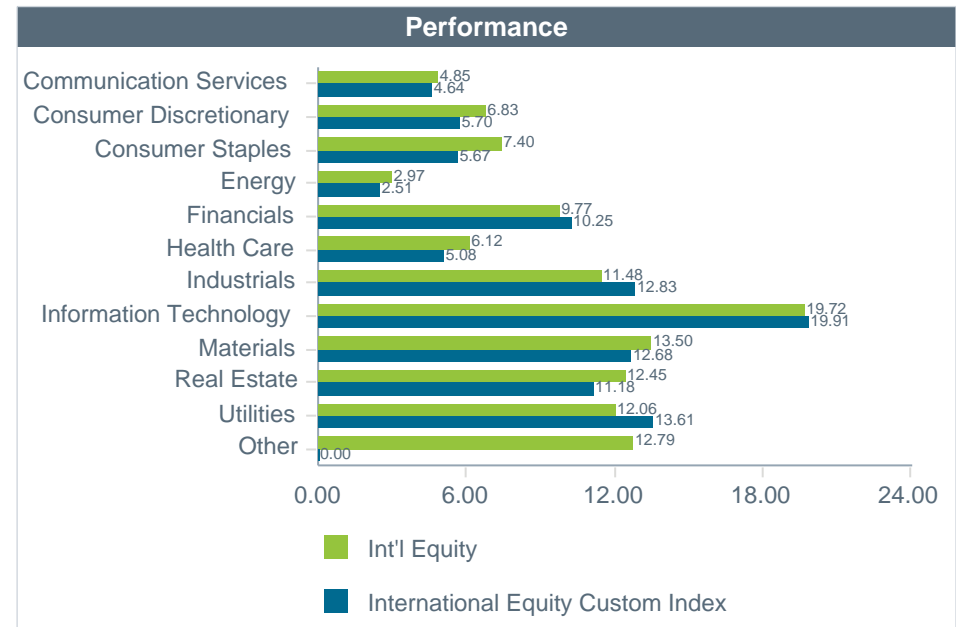
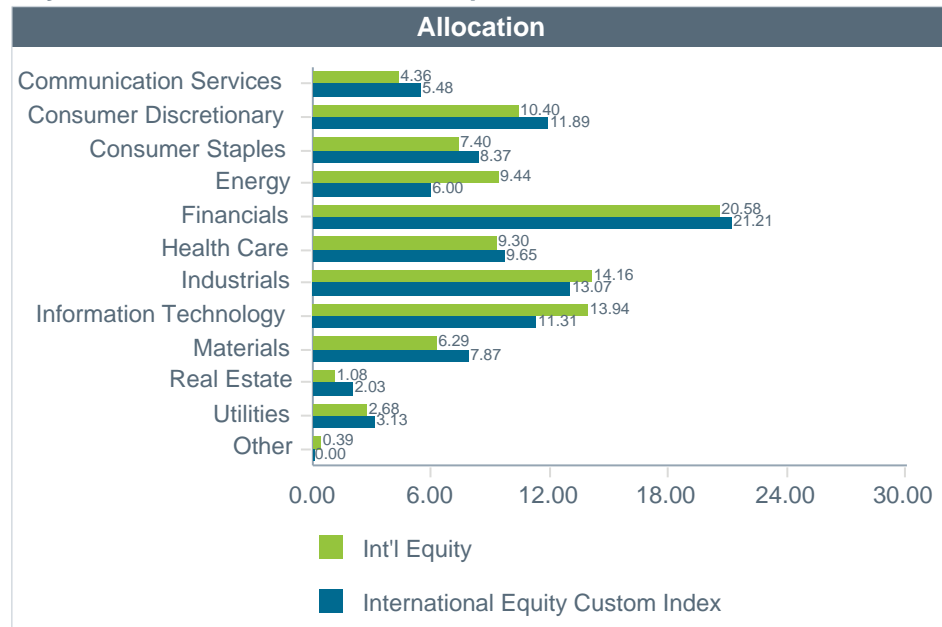


The International Equity Custom Index currently consists of the International Equity Custom Index.



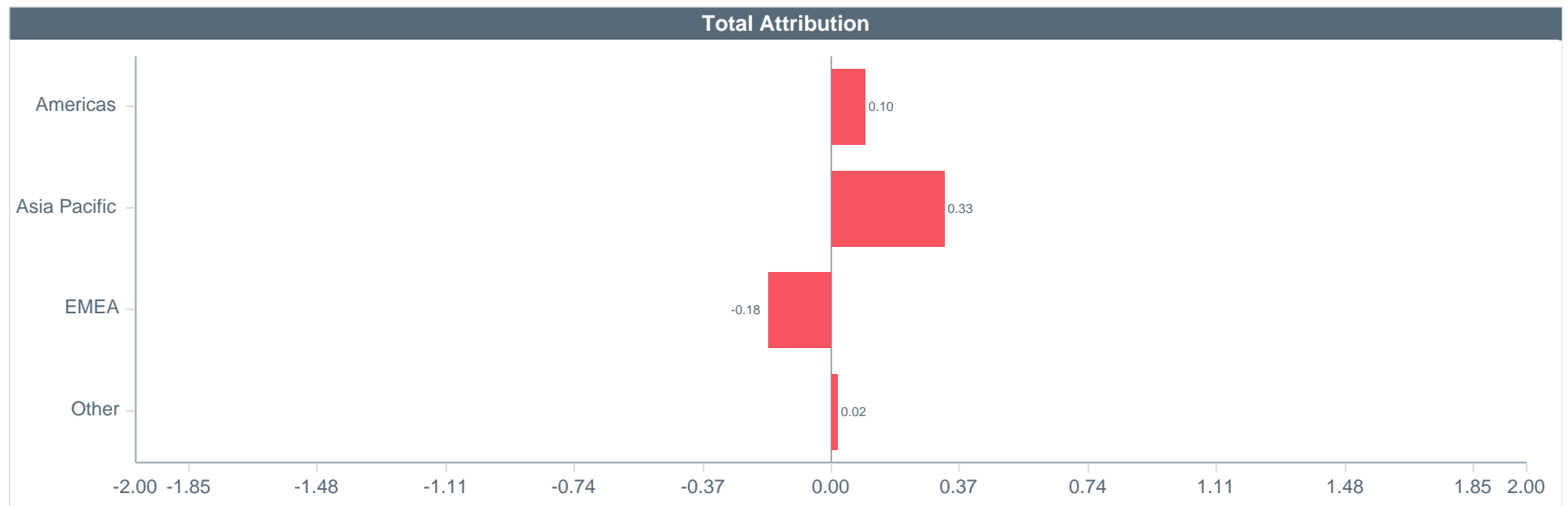
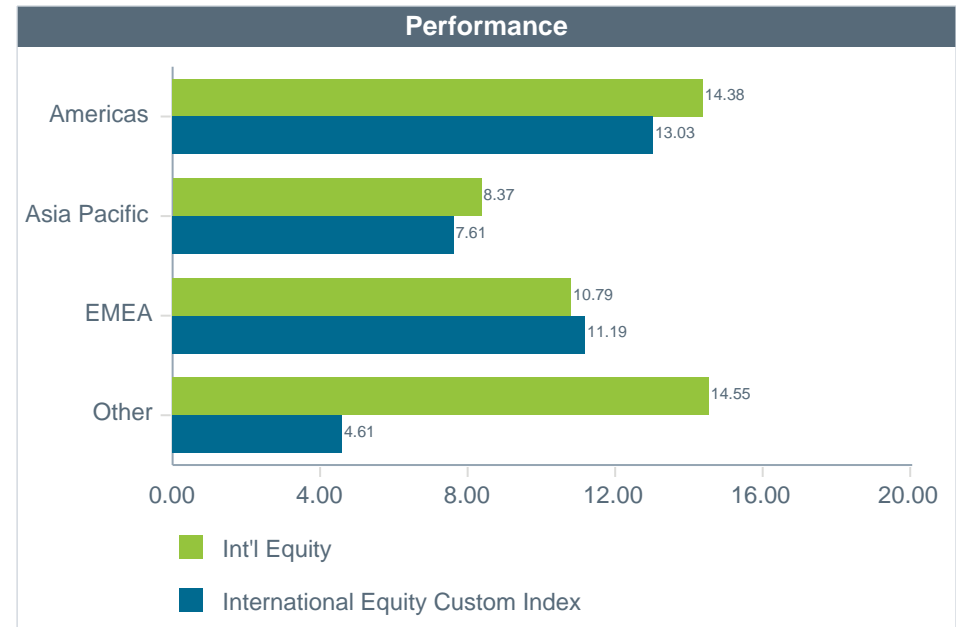
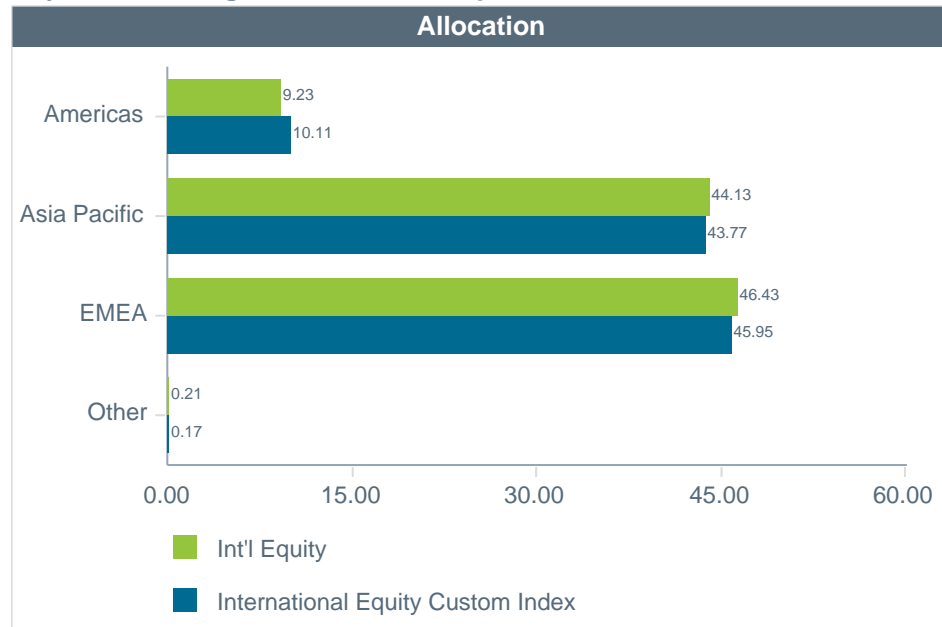
Wyoming State Treasurer's Office  
 Int'l Equity vs. International Equity Custom Index  
 Buy and Hold Sector Attribution Graph

1 Quarter Ending December 31, 2023



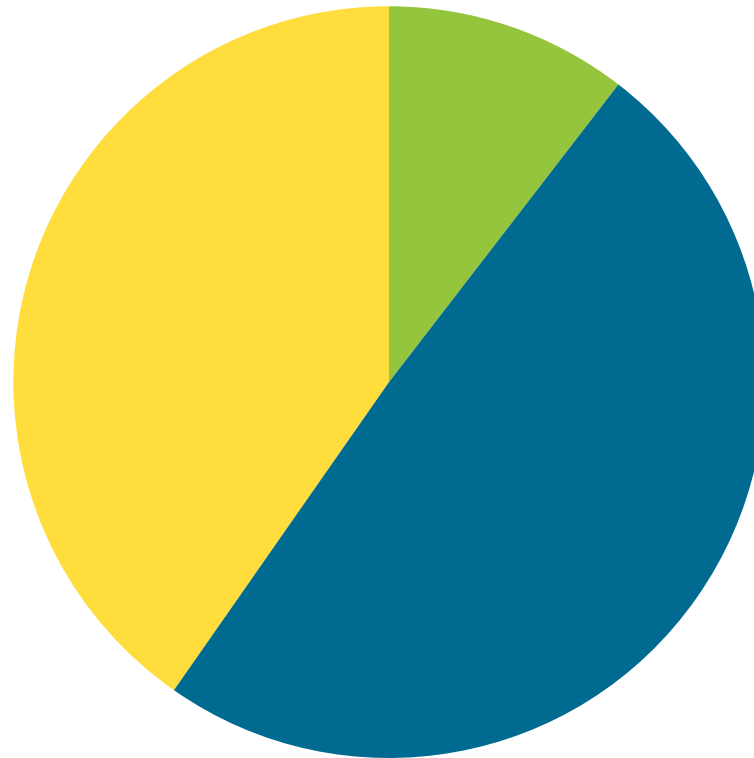
The International Equity Custom Index currently consists of the International Equity Custom Index.





The International Equity Custom Index currently consists of the International Equity Custom Index.

December 31, 2023 : \$1,268,344,759



	Market Value (\$)	Allocation (%)
Cohen & Steers Preferred Stock	132,539,228	10.45
Harvest Fund Advisors	624,747,672	49.26
Harvest Fund Advisors Passive	511,057,858	40.29

Allocations shown may not sum up to 100% exactly due to rounding.

Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Cohen &amp; Steers Preferred Stock</b>	<b>7.15</b>	<b>8.15</b>	<b>7.54</b>	<b>7.54</b>	<b>-0.34</b>	<b>4.92</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.65</b>	<b>4.08</b>	<b>07/01/2018</b>
Preferred Stock Custom Index	6.72	6.74	8.57	8.57	0.33	5.11	4.27	5.09	-12.02	3.57	
Difference	0.43	1.41	-1.03	-1.03	-0.67	-0.19	N/A	N/A	0.37	0.51	
<b>MLP</b>	<b>4.31</b>	<b>11.90</b>	<b>18.61</b>	<b>18.61</b>	<b>28.86</b>	<b>12.85</b>	<b>N/A</b>	<b>N/A</b>	<b>28.02</b>	<b>6.94</b>	<b>08/01/2018</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	6.33	
Difference	-1.41	-0.32	-1.62	-1.62	0.50	1.75	N/A	N/A	1.76	0.61	
<b>Harvest Fund Advisors</b>	<b>3.84</b>	<b>11.90</b>	<b>18.50</b>	<b>18.50</b>	<b>29.91</b>	<b>13.40</b>	<b>N/A</b>	<b>N/A</b>	<b>30.50</b>	<b>7.43</b>	<b>08/01/2018</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	6.33	
Difference	-1.88	-0.32	-1.73	-1.73	1.55	2.30	N/A	N/A	4.24	1.10	
<b>Harvest Fund Advisors Passive</b>	<b>4.89</b>	<b>11.99</b>	<b>19.10</b>	<b>19.10</b>	<b>28.34</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>26.75</b>	<b>13.68</b>	<b>02/01/2020</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	13.54	
Difference	-0.83	-0.23	-1.13	-1.13	-0.02	N/A	N/A	N/A	0.49	0.14	

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding. The MLP Custom Index consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter. The Preferred Stock Custom Index consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.



Wyoming State Treasurer's Office  
Comparative Performance

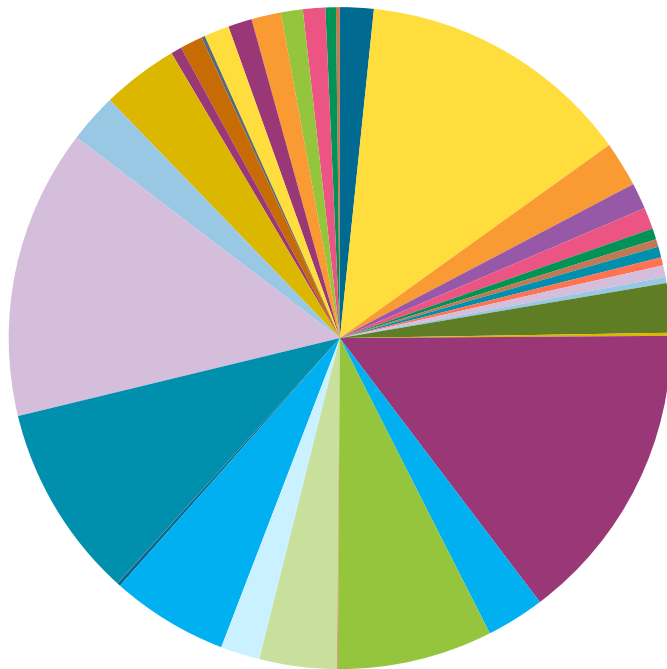
As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Cohen &amp; Steers Preferred Stock</b>	<b>7.22</b>	<b>8.30</b>	<b>7.84</b>	<b>7.84</b>	<b>-0.06</b>	<b>5.23</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.41</b>	<b>4.39</b>	<b>07/01/2018</b>
Preferred Stock Custom Index	6.72	6.74	8.57	8.57	0.33	5.11	4.27	5.09	-12.02	3.57	
Difference	0.50	1.56	-0.73	-0.73	-0.39	0.12	N/A	N/A	0.61	0.82	
<b>MLP</b>	<b>4.39</b>	<b>12.08</b>	<b>18.98</b>	<b>18.98</b>	<b>29.25</b>	<b>13.26</b>	<b>N/A</b>	<b>N/A</b>	<b>28.38</b>	<b>7.36</b>	<b>08/01/2018</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	6.33	
Difference	-1.33	-0.14	-1.25	-1.25	0.89	2.16	N/A	N/A	2.12	1.03	
<b>Harvest Fund Advisors</b>	<b>3.99</b>	<b>12.23</b>	<b>19.19</b>	<b>19.19</b>	<b>30.68</b>	<b>14.07</b>	<b>N/A</b>	<b>N/A</b>	<b>31.24</b>	<b>8.07</b>	<b>08/01/2018</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	6.33	
Difference	-1.73	0.01	-1.04	-1.04	2.32	2.97	N/A	N/A	4.98	1.74	
<b>Harvest Fund Advisors Passive</b>	<b>4.89</b>	<b>11.99</b>	<b>19.11</b>	<b>19.11</b>	<b>28.34</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>26.76</b>	<b>13.69</b>	<b>02/01/2020</b>
MLP Custom Index	5.72	12.22	20.23	20.23	28.36	11.10	5.05	1.87	26.26	13.54	
Difference	-0.83	-0.23	-1.12	-1.12	-0.02	N/A	N/A	N/A	0.50	0.15	

Performance shown is gross of fees. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding. The MLP Custom Index consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter. The Preferred Stock Custom Index consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.



December 31, 2023 : \$5,181,110,876



	Market Value (\$)	Allocation (%)
Access Venture Partners II LP	202,359	0.00
Cheyenne Equity Capital LP	84,659,425	1.63
BlackRock Long Term Private Capital	696,763,842	13.45
Hamilton Lane Wyoming Nowood LP	114,666,101	2.21
Valor Equity Partners V LP	65,916,351	1.27
GTCR Fund XIII	54,806,004	1.06
Nautic Partners X LP	28,064,905	0.54
Veritas Capital Vantage Fund	19,301,379	0.37
Veritas Capital VIII LP	27,506,834	0.53
BVP Forge Institutional LP	20,369,721	0.39
Stepstone Secondaries Fund V LP	29,463,773	0.57
Dragoneer Opportunities Fund VI	15,463,499	0.30
NB Sauger LP	124,697,156	2.41
Banner Ridge Secondaries Fund V	7,799,006	0.15
Clarion Lion Properties LP	766,699,979	14.80
UBS Trumbull	146,956,407	2.84
Morgan Stanley Prime Property LLC	392,583,332	7.58
M&G Real Estate Debt III LP	1,589,905	0.03
Northwood Real Estate Partners (Series IV) LP	195,944,160	3.78
SC Capital	99,224,931	1.92
Realterm	296,600,774	5.72
WestRiver Real Estate Finance LP	8,293,093	0.16
Hammes Partners IV LP	963,284	0.02
PAAMCO - Jackalope Fund	68,585	0.00
Grosvenor Diversified Hedge Funds	491,168,036	9.48
Internal Diversified Hedge Funds	733,304,651	14.15
Grosvenor Silvery Lupine Fund Class D	124,632,580	2.41
Internal Opportunistic	47,723	0.00
Macquarie	193,429,947	3.73
MGIF Co-Investment 3	27,099,441	0.52
Grosvenor Silvery Lupine Fund Class E LLC	57,052,927	1.10
Accel KKR	8,960,541	0.17
Morgan Stanley Ashbridge Secondaries II LP	63,556,920	1.23
Atalaya Asset Income Evergreen LP	60,411,835	1.17
BlackRock Global Credit Opportunities II Fund A Master SCSp	74,610,102	1.44
AG Direct Lending Evergreen LP	55,472,865	1.07
KLCP Domestic III LP	56,371,064	1.09
Strategic Value Capital Solutions Fund II	26,234,624	0.51
Ares Pathfinder Fund II	10,152,817	0.20

Allocations shown may not sum up to 100% exactly due to rounding.

Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Core Real Estate</b>	<b>-3.81</b>	<b>-4.73</b>	<b>-13.18</b>	<b>-13.18</b>	<b>4.40</b>	<b>3.27</b>	<b>4.41</b>	<b>6.31</b>	<b>7.73</b>	<b>5.13</b>	<b>01/01/2006</b>
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	6.55	5.22	
Difference	1.19	2.27	-0.45	-0.45	0.39	-0.07	0.03	-0.02	1.18	-0.09	
<b>Clarion Lion Properties LP</b>	<b>-4.53</b>	<b>-5.67</b>	<b>-16.02</b>	<b>-16.02</b>	<b>3.97</b>	<b>4.02</b>	<b>5.31</b>	<b>7.22</b>	<b>9.02</b>	<b>5.08</b>	<b>01/01/2006</b>
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	6.55	5.22	
Difference	0.47	1.33	-3.29	-3.29	-0.04	0.68	0.93	0.89	2.47	-0.14	
<b>UBS Trumbull</b>	<b>-4.15</b>	<b>-5.64</b>	<b>-15.47</b>	<b>-15.47</b>	<b>0.86</b>	<b>-1.02</b>	<b>0.88</b>	<b>3.39</b>	<b>5.17</b>	<b>3.66</b>	<b>07/01/2006</b>
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	6.55	4.94	
Difference	0.85	1.36	-2.74	-2.74	-3.15	-4.36	-3.50	-2.94	-1.38	-1.28	
<b>Morgan Stanley Prime Property LLC</b>	<b>-2.20</b>	<b>-2.41</b>	<b>-5.78</b>	<b>-5.78</b>	<b>6.70</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.13</b>	<b>6.65</b>	<b>10/01/2020</b>
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	6.55	4.05	
Difference	2.80	4.59	6.95	6.95	2.69	N/A	N/A	N/A	-0.42	2.60	
<b>Diversified Hedge Funds Composite</b>	<b>2.65</b>	<b>4.40</b>	<b>9.82</b>	<b>9.82</b>	<b>1.60</b>	<b>3.18</b>	<b>2.84</b>	<b>2.24</b>	<b>-9.13</b>	<b>2.50</b>	<b>12/01/2007</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	2.01	
Difference	-0.50	0.70	3.75	3.75	-0.57	-1.91	-1.27	-0.99	-3.82	0.49	
<b>Grosvenor Diversified Hedge Funds</b>	<b>3.35</b>	<b>4.32</b>	<b>9.87</b>	<b>9.87</b>	<b>2.34</b>	<b>4.44</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.31</b>	<b>3.42</b>	<b>07/01/2018</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	3.70	
Difference	0.20	0.62	3.80	3.80	0.17	-0.65	N/A	N/A	-2.00	-0.28	
<b>Internal Diversified Hedge Funds</b>	<b>2.18</b>	<b>4.46</b>	<b>9.80</b>	<b>9.80</b>	<b>1.10</b>	<b>3.01</b>	<b>N/A</b>	<b>N/A</b>	<b>-10.41</b>	<b>2.90</b>	<b>07/01/2018</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	3.70	
Difference	-0.97	0.76	3.73	3.73	-1.07	-2.08	N/A	N/A	-5.10	-0.80	
<b>Infrastructure Composite</b>	<b>8.34</b>	<b>20.48</b>	<b>26.73</b>	<b>26.73</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.79</b>	<b>04/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.12	
Difference	6.37	16.66	19.26	19.26	N/A	N/A	N/A	N/A	N/A	5.67	
<b>Macquarie Infrastructure</b>	<b>8.08</b>	<b>9.02</b>	<b>13.94</b>	<b>13.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.13</b>	<b>04/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.12	
Difference	6.11	5.20	6.47	6.47	N/A	N/A	N/A	N/A	N/A	0.01	
<b>MGIF Co-Investment 3</b>	<b>4.56</b>	<b>2.65</b>	<b>9.36</b>	<b>9.36</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.66</b>	<b>10/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.45	
Difference	2.59	-1.17	1.89	1.89	N/A	N/A	N/A	N/A	N/A	-0.79	

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding.

Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Grosvenor Silvery Lupine Fund Class E LLC</b>	<b>11.19</b>	<b>80.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>93.89</b>	<b>03/01/2023</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	6.23	
Difference	9.22	76.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87.66	
<b>Opportunistic Composite</b>	<b>2.30</b>	<b>16.91</b>	<b>20.75</b>	<b>20.75</b>	<b>6.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-22.27</b>	<b>14.03</b>	<b>07/01/2020</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.06	
Difference	-4.32	12.26	10.58	10.58	3.59	N/A	N/A	N/A	-13.83	7.97	
<b>Grosvenor Opportunistic Class D</b>	<b>2.29</b>	<b>16.91</b>	<b>20.75</b>	<b>20.75</b>	<b>6.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-22.26</b>	<b>14.04</b>	<b>07/01/2020</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.06	
Difference	-4.33	12.26	10.58	10.58	3.59	N/A	N/A	N/A	-13.82	7.98	
<b>Internal Opportunistic</b>	<b>11.61</b>	<b>8.03</b>	<b>26.11</b>	<b>26.11</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>16.86</b>	<b>09/01/2022</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.87	
Difference	4.99	3.38	15.94	15.94	N/A	N/A	N/A	N/A	N/A	9.99	

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding.





Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Core Real Estate</b>	<b>-3.61</b>	<b>-4.37</b>	<b>-12.52</b>	<b>-12.52</b>	<b>5.16</b>	<b>3.97</b>	<b>5.13</b>	<b>7.09</b>	<b>8.54</b>	<b>5.95</b>	<b>01/01/2006</b>
NCREIF ODCE Index (AWA) (Gross)	-4.83	-6.64	-12.02	-12.02	4.92	4.25	5.30	7.29	7.47	6.17	
Difference	1.22	2.27	-0.50	-0.50	0.24	-0.28	-0.17	-0.20	1.07	-0.22	
<b>Clarion Lion Properties LP</b>	<b>-4.38</b>	<b>-5.39</b>	<b>-15.52</b>	<b>-15.52</b>	<b>4.56</b>	<b>4.62</b>	<b>5.94</b>	<b>7.90</b>	<b>9.63</b>	<b>5.82</b>	<b>01/01/2006</b>
NCREIF ODCE Index (AWA) (Gross)	-4.83	-6.64	-12.02	-12.02	4.92	4.25	5.30	7.29	7.47	6.17	
Difference	0.45	1.25	-3.50	-3.50	-0.36	0.37	0.64	0.61	2.16	-0.35	
<b>UBS Trumbull</b>	<b>-3.98</b>	<b>-5.30</b>	<b>-14.87</b>	<b>-14.87</b>	<b>1.58</b>	<b>-0.31</b>	<b>1.63</b>	<b>4.23</b>	<b>5.94</b>	<b>4.56</b>	<b>07/01/2006</b>
NCREIF ODCE Index (AWA) (Gross)	-4.83	-6.64	-12.02	-12.02	4.92	4.25	5.30	7.29	7.47	5.89	
Difference	0.85	1.34	-2.85	-2.85	-3.34	-4.56	-3.67	-3.06	-1.53	-1.33	
<b>Morgan Stanley Prime Property LLC</b>	<b>-1.89</b>	<b>-1.87</b>	<b>-4.72</b>	<b>-4.72</b>	<b>7.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.38</b>	<b>7.86</b>	<b>10/01/2020</b>
NCREIF ODCE Index (AWA) (Gross)	-4.83	-6.64	-12.02	-12.02	4.92	4.25	5.30	7.29	7.47	4.95	
Difference	2.94	4.77	7.30	7.30	3.02	N/A	N/A	N/A	-0.09	2.91	
<b>Diversified Hedge Funds Composite</b>	<b>2.65</b>	<b>4.40</b>	<b>9.82</b>	<b>9.82</b>	<b>1.60</b>	<b>3.18</b>	<b>2.84</b>	<b>2.24</b>	<b>-9.13</b>	<b>2.50</b>	<b>12/01/2007</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	2.01	
Difference	-0.50	0.70	3.75	3.75	-0.57	-1.91	-1.27	-0.99	-3.82	0.49	
<b>Grosvenor Diversified Hedge Funds</b>	<b>3.35</b>	<b>4.32</b>	<b>9.87</b>	<b>9.87</b>	<b>2.34</b>	<b>4.44</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.31</b>	<b>3.42</b>	<b>07/01/2018</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	3.70	
Difference	0.20	0.62	3.80	3.80	0.17	-0.65	N/A	N/A	-2.00	-0.28	
<b>Internal Diversified Hedge Funds</b>	<b>2.18</b>	<b>4.46</b>	<b>9.80</b>	<b>9.80</b>	<b>1.10</b>	<b>3.01</b>	<b>N/A</b>	<b>N/A</b>	<b>-10.41</b>	<b>2.90</b>	<b>07/01/2018</b>
HFRI FOF Comp Index	3.15	3.70	6.07	6.07	2.17	5.09	4.11	3.23	-5.31	3.70	
Difference	-0.97	0.76	3.73	3.73	-1.07	-2.08	N/A	N/A	-5.10	-0.80	
<b>Infrastructure Composite</b>	<b>8.34</b>	<b>20.48</b>	<b>26.73</b>	<b>26.73</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.79</b>	<b>04/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.12	
Difference	6.37	16.66	19.26	19.26	N/A	N/A	N/A	N/A	N/A	5.67	
<b>Macquarie Infrastructure</b>	<b>8.08</b>	<b>9.02</b>	<b>13.94</b>	<b>13.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.13</b>	<b>04/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.12	
Difference	6.11	5.20	6.47	6.47	N/A	N/A	N/A	N/A	N/A	0.01	
<b>MGIF Co-Investment 3</b>	<b>4.56</b>	<b>2.65</b>	<b>9.36</b>	<b>9.36</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.66</b>	<b>10/01/2022</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	7.45	
Difference	2.59	-1.17	1.89	1.89	N/A	N/A	N/A	N/A	N/A	-0.79	

Performance shown is gross of fees for the Core Real Estate Composite and Core Real Estate managers. Performance shown is net of fees for the Diversified Hedge Funds Composite and managers, opportunistic, and infrastructure managers. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding.



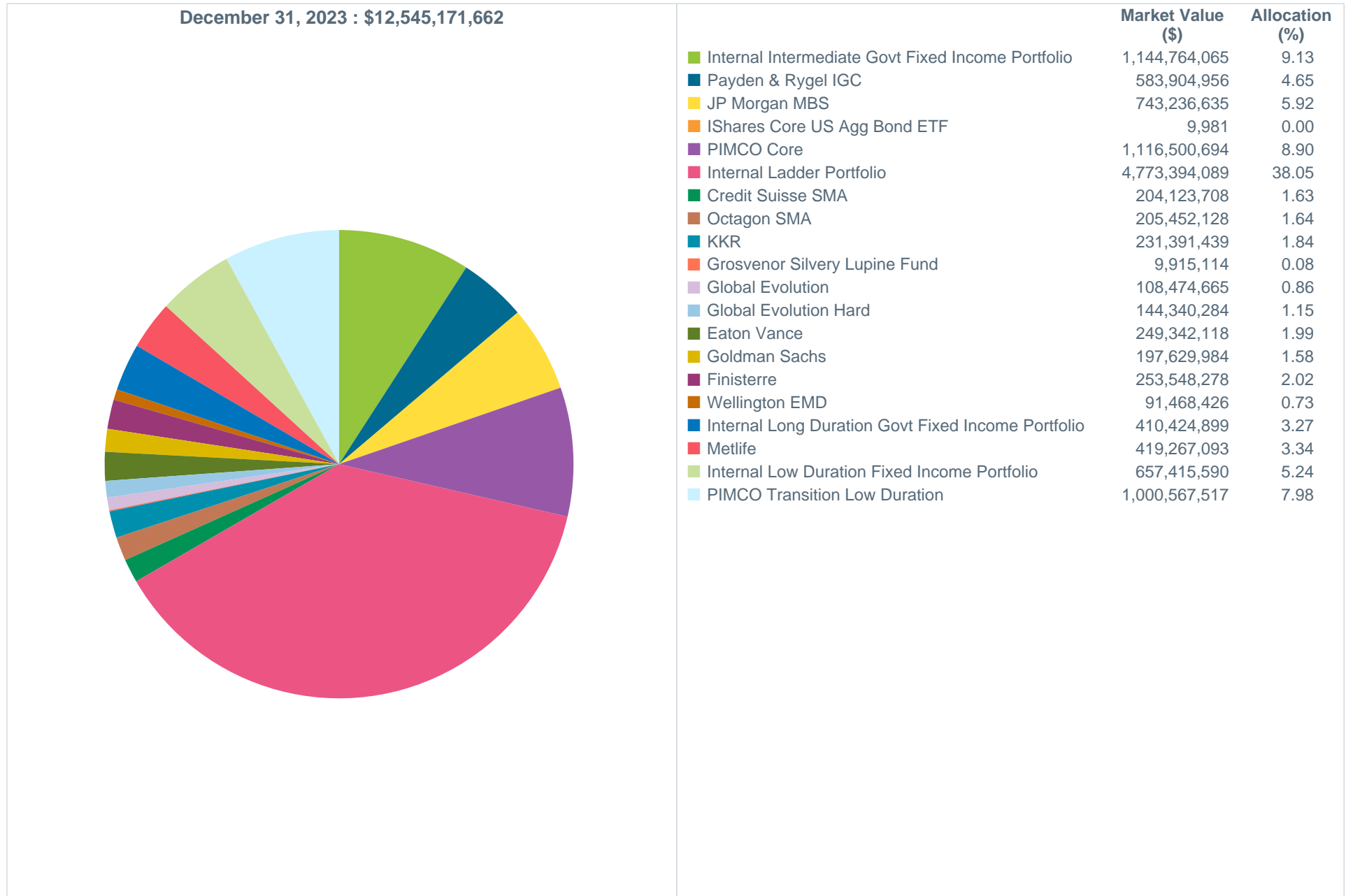
Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Grosvenor Silvery Lupine Fund Class E LLC</b>	<b>11.19</b>	<b>80.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>93.89</b>	<b>03/01/2023</b>
10 Year US Treasury Yield + 350 bps	1.97	3.82	7.47	7.47	N/A	N/A	N/A	N/A	N/A	6.23	
Difference	9.22	76.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87.66	
<b>Opportunistic Investments</b>	<b>2.30</b>	<b>16.91</b>	<b>20.75</b>	<b>20.75</b>	<b>6.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-22.27</b>	<b>14.03</b>	<b>07/01/2020</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.06	
Difference	-4.32	12.26	10.58	10.58	3.59	N/A	N/A	N/A	-13.83	7.97	
<b>Grosvenor Opportunistic Class D</b>	<b>2.29</b>	<b>16.91</b>	<b>20.75</b>	<b>20.75</b>	<b>6.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-22.26</b>	<b>14.04</b>	<b>07/01/2020</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.06	
Difference	-4.33	12.26	10.58	10.58	3.59	N/A	N/A	N/A	-13.82	7.98	
<b>Wyoming Internal Opportunistic</b>	<b>11.61</b>	<b>8.03</b>	<b>26.11</b>	<b>26.11</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>16.86</b>	<b>09/01/2022</b>
Opportunistic Custom Benchmark	6.62	4.65	10.17	10.17	3.32	N/A	N/A	N/A	-8.44	6.87	
Difference	4.99	3.38	15.94	15.94	N/A	N/A	N/A	N/A	N/A	9.99	

Performance shown is gross of fees for the Core Real Estate Composite and Core Real Estate managers. Performance shown is net of fees for the Diversified Hedge Funds Composite and managers, opportunistic, and infrastructure managers. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding.





Allocations shown may not sum up to 100% exactly due to rounding.

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>3,588,416,331</b>	<b>28.60</b>	<b>6.46</b>	<b>3.47</b>	<b>5.92</b>	<b>5.92</b>	<b>-3.17</b>	<b>1.23</b>	<b>1.46</b>	<b>1.92</b>	<b>-12.96</b>	<b>1.54</b>	<b>01/01/2013</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	1.45	
Difference			-0.36	0.10	0.39	0.39	0.14	0.13	0.17	0.11	0.05	0.09	
<b>Internal Aggregate Core Fixed Income</b>	<b>2,471,915,637</b>	<b>19.70</b>	<b>6.50</b>	<b>3.39</b>	<b>5.78</b>	<b>5.78</b>	<b>-3.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.42</b>	<b>-0.35</b>	<b>11/01/2019</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	-0.72	
Difference			-0.32	0.02	0.25	0.25	0.30	N/A	N/A	N/A	0.59	0.37	
<b>Internal Intermediate Govt Fixed Income Portfolio</b>	<b>1,144,764,065</b>	<b>9.13</b>	<b>5.54</b>	<b>2.42</b>	<b>4.40</b>	<b>4.40</b>	<b>-3.48</b>	<b>0.28</b>	<b>0.72</b>	<b>1.30</b>	<b>-11.74</b>	<b>3.77</b>	<b>10/01/1996</b>
Internal Intermediate Govt Fixed Income Portfolio Index			5.66	2.43	4.05	4.05	-3.82	0.12	0.45	0.79	-12.46	3.73	
Difference			-0.12	-0.01	0.35	0.35	0.34	0.16	0.27	0.51	0.72	0.04	
<b>Payden &amp; Rygel IGC</b>	<b>583,904,956</b>	<b>4.65</b>	<b>8.25</b>	<b>4.98</b>	<b>8.38</b>	<b>8.38</b>	<b>-3.45</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-16.00</b>	<b>-0.10</b>	<b>11/01/2019</b>
Payden & Rygel Custom Index			8.50	5.15	8.52	8.52	-3.29	2.45	2.28	2.86	-15.76	-0.21	
Difference			-0.25	-0.17	-0.14	-0.14	-0.16	N/A	N/A	N/A	-0.24	0.11	
<b>JP Morgan MBS</b>	<b>743,236,635</b>	<b>5.92</b>	<b>6.62</b>	<b>3.69</b>	<b>5.93</b>	<b>5.93</b>	<b>-1.62</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-9.48</b>	<b>0.18</b>	<b>11/01/2019</b>
Bloomberg US MBS Index (Unhgd)			7.48	3.12	5.05	5.05	-2.86	0.25	0.67	1.38	-11.81	-1.08	
Difference			-0.86	0.57	0.88	0.88	1.24	N/A	N/A	N/A	2.33	1.26	
<b>IShares Core US Agg Bond ETF</b>	<b>9,981</b>	<b>0.00</b>	<b>6.72</b>	<b>3.31</b>	<b>5.64</b>	<b>5.64</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.15</b>	<b>09/01/2022</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	2.14	
Difference			-0.10	-0.06	0.11	0.11	N/A	N/A	N/A	N/A	N/A	0.01	
<b>PIMCO Core</b>	<b>1,116,500,694</b>	<b>8.90</b>	<b>6.42</b>	<b>3.57</b>	<b>6.20</b>	<b>6.20</b>	<b>-3.41</b>	<b>1.08</b>	<b>1.43</b>	<b>1.91</b>	<b>-13.65</b>	<b>1.48</b>	<b>01/01/2013</b>
PIMCO Custom Index			6.82	3.37	5.53	5.53	-3.35	0.93	1.21	1.75	-13.03	1.41	
Difference			-0.40	0.20	0.67	0.67	-0.06	0.15	0.22	0.16	-0.62	0.07	
<b>Opportunistic Fixed Income</b>													
<b>Grosvenor Silvery Lupine Fund</b>	<b>9,915,114</b>	<b>0.08</b>	<b>-15.27</b>	<b>-15.90</b>	<b>-16.27</b>	<b>-16.27</b>	<b>-6.16</b>	<b>-4.02</b>	<b>-1.03</b>	<b>N/A</b>	<b>-2.26</b>	<b>0.62</b>	<b>07/01/2014</b>
Credit Suisse Western Euro Hi Yld Index			5.95	8.18	14.97	14.97	2.99	5.30	4.80	5.10	-9.44	4.80	
Difference			-21.22	-24.08	-31.24	-31.24	-9.15	-9.32	-5.83	N/A	7.18	-4.18	

Performance shown is net of fees. Fiscal year ends on June 30th. Custom index composition can be found in the addendum.

Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Bank Loans</b>	<b>640,967,274</b>	<b>5.11</b>	<b>2.25</b>	<b>5.35</b>	<b>12.42</b>	<b>12.42</b>	<b>5.25</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.00</b>	<b>5.04</b>	<b>09/01/2019</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	4.99	
Difference			-0.26	-0.61	-0.30	-0.30	-0.17	N/A	N/A	N/A	-0.32	0.05	
<b>Credit Suisse SMA</b>	<b>204,123,708</b>	<b>1.63</b>	<b>2.55</b>	<b>6.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.46</b>	<b>04/01/2023</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	9.50	
Difference			0.04	0.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.04	
<b>Octagon SMA</b>	<b>205,452,128</b>	<b>1.64</b>	<b>2.13</b>	<b>4.68</b>	<b>10.67</b>	<b>10.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.92</b>	<b>12/01/2022</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	12.21	
Difference			-0.38	-1.28	-2.05	-2.05	N/A	N/A	N/A	N/A	N/A	-2.29	
<b>KKR</b>	<b>231,391,439</b>	<b>1.84</b>	<b>2.20</b>	<b>5.59</b>	<b>13.27</b>	<b>13.27</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.74</b>	<b>5.69</b>	<b>10/01/2021</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	5.31	
Difference			-0.31	-0.37	0.55	0.55	N/A	N/A	N/A	N/A	-0.06	0.38	
<b>Emerging Market Debt Fixed Income</b>	<b>1,044,803,755</b>	<b>8.33</b>	<b>6.86</b>	<b>5.30</b>	<b>11.27</b>	<b>11.27</b>	<b>-1.19</b>	<b>2.30</b>	<b>2.40</b>	<b>0.07</b>	<b>-11.24</b>	<b>-0.95</b>	<b>04/01/2013</b>
EMD Custom Benchmark			7.58	5.53	10.99	10.99	-2.58	1.26	2.02	0.15	-13.90	-0.72	
Difference			-0.72	-0.23	0.28	0.28	1.39	1.04	0.38	-0.08	2.66	-0.23	
<b>Global Evolution</b>	<b>108,474,665</b>	<b>0.86</b>	<b>8.78</b>	<b>5.37</b>	<b>15.95</b>	<b>15.95</b>	<b>-0.37</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.69</b>	<b>0.67</b>	<b>02/01/2020</b>
JPM GBI-EM Gbl Dvfd Index (USD) (TR) (Unhedged)			8.07	4.55	12.70	12.70	-3.16	1.14	1.94	0.09	-11.69	-1.44	
Difference			0.71	0.82	3.25	3.25	2.79	N/A	N/A	N/A	4.00	2.11	
<b>Goldman Sachs</b>	<b>197,629,984</b>	<b>1.58</b>	<b>5.76</b>	<b>5.79</b>	<b>9.46</b>	<b>9.46</b>	<b>-1.26</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.52</b>	<b>0.62</b>	<b>03/01/2020</b>
Goldman Sachs Custom Index			5.52	5.25	9.08	9.08	-1.15	3.22	3.17	3.79	-12.26	0.54	
Difference			0.24	0.54	0.38	0.38	-0.11	N/A	N/A	N/A	0.74	0.08	
<b>Eaton Vance</b>	<b>249,342,118</b>	<b>1.99</b>	<b>4.64</b>	<b>4.98</b>	<b>11.33</b>	<b>11.33</b>	<b>1.25</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-9.29</b>	<b>1.25</b>	<b>01/01/2021</b>
JP Morgan EMB (JEMB) Hard/Local 50/50			7.71	5.29	11.43	11.43	-2.72	1.84	2.31	1.85	-13.34	-2.72	
Difference			-3.07	-0.31	-0.10	-0.10	3.97	N/A	N/A	N/A	4.05	3.97	
<b>Global Evolution Hard</b>	<b>144,340,284</b>	<b>1.15</b>	<b>9.51</b>	<b>7.17</b>	<b>11.10</b>	<b>11.10</b>	<b>-3.24</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-15.70</b>	<b>-2.60</b>	<b>12/01/2020</b>
JP Morgan EMBIG Div Ex CCC (USD) (TR) Index			9.09	6.12	9.23	9.23	-3.98	1.68	2.07	3.21	-17.26	-3.32	
Difference			0.42	1.05	1.87	1.87	0.74	N/A	N/A	N/A	1.56	0.72	

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. The EMD Custom Index consists of the JPM GBI-EM Gbl Dvfd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvfd Index / 30% JPM CEMBI Brd Dvfd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvfd Index, 1/3 JPM CEMBI Brd Dvfd Index, and 1/3 JPM EMBIG Gbl Dvfd Index thereafter. The Goldman Sachs Index consists of JPM CEMBI Brd Dvfd Index through 11/22/2020, account performance from 11/23/2020 through 11/30/2020, and the JPM CEMBI Brd Dvfd Index thereafter. The Bank Loans Custom Index consists of S&P LSTA Lvgd Loan Index through 06/30/2021, and the S&P LSTA US Lvgd Loan 100 Index thereafter.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Finisterre</b>	<b>253,548,278</b>	<b>2.02</b>	<b>6.80</b>	<b>3.94</b>	<b>9.77</b>	<b>9.77</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.05</b>	<b>-0.46</b>	<b>03/01/2021</b>
Custom EMD Benchmark (1/3 blend)			7.58	5.53	10.99	10.99	-2.58	2.05	2.41	2.41	-13.90	-1.86	
Difference			-0.78	-1.59	-1.22	-1.22	N/A	N/A	N/A	N/A	5.85	1.40	
<b>Wellington EMD</b>	<b>91,468,426</b>	<b>0.73</b>	<b>9.19</b>	<b>5.75</b>	<b>13.03</b>	<b>13.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-13.99</b>	<b>-3.06</b>	<b>09/01/2021</b>
50% JPM GBI-EM Glb Div / 50% JPM EMBI Glb Div			8.62	5.64	11.92	11.92	-3.33	1.44	2.00	1.70	-14.75	-3.78	
Difference			0.57	0.11	1.11	1.11	N/A	N/A	N/A	N/A	0.76	0.72	
<b>SAP Treasury Composite</b>	<b>4,773,394,089</b>	<b>38.05</b>	<b>2.38</b>	<b>3.10</b>	<b>4.72</b>	<b>4.72</b>	<b>0.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.34</b>	<b>1.29</b>	<b>10/01/2019</b>
Internal SAP Fixed Income Portfolio	4,773,394,089	38.05	2.38	3.10	4.67	4.67	0.59	N/A	N/A	N/A	-2.34	1.28	10/01/2019
<b>Long Duration Fixed Income Composite</b>	<b>829,691,992</b>	<b>6.61</b>	<b>13.01</b>	<b>2.52</b>	<b>7.15</b>	<b>7.15</b>	<b>-8.88</b>	<b>1.25</b>	<b>N/A</b>	<b>N/A</b>	<b>-27.03</b>	<b>1.25</b>	<b>01/01/2019</b>
Bloomberg US Govt Crdt Lng Trm Bond Index			13.24	2.62	7.13	7.13	-8.68	1.12	1.58	3.22	-27.09	1.12	
Difference			-0.23	-0.10	0.02	0.02	-0.20	0.13	N/A	N/A	0.06	0.13	
<b>Internal Long Duration Govt Fixed Income Portfolio</b>	<b>410,424,899</b>	<b>3.27</b>	<b>12.75</b>	<b>-0.74</b>	<b>3.16</b>	<b>3.16</b>	<b>-11.31</b>	<b>-1.31</b>	<b>N/A</b>	<b>N/A</b>	<b>-28.46</b>	<b>-1.31</b>	<b>01/01/2019</b>
Bloomberg US Govt Lng Trm Bond Index			12.69	-0.60	3.11	3.11	-11.35	-1.23	0.03	2.27	-29.19	-1.23	
Difference			0.06	-0.14	0.05	0.05	0.04	-0.08	N/A	N/A	0.73	-0.08	
<b>Metlife</b>	<b>419,267,093</b>	<b>3.34</b>	<b>13.28</b>	<b>5.40</b>	<b>10.77</b>	<b>10.77</b>	<b>-6.60</b>	<b>3.17</b>	<b>N/A</b>	<b>N/A</b>	<b>-25.48</b>	<b>3.46</b>	<b>11/01/2018</b>
Bloomberg US Lng Crdt Index			13.71	5.48	10.73	10.73	-6.50	2.70	2.58	3.88	-25.29	3.02	
Difference			-0.43	-0.08	0.04	0.04	-0.10	0.47	N/A	N/A	-0.19	0.44	
<b>Low Duration Fixed Income</b>	<b>657,415,590</b>	<b>5.24</b>	<b>2.62</b>	<b>3.51</b>	<b>4.75</b>	<b>4.75</b>	<b>0.55</b>	<b>1.74</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.90</b>	<b>1.85</b>	<b>12/01/2018</b>
Low Duration Fixed Income Custom Index			2.55	3.29	4.32	4.32	-0.08	1.33	1.30	1.18	-3.81	1.46	
Difference			0.07	0.22	0.43	0.43	0.63	0.41	N/A	N/A	0.91	0.39	
<b>Internal Low Duration Fixed Income Portfolio</b>	<b>657,415,590</b>	<b>5.24</b>	<b>2.62</b>	<b>3.51</b>	<b>4.75</b>	<b>4.75</b>	<b>0.55</b>	<b>1.71</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.89</b>	<b>1.79</b>	<b>03/01/2018</b>
Bloomberg US Govt 1-3 Yr Bond Index			2.55	3.29	4.32	4.32	-0.08	1.28	1.20	1.05	-3.81	1.43	
Difference			0.07	0.22	0.43	0.43	0.63	0.43	N/A	N/A	0.92	0.36	
<b>Transition Low Duration Fixed Income Composite</b>	<b>1,000,567,517</b>	<b>7.98</b>	<b>2.55</b>	<b>4.31</b>	<b>7.72</b>	<b>7.72</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.41</b>	<b>2.89</b>	<b>11/01/2021</b>
Transition Fixed Income Custom Index			2.75	4.70	8.00	8.00	2.55	3.21	2.90	2.66	-1.31	3.00	
Difference			-0.20	-0.39	-0.28	-0.28	N/A	N/A	N/A	N/A	-0.10	-0.11	

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding. The Low Duration Fixed Income Custom Index consists of the Bloomberg US Gov't Crdt 1-3 Yr Bond Index through 06/30/2019 and the Bloomberg US Gov't 1-3 Yr Bond Index thereafter.

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>PIMCO Transition Low Duration</b>	<b>1,000,567,517</b>	<b>7.98</b>	<b>2.55</b>	<b>4.33</b>	<b>7.73</b>	<b>7.73</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.41</b>	<b>2.90</b>	<b>11/01/2021</b>
PIMCO Low Duration Custom Index			2.75	4.72	8.02	8.02	2.69	3.30	2.97	2.70	-1.05	3.20	
Difference			-0.20	-0.39	-0.29	-0.29	N/A	N/A	N/A	N/A	-0.36	-0.30	

Performance shown is net of fees. Fiscal year ends on June 30th. Custom index composition can be found in the addendum.

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>3,588,416,331</b>	<b>28.60</b>	<b>6.49</b>	<b>3.51</b>	<b>6.00</b>	<b>6.00</b>	<b>-3.08</b>	<b>1.32</b>	<b>1.55</b>	<b>2.03</b>	<b>-12.89</b>	<b>1.66</b>	<b>01/01/2013</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	1.45	
Difference			-0.33	0.14	0.47	0.47	0.23	0.22	0.26	0.22	0.12	0.21	
IM U.S. Broad Mkt Core Fixed Income (SA+CF) Median			6.82	3.48	5.99	5.99	-2.98	1.65	1.76	2.25	-12.95	1.88	
Core Fixed Income Rank			88	49	50	50	57	74	71	75	45	75	
<b>Internal Aggregate Core Fixed Income</b>	<b>2,471,915,637</b>	<b>19.70</b>	<b>6.51</b>	<b>3.42</b>	<b>5.85</b>	<b>5.85</b>	<b>-2.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.35</b>	<b>-0.28</b>	<b>11/01/2019</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	-0.72	
Difference			-0.31	0.05	0.32	0.32	0.37	N/A	N/A	N/A	0.66	0.44	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			6.82	3.48	5.99	5.99	-2.98	1.65	1.76	2.25	-12.95	-0.20	
Internal Aggregate Core Fixed Income Rank			84	57	60	60	49	N/A	N/A	N/A	24	60	
<b>Internal Intermediate Govt Fixed Income Portfolio</b>	<b>1,144,764,065</b>	<b>9.13</b>	<b>5.54</b>	<b>2.42</b>	<b>4.40</b>	<b>4.40</b>	<b>-3.48</b>	<b>0.28</b>	<b>0.72</b>	<b>1.30</b>	<b>-11.74</b>	<b>3.77</b>	<b>10/01/1996</b>
Internal Intermediate Govt Fixed Income Portfolio Index			5.66	2.43	4.05	4.05	-3.82	0.12	0.45	0.79	-12.46	3.73	
Difference			-0.12	-0.01	0.35	0.35	0.34	0.16	0.27	0.51	0.72	0.04	
IM U.S. Government Bonds (SA+CF) Median			5.63	2.66	4.26	4.26	-2.83	0.75	0.99	1.43	-9.69	4.28	
Internal Intermediate Govt Fixed Income Portfolio Rank			51	54	39	39	54	60	62	61	55	66	
<b>Payden &amp; Rygel IGC</b>	<b>583,904,956</b>	<b>4.65</b>	<b>8.30</b>	<b>5.08</b>	<b>8.59</b>	<b>8.59</b>	<b>-3.26</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-15.84</b>	<b>0.09</b>	<b>11/01/2019</b>
Payden & Rygel Custom Index			8.50	5.15	8.52	8.52	-3.29	2.45	2.28	2.86	-15.76	-0.21	
Difference			-0.20	-0.07	0.07	0.07	0.03	N/A	N/A	N/A	-0.08	0.30	
IM U.S. Corporate Bonds (SA+CF) Median			8.46	5.20	9.17	9.17	-3.01	3.19	2.91	3.68	-15.93	0.47	
Payden & Rygel IGC Rank			57	57	68	68	62	N/A	N/A	N/A	49	63	
<b>JP Morgan MBS</b>	<b>743,236,635</b>	<b>5.92</b>	<b>6.64</b>	<b>3.74</b>	<b>6.02</b>	<b>6.02</b>	<b>-1.54</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-9.40</b>	<b>0.27</b>	<b>11/01/2019</b>
Bloomberg US MBS Index (Unhgd)			7.48	3.12	5.05	5.05	-2.86	0.25	0.67	1.38	-11.81	-1.08	
Difference			-0.84	0.62	0.97	0.97	1.32	N/A	N/A	N/A	2.41	1.35	
IM U.S. Mortgage Backed Bonds (SA+CF) Median			6.66	3.44	5.69	5.69	-2.22	0.82	1.42	2.05	-11.12	-0.58	
JP Morgan MBS Rank			51	34	39	39	46	N/A	N/A	N/A	41	42	
<b>IShares Core US Agg Bond ETF</b>	<b>9,981</b>	<b>0.00</b>	<b>6.72</b>	<b>3.31</b>	<b>5.65</b>	<b>5.65</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.17</b>	<b>09/01/2022</b>
Bloomberg US Agg Bond Index			6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	-13.01	2.14	
Difference			-0.10	-0.06	0.12	0.12	N/A	N/A	N/A	N/A	N/A	0.03	
IM U.S. Government Bonds (SA+CF) Median			5.63	2.66	4.26	4.26	-2.83	0.75	0.99	1.43	-9.69	1.48	
IShares Core US Agg Bond ETF Rank			40	19	4	4	N/A	N/A	N/A	N/A	N/A	37	

Performance shown is gross of fees. Fiscal year ends on June 30th. Custom index composition can be found in the addendum.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>PIMCO Core</b>	<b>1,116,500,694</b>	<b>8.90</b>	<b>6.45</b>	<b>3.62</b>	<b>6.31</b>	<b>6.31</b>	<b>-3.31</b>	<b>1.19</b>	<b>1.53</b>	<b>2.03</b>	<b>-13.56</b>	<b>1.62</b>	<b>01/01/2013</b>
PIMCO Custom Index			6.82	3.37	5.53	5.53	-3.35	0.93	1.21	1.75	-13.03	1.41	
Difference			-0.37	0.25	0.78	0.78	0.04	0.26	0.32	0.28	-0.53	0.21	
IM U.S. Broad Mkt Core Fixed Income (SA+CF) Median			6.82	3.48	5.99	5.99	-2.98	1.65	1.76	2.25	-12.95	1.88	
PIMCO Core Rank			89	40	35	35	79	83	72	74	83	78	

Performance shown is gross of fees with the exception of Grosvenor SLF, which is shown net of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding. The Bank Loans Custom Index consists of S&P LSTA Lvkd Loan Index through 06/30/2021, and the S&P LSTA US Lvkd Loan 100 Index thereafter.

Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Opportunistic Fixed Income</b>													
<b>Grosvenor Silvery Lupine Fund</b>	<b>9,915,114</b>	<b>0.08</b>	<b>-15.27</b>	<b>-15.90</b>	<b>-16.27</b>	<b>-16.27</b>	<b>-6.16</b>	<b>-4.02</b>	<b>-1.03</b>	<b>N/A</b>	<b>-2.26</b>	<b>0.62</b>	<b>07/01/2014</b>
Credit Suisse Western Euro Hi Yld Index			5.95	8.18	14.97	14.97	2.99	5.30	4.80	5.10	-9.44	4.80	
Difference			-21.22	-24.08	-31.24	-31.24	-9.15	-9.32	-5.83	N/A	7.18	-4.18	
<b>Bank Loans</b>													
<b>Bank Loans Custom Index</b>	<b>640,967,274</b>	<b>5.11</b>	<b>2.34</b>	<b>5.51</b>	<b>12.74</b>	<b>12.74</b>	<b>5.54</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.74</b>	<b>5.34</b>	<b>09/01/2019</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	4.99	
Difference			-0.17	-0.45	0.02	0.02	0.12	N/A	N/A	N/A	-0.06	0.35	
IM U.S. Bank Loans (SA+CF) Median			3.00	6.39	13.24	13.24	5.73	5.68	4.73	4.45	-0.92	5.08	
Bank Loans Rank			97	94	68	68	61	N/A	N/A	N/A	45	38	
<b>Credit Suisse SMA</b>													
<b>Bank Loans Custom Index</b>	<b>204,123,708</b>	<b>1.63</b>	<b>2.63</b>	<b>6.19</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.65</b>	<b>04/01/2023</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	9.50	
Difference			0.12	0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.15	
IM U.S. Bank Loans (SA+CF) Median			3.00	6.39	13.24	13.24	5.73	5.68	4.73	4.45	-0.92	9.59	
Credit Suisse SMA Rank			78	59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47	
<b>Octagon SMA</b>													
<b>Bank Loans Custom Index</b>	<b>205,452,128</b>	<b>1.64</b>	<b>2.21</b>	<b>4.84</b>	<b>11.02</b>	<b>11.02</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>10.28</b>	<b>12/01/2022</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	12.21	
Difference			-0.30	-1.12	-1.70	-1.70	N/A	N/A	N/A	N/A	N/A	-1.93	
IM U.S. Bank Loans (SA+CF) Median			3.00	6.39	13.24	13.24	5.73	5.68	4.73	4.45	-0.92	12.58	
Octagon SMA Rank			99	100	95	95	N/A	N/A	N/A	N/A	N/A	95	
<b>KKR</b>													
<b>Bank Loans Custom Index</b>	<b>231,391,439</b>	<b>1.84</b>	<b>2.29</b>	<b>5.75</b>	<b>13.59</b>	<b>13.59</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.51</b>	<b>5.96</b>	<b>10/01/2021</b>
Bank Loans Custom Index			2.51	5.96	12.72	12.72	5.42	5.59	4.63	4.32	-0.68	5.31	
Difference			-0.22	-0.21	0.87	0.87	N/A	N/A	N/A	N/A	0.17	0.65	
IM U.S. Bank Loans (SA+CF) Median			3.00	6.39	13.24	13.24	5.73	5.68	4.73	4.45	-0.92	5.55	
KKR Rank			98	76	35	35	N/A	N/A	N/A	N/A	40	35	

Performance shown is gross of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding. The EMD Custom Index consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvf'd Index, 1/3 JPM CEMBI Brd Dvf'd Index, and 1/3 JPM EMBI Gbl Dvf'd Index thereafter. The Goldman Sachs Index consists of JPM CEMBI Brd Dvf'd Index through 11/22/2020, account performance from 11/23/2020 through 11/30/2020, and the JPM CEMBI Brd Dvf'd Index thereafter.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date	
<b>Emerging Market Debt Fixed Income</b>	<b>1,044,803,755</b>	<b>8.33</b>	<b>6.94</b>	<b>5.45</b>	<b>11.57</b>	<b>11.57</b>	<b>-0.90</b>	<b>2.61</b>	<b>2.77</b>	<b>0.51</b>	<b>-10.94</b>	<b>-0.50</b>	<b>04/01/2013</b>	
EMD Custom Benchmark			7.58	5.53	10.99	10.99	-2.58	1.26	2.02	0.15	-13.90	-0.72		
Difference			-0.64	-0.08	0.58	0.58	1.68	1.35	0.75	0.36	2.96	0.22		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	2.46		
Emerging Market Debt Fixed Income Rank			75	67	65	65	33	66	68	97	38	98		
<b>Global Evolution</b>	<b>108,474,665</b>	<b>0.86</b>	<b>8.78</b>	<b>5.44</b>	<b>16.06</b>	<b>16.06</b>	<b>-0.25</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.61</b>	<b>0.80</b>	<b>02/01/2020</b>	
JPM GBI-EM Gbl Dvfd Index (USD) (TR) (Unhedged)			8.07	4.55	12.70	12.70	-3.16	1.14	1.94	0.09	-11.69	-1.44		
Difference			0.71	0.89	3.36	3.36	2.91	N/A	N/A	N/A	4.08	2.24		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	0.36		
Global Evolution Rank			59	67	14	14	24	N/A	N/A	N/A	14	33		
<b>Goldman Sachs</b>	<b>197,629,984</b>	<b>1.58</b>	<b>5.83</b>	<b>5.97</b>	<b>9.76</b>	<b>9.76</b>	<b>-1.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.34</b>	<b>0.84</b>	<b>03/01/2020</b>	
Goldman Sachs Custom Index			5.52	5.25	9.08	9.08	-1.15	3.22	3.17	3.79	-12.26	0.54		
Difference			0.31	0.72	0.68	0.68	0.12	N/A	N/A	N/A	0.92	0.30		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	0.77		
Goldman Sachs Rank			87	50	80	80	36	N/A	N/A	N/A	41	48		
<b>Eaton Vance</b>	<b>249,342,118</b>	<b>1.99</b>	<b>4.73</b>	<b>5.06</b>	<b>11.49</b>	<b>11.49</b>	<b>1.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.85</b>	<b>1.61</b>	<b>01/01/2021</b>	
JP Morgan EMB (JEMB) Hard /Local 50/50			7.71	5.29	11.43	11.43	-2.72	1.84	2.31	1.85	-13.34	-2.72		
Difference			-2.98	-0.23	0.06	0.06	4.33	N/A	N/A	N/A	4.49	4.33		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	-1.50		
Eaton Vance Rank			96	80	65	65	9	N/A	N/A	N/A	22	9		
<b>Global Evolution Hard</b>	<b>144,340,284</b>	<b>1.15</b>	<b>9.55</b>	<b>7.25</b>	<b>11.28</b>	<b>11.28</b>	<b>-3.05</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-15.51</b>	<b>-2.40</b>	<b>12/01/2020</b>	
JP Morgan EMBIG Div Ex CCC (USD) (TR) Index			9.09	6.12	9.23	9.23	-3.98	1.68	2.07	3.21	-17.26	-3.32		
Difference			0.46	1.13	2.05	2.05	0.93	N/A	N/A	N/A	1.75	0.92		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	-0.53		
Global Evolution Hard Rank			37	28	69	69	85	N/A	N/A	N/A	73	85		
<b>Finisterre</b>	<b>253,548,278</b>	<b>2.02</b>	<b>6.91</b>	<b>4.16</b>	<b>10.24</b>	<b>10.24</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.66</b>	<b>-0.04</b>	<b>03/01/2021</b>	
Custom EMD Benchmark (1/3 blend)			7.58	5.53	10.99	10.99	-2.58	2.05	2.41	2.41	-13.90	-1.86		
Difference			-0.67	-1.37	-0.75	-0.75	N/A	N/A	N/A	N/A	6.24	1.82		
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	-0.74		
Finisterre Rank			75	97	77	77	N/A	N/A	N/A	N/A	14	32		

Performance shown is gross of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.



Wyoming State Treasurer's Office  
Asset Allocation & Performance

As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Wellington EMD</b>	<b>91,468,426</b>	<b>0.73</b>	<b>9.34</b>	<b>6.04</b>	<b>13.63</b>	<b>13.63</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-13.50</b>	<b>-2.59</b>	<b>09/01/2021</b>
50% JPM GBI-EM Glb Div / 50% JPM EMBI Glb Div			8.62	5.64	11.92	11.92	-3.33	1.44	2.00	1.70	-14.75	-3.78	
Difference			0.72	0.40	1.71	1.71	N/A	N/A	N/A	N/A	1.25	1.19	
IM Emerging Markets Debt (SA+CF) Median			9.21	5.95	12.62	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.16	
Wellington EMD Rank			45	49	37	37	N/A	N/A	N/A	N/A	60	57	
<b>SAP Treasury Composite</b>	<b>4,773,394,089</b>	<b>38.05</b>	<b>2.38</b>	<b>3.10</b>	<b>4.72</b>	<b>4.72</b>	<b>0.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.34</b>	<b>1.29</b>	<b>10/01/2019</b>
<b>Internal SAP Fixed Income Portfolio</b>	<b>4,773,394,089</b>	<b>38.05</b>	<b>2.38</b>	<b>3.10</b>	<b>4.67</b>	<b>4.67</b>	<b>0.59</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.34</b>	<b>1.28</b>	<b>10/01/2019</b>
<b>Long Duration Fixed Income Composite</b>	<b>829,691,992</b>	<b>6.61</b>	<b>13.04</b>	<b>2.57</b>	<b>7.27</b>	<b>7.27</b>	<b>-8.78</b>	<b>1.36</b>	<b>N/A</b>	<b>N/A</b>	<b>-26.95</b>	<b>1.36</b>	<b>01/01/2019</b>
Bloomberg US Govt Crdt Lng Trm Bond Index			13.24	2.62	7.13	7.13	-8.68	1.12	1.58	3.22	-27.09	1.12	
Difference			-0.20	-0.05	0.14	0.14	-0.10	0.24	N/A	N/A	0.14	0.24	
IM U.S. Long Duration (SA+CF) Median			13.29	3.33	7.98	7.98	-8.04	2.05	2.31	3.74	-26.71	2.05	
Long Duration Fixed Income Composite Rank			69	84	85	85	85	93	N/A	N/A	57	93	
<b>Internal Long Duration Govt Fixed Income Portfolio</b>	<b>410,424,899</b>	<b>3.27</b>	<b>12.75</b>	<b>-0.74</b>	<b>3.16</b>	<b>3.16</b>	<b>-11.31</b>	<b>-1.31</b>	<b>N/A</b>	<b>N/A</b>	<b>-28.46</b>	<b>-1.31</b>	<b>01/01/2019</b>
Bloomberg US Govt Lng Trm Bond Index			12.69	-0.60	3.11	3.11	-11.35	-1.23	0.03	2.27	-29.19	-1.23	
Difference			0.06	-0.14	0.05	0.05	0.04	-0.08	N/A	N/A	0.73	-0.08	
IM U.S. Long Duration (SA+CF) Median			13.29	3.33	7.98	7.98	-8.04	2.05	2.31	3.74	-26.71	2.05	
Internal Long Duration Govt Fixed Income Portfolio Rank			83	99	100	100	100	100	N/A	N/A	96	100	
<b>Metlife</b>	<b>419,267,093</b>	<b>3.34</b>	<b>13.34</b>	<b>5.51</b>	<b>11.00</b>	<b>11.00</b>	<b>-6.41</b>	<b>3.37</b>	<b>N/A</b>	<b>N/A</b>	<b>-25.33</b>	<b>3.67</b>	<b>11/01/2018</b>
Bloomberg US Lng Crdt Index			13.71	5.48	10.73	10.73	-6.50	2.70	2.58	3.88	-25.29	3.02	
Difference			-0.37	0.03	0.27	0.27	0.09	0.67	N/A	N/A	-0.04	0.65	
IM U.S. Long Duration (SA+CF) Median			13.29	3.33	7.98	7.98	-8.04	2.05	2.31	3.74	-26.71	2.78	
Metlife Rank			45	17	12	12	28	14	N/A	N/A	24	11	

Performance shown is gross of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding. The Low Duration Fixed Income Custom Index consists of the Bloomberg US Gov't Crdt 1-3 Yr Bond Index through 06/30/2019 and the Bloomberg US Gov't 1-3 Yr Bond Index thereafter.

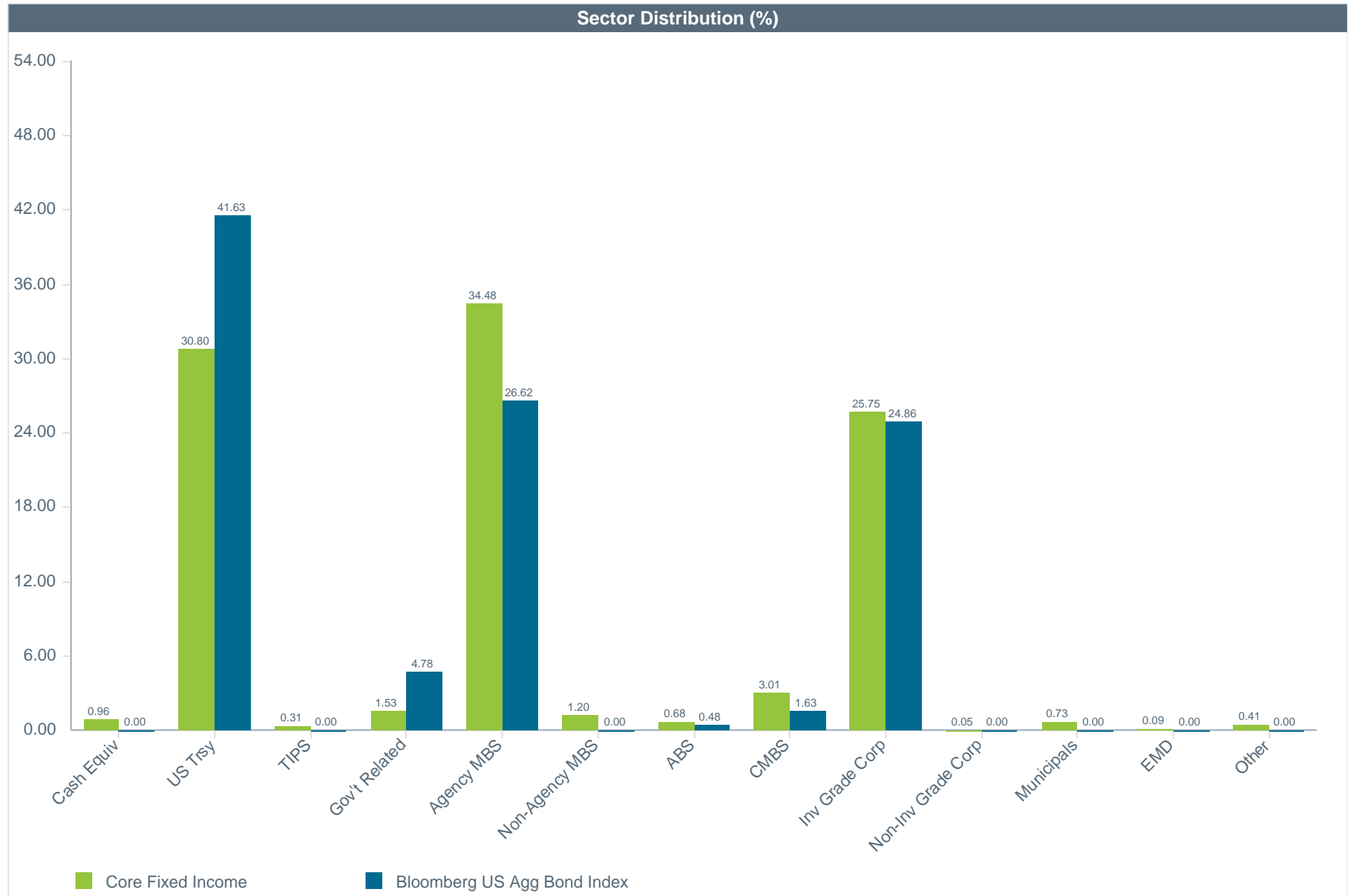


Wyoming State Treasurer's Office  
Asset Allocation & Performance

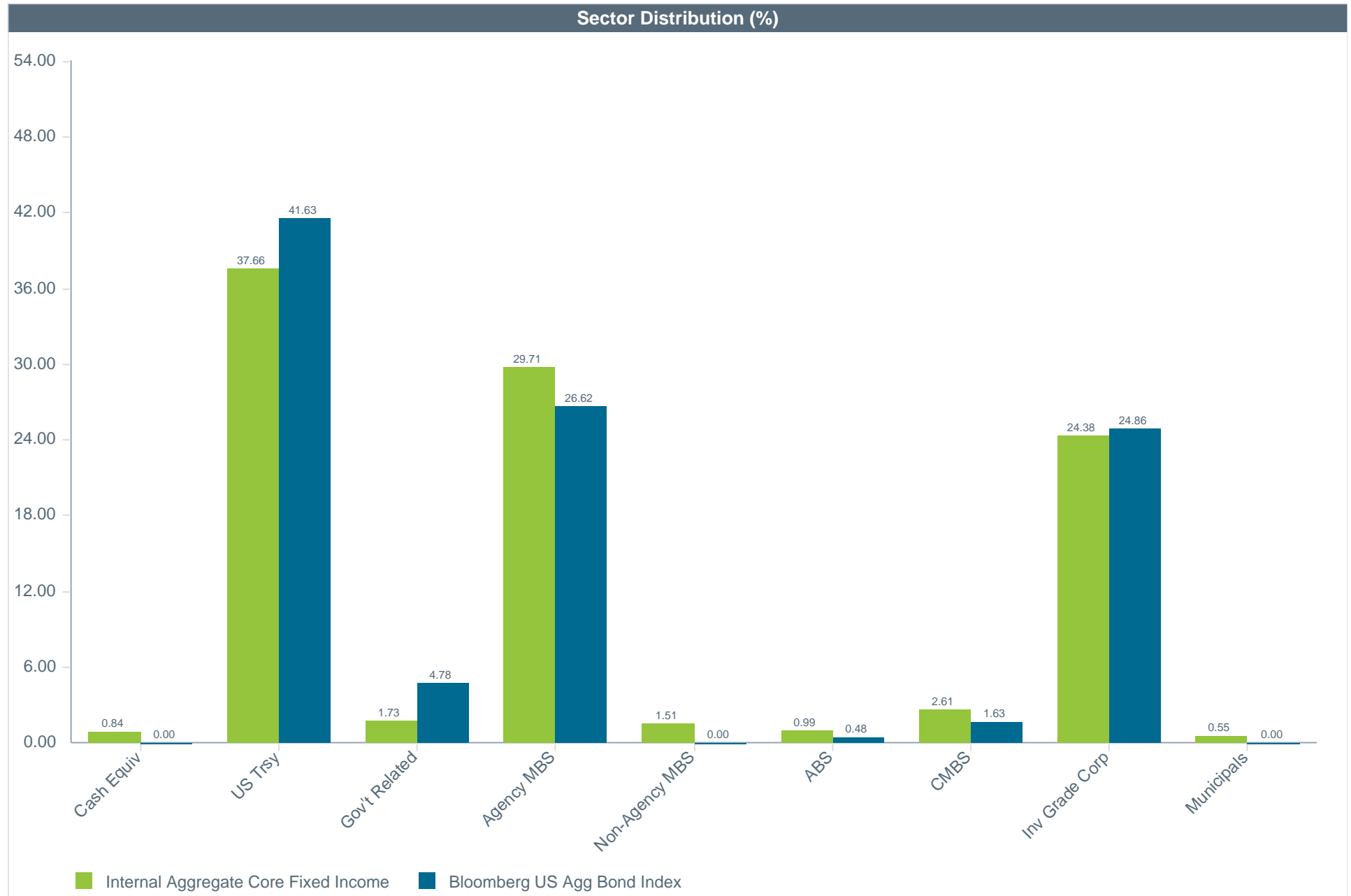
As of December 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>Low Duration Fixed Income</b>	<b>657,415,590</b>	<b>5.24</b>	<b>2.62</b>	<b>3.51</b>	<b>4.75</b>	<b>4.75</b>	<b>0.55</b>	<b>1.74</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.90</b>	<b>1.85</b>	<b>12/01/2018</b>
Low Duration Fixed Income Custom Index			2.55	3.29	4.32	4.32	-0.08	1.33	1.30	1.18	-3.81	1.46	
Difference			0.07	0.22	0.43	0.43	0.63	0.41	N/A	N/A	0.91	0.39	
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.98	3.69	5.31	5.31	0.60	2.03	1.92	1.72	-3.38	2.14	
Low Duration Fixed Income Rank			82	75	91	91	57	80	N/A	N/A	30	79	
<b>Internal Low Duration Fixed Income Portfolio</b>	<b>657,415,590</b>	<b>5.24</b>	<b>2.62</b>	<b>3.51</b>	<b>4.75</b>	<b>4.75</b>	<b>0.55</b>	<b>1.71</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.89</b>	<b>1.79</b>	<b>03/01/2018</b>
Bloomberg US Govt 1-3 Yr Bond Index			2.55	3.29	4.32	4.32	-0.08	1.28	1.20	1.05	-3.81	1.43	
Difference			0.07	0.22	0.43	0.43	0.63	0.43	N/A	N/A	0.92	0.36	
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.98	3.69	5.31	5.31	0.60	2.03	1.92	1.72	-3.38	2.11	
Internal Low Duration Fixed Income Portfolio Rank			82	75	91	91	57	82	N/A	N/A	30	82	
<b>Transition Low Duration Fixed Income Composite</b>	<b>1,000,567,517</b>	<b>7.98</b>	<b>2.60</b>	<b>4.39</b>	<b>7.91</b>	<b>7.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.25</b>	<b>3.06</b>	<b>11/01/2021</b>
Transition Fixed Income Custom Index			2.75	4.70	8.00	8.00	2.55	3.21	2.90	2.66	-1.31	3.00	
Difference			-0.15	-0.31	-0.09	-0.09	N/A	N/A	N/A	N/A	0.06	0.06	
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.98	3.69	5.31	5.31	0.60	2.03	1.92	1.72	-3.38	0.82	
Transition Low Duration Fixed Income Composite Rank			83	13	5	5	N/A	N/A	N/A	N/A	8	2	
<b>PIMCO Transition Low Duration</b>	<b>1,000,567,517</b>	<b>7.98</b>	<b>2.60</b>	<b>4.42</b>	<b>7.92</b>	<b>7.92</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.25</b>	<b>3.06</b>	<b>11/01/2021</b>
PIMCO Low Duration Custom Index			2.75	4.72	8.02	8.02	2.69	3.30	2.97	2.70	-1.05	3.20	
Difference			-0.15	-0.30	-0.10	-0.10	N/A	N/A	N/A	N/A	-0.20	-0.14	
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.98	3.69	5.31	5.31	0.60	2.03	1.92	1.72	-3.38	0.82	
PIMCO Transition Low Duration Rank			83	12	4	4	N/A	N/A	N/A	N/A	8	2	

Performance shown is gross of fees. Fiscal year ends on June 30th. Custom index composition can be found in the addendum.

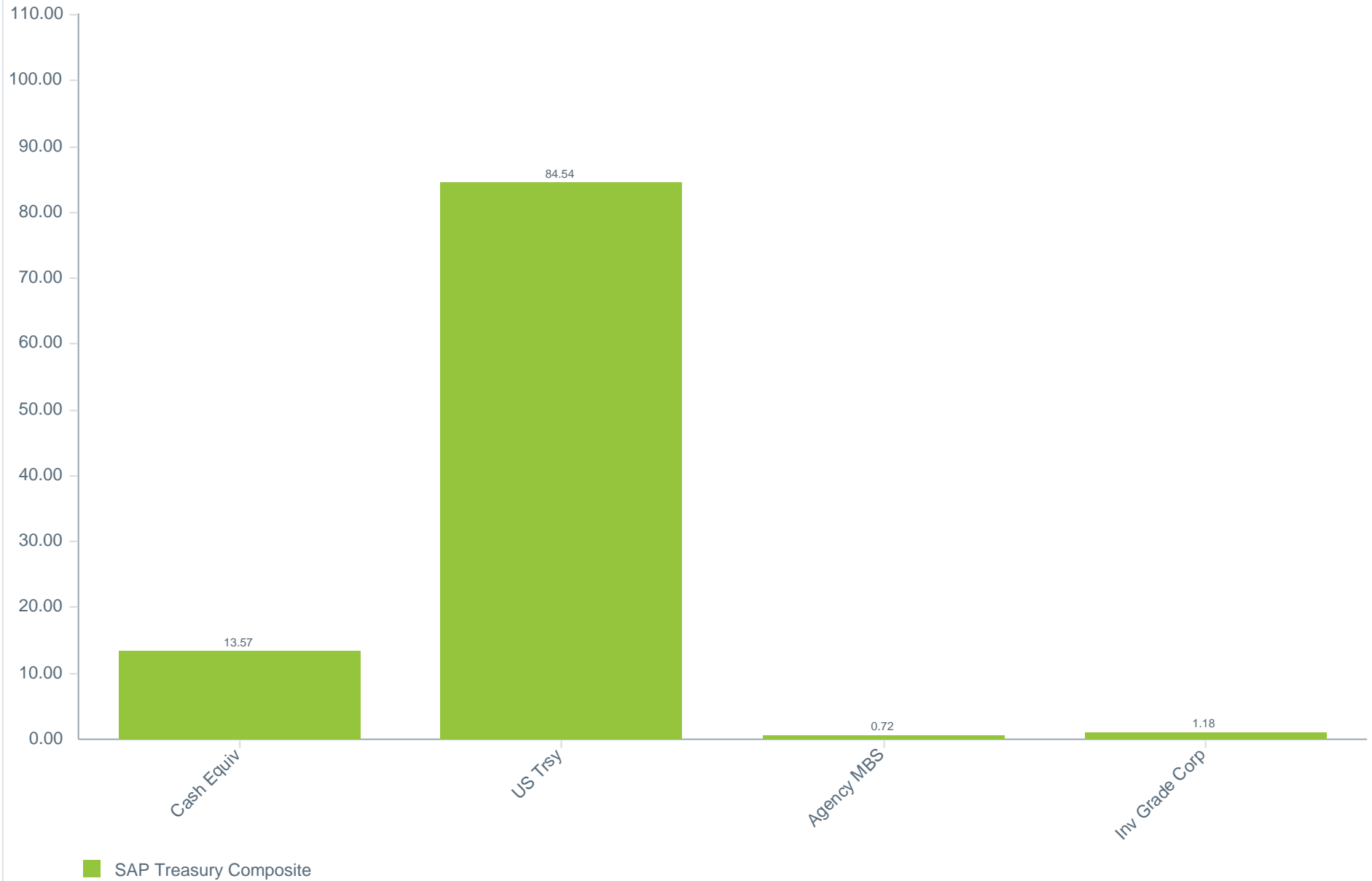


The statistics are calculated based on a weighted average of the underlying managers. Allocation to "Other" consists of Euro/Yankee securities.



The statistics are calculated based on a weighted average of the underlying managers.

Sector Distribution (%)



The statistics are calculated based on a weighted average of the underlying managers.

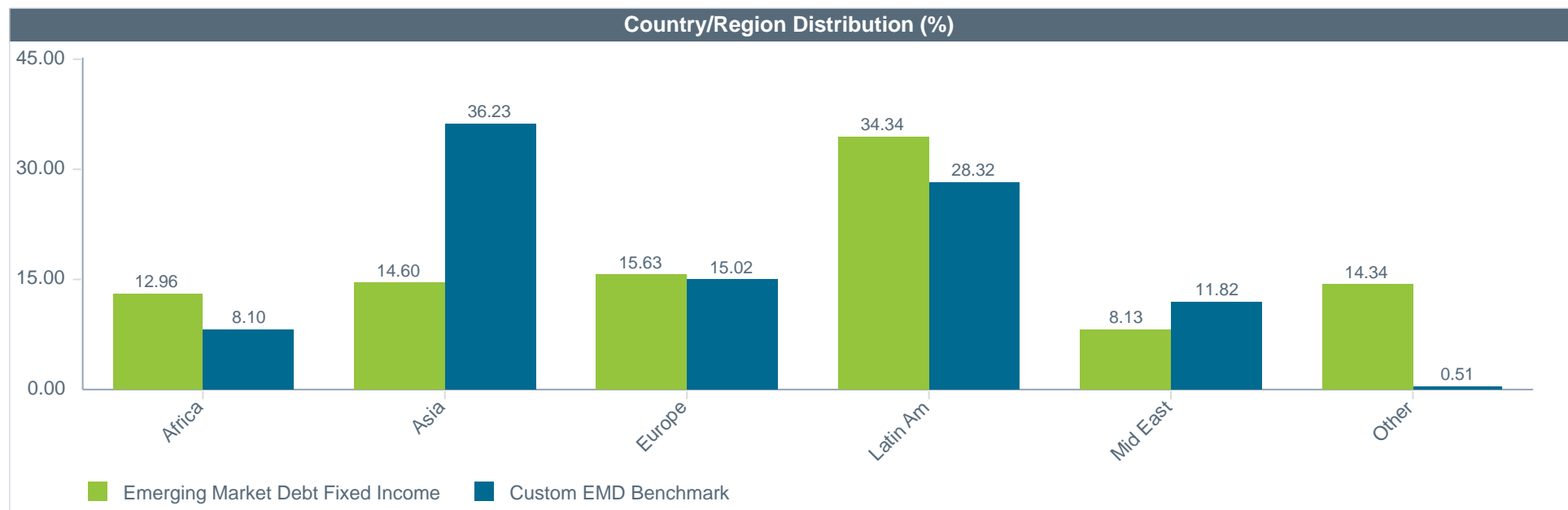


Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	0.21	0.25
Avg. Maturity	4.20	4.13
Avg. Quality	B2	Ba2
Yield To Maturity (%)	9.91	9.13
Coupon Rate (%)	9.50	9.36
Current Yield (%)	9.97	9.79



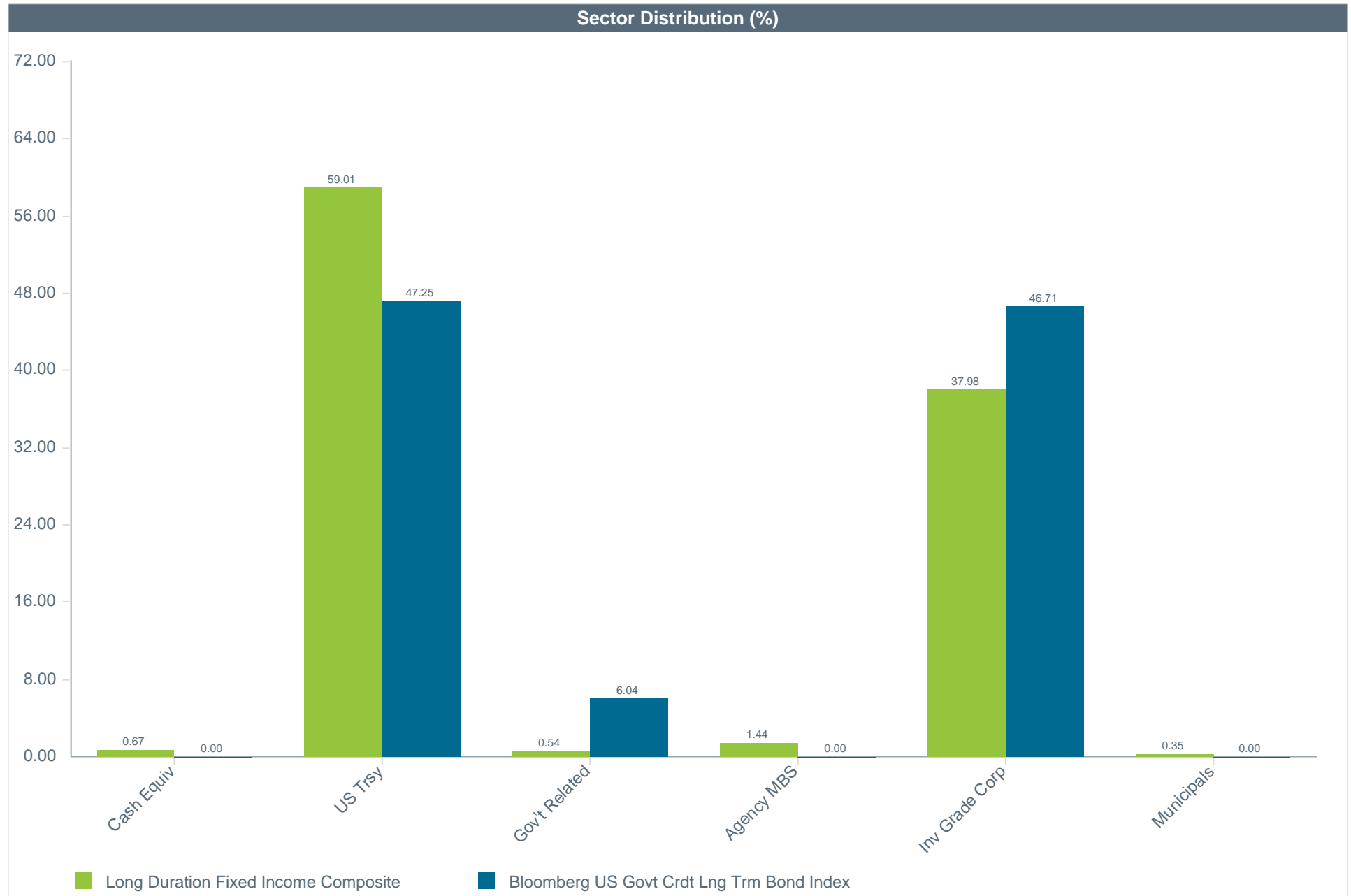
The statistics are calculated based on a weighted average of the underlying managers.

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.87	5.31
Convexity	N/A	0.59
Avg. Maturity	9.41	9.82
Avg. Quality	Ba2	Ba2
Yield To Maturity (%)	8.08	6.91
Coupon Rate (%)	6.02	5.19
Current Yield (%)	6.34	5.49

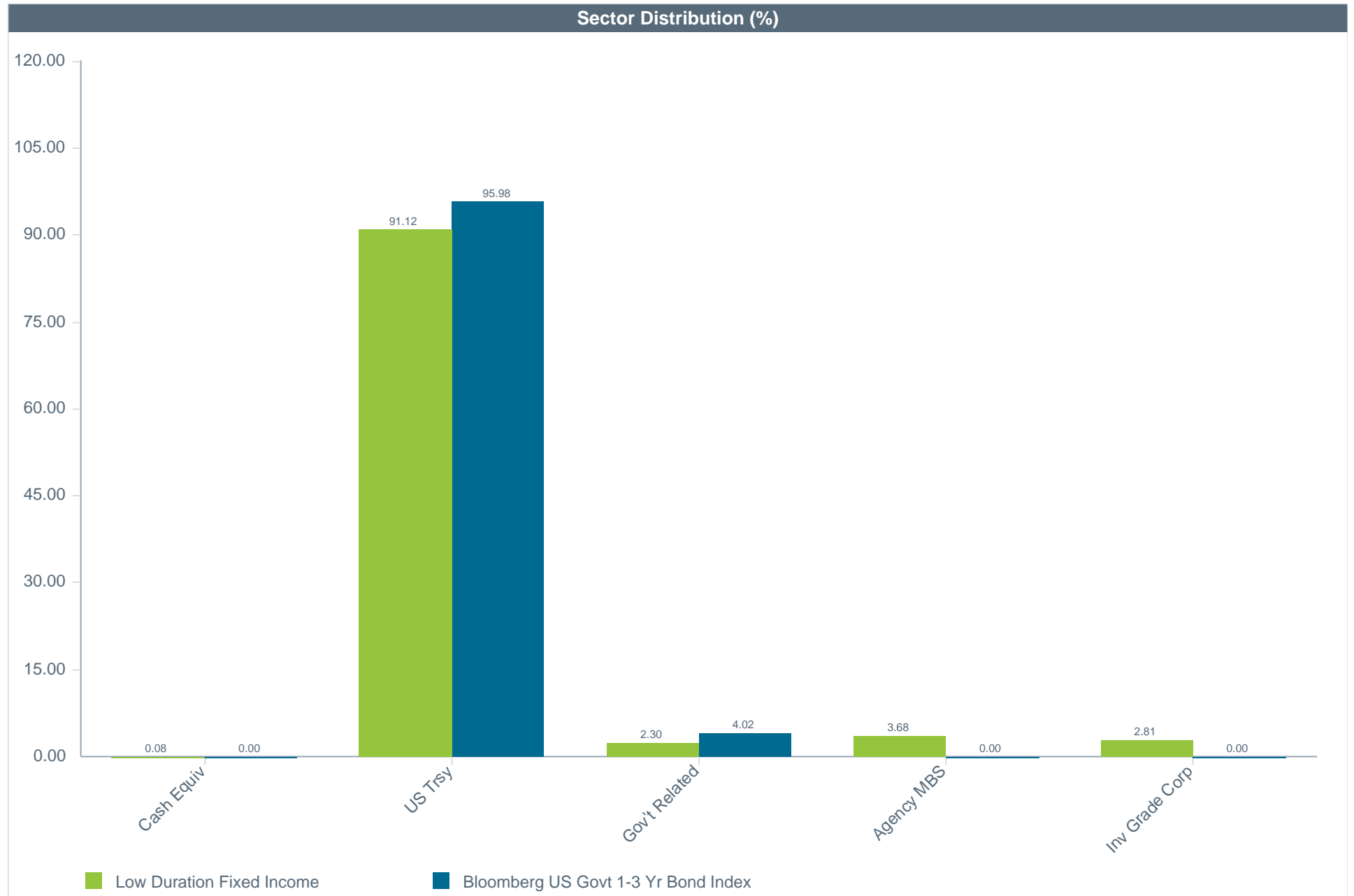


The statistics are calculated based on a weighted average of the underlying managers. Region allocation to "Other" consists of cash, supranational, developed, foreign exchange, futures, margin for derivatives, holdings not specified by country, and interest rate swaps. The EMD Custom Index consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter through 11/30/2020, and 1/3 JPM GBI-FM Gbl Dvf'd Index, 1/3 JPM CFMBI Brd Dvf'd Index, and 1/3 JPM FMBI Gbl Dvf'd Index thereafter.





The statistics are calculated based on a weighted average of the underlying managers.

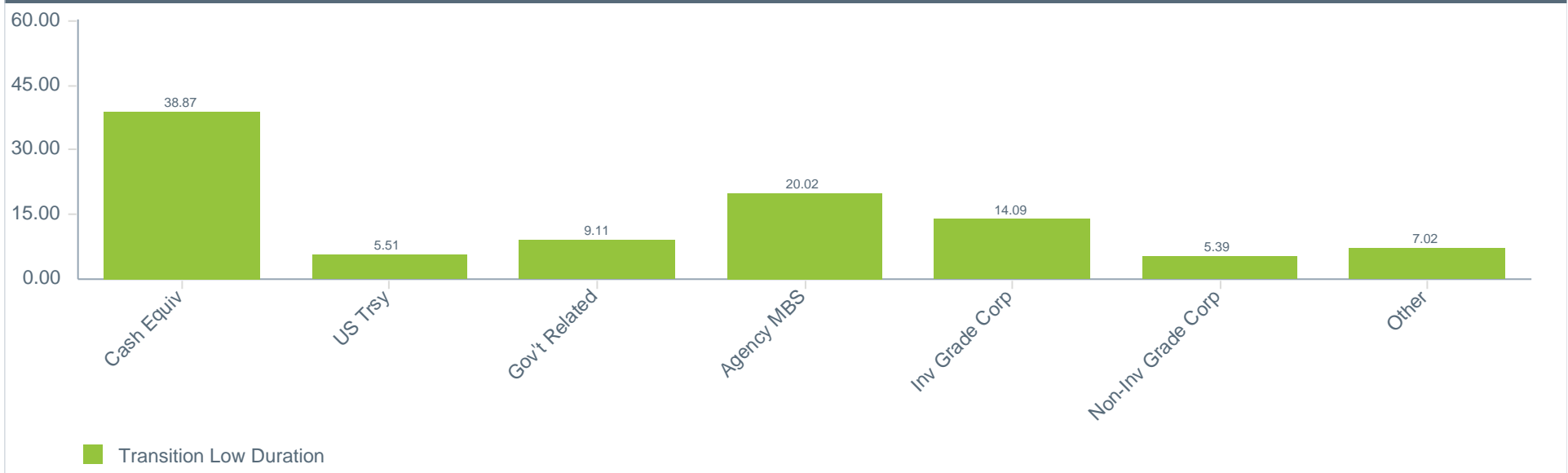


The statistics are calculated based on a weighted average of the underlying managers.

Portfolio Characteristics

	Portfolio
Effective Duration	0.79
Convexity	-0.31
Avg. Quality	Aa3
Yield To Maturity (%)	5.46
Coupon Rate (%)	5.28

Sector Distribution (%)



The statistics are calculated based on a weighted average of the underlying managers.

Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>JP Morgan Cash Composite</b>	<b>1.38</b>	<b>2.73</b>	<b>5.15</b>	<b>5.15</b>	<b>2.24</b>	<b>1.91</b>	<b>1.75</b>	<b>1.30</b>	<b>1.61</b>	<b>1.61</b>	<b>01/01/2006</b>
JP Morgan Cash Custom Index	1.37	2.70	5.02	5.02	2.15	1.92	1.76	1.30	1.46	1.62	
Difference	0.01	0.03	0.13	0.13	0.09	-0.01	-0.01	0.00	0.15	-0.01	
<b>Wyo-Star Cash Composite</b>	<b>2.00</b>	<b>3.03</b>	<b>5.11</b>	<b>5.11</b>	<b>1.70</b>	<b>1.76</b>	<b>1.61</b>	<b>1.22</b>	<b>0.17</b>	<b>2.98</b>	<b>10/01/1996</b>
Wyo-Star Cash Custom Index	1.80	2.92	4.87	4.87	1.50	1.73	1.60	1.21	-0.07	2.48	
Difference	0.20	0.11	0.24	0.24	0.20	0.03	0.01	0.01	0.24	0.50	
<b>WYO STAR II Total Fund</b>	<b>3.18</b>	<b>3.94</b>	<b>6.03</b>	<b>6.03</b>	<b>0.77</b>	<b>2.14</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.12</b>	<b>2.14</b>	<b>01/01/2019</b>
Bloomberg US Corp 1-3 Yr Index	3.10	3.90	5.47	5.47	0.61	2.17	2.04	1.88	-3.32	2.17	
Difference	0.08	0.04	0.56	0.56	0.16	-0.03	N/A	N/A	0.20	-0.03	

Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.

The JP Morgan Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.

The Wyo-Star Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. Currently, the primary benchmark for Wyo-Star Cash is the ICE BofAML 3 Mo US T-Bill Index and for Wyo-Star Extd is the JP Morgan Blended Index.

Performance shown is net of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.

Wyoming State Treasurer's Office  
Comparative Performance

As of December 31, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	Since Incep.	Inception Date
<b>JP Morgan Cash Composite</b>	<b>1.39</b>	<b>2.75</b>	<b>5.19</b>	<b>5.19</b>	<b>2.27</b>	<b>1.94</b>	<b>1.79</b>	<b>1.36</b>	<b>1.64</b>	<b>1.67</b>	<b>01/01/2006</b>
JP Morgan Cash Custom Index	1.37	2.70	5.02	5.02	2.15	1.92	1.76	1.30	1.46	1.62	
Difference	0.02	0.05	0.17	0.17	0.12	0.02	0.03	0.06	0.18	0.05	
<b>Wyo-Star Cash Composite</b>	<b>2.01</b>	<b>3.04</b>	<b>5.14</b>	<b>5.14</b>	<b>1.73</b>	<b>1.80</b>	<b>1.66</b>	<b>1.28</b>	<b>0.20</b>	<b>3.02</b>	<b>10/01/1996</b>
Wyo-Star Cash Custom Index	1.80	2.92	4.87	4.87	1.50	1.73	1.60	1.21	-0.07	2.48	
Difference	0.21	0.12	0.27	0.27	0.23	0.07	0.06	0.07	0.27	0.54	
<b>WYO STAR II Total Fund</b>	<b>3.18</b>	<b>3.96</b>	<b>6.06</b>	<b>6.06</b>	<b>0.80</b>	<b>2.19</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.09</b>	<b>2.19</b>	<b>01/01/2019</b>
Bloomberg US Corp 1-3 Yr Index	3.10	3.90	5.47	5.47	0.61	2.17	2.04	1.88	-3.32	2.17	
Difference	0.08	0.06	0.59	0.59	0.19	0.02	N/A	N/A	0.23	0.02	

Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.

The JP Morgan Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.

The Wyo-Star Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. Currently, the primary benchmark for Wyo-Star Cash is the ICE BofAML 3 Mo US T-Bill Index and for Wyo-Star Extd is the JP Morgan Blended Index.

Performance shown is gross of fees. Wyoming State Treasurer's Office fiscal year ends on June 30th. Since Inception date shown represents the first full month following initial funding.

**Wyoming State Treasurer's Office**  
**Investment Values by Fund**  
December 31, 2023

	Total Investment Value	Fiscal Year Ending 06/30/23 Market Value	Current Market Value	% of MV
<b>Wyoming State Total Fund</b>	<b>\$25,512,043,389</b>	<b>\$26,695,668,439</b>	<b>27,954,246,860</b>	<b>100.0%</b>
<b>Permanent Mineral Trust</b>	<b>\$8,870,699,520</b>	<b>\$10,189,098,036</b>	<b>\$10,317,987,613</b>	<b>100.0%</b>
US Equity	\$1,107,998,263	\$1,449,445,338	\$1,610,055,091	15.6%
International Equity	\$1,667,403,165	\$1,836,058,876	\$2,120,780,229	20.6%
MLPs	\$400,999,691	\$512,489,890	\$548,968,396	5.3%
Private Equity	\$672,555,064	\$1,078,485,424	\$1,173,908,449	11.4%
Real Estate	\$852,973,270	\$1,059,019,731	\$983,653,544	9.5%
Diversified Hedge Funds	\$749,708,632	\$805,127,261	\$840,465,193	8.1%
Infrastructure	\$77,107,749	\$89,095,128	\$96,584,758	0.9%
Fixed Income	\$2,701,064,591	\$2,636,677,920	\$2,557,027,560	24.8%
Private Credit	\$88,367,654	\$96,897,778	\$144,206,454	1.4%
Opportunistic	\$55,196,592	\$68,252,816	\$68,841,195	0.7%
Public Purpose Investments	\$95,219,887	\$96,247,874	\$95,219,887	0.9%
Cash (invested in State Agency Pool)	\$402,104,962	\$461,299,999	\$78,276,859	0.8%
<b>Common School Perm Land Fund</b>	<b>\$4,616,564,567</b>	<b>\$4,830,651,001</b>	<b>\$4,686,028,309</b>	<b>100.0%</b>
US Equity	\$458,092,711	\$499,168,614	\$647,848,588	13.8%
International Equity	\$668,689,780	\$728,571,779	\$826,728,092	17.6%
Preferred Stock	\$105,363,969	\$262,713,540	\$122,191,394	2.6%
MLPs	\$246,152,877	\$335,644,931	\$340,215,287	7.3%
Private Equity	\$0	\$107,703	\$120,832	0.0%
Real Estate	\$510,055,596	\$624,133,081	\$572,821,152	12.2%
Diversified Hedge Funds	\$211,418,145	\$206,144,298	\$215,196,789	4.6%
Infrastructure	\$83,608,144	\$97,975,463	\$106,923,279	2.3%
Fixed Income	\$1,731,946,747	\$1,868,780,936	\$1,638,771,767	35.0%
Private Credit	\$65,860,152	\$64,003,230	\$84,084,152	1.8%
Opportunistic	\$25,050,604	\$31,293,625	\$31,619,862	0.7%
Public Purpose Investments	\$18,359,738	\$18,359,738	\$18,359,738	0.4%
Cash (invested in State Agency Pool)	\$491,966,104	\$93,754,064	\$81,147,376	1.7%
<b>Permanent Land Fund</b>	<b>\$254,979,605</b>	<b>\$285,106,143</b>	<b>\$292,265,584</b>	<b>100.0%</b>
US Equity	\$37,141,170	\$40,412,494	\$45,650,215	15.6%
International Equity	\$48,527,282	\$51,562,792	\$60,591,955	20.7%
MLPs	\$11,381,977	\$15,495,731	\$15,555,831	5.3%
Private Equity	\$25,253,017	\$37,340,318	\$41,460,076	14.2%
Real Estate	\$21,505,484	\$26,702,502	\$24,828,622	8.5%
Diversified Hedge Funds	\$18,367,080	\$19,952,160	\$20,828,603	7.1%
Infrastructure	\$1,791,760	\$2,098,435	\$2,289,513	0.8%
Fixed Income	\$75,968,303	\$71,289,215	\$71,786,280	24.6%
Private Credit	\$2,323,034	\$2,495,266	\$3,965,460	1.4%
Opportunistic	\$1,588,721	\$1,945,978	\$1,959,469	0.7%
Cash (invested in State Agency Pool)	\$11,131,777	\$15,811,252	\$3,349,559	1.1%
<b>University Permanent Land Fund</b>	<b>\$26,426,685</b>	<b>\$32,028,774</b>	<b>\$33,248,524</b>	<b>100.0%</b>
US Equity	\$2,135,211	\$4,542,454	\$5,099,656	15.3%
International Equity	\$4,865,629	\$5,236,737	\$5,829,563	17.5%
MLPs	\$1,202,201	\$1,609,166	\$1,704,109	5.1%
Private Equity	\$2,266,310	\$3,830,684	\$4,246,924	12.8%
Real Estate	\$2,703,542	\$3,340,254	\$3,092,073	9.3%
Diversified Hedge Funds	\$2,334,685	\$2,539,115	\$2,650,064	8.0%
Infrastructure	\$207,685	\$237,596	\$256,328	0.8%
Fixed Income	\$8,680,881	\$8,045,183	\$8,080,109	24.3%
Private Credit	\$242,805	\$276,325	\$436,814	1.3%
Opportunistic	\$143,483	\$187,745	\$191,245	0.6%
Cash (invested in State Agency Pool)	\$1,644,252	\$2,183,516	\$1,661,637	5.0%





**Wyoming State Treasurer's Office**  
**Investment Values by Fund**  
December 31, 2023

#	Total Investment Value	Fiscal Year Ending 06/30/23 Market Value	Current Market Value	% of MV
<b>Wyoming State Total Fund</b>	<b>\$25,512,043,389</b>	<b>\$26,695,668,439</b>	<b>\$27,954,246,860</b>	<b>100.0%</b>
<b>Hathaway Scholarship</b>	<b>\$589,974,782</b>	<b>\$716,449,070</b>	<b>\$733,618,547</b>	<b>100.0%</b>
US Equity	\$65,459,276	\$94,660,218	\$100,883,772	13.8%
International Equity	\$94,402,207	\$123,122,113	\$128,450,875	17.5%
MLPs	\$23,793,944	\$33,818,411	\$34,234,265	4.7%
Private Equity	\$80,245,775	\$126,100,536	\$142,295,588	19.4%
Real Estate	\$64,956,339	\$80,722,843	\$74,986,216	10.2%
Diversified Hedge Funds	\$55,743,814	\$59,985,188	\$62,617,710	8.5%
Infrastructure	\$4,976,786	\$5,771,740	\$6,267,917	0.9%
Fixed Income	\$169,368,386	\$172,351,003	\$161,894,890	22.1%
Private Credit	\$6,188,768	\$6,665,755	\$9,960,712	1.4%
Opportunistic	\$3,601,289	\$4,596,859	\$4,662,753	0.6%
Cash (invested in State Agency Pool)	\$21,238,198	\$8,654,404	\$7,363,847	1.0%
<b>Higher Education</b>	<b>\$126,475,096</b>	<b>\$136,632,551</b>	<b>\$129,685,242</b>	<b>100.0%</b>
US Equity	\$12,685,550	\$14,381,894	\$18,037,599	13.9%
International Equity	\$19,267,939	\$20,994,020	\$23,292,454	18.0%
Preferred Stock	\$3,052,638	\$7,549,225	\$3,473,208	2.7%
MLPs	\$6,888,910	\$9,676,467	\$9,513,585	7.3%
Private Equity	\$0	\$4,065	\$4,560	0.0%
Real Estate	\$14,648,567	\$18,125,845	\$16,703,167	12.9%
Diversified Hedge Funds	\$5,611,035	\$5,322,634	\$5,555,032	4.3%
Infrastructure	\$2,209,153	\$2,613,823	\$2,865,639	2.2%
Fixed Income	\$47,560,880	\$53,893,749	\$45,846,699	35.4%
Private Credit	\$1,474,501	\$1,355,398	\$2,078,618	1.6%
Opportunistic	\$713,344	\$912,588	\$926,028	0.7%
Cash (invested in State Agency Pool)	\$12,362,579	\$1,802,843	\$1,388,652	1.1%
<b>Workers Compensation Fund</b>	<b>\$2,623,554,454</b>	<b>\$2,447,720,120</b>	<b>\$2,515,074,666</b>	<b>100.0%</b>
US Equity	\$130,117,637	\$144,658,658	\$136,113,905	5.4%
International Equity	\$153,475,183	\$212,468,821	\$200,176,624	8.0%
MLPs	\$58,069,337	\$114,005,156	\$86,111,991	3.4%
Private Equity	\$0	\$70,372	\$78,951	0.0%
Real Estate	\$187,720,179	\$228,418,467	\$210,519,838	8.4%
Infrastructure	\$49,714,241	\$57,571,098	\$62,394,880	2.5%
Fixed Income	\$1,949,781,778	\$1,582,062,126	\$1,747,677,600	69.5%
Private Credit	\$22,946,546	\$24,028,836	\$30,781,958	1.2%
Opportunistic	\$13,127,790	\$16,322,198	\$16,479,750	0.7%
Cash (invested in State Agency Pool)	\$58,601,762	\$68,114,388	\$24,739,170	1.0%
<b>Pool A</b>	<b>\$411,019,326</b>	<b>\$395,966,615</b>	<b>\$409,952,669</b>	<b>100.0%</b>
US Equity	\$27,291,174	\$32,329,778	\$33,904,965	8.3%
International Equity	\$38,804,250	\$43,892,340	\$47,154,039	11.5%
Preferred Stock	\$15,322,137	\$28,084,666	\$6,874,625	1.7%
MLPs	\$17,314,657	\$21,410,931	\$22,253,071	5.4%
Private Equity	\$0	\$42,047	\$47,173	0.0%
Real Estate	\$20,974,369	\$23,972,118	\$22,251,251	5.4%
Diversified Hedge Funds	\$11,653,145	\$11,133,662	\$11,620,226	2.8%
Fixed Income	\$223,445,684	\$203,640,238	\$214,483,875	52.3%
Private Credit	\$3,562,824	\$3,628,810	\$7,739,139	1.9%
Cash (invested in State Agency Pool)	\$52,651,087	\$27,832,024	\$43,624,303	10.6%
<b>LSRA</b>	<b>\$1,812,525,248</b>	<b>\$1,921,029,044</b>	<b>\$1,864,985,756</b>	<b>100.0%</b>
US Equity	\$173,824,330	\$208,422,255	\$186,823,382	10.0%
International Equity	\$141,403,438	\$203,283,390	\$182,514,000	9.8%
MLPs	\$67,303,782	\$93,408,478	\$77,248,997	4.1%
Private Equity	\$0	\$31,430	\$35,261	0.0%
Diversified Hedge Funds	\$57,655,487	\$62,839,293	\$65,607,654	3.5%
Fixed Income	\$1,357,747,140	\$1,341,918,687	\$1,321,417,850	70.9%
Cash (invested in State Agency Pool)	\$14,591,072	\$11,125,510	\$31,338,611	1.7%
<b>State Agency Pool</b>	<b>\$6,179,824,106</b>	<b>\$5,740,987,084</b>	<b>\$6,971,399,951</b>	<b>100.0%</b>
Fixed Income	\$4,090,184,135	\$4,546,207,998	\$4,778,185,031	68.5%
Public Purpose Investments	\$215,343,725	\$133,950,000	\$252,500,000	3.6%
Cash Equivalents	\$1,874,296,246	\$1,055,127,020	\$1,940,714,920	27.8%



**Wyoming State Treasurer's Office**  
**Investment Values by Manager**  
December 31, 2023

#	Total Investment Value	Fiscal Year Ending 06/30/23 Market Value	Current Market Value	% of MV
<b>Wyoming State Total Fund</b>	<b>\$25,512,043,389</b>	<b>\$26,695,668,439</b>	<b>\$27,954,246,860</b>	<b>100.0%</b>
<b>US Equity</b>	<b>\$2,014,745,322</b>	<b>\$2,488,021,702</b>	<b>\$2,784,417,173</b>	<b>10.0%</b>
State Street All Cap	\$1,327,664,938	\$1,886,449,748	\$2,011,502,525	
UW Portfolio Management Program	\$1,000,000	\$1,907,749	\$2,010,076	
Wyoming Internal Domestic Equity	\$31,074	\$31,232	\$31,380	
Wyoming Internal Domestic Equity - QT	\$81,871,564	\$90,926,450	\$94,019,666	
Van Berkom	\$268,835,440	\$262,919,291	\$311,534,449	
BlackRock Small Cap	\$5,745,443	\$55,230,729	\$469,902	
Wyoming Internal Small Cap - QT	\$116,053,056	\$89,549,473	\$128,035,250	
Wyoming Internal Small Cap	\$115,399,806	\$74,081,949	\$129,421,618	
Wyoming Internal Large Cap Equity	\$98,144,000	\$26,925,081	\$107,392,307	
<b>International Equity</b>	<b>\$2,836,795,874</b>	<b>\$3,225,190,869</b>	<b>\$3,595,517,831</b>	<b>12.9%</b>
Northern Trust	\$1,497,813,226	\$1,454,998,337	\$1,745,097,322	
Harding Loevner	\$500,955,266	\$666,783,579	\$560,621,705	
Arrowstreet	\$688,800,975	\$1,041,286,454	\$1,130,360,916	
Internal International ETF	\$53,416,974	\$62,122,498	\$57,739,251	
Internal International Equity - QT	\$95,809,433	\$0	\$101,698,636	
<b>Mixed Assets</b>	<b>\$956,846,120</b>	<b>\$1,435,906,592</b>	<b>\$1,268,344,759</b>	<b>4.5%</b>
Cohen & Steers	\$123,738,744	\$298,347,430	\$132,539,228	
Harvest	\$463,660,084	\$610,280,049	\$624,747,672	
Harvest Passive	\$369,447,293	\$527,279,112	\$511,057,858	
<b>Private Equity</b>	<b>\$780,320,166</b>	<b>\$1,246,012,579</b>	<b>\$1,362,197,816</b>	<b>4.9%</b>
Access Venture Partners II	\$2,205,108	\$478,045	\$202,359	
Accel-KKR Growth IV	\$8,072,757	\$7,767,291	\$8,960,541	
Cheyenne Capital Fund, L.P.	\$83,596,243	\$87,708,864	\$84,659,425	
Hamilton Lane Nowood Fund, L.P.	\$108,417,941	\$118,566,860	\$114,666,101	
BlackRock LTPC	\$275,911,891	\$621,054,607	\$696,763,842	
Valor PE	\$42,100,246	\$61,977,389	\$65,916,351	
GTCR	\$43,884,560	\$49,852,995	\$54,806,004	
Nautic	\$19,839,314	\$21,971,388	\$28,064,905	
Veritas	\$13,999,422	\$16,307,385	\$19,301,379	
Veritas Capital VIII	\$26,671,563	\$20,537,317	\$27,506,834	
Stepstone V	\$28,558,199	\$24,596,711	\$29,463,773	
Dragoneer	\$15,719,793	\$8,696,815	\$15,463,499	
Neuberger Berman Sauger	\$37,190,698	\$147,317,943	\$124,697,156	
Ashbridge	\$49,627,500	\$57,594,854	\$63,556,920	
BVP Forge	\$19,504,630	\$1,584,115	\$20,369,721	
Banner Ridge	\$5,020,301	\$0	\$7,799,006	
<b>Real Estate</b>	<b>\$1,675,511,227</b>	<b>\$2,064,434,842</b>	<b>\$1,908,855,864</b>	<b>6.8%</b>
Clarion Lion	\$662,561,428	\$856,987,508	\$766,699,979	
Morgan Stanley Prime	\$360,000,000	\$414,659,759	\$392,583,332	
UBS Trumbull	\$142,111,829	\$162,934,267	\$146,956,407	
M&G	\$26,796,242	\$1,777,140	\$1,589,905	
Northwood	\$129,584,605	\$203,966,100	\$195,944,160	
SC Capital	\$99,592,288	\$104,021,266	\$99,224,931	
Realterm	\$249,999,982	\$311,795,710	\$296,600,774	
WestRiver	\$3,277,938	\$8,293,093	\$8,293,093	
Hammes	\$1,586,914	\$0	\$963,284	
<b>Diversified Hedge Funds</b>	<b>\$1,112,492,023</b>	<b>\$1,173,043,611</b>	<b>\$1,224,541,272</b>	<b>4.4%</b>
PAAMCO - Jackalope	\$3,648,792	\$75,148	\$68,585	
Grosvenor Diversified Hedge Funds	\$454,141,087	\$470,818,610	\$491,168,036	
Internal Diversified Hedge Funds	\$654,702,144	\$702,149,853	\$733,304,651	



