



Quarterly Investment Performance Analysis

Wyoming State Treasurer's Office

Period Ended: June 30, 2020





Memorandum

To	Wyoming State Loan and Investment Board
From	RVK, Inc.
Subject	Investment Performance Analysis – Summary of Contents
Date	June 30, 2020

To assist in your review of the Investment Performance Analysis for the quarter ended June 30, 2020, we have provided below an outline and summary of the information contained within each section of this report.

MEMORANDUM – Investment Performance Analysis Commentary

- This three-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 actual allocation 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

Second QUARTER 2020

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Memorandum

To	Wyoming State Loan and Investment Board
From	RVK, Inc.
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Date	June 30, 2020

Outlined below please find a summary of significant observations regarding performance of the State's Funds for the period ended June 30, 2020. We hope this summary will facilitate your review of our Investment Performance Analysis Report.

The Total Fund returned 7.5% net of fees during the second quarter as risk assets produced positive returns. Long-term performance for the Total Fund remains strong, with the State earning returns of 4.5% and 5.1% per annum over the trailing seven- and ten-year periods.

Absolute results were positive for all of the State's investment pools, with each pool keeping pace with, or modestly underperforming, their respective benchmarks during the quarter. The State's non-permanent funds with larger strategic allocations to fixed income investments generated lower returns on an absolute basis, but similar returns on a relative basis, compared to the State's permanent funds.

The Bloomberg US Aggregate Bond Index increased by 2.9% in the quarter, driven by recovery in credit spreads. Diversification away from core US bonds had mixed results as bank loans, EMD, and long duration outperformed the broad market, while low duration underperformed. The State's core fixed income managers slightly outperformed the broad market index, collectively returning 3.4%. Emerging markets debt outperformed its respective benchmark, while long duration, low duration, and bank loans modestly underperformed their respective benchmarks during the quarter.

US equity markets had a strong recovery across all market capitalizations and styles during the second quarter. Major US equity indices finished the quarter in positive territory, with the Russell 3000 Index returning 22.0% for the quarter. The State's All Cap and Small Cap US equity composites had positive returns during the second quarter, keeping pace with or modestly underperforming their respective indices.

Developed international markets underperformed emerging markets during the quarter, with the MSCI EAFE Index returning 14.9% and the MSCI Emerging Markets Index returning 18.1%. The State's international equity composite returned 18.1% during the quarter, outperforming the MSCI ACW Ex US Index by 2.0%. Passively managed strategies within the State's

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international equity portfolio kept pace with their respective benchmarks, while Arrowstreet outperformed its respective benchmark by 4.1%. Harding Loevner also had strong outperformance of 1.9%.

Mixed assets, including preferred stock and MLPs, generated positive absolute returns during the quarter. Cohen & Steers returned 11.4% in the quarter and outperformed its benchmark by 0.6%. MLPs had very strong performance as Harvest Active and Harvest Passive returned 32.7% and 39.1%, respectively, but underperformed the index.

Core real estate generated a negative return during the quarter, with capital depreciation outpacing income. The State's core real estate composite earned -2.1% in the second quarter, underperforming the NCREIF ODCE Index. Clarion earned -2.0%, while UBS returned -2.6%.

Diversified hedge funds returned 4.9% during the quarter, underperforming the HFRI FOF Composite Index by 3.0%. Grosvenor Diversified Hedge Funds and Internal Diversified Hedge Funds returned 7.0% and 3.8%, respectively.

Fiscal Year Ended June 30, 2020

In a year marked by mixed performance for risk assets but strong performance for core fixed income, most of the State's investment pools earned positive absolute returns ranging from 1.3% to 9.0%. A majority of the investment pools outperformed their respective benchmarks during the year. Relative returns were supported by the State's Fixed Income portfolio, which outperformed the Bloomberg US Agg Bond Index amidst a strong return environment for the broad US bond market. The Federal Reserve adopted very accommodative policy and lowered rates significantly over the course of the year, causing strong returns for the core and long duration portfolios. Public equities and alternatives contributed to mixed absolute results for the permanent funds as the fiscal year saw a wide dispersion of performance among risk assets. Large-cap domestic equities greatly outperformed small-cap, MLPs and international equities during the fiscal year marked by global health concerns, economic shutdowns, aggressive monetary and fiscal policy, and continued political divisiveness. Although the re-opening of economies led to stronger economic data and supported a market recovery toward the end of the fiscal year, it is possible that these risks could have a larger influence on markets going forward.

- The Permanent Mineral Trust and Common School Permanent Land Fund ended the fiscal year with returns of 2.1% and 2.2%, respectively. The Permanent Land Fund and University Permanent Land Fund ended the fiscal year with returns of 2.4% and 1.3%, respectively. Of these four Permanent Funds, PMTF, CSPLF, and PLF outperformed their respective custom benchmarks. Hathaway Scholarship Endowment and Higher Education Endowment returned 2.1% and 1.4%, respectively. Both outperformed their custom benchmarks. The Workers Compensation Fund returned 9.0%, outperforming its custom benchmark by 1.0%.



- Absolute performance for the Non-Permanent Funds (Pool A, LSRA and State Agency Pool) was similar to that of the Permanent Funds, and the Non-Permanent Funds had similar returns relative to their custom benchmarks. Pool A returned 4.0% versus 3.3% for its custom benchmark, LSRA returned 1.5% versus 1.4% for its custom benchmark, and the State Agency Pool returned 3.8% versus 3.5% for its custom benchmark.

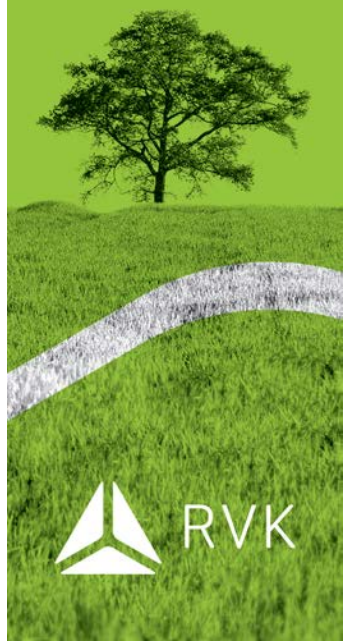
Fixed income markets experienced strong returns as interest rates declined during the year.

- Core Fixed Income: The Core Fixed Income Portfolio produced a positive fiscal year return of 9.3% compared to the Bloomberg US Aggregate Bond Index return of 8.7%.
- Non-Core Fixed Income: Diversification away from core US bonds had mixed results as long duration outperformed the broad market, while bank loans, EMD, and low duration underperformed. Non-US fixed income exposures had a mixed impact to relative and absolute returns within the fixed income portfolio. Opportunistic European credit earned -8.8% over the trailing one-year period, while emerging market debt returned -2.6%.

Consistent with global markets, the State's equity and alternative investment managers produced mixed absolute results and relative results, as shown below:

- The All Cap US equity portfolio returned 6.2% compared to 6.9% for the All Cap Custom Index.
- The Small Cap US equity portfolio returned -7.6% compared to -6.6% for the Russell 2000 Index.
- The international equity portfolio returned -1.2% compared to -4.8% for the MSCI ACW Ex US Index.
- The core real estate portfolio returned 1.4%, compared to 1.3% for the NCREIF ODCE Index.
- The diversified hedge funds portfolio returned -1.2%, compared to 0.4% for the HFRI FOF Comp Index.
- The MLP portfolio returned -36.0%, compared to -38.4% for the MLP Custom Index.

Capital Markets Review

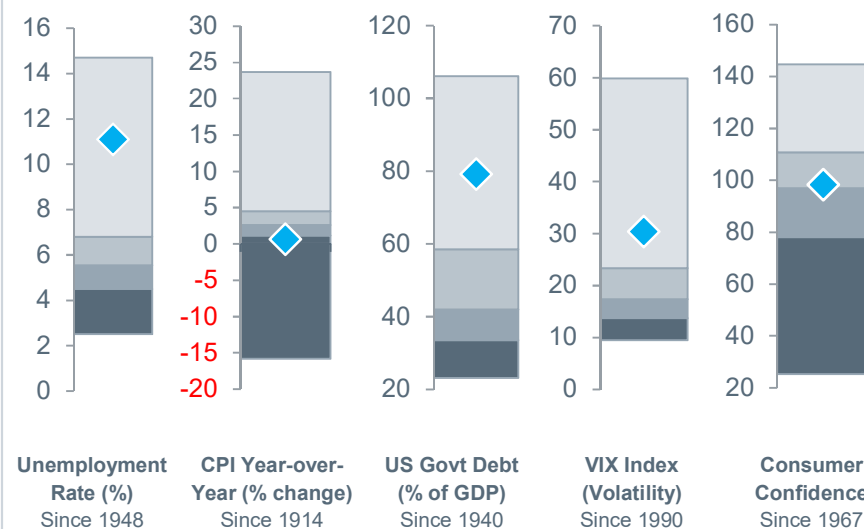


Second Quarter Economic Environment

Key Economic Indicators

The disconnect between investor risk appetite and on-the-ground economic conditions reached staggering levels during the second quarter, fueled in large part by a myriad of fiscal relief and liquidity reinforcing programs implemented by governments and global central banks. The S&P 500 returned 20.5%, bringing its YTD returns to -3.1%, as forward P/E ratios reached levels last seen during the dot-com era tech bubble. In general, the funding pressures markets experienced in the first quarter abated, as various programs enacted by the Federal Reserve proved successful in restoring normal capital markets activity amid the unprecedented economic shutdowns. While economic data generally pointed to a bottoming of global GDP growth during the month of April, the modest economic recoveries in May and June lagged significantly behind the "V" shaped recovery seen in the pricing of risk assets. The Atlanta Fed's popular GDPNow estimates for Q2-2020 growth in the US indicated a 36.8% annualized economic contraction. However, Q2 saw capital markets activity much more consistent with boom times. The NASDAQ and DJIA experienced their best quarters since 2001 and 1987, respectively, while US equity issuance hit a record of \$184 billion.

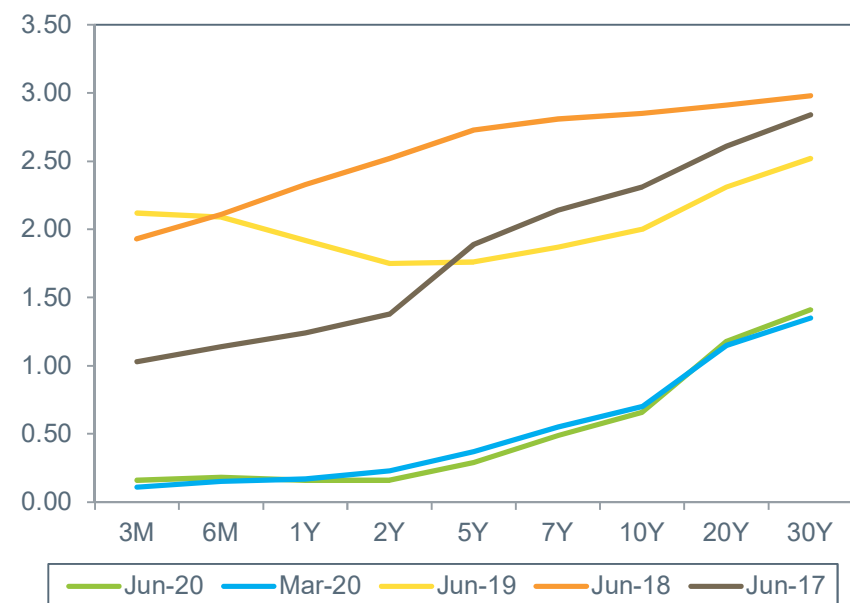
Key Economic Indicators



Economic Indicators	Jun-20	Mar-20	Jun-19	Jun-17	20 Yr
Federal Funds Rate (%)	0.08	0.08	2.40	1.06	1.65
Breakeven Infl. - 5 Yr (%)	1.17 ▲	0.53	1.54	1.66	1.82
Breakeven Infl. - 10 Yr (%)	1.34 ▲	0.93	1.70	1.74	2.01
CPI YoY (Headline) (%)	0.6 ▼	1.5	1.6	1.6	2.1
Unemployment Rate (%)	11.1 ▲	4.4	3.7	4.3	6.0
Real GDP YoY (%)	-9.5 ▼	0.3	2.0	2.2	1.9
PMI - Manufacturing	52.6 ▲	49.1	51.6	56.4	52.5
USD Total Wtd Idx	120.86 ▼	122.82	114.56	111.97	103.13
WTI Crude Oil per Barrel (\$)	39.3 ▲	20.5	58.5	46.0	62.1
Gold Spot per Oz (\$)	1,781 ▲	1,577	1,410	1,242	969

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	20.54	-3.08	7.51	10.73	13.99
Russell 2000	25.42	-12.98	-6.63	4.29	10.50
MSCI EAFE (Net)	14.88	-11.34	-5.13	2.05	5.73
MSCI EAFE SC (Net)	19.88	-13.11	-3.52	3.81	8.02
MSCI Emg Mkts (Net)	18.08	-9.78	-3.39	2.86	3.27
Bloomberg US Agg Bond	2.90	6.14	8.74	4.30	3.82
ICE BofAML 3 Mo US T-Bill	0.02	0.60	1.63	1.19	0.64
NCREIF ODCE (Gross)	-1.56	-0.60	2.22	7.31	10.80
FTSE NAREIT Eq REIT (TR)	11.82	-18.71	-13.04	4.06	9.05
HFRI FOF Comp	7.85	-1.62	0.44	1.49	2.79
Bloomberg Cmtty (TR)	5.08	-19.40	-17.38	-7.69	-5.82

Treasury Yield Curve (%)



Second Quarter Review

Broad Market

US equity markets rebounded sharply in Q2 despite weakening economic conditions and uncertainty around upcoming earnings releases. Much of the optimism was driven by trial data for COVID-19 vaccines and treatments combined with the phased openings of states across the country. The swift rally saw the S&P 500 index turn positive YTD, with QTD returns as high as 25.0% in early June before finishing Q2 up 20.5% and down -3.1% YTD.

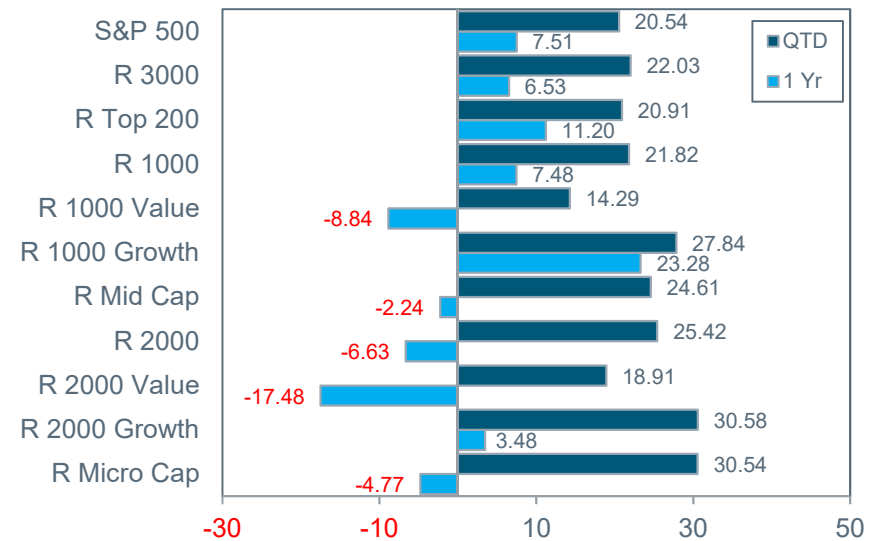
Market Cap

The strong performance was realized across all market caps, with smaller stocks faring best. The Russell 2000 and Mid Cap indexes returned 25.4% and 24.6%, respectively, while the Russell 1000 lagged behind its smaller-cap counterparts, finishing Q2 up 21.8%.

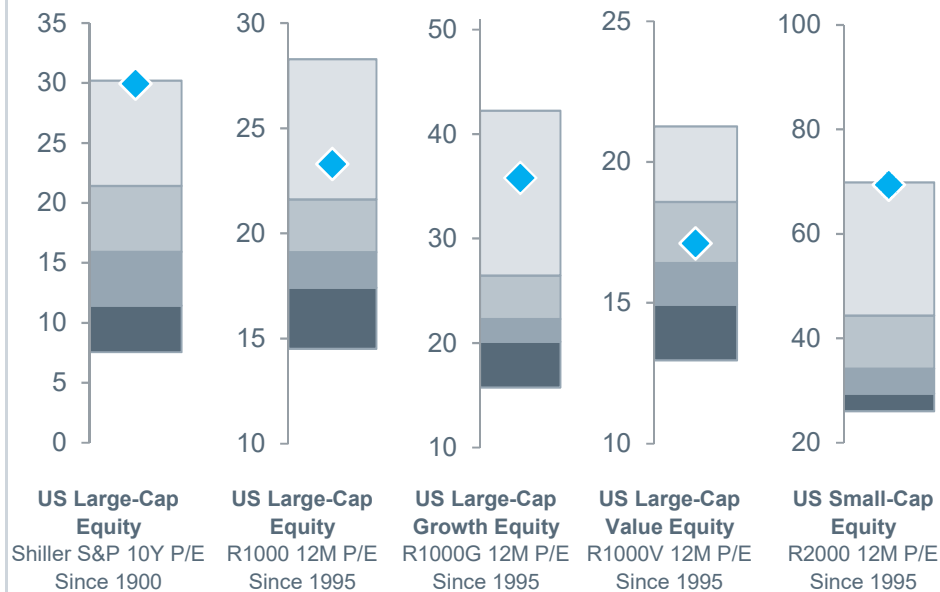
Style and Sector

Growth continued to outperform value by a significant margin during Q2 across all market caps. In addition, active managers generally struggled to keep up with their respective benchmarks in Q2.

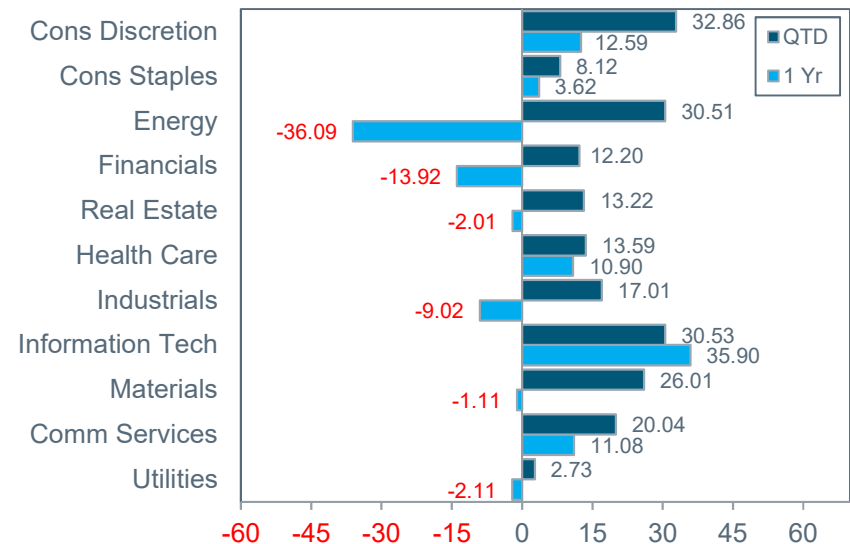
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Second Quarter Review

Developed Markets

Developed international markets had a strong quarter, although they lagged both US and emerging markets. During Q2, value stocks underperformed growth, while small-cap stocks outperformed their larger counterparts. Each developed country index generated positive returns for the quarter and the vast majority saw double digit returns. Markets were bolstered by government programs, but the near-term macro outlook remains poor.

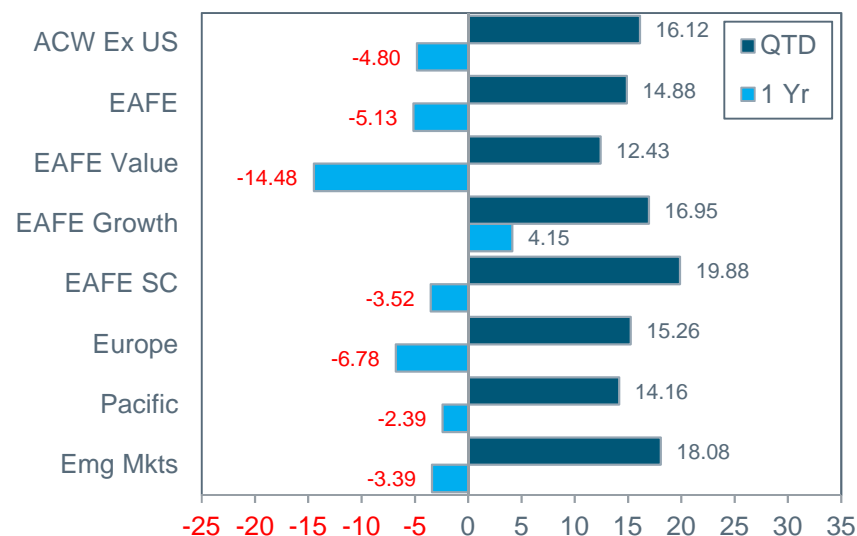
Emerging Markets

Emerging markets outpaced developed international, but lagged the US market. All emerging countries and broad sectors saw positive returns for the quarter. Latin America, a laggard in Q1, saw some mean reversion, with countries such as Brazil and Argentina leading the region higher.