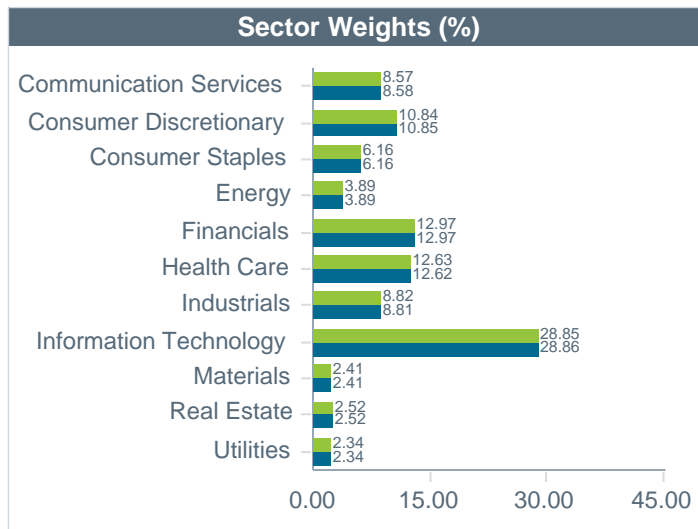
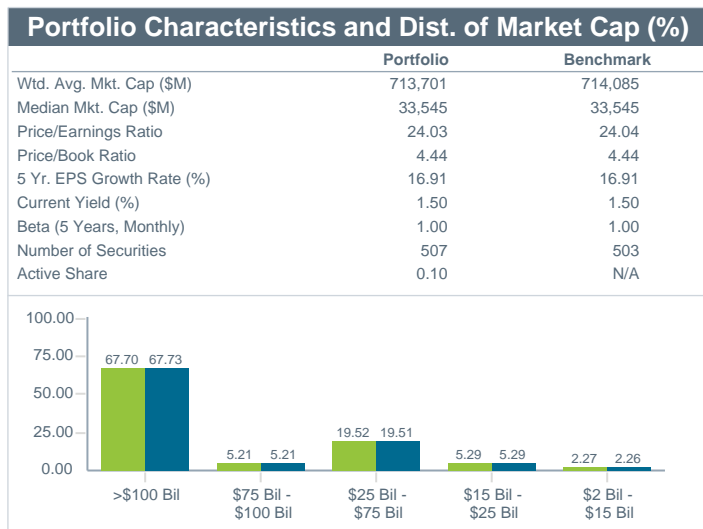
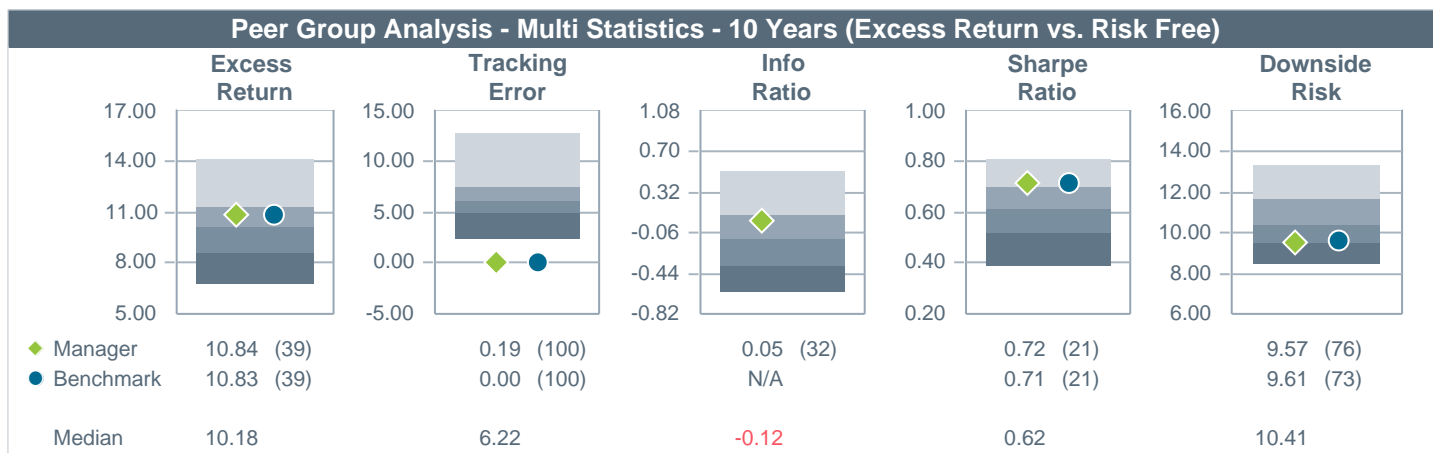
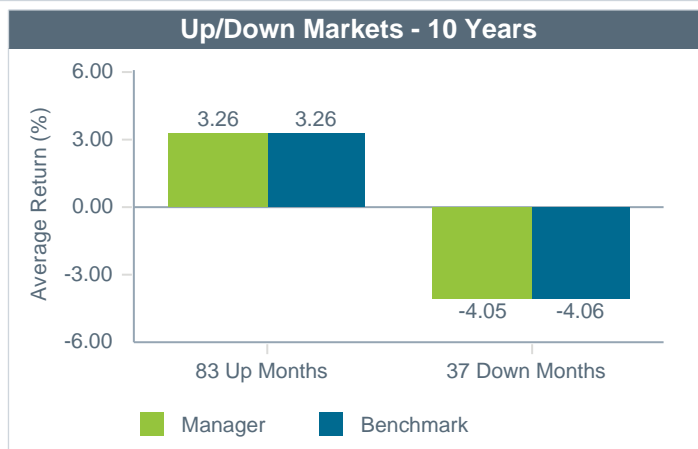
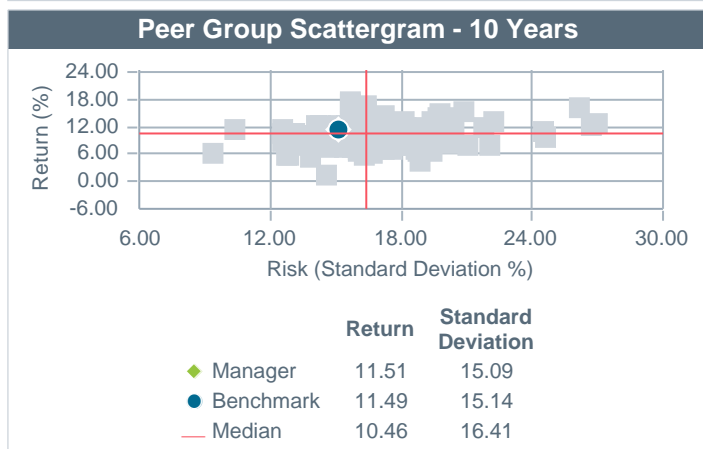
**Wyoming State Treasurer's Office**  
**Investment Values by Manager**  
December 31, 2023

	Total Investment Value	Fiscal Year Ending 06/30/23 Market Value	Current Market Value	% of MV
<b>Wyoming State Total Fund</b>	<b>\$25,512,043,389</b>	<b>\$26,695,668,439</b>	<b>\$27,954,246,860</b>	<b>100.0%</b>
<b>Infrastructure</b>	<b>\$219,615,517</b>	<b>\$255,363,284</b>	<b>\$277,582,315</b>	<b>1.0%</b>
Macquarie	\$173,505,143	\$185,514,618	\$193,429,947	
MGIF	\$25,000,000	\$26,400,302	\$27,099,441	
Grosvenor E	\$21,110,375	\$43,448,364	\$57,052,927	
<b>Fixed Income</b>	<b>\$12,967,056,084</b>	<b>\$12,484,867,055</b>	<b>\$12,535,256,548</b>	<b>44.8%</b>
PIMCO	\$1,208,527,764	\$878,003,270	\$1,116,500,694	
Payden & Rygel	\$630,130,210	\$596,111,140	\$583,904,957	
JPM MBS	\$801,071,327	\$745,250,127	\$743,236,635	
Credit Suisse	\$200,722,579	\$396,540,641	\$204,123,708	
Octagon	\$195,706,802	\$658,633,598	\$205,452,128	
KKR	\$231,185,323	\$485,624,351	\$231,391,439	
Global Evolution	\$120,429,615	\$121,937,644	\$108,474,665	
Eaton Vance EMD	\$242,704,960	\$240,000,000	\$249,342,118	
Global Evolution Hard	\$177,836,372	\$138,566,991	\$144,340,284	
Finisterre	\$245,190,365	\$243,931,127	\$253,548,278	
Goldman Sachs	\$198,747,717	\$200,705,003	\$197,629,984	
Wellington	\$109,754,077	\$89,413,124	\$91,468,426	
Internal Long Duration Govt Portfolio	\$462,020,444	\$320,511,853	\$410,424,899	
Logan Circle	\$426,799,033	\$338,611,949	\$419,267,093	
Internal Int. Duration Govt Portfolio	\$1,268,985,922	\$1,142,300,366	\$1,144,764,065	
Internal Low Duration Govt Portfolio	\$668,098,356	\$645,426,117	\$657,415,590	
Pimco Low	\$989,608,032	\$697,081,934	\$1,000,567,517	
Wyoming Internal Ladder Portfolio	\$4,789,526,887	\$4,546,207,998	\$4,773,394,089	
Internal Passive Core Fixed Income	\$10,300	\$9,821	\$9,981	
<b>Private Credit</b>	<b>\$274,493,091</b>	<b>\$205,053,465</b>	<b>\$293,168,421</b>	<b>1.0%</b>
Atalaya	\$59,715,872	\$60,080,983	\$60,411,835	
BlackRock GCO II	\$70,491,654	\$68,658,225	\$74,610,102	
AG Direct	\$52,500,000	\$31,560,810	\$55,472,865	
Kennedy Lewis	\$48,037,119	\$32,952,710	\$56,371,064	
Grosvenor Silvery Lupine Fund	\$9,170,533	\$11,800,736	\$9,915,114	
SVP Solutions II	\$25,000,000	\$0	\$26,234,624	
Ares Pathfinder Fund II	\$9,577,913	\$0	\$10,152,817	
<b>Opportunistic</b>	<b>\$99,464,823</b>	<b>\$123,511,809</b>	<b>\$124,680,303</b>	<b>0.4%</b>
Grosvenor D	\$99,421,823	\$123,467,316	\$124,632,580	
Wyoming Internal Opportunistic Portfolio	\$43,000	\$44,493	\$47,723	
<b>Public Purpose Investments</b>	<b>\$366,079,624</b>	<b>\$248,557,612</b>	<b>\$366,079,624</b>	<b>1.3%</b>
<b>Cash &amp; Cash Equivalents</b>	<b>\$2,208,623,519</b>	<b>\$1,745,705,019</b>	<b>\$2,213,604,936</b>	<b>7.9%</b>
Cornerstone	(\$0)	\$0	\$0	
TA Realty	\$26,120	\$0	\$0	
C.S. McKee	\$8,953,177	\$0	\$0	
State Street TIPS	\$1,798,617	\$0	\$0	
Stone Harbor	\$150,719	\$0	\$0	
JP Morgan Cash Composite	\$2,197,694,885	\$1,745,705,019	\$2,213,604,936	

# Investment Manager Profiles



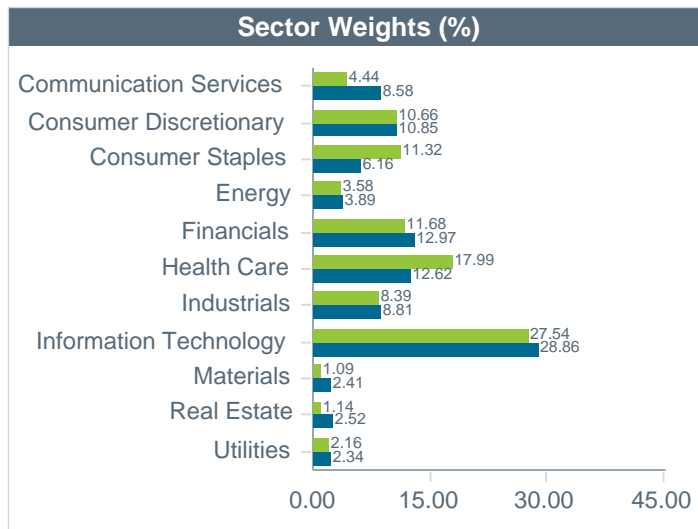
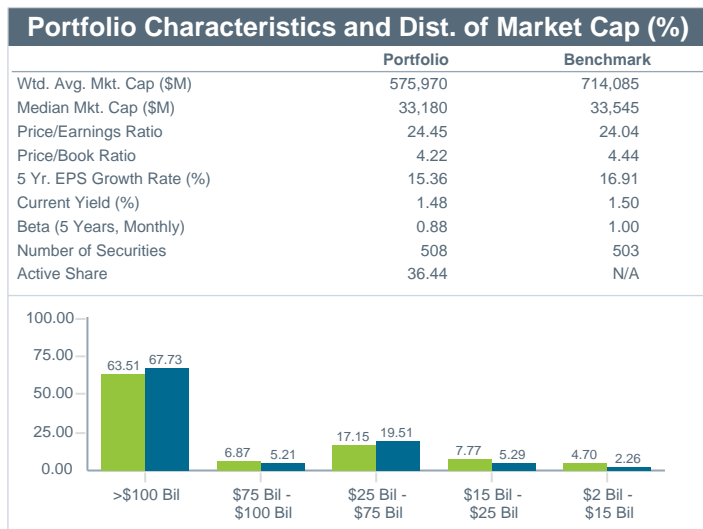
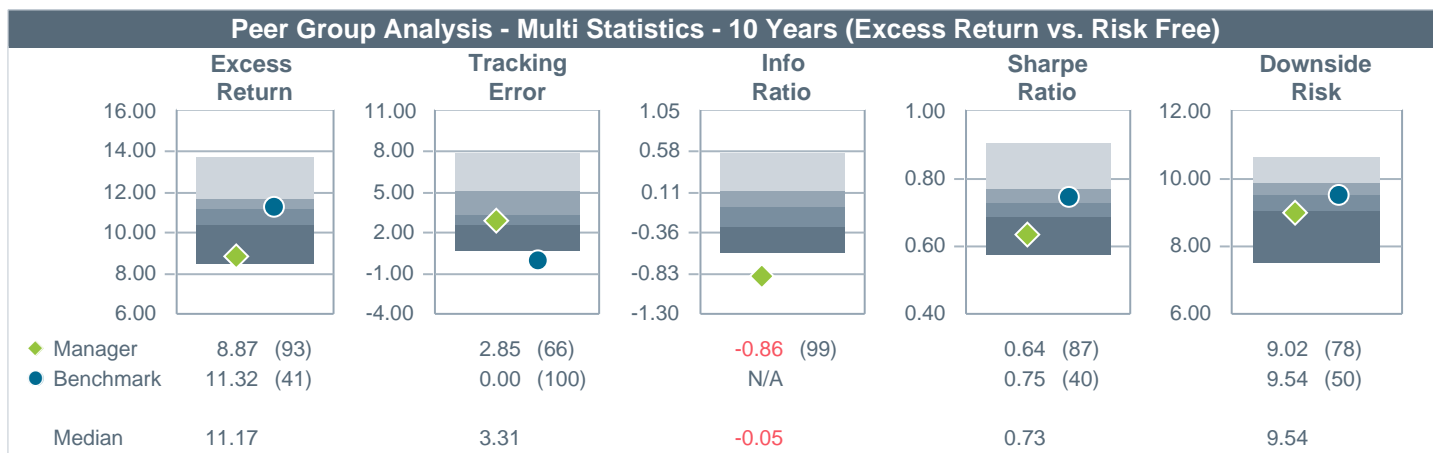
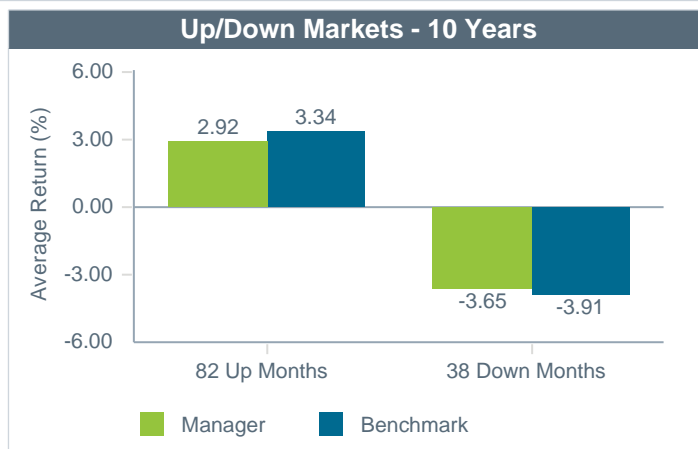
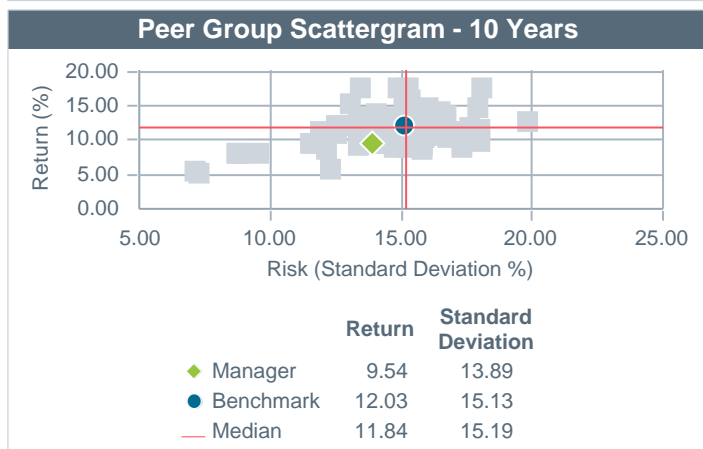
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	11.69	26.26	9.99	15.32	12.74	11.51	-18.10	28.69	17.58	30.34	-5.25
Benchmark	11.69	26.29	10.00	15.30	12.69	11.49	-18.11	28.71	17.65	30.11	-5.50
Difference	0.00	-0.03	-0.01	0.02	0.05	0.02	0.01	-0.02	-0.07	0.23	0.25
Peer Group Median	11.69	21.68	8.81	14.11	12.10	10.46	-16.64	25.17	15.43	28.76	-5.80
Rank	50	32	36	33	42	32	60	28	46	42	46
Population	207	206	198	192	186	174	216	227	255	273	285



Performance shown is gross of fees. Performance prior to client inception consists of the State Street All Cap Custom Index. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



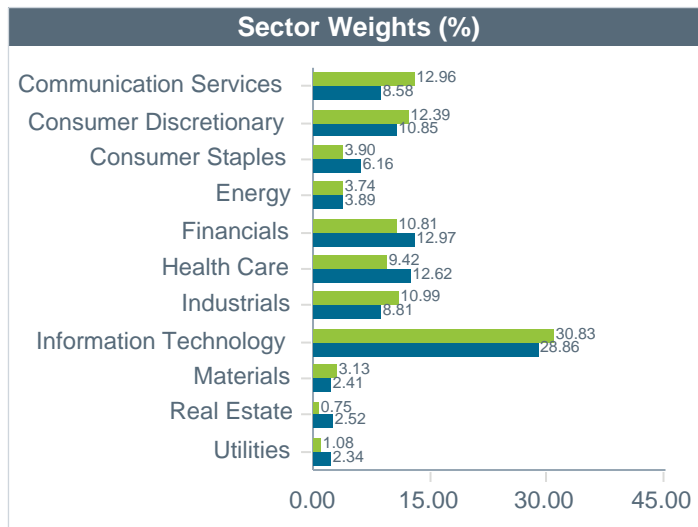
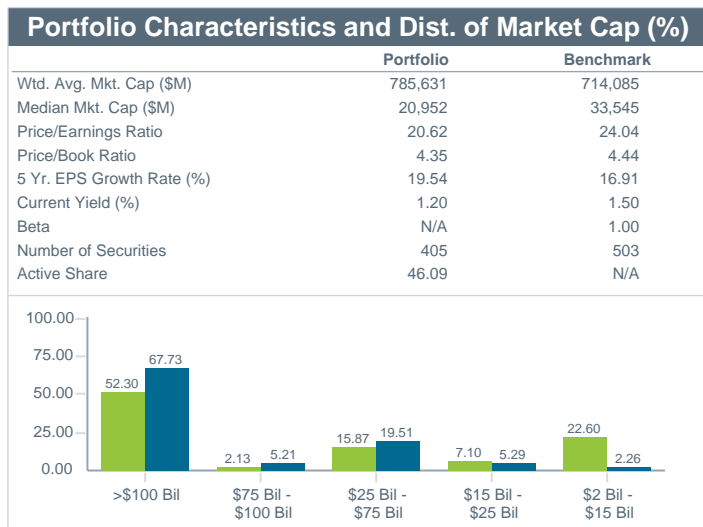
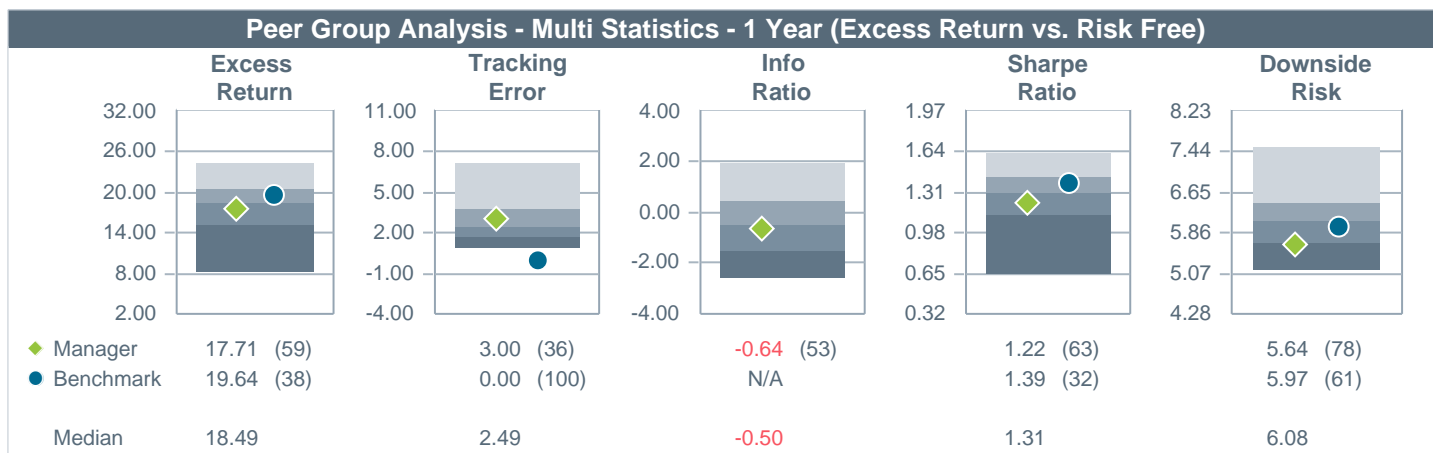
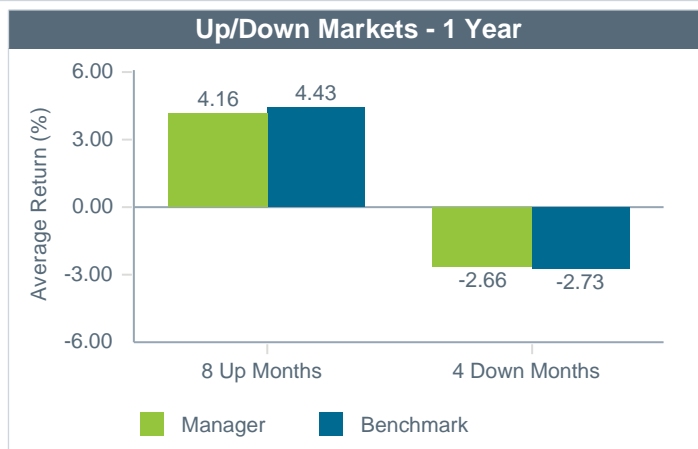
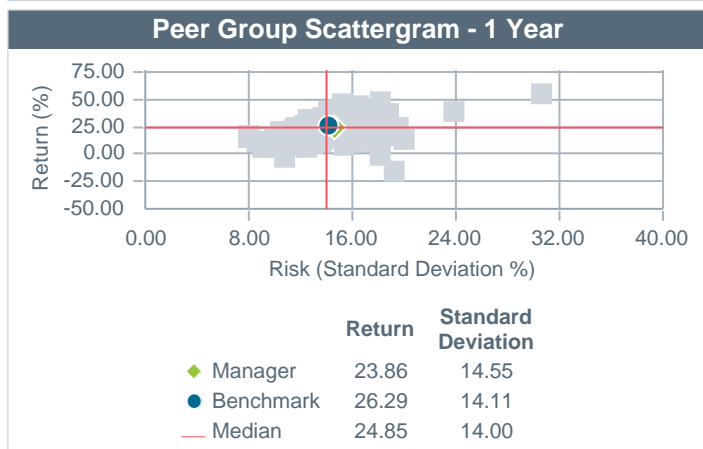
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	7.98	20.22	6.58	11.83	10.08	9.54	-18.28	23.24	14.73	25.88	-8.04
Benchmark	11.69	26.29	10.00	15.69	13.42	12.03	-18.11	28.71	18.40	31.49	-4.38
Difference	-3.71	-6.07	-3.42	-3.86	-3.34	-2.49	-0.17	-5.47	-3.67	-5.61	-3.66
Peer Group Median	11.62	24.67	9.82	15.28	13.23	11.84	-16.49	27.71	17.69	30.08	-5.05
Rank	92	71	90	89	90	91	69	80	64	81	86
Population	205	205	198	191	184	170	219	222	238	264	284



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



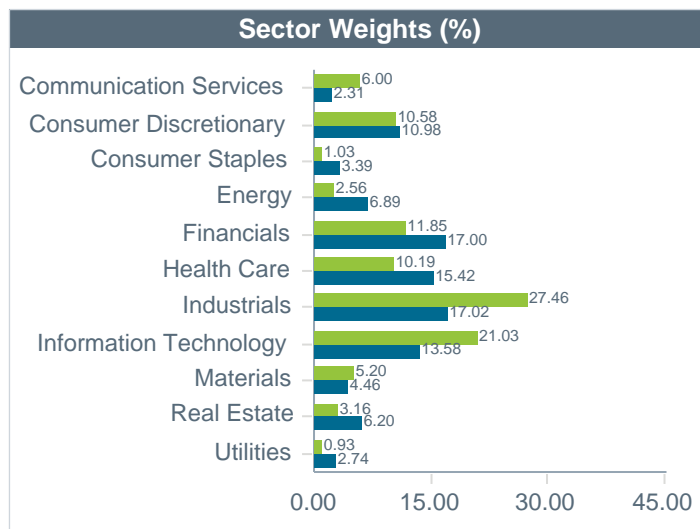
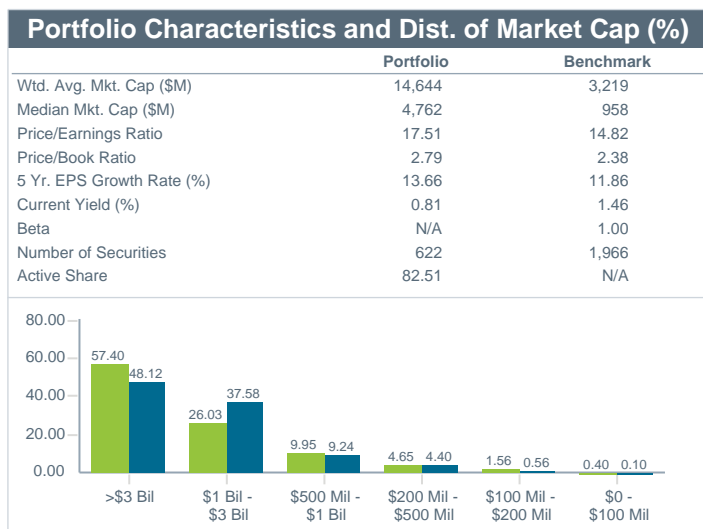
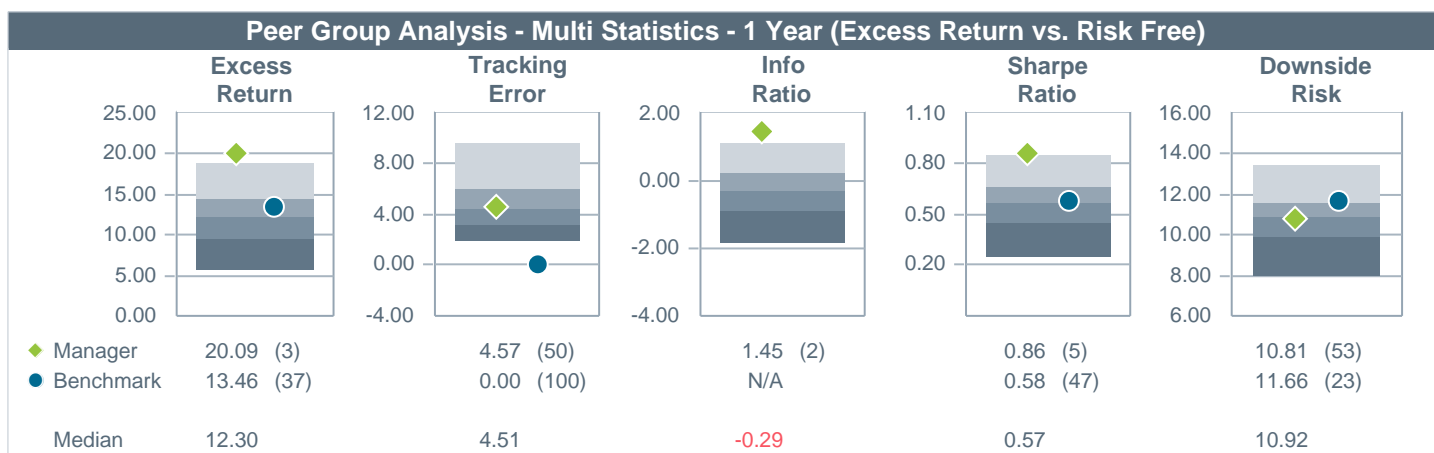
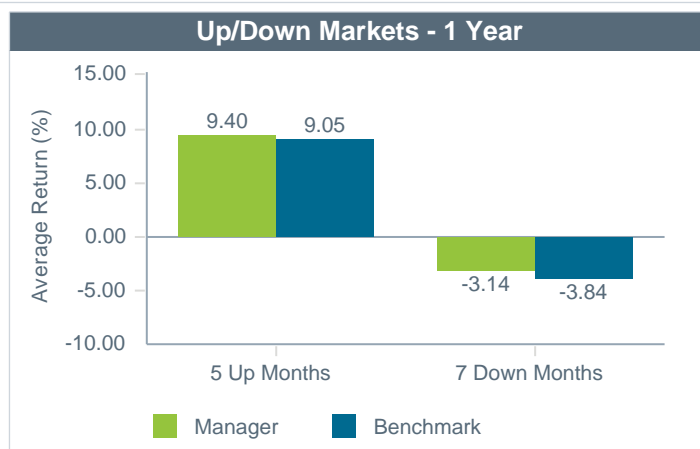
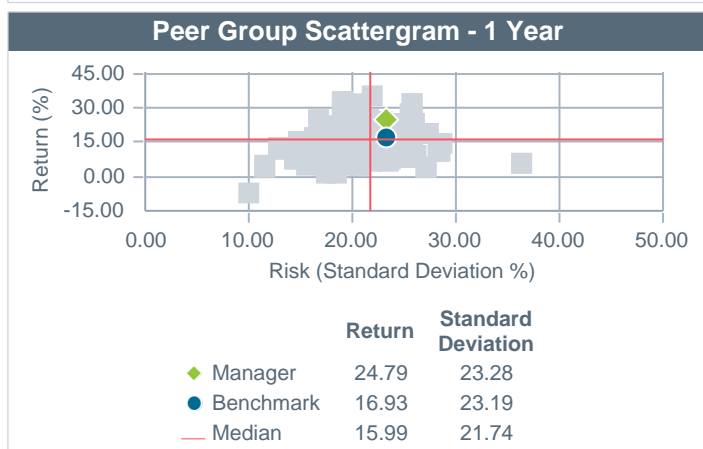
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	11.36	23.86	N/A	N/A	N/A	N/A	-16.22	N/A	N/A	N/A	N/A
Benchmark	11.69	26.29	10.00	15.69	13.42	12.03	-18.11	28.71	18.40	31.49	-4.38
Difference	-0.33	-2.43	N/A	N/A	N/A	N/A	1.89	N/A	N/A	N/A	N/A
Peer Group Median	11.70	24.85	8.83	14.61	12.52	10.94	-18.72	26.95	18.39	30.70	-5.45
Rank	63	59	N/A	N/A	N/A	N/A	25	N/A	N/A	N/A	N/A
Population	658	636	572	509	462	398	635	606	584	583	580



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	12.52	24.79	N/A	N/A	N/A	N/A	-21.09	N/A	N/A	N/A	N/A
Benchmark	14.03	16.93	2.22	9.97	7.33	7.16	-20.44	14.82	19.96	25.53	-11.01
Difference	-1.51	7.86	N/A	N/A	N/A	N/A	-0.65	N/A	N/A	N/A	N/A
Peer Group Median	12.88	15.99	7.27	10.85	7.19	7.15	-15.77	25.12	9.89	23.94	-12.71
Rank	57	3	N/A	N/A	N/A	N/A	91	N/A	N/A	N/A	N/A
Population	679	666	646	613	553	436	683	703	722	742	776

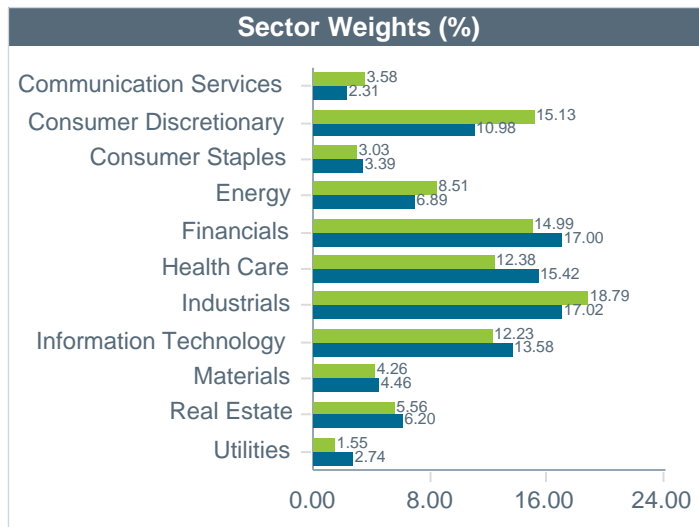
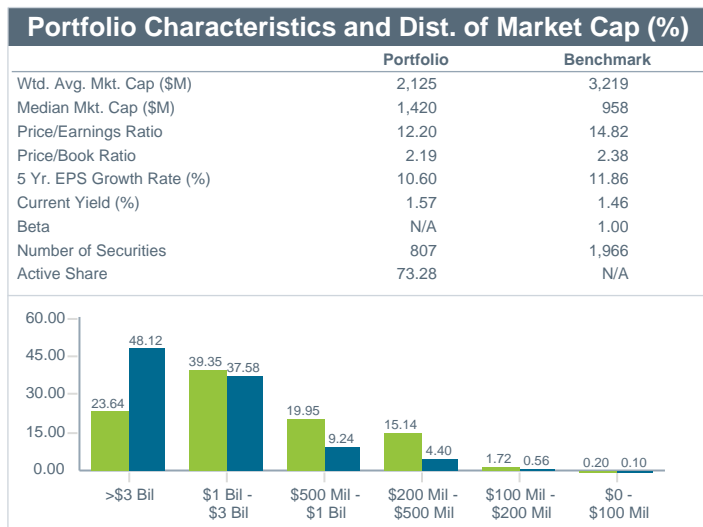
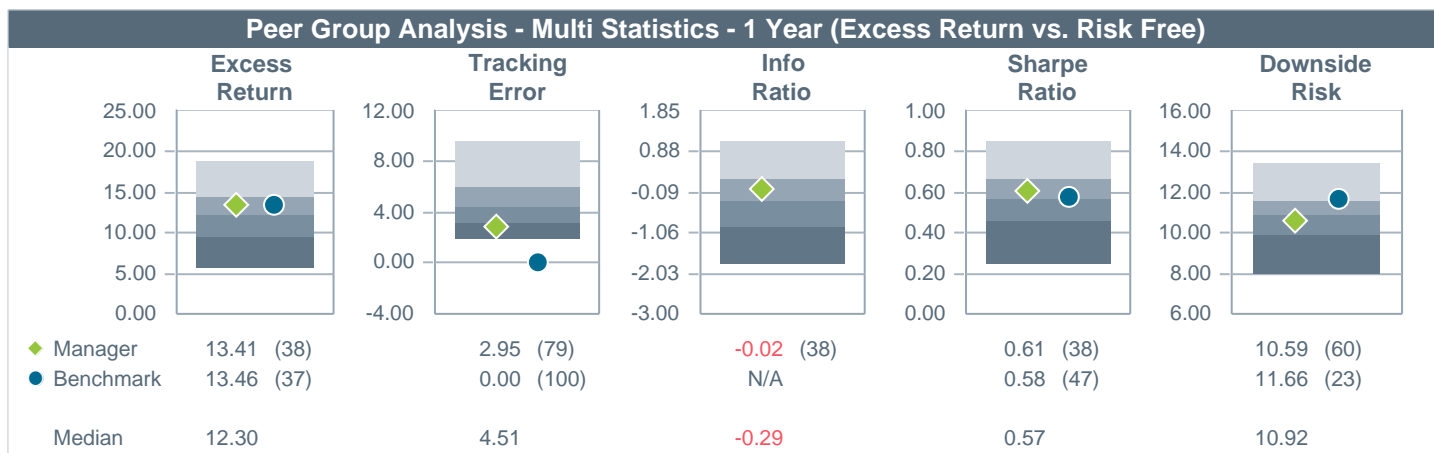
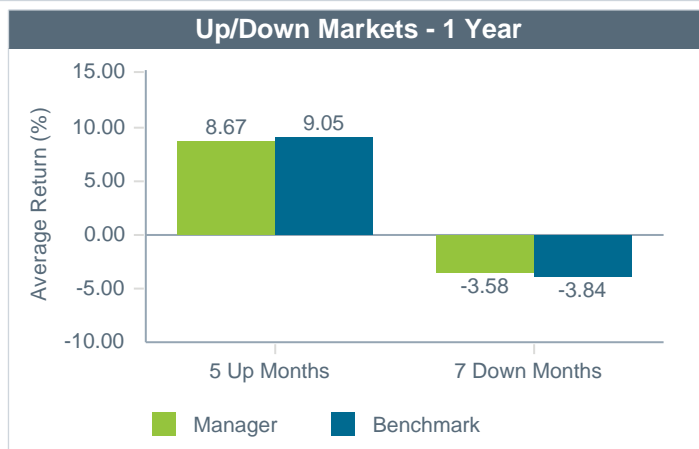
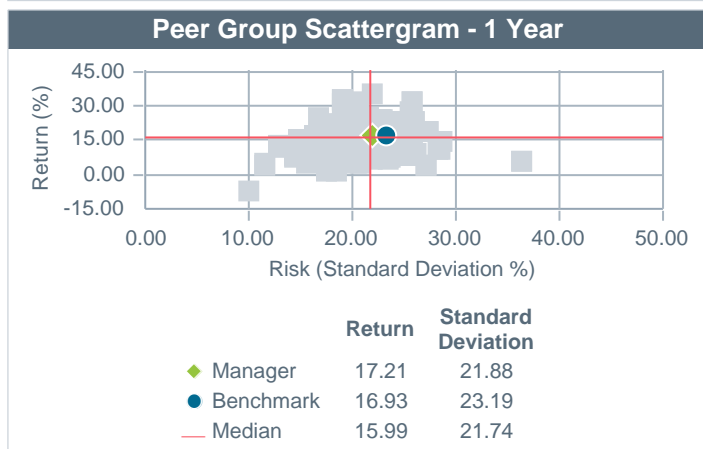


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.





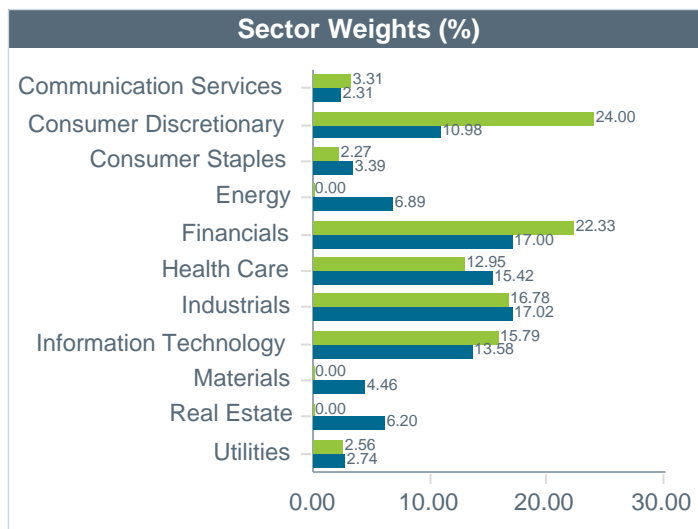
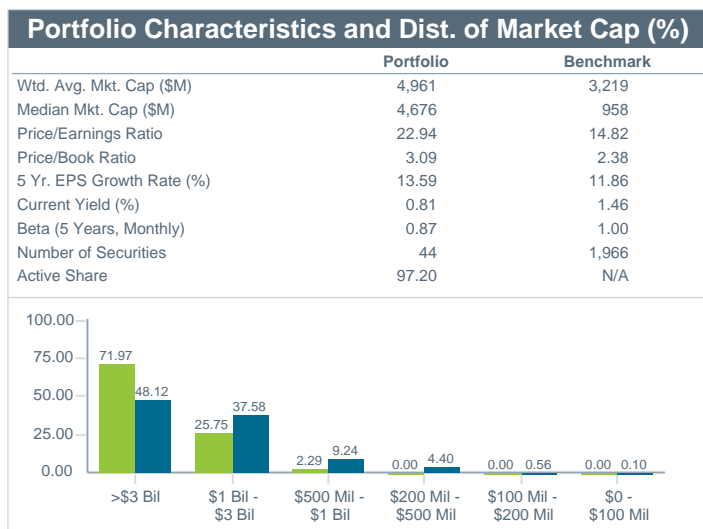
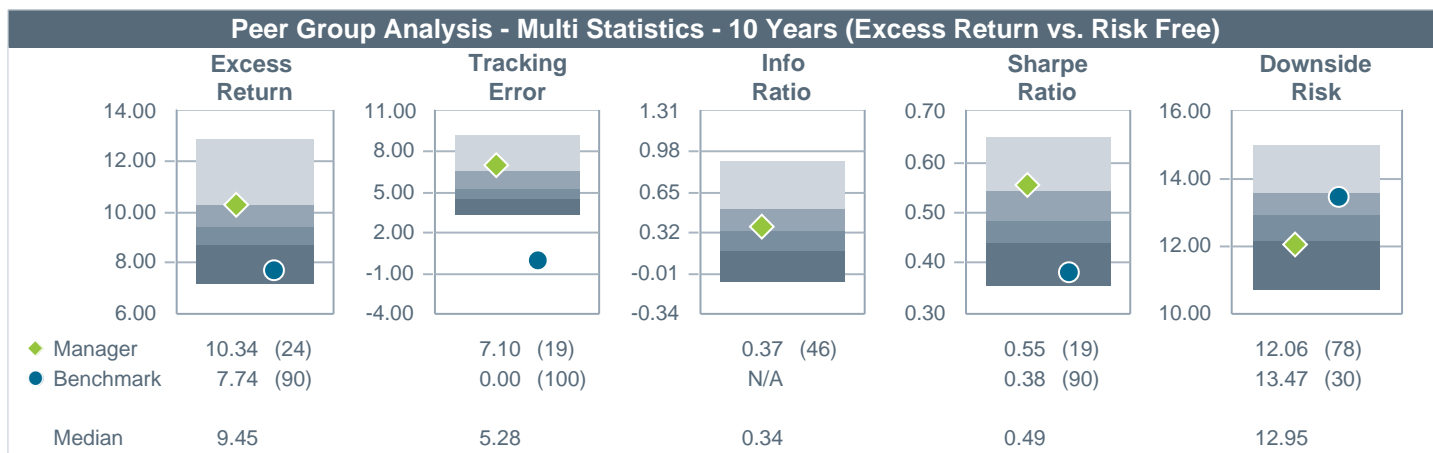
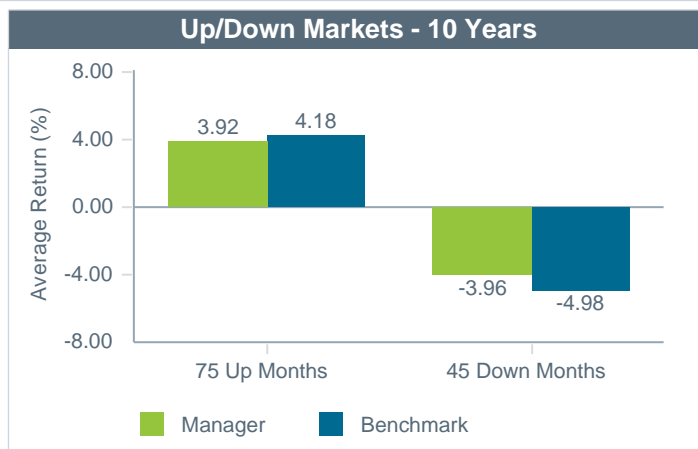
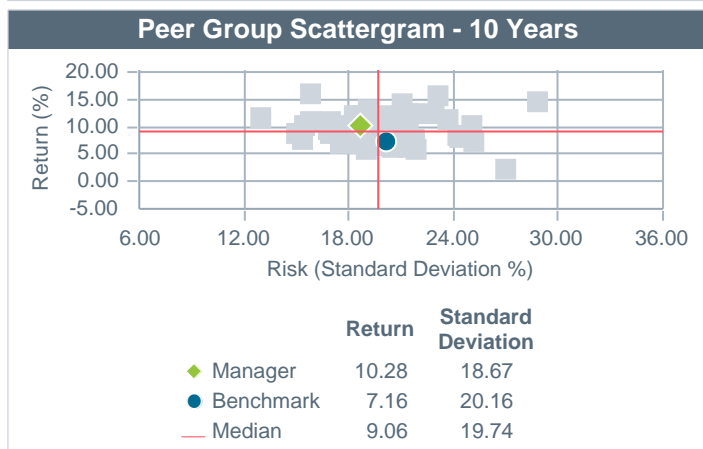
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	12.28	17.21	N/A	N/A	N/A	N/A	-15.21	N/A	N/A	N/A	N/A
Benchmark	14.03	16.93	2.22	9.97	7.33	7.16	-20.44	14.82	19.96	25.53	-11.01
Difference	-1.75	0.28	N/A	N/A	N/A	N/A	5.23	N/A	N/A	N/A	N/A
Peer Group Median	12.88	15.99	7.27	10.85	7.19	7.15	-15.77	25.12	9.89	23.94	-12.71
Rank	60	37	N/A	N/A	N/A	N/A	47	N/A	N/A	N/A	N/A
Population	679	666	646	613	553	436	683	703	722	742	776



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



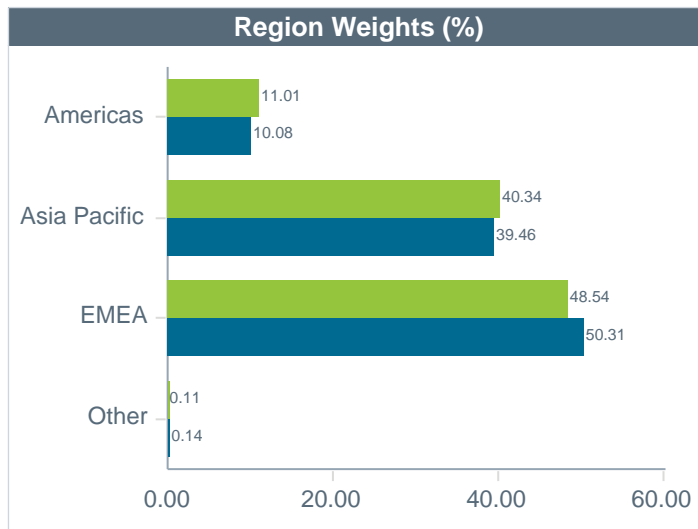
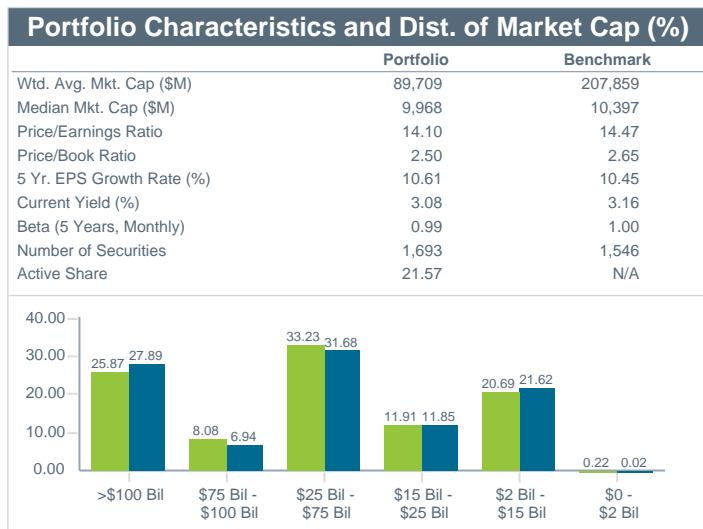
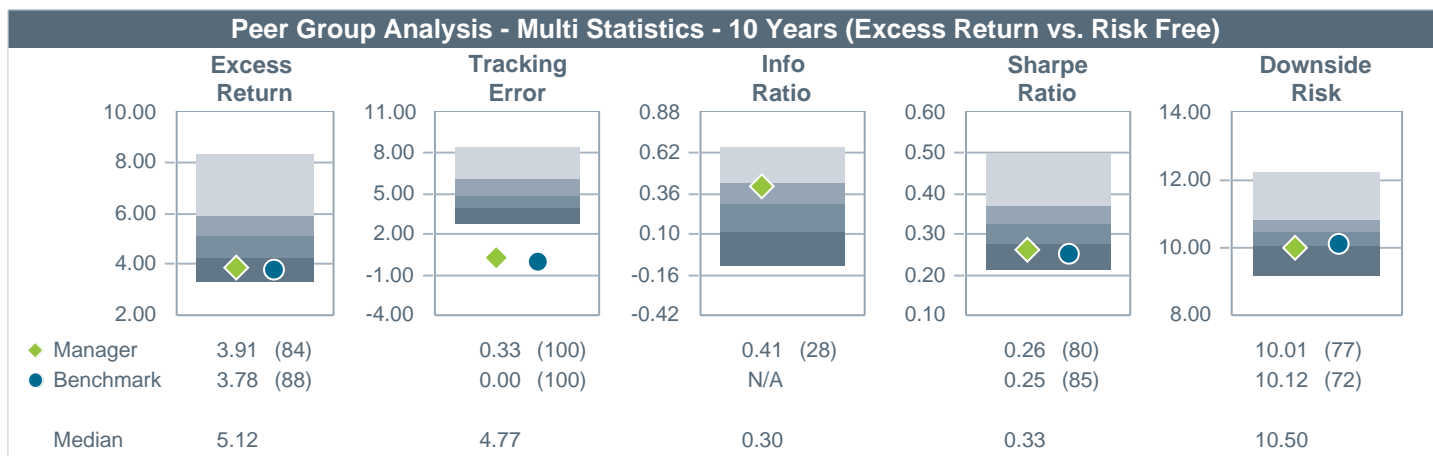
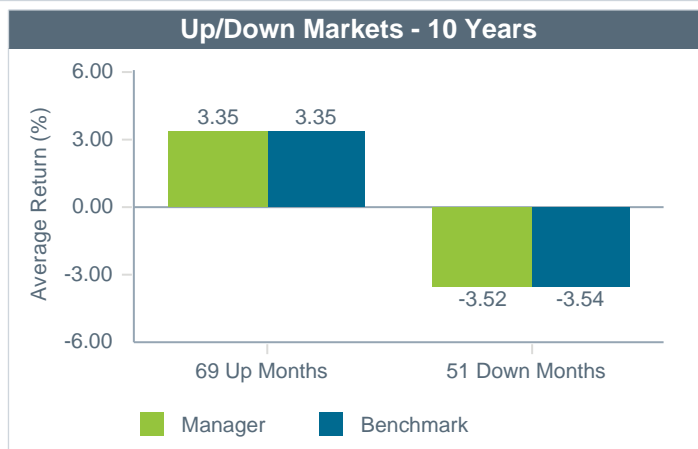
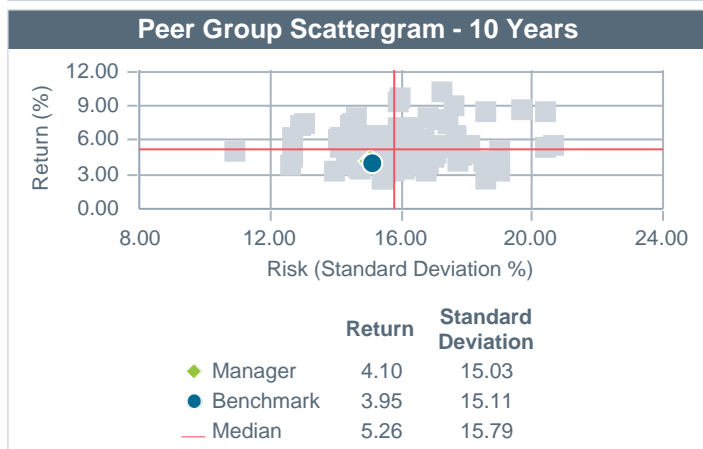
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	13.67	23.36	8.21	12.46	10.74	10.28	-12.00	16.73	9.22	29.96	-2.61
Benchmark	14.03	16.93	2.22	9.97	7.33	7.16	-20.44	14.82	19.96	25.53	-11.01
Difference	-0.36	6.43	5.99	2.49	3.41	3.12	8.44	1.91	-10.74	4.43	8.40
Peer Group Median	12.75	17.19	7.15	12.98	9.51	9.06	-16.11	24.21	18.89	25.88	-10.11
Rank	36	9	35	57	32	21	16	86	84	23	9
Population	141	140	135	130	125	115	145	156	163	172	192



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

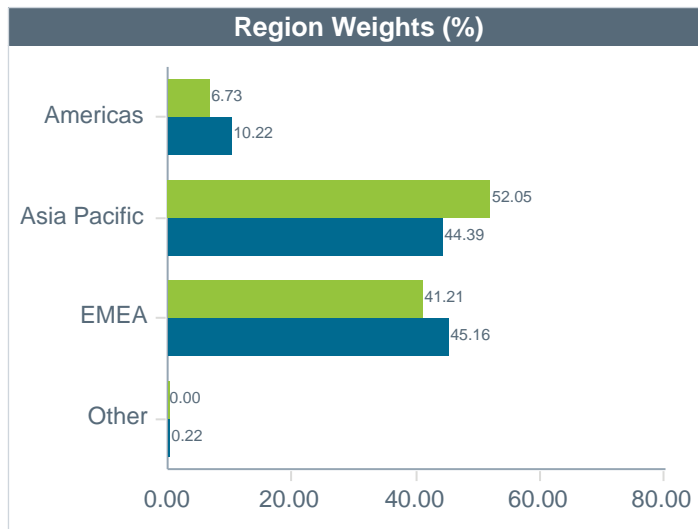
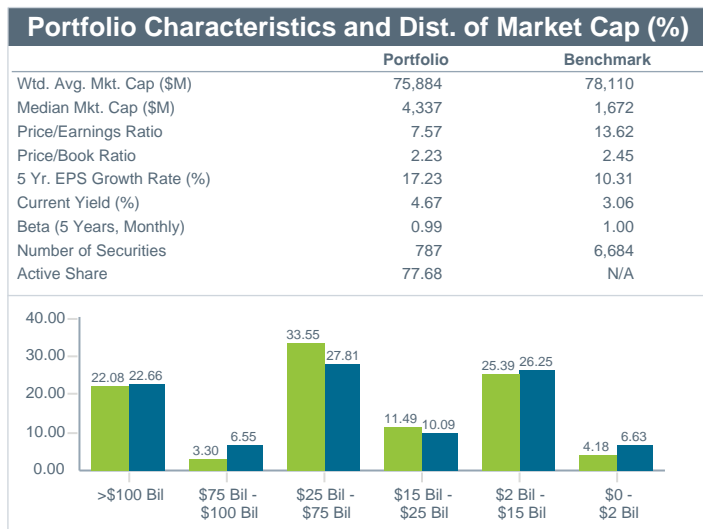
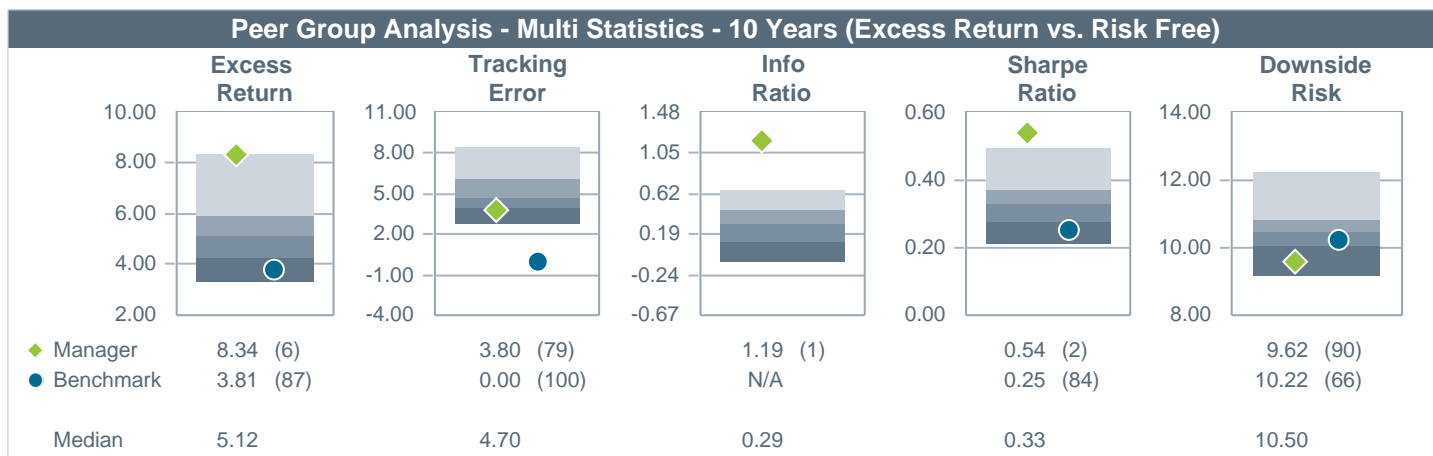
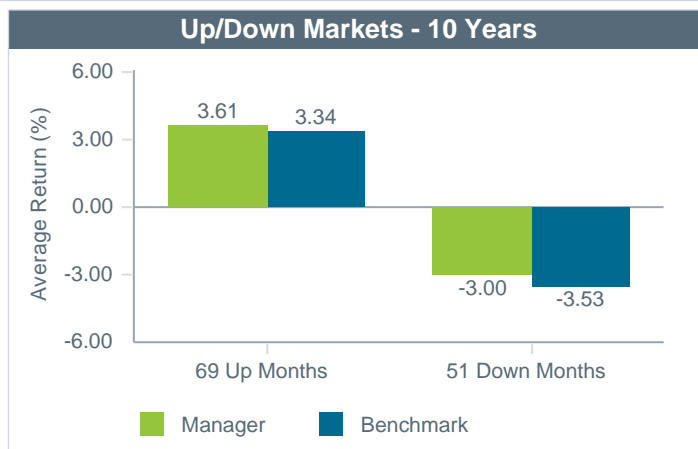
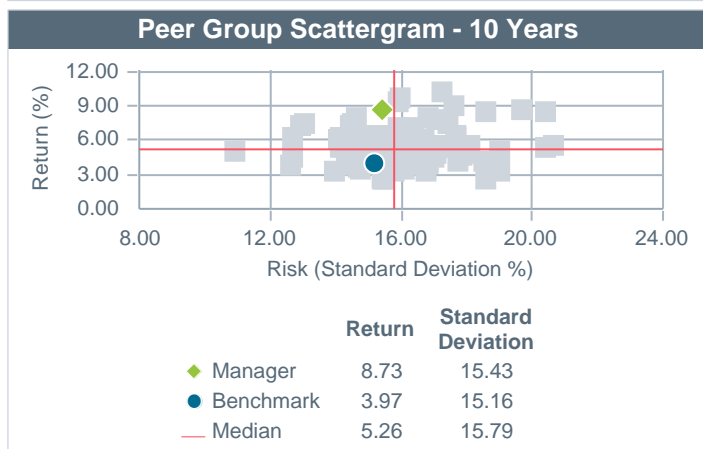


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	10.95	17.20	2.08	7.45	6.70	4.10	-15.86	7.86	10.69	21.66	-13.81
Benchmark	11.06	16.93	1.93	7.33	6.50	3.95	-16.00	7.82	10.65	21.51	-14.20
Difference	-0.11	0.27	0.15	0.12	0.20	0.15	0.14	0.04	0.04	0.15	0.39
Peer Group Median	10.24	17.12	1.76	8.81	7.77	5.26	-17.00	9.43	14.71	25.05	-14.65
Rank	36	49	48	78	75	82	44	67	60	70	41
Population	137	137	136	136	136	129	147	153	165	172	182



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to other consists of Luxembourg. Prior to August 18th, 2023, the benchmark consists of MSCI ACW Ex US Index.

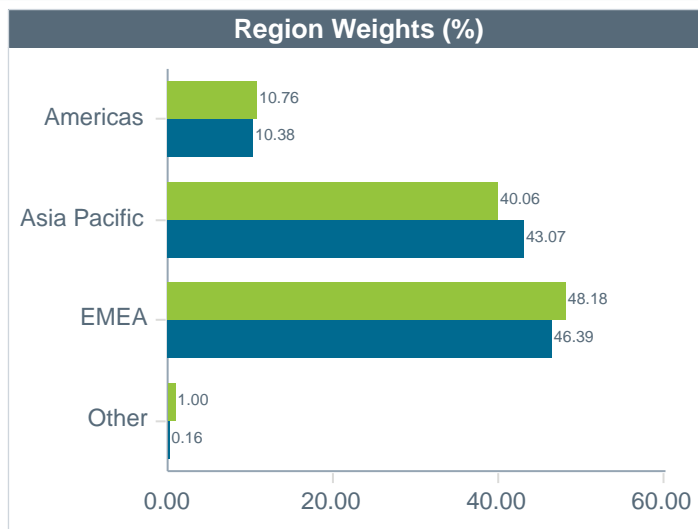
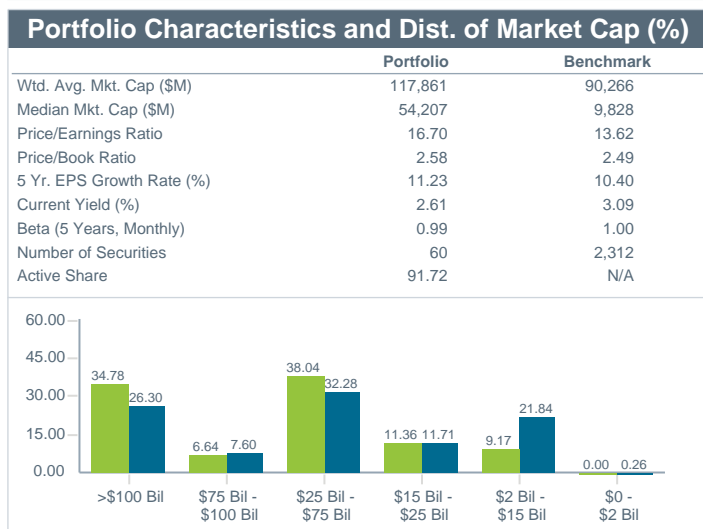
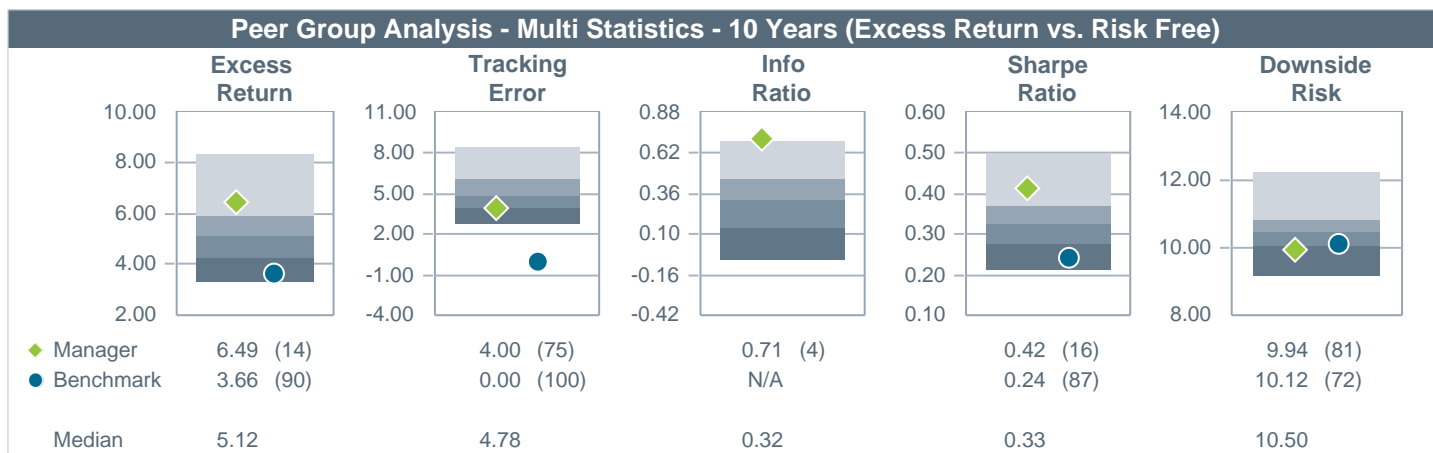
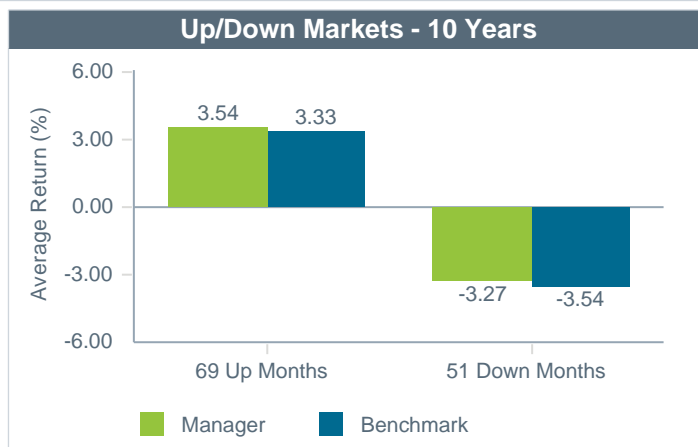
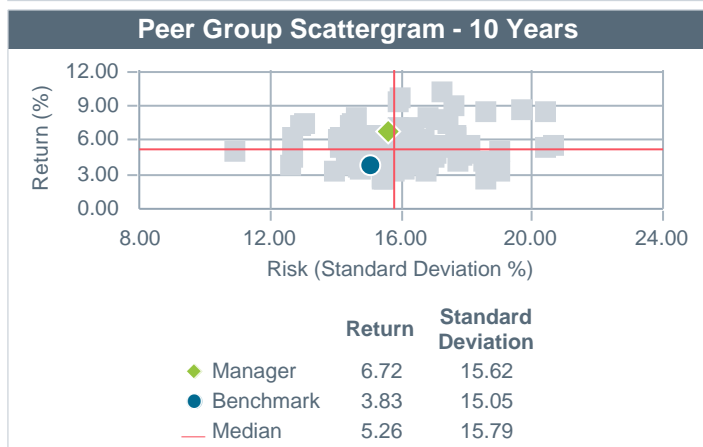
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	7.78	22.73	8.07	13.94	11.46	8.73	-10.10	14.38	23.28	23.43	-13.84
Benchmark	9.81	15.62	1.53	7.19	6.38	3.97	-16.58	8.53	11.12	21.63	-14.76
Difference	-2.03	7.11	6.54	6.75	5.08	4.76	6.48	5.85	12.16	1.80	0.92
Peer Group Median	10.24	17.12	1.76	8.81	7.77	5.26	-17.00	9.43	14.71	25.05	-14.65
Rank	91	8	5	1	5	4	16	12	22	58	41
Population	137	137	136	136	136	129	147	153	165	172	182



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



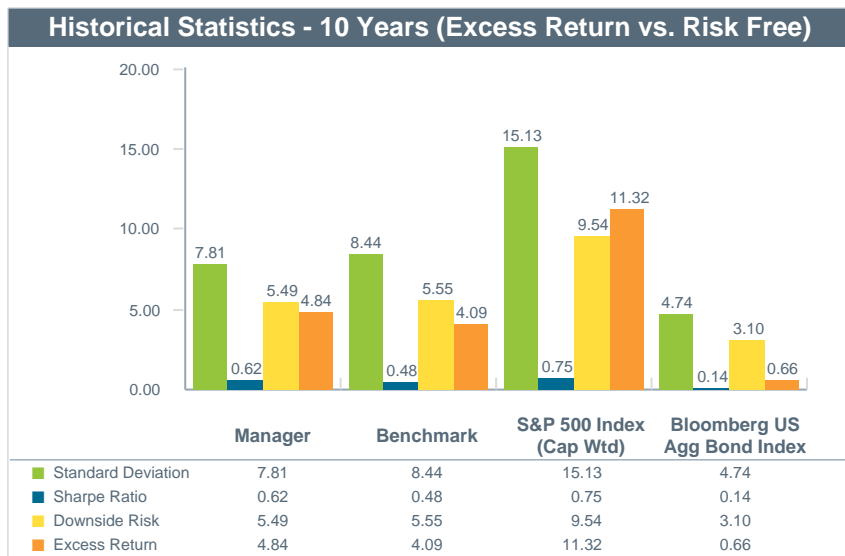
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	11.36	16.10	1.57	9.85	8.89	6.72	-16.92	8.65	20.86	26.27	-13.24
Benchmark	9.75	15.62	1.55	7.08	6.33	3.83	-16.00	7.82	10.65	21.51	-14.20
Difference	1.61	0.48	0.02	2.77	2.56	2.89	-0.92	0.83	10.21	4.76	0.96
Peer Group Median	10.24	17.12	1.76	8.81	7.77	5.26	-17.00	9.43	14.71	25.05	-14.65
Rank	27	63	55	23	24	14	50	59	31	43	33
Population	137	137	136	136	136	129	147	153	165	172	182



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

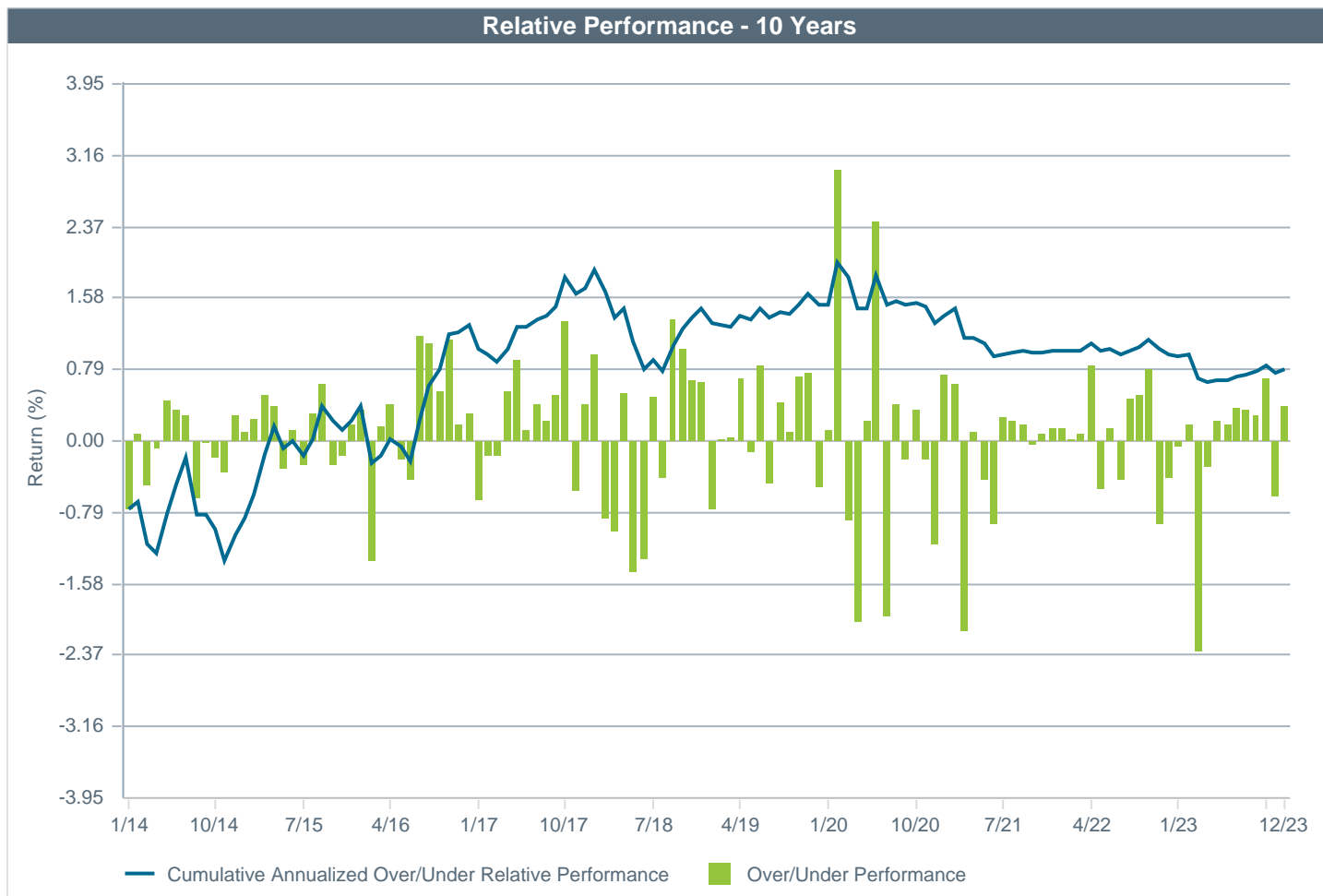


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	7.22	7.84	-0.06	5.23	4.88	5.93	-11.41	4.48	8.01	19.68	-3.68
Benchmark	6.72	8.57	0.33	5.11	4.27	5.09	-12.02	5.72	7.97	17.64	-4.25
Difference	0.50	-0.73	-0.39	0.12	0.61	0.84	0.61	-1.24	0.04	2.04	0.57



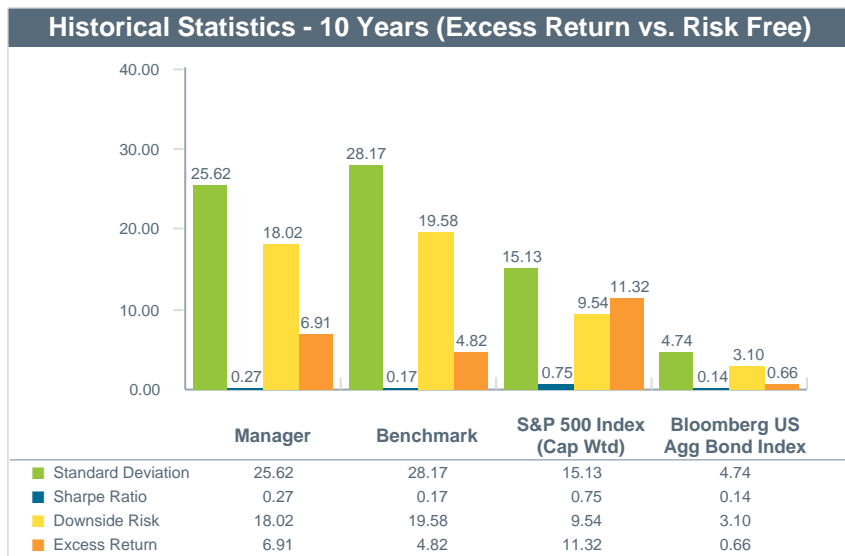
### Actual Correlation - 10 Years

	Actual Correlation
Preferred Stock Custom Index	0.97
S&P 500 Index (Cap Wtd)	0.81
Russell 2000 Index	0.77
MSCI EAFE Index (USD) (Net)	0.79
MSCI Emg Mkts Index (USD) (Net)	0.75
Bloomberg US Agg Bond Index	0.45
Bloomberg US Trsy US TIPS Index	0.53
NCREIF ODCE Index (AWA) (Gross)	-0.28
Wilshire US REIT Index	0.73
HFRI FOF Comp Index	0.83
Bloomberg Cmdty Index (TR)	0.31
ICE BofAML 3 Mo US T-Bill Index	-0.04
Cons Price Index (Unadjusted)	-0.28



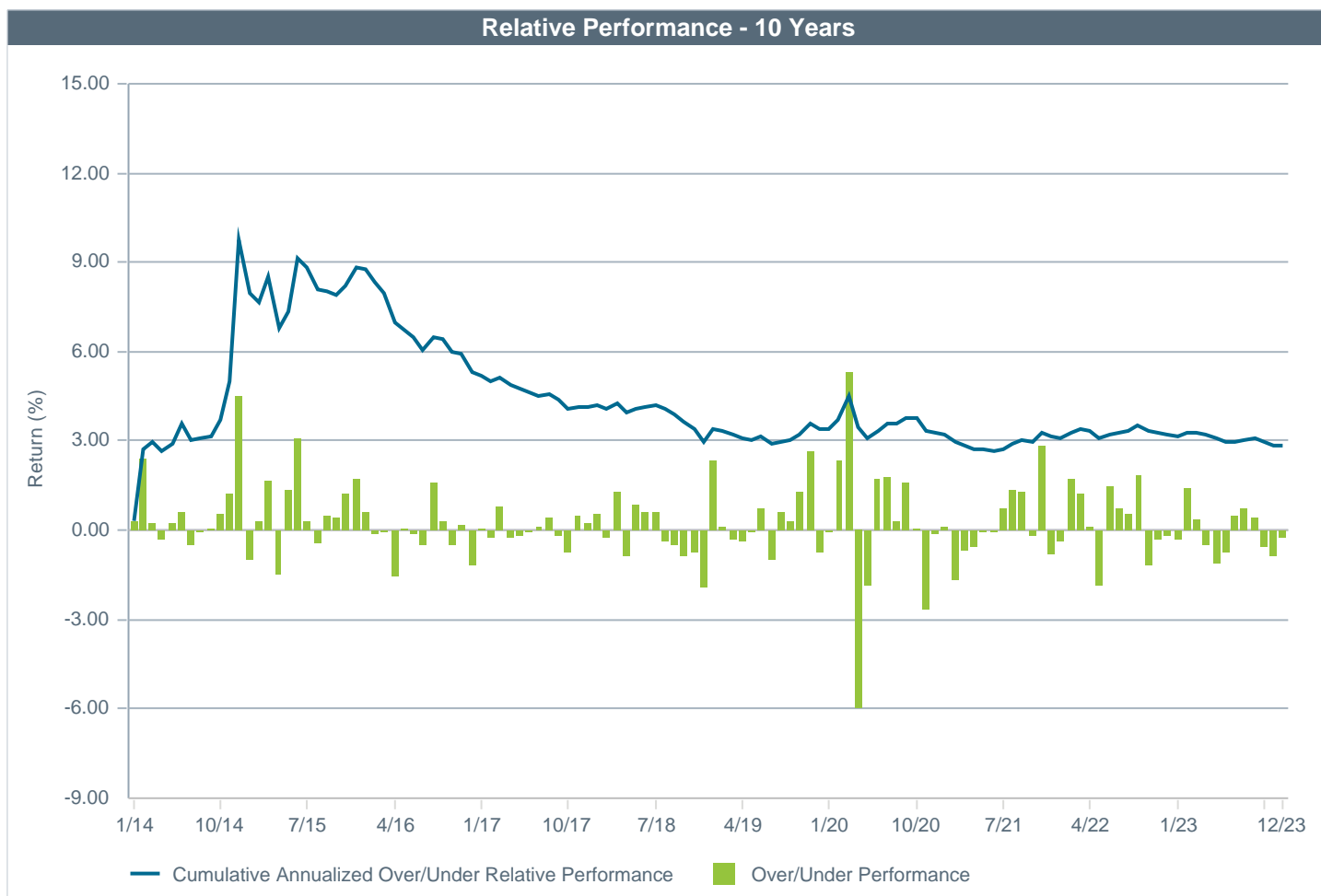
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on quarterly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	3.99	19.19	30.68	14.07	6.89	4.74	31.24	42.64	-23.94	13.82	-13.12
Benchmark	5.72	20.23	28.36	11.10	5.05	1.87	26.26	39.33	-25.60	7.55	-11.67
Difference	-1.73	-1.04	2.32	2.97	1.84	2.87	4.98	3.31	1.66	6.27	-1.45



### Actual Correlation - 10 Years

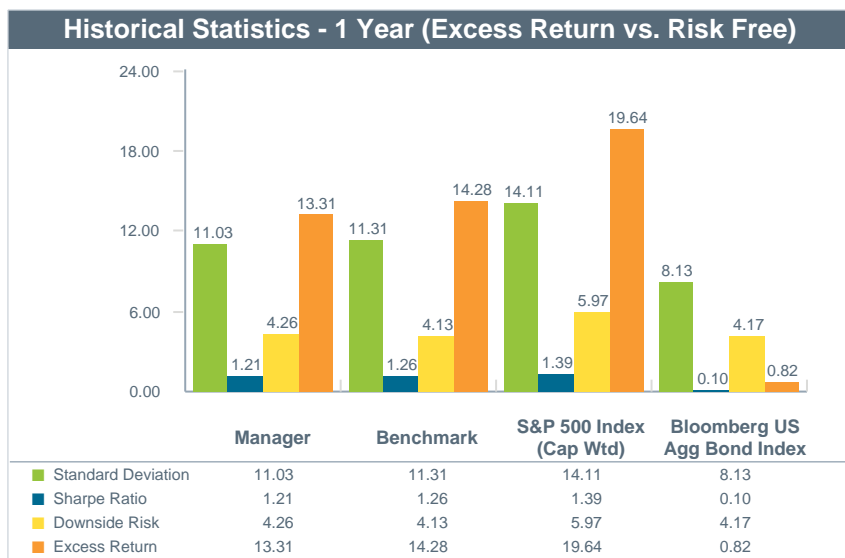
	Actual Correlation
MLP Custom Index	0.99
S&P 500 Index (Cap Wtd)	0.65
Russell 2000 Index	0.71
MSCI EAFE Index (USD) (Net)	0.61
MSCI Emg Mkts Index (USD) (Net)	0.57
Bloomberg US Agg Bond Index	-0.13
Bloomberg US Trsy US TIPS Index	0.14
NCREIF ODCE Index (AWA) (Gross)	-0.06
Wilshire US REIT Index	0.55
HFRI FOF Comp Index	0.70
Bloomberg Cmtdy Index (TR)	0.72
ICE BofAML 3 Mo US T-Bill Index	-0.09
Cons Price Index (Unadjusted)	0.28



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on quarterly periodicity.

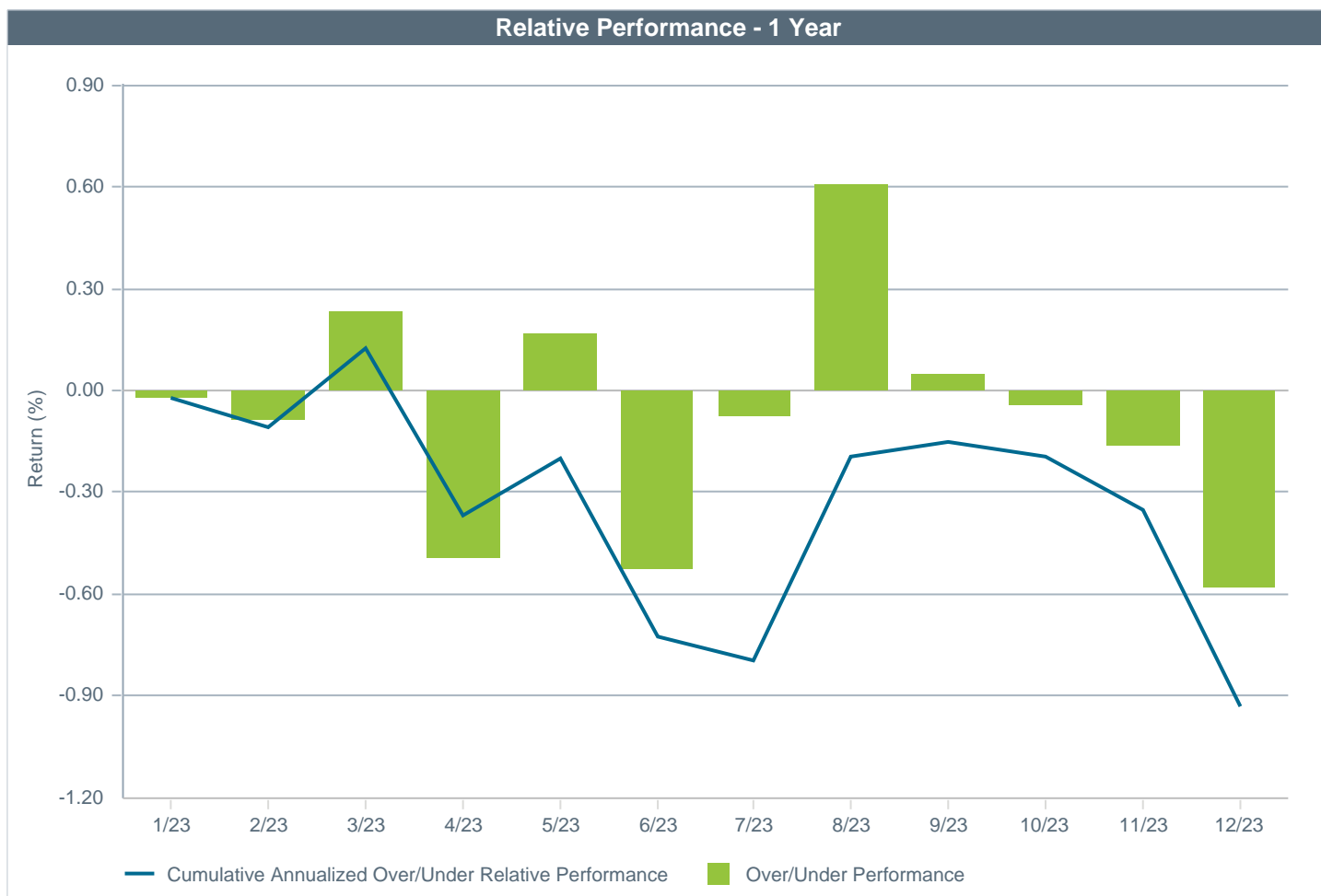


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	4.89	19.11	28.34	N/A	N/A	N/A	26.76	40.02	N/A	N/A	N/A
Benchmark	5.72	20.23	28.36	11.10	5.05	1.87	26.26	39.33	-25.60	7.55	-11.67
Difference	-0.83	-1.12	-0.02	N/A	N/A	N/A	0.50	0.69	N/A	N/A	N/A



### Actual Correlation - 1 Year

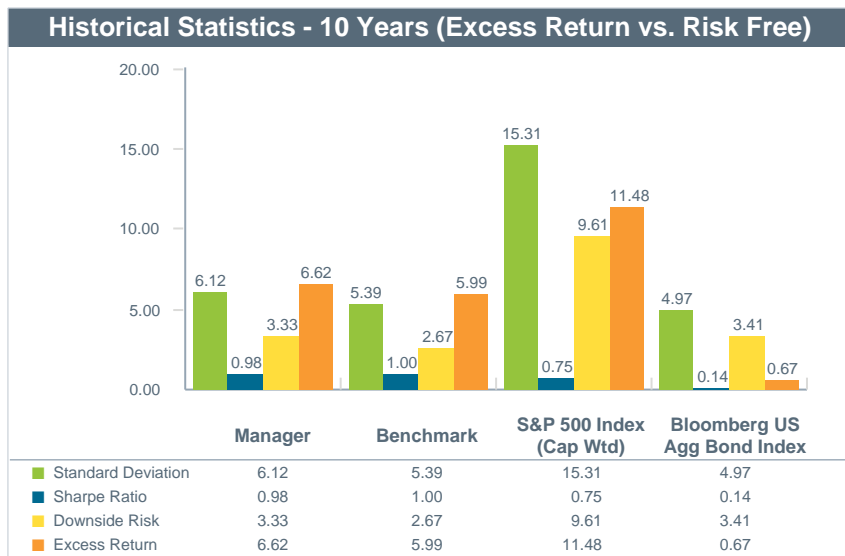
	Actual Correlation
MLP Custom Index	0.91
S&P 500 Index (Cap Wtd)	-0.68
Russell 2000 Index	-0.36
MSCI EAFE Index (USD) (Net)	-0.67
MSCI Emg Mkts Index (USD) (Net)	-0.48
Bloomberg US Agg Bond Index	-0.40
Bloomberg US Trsy US TIPS Index	-0.48
NCREIF ODCE Index (AWA) (Gross)	0.28
Wilshire US REIT Index	-0.34
HFRI FOF Comp Index	-0.02
Bloomberg Cmdty Index (TR)	0.85
ICE BofAML 3 Mo US T-Bill Index	0.82
Cons Price Index (Unadjusted)	-0.48
MLP Custom Index	0.91



Performance shown is gross of fees and client specific. Calculation is based on quarterly periodicity.

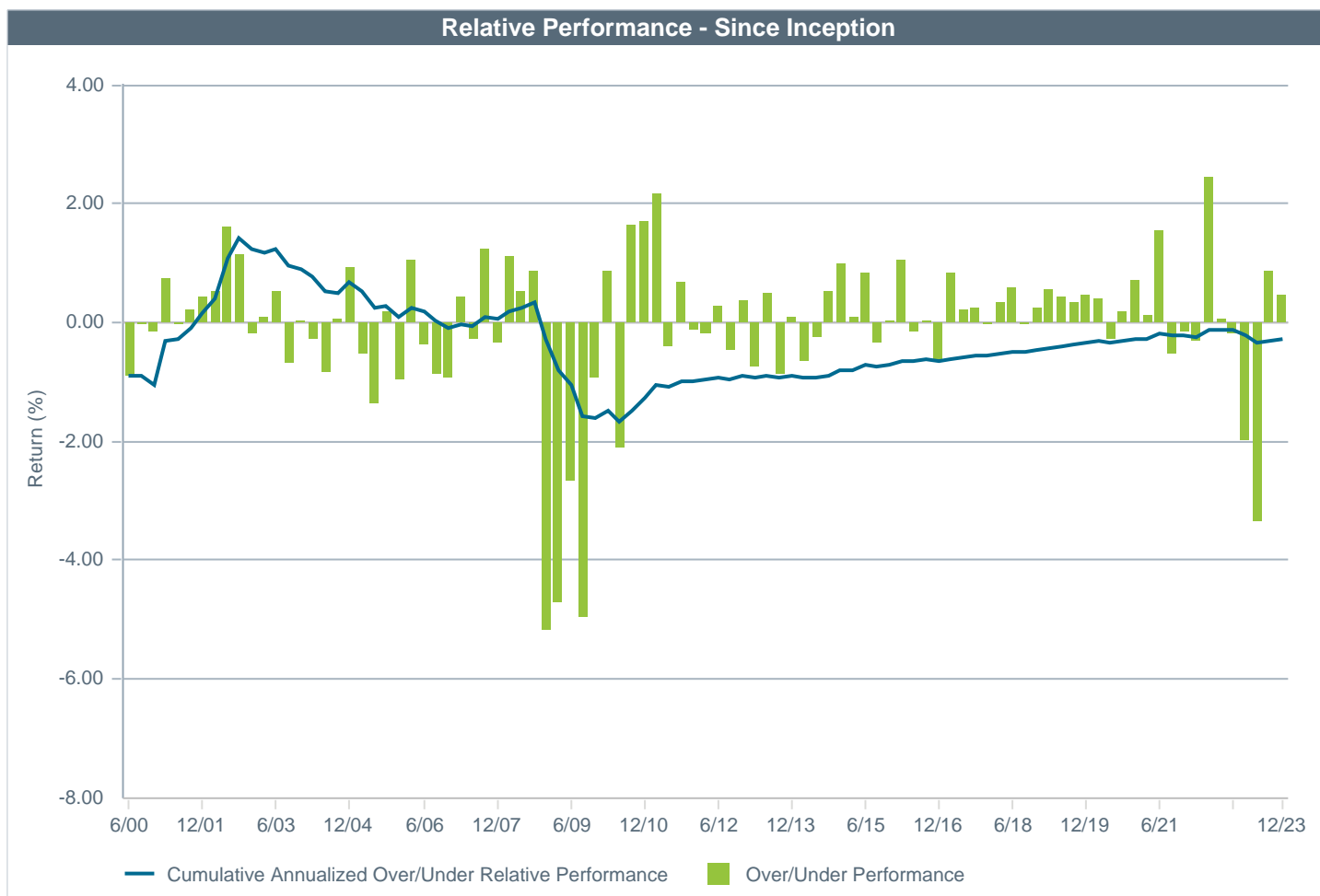


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-4.40	-15.52	4.54	4.61	5.94	7.90	9.62	23.38	2.24	7.26	9.66
Benchmark	-4.83	-12.02	4.92	4.25	5.30	7.29	7.47	22.17	1.19	5.34	8.35
Difference	0.43	-3.50	-0.38	0.36	0.64	0.61	2.15	1.21	1.05	1.92	1.31



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.96
S&P 500 Index (Cap Wtd)	-0.32
Russell 2000 Index	-0.28
MSCI EAFE Index (USD) (Net)	-0.39
MSCI Emg Mkts Index (USD) (Net)	-0.30
Bloomberg US Agg Bond Index	-0.36
Bloomberg US Trsy US TIPS Index	-0.25
Wilshire US REIT Index	-0.09
HFRI FOF Comp Index	-0.26
Bloomberg Cmnty Index (TR)	0.13
ICE BofAML 3 Mo US T-Bill Index	-0.75
Cons Price Index (Unadjusted)	0.31



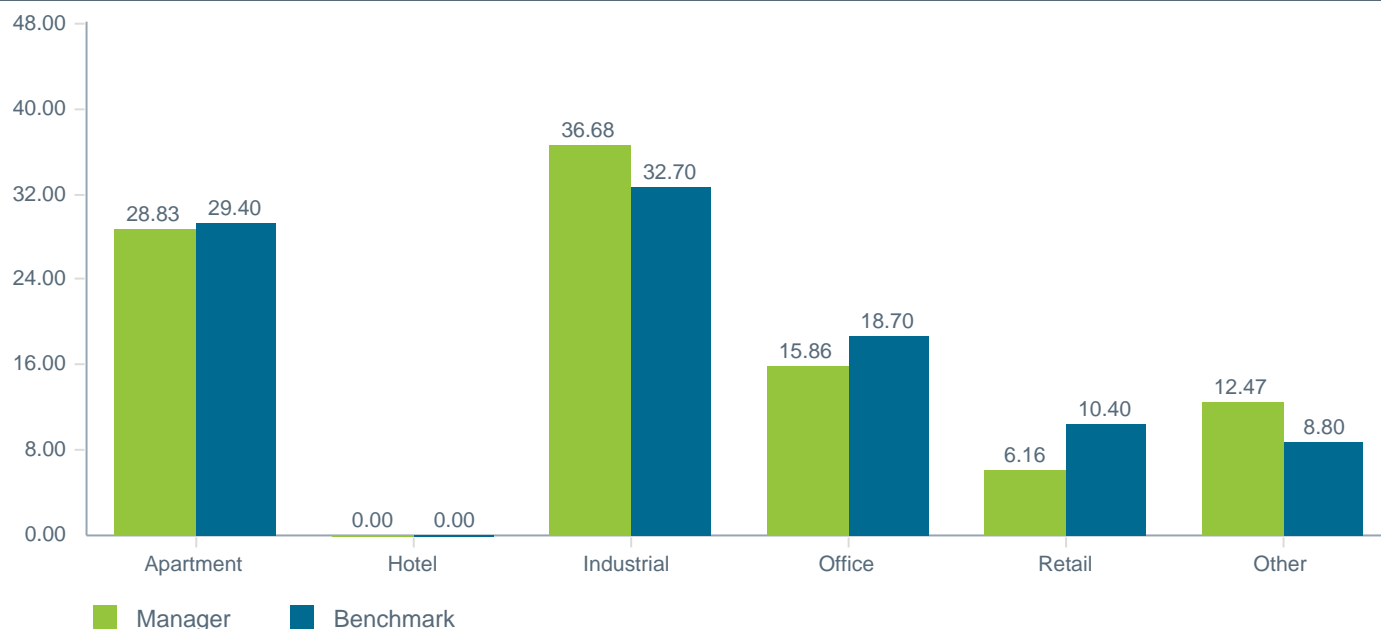
**Investment Strategy**

The Fund pursues a diversified core real estate strategy and seeks to provide its investors with a reliable total investment gross return of approximately 8% to 10% over a market cycle and to outperform the NCREIF ODCE. The Fund manages a portfolio of institutional quality real estate assets diversified across the four major property types (office, industrial, retail and multi-family) and across major metropolitan areas. The Fund operates with moderate leverage and may invest up to 15% of its gross assets in higher risk, non-core type real estate investment opportunities.

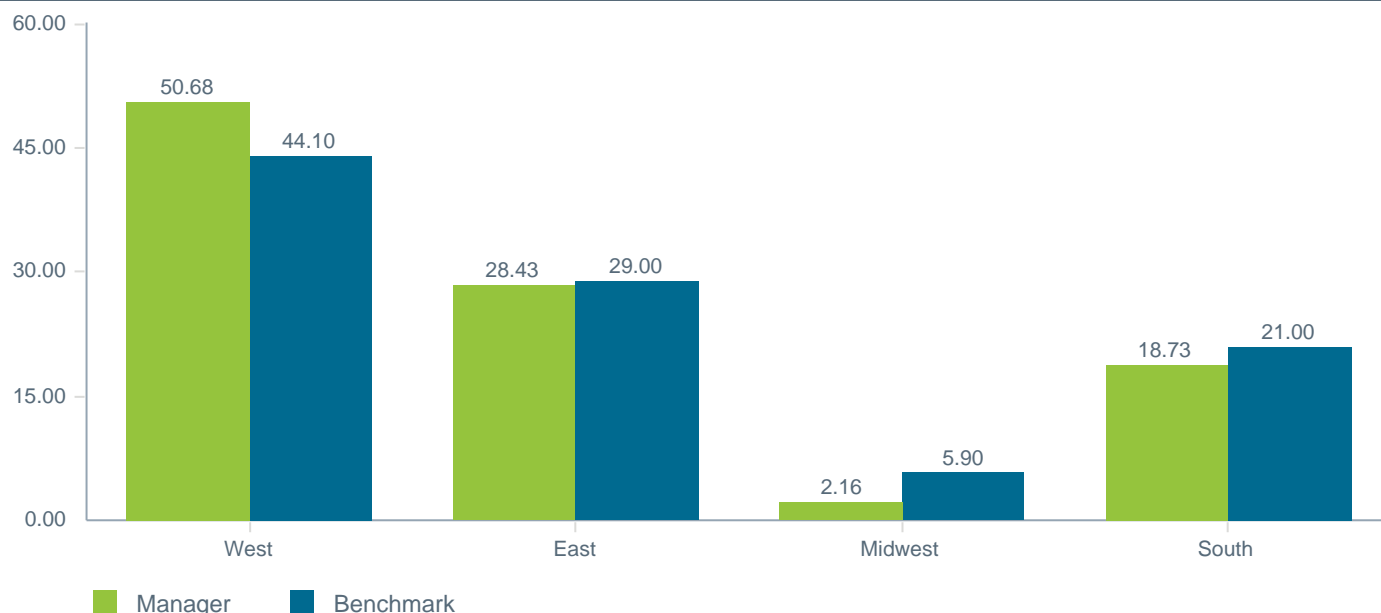
**Investment Profile**

Fund Inception	2000
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	20,780
Fund Leverage %	25.30
Portfolio Occupancy %	92.02
Cash Reserve %	2.60
Number of Investments	183
Number of Limited Partners	570

**Property Type Allocation (%)**



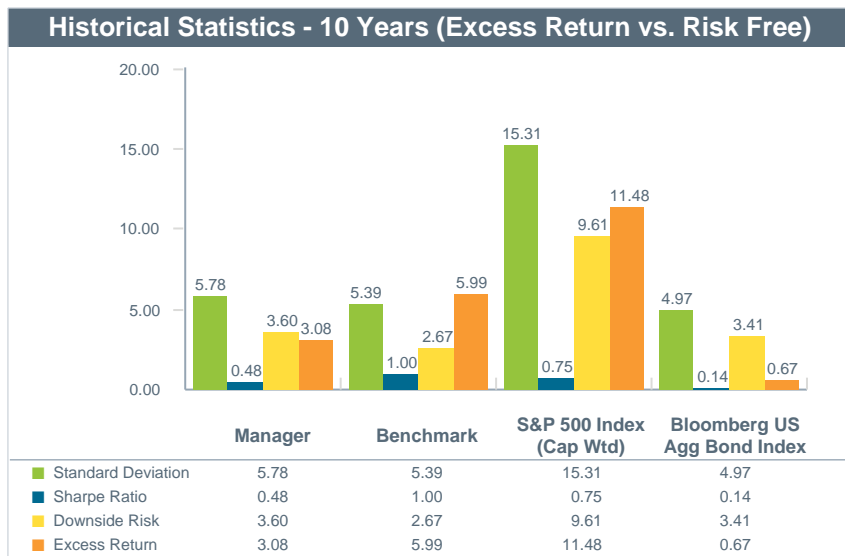
**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of life science and self-storage. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

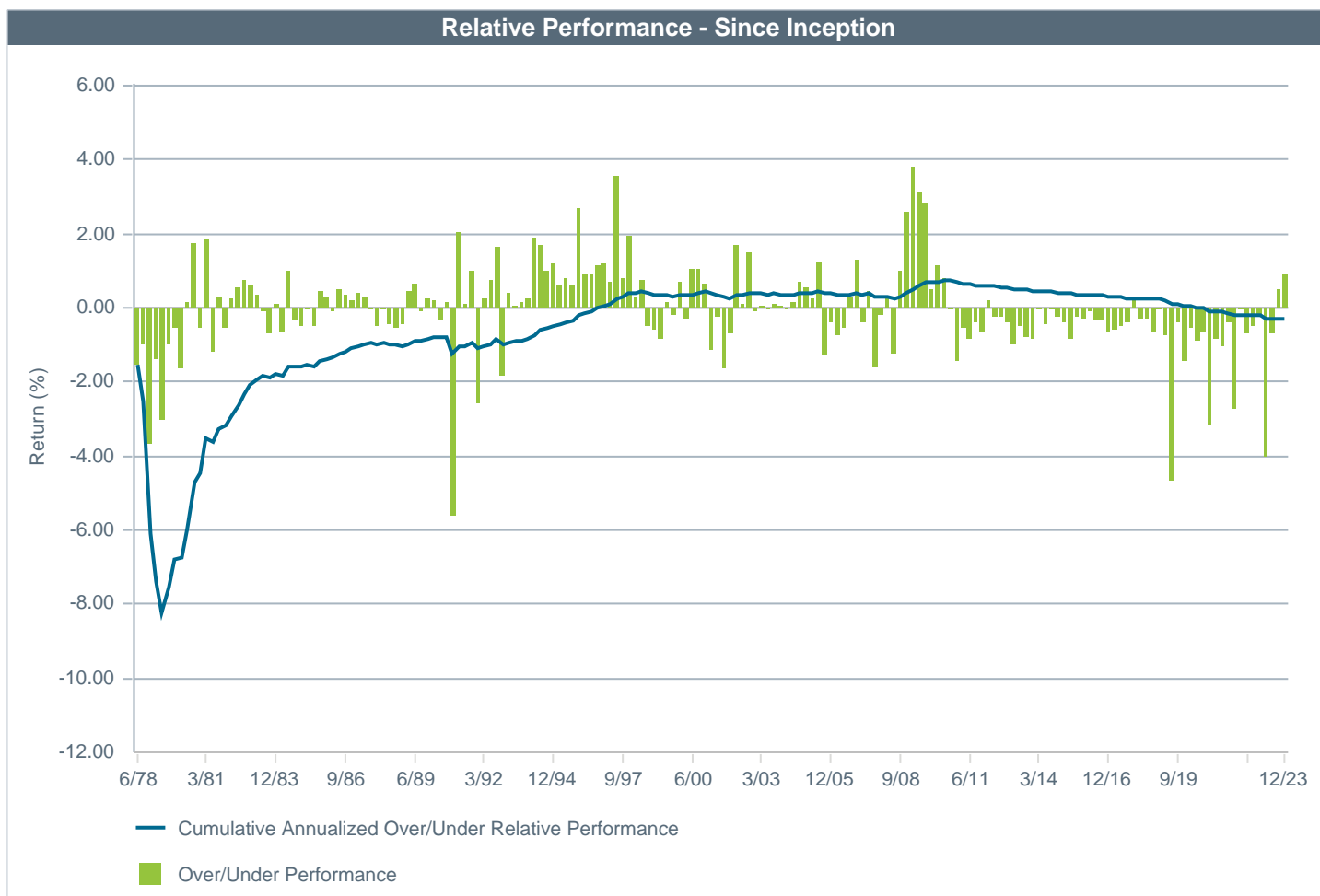


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-4.00	-15.00	1.53	-0.34	1.61	4.22	5.91	16.24	-4.04	-2.10	6.99
Benchmark	-4.83	-12.02	4.92	4.25	5.30	7.29	7.47	22.17	1.19	5.34	8.35
Difference	0.83	-2.98	-3.39	-4.59	-3.69	-3.07	-1.56	-5.93	-5.23	-7.44	-1.36



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.93
S&P 500 Index (Cap Wtd)	-0.35
Russell 2000 Index	-0.35
MSCI EAFE Index (USD) (Net)	-0.46
MSCI Emg Mkts Index (USD) (Net)	-0.39
Bloomberg US Agg Bond Index	-0.41
Bloomberg US Trsy US TIPS Index	-0.32
Wilshire US REIT Index	-0.10
HFRI FOF Comp Index	-0.34
Bloomberg Comdty Index (TR)	0.12
ICE BofAML 3 Mo US T-Bill Index	-0.71
Cons Price Index (Unadjusted)	0.24



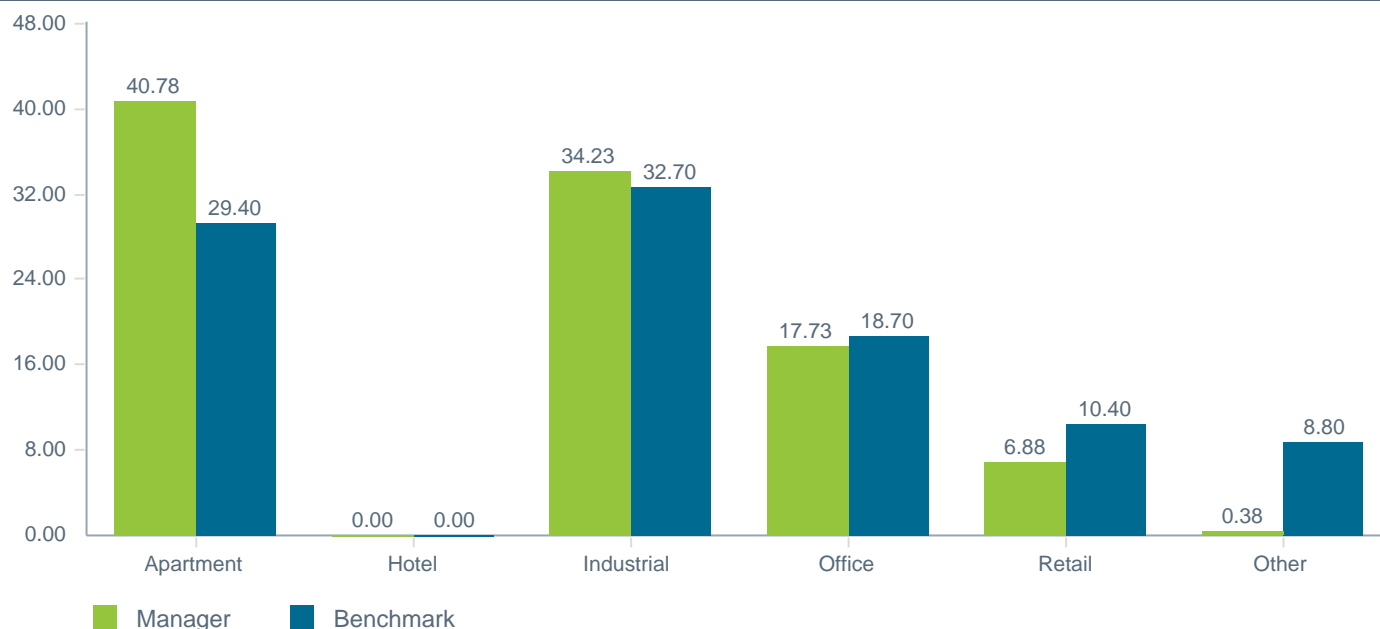
**Investment Strategy**

The Fund pursues a diversified core real estate strategy that seeks to produce attractive risk-adjusted returns by focusing on selective acquisitions, diversification, active portfolio management, and asset management. The Fund invests in well-leased, stabilized assets in major US metropolitan markets and receives the majority of its return from the income component. Diversification for the Fund is consistently pursued on many levels, including geographic region, property type, and economic sector. The Fund has historically maintained a leverage ratio significantly lower than the NCREIF ODCE Index and invests 5-15% of its gross assets in value-added type real estate investment opportunities.

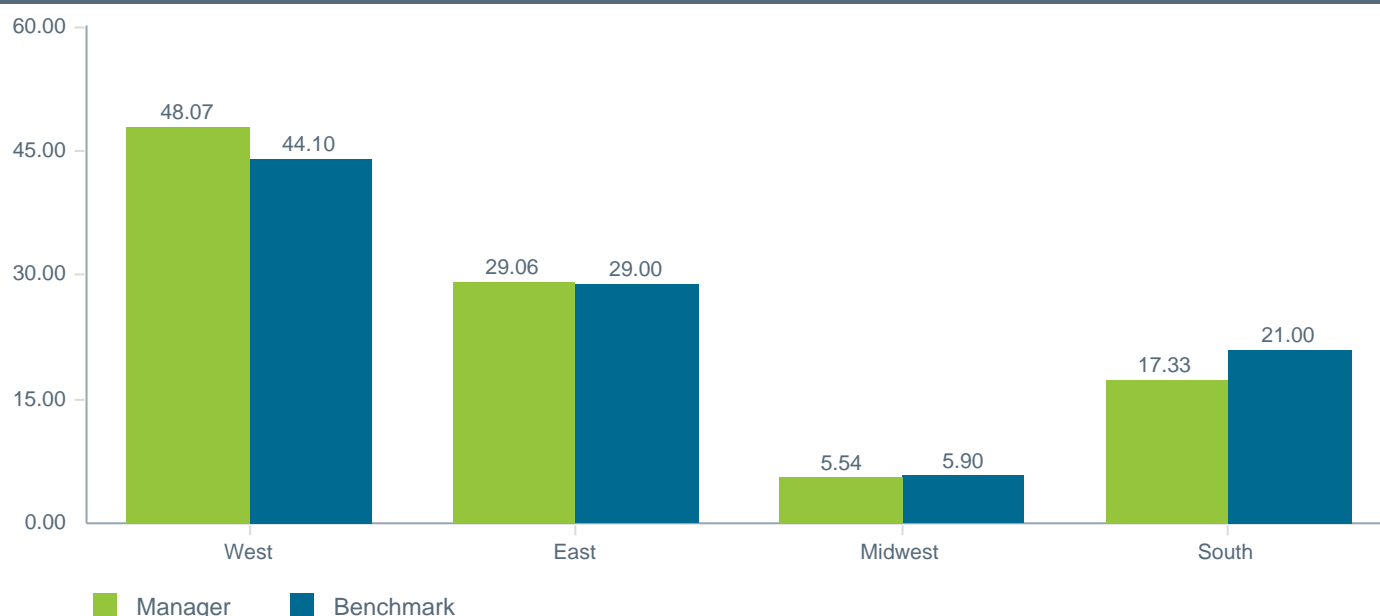
**Investment Profile**

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	14,569
Fund Leverage %	20.50
Portfolio Occupancy %	93.00
Cash Reserve %	1.40
Number of Investments	132
Number of Limited Partners	436

**Property Type Allocation (%)**



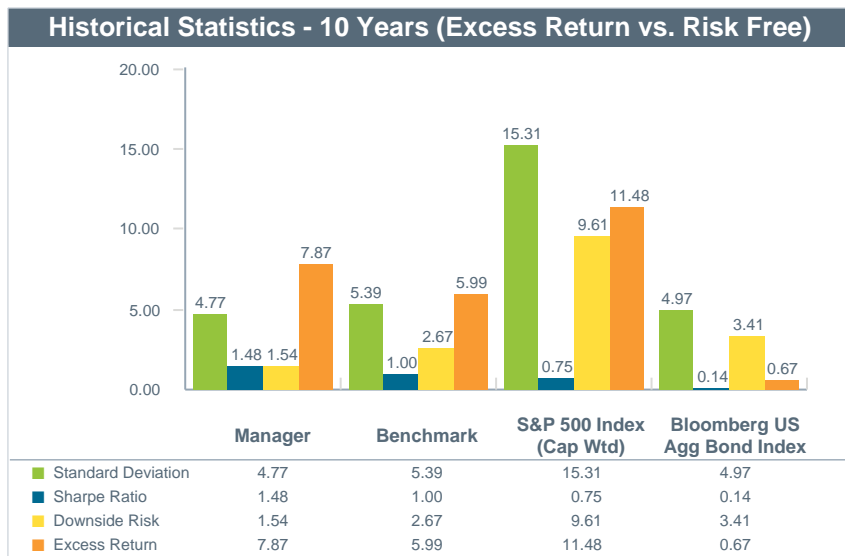
**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

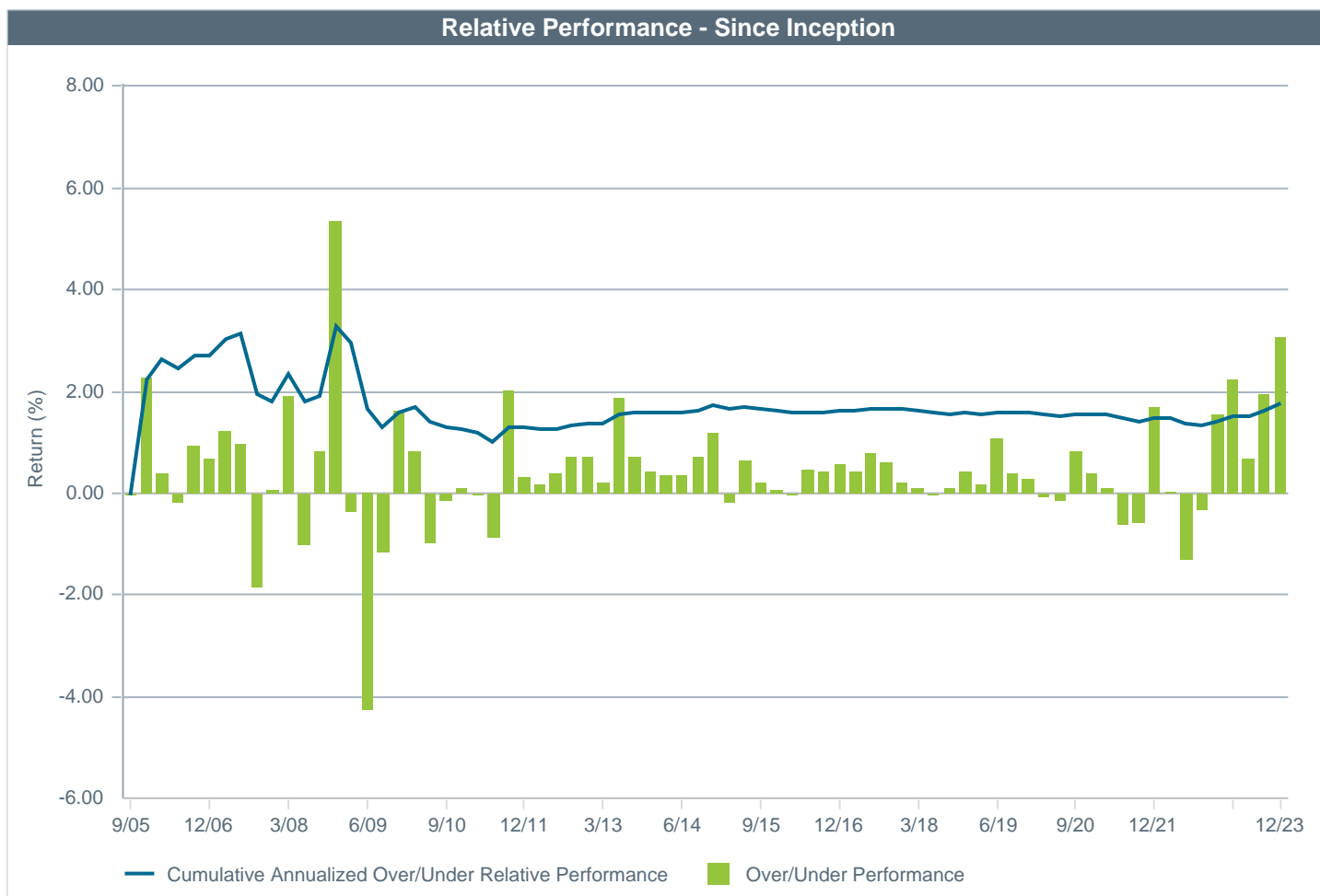


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-1.90	-4.80	7.89	6.63	7.42	9.32	7.38	22.87	2.18	7.40	8.99
Benchmark	-4.83	-12.02	4.92	4.25	5.30	7.29	7.47	22.17	1.19	5.34	8.35
Difference	2.93	7.22	2.97	2.38	2.12	2.03	-0.09	0.70	0.99	2.06	0.64



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.96
S&P 500 Index (Cap Wtd)	-0.20
Russell 2000 Index	-0.25
MSCI EAFE Index (USD) (Net)	-0.32
MSCI Emg Mkts Index (USD) (Net)	-0.31
Bloomberg US Agg Bond Index	-0.32
Bloomberg US Trsy US TIPS Index	-0.19
Wilshire US REIT Index	0.04
HFRI FOF Comp Index	-0.25
Bloomberg Cmdb Index (TR)	0.13
ICE BofA 3 Mo US T-Bill Index	-0.67
Cons Price Index (Unadjusted)	0.28



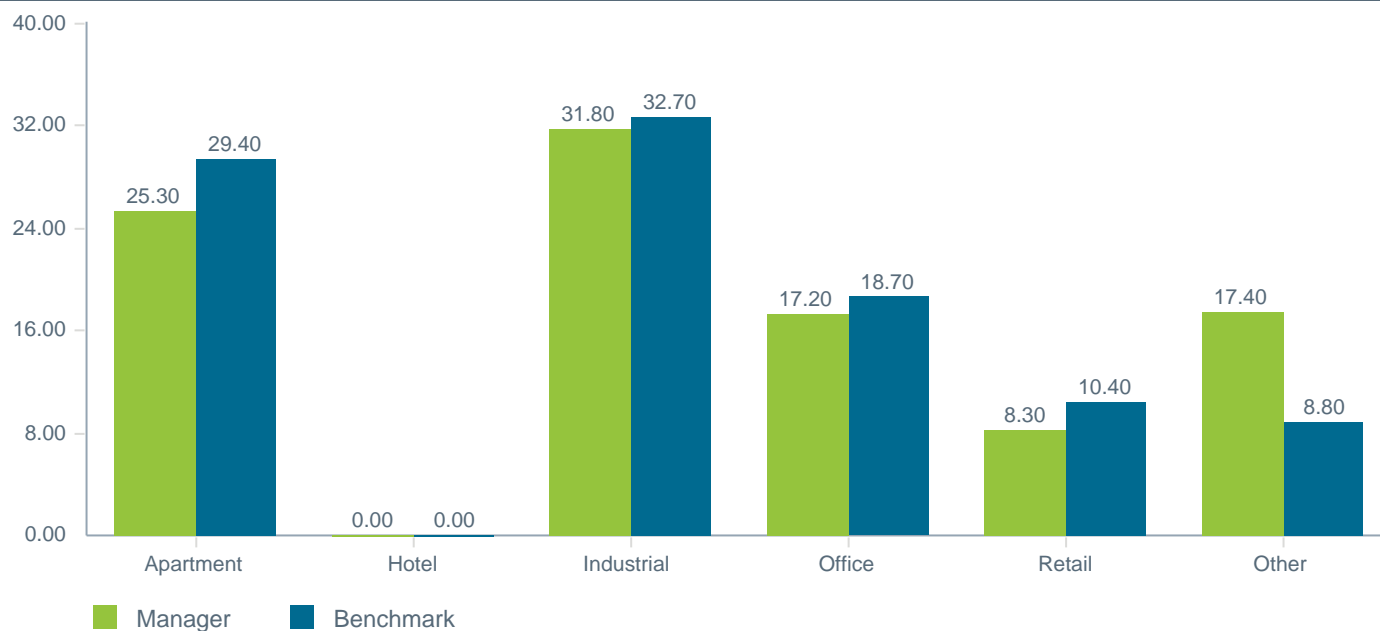
**Investment Strategy**

The Fund pursues a diversified core real estate strategy that invests in assets with stable, highly predictable cash flow returns. The Fund targets high quality office, Class A multifamily, warehouse distribution, and top-tier super regional malls in addition to storage facilities in targeted primary markets. The Fund favors investing in major metropolitan markets and secondary markets expected to achieve above-average economic performance and believes that those cities offer better liquidity, more diverse tenant bases, and stronger resilience to market cycles. It operates with leverage of 50% or less and may invest up to 15% of its gross assets in higher-risk, value-added real estate investment opportunities.