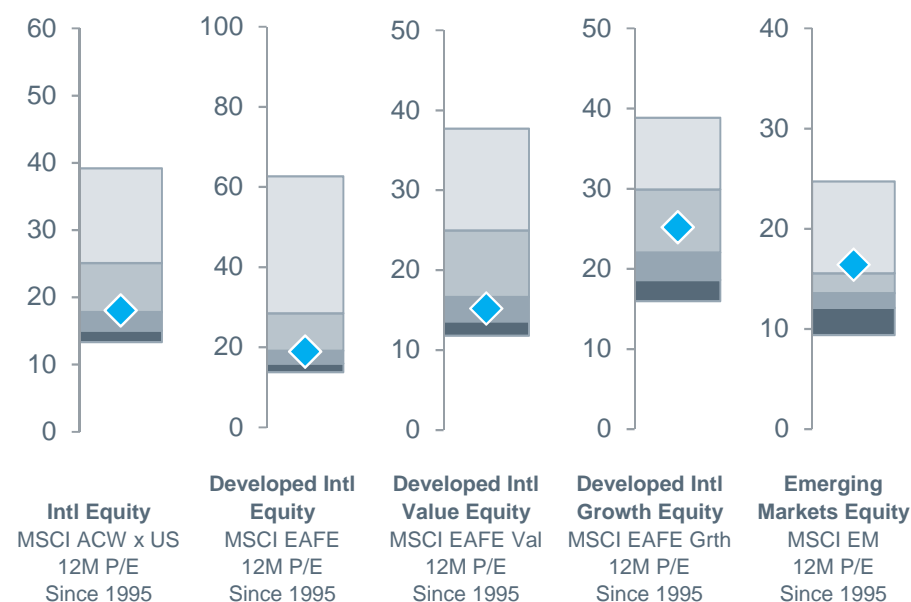
Market Cap & Style

In both developed international markets and emerging markets, value stocks continued to underperform growth, while small-cap stocks outperformed large-cap for the quarter.

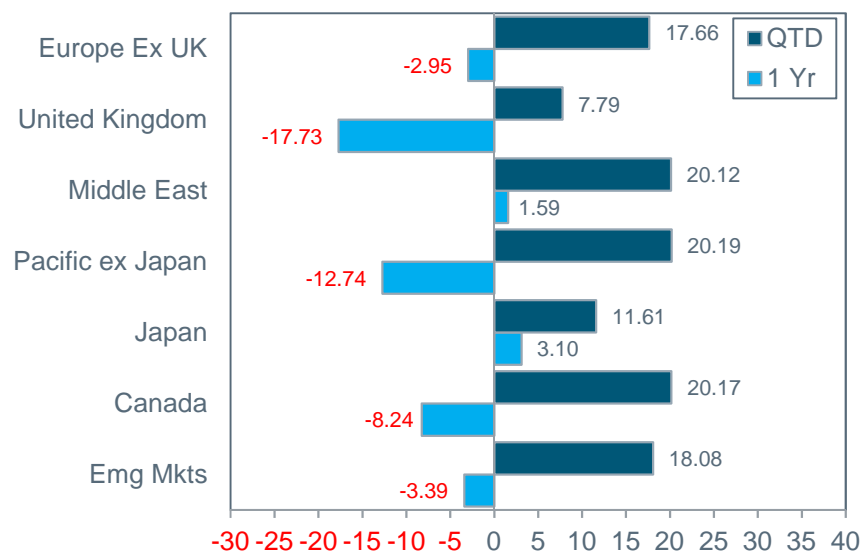
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



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.

Second Quarter Review

Broad Market

A supportive Fed helped propel the beginning of a recovery that saw few periods of slowdown throughout the quarter. While a spike in COVID-19 cases threatened to disrupt the rally in June, a better-than-expected jobs report and the Fed's announcement of its plan to purchase corporate bonds helped the segment finish the quarter on a positive note.

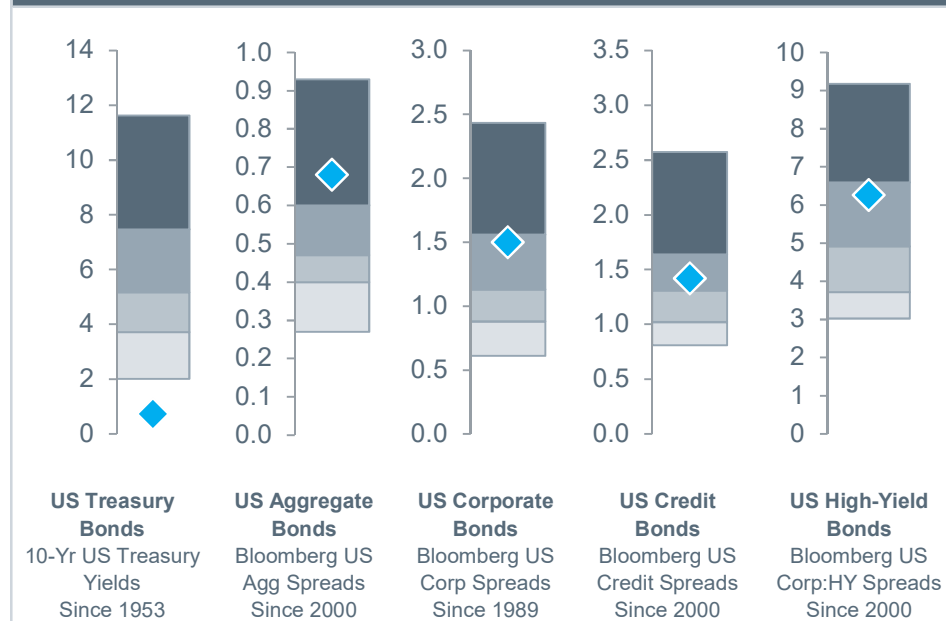
Credit Market

In contrast to Q1, investor appetite for risk returned, leading to a strong recovery in credit. Overall, the Bloomberg US Credit Index and US High Yield Index returned 8.2% and 10.2% in Q2, respectively.

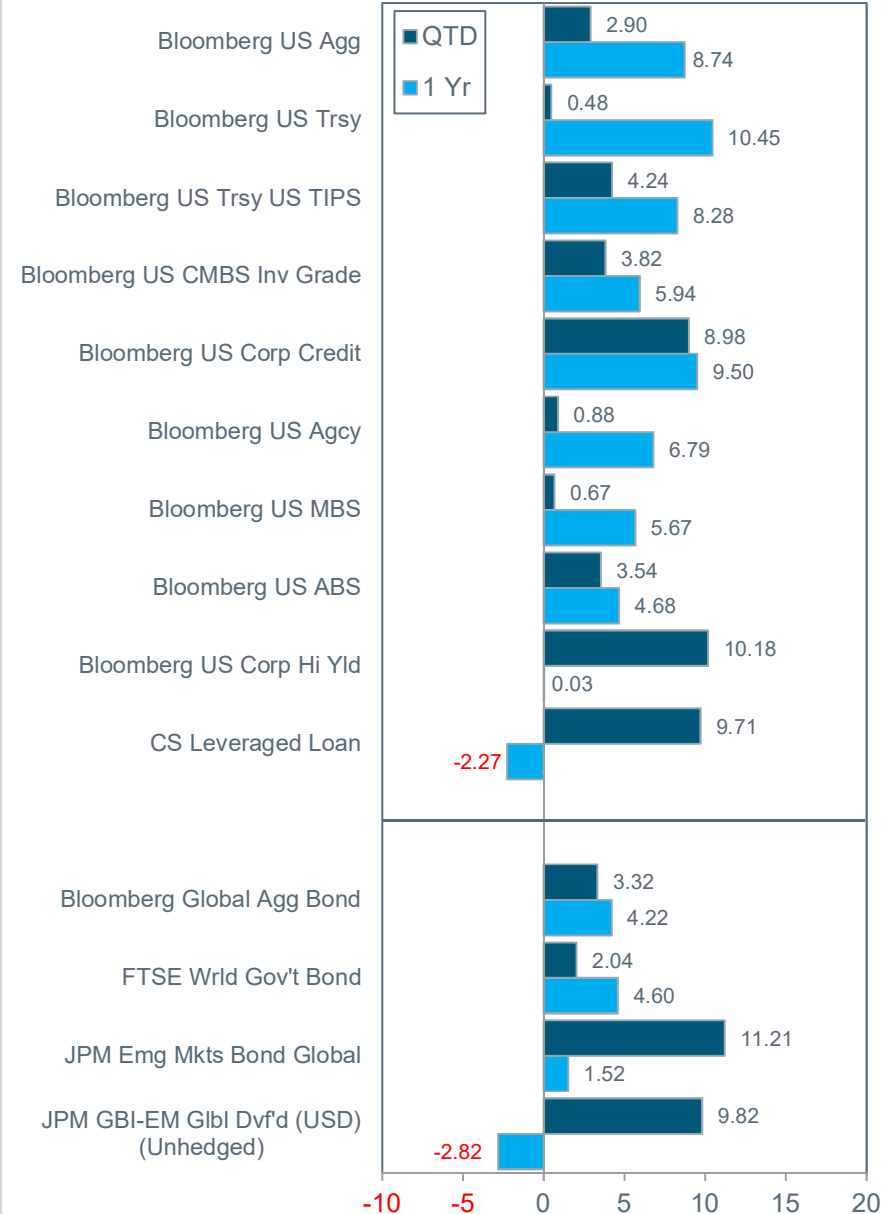
Emerging Market Debt

Emerging market debt enjoyed its own rally, erasing most of its losses of the first quarter. The JPMorgan EMBI Global Diversified Index returned 12.3%, with nearly every country in the index ending positive.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

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

Second Quarter Review - Absolute Return

General Market - Hedge Funds

Broad hedge fund benchmarks indicate the industry recovered relatively well from Q1-2020 drawdowns. The HFRI Fund Weighted Composite Index is down just 3.5% YTD after a 9.0% gain in Q2, led higher by the HFRI Hedged Equity Index, which finished the quarter up 13.6%. Still, YTD the vast majority of hedge fund strategies remain at least marginally negative, with those that pursue event oriented and special situations strategies, particularly within credit markets, still off from 5.0% to 7.0% YTD on average.

General Market - Global Tactical Asset Allocation (GTAA)

GTAA managers largely provided positive absolute returns during Q2. Even with positive absolute returns, long-biased strategies reported mixed performance versus a static and less diversified blend of 60% US equity and 40% US fixed income. Long-biased strategies that had relatively weaker performance versus peers tended to have more exposure to EM equities which slightly underperformed US and other developed markets. Within EM equities, growth equities once again out-paced value by a significant margin, detracting from performance for managers.

Second Quarter Review - Real Assets

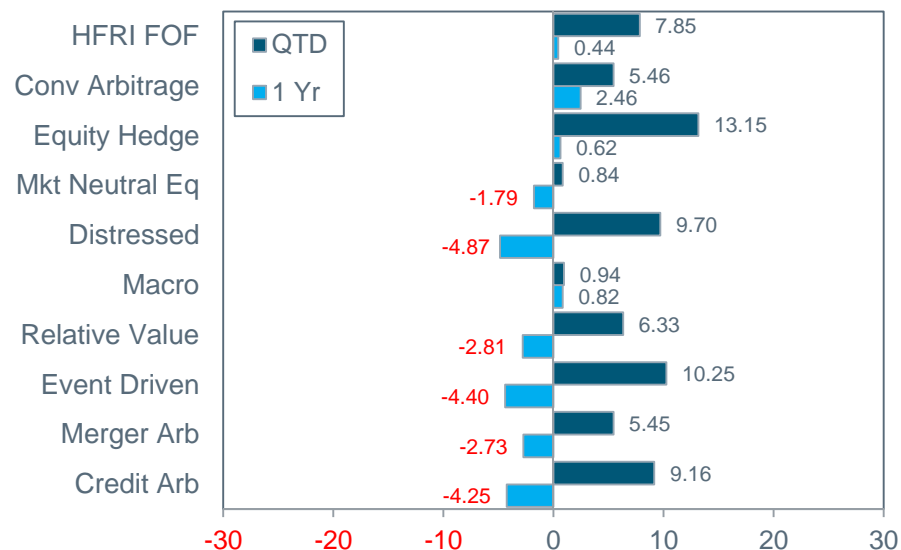
General Market - Diversified Inflation Strategies (DIS)

Performance across DIS managers RVK tracks was largely positive during Q2, ranging from the high single digits to the high teens. With the relatively strong performance across a number of risk assets, managers with larger TIPS allocations tended to underperform peers as generally riskier assets saw a bounce back from poor Q1 performance. These strategies also tended to hold higher relative allocations to commodities. Though commodities provided positive absolute returns in Q2, the asset class did not keep up with other parts of the market.

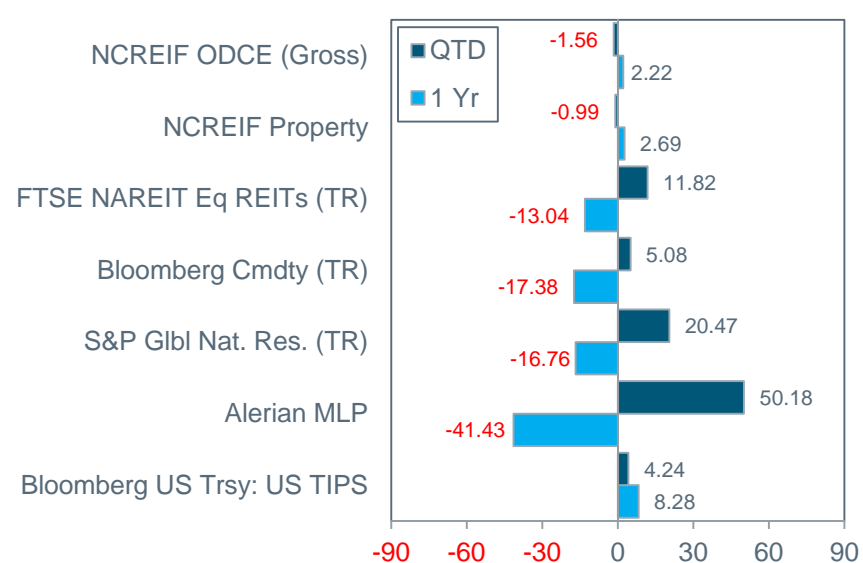
General Market - Real Estate

Core private real estate returned -1.6% during the second quarter, as reported by the NFI-ODCE Index, with the total return comprised of 0.9% from income and -2.5% from price appreciation. While the income component remained relatively healthy and in-line with historical levels, price appreciation experienced a further meaningful decrease from Q1. Investors in publicly traded real estate outperformed their private market counterparts by a wide margin.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of June 30, 2020

Calendar Year Performance												Annualized Statistics (01/2006 - 06/2020)			
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CYTD (As of 06/20)		Return	Standard Deviation	Sharpe Ratio
Best ↑	35.17	15.99	18.64	38.82	14.07	15.02	21.95	27.19	10.15	31.49	6.14	S&P 500 Index - US Large Cap	8.73	16.58	0.52
	26.85	14.47	16.83	32.39	13.69	5.63	21.31	21.83	8.35	25.53	0.60	Russell 2000 Index - US Small Cap	6.84	21.51	0.36
	21.87	11.22	16.76	29.75	12.50	5.47	13.33	17.99	1.87	21.51	-0.60	International Equity Custom Index - International	2.92	19.13	0.18
	16.36	7.84	16.35	21.51	11.35	1.38	11.96	15.21	0.44	17.64	-1.62	Cambridge US PE Index - Private Equity	10.82	8.75	1.09
	15.68	2.11	16.00	15.29	7.66	0.55	10.16	14.65	0.01	13.89	-3.08	NCREIF ODCE Index - Real Estate	6.52	7.28	0.75
	15.06	1.52	13.46	13.94	5.97	0.18	9.94	9.11	-4.02	13.47	-4.61	HFRI FOF Comp Index	2.28	6.98	0.18
	14.99	0.66	10.94	8.96	4.89	-0.27	8.77	7.77	-4.25	8.72	-5.74	S&P U.S. Preferred Stock Index	4.72	18.66	0.27
	10.17	-1.16	9.66	5.29	3.37	-0.69	4.50	7.62	-4.38	8.64	-6.69	MLP Custom Index	3.64	26.89	0.24
	9.28	-1.75	4.95	0.12	1.60	-4.41	2.65	4.12	-6.21	8.39	-10.07	Bloomberg US Agg Bond Index - Fixed Income	4.55	3.26	1.00
	6.54	-4.18	4.79	-0.17	0.18	-5.66	1.94	3.54	-11.01	7.55	-11.00	S&P LSTA Lvgd Loan Index - Bank Loans	4.22	10.72	0.32
Worst ↓	5.70	-5.72	4.21	-2.02	-3.87	-14.92	0.51	0.84	-11.67	5.34	-12.98	EMD Custom Index	4.59	11.75	0.34
	0.73	-13.71	0.26	-8.98	-5.72	-35.07	0.38	-5.58	-14.20	2.47	-32.34	JP Morgan Cash Custom Index - Cash Equiv	1.56	0.86	1.13

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 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 EMD Custom Index consists of the JPM GBI-EM Gbl Dv'd Index through 02/29/2020 and 70% JPM GBI-EM Gbl Dv'd Index / 30% JPM CEMBI Brd Dv'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.

The Cambridge US Private Equity Index is shown for informational purposes only. Due to availability of data, current quarter performance assumes a 0.00% return.

Calculations are based on a quarterly periodicity.

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 both active management as well as passive strategies.

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 structures. Investments also include exposure to direct co-investments and secondaries. Recent commitments within this asset class have added global diversification to the portfolio.

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.

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 severe 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 and the MSCI ACW Ex US 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 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.

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 subsection 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, 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.

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 and 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter.

JP Morgan GBI-EM Gbl Dv'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.

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.

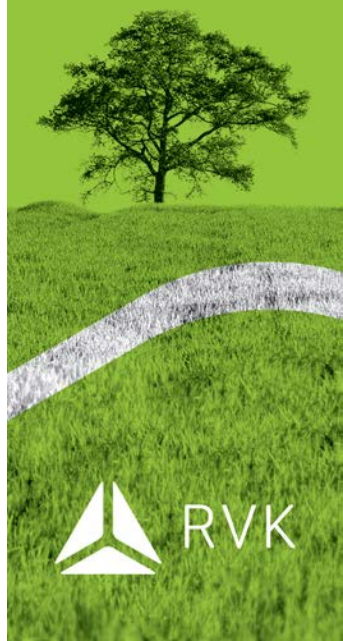
Bloomberg US Corp Inv Grade Index: The **Bloomberg US Corp Inv Grade Index** covers the public U.S. investment grade corporate bond market.

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.

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 June 30, 2020

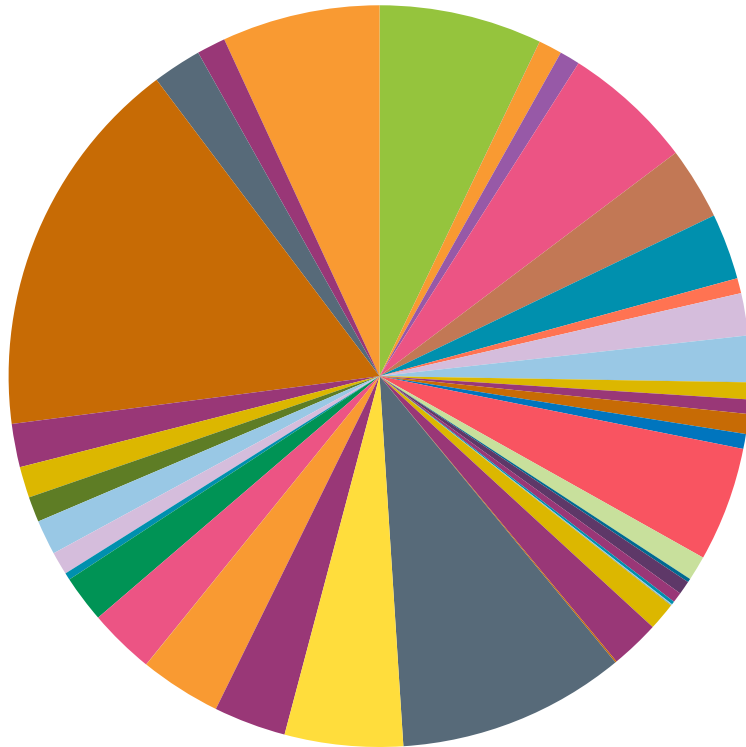
Asset Allocation & Performance			
	Allocation		Performance (%)
	Market Value (\$)	%	FYTD
Total Fund	22,741,032,950	100.00	2.86
All Cap US Equity Composite	1,614,943,234	7.10	6.17
State Street All Cap	1,614,943,234	7.10	6.17
UW Portfolio Mgmt Program	1,389,900	0.01	3.44
Small Cap US Equity Composite	433,848,983	1.91	-7.56
State Street Russell 2000	231,424,731	1.02	N/A
Van Berkorn	202,424,251	0.89	N/A
Int'l Equity Composite	2,667,405,694	11.73	-1.16
Northern Trust	1,295,468,268	5.70	-4.65
Arrowstreet	717,266,333	3.15	0.91
Harding Loevner	654,671,093	2.88	N/A
Preferred Stock Composite	148,949,732	0.65	3.51
Cohen & Steers Preferred Stock	148,949,732	0.65	3.51
MLPs Composite	877,451,208	3.86	-36.00
Harvest Fund Advisors	419,163,914	1.84	-35.96
Harvest Fund Advisors Passive	458,287,294	2.02	N/A
Private Equity Composite	655,220,721	2.88	N/A
Access Venture Partners II	1,755,169	0.01	N/A
Cheyenne Equity Capital Fund, L.P.	165,839,306	0.73	N/A
Hamilton Lane Nowood Fund, L.P.	142,888,665	0.63	N/A
Neuberger Berman Sauger Fund, L.P.	196,784,515	0.87	N/A
BlackRock LTFC, L.P.	147,953,066	0.65	N/A
Real Estate Composite	1,695,661,881	7.46	N/A
Clarion Lion	1,136,011,809	5.00	2.64
UBS Trumbull	243,815,177	1.07	-1.79
SC Capital	102,534,813	0.45	N/A
Realterm	31,519,959	0.14	N/A
M&G	36,244,862	0.16	N/A
Northwood	133,728,445	0.59	N/A
WestRiver	11,806,817	0.05	N/A
Diversified Hedge Funds Composite	765,719,345	3.37	-1.19
PAAMCO - Jackalope Fund	4,277,742	0.02	N/A
Grosvenor Diversified Hedge Funds	274,987,673	1.21	1.68
Internal Diversified Hedge Funds	486,453,930	2.14	-2.35

Asset Allocation & Performance			
	Allocation		Performance (%)
	Market Value (\$)	%	FYTD
Core Fixed Income Composite	4,955,920,898	21.79	9.30
PIMCO	2,261,419,729	9.94	9.44
Internal Intermediate Gov't Fixed Income	1,170,677,551	5.15	9.51
Payden & Rygel IGC	716,381,745	3.15	N/A
JP Morgan MBS	807,441,873	3.55	N/A
Laddered Treasury Composite	3,818,647,307	16.79	N/A
Internal Ladder Portfolio	3,818,647,307	16.79	N/A
Bank Loans Composite	1,121,430,238	4.93	N/A
Credit Suisse	655,626,364	2.88	N/A
Octagon	465,803,874	2.05	N/A
Emerging Market Debt Composite	824,170,289	3.62	-2.63
Investec	228,135,522	1.00	-3.26
Global Evolution	345,149,949	1.52	N/A
Goldman Sachs	250,884,818	1.10	N/A
Long Duration Fixed Income Composite	737,496,214	3.24	21.18
Internal Long Duration Fixed Income	308,589,453	1.36	24.44
Logan Circle	428,906,762	1.89	17.08
Low Duration Fixed Income Composite	485,244,029	2.13	4.43
Internal Low Duration Fixed Income	485,244,029	2.13	4.43
Grosvenor Silvery Lupine Fund	70,930,128	0.31	-8.85
Grosvenor Opportunistic Class D	15,096,925	0.07	N/A
Cash Equivalents	1,565,802,302	6.89	1.46
Fisher Investments	1,108,212	0.00	N/A
Stone Harbor	1	0.00	N/A
JP Morgan Core	-	0.00	N/A
State Street TIPS	-	0.00	N/A
State Street Low Duration	29,707	0.00	N/A
Allianz Global Investors	36,305	0.00	N/A
Neuberger Berman Credit	574,113	0.00	N/A
C.S. McKee	2	0.00	N/A
Cornerstone	2,363	0.00	N/A
TA Associates Realty	26,122	0.00	N/A
Heitman	3	0.00	N/A
Seix	1,520	0.00	N/A
Internal Equity Russell 2000	1,095	0.00	N/A
Public Purpose Investments	285,703,920	1.26	N/A

Schedule of Investable Assets - Total Fund Composite Ex Public Purpose Investments						
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	21,114,239,217	695,958,880	645,130,933	22,455,329,030	2.86	102.86

Allocations may not sum up to 100% exactly due to rounding. Performance shown is net of fees and excludes Public Purpose Investments (PPIs). Market value shown for Public Purpose Investments (PPIs) is as of 06/30/2020. Investment manager fees are accounted for on a quarterly basis. Wyoming State Treasurer's Office fiscal year ends on June 30th.

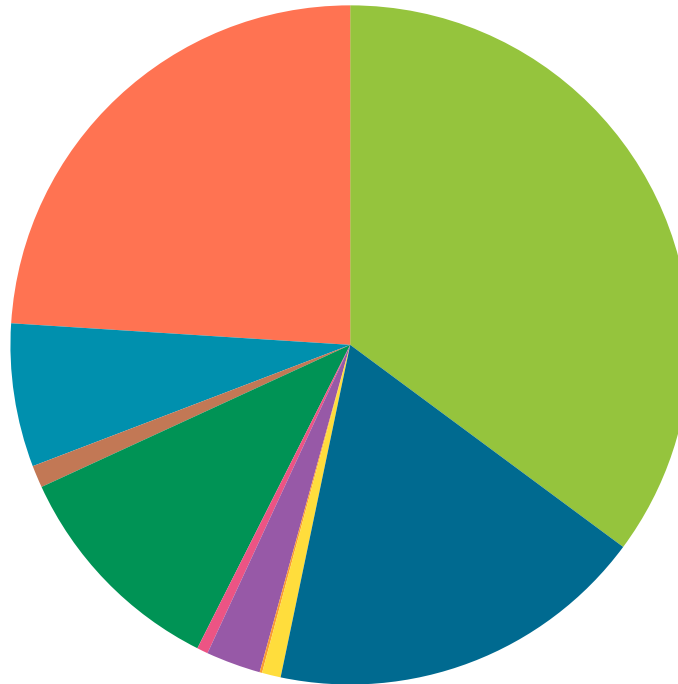
June 30, 2020 : \$22,741,032,950



	Market Value (\$)	Allocation (%)
State Street All Cap	1,614,943,234	7.10
UW Portfolio Mgmt Program	1,389,900	0.01
Internal Equity Russell	1,095	0.00
State Street Russell 2000	231,424,731	1.02
Van Berkum Small Cap	202,424,251	0.89
Northern Trust	1,295,468,268	5.70
Fisher Investments	1,108,212	0.00
Arrowstreet	717,266,333	3.15
Harding Loevner	654,671,093	2.88
Cohen & Steers	148,949,732	0.65
Harvest	419,163,914	1.84
Harvest Passive	458,287,294	2.02
Access Venture Partners II	1,755,169	0.01
Cheyenne Equity Capital Fund, L.P.	165,839,306	0.73
Hamilton Lane Nowood Fund, L.P.	142,888,665	0.63
Neuberger Berman Sauger Fund, L.P.	196,784,515	0.87
BlackRock LTPC	147,953,066	0.65
Clarion Lion	1,136,011,809	5.00
UBS Trumbull	243,815,177	1.07
Cornerstone	2,363	0.00
Heitman	3	0.00
M&G	36,244,862	0.16
Northwood	133,728,445	0.59
SC Capital	102,534,813	0.45
Realterm	31,519,959	0.14
TA Associates Realty	26,122	0.00
WestRiver	11,806,817	0.05
PAAMCO - Jackalope Fund	4,277,742	0.02
Grosvenor Diversified Hedge Funds	274,987,673	1.21
Internal Diversified Hedge Funds	486,453,930	2.14
Grosvenor Silvery Lupine Fund Class D	15,096,925	0.07
PIMCO Core	2,261,419,729	9.94
Internal Intermediate Govt Fixed Income Portfolio	1,170,677,551	5.15
Payden & Rygel	716,381,745	3.15
JP Morgan MBS	807,441,873	3.55
Neuberger Berman Credit	574,113	0.00
Credit Suisse	655,626,364	2.88
Octagon	465,803,874	2.05
Seix	1,520	0.00
Grosvenor Silvery Lupine Fund	70,930,128	0.31
Investec	228,135,522	1.00
Global Evolution	345,149,949	1.52
Goldman Sachs	250,884,818	1.10
Internal Long Duration Fixed Income Portfolio	308,589,453	1.36
Logan Circle	428,906,762	1.89
Internal Ladder Portfolio	3,818,647,307	16.79
Internal Low Duration Fixed Income Portfolio	485,244,029	2.13
Stone Harbor + SS TIPS + SS Low Dur + CS McKee + JPM Core + Allianz	66,015	0.00
Public Purpose Investments	285,703,920	1.26
JP Morgan Cash Composite	1,564,022,859	6.88

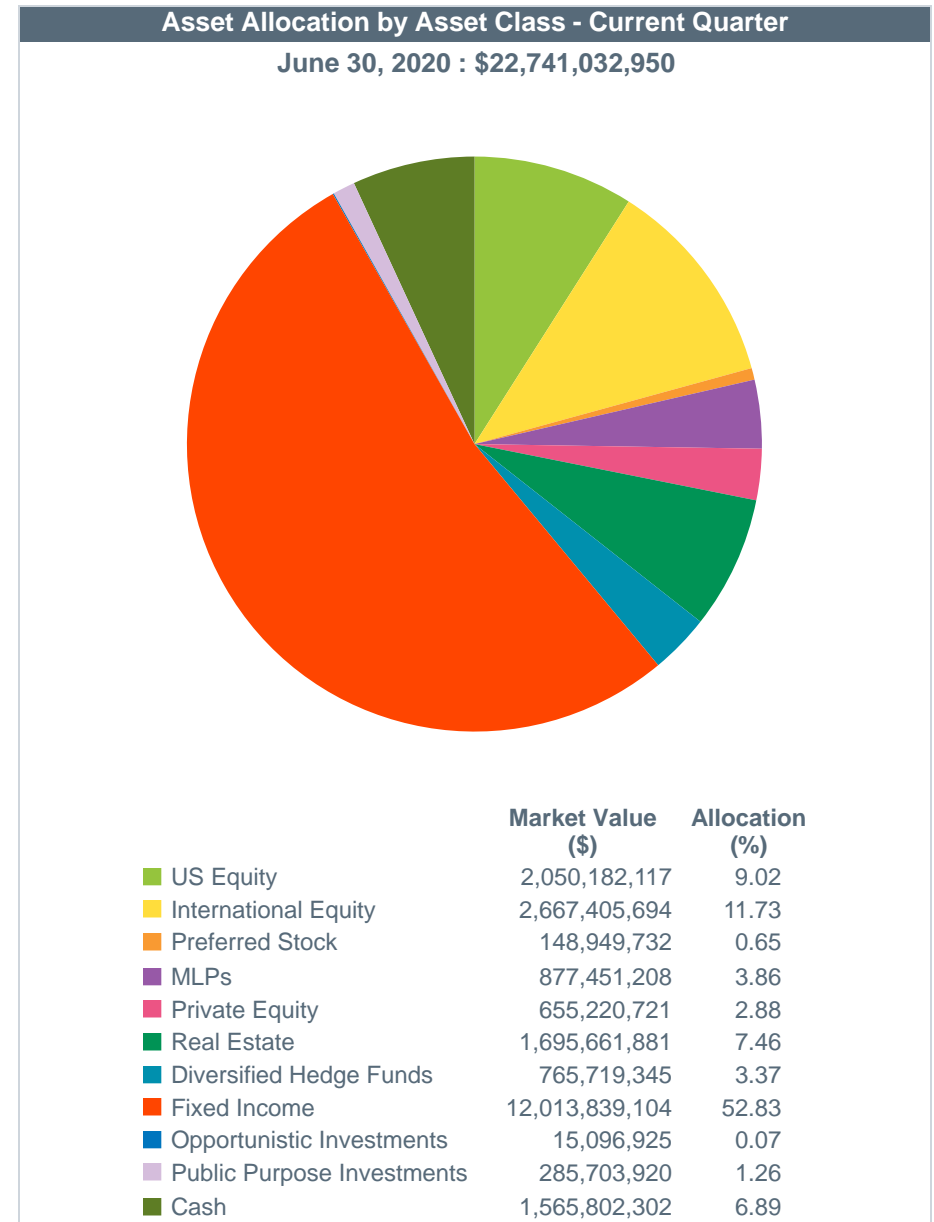
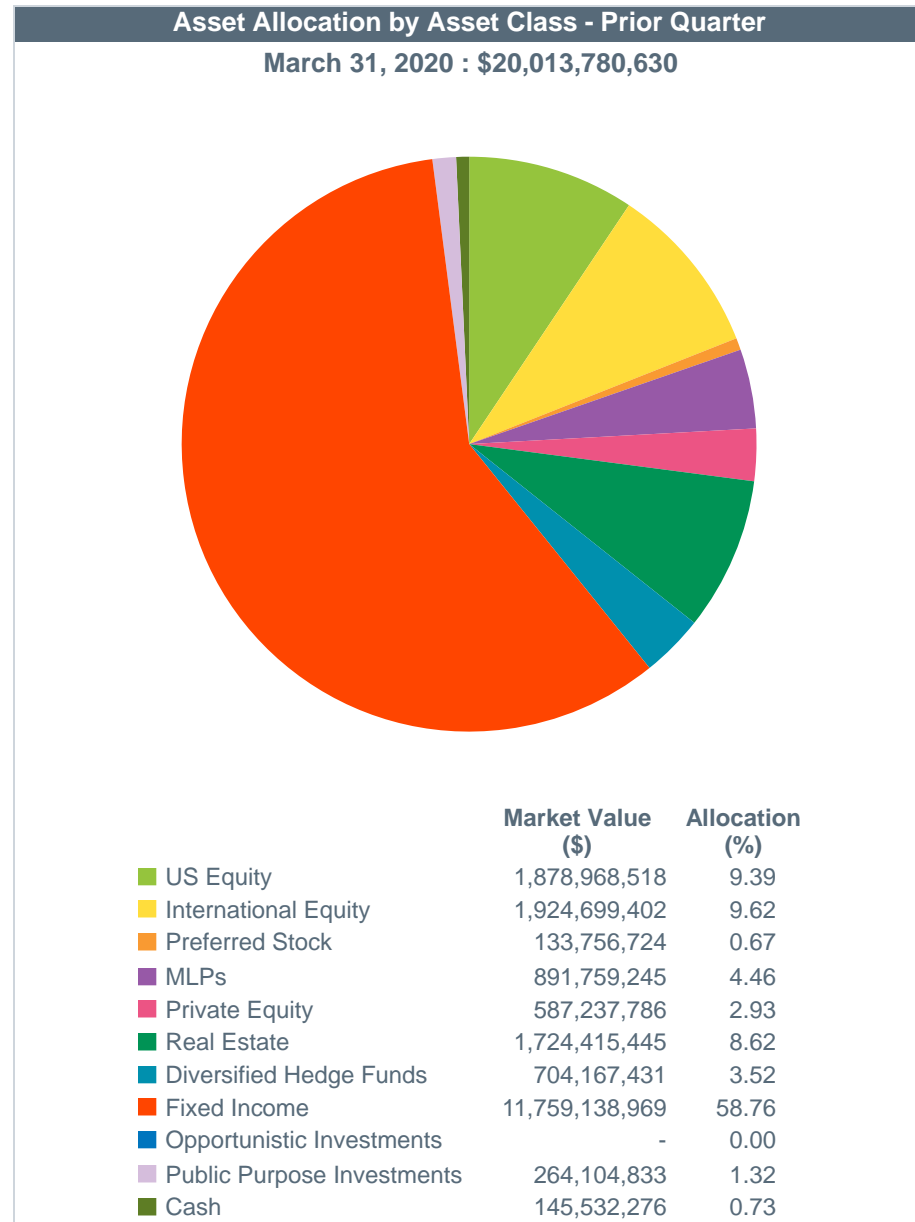
Allocations shown may not sum up to 100% exactly due to rounding. Stone Harbor, State Street TIPS, CS McKee, JPM Core, Allianz and State Street Low Duration are combined because the page shown only allows 50 managers to be included.

June 30, 2020 : \$22,741,032,950

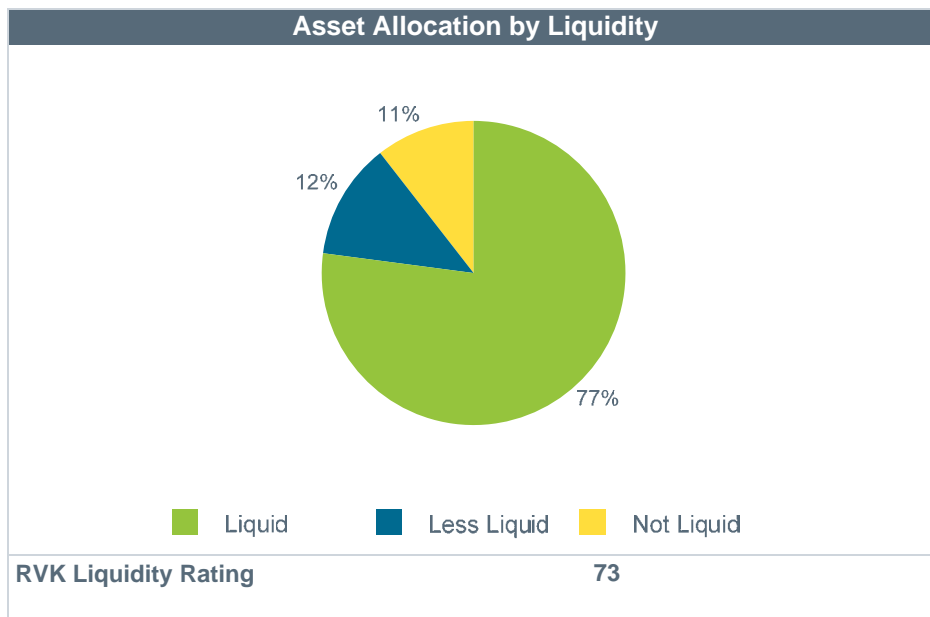
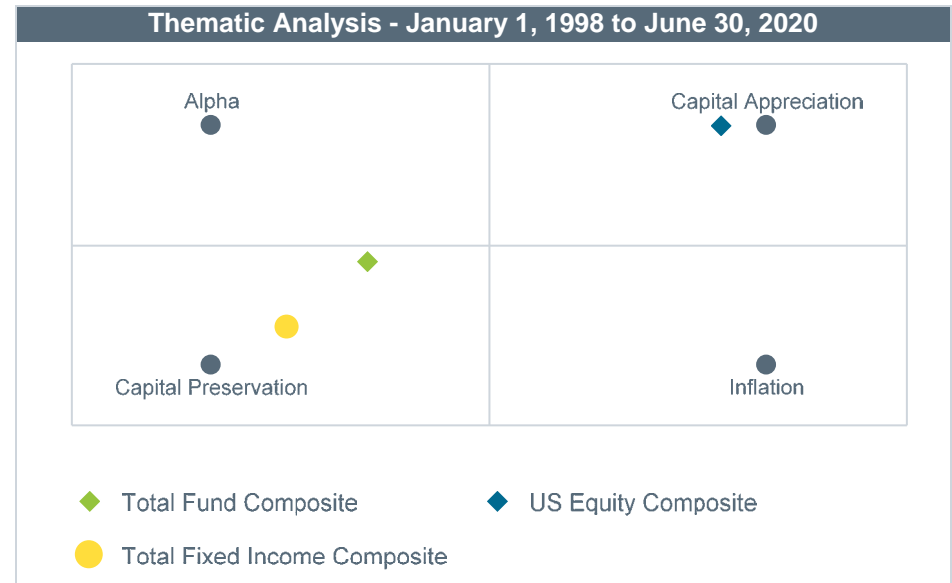
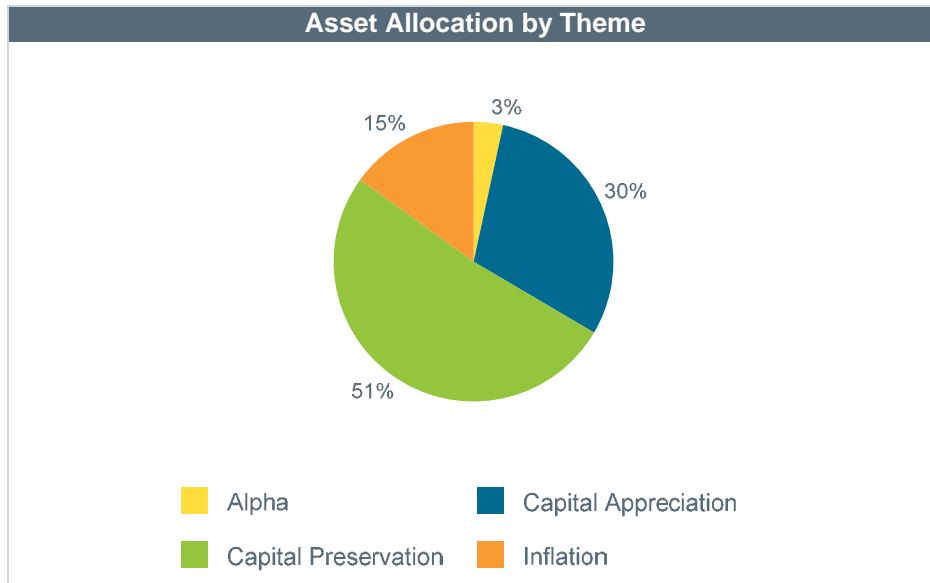


	Market Value (\$)	Allocation (%)
Permanent Mineral Trust	7,990,956,831	35.14
Common School PLF	4,125,664,118	18.14
Permanent Land Fund	202,823,913	0.89
University Permanent Land Fund	26,615,611	0.12
Hathaway Scholarship	592,278,846	2.60
Higher Education	119,493,551	0.53
Workers Compensation Fund	2,435,825,765	10.71
Pool A	241,213,542	1.06
LSRA	1,551,541,169	6.82
State Agency Pool	5,454,619,605	23.99