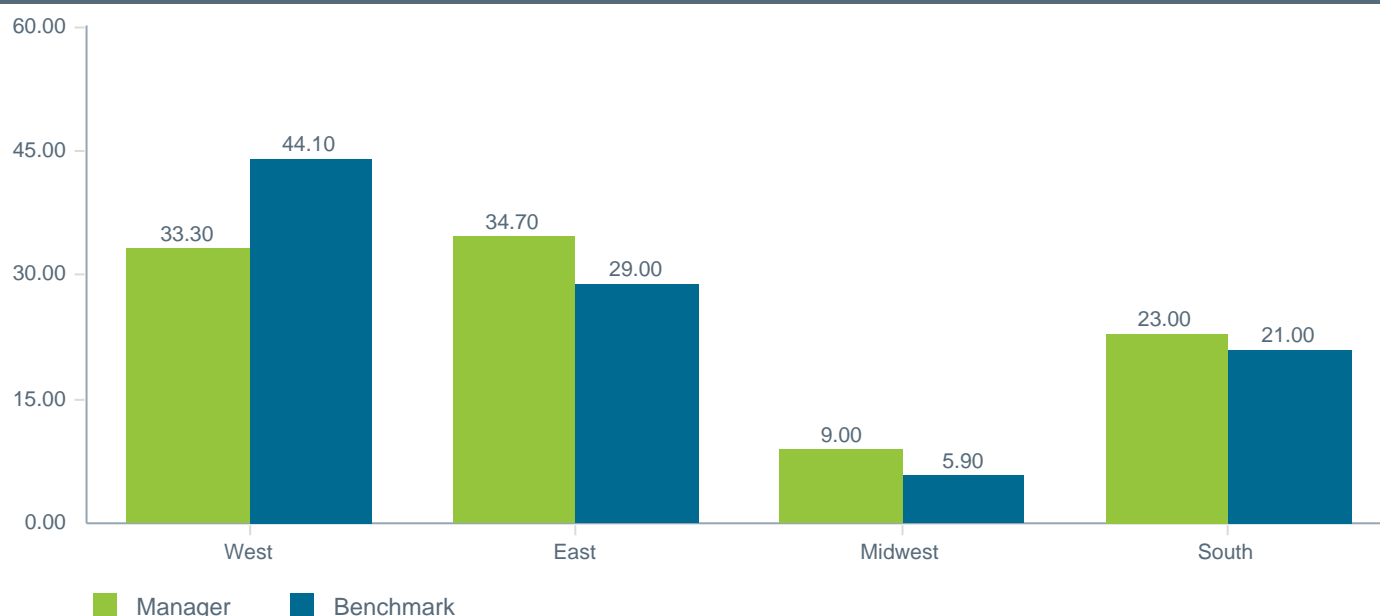
**Investment Profile**

Fund Inception	1973
Legal Structure	LLC
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	42,360
Fund Leverage %	22.90
Portfolio Occupancy %	92.50
Cash Reserve %	0.10
Number of Investments	540
Number of Limited Partners	467

**Property Type Allocation (%)**



**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage, healthcare, student housing, and land held for potential development. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.



**Investment Strategy**

The Fund's investment objectives are to generate superior absolute and risk adjusted rates of return with low performance volatility and low correlation with the global equity and fixed-income markets over a full market cycle. The Fund is also designed to preserve capital in challenging market environments. It does this through investment in a diversified pool of hedge fund strategies.

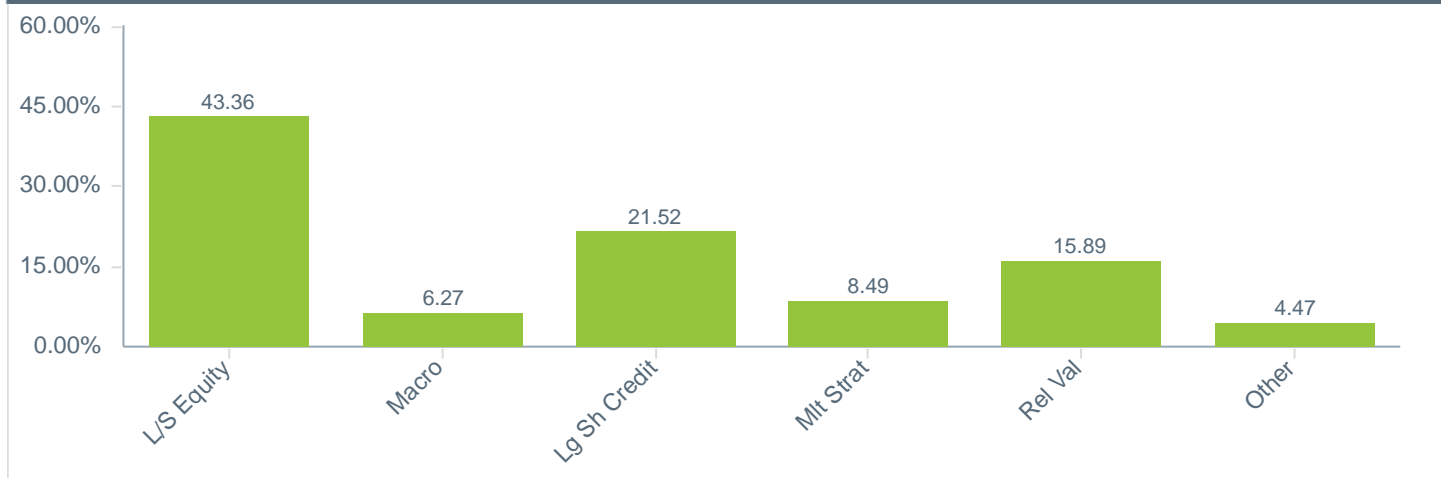
**Firm Statistics**

Year Firm Established	1971
Firm AUM (\$M) (\$)	23,707
Percentage Employee Owned %	78.00

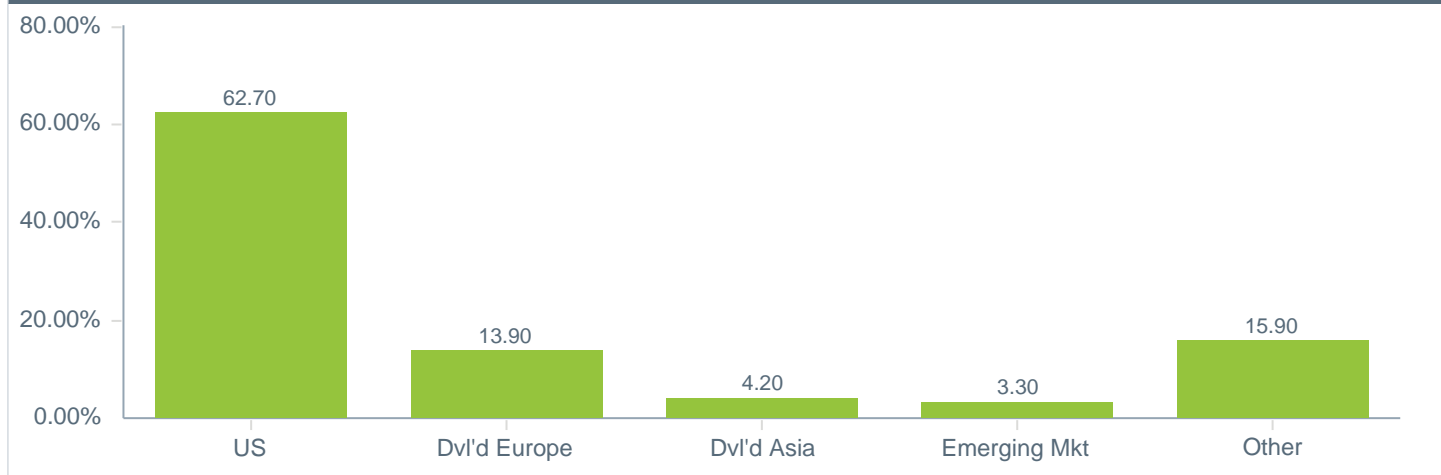
**Fund Statistics**

Fund Inception	2018
Fund Size(\$M) (\$)	490
Number of Underlying Managers	25
Maximum Weighting of an Underlying Manager %	9.63
Current Leverage (Assets/Equity)	3.10
Annual Manager Turnover %	N/A
Annual Management Fee %	.6
Performance Fee %	5
Hurdle %	T-bills+2%
Initial Lock-Up Periods	N/A
Redemption Frequency	N/A
Notification Period	N/A

**Strategy Allocation (%)**



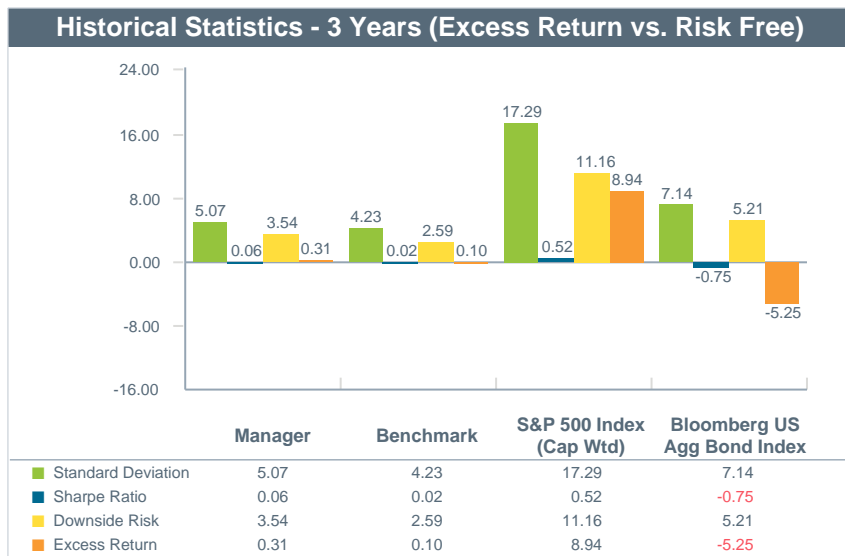
**Geographic Allocation (%)**



Strategy allocation to other consists of cash, expenses, management fees, and net receivable. Geographic allocation to other consists of cash or funds where geographic data are unavailable. Fund statistics shown are provided by the investment manager and are as of the most recently available quarter end.

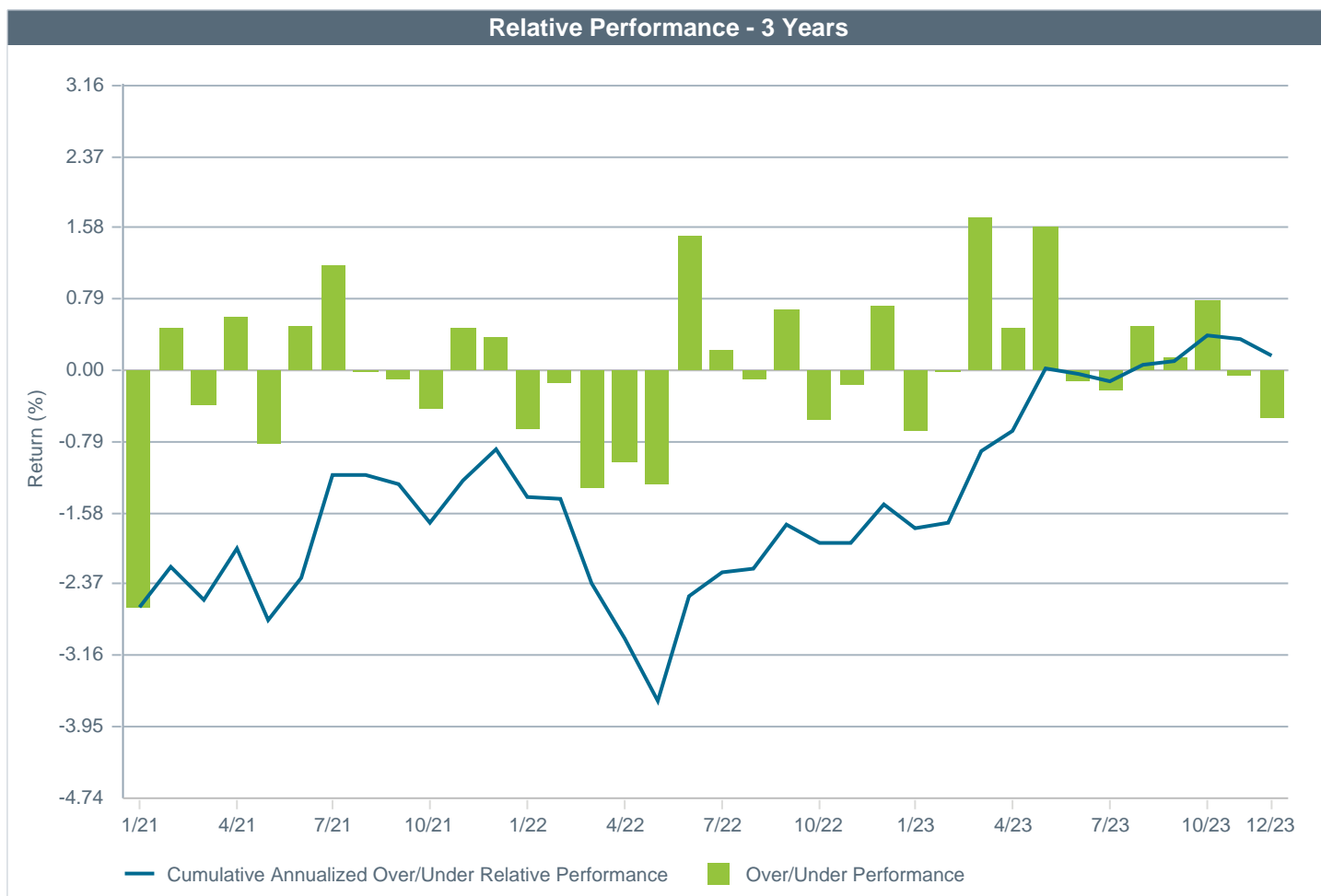


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	3.35	9.87	2.34	4.44	N/A	N/A	-7.31	5.25	9.70	5.67	N/A
Benchmark	3.15	6.07	2.17	5.09	4.11	3.23	-5.31	6.17	10.88	8.39	-4.02
Difference	0.20	3.80	0.17	-0.65	N/A	N/A	-2.00	-0.92	-1.18	-2.72	N/A



### Actual Correlation - 3 Years

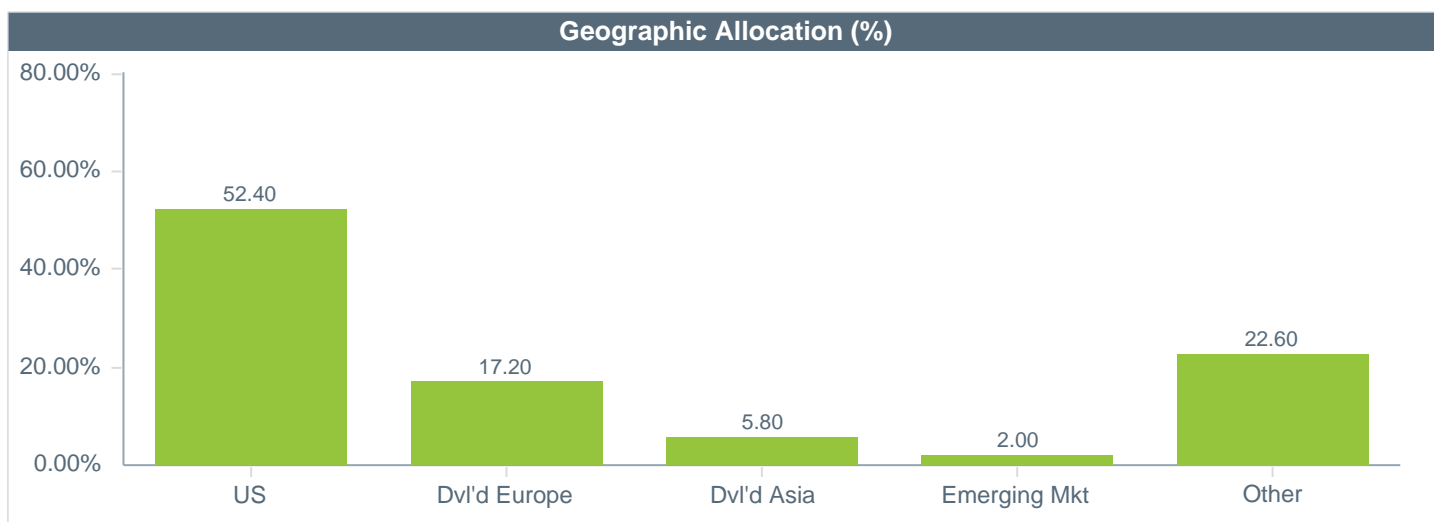
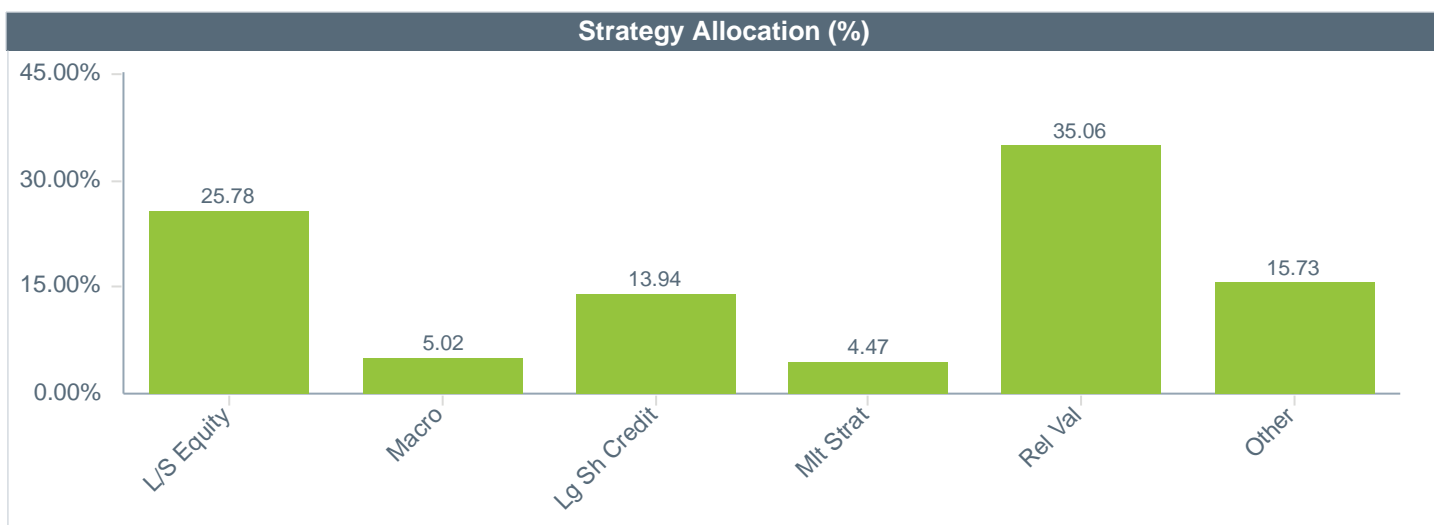
	Actual Correlation
HFRI FOF Comp Index	0.90
S&P 500 Index (Cap Wtd)	0.78
Russell 2000 Index	0.69
MSCI EAFE Index (USD) (Net)	0.68
MSCI Emg Mkts Index (USD) (Net)	0.63
Bloomberg US Agg Bond Index	0.75
Bloomberg US Trsy US TIPS Index	0.70
NCREIF ODCE Index (AWA) (Gross)	-0.54
Wilshire US REIT Index	0.63
Bloomberg Cmnty Index (TR)	-0.34
ICE BofAML 3 Mo US T-Bill Index	0.50
Cons Price Index (Unadjusted)	-0.65



Performance shown is net of fees and client specific. Calculation is based on quarterly periodicity.

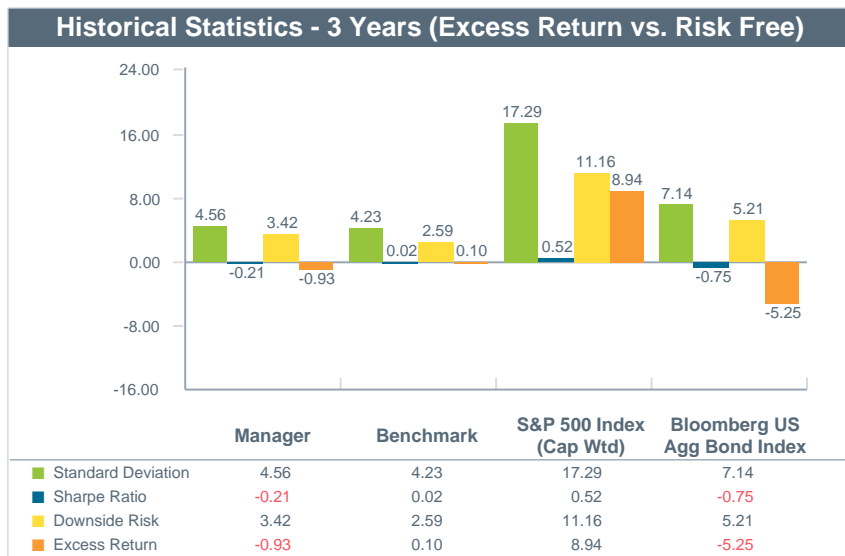


Investment Strategy	Firm Statistics	
Silvery Lupine Fund Class C is a direct hedge funds portfolio managed by the Wyoming State Treasurer's Office.	Year Firm Established	1971
	Firm AUM (\$M) (\$)	23,707
	Percentage Employee Owned %	78.00
	Fund Statistics	
	Fund Inception	2018
	Fund Size(\$M) (\$)	727
	Number of Underlying Managers	24
	Maximum Weighting of an Underlying Manager %	11.02
	Current Leverage (Assets/Equity)	3.50
	Annual Manager Turnover %	N/A
	Annual Management Fee %	0
	Performance Fee %	N/A
	Hurdle %	N/A
	Initial Lock-Up Periods	N/A
	Redemption Frequency	N/A
	Notification Period	N/A



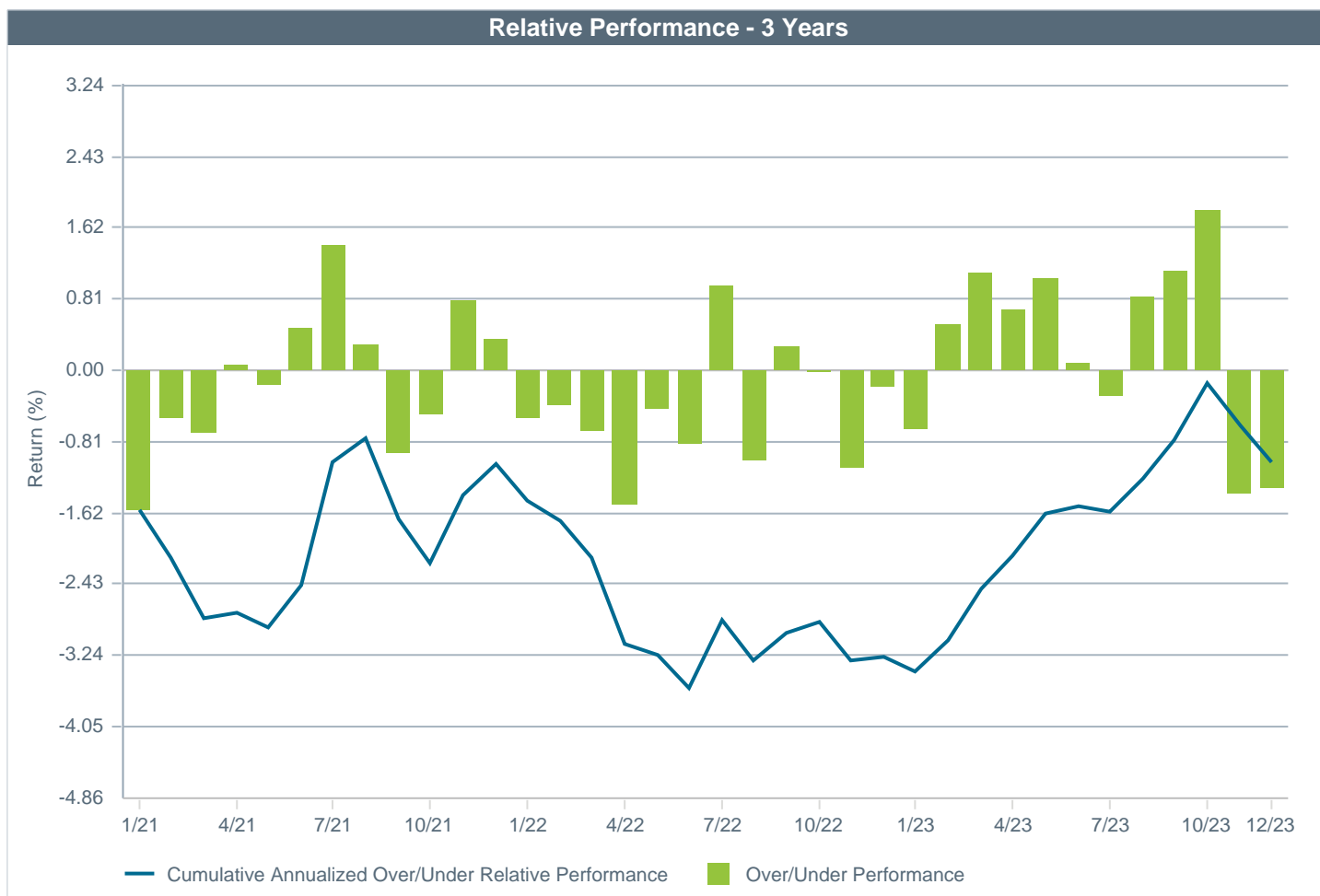
Strategy allocation to other consists of cash, expenses, and net receivable. Geographic allocation to other consists of cash or funds where geographic data are unavailable. Fund statistics shown are provided by GCM and are as of the most recently available quarter end.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.18	9.80	1.10	3.01	N/A	N/A	-10.41	5.05	5.83	6.08	N/A
Benchmark	3.15	6.07	2.17	5.09	4.11	3.23	-5.31	6.17	10.88	8.39	-4.02
Difference	-0.97	3.73	-1.07	-2.08	N/A	N/A	-5.10	-1.12	-5.05	-2.31	N/A



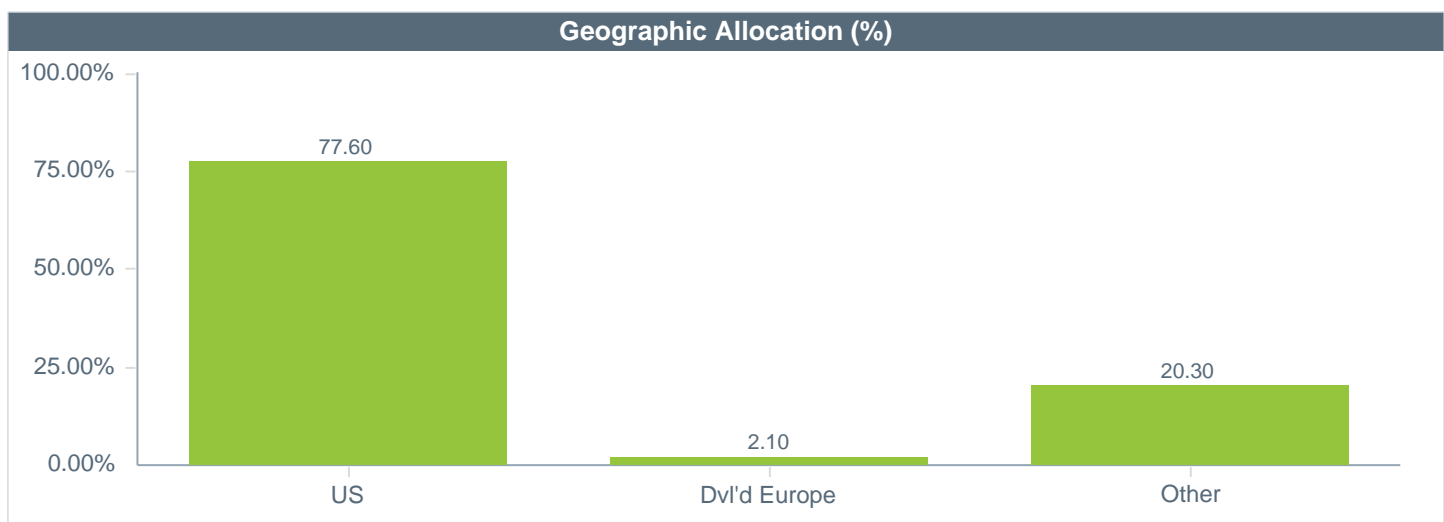
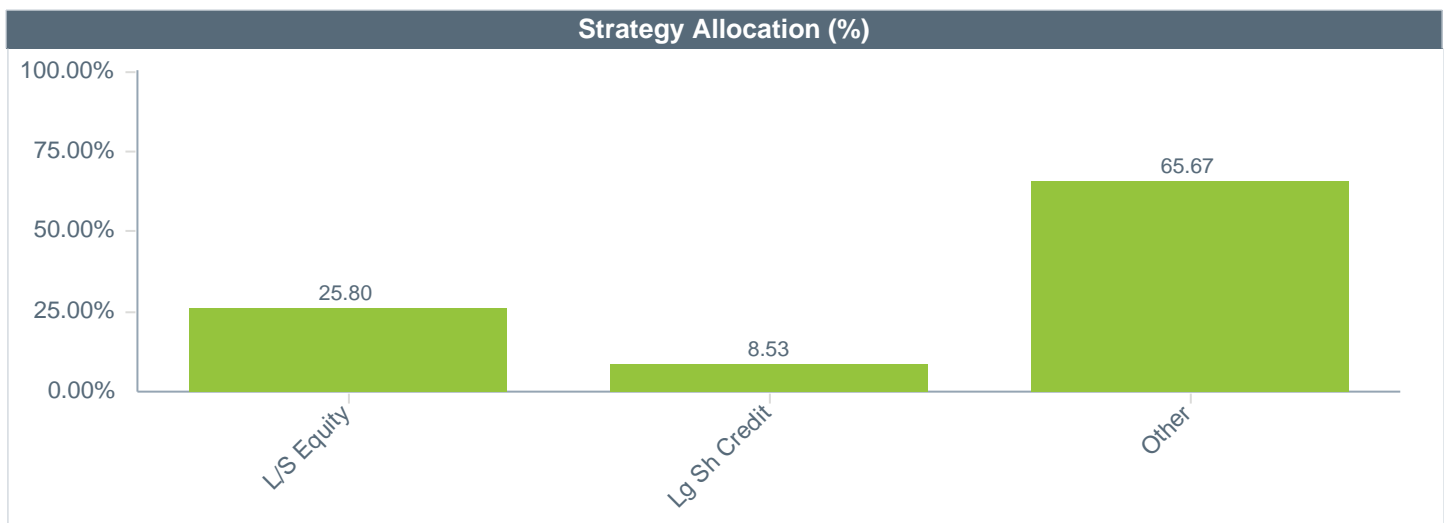
### Actual Correlation - 3 Years

	Actual Correlation
HFRI FOF Comp Index	0.86
S&P 500 Index (Cap Wtd)	0.77
Russell 2000 Index	0.64
MSCI EAFE Index (USD) (Net)	0.61
MSCI Emg Mkts Index (USD) (Net)	0.57
Bloomberg US Agg Bond Index	0.64
Bloomberg US Trsy US TIPS Index	0.66
NCREIF ODCE Index (AWA) (Gross)	-0.44
Wilshire US REIT Index	0.63
Bloomberg Cmnty Index (TR)	-0.18
ICE BofAML 3 Mo US T-Bill Index	0.48
Cons Price Index (Unadjusted)	-0.55



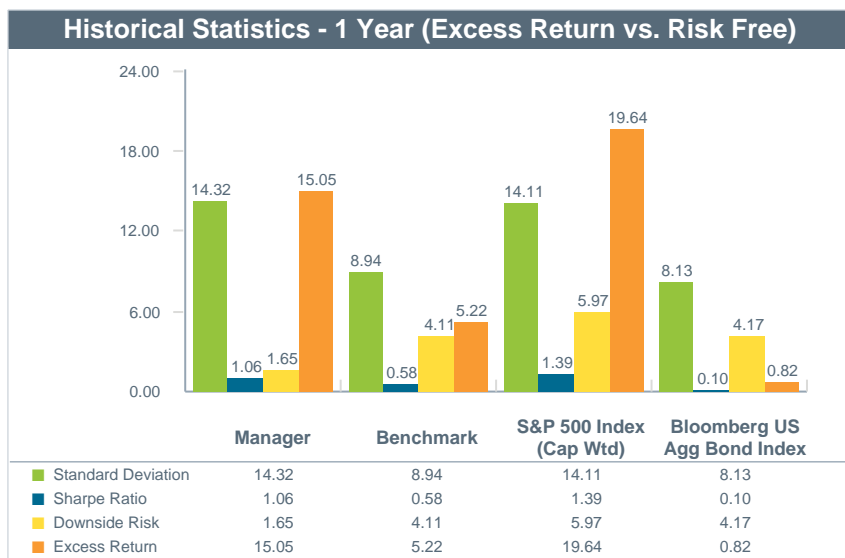
Performance shown is net of fees and client specific. Calculation is based on quarterly periodicity.

Investment Strategy	Firm Statistics	
Grosvenor Silvery Lupine Fund Class D is the opportunistic investment portfolio of the State Treasurer's Office.	Year Firm Established	1971
	Firm AUM (\$M) (\$)	23,707
	Percentage Employee Owned %	78.00
	Fund Statistics	
	Fund Inception	2020
	Fund Size(\$M) (\$)	122
	Number of Underlying Managers	3
	Maximum Weighting of an Underlying Manager %	N/A
	Current Leverage (Assets/Equity)	1.20
	Annual Manager Turnover %	N/A
	Annual Management Fee %	0.30
	Performance Fee %	10
	Hurdle %	custom
	Initial Lock-Up Periods	N/A
	Redemption Frequency	N/A
	Notification Period	N/A



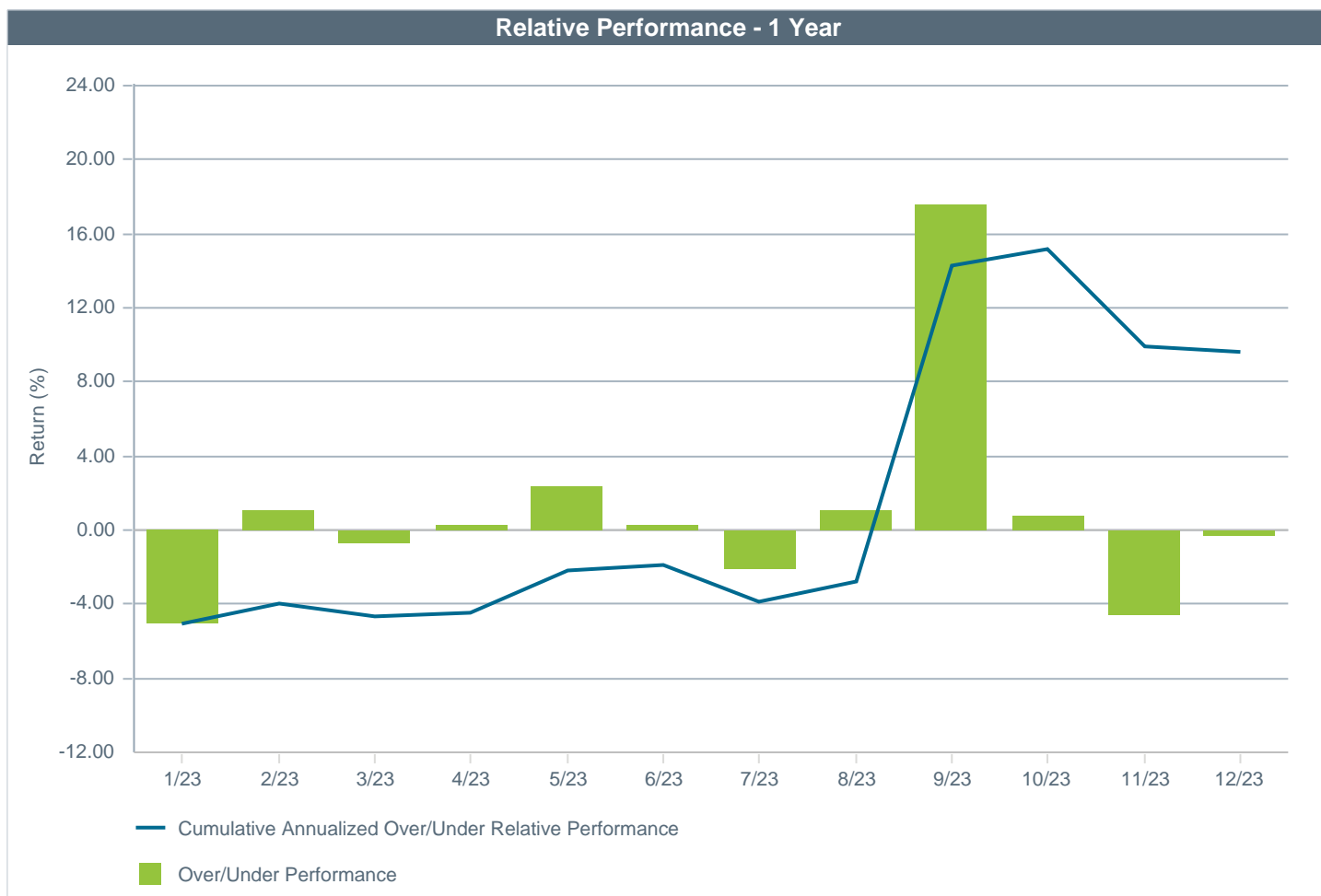
Strategy allocation to other consists of cash, expenses, fees, SPV, and net receivable. Geographic allocation to other consists of cash or funds where geographic data are unavailable. Fund statistics shown are provided by GCM and are as of the most recently available quarter end.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.29	20.75	6.91	N/A	N/A	N/A	-22.26	30.17	N/A	N/A	N/A
Benchmark	6.62	10.17	3.32	N/A	N/A	N/A	-8.44	9.35	N/A	N/A	N/A
Difference	-4.33	10.58	3.59	N/A	N/A	N/A	-13.82	20.82	N/A	N/A	N/A



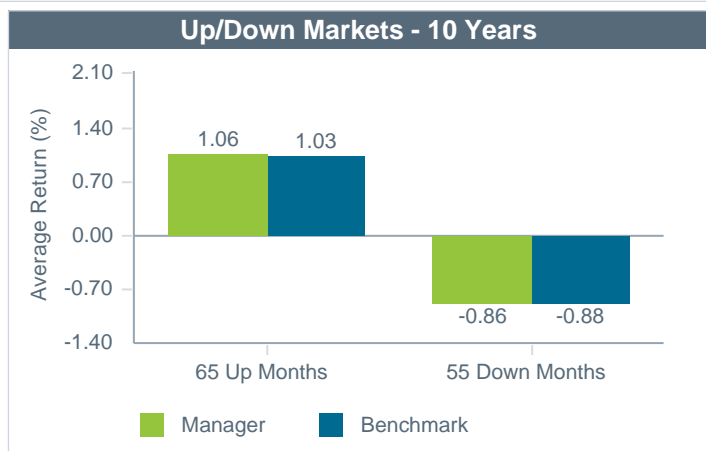
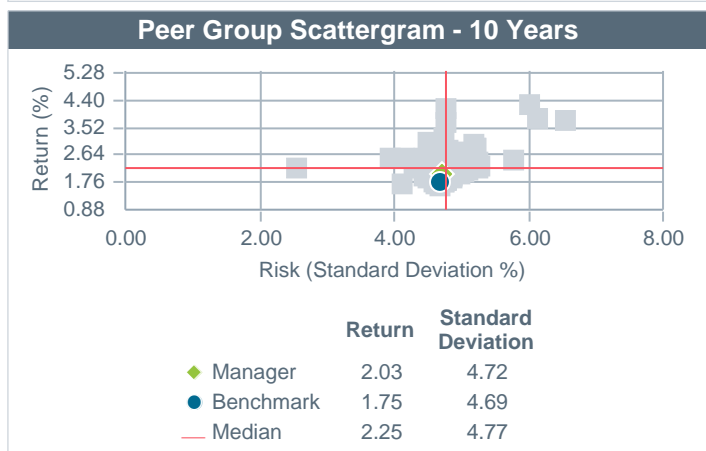
### Actual Correlation - 1 Year

	Actual Correlation
Grosvenor Class D Custom Benchmark	-0.25
S&P 500 Index (Cap Wtd)	-0.36
Russell 2000 Index	-0.16
MSCI EAFE Index (USD) (Net)	-0.20
MSCI Emg Mkts Index (USD) (Net)	-0.11
Bloomberg US Agg Bond Index	-0.28
Bloomberg US Trsy US TIPS Index	-0.32
Wilshire US REIT Index	-0.24
Bloomberg Cmnty Index (TR)	0.01
ICE BofAML 3 Mo US T-Bill Index	0.35
Cons Price Index (Unadjusted)	-0.13



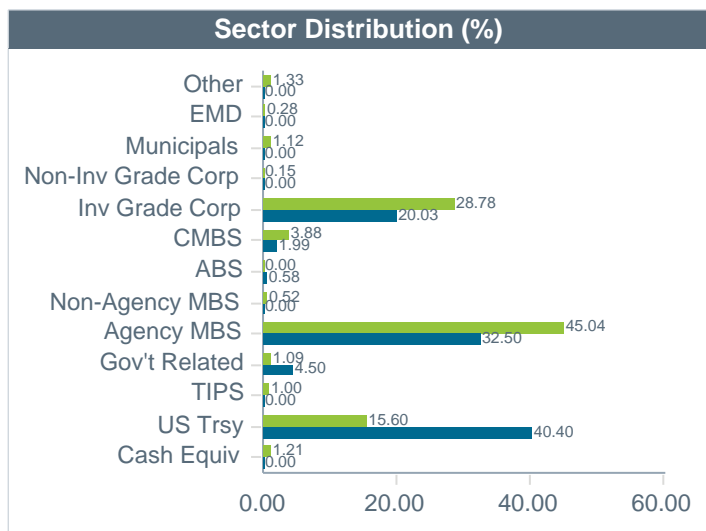
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	6.45	6.31	-3.31	1.19	1.53	2.03	-13.56	-1.62	8.93	7.71	0.58
Benchmark	6.82	5.53	-3.35	0.93	1.21	1.75	-13.03	-1.63	8.14	7.30	0.32
Difference	-0.37	0.78	0.04	0.26	0.32	0.28	-0.53	0.01	0.79	0.41	0.26
Peer Group Median	6.82	5.99	-2.98	1.65	1.76	2.25	-12.95	-1.24	8.36	9.17	0.06
Rank	89	35	79	83	72	74	83	80	33	95	14
Population	138	137	137	135	132	127	146	152	160	162	169



### Portfolio Characteristics

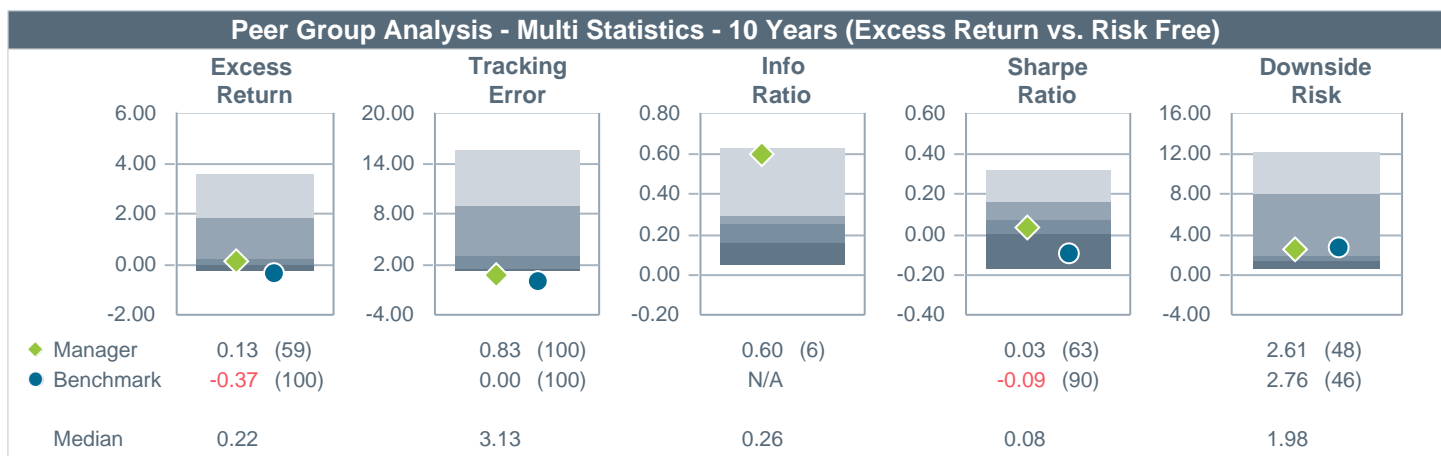
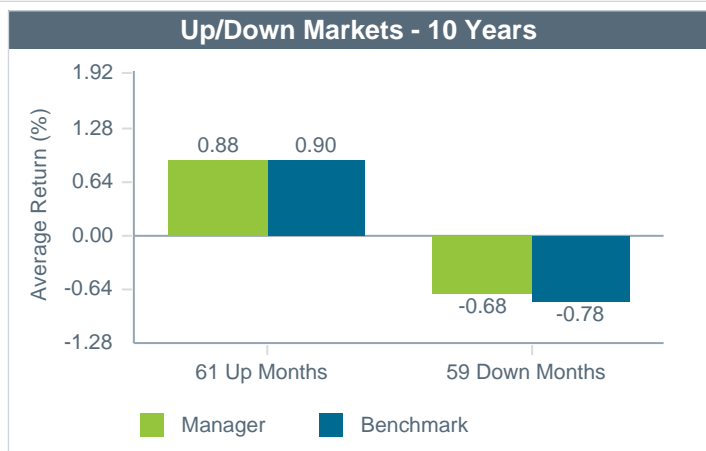
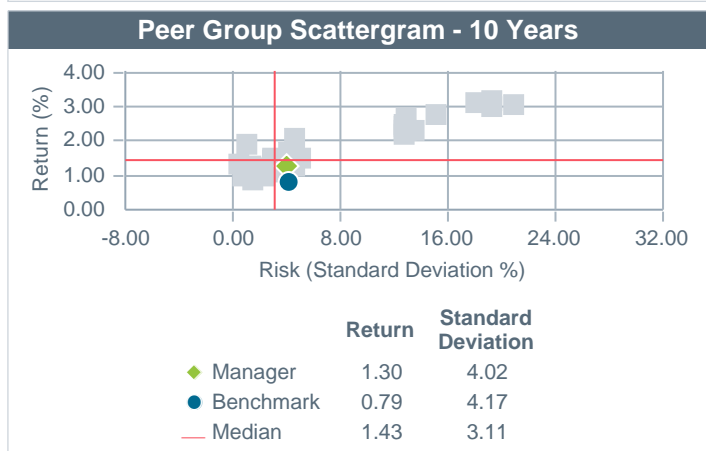
	Portfolio	Benchmark
Effective Duration	6.17	4.47
Spread Duration	4.47	4.41
Avg. Maturity	8.29	5.31
Avg. Quality	Aa3	Aa2/Aa3
Yield To Maturity (%)	4.96	4.49
Coupon Rate (%)	3.94	2.96
Current Yield (%)	4.27	N/A
Holdings Count	379	9,949



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Sector allocation to "Other" consists of Euro/Yankee securities.

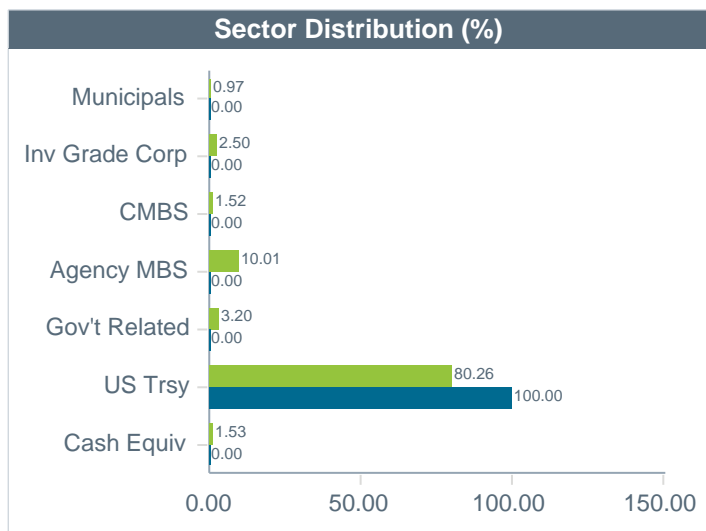


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	5.54	4.40	-3.48	0.28	0.72	1.30	-11.74	-2.40	7.85	4.53	1.85
Benchmark	5.66	4.05	-3.82	0.12	0.45	0.79	-12.46	-2.32	8.00	4.70	1.43
Difference	-0.12	0.35	0.34	0.16	0.27	0.51	0.72	-0.08	-0.15	-0.17	0.42
Peer Group Median	5.63	4.26	-2.83	0.75	0.99	1.43	-9.69	-1.79	6.20	5.35	1.36
Rank	51	39	54	60	62	61	55	59	43	68	11
Population	39	39	38	38	37	35	40	44	49	51	57



### Portfolio Characteristics

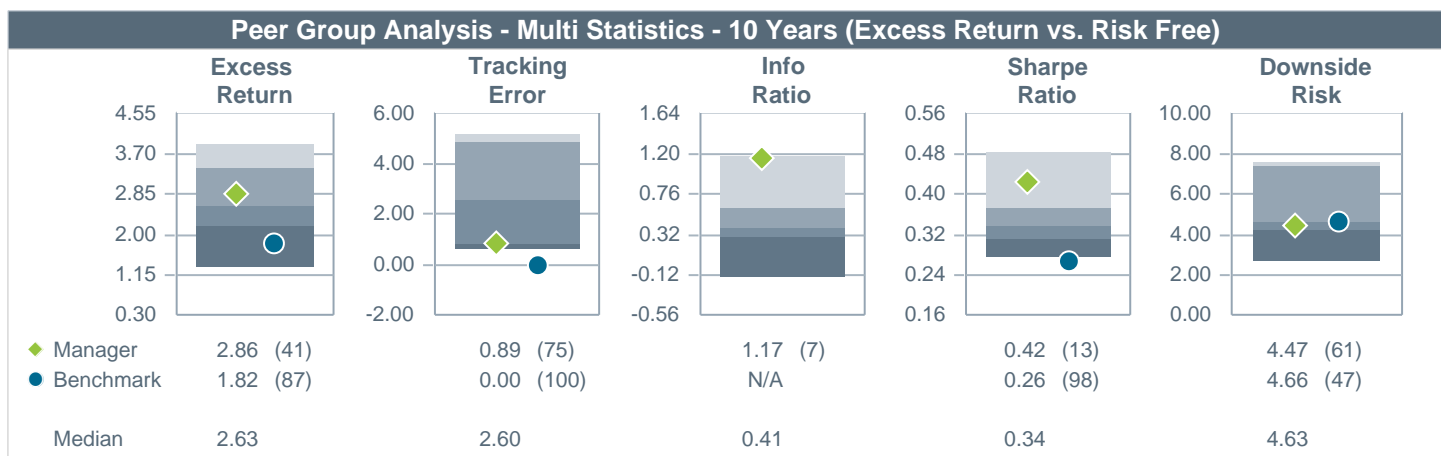
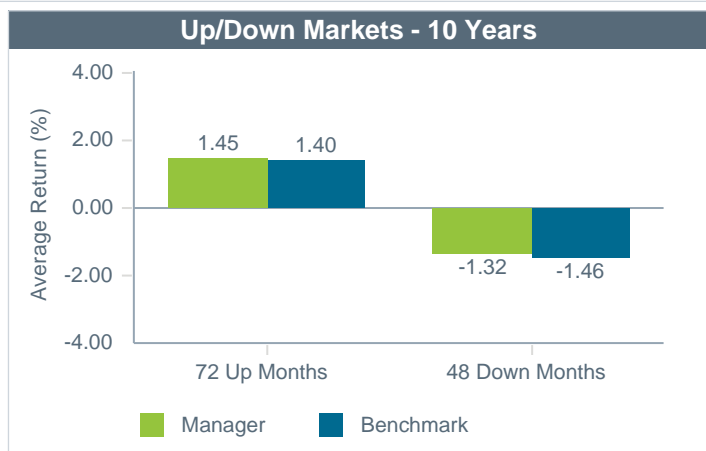
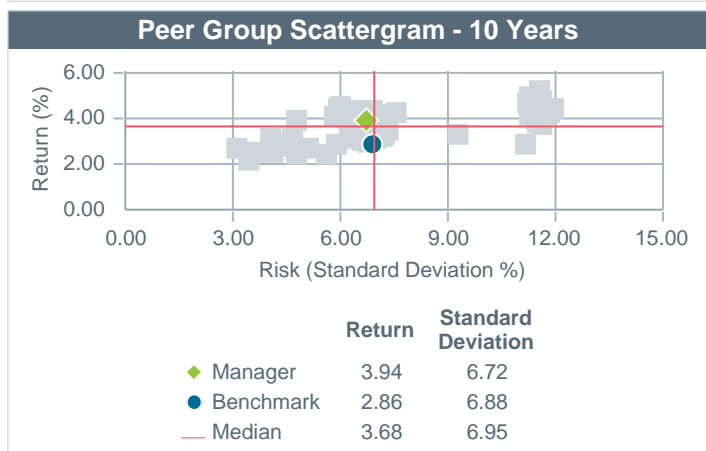
	Portfolio	Benchmark
Effective Duration	N/A	6.18
Spread Duration	N/A	6.15
Avg. Maturity	N/A	7.92
Avg. Quality	N/A	Aa1
Yield To Maturity (%)	N/A	4.08
Coupon Rate (%)	N/A	2.54
Current Yield (%)	N/A	N/A
Holdings Count	N/A	285



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. The Internal Intermediate Govt Fixed Income Portfolio Index consists of the Bloomberg US Treasury Index as of 12/1/2019. November 2019 performance consists of the Internal Intermediate Govt Fixed Income Portfolio. Prior to November 2019, the index consists of Bloomberg US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the Bloomberg US Gov't Crdt Bond Index.