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

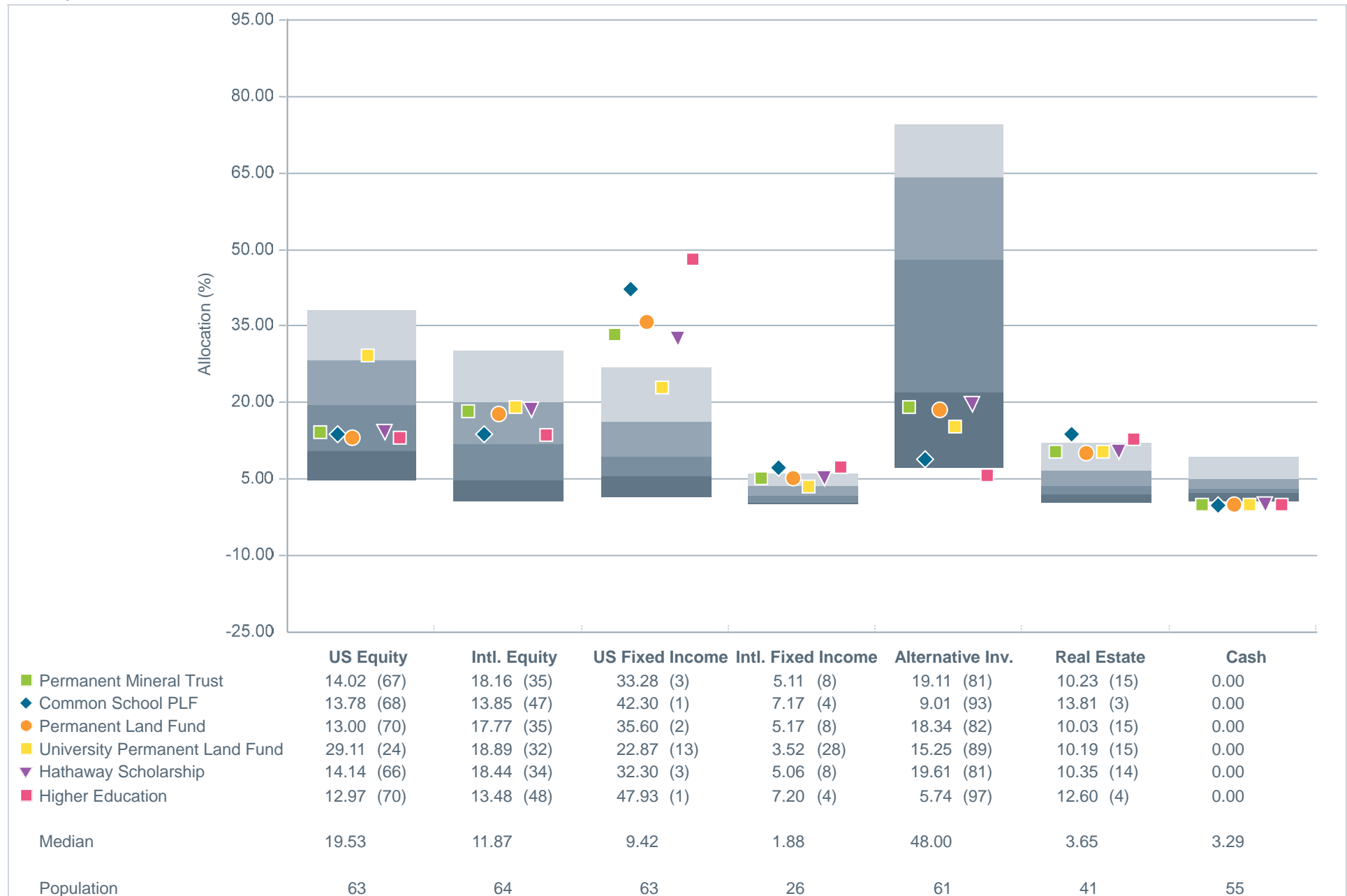
	A	B	C	D
A	1.00			
B	0.72	1.00		
C	-0.32	-0.42	1.00	
D	0.61	0.79	-0.12	1.00

A = HFRI EH: Equity Market Neutral Index (Alpha)
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)
 C = Bloomberg US Gov't 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 TF Asset Allocation

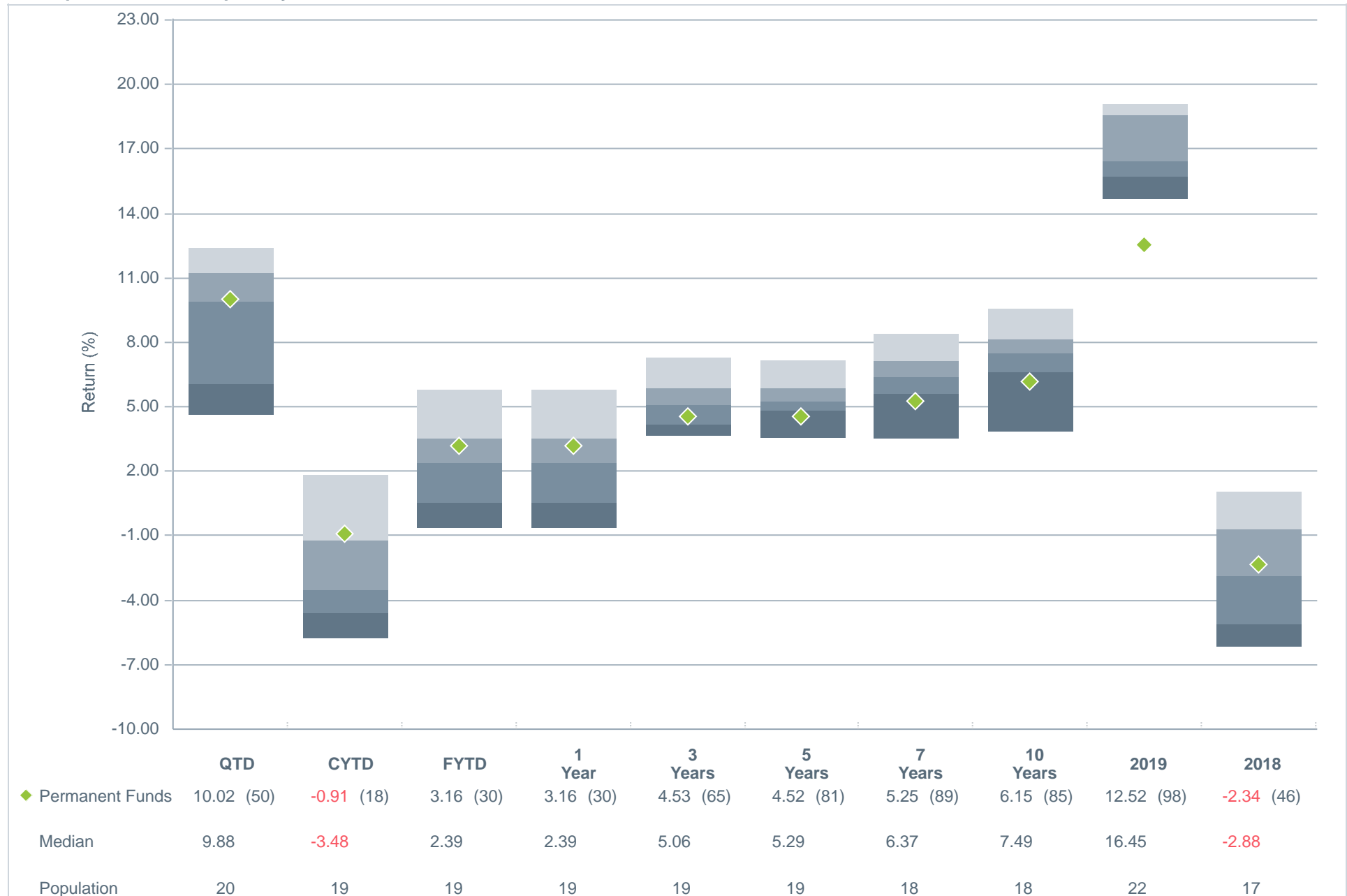
As of June 30, 2020



Parentheses contain percentile ranks. US Fixed Income allocation shown includes Convertibles and Cash (inv. in SAP).

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

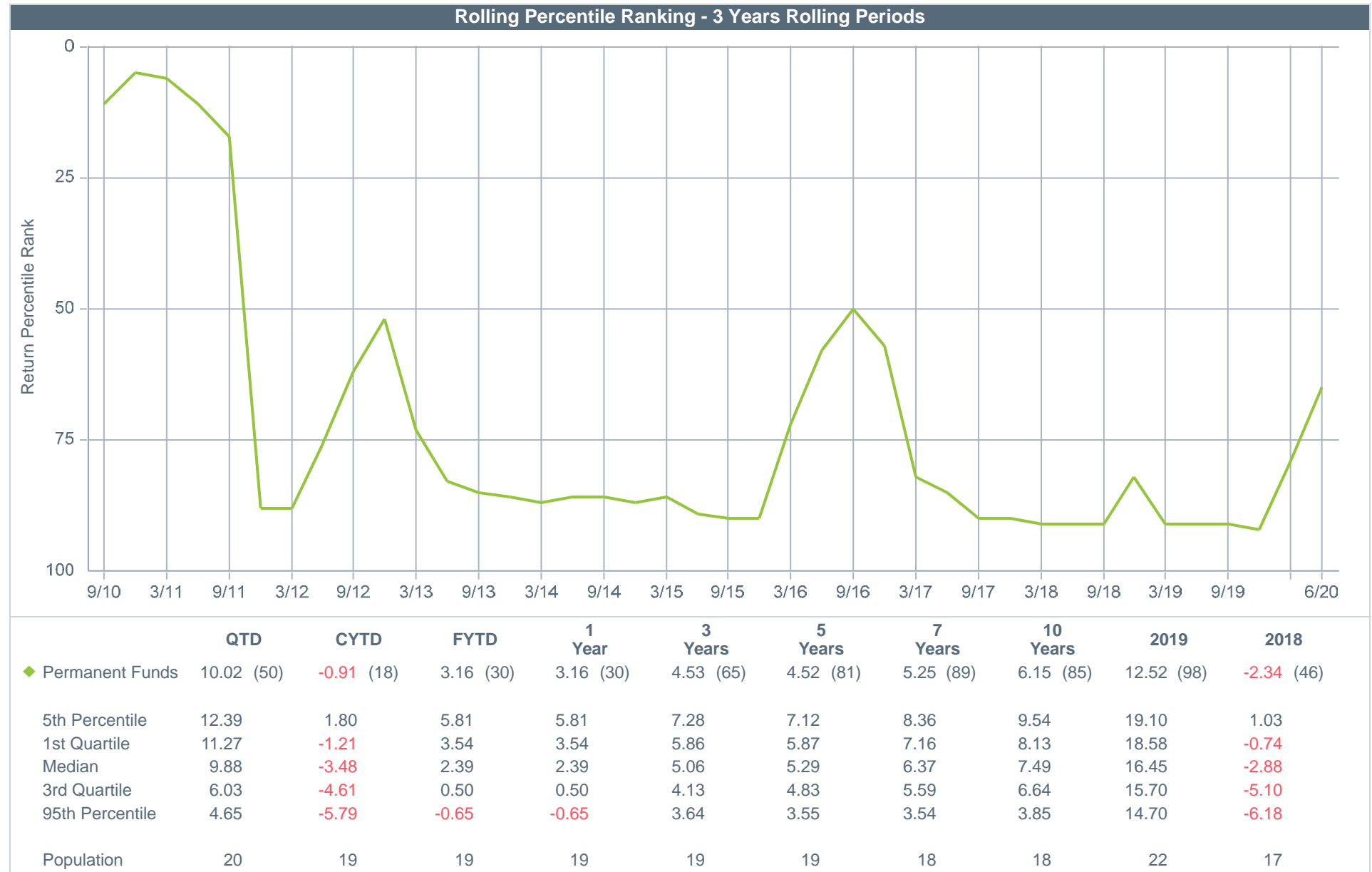
As of June 30, 2020



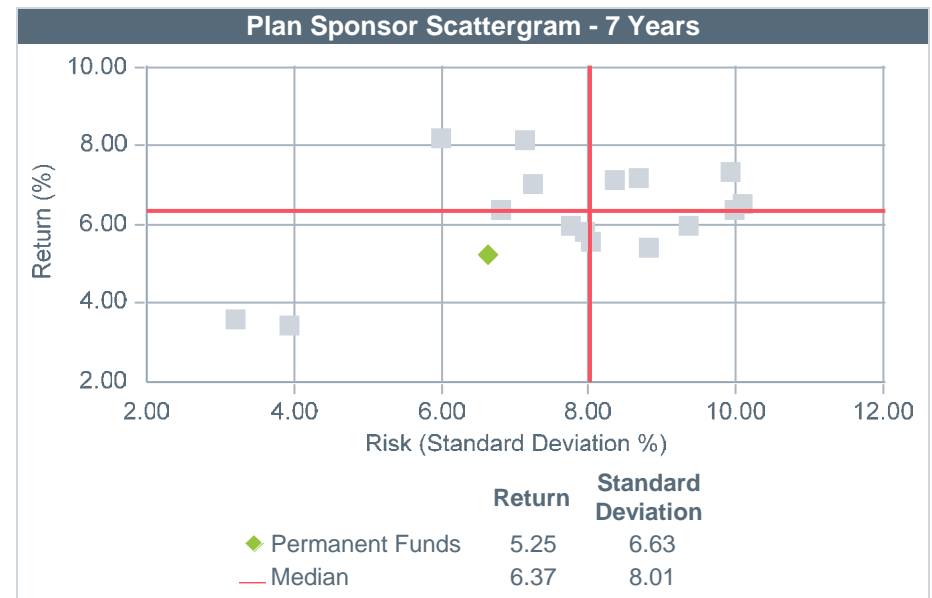
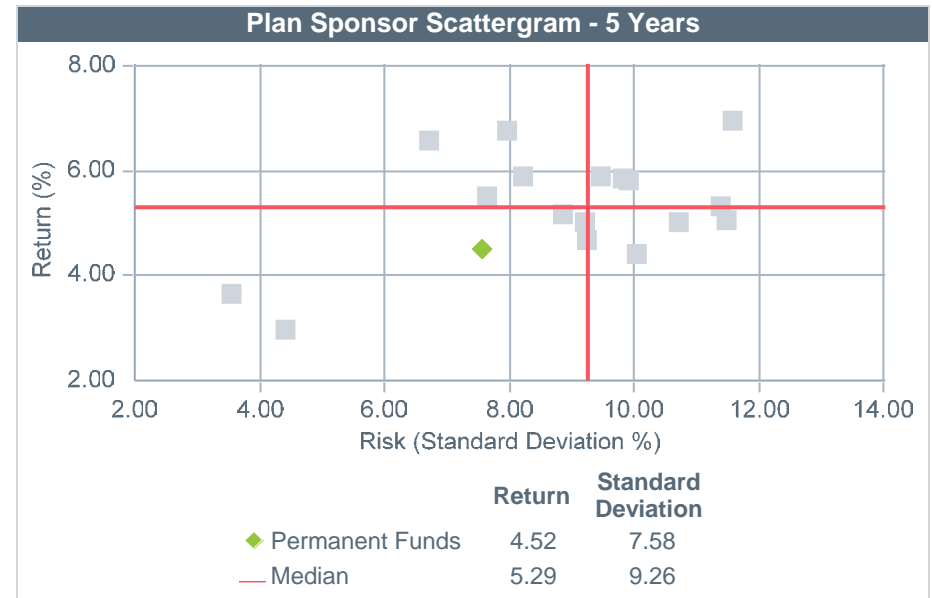
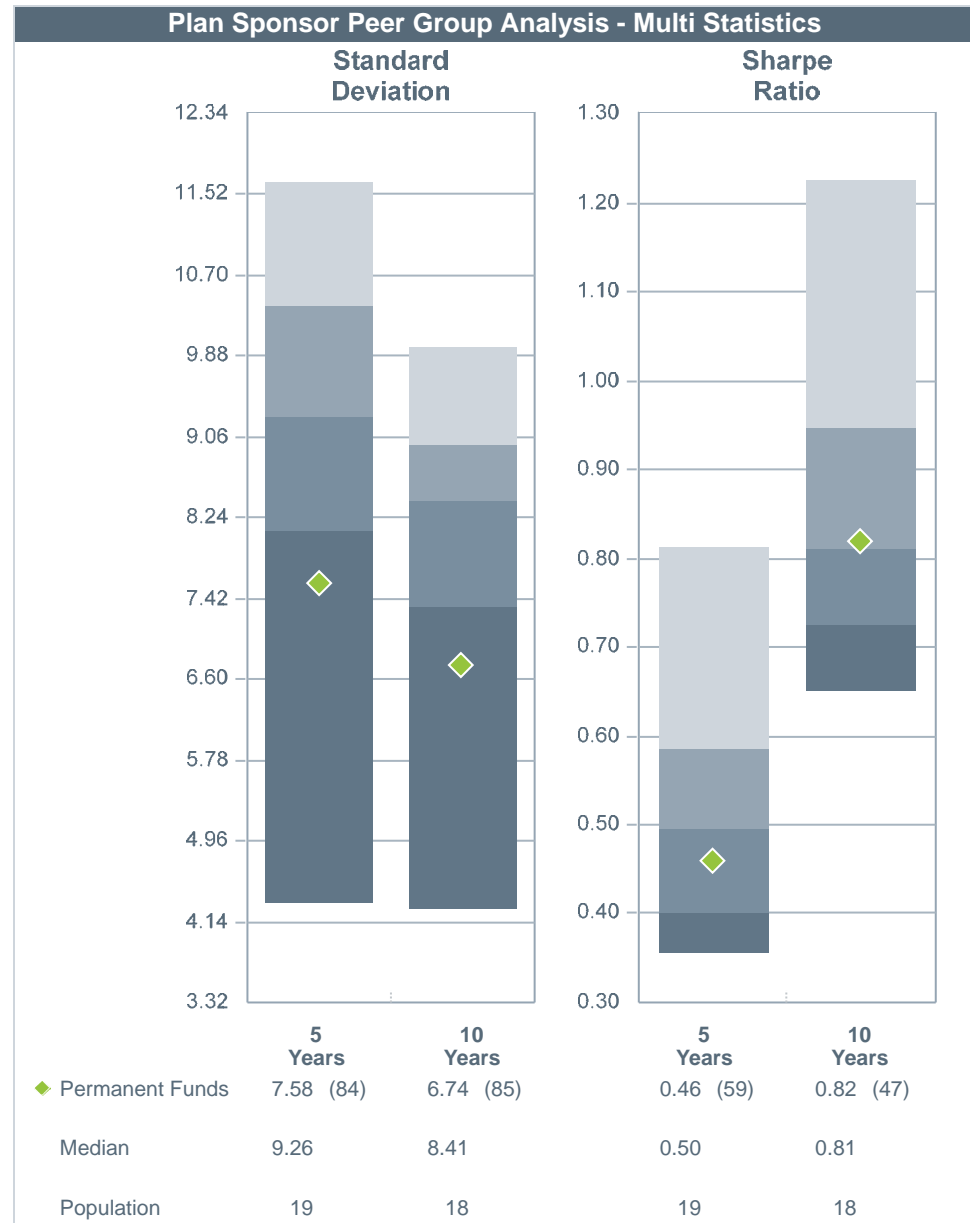
Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.
Wyoming State Treasurer's Office fiscal year ends on June 30th.

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

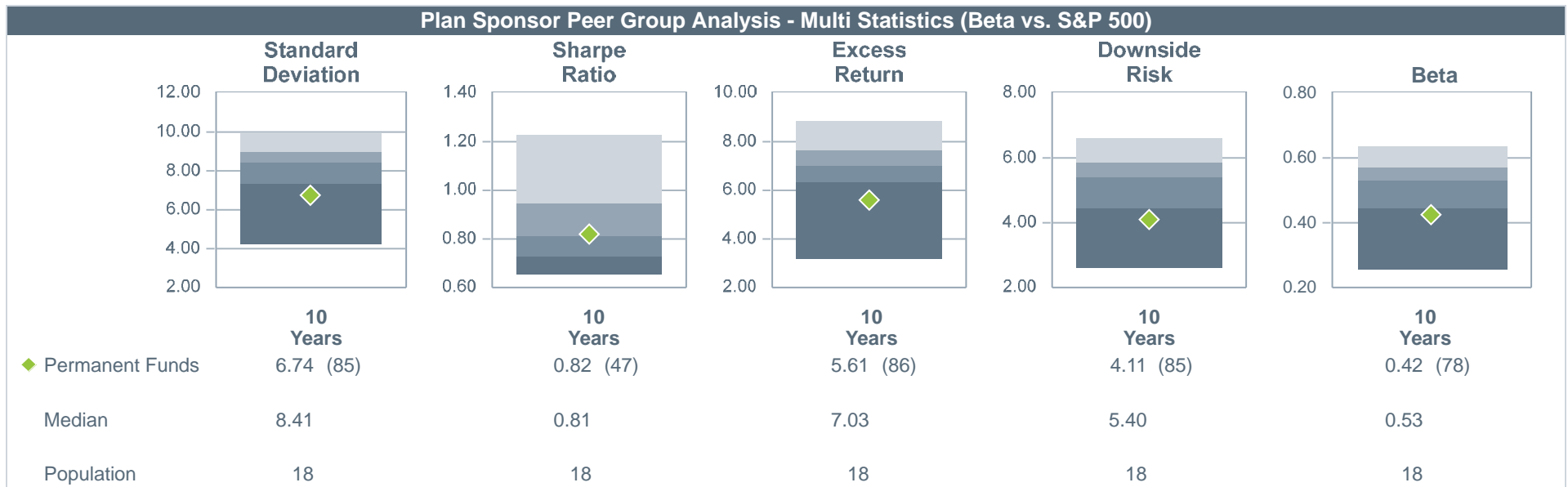
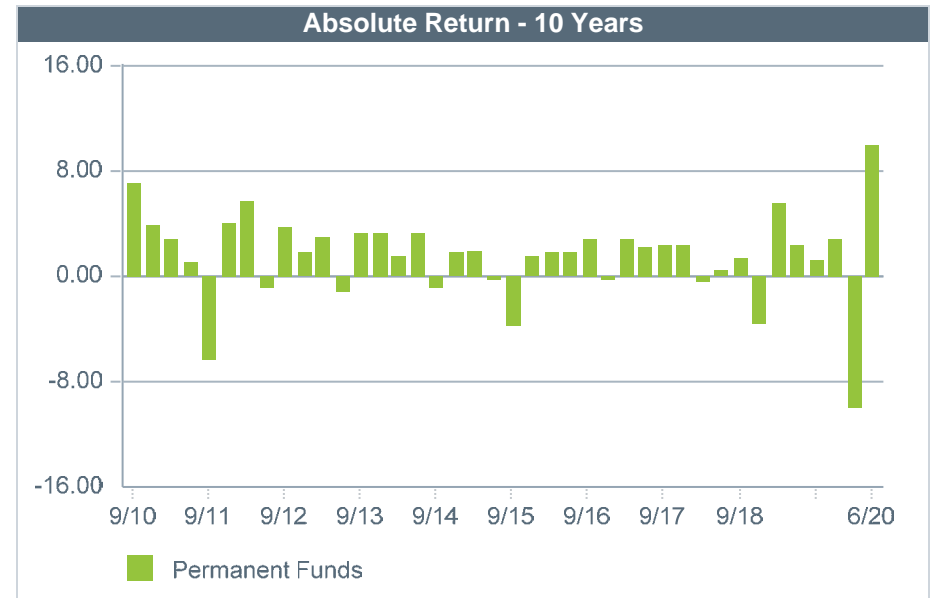
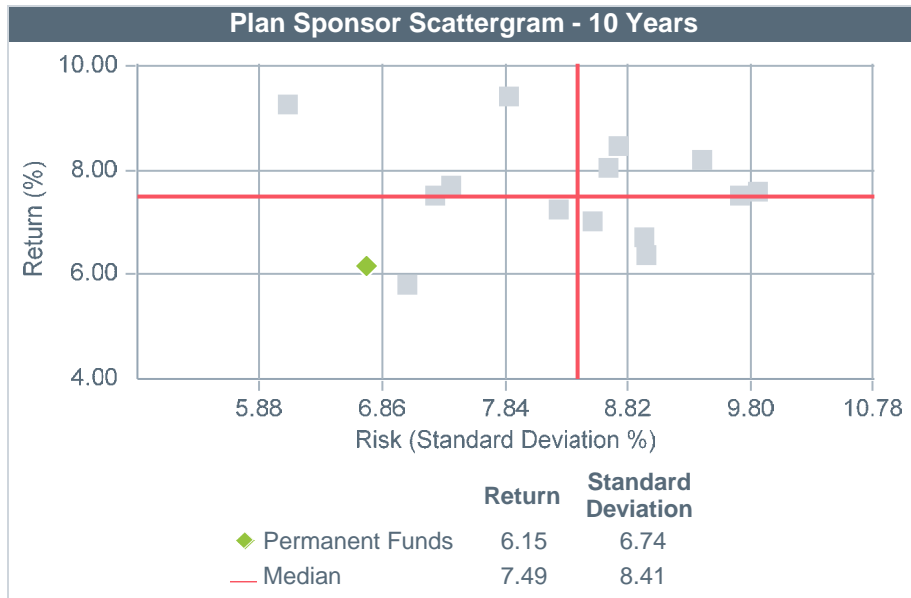
As of June 30, 2020



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.



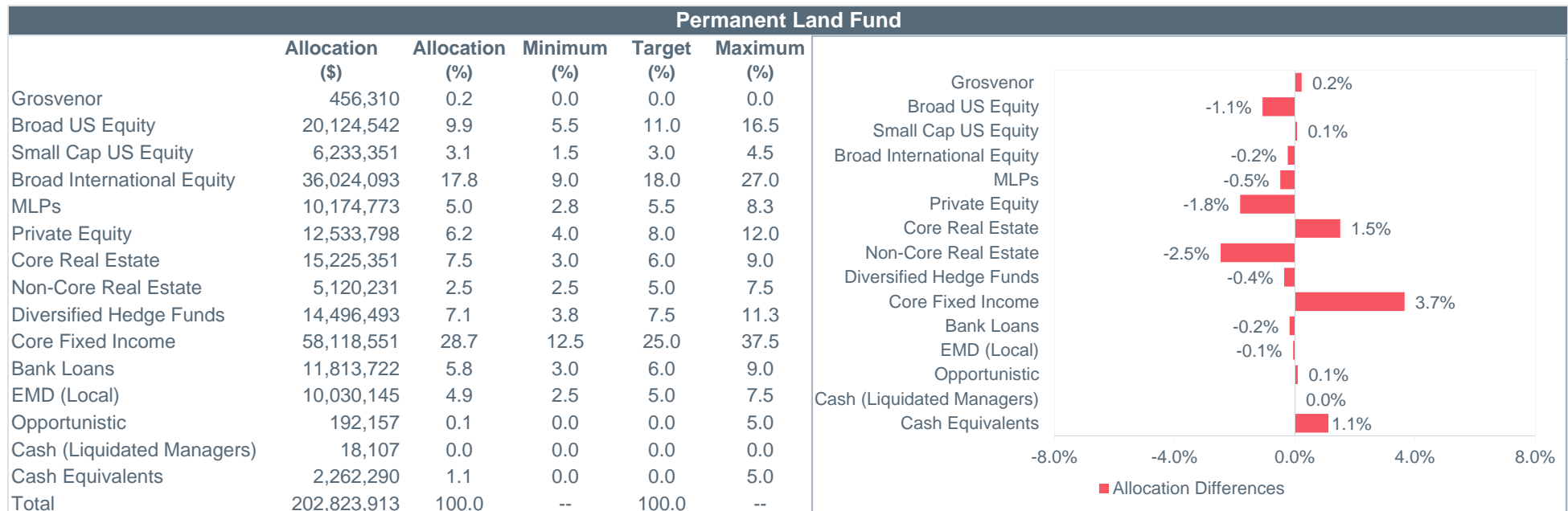
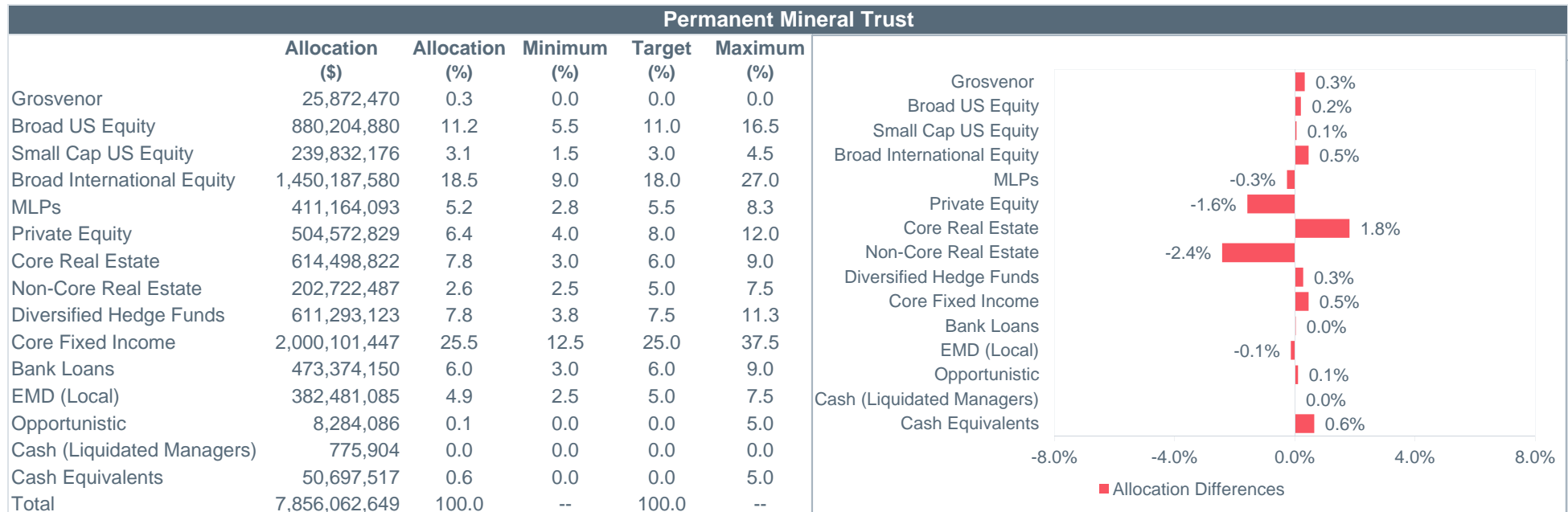
Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

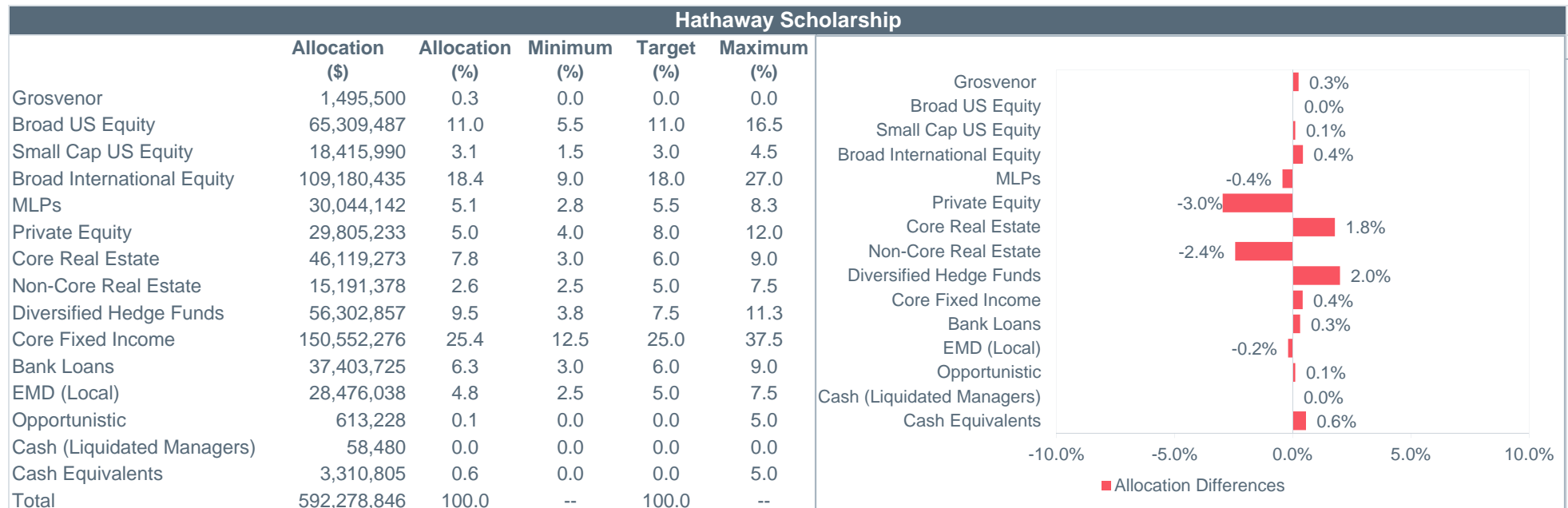
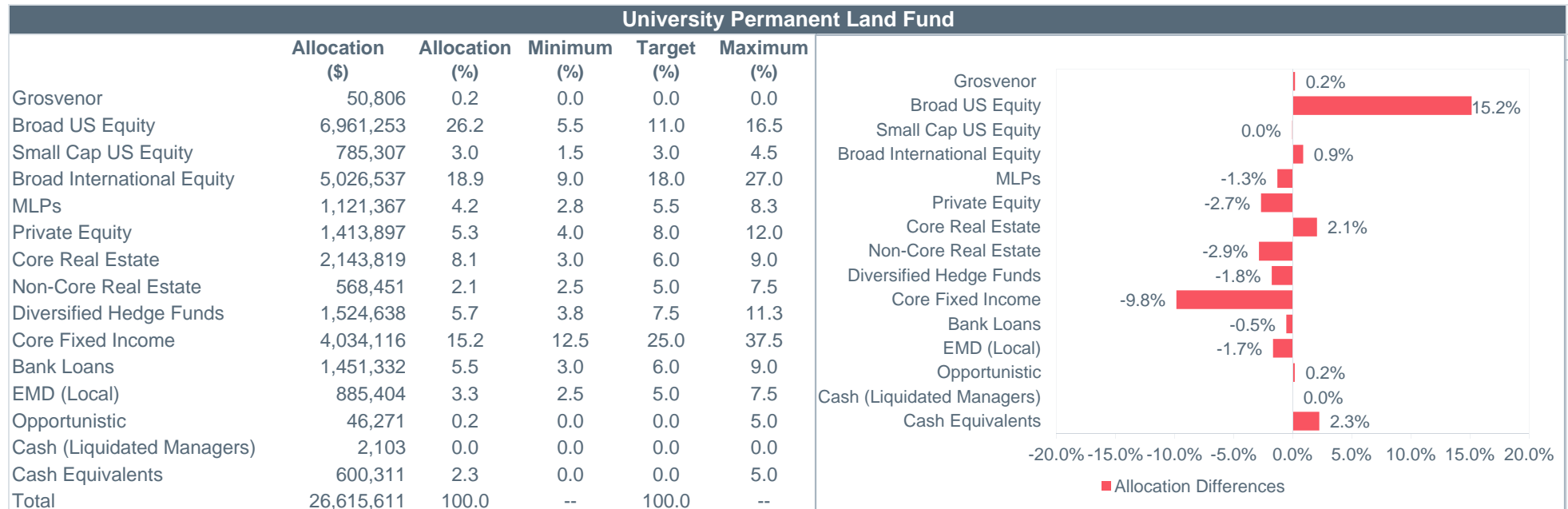


Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

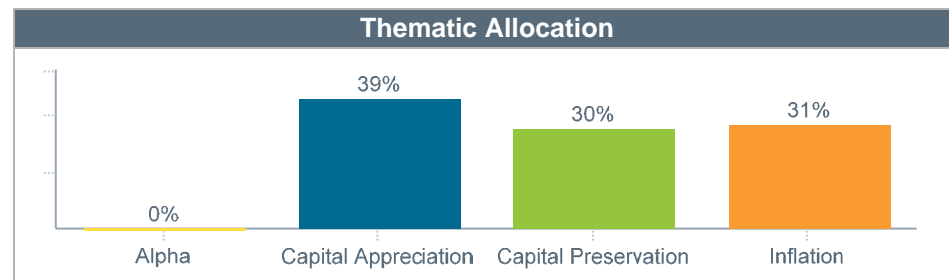
Investment Profile					Long-Term Target Allocation								
<p>Fund Type: Permanent Fund</p> <p>Main Objective: Produce maximized long-term investment income and capital gains while providing an appropriate level of safety and liquidity.</p> <p>Primary Investment Goals: Capital appreciation, total return, and protection against inflation. Capital preservation and liquidity are important secondary goals.</p> <p>Maximum Equity Allocation: 70%</p> <p>Current Long-Term Target Equity Allocation: 64%</p> <p>Spending Policy</p> <ul style="list-style-type: none">• Permanent Mineral Trust Fund: 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%.• Hathaway Scholarship: The amount necessary to fully fund scholarships awarded under W.S. 21-16-1301 <i>et seq.</i>					Minimum Range (%)	Target (%)	Maximum Range (%)						
					Permanent Mineral Trust	-	100.00	-					
					Broad US Equity	5.50	11.00	16.50					
					Small Cap US Equity	1.50	3.00	4.50					
					International Equity	9.00	18.00	27.00					
					MLPs	2.75	5.50	8.25					
					Private Equity	4.00	8.00	12.00					
					Core Real Estate	3.00	6.00	9.00					
					Non-Core Real Estate	2.50	5.00	7.50					
					Diversified Hedge Funds	3.75	7.50	11.25					
					Core Fixed Income	12.50	25.00	37.50					
					Bank Loans	3.00	6.00	9.00					
					Opportunistic Fixed Income	0.00	0.00	5.00					
					EMD	2.50	5.00	7.50					
					Opportunistic Investments	0.00	0.00	5.00					
					Cash (inv. in SAP)	0.00	0.00	5.00					
Thematic Allocation					Risk Metrics								
					5 Years				10 Years				
					PMTF	PLF	UPLF	Hath	PMTF	PLF	UPLF	Hath	
					Sharpe Ratio	0.4	0.4	0.4	0.4	0.8	0.8	0.7	0.7
					Standard Deviation	8.3	7.9	9.5	8.2	7.3	7.0	7.9	6.9
Beta	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4					
Comparative Performance													
Allocation		Performance (%)											
Market Value (\$)		QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years				
Permanent Mineral Trust	7,990,956,831	10.6	-2.1	2.1	2.1	4.1	4.3	5.2	6.2				
PMTF Actual Allocation Index		10.8	-2.1	1.9	1.9	4.2	4.4	5.3	6.0				
Difference		-0.2	0.0	0.2	0.2	-0.1	-0.1	-0.1	0.2				
Permanent Land Fund	202,823,913	10.2	-1.8	2.4	2.4	4.2	4.3	5.2	6.1				
PLF Actual Allocation Index		10.3	-1.9	2.1	2.1	4.3	4.4	5.2	6.0				
Difference		-0.1	0.1	0.3	0.3	-0.1	-0.1	0.0	0.1				
University Permanent Land Fund	26,615,611	12.4	-2.6	1.3	1.3	4.3	4.5	5.4	6.2				
UPLF Actual Allocation Index		12.9	-2.5	1.2	1.2	4.5	4.7	5.5	6.2				
Difference		-0.5	-0.1	0.1	0.1	-0.2	-0.2	-0.1	0.0				
Hathaway Scholarship	592,278,846	10.6	-2.0	2.1	2.1	3.9	4.1	4.7	5.7				
Hathaway Actual Allocation Index		10.8	-1.7	2.1	2.1	4.0	4.2	4.9	5.6				
Difference		-0.2	-0.3	0.0	0.0	-0.1	-0.1	-0.2	0.1				

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. Thematic Allocation shown represents the Permanent Mineral Trust.





Investment Profile
Fund Type: Permanent Fund Main Objective: Produce maximized long-term investment income and capital gains while providing an appropriate level of safety and liquidity. Primary Investment Goals: Income generation, capital appreciation, total return, and protection against inflation. Capital preservation and liquidity are important secondary goals. Maximum Equity Allocation: 70% Current Long-Term Target Equity Allocation: 46%
Spending Policy <ul style="list-style-type: none"> • Common School Permanent Land Fund: 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%. • Higher Education: 4.75% of the five-year trailing average market value, calculated on the first day of the fiscal year.