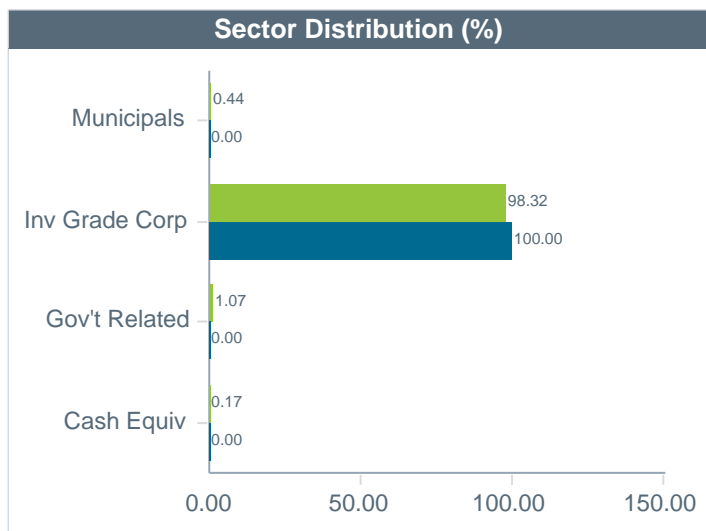


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	8.30	8.59	-3.26	2.81	2.93	3.94	-15.84	-0.94	10.37	14.96	-2.41
Benchmark	8.50	8.52	-3.29	2.45	2.28	2.86	-15.76	-1.04	8.94	14.54	-2.51
Difference	-0.20	0.07	0.03	0.36	0.65	1.08	-0.08	0.10	1.43	0.42	0.10
Peer Group Median	8.46	9.17	-3.01	3.19	2.91	3.68	-15.93	-0.53	11.27	15.08	-2.37
Rank	57	68	62	76	48	39	49	68	66	52	52
Population	114	114	114	112	105	93	125	133	141	143	146



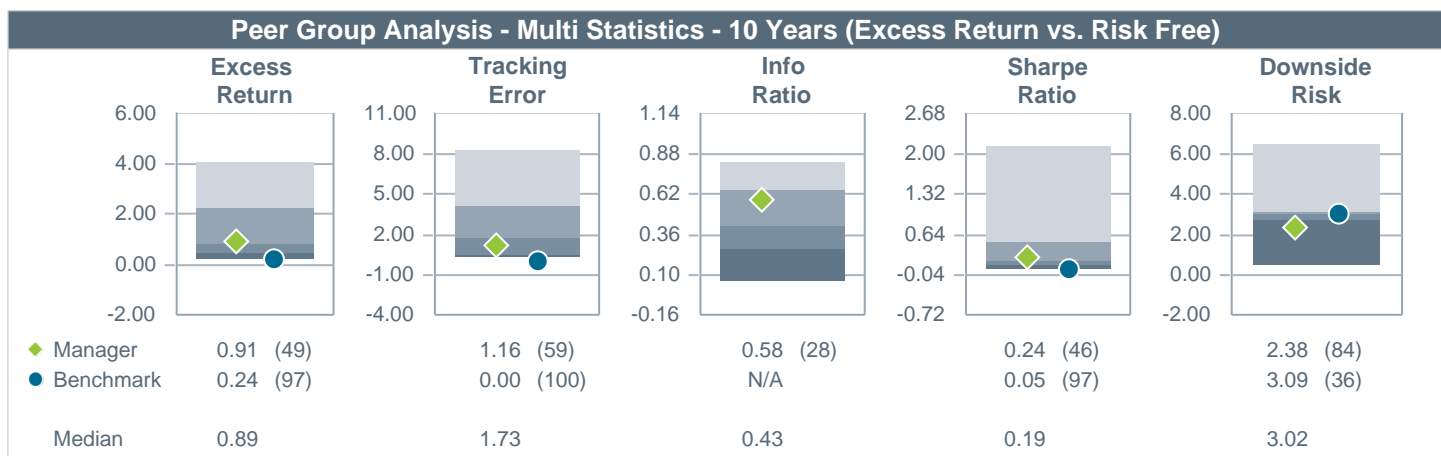
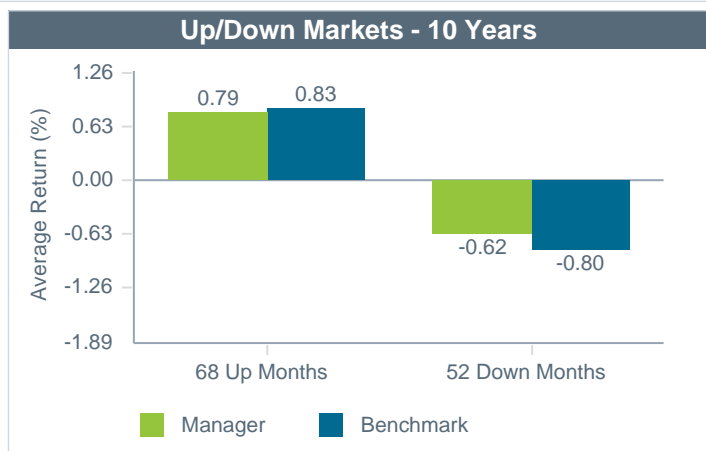
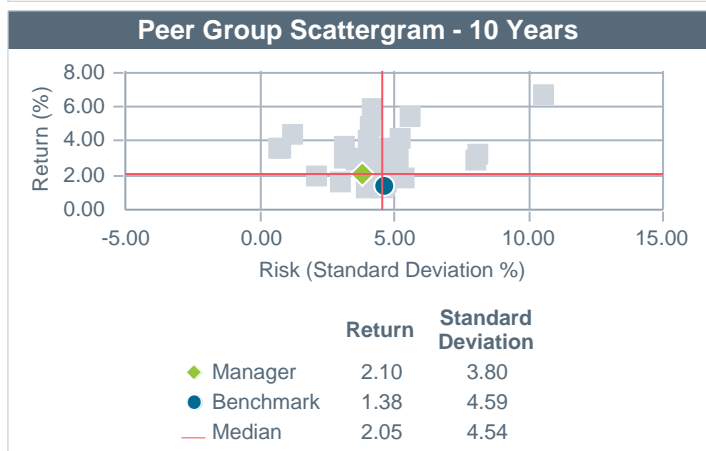
### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	7.09	7.09
Spread Duration	7.26	7.15
Avg. Maturity	10.98	10.82
Avg. Quality	A3	A3/Baa1
Yield To Maturity (%)	5.17	5.06
Coupon Rate (%)	4.39	4.04
Current Yield (%)	4.45	N/A
Holdings Count	283	7,756



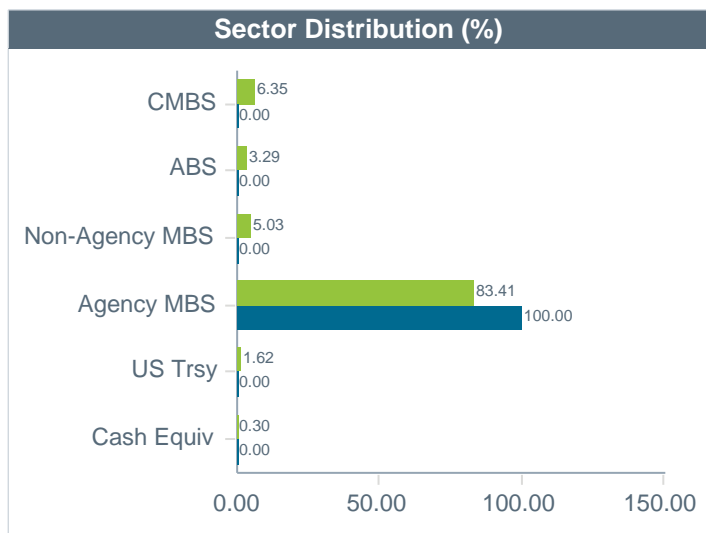
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	6.64	6.02	-1.54	1.45	1.56	2.10	-9.40	-0.62	5.73	6.48	1.00
Benchmark	7.48	5.05	-2.86	0.25	0.67	1.38	-11.81	-1.04	3.87	6.35	0.99
Difference	-0.84	0.97	1.32	1.20	0.89	0.72	2.41	0.42	1.86	0.13	0.01
Peer Group Median	6.66	5.69	-2.22	0.82	1.42	2.05	-11.12	-0.29	4.06	6.56	1.68
Rank	51	39	46	40	47	47	41	59	9	58	76
Population	52	52	51	50	48	45	54	57	60	60	61



### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.50	5.89
Spread Duration	5.42	5.58
Avg. Maturity	7.07	7.45
Avg. Quality	Aa3	Aa1
Yield To Maturity (%)	5.09	4.68
Coupon Rate (%)	3.15	3.06
Current Yield (%)	4.14	N/A
Holdings Count	612	938

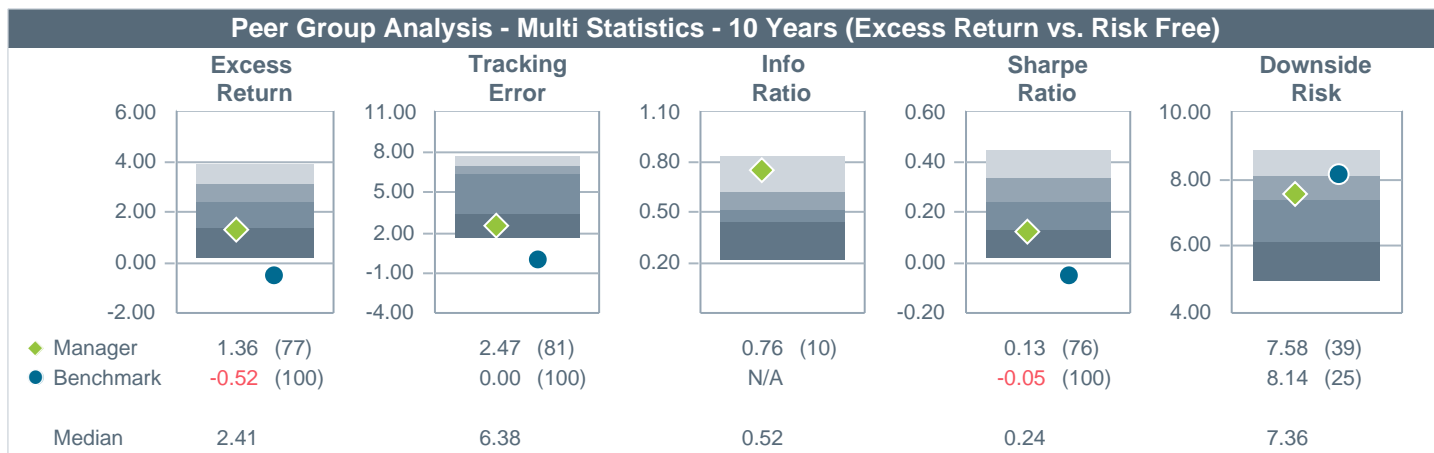
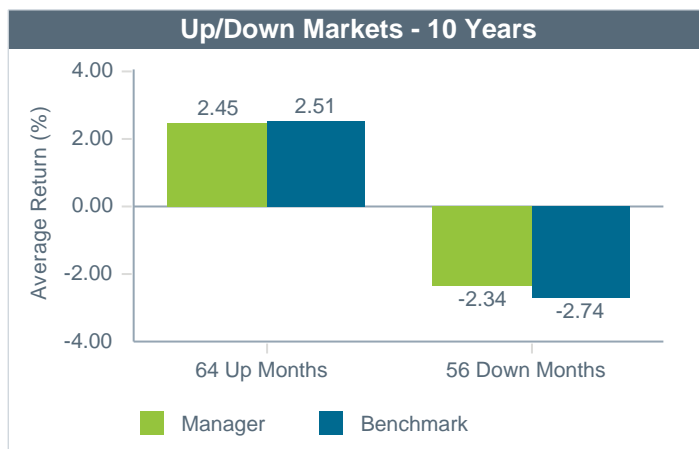
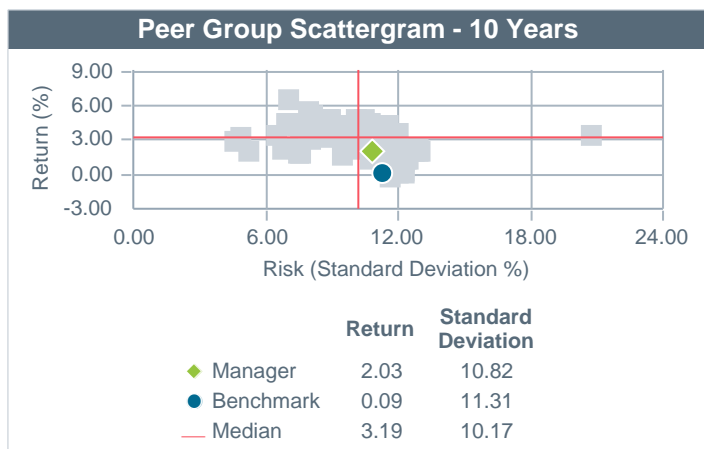


Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



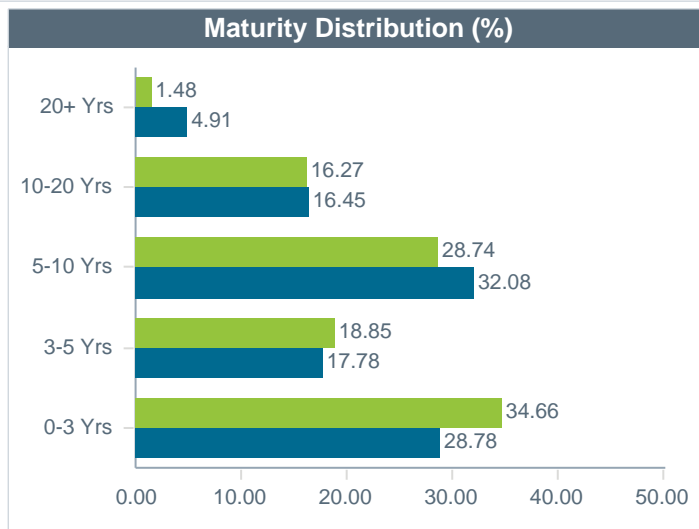


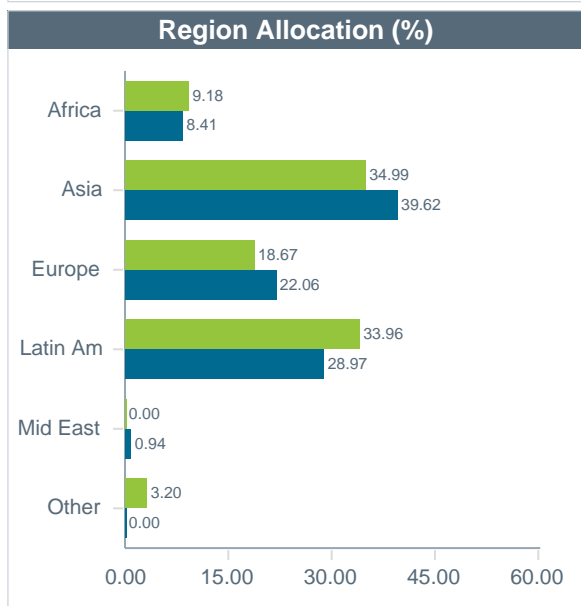
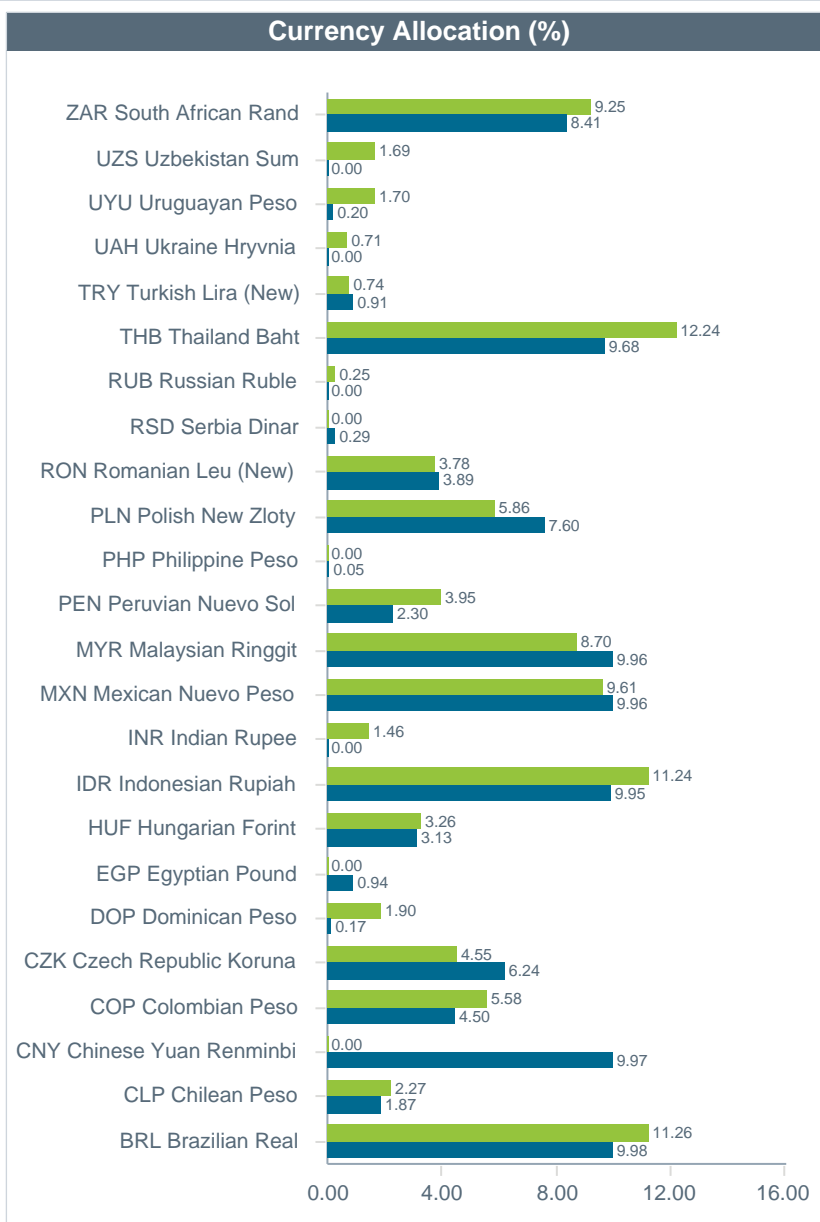
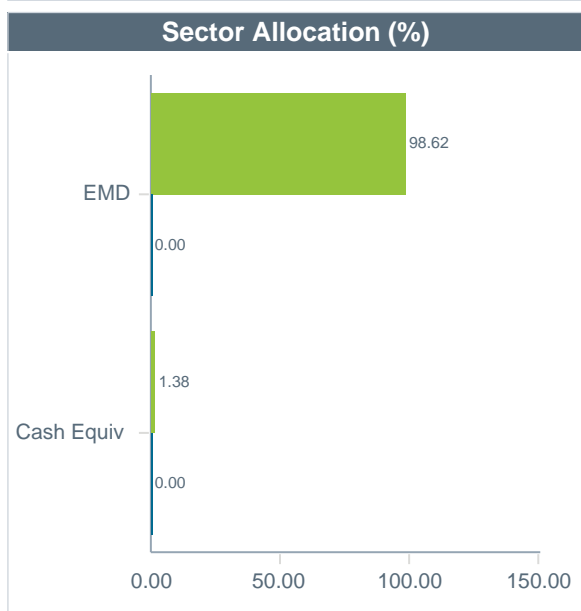
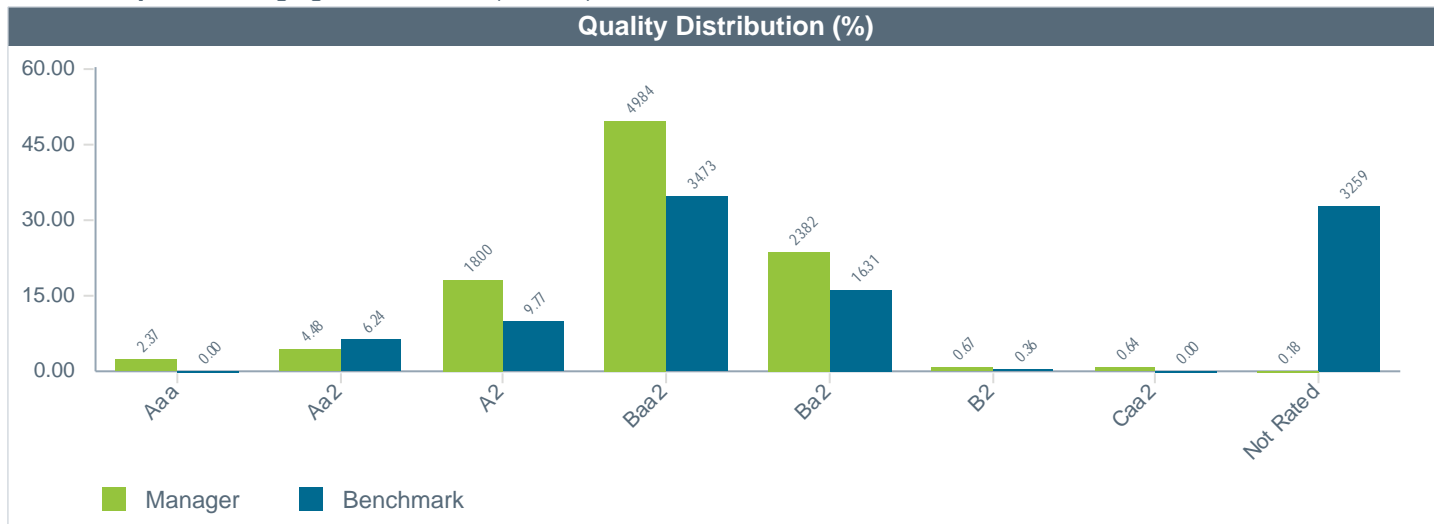
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	8.78	16.06	-0.25	2.81	2.93	2.03	-7.61	-7.45	2.77	12.61	-7.84
Benchmark	8.07	12.70	-3.16	1.14	1.94	0.09	-11.69	-8.75	2.69	13.47	-6.21
Difference	0.71	3.36	2.91	1.67	0.99	1.94	4.08	1.30	0.08	-0.86	-1.63
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	59	14	24	62	63	76	14	85	93	79	87
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

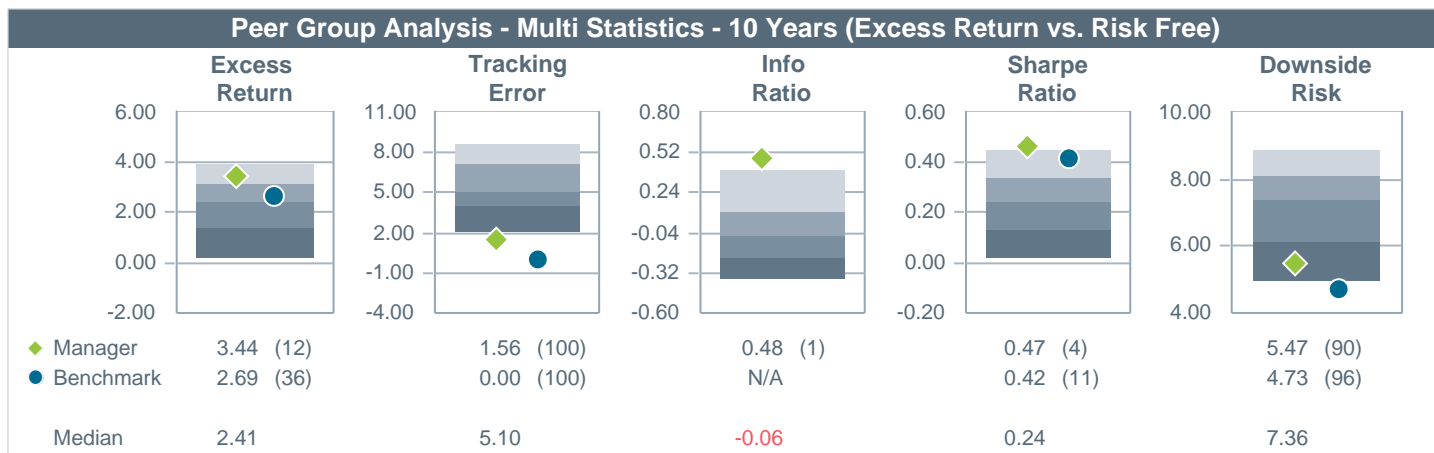
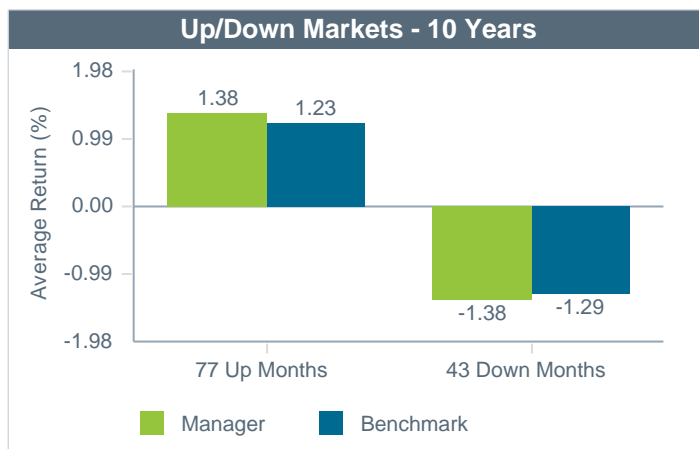
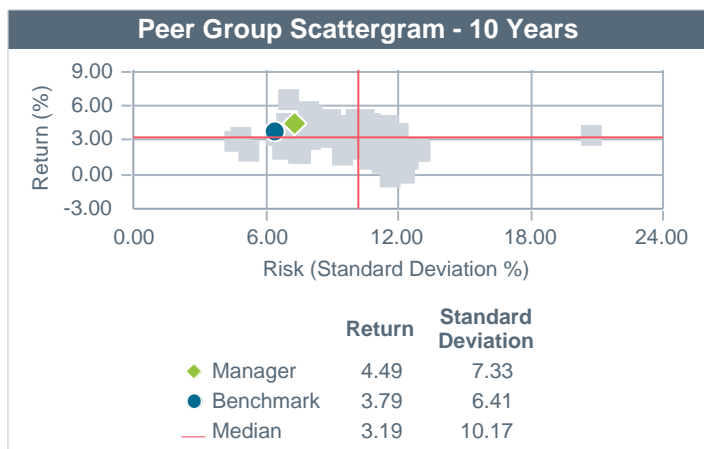
	Portfolio	Benchmark
Effective Duration	5.07	5.05
Spread Duration	N/A	0.04
Avg. Maturity	6.89	7.15
Avg. Quality	Baa2	Ba3
Yield To Maturity (%)	7.19	6.69
Coupon Rate (%)	6.44	5.57
Current Yield (%)	5.73	5.57
Holdings Count	81	347





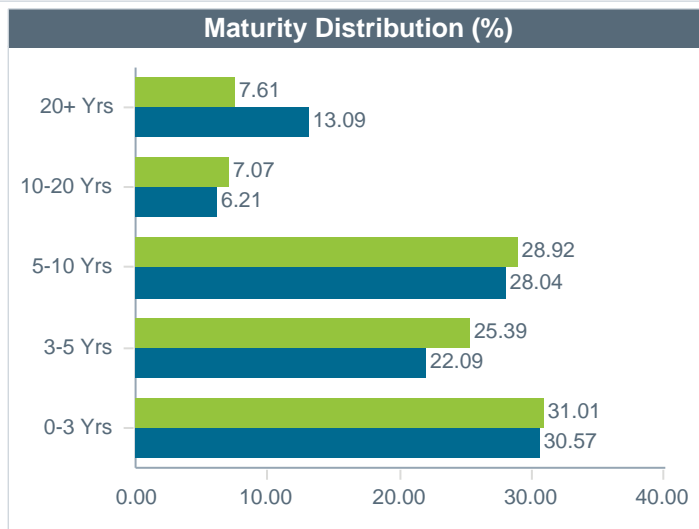
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to "Other" consists of cash.

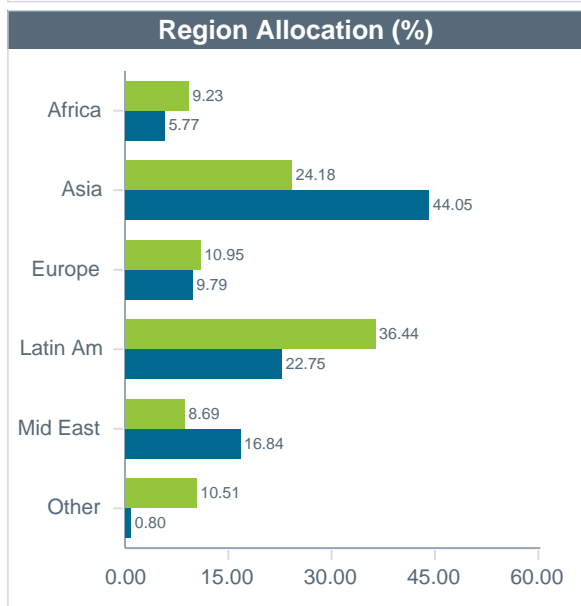
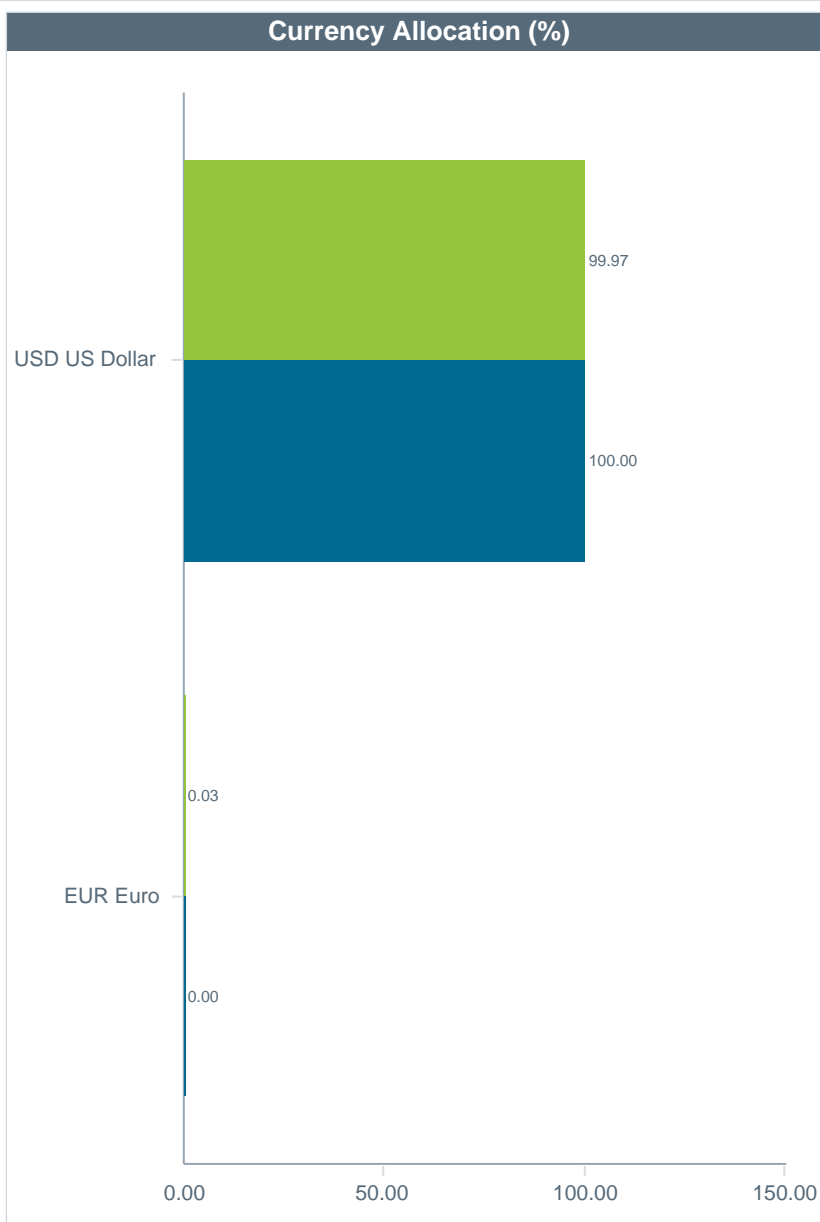
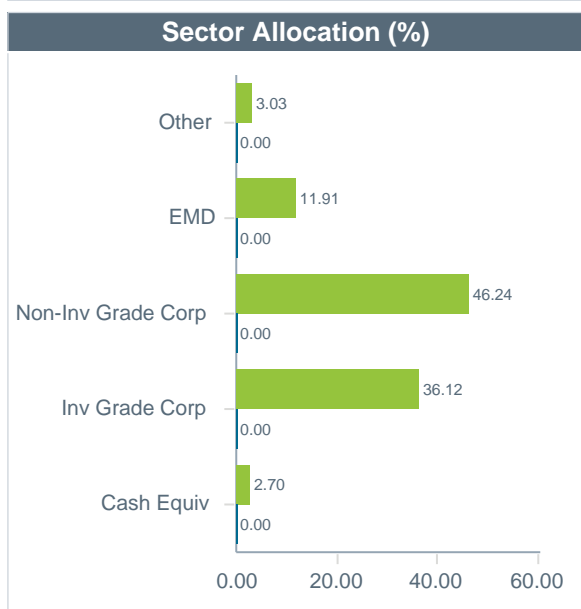
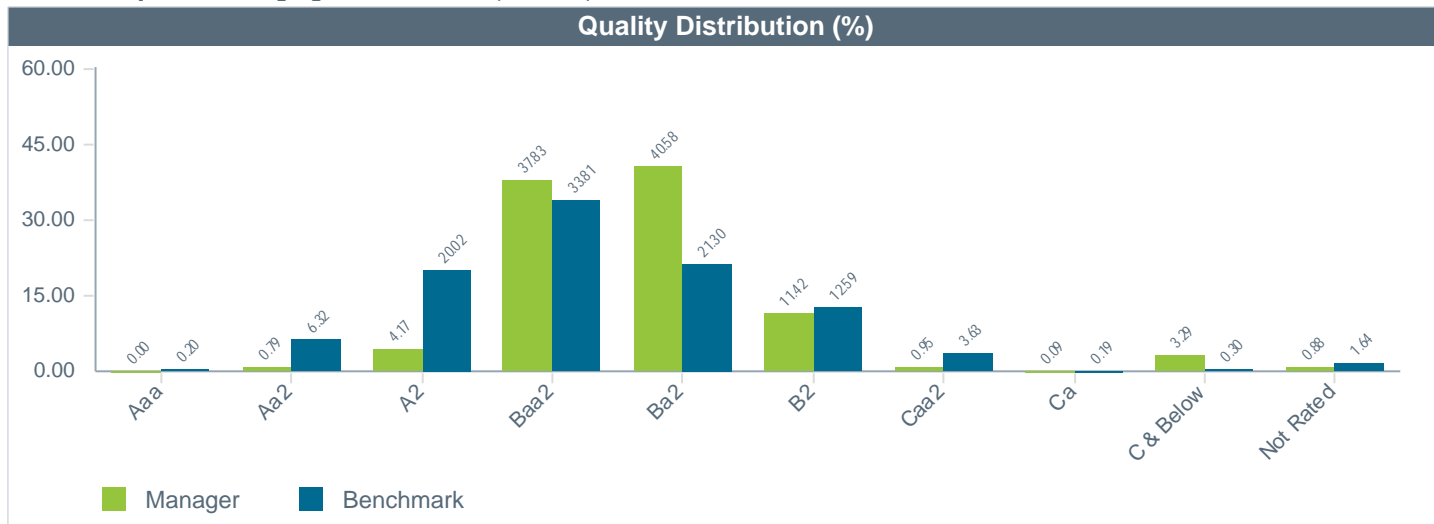
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	5.83	9.76	-1.03	3.86	3.85	4.49	-11.34	-0.38	8.70	14.69	-1.62
Benchmark	5.52	9.08	-1.15	3.22	3.17	3.79	-12.26	0.91	7.31	13.09	-1.65
Difference	0.31	0.68	0.12	0.64	0.68	0.70	0.92	-1.29	1.39	1.60	0.03
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	87	80	36	21	24	9	41	22	21	44	13
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

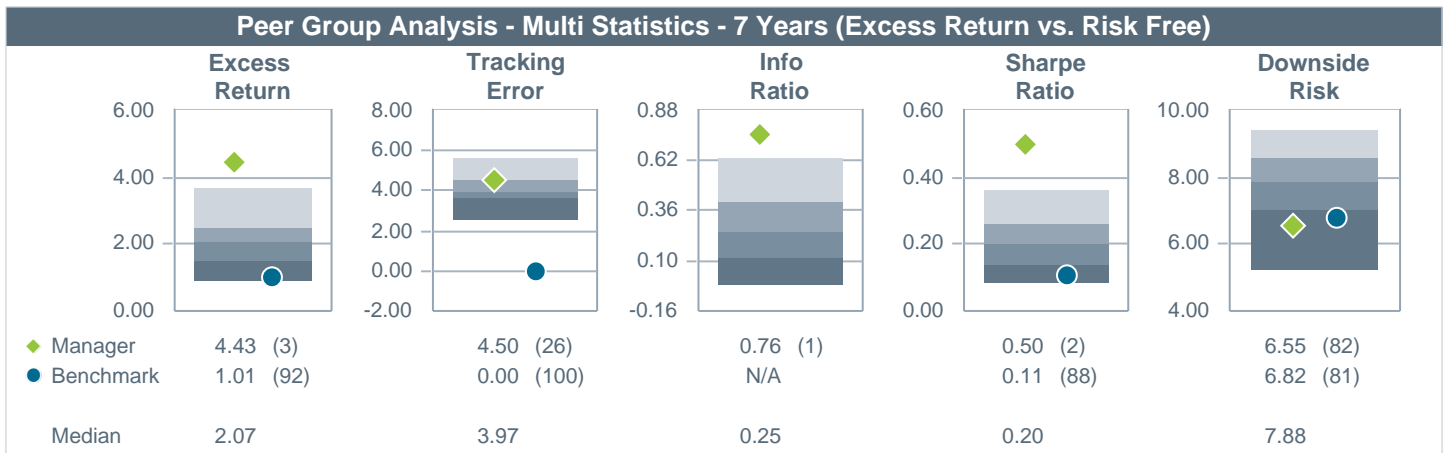
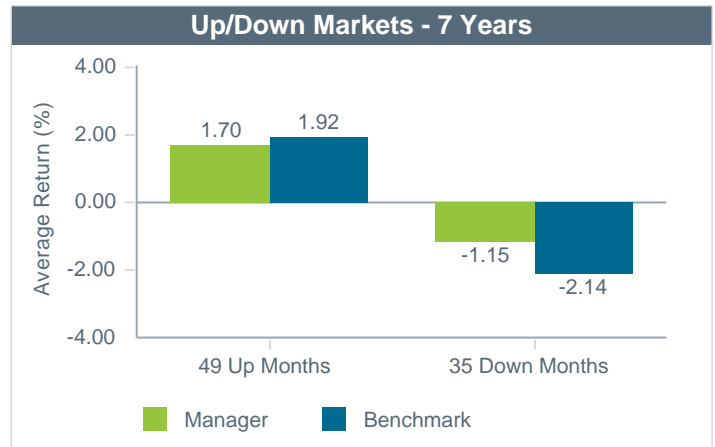
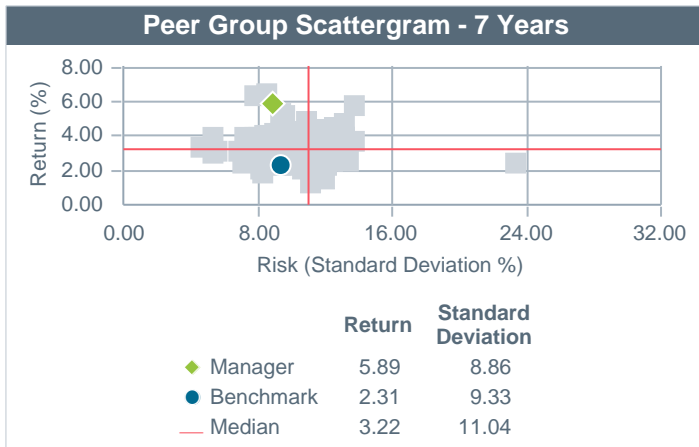
	Portfolio	Benchmark
Effective Duration	4.07	4.20
Spread Duration	3.94	4.24
Avg. Maturity	12.17	10.45
Avg. Quality	Ba1	Baa3
Yield To Maturity (%)	7.23	7.23
Coupon Rate (%)	5.04	4.84
Current Yield (%)	5.36	5.25
Holdings Count	244	1,781





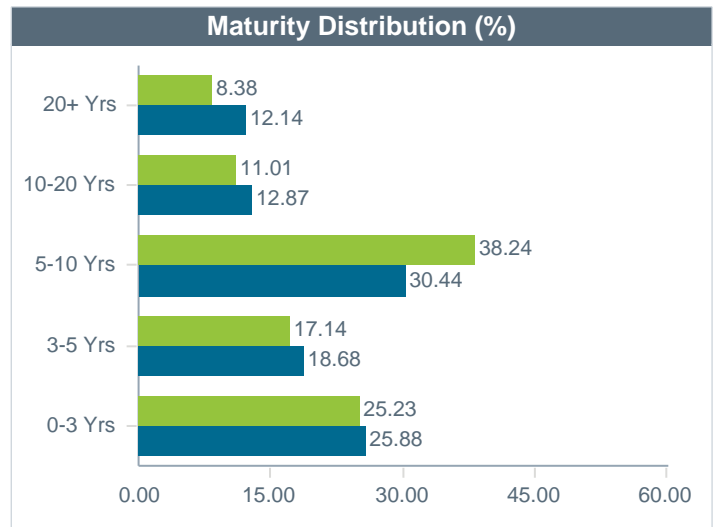
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Sector allocation to "Other" consists of foreign exchange, supranational and interest rate swaps. Region allocation to "Other" consists of cash, supranational and developed.

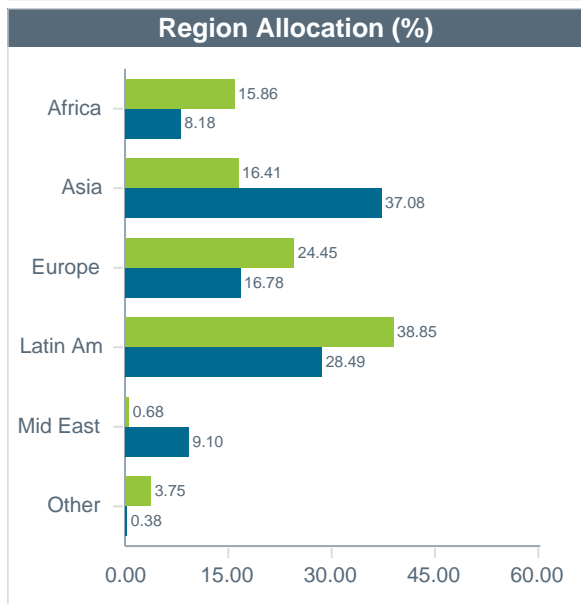
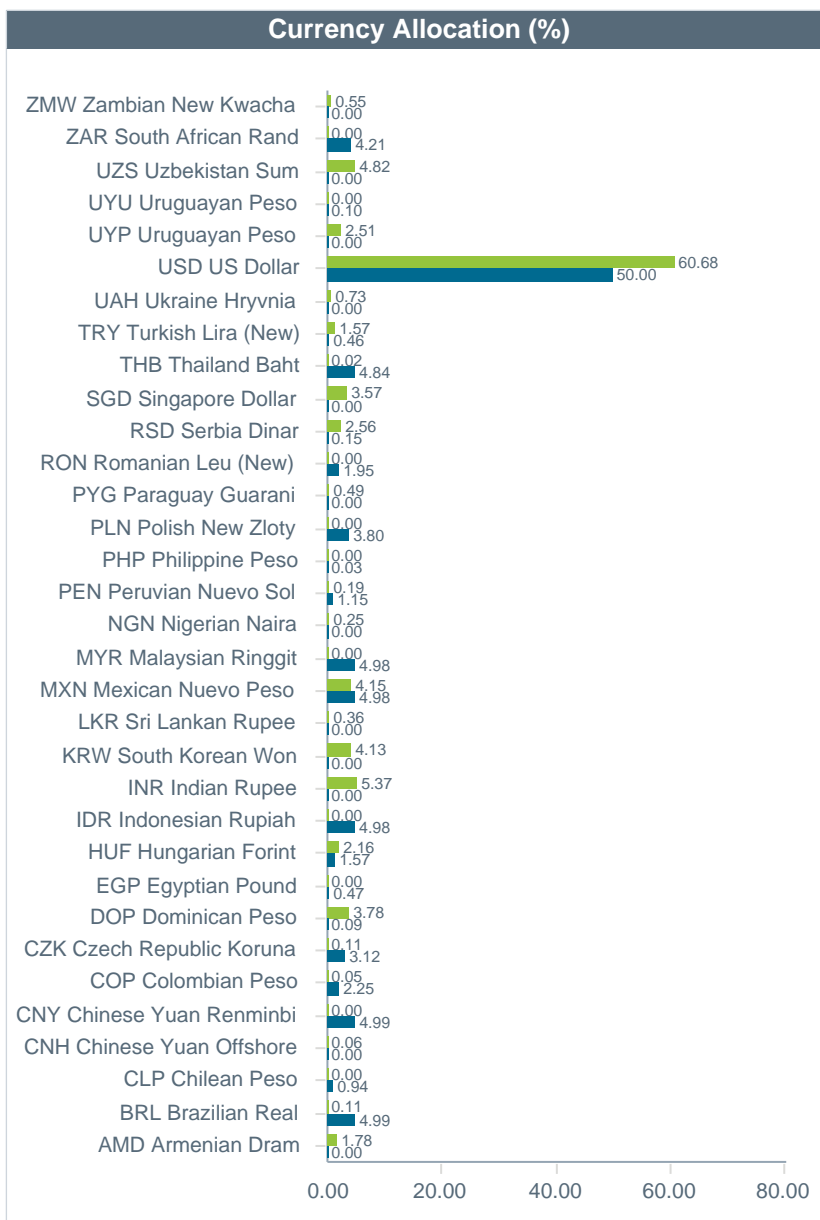
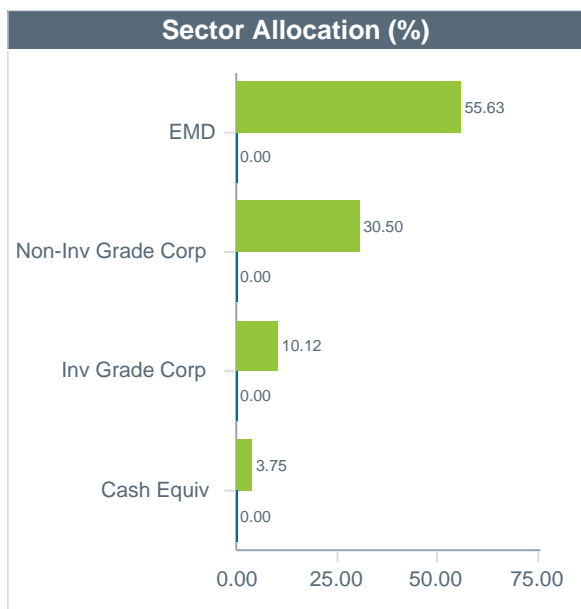
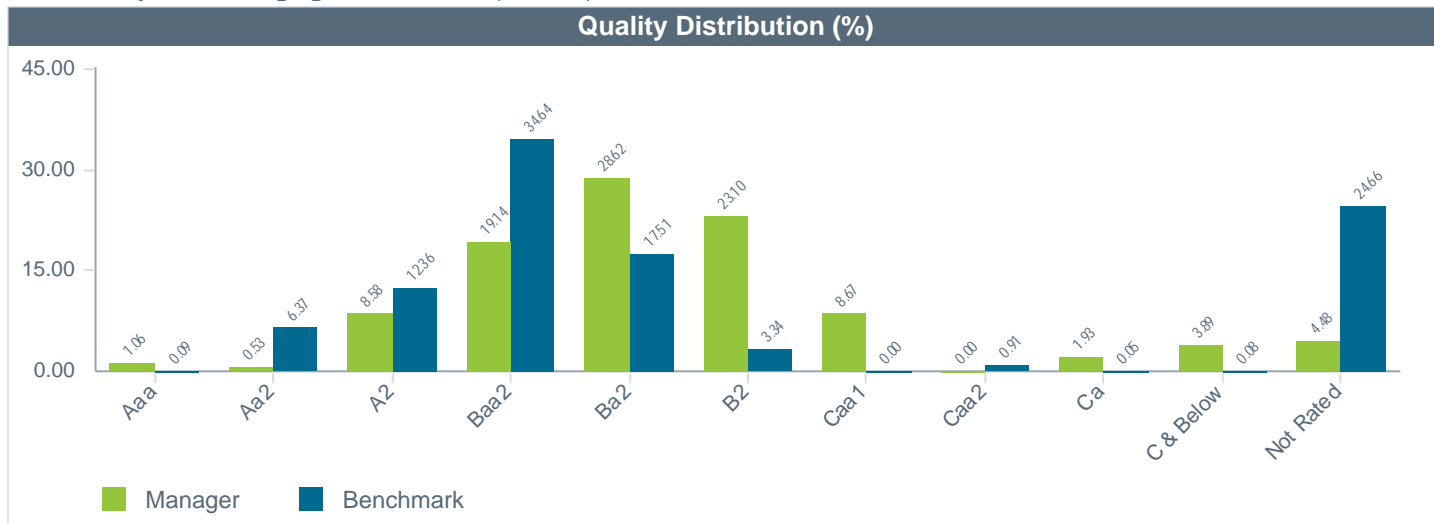
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	4.73	11.49	1.61	6.29	5.89	5.07	-8.85	3.23	8.35	19.33	-3.44
Benchmark	7.71	11.43	-2.72	1.84	2.31	1.85	-13.34	-4.65	4.49	13.84	-4.50
Difference	-2.98	0.06	4.33	4.45	3.58	3.22	4.49	7.88	3.86	5.49	1.06
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	96	65	9	1	2	3	22	3	23	1	23
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

	Portfolio	Benchmark
Effective Duration	3.81	5.25
Spread Duration	2.67	2.74
Avg. Maturity	7.88	9.16
Avg. Quality	Ba3	Ba3
Yield To Maturity (%)	10.23	6.85
Coupon Rate (%)	6.97	5.28
Current Yield (%)	7.56	5.51
Holdings Count	285	855

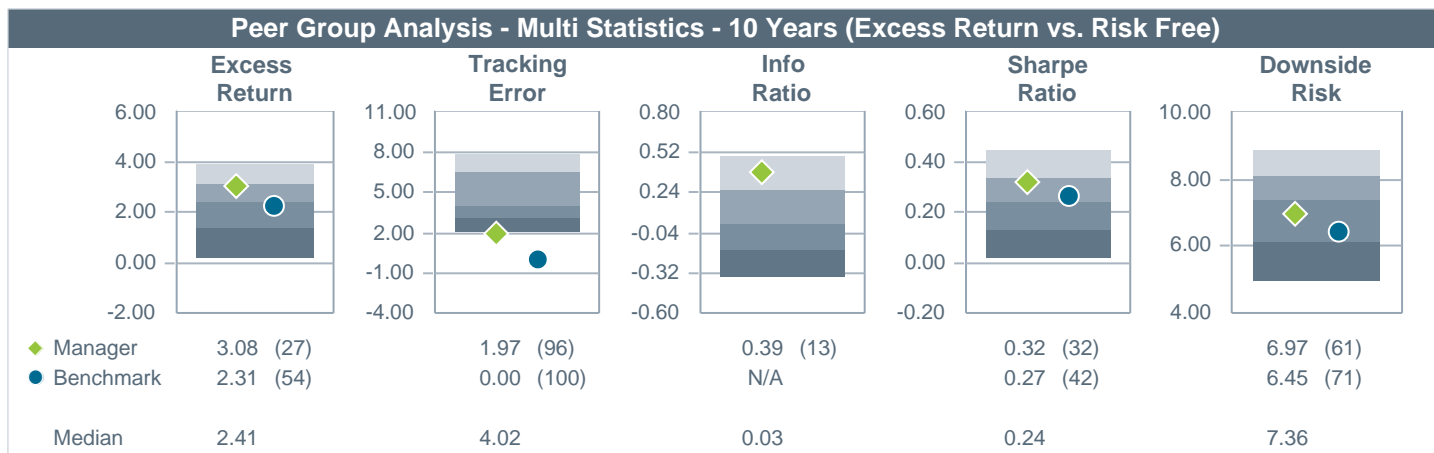
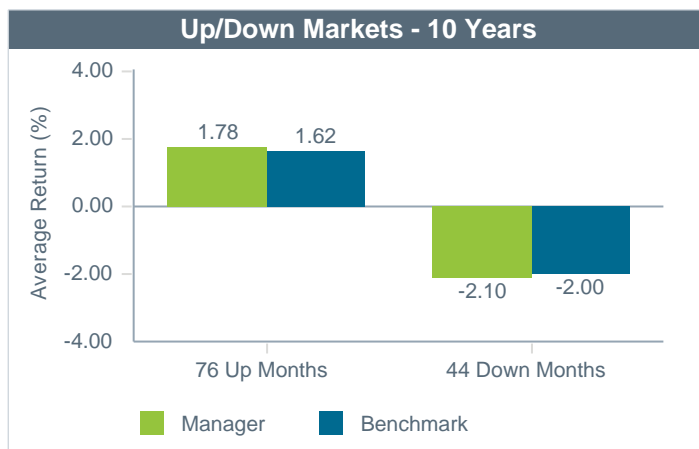
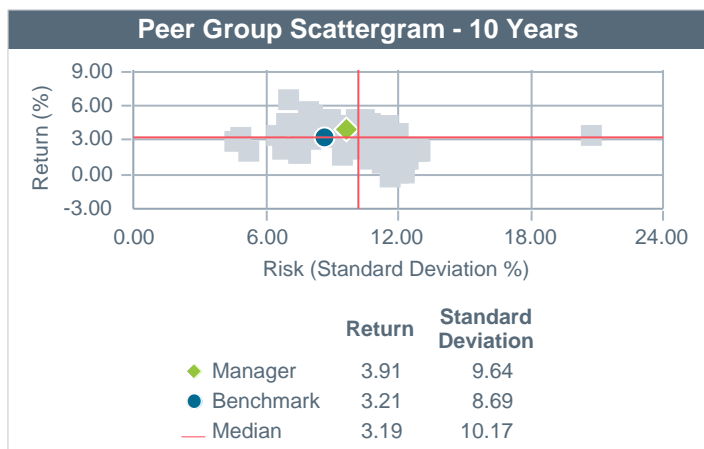




Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to "Other" consists of cash.