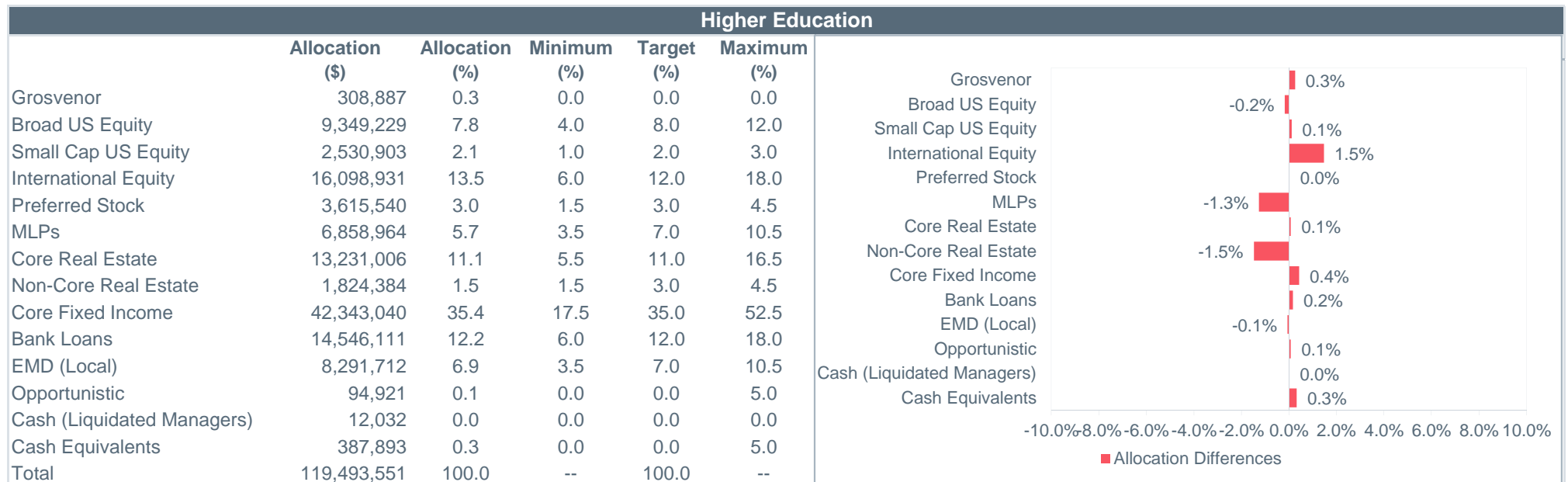
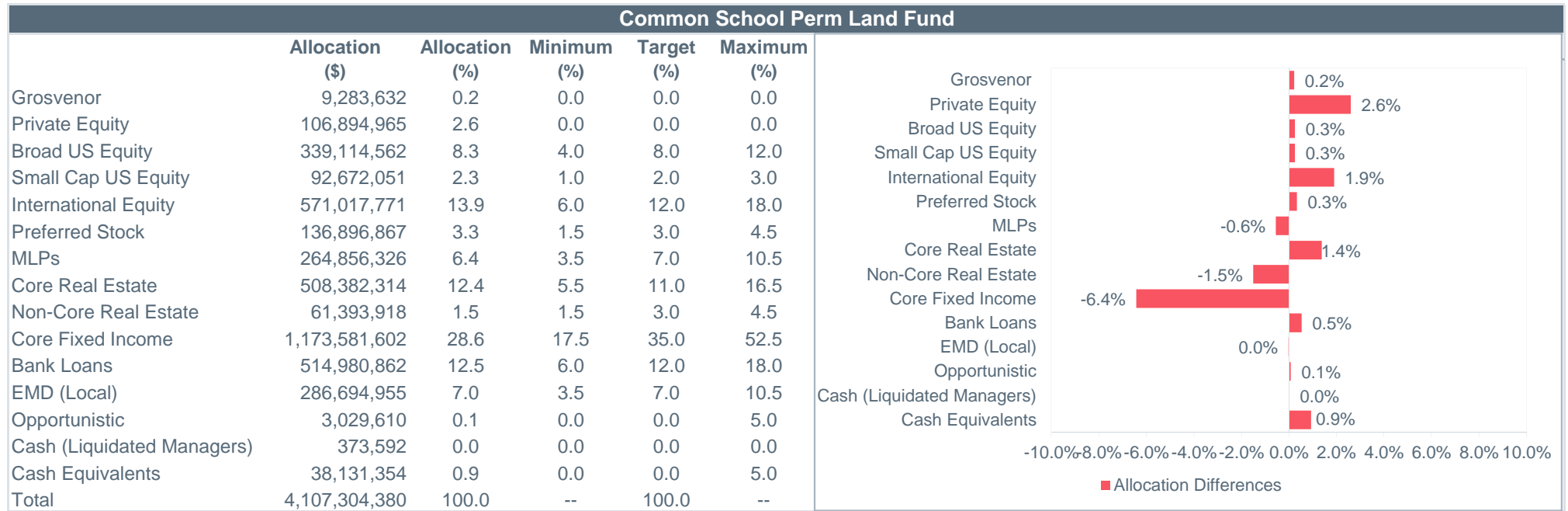


Long-Term Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
Common School PLF	-	100.00	-
Broad US Equity	4.00	8.00	12.00
Small Cap US Equity	1.00	2.00	3.00
International Equity	6.00	12.00	18.00
Preferred Stock	1.50	3.00	4.50
MLPs	3.50	7.00	10.50
Core Real Estate	5.50	11.00	16.50
Non-Core Real Estate	1.50	3.00	4.50
Core Fixed Income	17.50	35.00	52.50
Bank Loans	6.00	12.00	18.00
Opportunistic Fixed Income	0.00	0.00	5.00
EMD	3.50	7.00	10.50
Opportunistic Investments	0.00	0.00	5.00
Cash (inv. in SAP)	0.00	0.00	5.00

Risk Metrics				
	5 Years		10 Years	
	CSPLF	HiEd	CSPLF	HiEd
Sharpe Ratio	0.4	0.4	0.8	0.7
Standard Deviation	7.6	7.6	7.0	6.6
Beta	0.4	0.4	0.4	0.4

Comparative Performance									
	Allocation	Performance (%)							
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Common School Perm Land Fund	4,125,664,118	9.8	-1.3	2.2	2.2	4.2	4.4	5.3	6.4
CSPLF - Actual Allocation Index		10.1	-1.5	1.8	1.8	4.1	4.4	5.3	6.1
Difference		-0.3	0.2	0.4	0.4	0.1	0.0	0.0	0.3
Higher Education	119,493,551	9.3	-2.1	1.4	1.4	3.6	3.9	4.6	5.5
Higher Education - Actual Allocation Index		9.5	-2.3	0.9	0.9	3.5	3.9	4.7	5.4
Difference		-0.2	0.2	0.5	0.5	0.1	0.0	-0.1	0.1

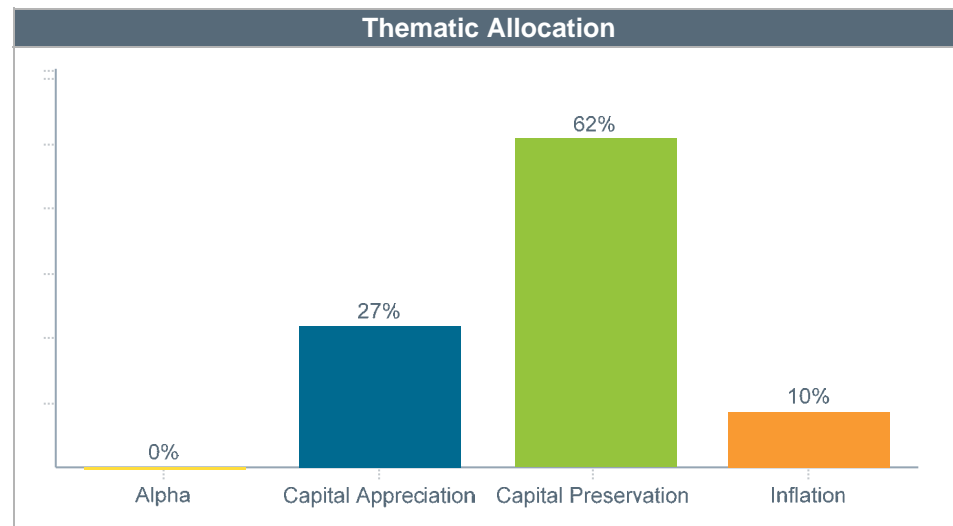
Performance shown is net of fees and annualized for periods greater than one year. Wyoming State Treasurer's Office fiscal year ends on June 30th. Beta is calculated relative to the MSCI ACW Index (Net). Calculations are based on quarterly periodicity. Allocations shown may not sum up to 100% exactly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



Wyoming State Treasurer's Office
Permanent Funds - Workers' Compensation Fund

As of June 30, 2020

Investment Profile
Fund Type: Permanent Fund Main Objective: 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. Primary Investment Goals: Long-term return, safety of capital, yield and capital appreciation. Maximum Equity Allocation: 70% Current Long-Term Target Equity Allocation: 38% Actuarial Discount Rate: 3.5%* Funded Status: >100%* Duration of Liabilities: 11.6 years*
*As of the most recent report.



Comparative Performance									
	Allocation	Performance (%)							
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Workers' Compensation Fund	2,435,825,765	8.4	4.4	9.0	9.0	6.9	5.6	5.5	5.8
WC - Actual Allocation Index		8.6	3.7	8.2	8.2	6.6	5.5	5.5	5.6
Difference		-0.2	0.7	0.8	0.8	0.3	0.1	0.0	0.2

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.

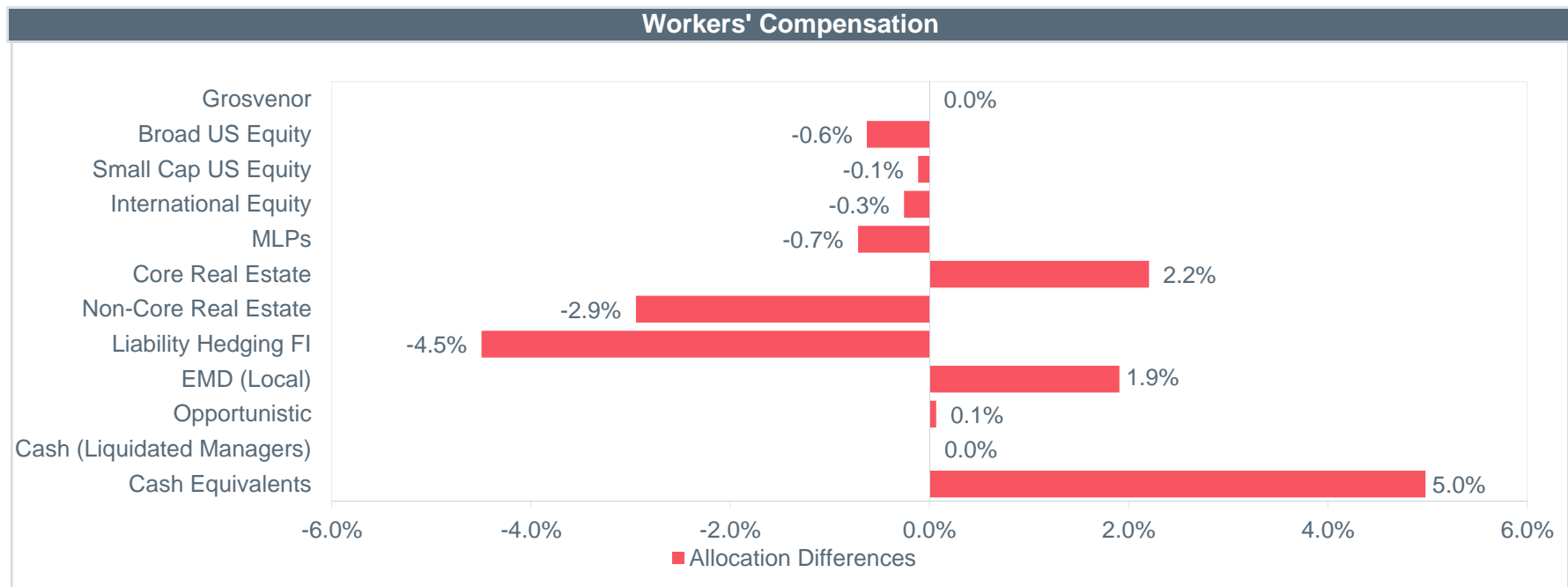
Long-Term Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
Workers Compensation Fund	-	100.00	-
Broad US Equity	4.00	8.00	12.00
Small Cap US Equity	1.00	2.00	3.00
International Equity	6.25	12.50	18.75
MLPs	2.25	4.50	6.75
Core Real Estate	2.25	4.50	6.75
Non-Core Real Estate	2.00	4.00	6.00
Liability Driven Fixed Income	31.00	62.00	93.00
Opportunistic Fixed Income	0.00	0.00	5.00
EMD	1.25	2.50	3.75
Opportunistic Investments	0.00	0.00	5.00
Cash (inv. in SAP)	0.00	0.00	5.00

Fixed Income Characteristics vs. BB US Agg Bond Index		
	Portfolio	Benchmark
Effective Duration	10.9	6.0
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	2.2	1.3
Coupon Rate (%)	3.3	3.0

Risk Metrics		
	5 Years	10 Years
Sharpe Ratio	0.8	1.1
Standard Deviation	5.1	4.6
Beta	0.3	0.3

Wyoming State Treasurer's Office
Permanent Funds - Workers' Compensation Fund
Asset Allocation vs. Long-Term Target

As of June 30, 2020



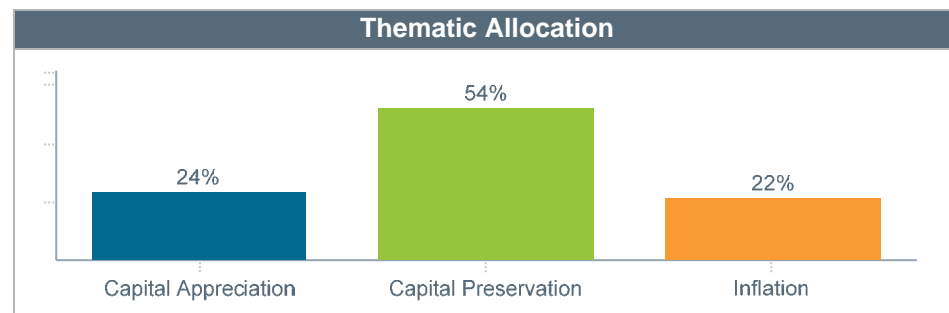
	Market Value	Allocation	Minimum	Target	Maximum
	(\$)	(%)	(%)	(%)	(%)
Grosvenor	14,156	0.0	0.0	0.0	0.0
Broad US Equity	179,532,167	7.4	4.0	8.0	12.0
Small Cap US Equity	45,962,030	1.9	1.0	2.0	3.0
International Equity	298,231,850	12.2	6.3	12.5	18.8
MLPs	92,124,054	3.8	2.3	4.5	6.8
Core Real Estate	163,244,069	6.7	2.3	4.5	6.8
Non-Core Real Estate	25,644,225	1.1	2.0	4.0	6.0
Liability Hedging FI	1,400,719,689	57.5	31.0	62.0	93.0
EMD (Local)	107,310,950	4.4	1.3	2.5	3.8
Opportunistic	1,624,788	0.1	0.0	0.0	5.0
Cash (Liquidated Managers)	138,257	0.0	0.0	0.0	0.0
Cash Equivalents	121,279,529	5.0	0.0	0.0	5.0
Total	2,435,825,765	100.0	--	100.0	--

Wyoming State Treasurer's Office
Pool A Investment Account

As of June 30, 2020

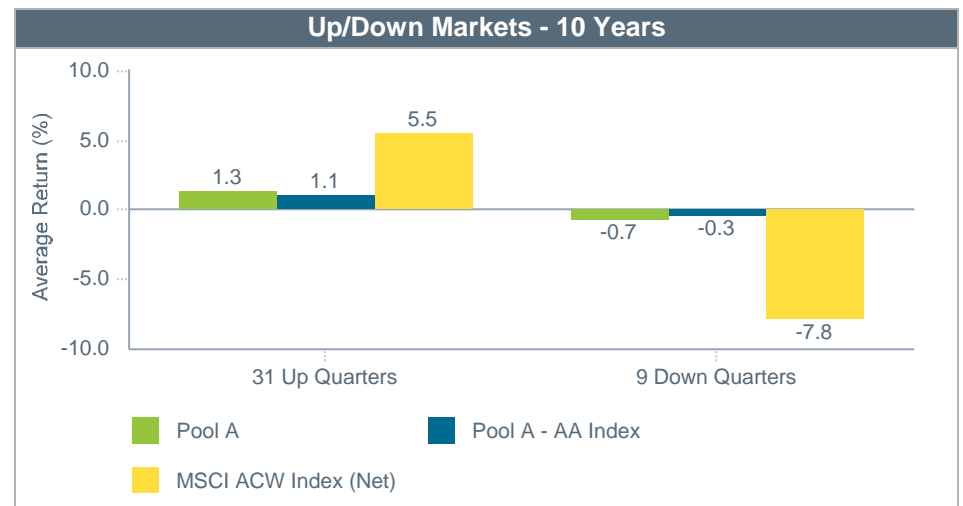
Investment Profile	
Fund Type: Non-Permanent Fund	
Main Objective: Provide a diverse array of securities including equities, while maintaining adequate liquidity, stability, and return on investment.	
Primary Investment Goal: Pool A is intended to be moderately liquid and safely invested but also be invested for return and growth.	
Maximum Equity Allocation: 60%	
Current Target Equity Allocation: 36%	
Participating Funds:	
• Tobacco Settlement Trust Fund	
• Wildlife and Natural Resource Trust Account	
• Cultural Trust Fund	
• Public Television Matching Fund Account	
• Game and Fish Fund Trust Account	

Risk Metrics		
	5 Years	10 Years
Sharpe Ratio	0.4	0.7
Standard Deviation	5.1	4.1
Beta	0.2	0.2



Comparative Performance									
	Allocation	Performance (%)							
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Pool A	241,213,542	7.9	1.1	4.0	4.0	3.7	3.3	3.2	3.5
Pool A - Actual Allocation Index		8.0	0.5	3.1	3.1	3.2	3.0	3.1	3.2
Difference		-0.1	0.6	0.9	0.9	0.5	0.3	0.1	0.3

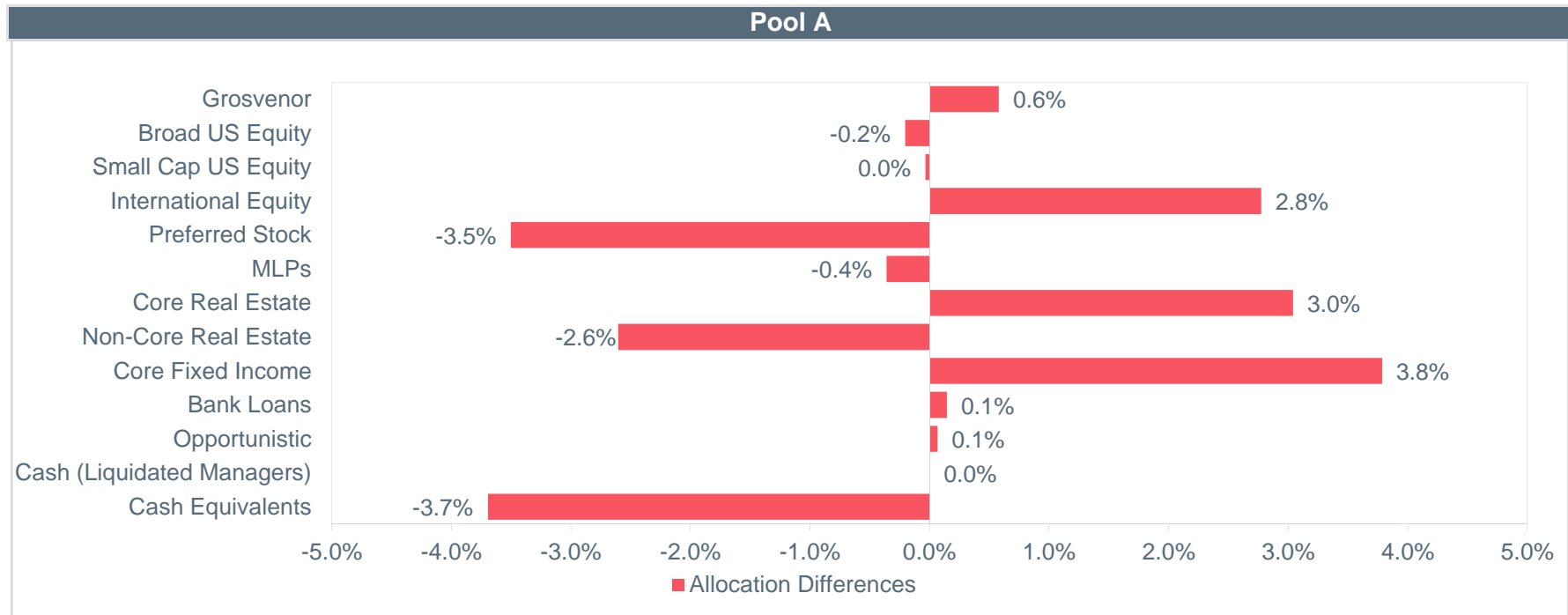
Long-Term Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
Pool A	-	100.00	-
Broad US Equity	3.75	7.50	11.25
Small Cap US Equity	0.50	1.00	1.50
International Equity	3.75	7.50	11.25
Preferred Stock	3.50	7.00	10.50
MLPs	2.50	5.00	7.50
Core Real Estate	2.00	4.00	6.00
Non-Core Real Estate	2.00	4.00	6.00
Core Fixed Income	24.50	49.00	73.50
Bank Loans	5.00	10.00	15.00
Opportunistic Investments	0.00	0.00	5.00
Cash (inv. in SAP)	2.50	5.00	7.50



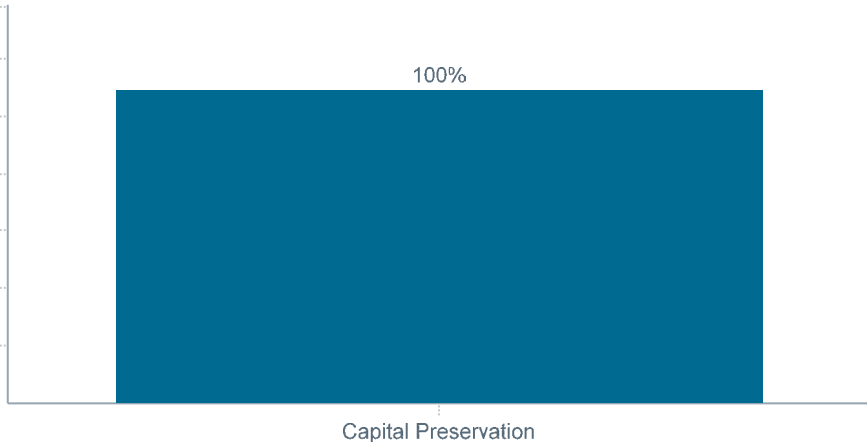
Performance shown is net of fees and annualized for periods greater than one year. Wyoming State Treasurer's Office fiscal year ends on June 30th. Beta is calculated relative to the MSCI ACW Index (Net). Calculations are based on quarterly periodicity. Allocations shown may not sum up to 100% exactly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

Pool A

Asset Allocation vs. Long-Term Target

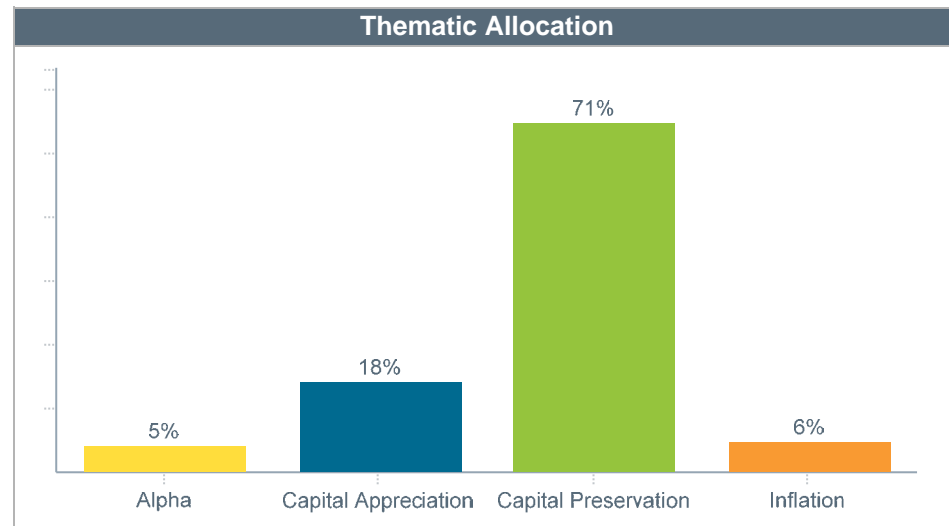


	Market Value	Allocation	Minimum	Target	Maximum
	(\$)	(%)	(%)	(%)	(%)
Grosvenor	1,399,988	0.6	0.0	0.0	0.0
Broad US Equity	17,602,478	7.3	3.8	7.5	11.3
Small Cap US Equity	2,331,564	1.0	0.5	1.0	1.5
International Equity	24,783,825	10.3	3.8	7.5	11.3
Preferred Stock	8,437,326	3.5	3.5	7.0	10.5
MLPs	11,195,190	4.6	2.5	5.0	7.5
Core Real Estate	16,982,332	7.0	2.0	4.0	6.0
Non-Core Real Estate	3,369,821	1.4	2.0	4.0	6.0
Core Fixed Income	127,324,126	52.8	24.5	49.0	73.5
Bank Loans	24,474,718	10.1	5.0	10.0	15.0
Opportunistic	160,988	0.1	0.0	0.0	5.0
Cash (Liquidated Managers)	677	0.0	0.0	0.0	0.0
Cash Equivalents	3,150,508	1.3	2.5	5.0	7.5
Total	241,213,542	100.0	--	100.0	--

Investment Profile									
Fund Type: Non-Permanent Fund Main Objective: Produce an investment return so that State agencies have the advantage of better income from their invested funds, while maintaining stability. Primary Investment Goal: Capital preservation, yield, and liquidity Liquidity Constraints: The Fund must meet the day-to-day cash flow needs of the State Maximum Equity Allocation: 0% Current Target Equity Allocation: 0%									
Long-Term Target Allocation									
	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)						
State Agency Pool Excluding PPI	-	100.00	-						
Laddered Short-Term Treasury	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						
Thematic Allocation									
									
Fixed Income Characteristics vs. BB US Agg Bond Index									
	Portfolio	Benchmark							
Effective Duration	2.1	6.0							
Avg. Quality	Aa1	Aa1/Aa2							
Yield To Maturity (%)	0.3	1.3							
Coupon Rate (%)	1.4	3.0							
Risk Metrics									
	5 Years	10 Years							
Sharpe Ratio	0.8	1.0							
Standard Deviation	2.1	2.2							
Beta	0.0	0.0							
Comparative Performance									
	Allocation	Performance (%)							
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
State Agency Pool	5,454,619,605	0.4	2.6	3.8	3.8	3.2	2.9	2.7	2.9
State Agency Pool - Actual Allocation Index		0.4	2.4	3.5	3.5	2.9	2.7	2.7	2.8
Difference		0.0	0.2	0.3	0.3	0.3	0.2	0.0	0.1

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Investment Profile
Fund Type: Non-Permanent Fund Main Objective: 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. Primary Investment Goal: liquidity, capital preservation, and capital appreciation. Maximum Equity Allocation: 36% Current Target Equity Allocation: 29.17% Spending Policy: Legislative Appropriation Participating Funds: <ul style="list-style-type: none"> • Long Term Reserve • Intermediate Term Reserve • Short Term Reserve



Long-Term Target Allocation			
	Minimum Range (%)	Target (%)	Maximum Range (%)
LSRA Long Term Reserve	-	100.00	-
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
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	10.2	07/01/2019
Beta	0.3	
Sharpe Ratio	0.0	

Comparative Performance									
	Allocation	Performance (%)							
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
LSRA	1,551,541,169	6.8	-1.0	1.5	1.5	N/A	N/A	N/A	N/A
LSRA - Actual Allocation Index		6.8	-1.1	1.4	1.4	N/A	N/A	N/A	N/A
Difference		0.0	0.1	0.1	0.1	N/A	N/A	N/A	N/A

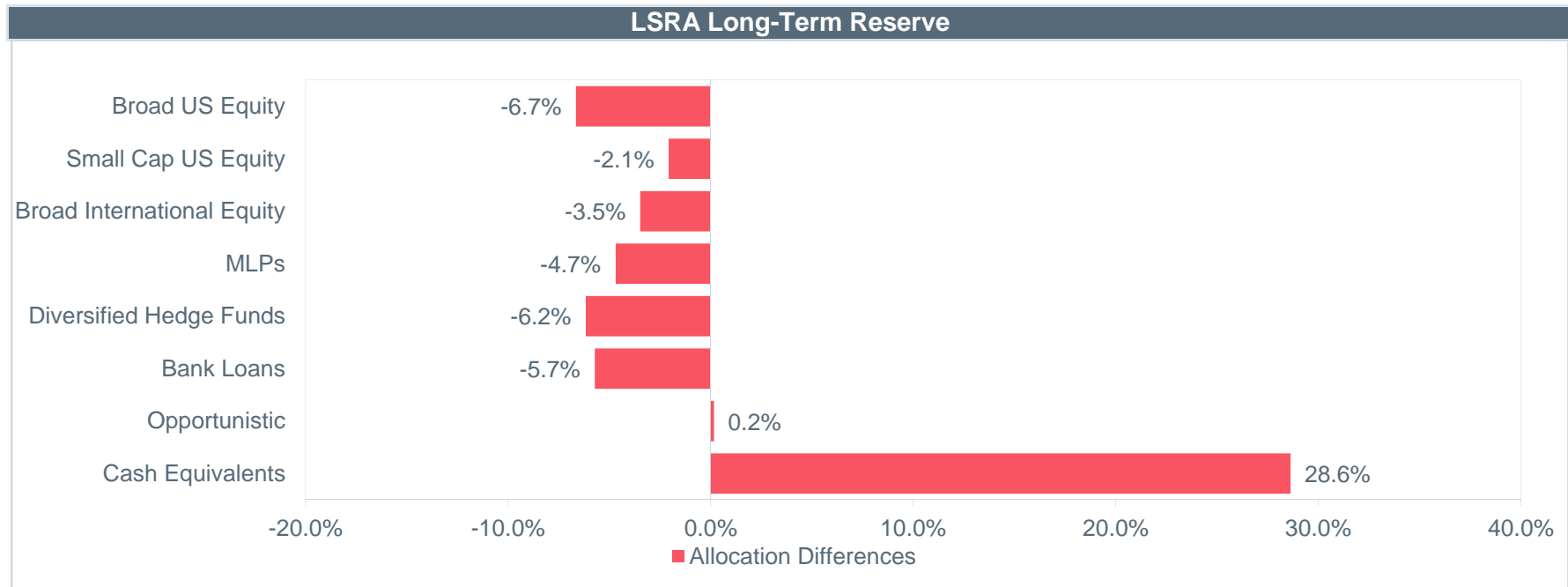
Performance shown is net of fees and annualized for periods greater than one year. Wyoming State Treasurer's Office fiscal year ends on June 30th. Beta is calculated relative to the MSCI ACW Index (Net). Calculations are based on quarterly periodicity. Allocations shown may not sum up to 100% exactly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

Total LSRA

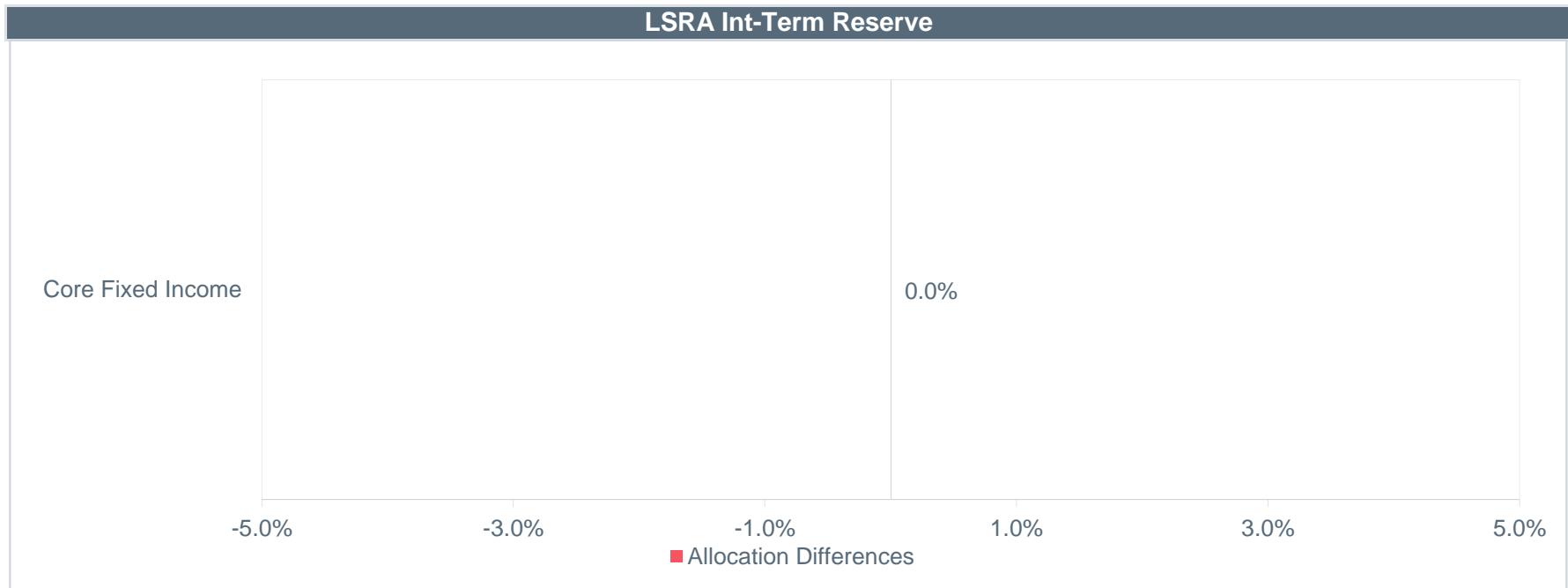
Asset Allocation vs. Long-Term Target

Total LSRA			
	Market Value	Allocation	Target
	(\$)	(%)	(%)
Broad US Equity	98,134,537	6.3	N/A
Small Cap US Equity	25,085,612	1.6	N/A
Broad International Equity	156,854,672	10.1	N/A
MLPs	49,912,298	3.2	N/A
Diversified Hedge Funds	82,102,235	5.3	N/A
Core Fixed Income	426,740,263	27.5	N/A
Low Duration Fixed Income	485,183,230	31.3	N/A
Bank Loans	43,385,618	2.8	N/A
Opportunistic	1,050,876	0.1	N/A
Cash Equivalents	183,091,827	11.8	N/A
Total	1,551,541,169	100.0	N/A

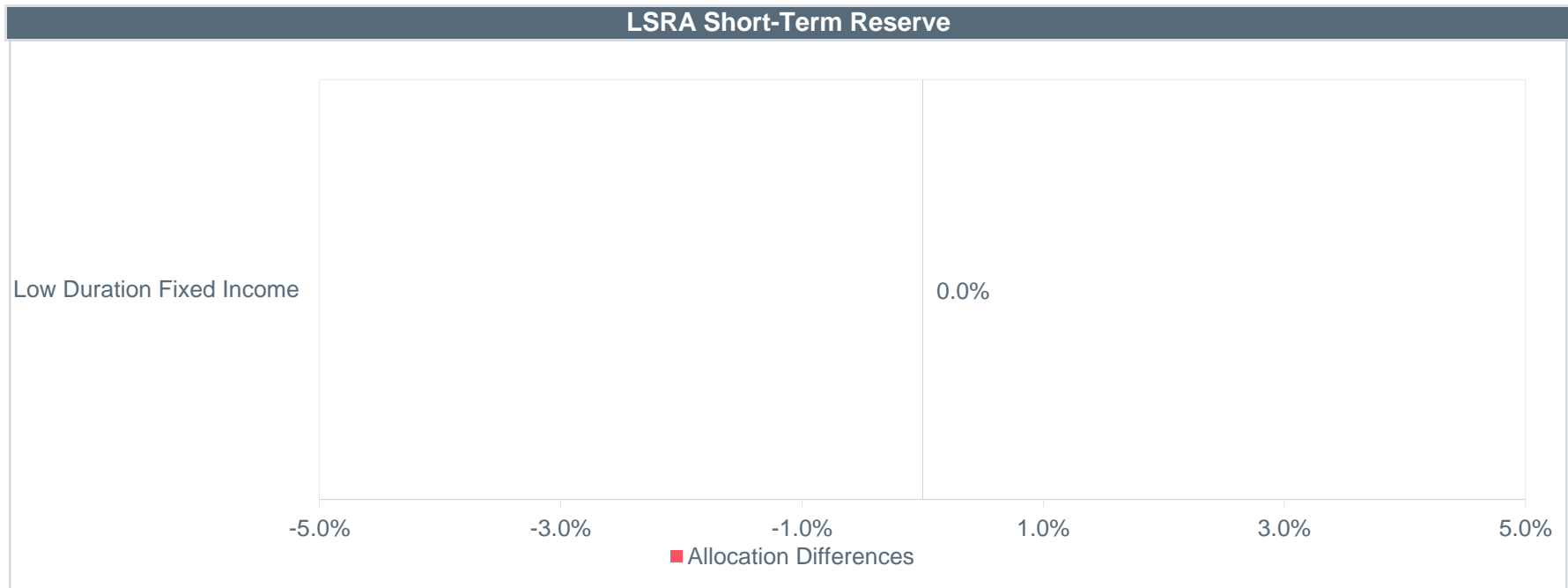
The Total LSRA pool has no target allocation.



	Market Value (\$)	Allocation (%)	Minimum (%)	Target (%)	Maximum (%)
Broad US Equity	98,134,537	15.3	17.0	22.0	27.0
Small Cap US Equity	25,085,612	3.9	4.0	6.0	8.0
Broad International Equity	156,854,672	24.5	21.0	28.0	35.0
MLPs	49,912,298	7.8	10.0	12.5	15.0
Diversified Hedge Funds	82,102,235	12.8	15.0	19.0	23.0
Bank Loans	43,385,618	6.8	10.0	12.5	15.0
Opportunistic	1,050,876	0.2	0.0	0.0	0.0
Cash Equivalents	183,091,827	28.6	0.0	0.0	0.0
Total	639,617,676	100.0	--	100.0	--

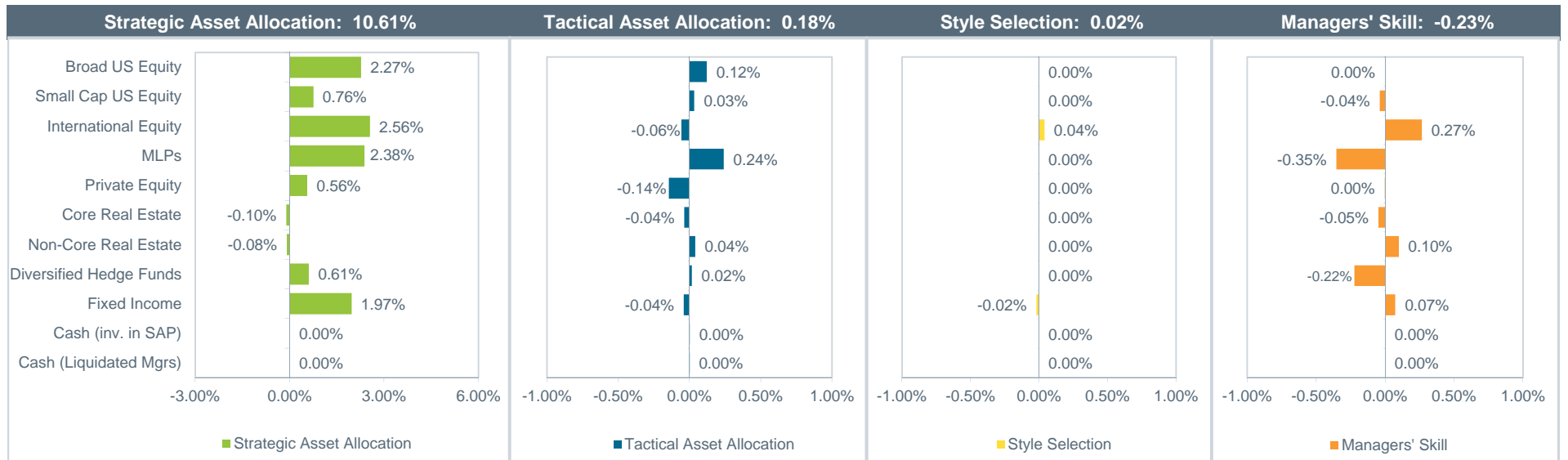
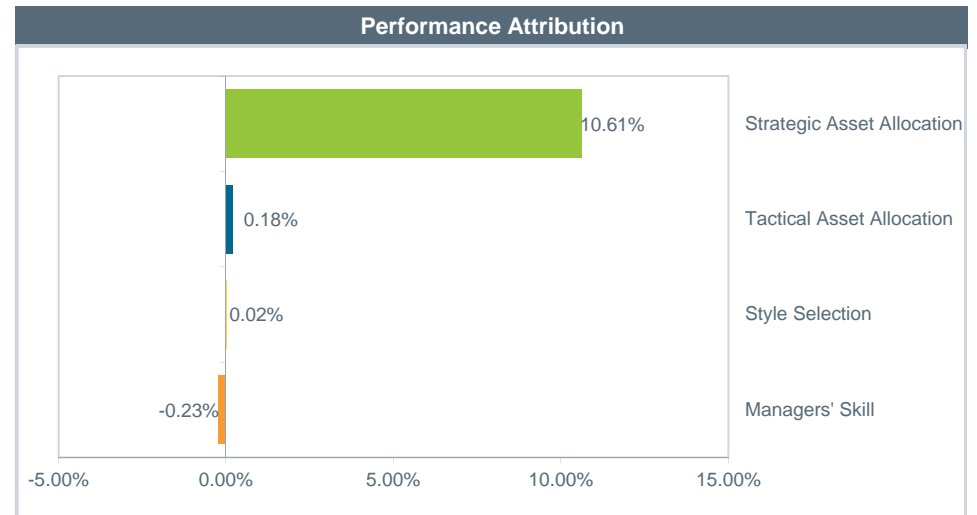
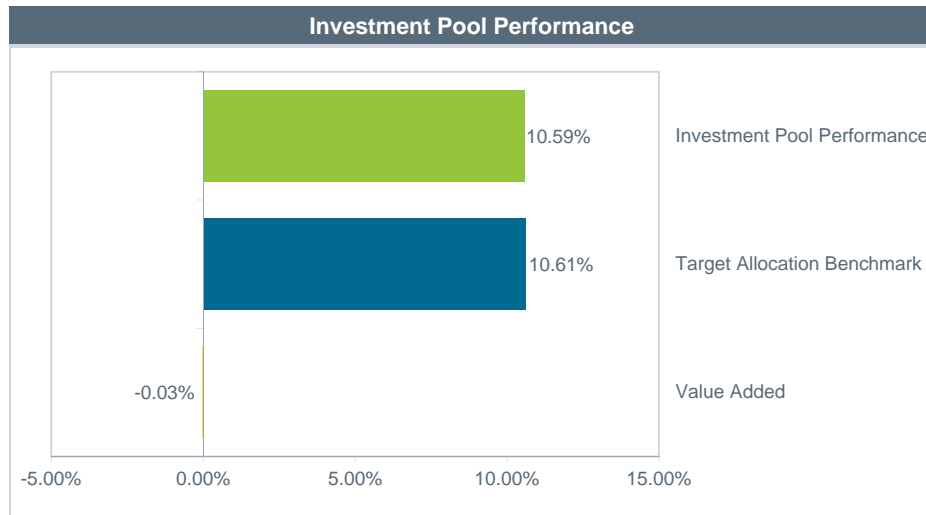


	Market Value (\$)	Allocation (%)	Minimum (%)	Target (%)	Maximum (%)
Core Fixed Income	426,740,263	100.0	100.0	100.0	100.0
Total	426,740,263	100.0	--	100.0	--