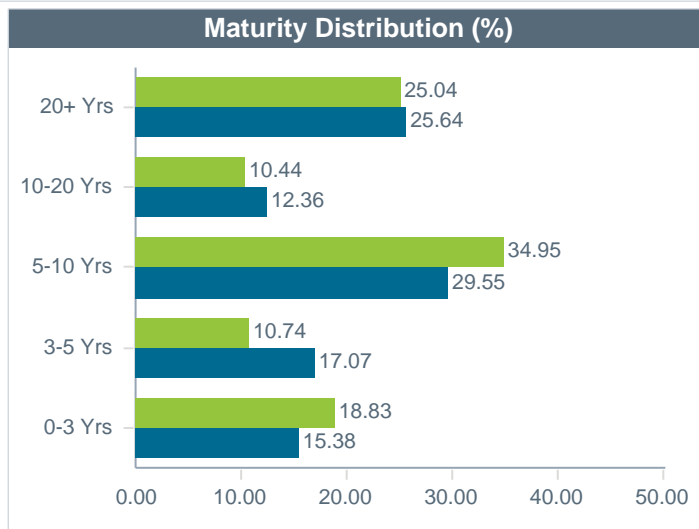


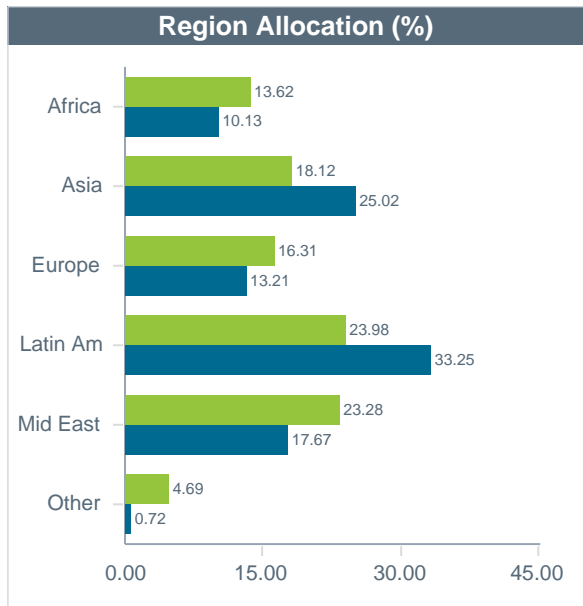
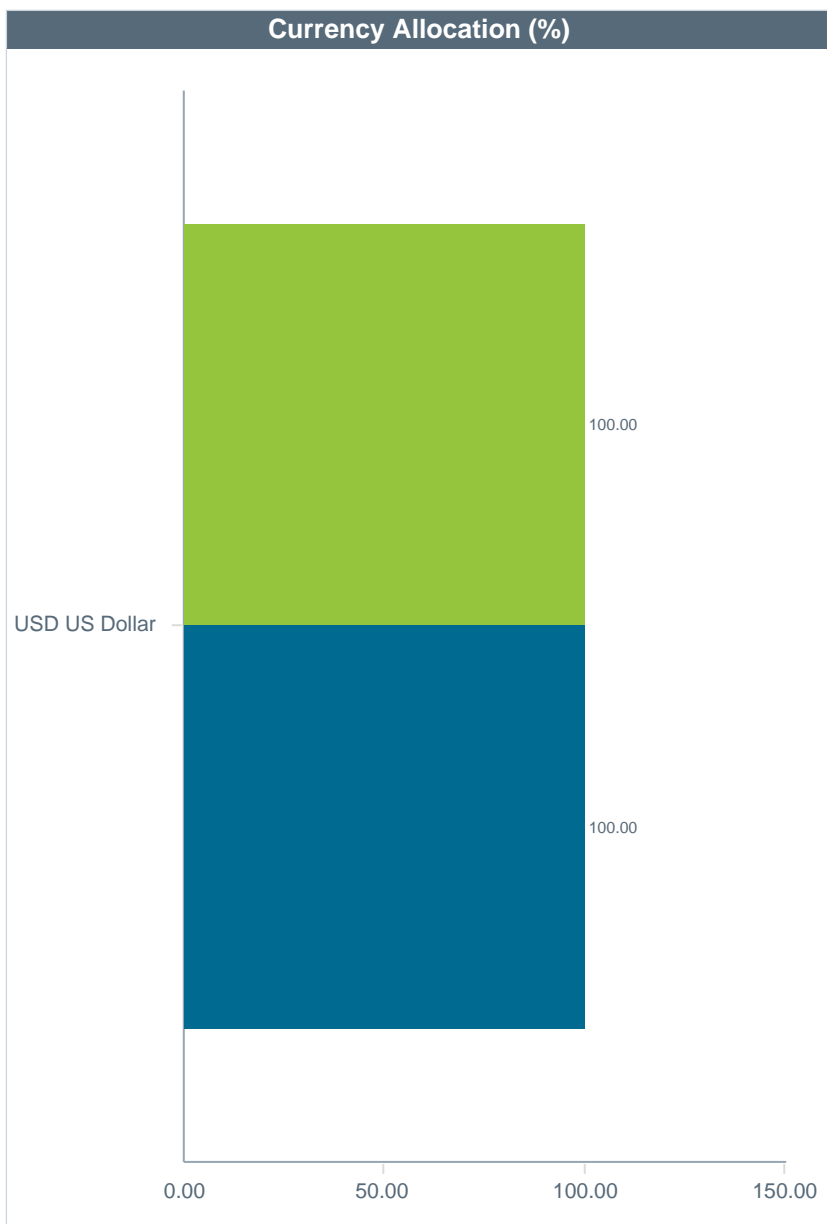
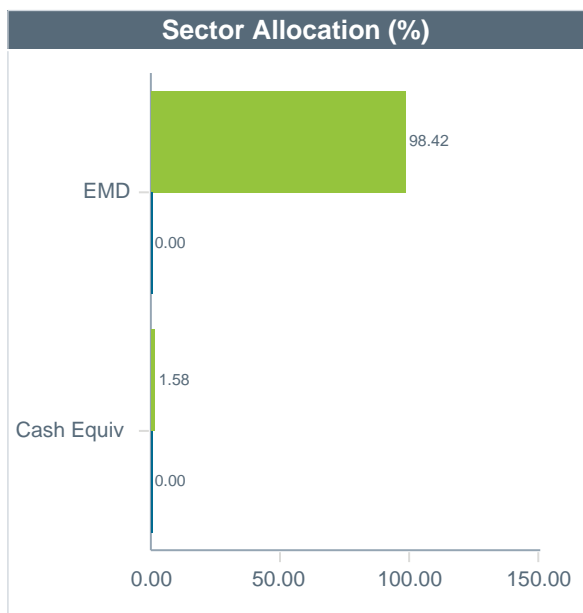
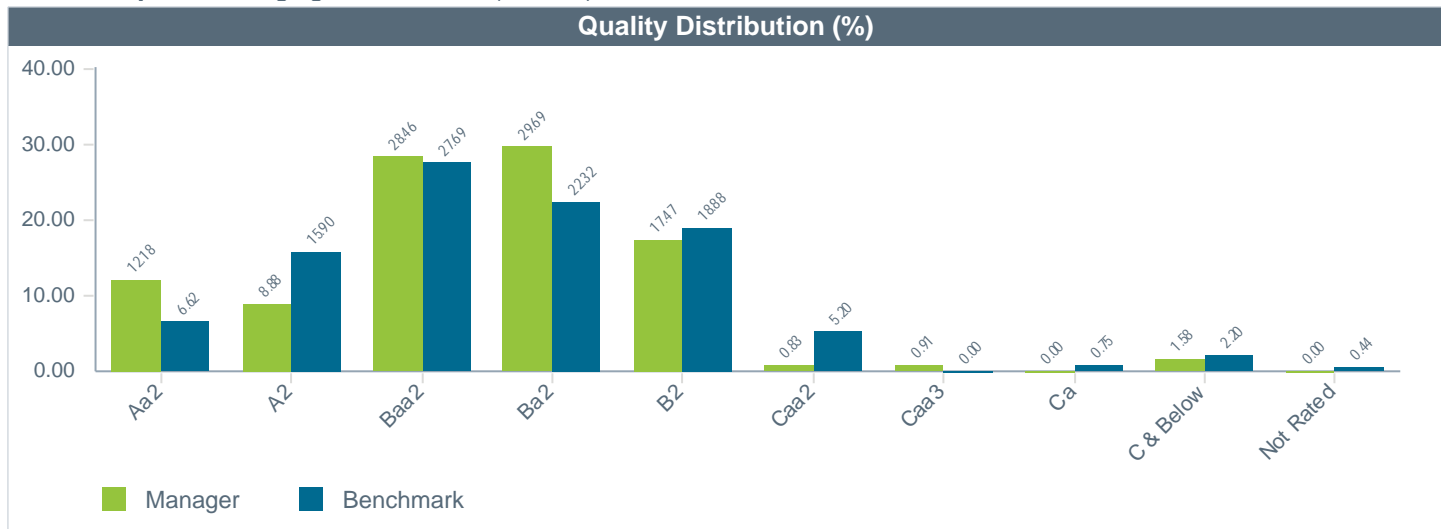
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	9.55	11.28	-3.05	1.98	2.64	3.91	-15.51	-3.07	6.04	14.13	-4.01
Benchmark	9.09	9.23	-3.98	1.68	2.07	3.21	-17.26	-2.04	6.09	15.72	-4.14
Difference	0.46	2.05	0.93	0.30	0.57	0.70	1.75	-1.03	-0.05	-1.59	0.13
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	37	69	85	89	76	26	73	58	59	55	32
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

	Portfolio	Benchmark
Effective Duration	7.22	6.68
Spread Duration	N/A	6.65
Avg. Maturity	12.79	11.87
Avg. Quality	Baa3	Ba1
Yield To Maturity (%)	6.46	6.80
Coupon Rate (%)	4.73	5.15
Current Yield (%)	5.43	5.66
Holdings Count	135	944

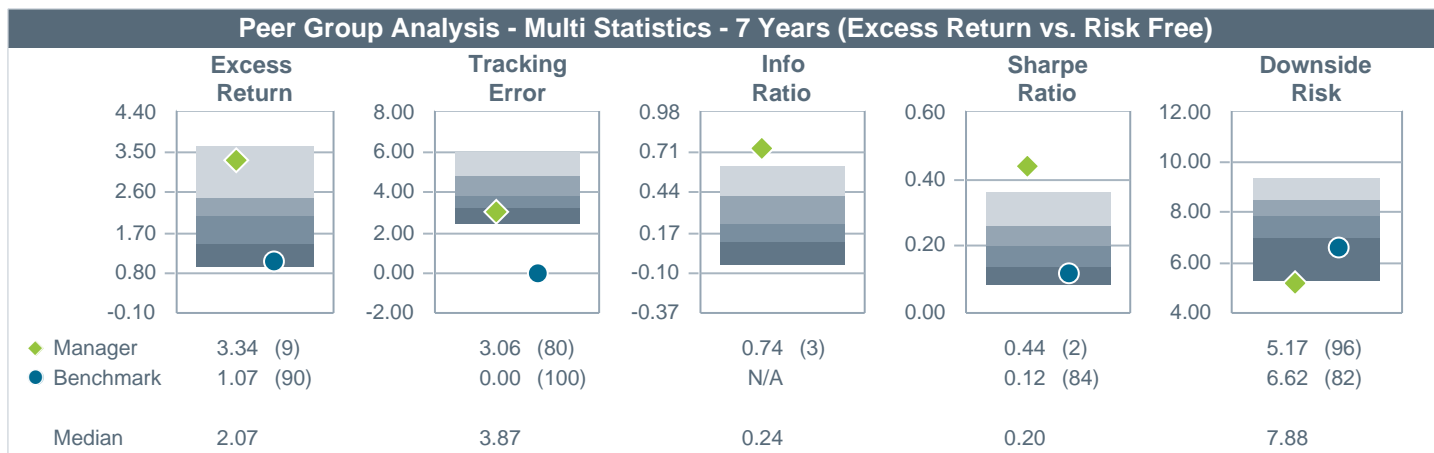
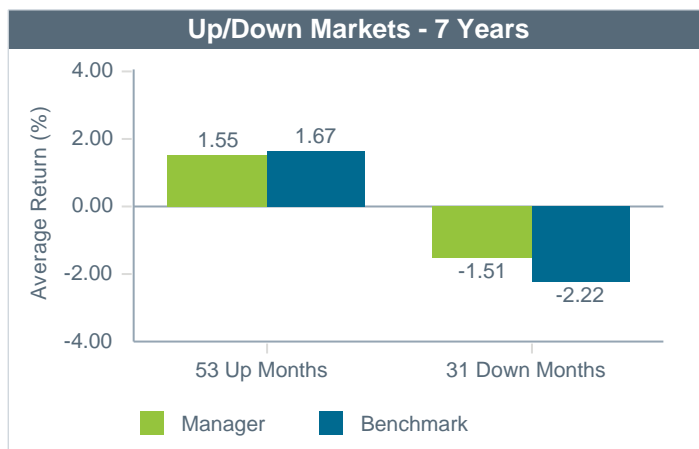
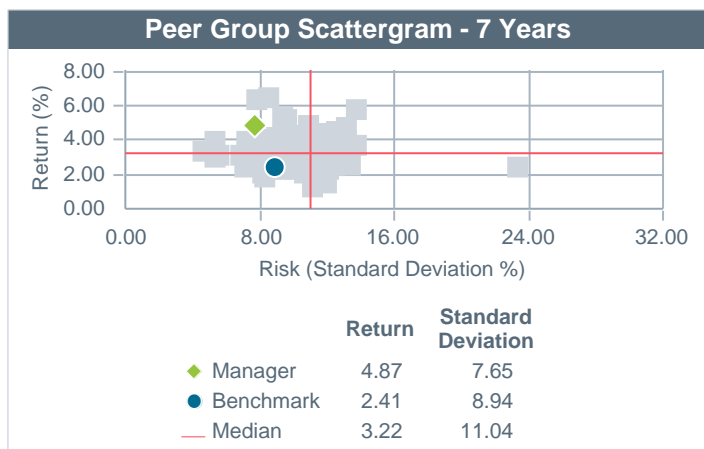




Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to "Other" consists of cash.

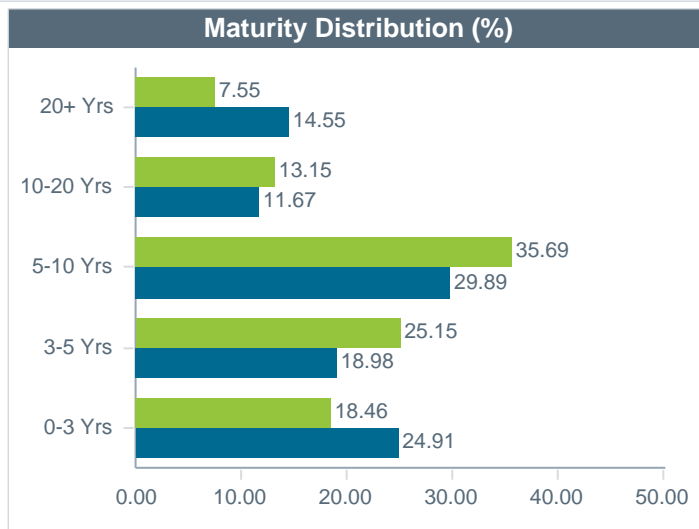


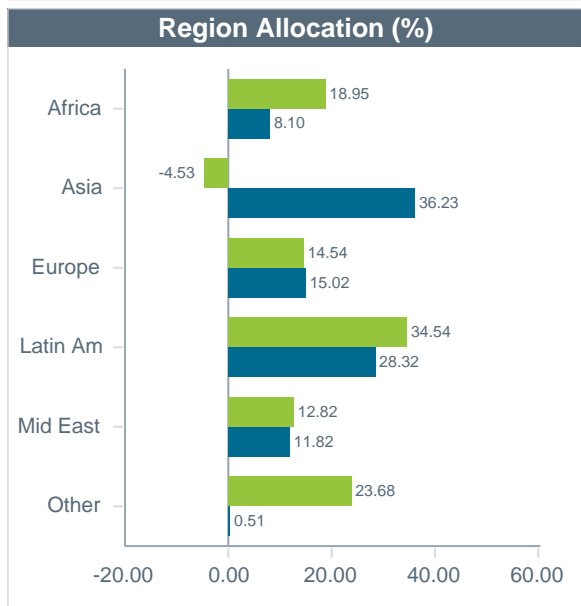
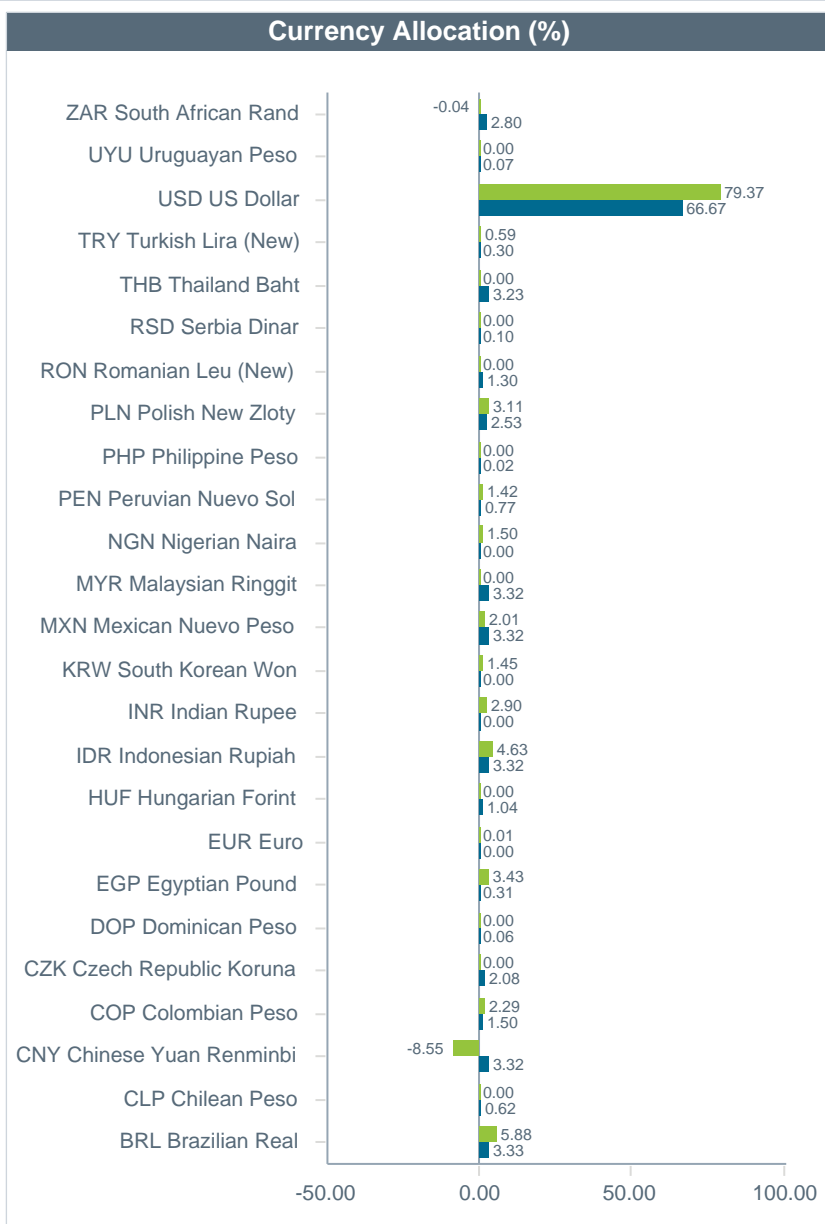
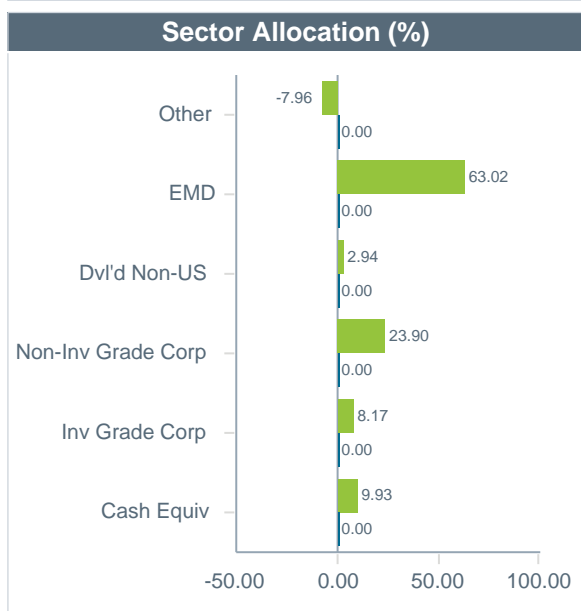
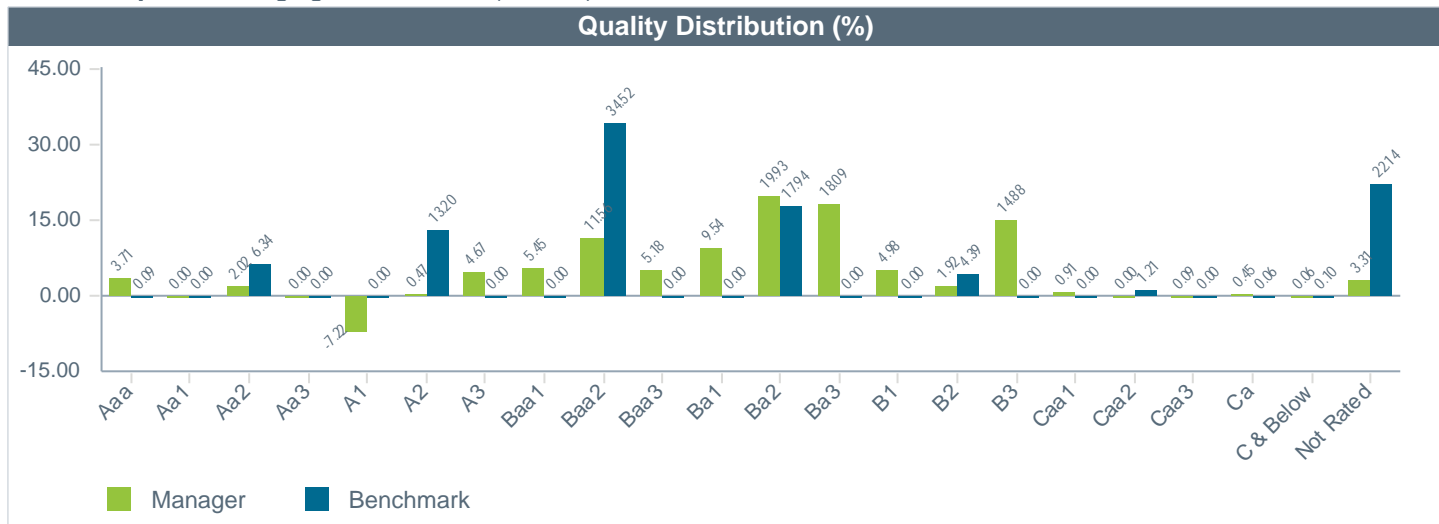
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	6.91	10.24	-0.31	4.45	4.87	4.85	-7.66	-2.68	8.14	16.04	-0.20
Benchmark	7.58	10.99	-2.58	2.05	2.41	2.41	-13.90	-3.26	5.07	13.93	-3.96
Difference	-0.67	-0.75	2.27	2.40	2.46	2.44	6.24	0.58	3.07	2.11	3.76
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	75	77	24	11	5	3	14	54	28	16	5
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

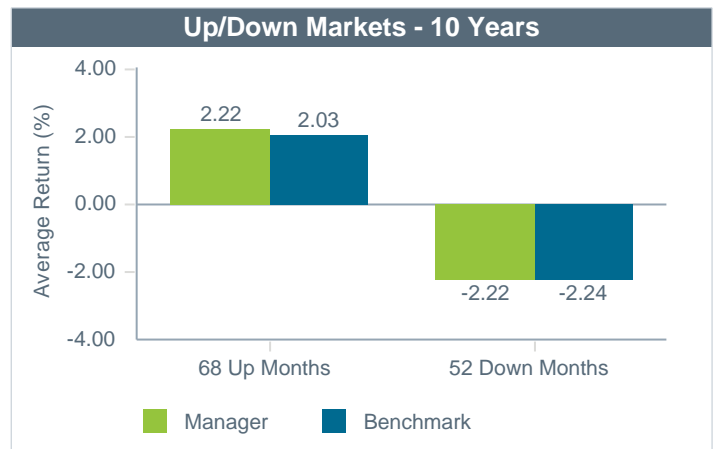
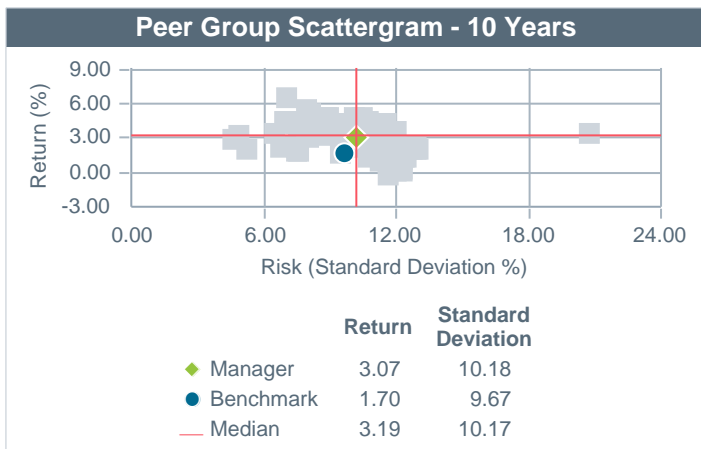
	Portfolio	Benchmark
Effective Duration	4.76	5.31
Spread Duration	3.09	5.33
Avg. Maturity	8.00	9.82
Avg. Quality	Ba1	Ba2
Yield To Maturity (%)	8.38	6.91
Coupon Rate (%)	6.41	5.19
Current Yield (%)	6.59	5.49
Holdings Count	139	1,024





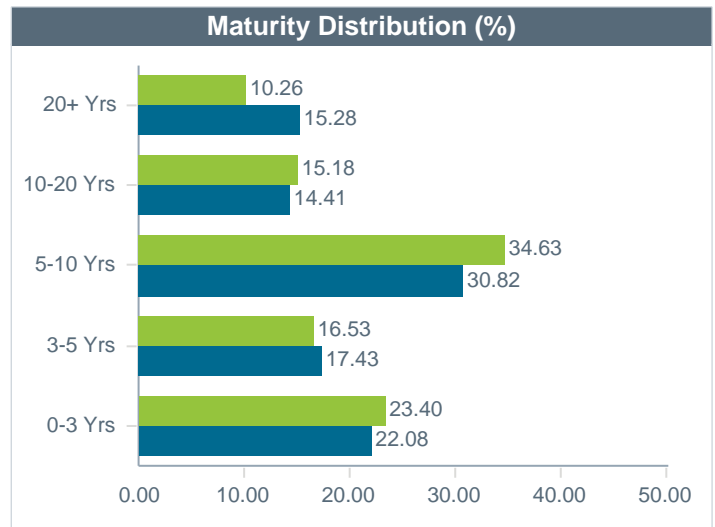
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Sector and region allocation to "Other" consists of foreign exchange, futures, margin for derivatives and interest rate swaps.

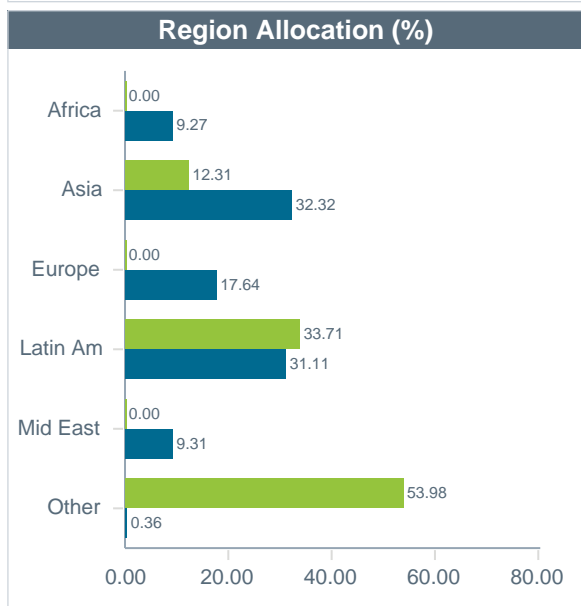
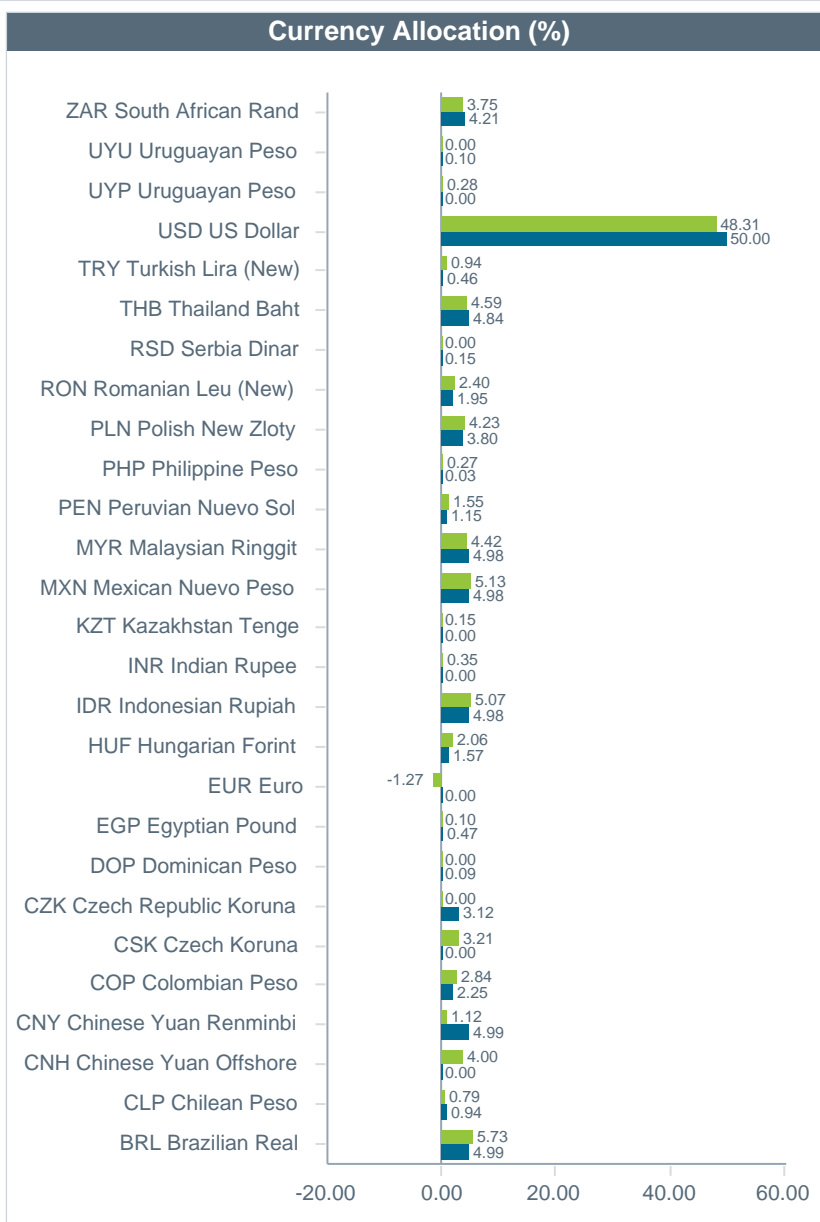
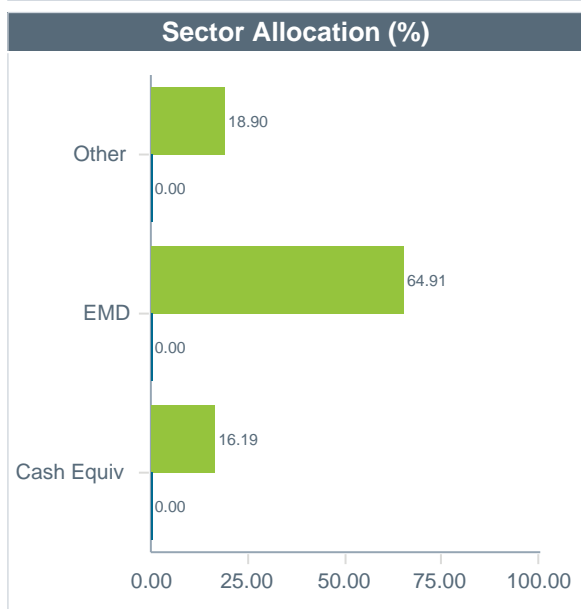
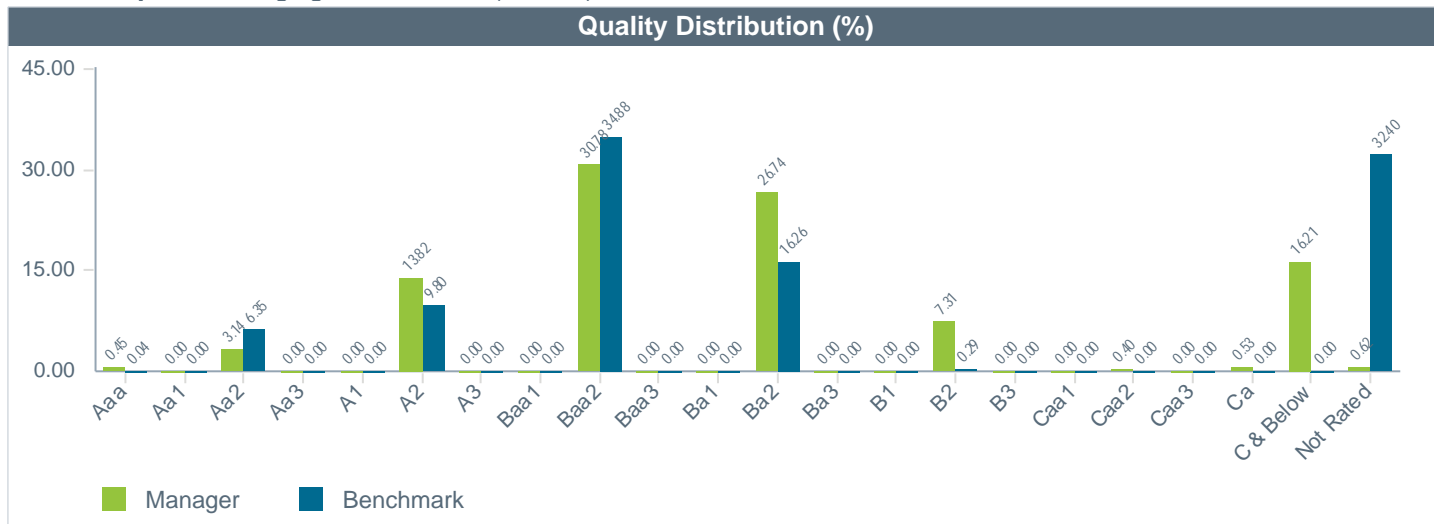
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	9.34	13.63	-2.33	3.09	3.38	3.07	-13.50	-5.20	6.53	17.28	-5.34
Benchmark	8.62	11.92	-3.33	1.44	2.00	1.70	-14.75	-5.32	4.02	14.31	-5.15
Difference	0.72	1.71	1.00	1.65	1.38	1.37	1.25	0.12	2.51	2.97	-0.19
Peer Group Median	9.21	12.62	-1.50	3.07	3.22	3.19	-12.08	-2.13	6.71	14.30	-5.27
Rank	45	37	71	50	39	55	60	71	54	5	54
Population	132	131	130	124	117	100	138	145	154	163	173



### Portfolio Characteristics (%)

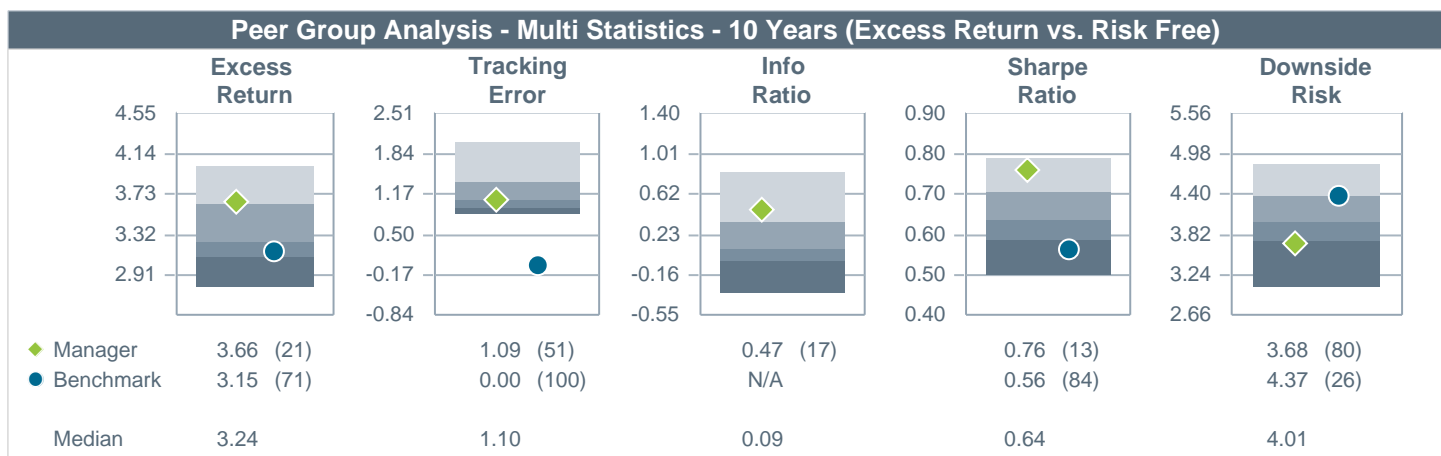
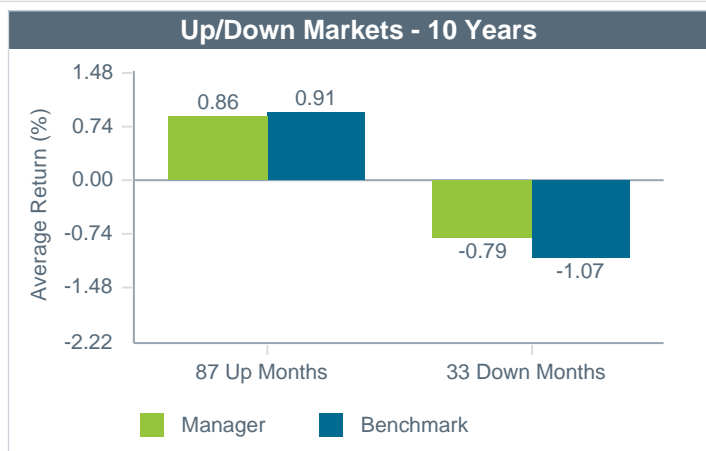
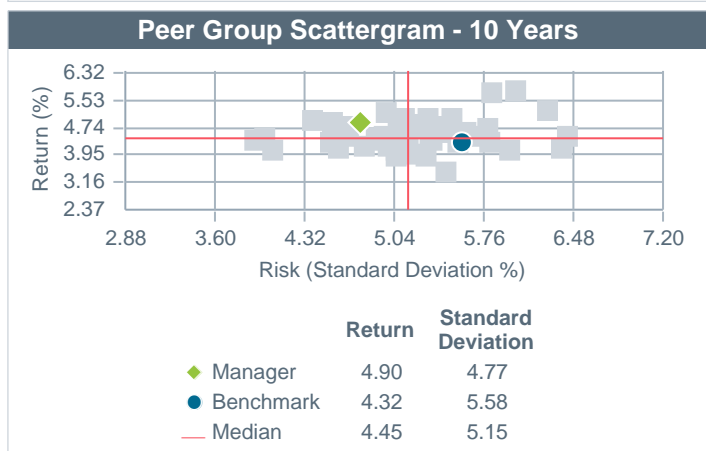
	Portfolio	Benchmark
Effective Duration	5.85	5.87
Spread Duration	2.75	3.35
Avg. Maturity	9.13	9.51
Avg. Quality	Baa2	Ba3
Yield To Maturity (%)	6.81	6.75
Coupon Rate (%)	5.95	5.36
Current Yield (%)	6.61	5.62
Holdings Count	428	646





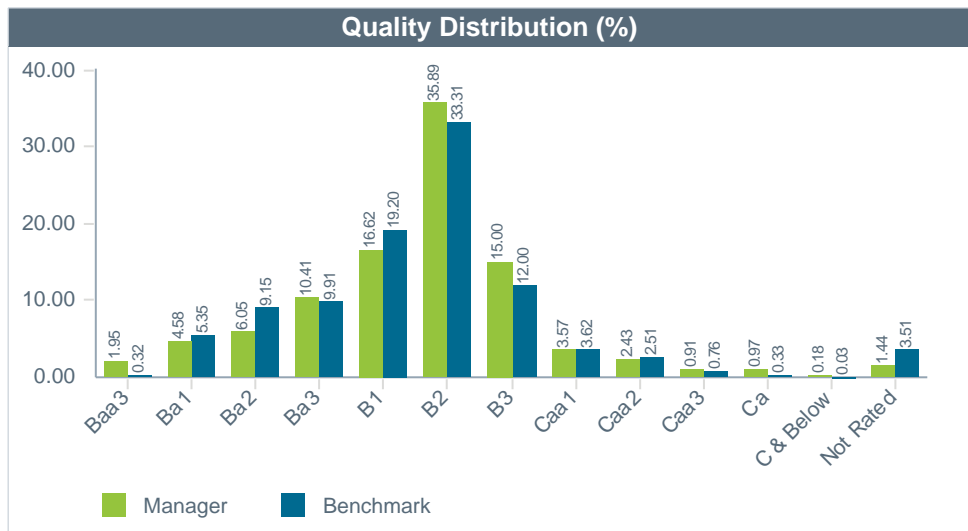
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to "Other" consists of cash and holdings not allocated among the other categories.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.63	12.19	5.60	5.57	4.91	4.90	-0.24	5.23	3.11	7.97	1.51
Benchmark	2.51	12.72	5.42	5.59	4.63	4.32	-0.68	4.66	3.12	8.64	0.44
Difference	0.12	-0.53	0.18	-0.02	0.28	0.58	0.44	0.57	-0.01	-0.67	1.07
Peer Group Median	3.00	13.24	5.73	5.68	4.73	4.45	-0.92	5.41	2.70	8.74	0.80
Rank	78	74	57	54	36	21	34	56	35	83	11
Population	51	51	50	50	48	48	56	58	60	63	70



### Portfolio Characteristics

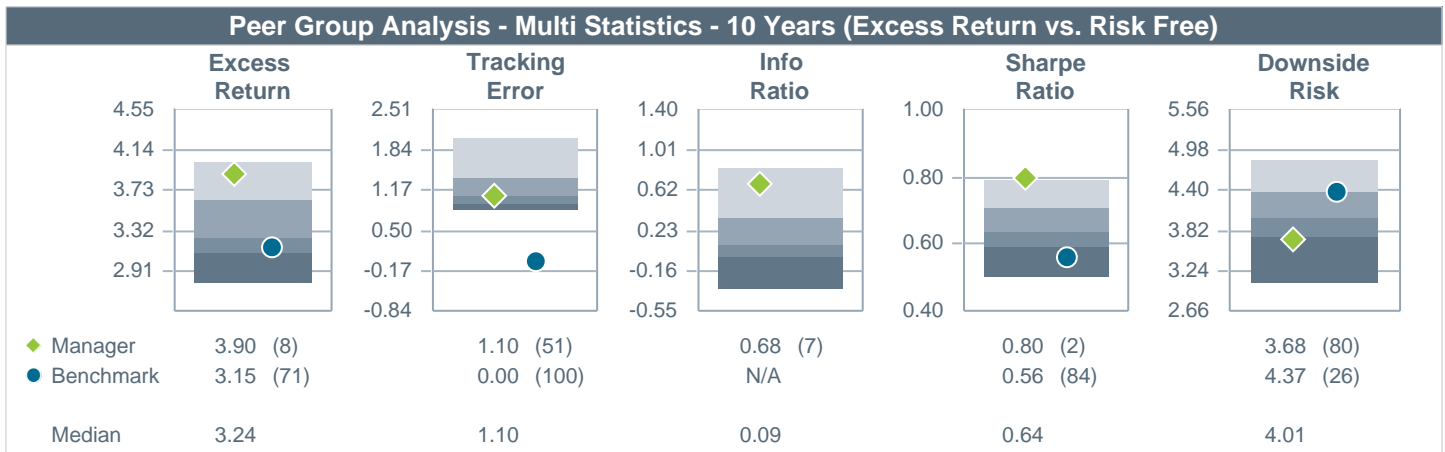
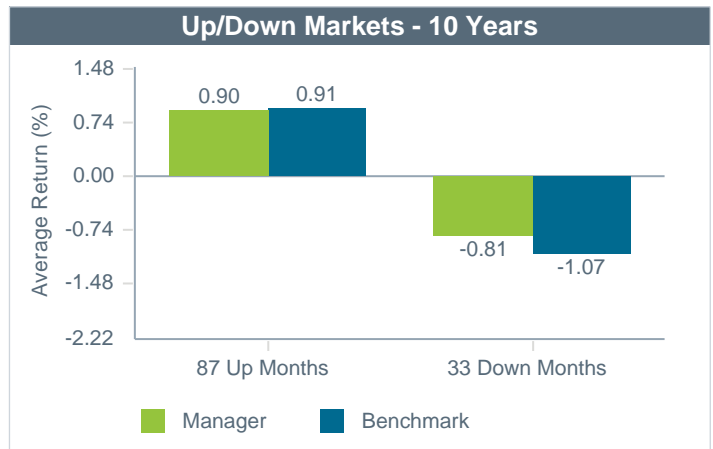
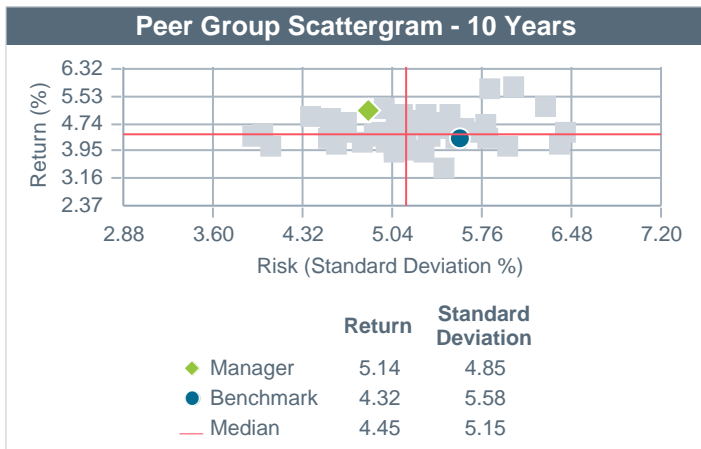
	Portfolio	Benchmark
Effective Duration	0.25	0.25
Spread Duration	1.86	N/A
Avg. Maturity	3.97	4.13
Avg. Quality	B2	Ba2
Yield To Maturity (%)	9.08	9.13
Coupon Rate (%)	9.41	9.36
Current Yield (%)	9.92	9.79
Holdings Count	238	1,632



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

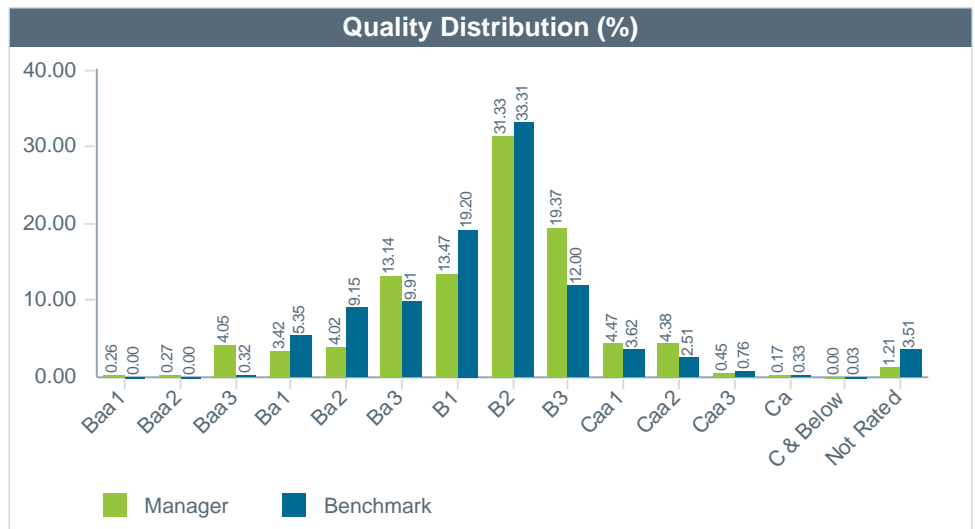


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.21	11.02	4.90	5.45	5.15	5.14	-1.01	5.04	3.72	8.92	2.17
Benchmark	2.51	12.72	5.42	5.59	4.63	4.32	-0.68	4.66	3.12	8.64	0.44
Difference	-0.30	-1.70	-0.52	-0.14	0.52	0.82	-0.33	0.38	0.60	0.28	1.73
Peer Group Median	3.00	13.24	5.73	5.68	4.73	4.45	-0.92	5.41	2.70	8.74	0.80
Rank	99	95	83	60	23	8	54	62	20	45	6
Population	51	51	50	50	48	48	56	58	60	63	70



### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	0.25	0.25
Spread Duration	N/A	N/A
Avg. Maturity	4.44	4.13
Avg. Quality	B2	Ba2
Yield To Maturity (%)	11.75	9.13
Coupon Rate (%)	9.74	9.36
Current Yield (%)	10.38	9.79
Holdings Count	237	1,632



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



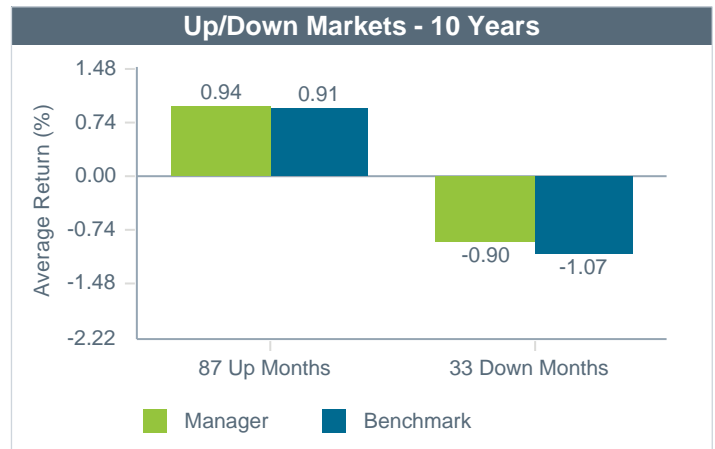
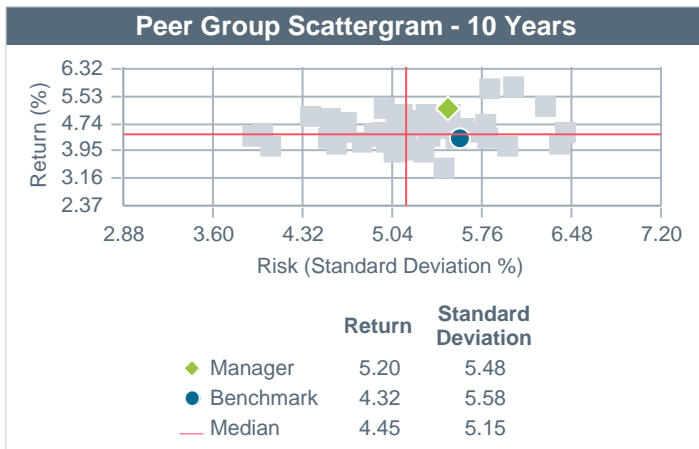
Manager: KKR

As of December 31, 2023

Benchmark: Bank Loans Custom Index

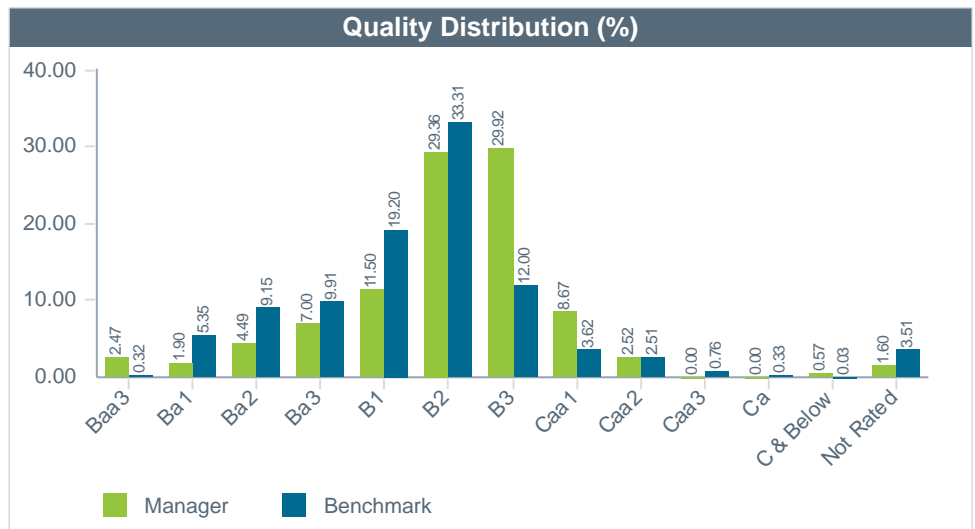
Peer Group: IM U.S. Bank Loans (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.29	13.59	6.15	6.30	5.37	5.20	-0.51	5.86	5.18	7.87	1.10
Benchmark	2.51	12.72	5.42	5.59	4.63	4.32	-0.68	4.66	3.12	8.64	0.44
Difference	-0.22	0.87	0.73	0.71	0.74	0.88	0.17	1.20	2.06	-0.77	0.66
Peer Group Median	3.00	13.24	5.73	5.68	4.73	4.45	-0.92	5.41	2.70	8.74	0.80
Rank	98	35	27	19	16	7	40	30	10	84	34
Population	51	51	50	50	48	48	56	58	60	63	70



### Portfolio Characteristics

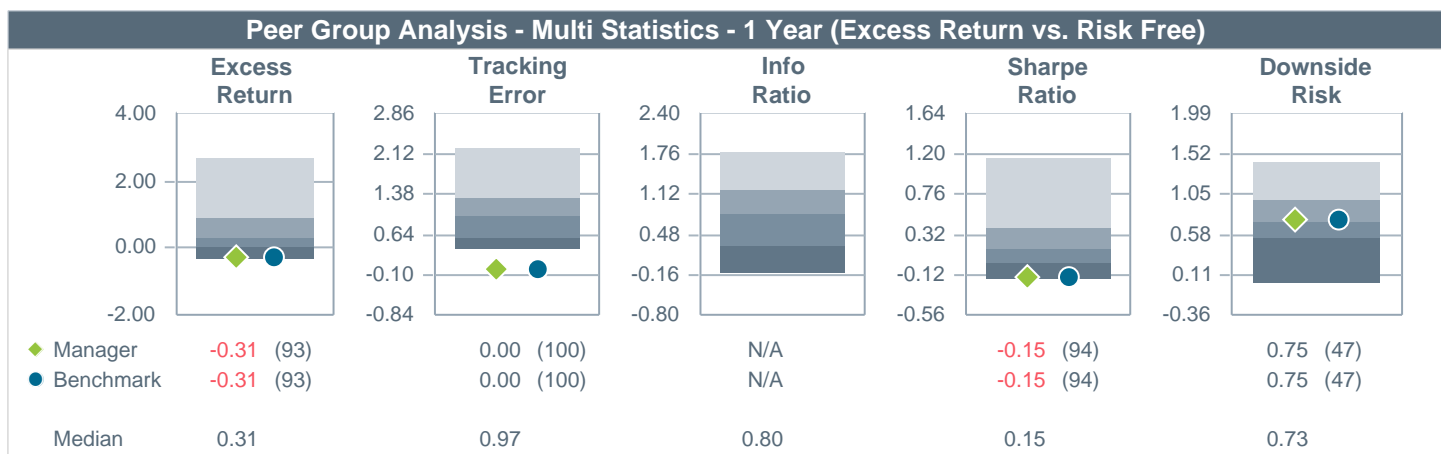
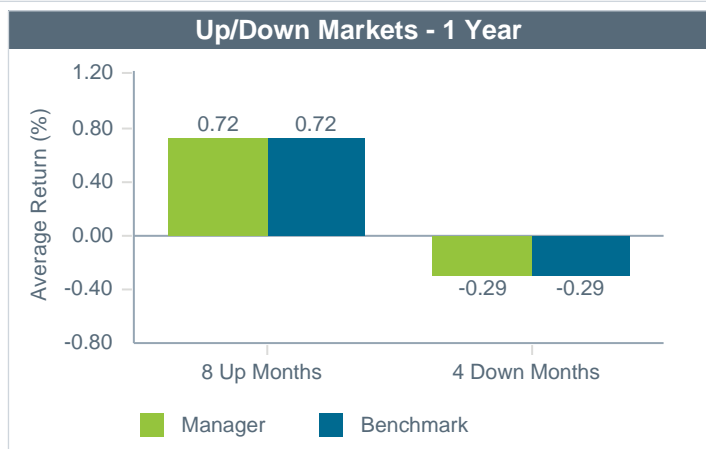
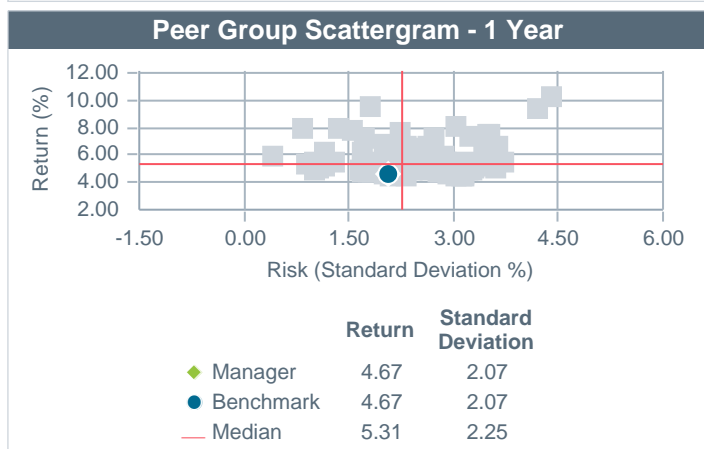
	Portfolio	Benchmark
Effective Duration	0.14	0.25
Spread Duration	2.88	N/A
Avg. Maturity	4.18	4.13
Avg. Quality	B2	Ba2
Yield To Maturity (%)	9.02	9.13
Coupon Rate (%)	9.37	9.36
Current Yield (%)	9.65	9.79
Holdings Count	296	1,632



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

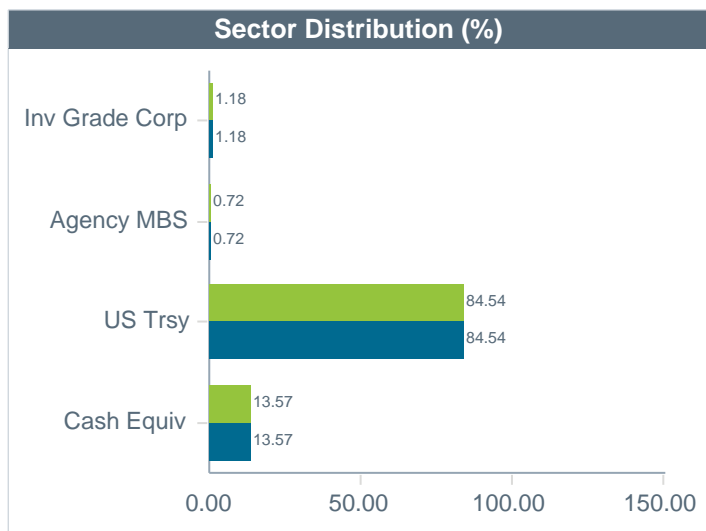


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.38	4.67	0.59	N/A	N/A	N/A	-2.34	-0.42	3.20	N/A	N/A
Benchmark	2.38	4.67	0.59	N/A	N/A	N/A	-2.34	-0.42	3.20	N/A	N/A
Difference	0.00	0.00	0.00	N/A	N/A	N/A	0.00	0.00	0.00	N/A	N/A
Peer Group Median	2.98	5.31	0.60	2.03	1.92	1.72	-3.38	-0.17	3.98	4.55	1.67
Rank	91	92	51	N/A	N/A	N/A	15	76	84	N/A	N/A
Population	115	114	113	109	105	91	119	124	128	131	140



### Portfolio Characteristics

Data is currently unavailable.

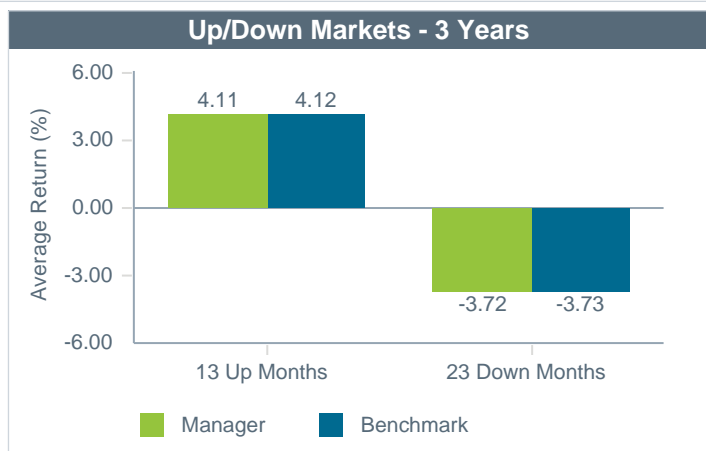
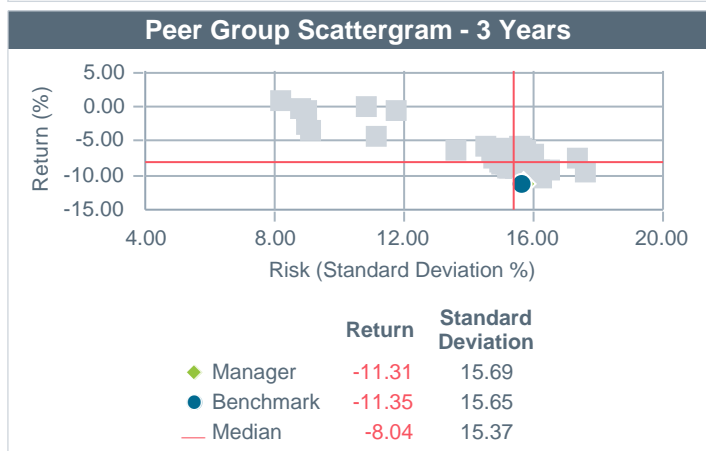


Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



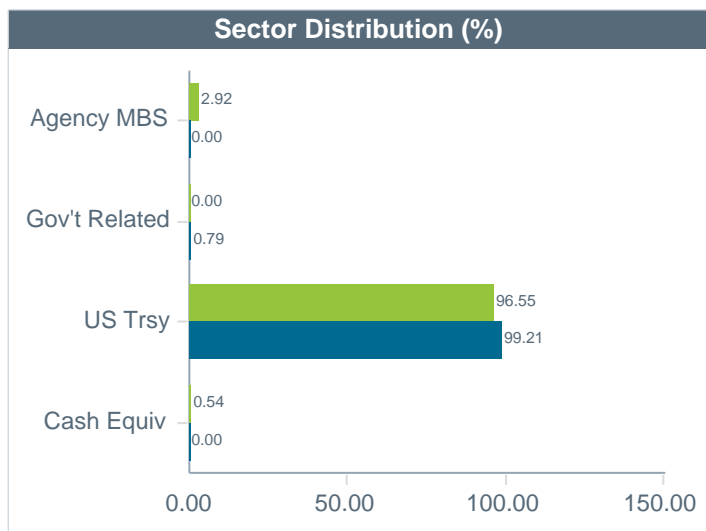


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	12.75	3.16	-11.31	-1.31	N/A	N/A	-28.46	-5.46	17.06	14.61	N/A
Benchmark	12.69	3.11	-11.35	-1.23	0.03	2.27	-29.19	-4.57	17.55	14.75	-1.79
Difference	0.06	0.05	0.04	-0.08	N/A	N/A	0.73	-0.89	-0.49	-0.14	N/A
Peer Group Median	13.29	7.98	-8.04	2.05	2.31	3.74	-26.71	-1.72	17.24	20.19	-4.73
Rank	83	100	100	100	N/A	N/A	96	100	54	92	N/A
Population	54	54	54	54	49	46	60	65	66	69	79



### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	N/A	15.66
Spread Duration	N/A	15.47
Avg. Maturity	N/A	22.70
Avg. Quality	N/A	Aa1
Yield To Maturity (%)	N/A	4.14
Coupon Rate (%)	N/A	2.80
Current Yield (%)	N/A	N/A
Holdings Count	N/A	106



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

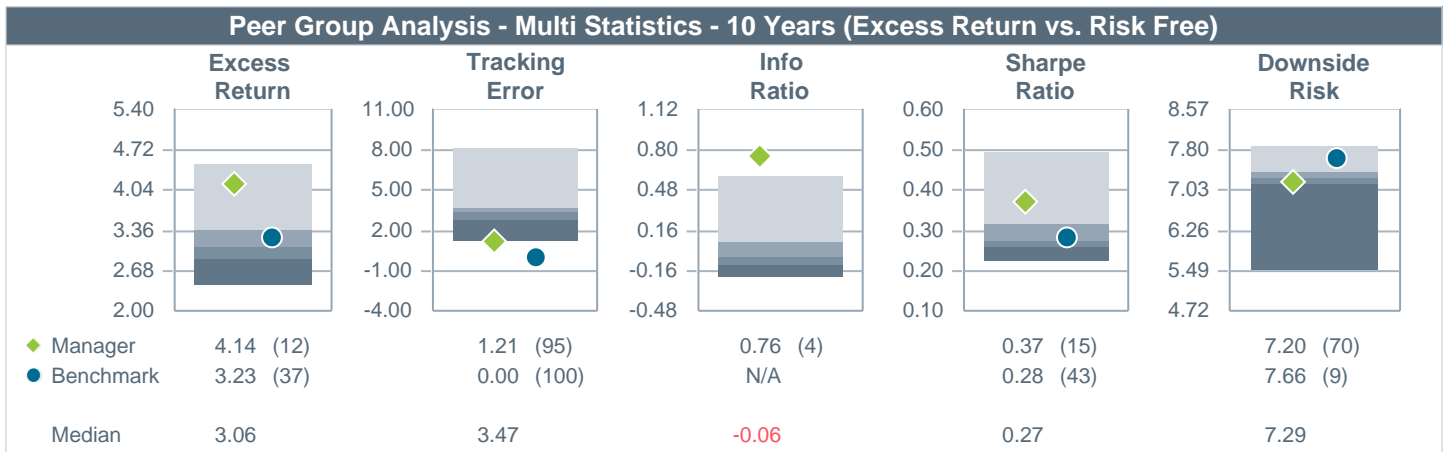
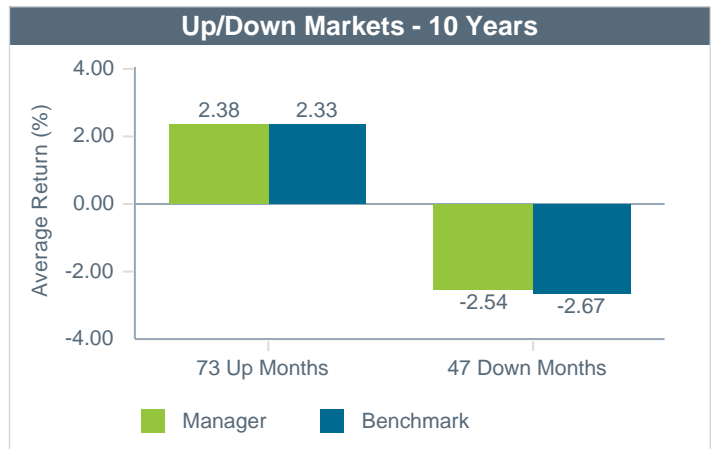
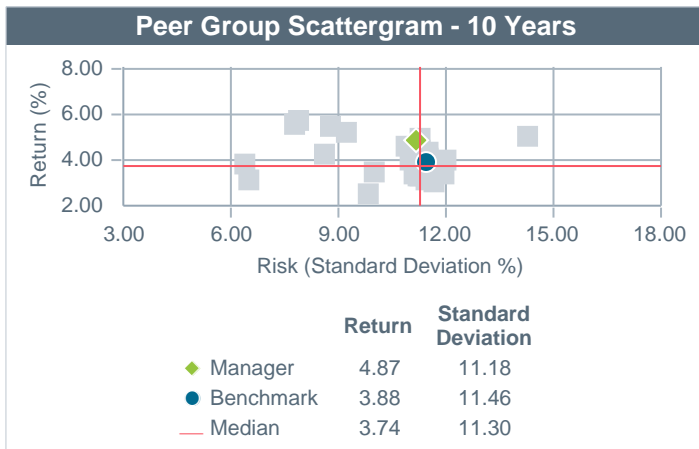
Manager: Metlife

As of December 31, 2023

Benchmark: Bloomberg US Lng Crdt Index

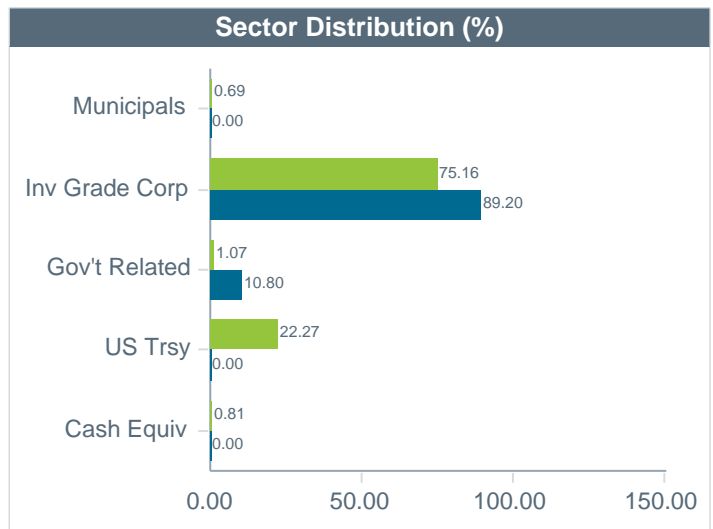
Peer Group: IM U.S. Long Duration (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	13.34	11.00	-6.41	3.37	3.41	4.87	-25.33	-1.09	16.37	23.73	-5.68
Benchmark	13.71	10.73	-6.50	2.70	2.58	3.88	-25.29	-1.18	13.32	23.36	-6.76
Difference	-0.37	0.27	0.09	0.67	0.83	0.99	-0.04	0.09	3.05	0.37	1.08
Peer Group Median	13.29	7.98	-8.04	2.05	2.31	3.74	-26.71	-1.72	17.24	20.19	-4.73
Rank	45	12	28	14	10	12	24	32	59	9	79
Population	54	54	54	54	49	46	60	65	66	69	79



### Portfolio Characteristics

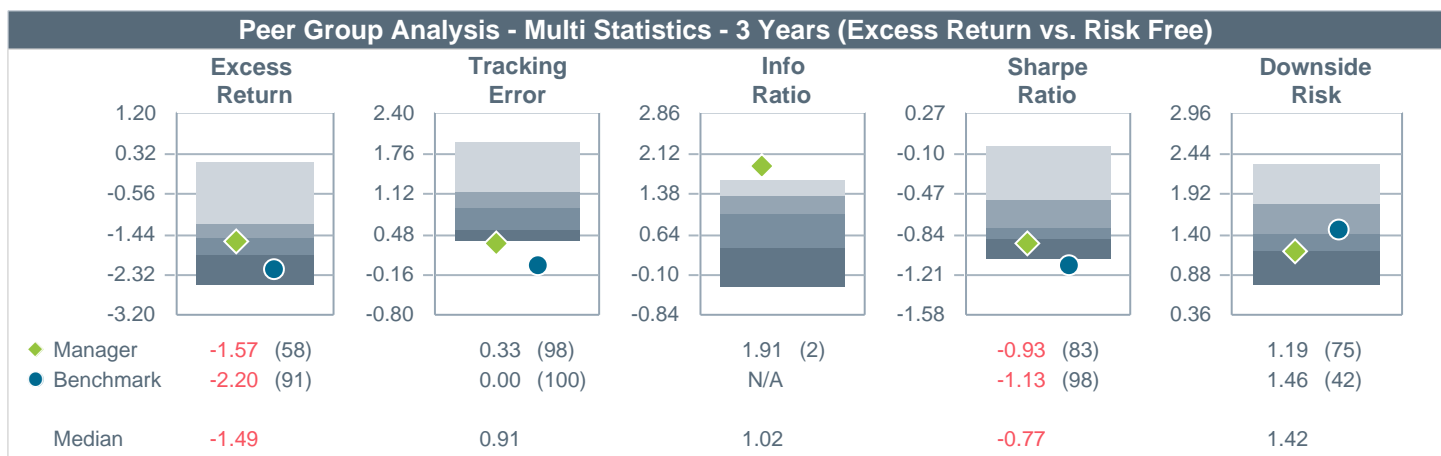
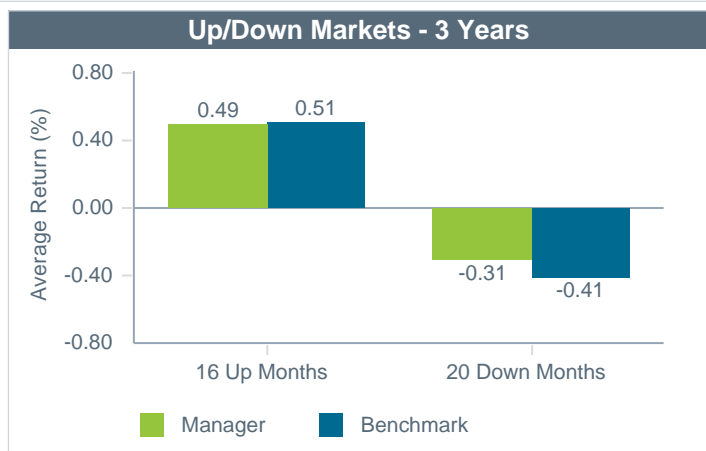
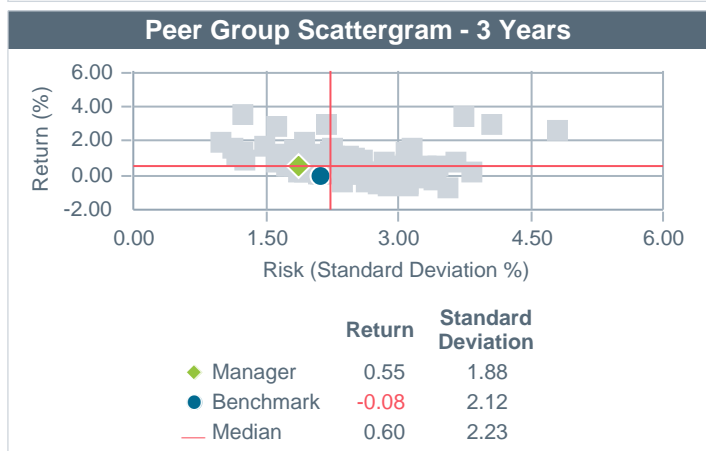
	Portfolio	Benchmark
Effective Duration	12.91	12.97
Spread Duration	9.14	12.92
Avg. Maturity	21.24	22.77
Avg. Quality	A3	A2/A3
Yield To Maturity (%)	5.22	5.23
Coupon Rate (%)	5.00	4.50
Current Yield (%)	5.21	N/A
Holdings Count	134	3,279



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

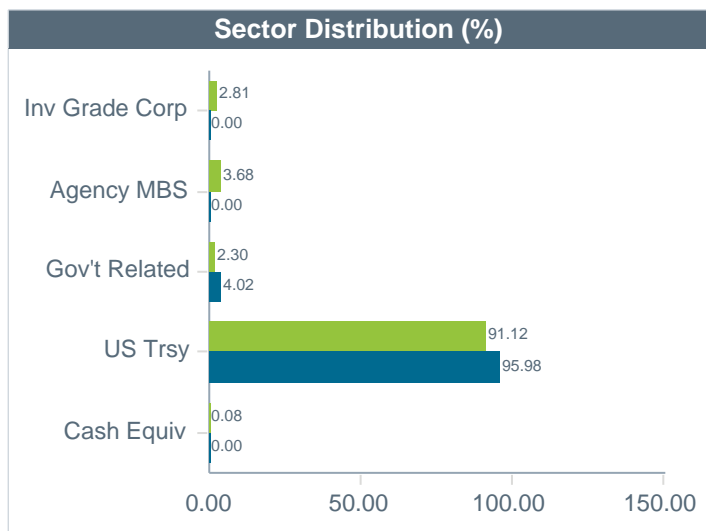


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	2.62	4.75	0.55	1.71	N/A	N/A	-2.89	-0.06	3.14	3.80	N/A
Benchmark	2.55	4.32	-0.08	1.28	1.20	1.05	-3.81	-0.60	3.14	3.59	1.58
Difference	0.07	0.43	0.63	0.43	N/A	N/A	0.92	0.54	0.00	0.21	N/A
Peer Group Median	2.98	5.31	0.60	2.03	1.92	1.72	-3.38	-0.17	3.98	4.55	1.67
Rank	82	91	57	82	N/A	N/A	30	43	85	86	N/A
Population	115	114	113	109	105	91	119	124	128	131	140



### Portfolio Characteristics

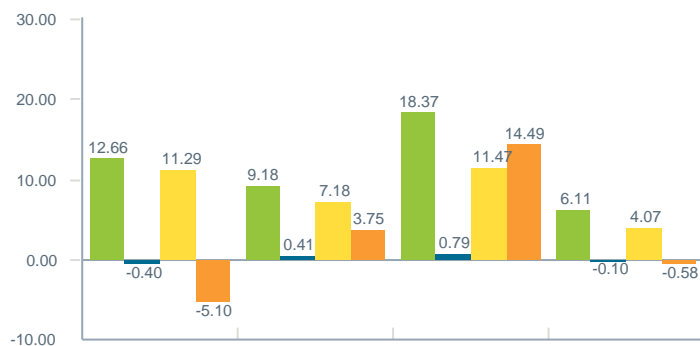
	Portfolio	Benchmark
Effective Duration	N/A	1.87
Spread Duration	N/A	1.87
Avg. Maturity	N/A	1.97
Avg. Quality	N/A	Aa1
Yield To Maturity (%)	N/A	4.33
Coupon Rate (%)	N/A	2.41
Current Yield (%)	N/A	N/A
Holdings Count	N/A	361



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-15.27	-16.27	-6.16	-4.02	-1.03	N/A	-2.26	0.97	-7.50	6.59	4.12
Benchmark	5.95	14.97	2.99	5.30	4.80	5.10	-9.44	4.91	3.59	14.41	-1.08
Difference	-21.22	-31.24	-9.15	-9.32	-5.83	N/A	7.18	-3.94	-11.09	-7.82	5.20

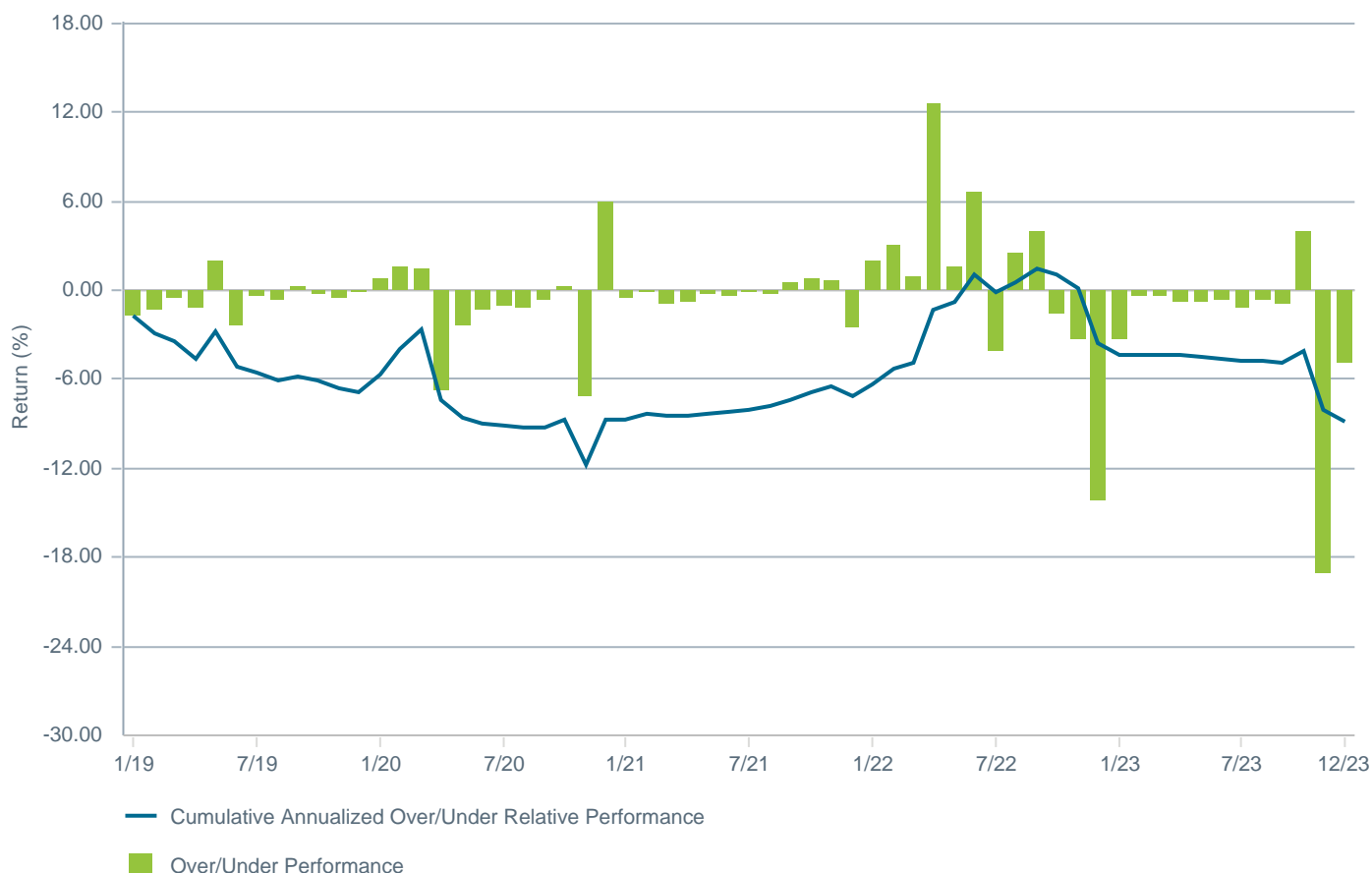
Historical Statistics - 5 Years (Excess Return vs. Risk Free)



Actual Correlation - 5 Years

	Actual Correlation
Credit Suisse Western Euro Hi Yld Index	-0.06
S&P 500 Index (Cap Wtd)	-0.06
Russell 2000 Index	0.06
MSCI EAFE Index (USD) (Net)	-0.14
MSCI Emg Mkts Index (USD) (Net)	0.01
Bloomberg US Agg Bond Index	-0.54
Bloomberg US Trsy US TIPS Index	-0.45
NCREIF ODCE Index (AWA) (Gross)	0.53
Wilshire US REIT Index	-0.08
HFRI FOF Comp Index	0.13
Bloomberg Cmdty Index (TR)	0.33
ICE BofAML 3 Mo US T-Bill Index	-0.49
Cons Price Index (Unadjusted)	0.48
Credit Suisse Western Euro Hi Yld Index	-0.06

Relative Performance - 5 Years



Performance shown is net of fees and client specific. Calculation is based on quarterly periodicity.

Investment Policy Guidelines	Meeting Objective			Explanation
	Yes	No	N/A	
<b>1. Total Fund</b>				
Exceed the rate of inflation (C.P.I.) over a market cycle of 5-years.	✓			Wyoming returned 6.1% vs. 4.1% for the C.P.I. for the current 5-year period
Exceed a weighted index of the total fund's asset allocation and component benchmarks over rolling 5-year periods by an appropriate amount.	✓			Wyoming returned 6.1% vs. 5.5% for the Total Fund Index for the current 5-year period
Not more than 1% of the outstanding common shares of any corporation shall be owned by the State. An exception may be made for Alternative Investments.	✓			
Not more than 1.5% of the total book value of permanent funds shall be invested in the common stock of any corporation. An exception may be made for Alternative Investments.	✓			

	Yes	No	N/A	Explanation
<b>2. Investment Funds</b>				
<b>a) Permanent Mineral Trust Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Permanent Mineral Trust Fund return was 8.3% vs. 7.5% for the Total Fund Index
<b>b) Common School Permanent Land Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Common School Permanent Land Fund return was 6.7% vs. 6.0% for the Total Fund Index
<b>c) Permanent Land Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Permanent Land Fund return was 8.4% vs. 7.4% for the Total Fund Index
<b>d) University Permanent Land Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: University Permanent Land Fund return was 8.4% vs. 7.5% for the Total Fund Index
<b>e) Hathaway Scholarship Endowment Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Hathaway Scholarship Endowment Fund return was 8.9% vs. 7.4% for the Total Fund Index
<b>f) Higher Education Endowment Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Higher Education Endowment Fund return was 6.6% vs. 6.0% for the Total Fund Index
<b>g) Workers Compensation Fund</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Workers Compensation Fund return was 5.2% vs. 4.6% for the Total Fund Index
<b>h) Pool A</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Pool A return was 5.2% vs. 4.5% for the Total Fund Index
<b>i) LSRA</b>				
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.			N/A	LSRA was funded during 2019.
<b>j) State Agency Pool</b>				
No public and/or private equities are permitted.	✓			
Exceed a weighted index of the Fund's asset allocation and component benchmarks over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: State Agency Pool return was 1.9% vs. 2.0% for the Actual Allocation Index

	Yes	No	N/A	Explanation
<b>3. US Equity Portfolios</b>				
<b>a) State Street Global Advisors – All Cap – Passive</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.	✓			Largest Holding: Apple = 7.0%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Meet performance of the State Street All Cap Custom Index, net of fees, over a full market cycle, approximated by the most recent five-year period.	✓			5-year: State Street return was 15.3% vs. 15.3% for the index
	Yes	No	N/A	Explanation
<b>b) Internal Domestic Equity Quantitative – Broad US Equity</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.		✗		Largest Holding: Microsoft = 9.7%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Exceed performance of the S&P 500 Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 06/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 06/2021

	Yes	No	N/A	Explanation
<b>c) Van Berkom – Small Cap - Active</b>				
The portfolio will achieve its goal primarily through the investment in a portfolio of 35 to 55 U.S. small-cap equity securities.	✓			
At the time of initial purchase, the market capitalization of the company's common stocks purchased will not exceed 0.023% of the total market capitalization of the S&P 500 Index. Furthermore, the Portfolio Manager may own up to 25% of the portfolio at market value in U.S. stocks that exceed 0.023% of the total market capitalization of the S&P 500 Index.	✓			
Individual Security = no more than 7% of account value Cash Position = no more than 5% of account value Sub-sector Limit = no more than 15% of the account value invested in a single sub-sector (Level IV of GICS sectors) GICS Sectors = minimum of 5 different GICS sectors (Level 1 GICS sectors)	✓			
Outperform the Russell 2000 Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 03/2020
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 03/2020



	Yes	No	N/A	Explanation
<b>d) Internal Small Cap Quantamental – Small Cap</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.		✗		Largest Holding: IES Holdings Inc = 5.1%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Exceed performance of the Russell 2000 Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 06/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 06/2021
<b>e) Internal Small Cap Quantitative – Small Cap</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.	✓			Largest Holding: Mr. Cooper Group = 0.7%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Exceed performance of the Russell 2000 Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 11/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception Date: 11/2021

	Yes	No	N/A	Explanation
<b>4. International Equity Portfolios</b>				
<b>a) Northern Trust – Int'l – Passive</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.	✓			Largest Holding: Novo Nordisk A/S = 1.4%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Meet performance of the MSCI ACW Ex US Ex China Index (Net), before fees, over a full market cycle, approximated by the most recent five-year period.	✓			5-year: Northern Trust gross of fees return was 7.4% vs. 7.3% for the MSCI ACW Ex US Ex China Index (Net)
	Yes	No	N/A	Explanation
<b>b) Arrowstreet – Int'l Active</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.	✓			Largest Holding: Samsung Electronics = 3.0%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Outperform the MSCI ACW Ex US IM Index (Net), net of fees, over a full market cycle, approximated by the most recent five-year period.	✓			5-year: Arrowstreet net of fees return was 13.5% vs. 7.2% for the MSCI ACW Ex US Index (Net)
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.	✓			

	Yes	No	N/A	Explanation
<b>c) Harding Loevner – Int'l Active</b>				
A maximum of 5% or the benchmark weighting + 2%, whichever is greater, of the total stock portfolio of the investment manager be invested in any one company.	✓			Largest Holding: Samsung Electronics = 4.1%
A maximum of 1% of the outstanding float of shares shall be held in companies with market capitalizations of \$5 Billion or greater at the time of purchase. For companies with market capitalizations of less than \$5 Billion, a maximum of 5% shall apply.	✓			
The maximum allowable in any sector, as defined by Global Industry Classification System Level 1, is 2.5 times the respective benchmark weighting.	✓			
A minimum number of 20 securities shall be held.	✓			
Outperform the MSCI ACW Ex US Index (Net), net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 01/2020
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 01/2020

	Yes	No	N/A	Explanation
<b>5. Preferred Stock</b>				
<b>a) Cohen &amp; Steers</b>				
Minimum issue credit rating for preferred stock at the time of purchase will be BB or equivalent.	✓			The portfolio currently holds securities which are rated below BB. Retention of these securities in the portfolio is permitted pursuant to Section 7.2 of the Investment Policy.
A maximum of 35% of the total portfolio of the investment manager may be invested in securities rated below investment grade.	✓			
A maximum of 10% of the total portfolio of the investment manager may be invested in any one issuer.	✓			
Outperform the Preferred Stock Custom Index, net of fees, over a full market cycle, approximated by the most recent five-year period.		✗		5-year: Cohen and Steers net of fees return was 4.9% vs. 5.1% for the Preferred Stock Custom Index (Net)
	Yes	No	N/A	Explanation
<b>6. MLPs</b>				
<b>a) Harvest</b>				
A maximum of 15% or the benchmark weighting + 2%, whichever is greater, of the total portfolio may be invested in any one company.	✓			
Outperform the MLP Custom Index, net of fees, over a full market cycle, approximated by the most recent five-year period.	✓			5-year: Harvest net of fees return was 13.4% vs. 11.1% for the MLP Custom Index (Net)
<b>b) Harvest Passive</b>				
A maximum of 15% or the benchmark weighting + 2%, whichever is greater, of the total portfolio may be invested in any one company.	✓			
Meet the MLP Custom Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 02/2020

	Yes	No	N/A	Explanation
<b>7. Alternative Strategies</b>				
<b>Core Real Estate</b>				
<b>a) Clarion Lion</b>				
Outperform the NCREIF Fund Index – Open-End Diversified Core Equity (ODCE), net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Clarion Lion net of fees return was 4.0% vs. 3.3% for the NCREIF ODCE Index (Net) (AWA)
The core portfolio shall consist of well-leased, high quality, income producing institutional properties.	✓			
The core portfolio shall be adequately diversified by geographical region, as well as by property type.	✓			
<b>b) UBS Trumbull</b>				
Outperform the NCREIF Fund Index – Open-End Diversified Core Equity (ODCE), net of fees, over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: UBS Trumbull net of fees return was -1.0% vs. 3.3% for the NCREIF ODCE Index (Net) (AWA)
The core portfolio shall consist of well-leased, high quality, income producing institutional properties.	✓			
The core portfolio shall be adequately diversified by geographical region, as well as by property type.	✓			
<b>c) MS Prime</b>				
Outperform the NCREIF Fund Index – Open-End Diversified Core Equity (ODCE), net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 10/2020
The core portfolio shall consist of well-leased, high quality, income producing institutional properties.	✓			
The core portfolio shall be adequately diversified by geographical region, as well as by property type.	✓			
<b>Diversified Hedge Funds</b>				
<b>d) Grosvenor Diversified Hedge Funds</b>				
Outperform the HFRI FOF Comp Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: Grosvenor Diversified Hedge Fund net of fees return was 4.4% vs. 5.1% for the HFRI FOF Comp Index
The portfolio shall be diversified across underlying hedge fund strategies and hedge fund managers.	✓			
<b>e) Internal Diversified Hedge Funds</b>				
Outperform the HFRI FOF Comp Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: Internal Diversified Hedge Fund net of fees return was 3.0% vs. 5.1% for the HFRI FOF Comp Index
The portfolio shall be diversified across underlying hedge fund strategies and hedge fund managers.	✓			

<b>Infrastructure</b>				
<b>f) Macquarie</b>				
Outperform the 10 Yr Treasury + 350 bps, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 04/2022
The core portfolio shall consist of high quality, income producing institutional properties.	✓			
The core portfolio shall be adequately diversified by geographical region, as well as by property type.	✓			
<b>e) Grosvenor Fund Class E</b>				
Outperform the 10 Yr Treasury + 350 bps, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 03/2023
The core portfolio shall consist of high quality, income producing institutional properties.	✓			
The core portfolio shall be adequately diversified by geographical region, as well as by property type.	✓			

8. Fixed Income Portfolios				
<b>a) PIMCO – Core</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles.	✓			
Non-U.S. dollar denominated securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Private mortgage-backed and asset-backed securities are limited to 10% of the portfolio market value.	✓			
Commercial mortgage-backed securities are permitted but shall comprise no more than 10% of the portfolio market value.	✓			
Dollar denominated emerging market securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Investments in mortgage interest only and principal only securities or their derivations are permitted, but shall comprise no more than 5% of the portfolio market value.	✓			
Commercial paper of all issuers shall not exceed \$500,000,000.	✓			
A minimum number of 25 securities shall be held.	✓			
Duration may not exceed 120% of the manager's primary benchmark, and overall core fixed income portfolio duration may not exceed 120% of the Bloomberg Barclays U.S. Aggregate Bond Index.	✓			
Average portfolio credit quality must be at least A- or equivalent.	✓			
Minimum issue credit rating at time of purchase shall be: A1+ or equivalent for commercial paper;  BBB- or equivalent for corporate bonds, Mortgage-Backed Securities, Commercial Mortgage-Backed Securities, Asset Backed Securities, Non-U.S. Dollar-Denominated Securities and Dollar-Denominated Emerging Market Securities.	✓			
Outperform its Custom Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: PIMCO net of fees return was 1.1% vs. 0.9% for the PIMCO Custom Index
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.		✗		5-year: PIMCO ranked in the 83rd percentile for Core Fixed Income

	Yes	No	N/A	Explanation
<b>b) Internal Int. Govt Fixed Income Portfolio – Core</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles.	✓			
Non-U.S. dollar denominated securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Private mortgage-backed and asset-backed securities are limited to 10% of the portfolio market value.	✓			
Commercial mortgage-backed securities are permitted but shall comprise no more than 10% of the portfolio market value.	✓			
Dollar denominated emerging market securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Investments in mortgage interest only and principal only securities or their derivations are permitted, but shall comprise no more than 5% of the portfolio market value.	✓			
Commercial paper of all issuers shall not exceed \$500,000,000.	✓			
A minimum number of 25 securities shall be held.	✓			
Duration may not exceed 120% of the manager's primary benchmark, and overall core fixed income portfolio duration may not exceed 120% of the Bloomberg Barclays U.S. Aggregate Bond Index.	✓			
Average portfolio credit quality must be at least A- or equivalent.	✓			
Minimum issue credit rating at time of purchase shall be: A1+ or equivalent for commercial paper;  BBB- or equivalent for corporate bonds, Mortgage-Backed Securities, Commercial Mortgage-Backed Securities, Asset Backed Securities, Non-U.S. Dollar-Denominated Securities and Dollar-Denominated Emerging Market Securities.	✓			
Outperform the Internal Int. Gov Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: Int. Govt Fixed Income Portfolio net of fees return was 0.3% vs. return of 0.1% for the Internal Int. Gov Index
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.		✗		5-year: Int. Govt Fixed Income Portfolio ranked in the 60th percentile for Government Fixed Income



	Yes	No	N/A	Explanation
<b>c) Payden &amp; Rygel – Core</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles.	✓			
Non-U.S. dollar denominated securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Private mortgage-backed and asset-backed securities are limited to 10% of the portfolio market value.	✓			
Commercial mortgage-backed securities are permitted but shall comprise no more than 10% of the portfolio market value.	✓			
Dollar denominated emerging market securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Investments in mortgage interest only and principal only securities or their derivations are permitted, but shall comprise no more than 5% of the portfolio market value.	✓			
Commercial paper of all issuers shall not exceed \$500,000,000.	✓			
A minimum number of 25 securities shall be held.	✓			
Duration may not exceed 120% of the manager's primary benchmark, and overall core fixed income portfolio duration may not exceed 120% of the Bloomberg Barclays U.S. Aggregate Bond Index.	✓			
Average portfolio credit quality must be at least A- or equivalent.	✓			
Minimum issue credit rating at time of purchase shall be: A1+ or equivalent for commercial paper;  BBB- or equivalent for corporate bonds, Mortgage-Backed Securities, Commercial Mortgage-Backed Securities, Asset Backed Securities, Non-U.S. Dollar-Denominated Securities and Dollar-Denominated Emerging Market Securities.	✓			
Outperform the Payden & Rygel Custom Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 11/2019
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 11/2019

	Yes	No	N/A	Explanation
<b>d) JPM MBS – Core</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles.	✓			
Non-U.S. dollar denominated securities are permitted, but shall comprise no more than 10% of the portfolio market value.	✓			
Private mortgage-backed and asset-backed securities are limited to 10% of the portfolio market value.	✓			
Commercial mortgage-backed securities are permitted but shall comprise no more than 10% of the portfolio market value.	✓			
Dollar denominated emerging market securities are permitted, but shall comprise no more than 10% of the portfolio market value.			N/A	
Investments in mortgage interest only and principal only securities or their derivations are permitted, but shall comprise no more than 5% of the portfolio market value.	✓			
Commercial paper of all issuers shall not exceed \$500,000,000.			N/A	
A minimum number of 25 securities shall be held.	✓			
Duration may not exceed 120% of the manager's primary benchmark, and overall core fixed income portfolio duration may not exceed 120% of the Bloomberg Barclays U.S. Aggregate Bond Index.	✓			
Average portfolio credit quality must be at least A- or equivalent.	✓			
Minimum issue credit rating at time of purchase shall be: A1+ or equivalent for commercial paper;  BBB- or equivalent for corporate bonds, Mortgage-Backed Securities, Commercial Mortgage-Backed Securities, Asset Backed Securities, Non-U.S. Dollar-Denominated Securities and Dollar-Denominated Emerging Market Securities.	✓			
Outperform the Bloomberg US MBS Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 11/2019
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 11/2019

	Yes	No	N/A	Explanation
<b>e) Credit Suisse – Bank Loans</b>				
Obligations of specific issuers are subject to a 5% per issuer limit, excluding investments in commingled vehicles.	✓			
Duration must not exceed + 1 year of the S&P/LSTA Leveraged Loan 100 Index.	✓			
Average portfolio credit quality must be at least B or equivalent.	✓			
Minimum issue credit rating at the time of purchase shall be: a) CCC or equivalent for individual securities; and b) Securities that are not rated shall be, in the judgment of the investment manager, of credit quality equal or superior to the standards described above.	✓			
Outperform the Bank Loans Index., net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 09/2019
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 09/2019
	Yes	No	N/A	Explanation
<b>f) Octagon – Bank Loans</b>				
Obligations of specific issuers are subject to a 5% per issuer limit, excluding investments in commingled vehicles.	✓			
Duration must not exceed + 1 year of the S&P/LSTA Leveraged Loan 100 Index.	✓			
Average portfolio credit quality must be at least B or equivalent.	✓			
Minimum issue credit rating at the time of purchase shall be: a) CCC or equivalent for individual securities; and b) Securities that are not rated shall be, in the judgment of the investment manager, of credit quality equal or superior to the standards described above.	✓			
Outperform the Bank Loans Index., net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 09/2019
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 09/2019

	Yes	No	N/A	Explanation
<b>g) KKR – Bank Loans</b>				
Obligations of specific issuers are subject to a 5% per issuer limit, excluding investments in commingled vehicles.	✓			
Duration must not exceed + 1 year of the S&P/LSTA Leveraged Loan 100 Index.	✓			
Average portfolio credit quality must be at least B or equivalent.	✓			
Minimum issue credit rating at the time of purchase shall be: a) CCC or equivalent for individual securities; and b) Securities that are not rated shall be, in the judgment of the investment manager, of credit quality equal or superior to the standards described above.	✓			
Outperform the Bank Loans Index., net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 10/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 10/2021
	Yes	No	N/A	Explanation
<b>h) Grosvenor Silvery Lupine Fund – Opportunistic Fixed Income</b>				
Outperform the CS Western European Hi Yld Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: net of fees return was -4.0% vs 5.3% for the index

	Yes	No	N/A	Explanation
<b>i) Global Evolution – Emerging Market Debt (Local Currency)</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged), net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 02/2020
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 02/2020

	Yes	No	N/A	Explanation
<b>j) Global Evolution – Emerging Market Debt (Hard Currency)</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the JPM EMBIG Div Ex CCC (USD) Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 12/2020
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 12/2020
	Yes	No	N/A	Explanation
<b>k) Eaton Vance – Emerging Market Debt</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the JPM EMB (JEMB) Hard/Local 50/50 Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 01/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 01/2021

	Yes	No	N/A	Explanation
<b>l) Goldman Sachs – Emerging Market Debt (Corporate)</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the JPM CEMBI Broad Div Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 03/2020
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 03/2020
	Yes	No	N/A	Explanation
<b>m) Finisterre – Emerging Market Debt</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the EMD 1/3 Blend Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 03/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 03/2021

	Yes	No	N/A	Explanation
<b>n) Wellington – Emerging Market Debt</b>				
Obligations of individual sovereign/quasi-sovereign issuers are subject to a 20% per issuer limit.	✓			
Obligations of corporate issuers are subject to a 10% per issuer limit.	✓			
The investment manager, as part of managing the account, can take net investment positions of up to 20% of the portfolio in currency and currency forwards.	✓			
Duration must not be more than + 20% of the index.	✓			
Average portfolio credit quality must be BB or equivalent or better.	✓			
Minimum Issue Credit Rating at the time of purchase shall be: A1+ or equivalent for commercial paper; B- or equivalent for individual securities Where a security is not rated at the issue level, the issuer rating shall be relied upon.	✓			
Outperform the 50% JPM GBI-EM Glb Div / 50% JPM EMBI Glb Div, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 09/2021
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 09/2021
	Yes	No	N/A	Explanation
<b>o) Metlife – Long Duration Credit</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles	✓			
A maximum of 30% of the portfolio may be invested in U.S. dollar denominated non-U.S. fixed income securities.	✓			
A maximum of 10% of the portfolio may be invested in U.S. dollar denominated emerging market securities.	✓			
A maximum of the appropriate benchmark plus 5% of the portfolio may be invested in convertible and municipal securities.	✓			
Average portfolio quality will be BBB+ or better. Securities shall be rated investment grade at time of purchase.	✓			
Outperform the Bloomberg US Long Credit Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: net of fees return was 3.2% vs 2.7% for the index
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.	✓			5-year: Metlife - Long Duration Credit ranked in the 14th percentile for IM US Long Duration



	Yes	No	N/A	Explanation
<b>p) Internal Long Duration – Long Duration Government</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles	✓			
A maximum of 30% of the portfolio may be invested in U.S. dollar denominated non-U.S. fixed income securities.	✓			
A maximum of 10% of the portfolio may be invested in U.S. dollar denominated emerging market securities.	✓			
A maximum of the appropriate benchmark plus 5% of the portfolio may be invested in convertible and municipal securities.	✓			
Average portfolio quality will be BBB+ or better. Securities shall be rated investment grade at time of purchase.	✓			
Outperform the Bloomberg US Gov Long Term Bond Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.		✗		5-year: net of fees return was -1.3% vs -1.2% for the index
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.		✗		5-year: Internal Long Duration ranked in the 100th percentile for IM US Long Duration
	Yes	No	N/A	Explanation
<b>q) Internal Low Duration – Low Duration Government</b>				
Obligations issued or guaranteed by the U.S. government, U.S. agencies or U.S. government-sponsored corporations and agencies are eligible without limit.	✓			
All other issuers are subject to a 5% per issuer limit excluding investments in commingled vehicles	✓			
Corporate securities will be subject to a maximum limit of 20%.	✓			
Portfolio duration must be within plus or minus 30% of the Bloomberg Barclays US Gov't: 1-3 Year Bond Index.	✓			
Average portfolio quality will be A or better.	✓			
Outperform the Bloomberg US Gov 1-3 Year Bond Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: net of fees return was 1.7% vs 1.3% for the index
Performance should rank in the top 40th percentile of peer manager universe as measured by the State's Consultant, gross of fees, over a full market cycle, approximated by the most recent five-year period.		✗		5-year: Int. Low Duration ranked in the 82nd percentile for US Short Duration Fixed Income

	Yes	No	N/A	Explanation
<b>9. Cash and Cash Equivalents Portfolios</b>				
<b>JP Morgan Cash Composite*</b>				
<b>a) JP Morgan Treasury Cash</b>				
The portfolio's weighted average maturity shall not exceed 90 days.	✓			
All securities shall have a maximum maturity of 365 days.	✓			
The maximum average cash flow weighted duration of the portfolio shall not exceed 90 days.	✓			
The market value of the portfolio shall remain within +/- 0.5% of 1.0% of amortized cost.	✓			
A maximum of 5% of total assets may be placed in securities of one issuer except for government securities.	✓			
Investment in any single issuer must not exceed 5% of the outstanding issues of that issuer.	✓			
Investment performance must exceed Monitored Repurchase Agreement Rate and the cash equivalents allocation by the 90-day T-Bill rate, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: JP Morgan Treasury Cash net of fees return was 1.9% vs. 1.9% for the ICE BofAML 3 Mo US T-Bill Index
	Yes	No	N/A	Explanation
<b>JP Morgan Wyo-Star Cash Composite*</b>				
<b>b) JP Morgan Wyo-Star Cash</b>				
The portfolio's weighted average maturity is not to exceed 90 days.	✓			
All securities must have a maximum maturity of 365 days.	✓			
The maximum average cash flow weighted duration of the portfolio must not exceed 90 days.	✓			
The market value of the portfolio must remain within +/- 0.5% of 1% of amortized cost.	✓			
A maximum of 5% of total assets may be placed in securities of one issuer except for government securities.	✓			
Investment performance must exceed Monitored Repurchase Agreement Rate and the cash equivalents allocation by the 90-day T-Bill rate, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: JP Morgan Wyo-Star Cash net of fees return was 1.8% vs. 1.9% for the ICE BofAML 3 Mo US T-Bill Index
<b>c) JP Morgan Wyo-Star Extended Cash</b>				
Maximum average cash flow weighted duration is not to exceed 3 years.	✓			
Individual securities must not exceed a cash flow weighted duration of 5 years.	✓			
A maximum of 5% of total assets may be placed in securities of one issuer except for government securities.	✓			
Investment Performance must exceed an Equal Weighted Blend of the BofA Merrill Lynch 1-3 Year Agency, 1-3 Year Treasury, and a 0-3 Year Mortgage Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.	✓			5-year: JP Morgan Wyo-Star Extended Cash net of fees return was 2.1% vs. 1.3% for the Blended Index
The extended portion of WYO-STAR may not exceed 35% of the market value of the portfolio at the time of purchase.	✓			

\*During the fourth quarter of 2011, JP Morgan Wyo-Star Cash and JP Morgan Wyo-Star Extended Cash were combined. Net of fees performance shown consists of performance calculated by RVK, Inc. prior to 12/31/2011 and performance calculated by JP Morgan thereafter.

# Addendum & Glossary



**Custom Benchmark Comments**

The Wyoming State Total Fund Index and Pool Total Fund Indices are calculated using target asset class weights applied to the appropriate asset class benchmark return, using the S&P 500 Index for US all cap equities, the Russell 2000 Index for US small cap equity, MSCI ACW Ex US Index (Net) for international equities, MLP Custom Index for MLPs, Bloomberg US Agg Bond Index for core fixed income, S&P/LSTA Lvg'd Loan 100 Index for bank loans, EMD Blended Benchmark for EMD, NCREIF Open-End Diversified Core Equity Index for real estate, Cambridge Index for private equity, HFRI FOF Comp Index for Diversified Hedge Funds, and ICE BofA Merrill Lynch 90 day US T-Bill rate for cash equivalents.

- The Wyoming State Total Fund Index is calculated using beginning month asset class weights applied to the appropriate asset class benchmark return through 12/31/2019. As of 01/01/2020, the Index is calculated using the weighted average of the respective Investment Funds' Target Allocation Indices.
- Pool Total Fund Indices consist of the actual allocation index through 12/31/2019, and the target allocation index thereafter.
- The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter.
- The MLP Custom Index consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter.
- The International Equity Custom Index consists of the MSCI EAFE Index (USD) (Gross) through July 2010, the MSCI ACW Ex US Index (USD) (Net) through July 2023, and actively weighted blend of MSCI ACW Ex US Index (USD) (Net) and MSCI ACW Ex US Ex China Index thereafter.
- The Preferred Stock Custom Index consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.
- The Internal Intermediate Govt Fixed Income Portfolio Index currently consists of the Bloomberg US Treasury Index. November 2019 performance consists of the Internal Intermediate Govt Fixed Income Portfolio. Prior to November 2019, the index consists of Bloomberg US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the Bloomberg US Gov't Crdt Bond Index.
- The PIMCO Custom Index consists of the Bloomberg US Agg Bond Index through February 2018, the Bloomberg US Agg Int Index through June 2019, the Bloomberg US Agg Bond Index through 03/26/2020, account performance from 03/27/2020 through 04/03/2020, the BB US Agg Index through 11/29/21, account performance from 11/29/21 through 12/07/21, the Bloomberg US Agg Bond Index through 06/30/2022, account performance on 7/1/2022, and the Bloomberg US Agg Bond Index thereafter.
- The Low Duration Fixed Income Custom Index consists of the Bloomberg US Gov't Crdt 1-3 Yr Bond Index through 06/30/2019 and the Bloomberg US Gov't 1-3 Yr Bond Index thereafter.
- Transition Fixed Income Custom Index consists of 50% JPM CLOIE IG Idx, 40% BB 1 – 3 Yr Crdt, and 10% ICE BofA 0-2 Yr Dur BB-B Index.
- The State Street All Cap Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter.
- The EMD Custom Index consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvf'd Index, 1/3 JPM CEMBI Brd Dvf'd Index, and 1/3 JPM EMBI Gbl Dvf'd Index thereafter.
- The JP Morgan EMB (JEMB) Hard Currency/Local Currency 50/50 consists of 50% JPM GBI-EM Gbl Dvf'd Index, 25% JPM CEMBI Brd Dvf'd Index, and 25% JPM EMBI Gbl Dvf'd Index.
- The Goldman Sachs Index consists of JPM CEMBI Brd Dvf'd Index through 11/22/2020, account performance from 11/23/2020 through 11/30/2020, and the JPM CEMBI Brd Dvf'd Index thereafter.
- The Bank Loans Custom Index consists of S&P LSTA Lvg'd Loan Index through 06/30/2021, and the S&P LSTA US Lvg'd Loan 100 Index thereafter.
- The Payden & Rygel Custom Index consists of the Bloomberg US Corp Inv Grade Index through 03/25/2020, account performance from 03/26/2020 through 03/31/2020, and Bloomberg US Corp Inv Grade Index thereafter.
- Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.
- The JP Morgan Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.
- The Wyo-Star Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. Currently, the primary benchmark for Wyo-Star Cash is the ICE BofAML 3 Mo US T-Bill Index and for Wyo-Star Extd is the JP Morgan Blended Index.

**Performance & Holding Comments**

RVK, Inc. shows performance beginning with the first full month following inception. Inception date shown for the Int'l Equity and JP Morgan Cash Composites represents the first date of performance calculated by RVK, Inc.

Performance shown for Pooled Funds is calculated on a capital-weighted basis using beginning-period allocations and does not reflect net cash flows.

Performance shown for the UW Portfolio Management Program prior to 07/01/2009 includes their participation in the State Agency Pool. Performance calculated for the UW Portfolio Management Program after 02/01/2013 has not been verified by RVK as the assets have been moved to a platform in which the custodian does not provide a reconcilable return.

Performance for the Internal Intermediate Govt Fixed Income Portfolio excludes distressed securities taken in-kind following the liquidation of WAMCO Core Plus.

Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.

Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark.

Composite performance shown for Fixed Income is historically exclusive of convertibles.

**Alternative Investment Comments**

Reporting for Private Equity performance was changed from cost basis to the latest portfolio valuation adjusted for cash flows, consistent with the supplementary alternatives report. This methodology change involved reflecting the difference between cost value and the most recent valuation, resulting in a significant positive performance impact on the total fund during 2nd quarter 2008.

Valuations for non-core real estate and private equity were changed from a one-quarter lag to as of the most recent valuation, adjusted for subsequent cash flows. This methodology change involved reflecting all cash flows occurring during 4th quarter 2011 as of January 2012, resulting in a minor positive performance impact on the total fund during 1st quarter 2012. Investment (Cost) Values are not lagged.

Performance for non-core real estate and private equity investments is calculated on an IRR basis. For further analysis, please refer to the supplementary alternatives performance report.

Cheyenne Capital Fund valuations set forth herein could be materially different once underlying investments are realized. Market conditions at the time of exit could be substantially different than at the reporting period, resulting in valuations different than those represented above.

**Miscellaneous Comments**

Wyoming State Treasurer's Office fiscal year ends on June 30th.

Fixed Income style peer groups have low populations, and may cause ranks to change significantly from quarter to quarter.

"IM" is the acronym for Investment Metrics, the provider of peer group data used in ranking investment manager and asset class performance.

During the 4th quarter of 2012, WAMCO Core Plus, Neuberger Berman Core Plus, PIMCO Core Plus, PIMCO Mortgages, JP Morgan Mortgages, WAMCO Corporates, Logan Circle, and PIMCO Global/EM began the liquidation process to transition assets to the State's new fixed income asset class structure. The proceeds were used to fund State Street TIPS, C.S. McKee, JP Morgan Core, MacKay Shields, Neuberger Berman Core, PIMCO Core, and Wells Capital. During the 1st quarter of 2013, additional assets were transitioned to Neuberger Berman Credit, Seix, Investec, and Stone Harbor.

During the 4th quarter of 2014, State Street S&P 500 and Gabelli began the liquidation process to transition assets to the State's new US equity asset class structure. The proceeds were used to fund State Street All Cap, Epoch, Lazard, and RBC. During the 1st quarter of 2015, additional assets were transitioned to Arrowstreet.

During the 4th quarter of 2015, the Workers Compensation Fund was reclassified as a Permanent Fund.

During the 1st quarter of 2016, the State funded the Internal International Equity Portfolio, using proceeds from the liquidation of The Boston Company.

During the 3rd quarter of 2016, Bloomberg acquired the Barclays Global Family of Fixed Income Indices. Naming conventions have been updated to "Bloomberg" to reflect the acquisition.

During the 3rd quarter of 2016, MacKay Shields began the liquidation process, with proceeds used to increase allocations to C.S. McKee and the Internal Intermediate Govt Fixed Income Portfolio.

During the 1st quarter of 2017, Neuberger Berman Core and Wells Capital began their respective liquidation processes.

During the 2nd quarter of 2017, Manning & Napier began the liquidation process.

During the 4th quarter of 2017, Lazard began the liquidation process.

During the 4th quarter of 2017, Intercontinental Exchange (ICE) acquired the BofA Merrill Lynch Global Research FICC index platform. As a result, all BofA Merrill Lynch indices have been rebranded to "ICE BofA Merrill Lynch".

During the 1st quarter of 2018, Arrowstreet was reclassified as International Equity and the Internal Low Duration portfolio was funded.

During the 2nd quarter of 2018, Cohen & Steers, Grosvenor Diversified Hedge Funds, and Internal Diversified Hedge Funds were funded.

During the 2nd quarter of 2018, the Hybrid Assets Composite was created for convertibles, preferred stock, and MLPs.

During the 2nd quarter of 2018, RBC began the liquidation process.

During the 3rd quarter of 2018, Internal Equity Russell 2000 was funded.

During the 3rd quarter of 2018, Harvest was funded.

During the 4th quarter of 2018, Logan Circle, Internal Long Duration Fixed Income Portfolio, and State Street Low Duration were funded.

During the 1st quarter of 2019, Epoch began the liquidation process.

During the 2nd quarter of 2019, Allianz, Stone Harbor, Fisher, JPM Core, NB Credit, Seix, State Street TIPS, and State Street Low Duration began the liquidation process.

During the 3rd quarter of 2019, Credit Suisse, Octagon, and Internal Ladder Portfolio were funded.

During the 4th quarter of 2019, Harding Loevner, State Street Russell 2000, Harvest Passive, Payden & Rygel, and JPM MBS were funded, and CS McKee began the liquidation process.

During the 1st quarter of 2020, Van Berkomp was funded.

During the 2nd quarter of 2020, Grosvenor D was funded.

During the 3rd quarter of 2020, MS Prime and BlackRock Small Cap were funded.

During the 4th quarter of 2020, Eaton Vance and Global Evolution Hard were funded.

During the 1st quarter of 2021, Finisterre was funded.

During the 2nd quarter of 2021, Domestic Equity Quantamental, Domestic Equity Quantitative, and Small Cap Equity Quantamental were funded.

During the 3rd quarter of 2021, KKR and Wellington were funded.

During the 4th quarter of 2021, Pimco Low Duration was funded.

During the 1st quarter of 2022, Macquarie was funded.

During the 2nd quarter of 2022, Accel KKR was funded.

During the 3rd quarter of 2022, Morgan Stanley Ashbridge Secondaries II, Passive Large Cap Equity, Passive Core Fixed Income, International Equity ETF, Opportunistic, and MGIF were funded.

During the 4th quarter of 2022, Atalaya Evergreen Fund, BlackRock Global Credit Opportunities Fund II, and Octagon SMA were funded.

During the 1st quarter of 2023, AG Direct Lending Evergreen LP, Grosvenor Class E LLC, and Credit Suisse SMA were funded.

During the 2nd quarter of 2023, Kennedy Lewis Capital Partners Fund III LP and BVP Forge Institutional Fund LP were funded.

During the 3rd quarter of 2023, International Equity Quantitative, Banner Ridge Secondaries Fund V, Hammes Partners IV LP, and Strategic Value Capital Solutions Fund II were funded.

**Wyoming State Treasurer's Office**  
**Addendum**

**As of December 31, 2023**

During the 4th quarter of 2023, Ares Pathfinder Fund II was funded.

## INVESTMENT MANAGER PEER GROUP GLOSSARY

**IM U.S. All Cap Equity (SA+CF):** The **U.S. All Cap Equity** universe includes products with a higher growth bias, products with a higher value bias, and products where the investment strategy permits investments in both value and growth equity securities across the complete Russell 3000 market cap spectrum.

**IM U.S. Large Cap Core Equity (SA+CF):** The **U.S. Large Cap Core Equity** universe includes products where the investment strategy can best be described as benchmark driven rather than style driven and can include a blend of both value and growth considerations. The weighted average market cap is in excess of \$10 billion.

**IM U.S. Small Cap Core Equity (SA+CF):** The **U.S. Small Cap Core Equity** universe includes products where the investment strategy can best be described as benchmark driven rather than style driven and can include a blend of both value and growth considerations. The weighted average market is between \$300 million and \$2 billion.

**IM All ACWI ex US (SA+CF):** The **All ACWI ex US** universe includes products where the investment strategy can be best described as benchmark driven and includes products investing in growth and value securities across the MSCI ACW Ex US Index.

**IM U.S. Broad Mkt Core Fixed Income (SA+CF):** The **U.S. Broad Mkt Core Fixed Income** universe includes products where the portfolio weighted average duration is greater than or equal to 4 years and less than 6 years. The average maturity can be between 3 and 8 years. The allocation to high yield bonds or emerging market debt is less than or equal to 5%.

**IM Emerging Markets Debt (SA+CF):** The **Emerging Markets Debt** universe includes products where the combined market allocation to emerging market debt in Asia, Africa/Europe and Latin America is approximately 75% or more. The JP Morgan Emerging Markets Bond and EMBI+ are commonly used benchmarks.

**IM U.S. Government Bonds (SA+CF):** The **U.S. Government Bonds** universe includes products where the investment style focuses on government bonds and the sector allocation to them is greater than or equal to 75%. The Barclays Capital U.S. Government or Government: Intermediate are commonly used benchmarks.

**IM U.S. Short Duration Fixed Income (SA+CF):** The **U.S. Short Duration Fixed Income** universe includes products where the portfolio weighted average duration is greater than or equal to 1 year and less than 2.5 years. The average maturity is between 1 and 3 years.

**IM U.S. Long Duration Fixed Income (SA+CF):** The **U.S. Long Duration Fixed Income** universe includes products where the portfolio weighted average duration is greater than or equal to 6 years. The average maturity can be greater than 6 years.

**IM U.S. Bank Loans (SA+CF):** The **U.S. Bank Loans** universe includes products where the sector allocation to bank loans is greater than or equal to 75%. The S&P/LSTA Leverage Loan Index or Credit Suisse Leveraged Loan Index are commonly used benchmarks.



## Glossary

**Active Return** - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

**Active Share** - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

**Alpha** - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

**Alpha Ratio** - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

**Average Quality** - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>
<b><u>Higher Credit Quality – Investment Grade</u></b>			<b><u>Lower Credit Quality – Below Investment Grade</u></b>		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

**Benchmark Effect** - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Box Plots** - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1<sup>st</sup> quartile, 2<sup>nd</sup> quartile, 3<sup>rd</sup> quartile, and 4<sup>th</sup> quartile). The median observation is where the 2<sup>nd</sup> quartile and 3<sup>rd</sup> quartile meet.

**Buy and Hold Attribution** - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

**Sector** - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

## Glossary

### Capital Markets Review -

**Breakeven Inflation** - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

**Consumer Confidence** - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

**Consumer Price Index (CPI)** - Measures the change in the price level of consumer goods and services.

**Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

**Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

**Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

**Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

**Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.

**US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

**VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

**Cash Flow Effect** – The composite's active return minus the sum of each managers' active return minus the benchmark effect.

**Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

**Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

**Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

**Current Yield** - The annual income of a security divided by the security's current price.

**Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

**Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

**Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

**Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.

**Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

**Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

**Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

**Expense Ratios** - Morningstar is the source for mutual fund expense ratios.

**Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

**Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

**Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

## Glossary

**Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

**Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

**Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

**Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.

**Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

**Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

**Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

**Net Cash Flow** - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

### Peer Groups -

**Plan Sponsor Peer Groups** - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe.

The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans.

**Investment Manager Peer Groups** - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value

100 - Lowest Statistical Value

*Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.*

**Performance Methodology** - RVK calculates performance for investment managers and composites using different methodologies.

**Investment Managers** - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

**Portfolio Characteristics & Distribution (%)** - Due to disclosure guidelines set by each investment manager, portfolio characteristics and distribution percentages shown are as of the most recent date available.

**Price to Earnings Ratio** - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

**Private Equity Quartile Ranks** - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**Return** - Compounded rate of return for the period.

**% Return** - The time-weighted rate of return of a portfolio for a given period.

**Risk Free Benchmark** - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.



## Glossary

**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<b><u>Liquid Investments</u></b>		<b><u>Less Liquid Investments</u></b>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<b><u>Not Liquid Investments</u></b>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity	5
US SMid Cap Equity	85	Private Credit	5
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

**Sector Allocation** - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Simple Alpha** - The difference between the manager's return and the benchmark's return.

**Spread Duration** - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

**Thematic Classification** - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

**Time Period Abbreviations** - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

**Total Fund Attribution** - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

**Strategic Asset Allocation (SAA)** - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

**Tactical Asset Allocation (TAA)** - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

**Style Selection (SS)** - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

**Manager's Skill (MS)** - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.



## Glossary

**Tracking Error** - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

**Unit Value** - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

**Up Market Capture** - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

**Yield to Maturity** - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

**Yield to Worst** - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

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