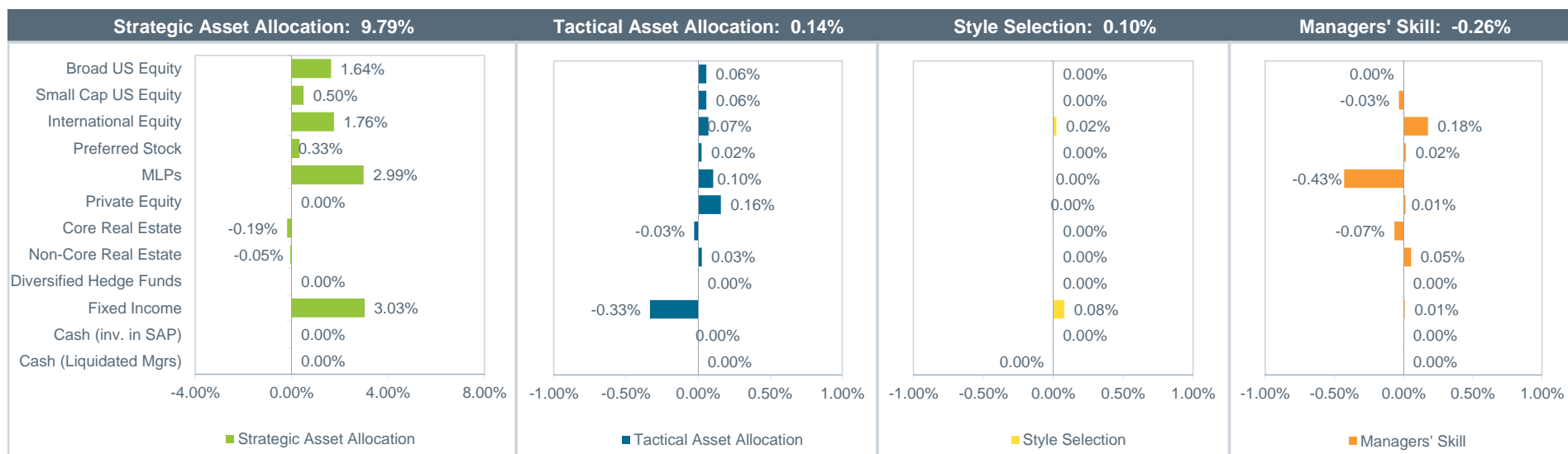
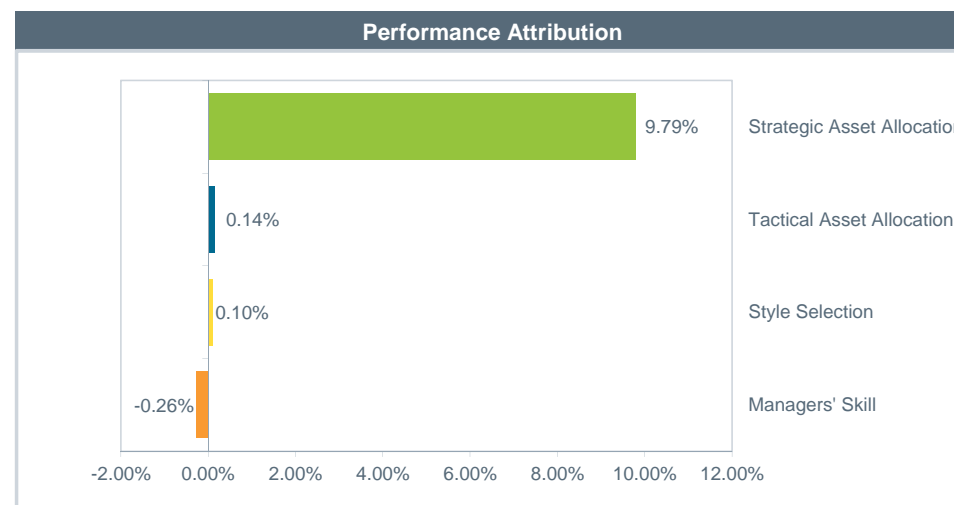
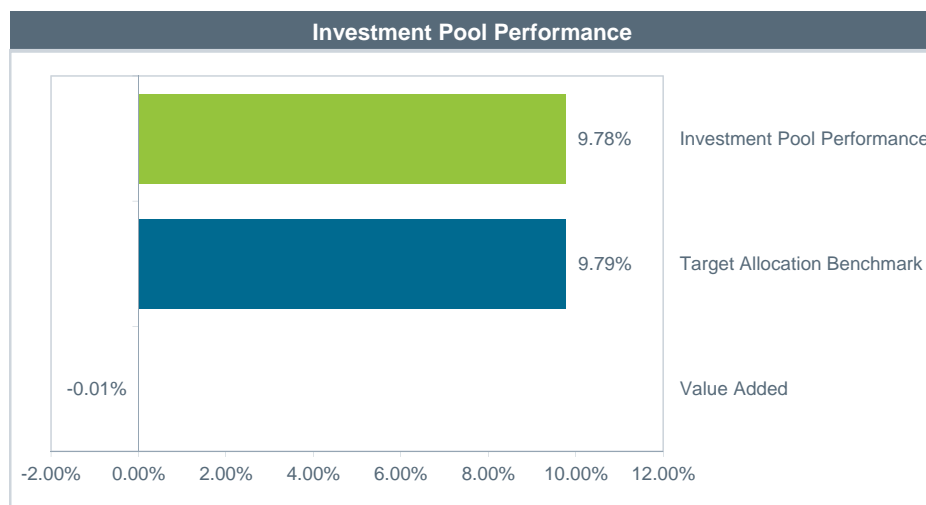
	Market Value (\$)	Allocation (%)	Minimum (%)	Target (%)	Maximum (%)
Low Duration Fixed Income	485,183,230	100.0	100.0	100.0	100.0
Total	485,183,230	100.0	--	100.0	--

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Permanent Mineral Trust Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



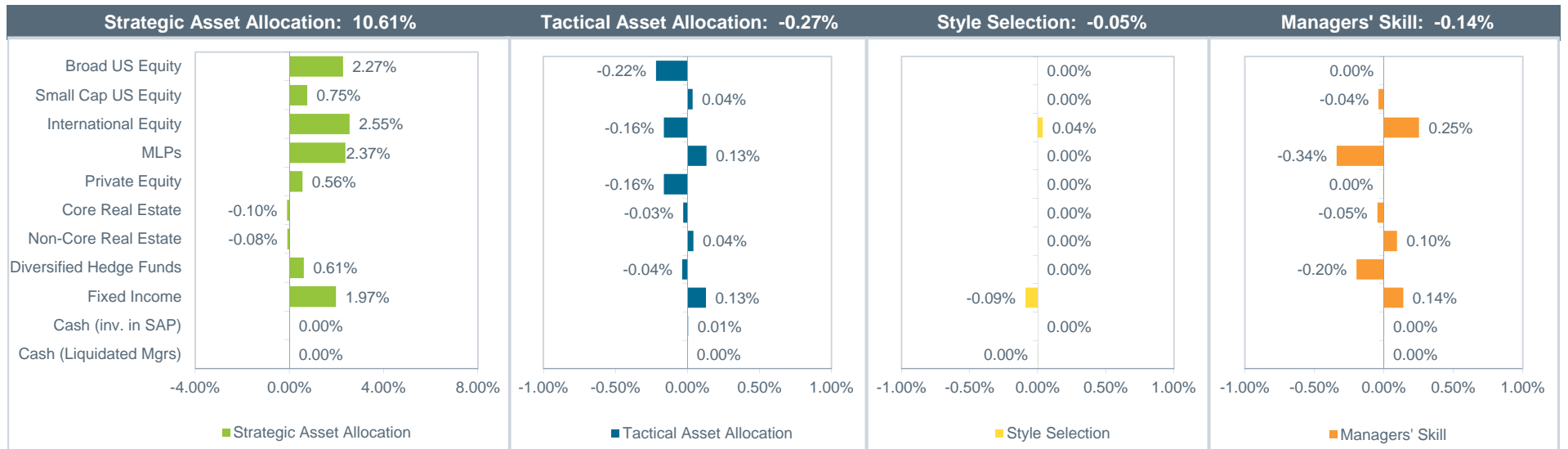
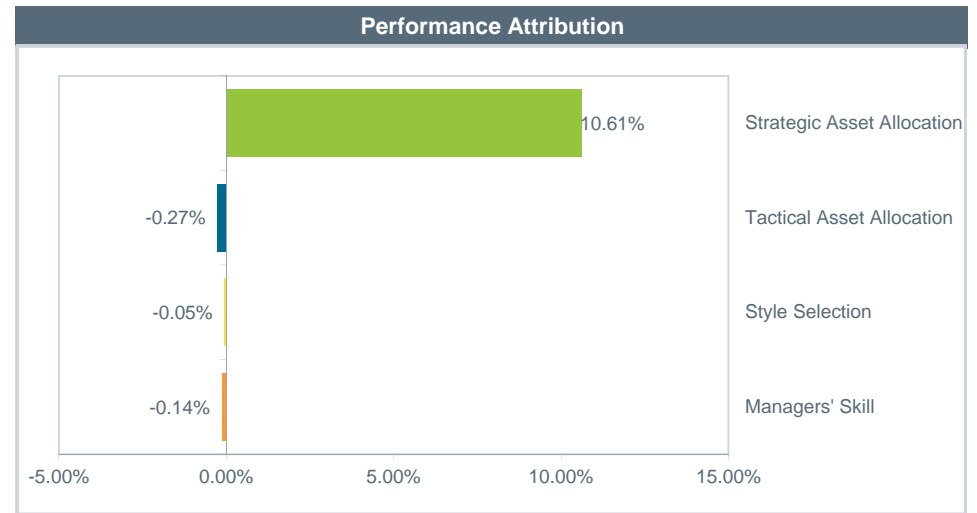
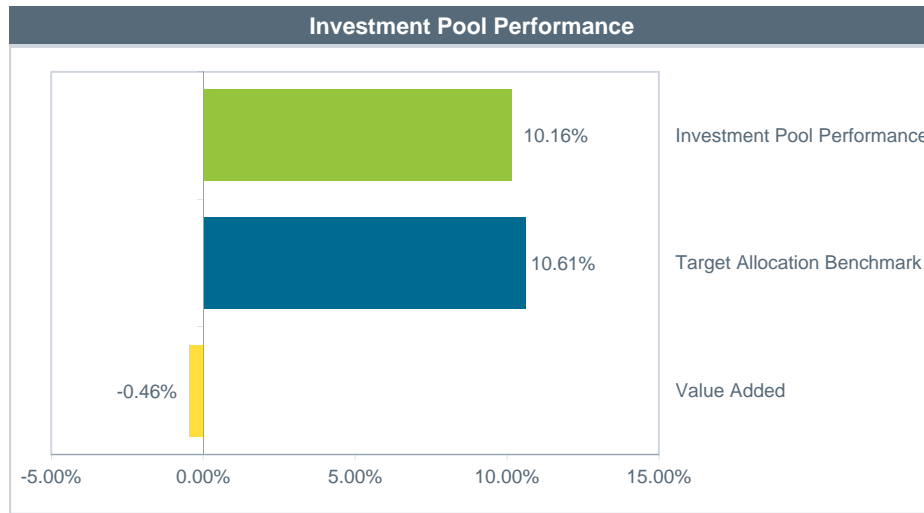
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index.
 Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Common School Permanent Land Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



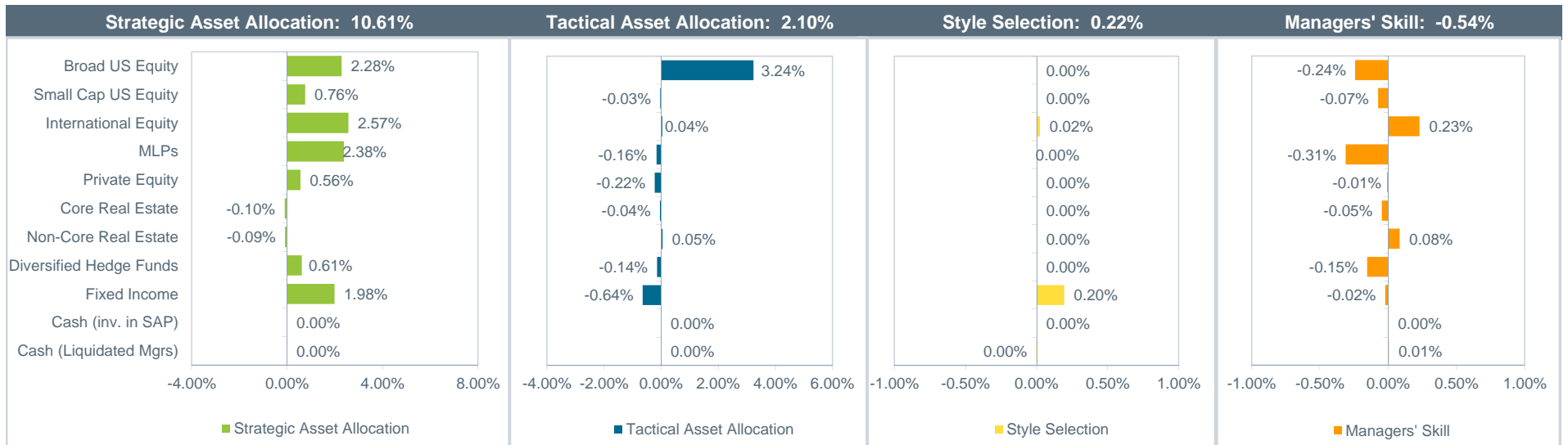
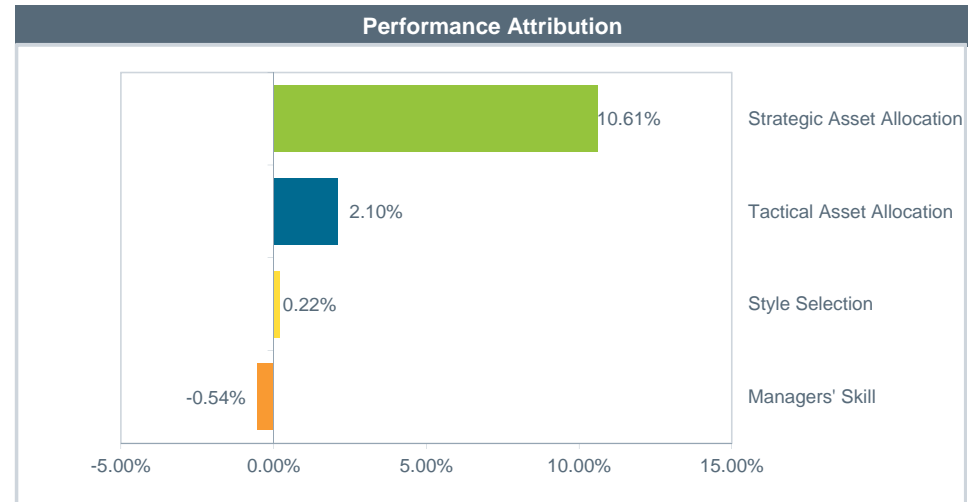
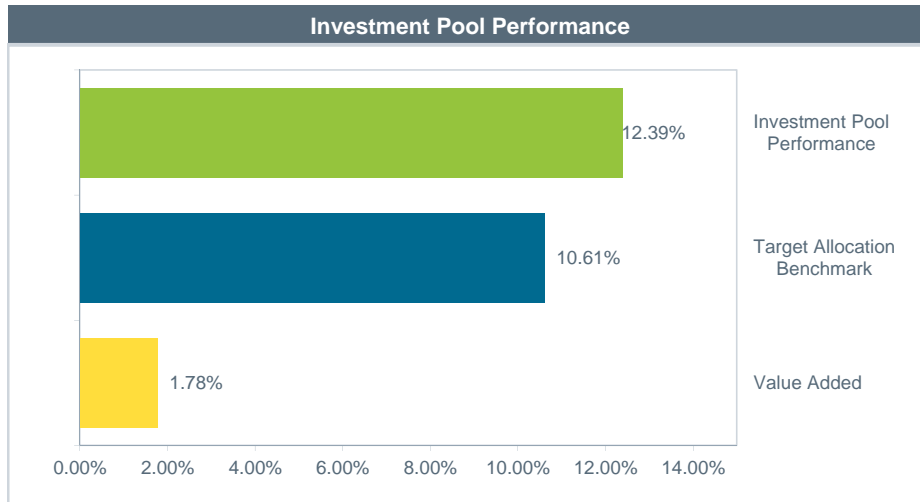
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Permanent Land Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



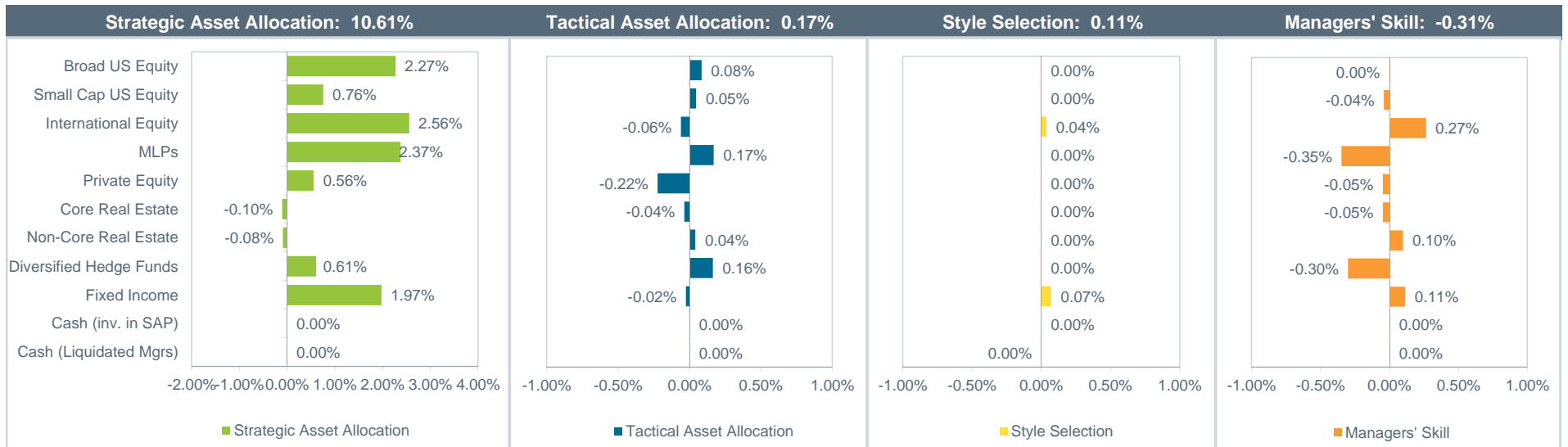
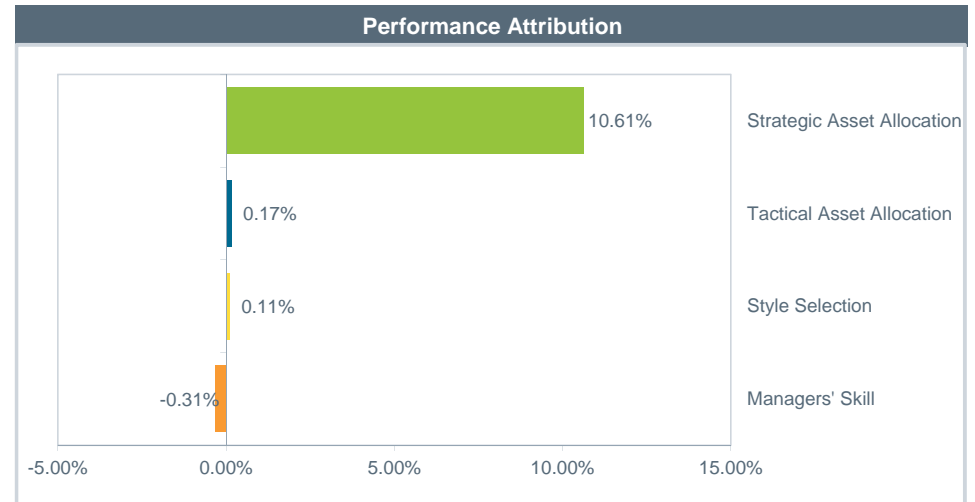
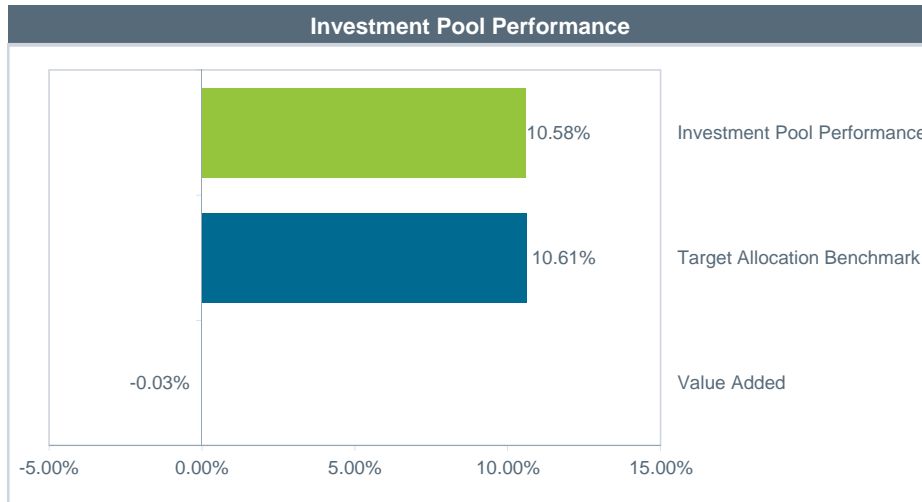
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index.
 Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
University Permanent Land Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



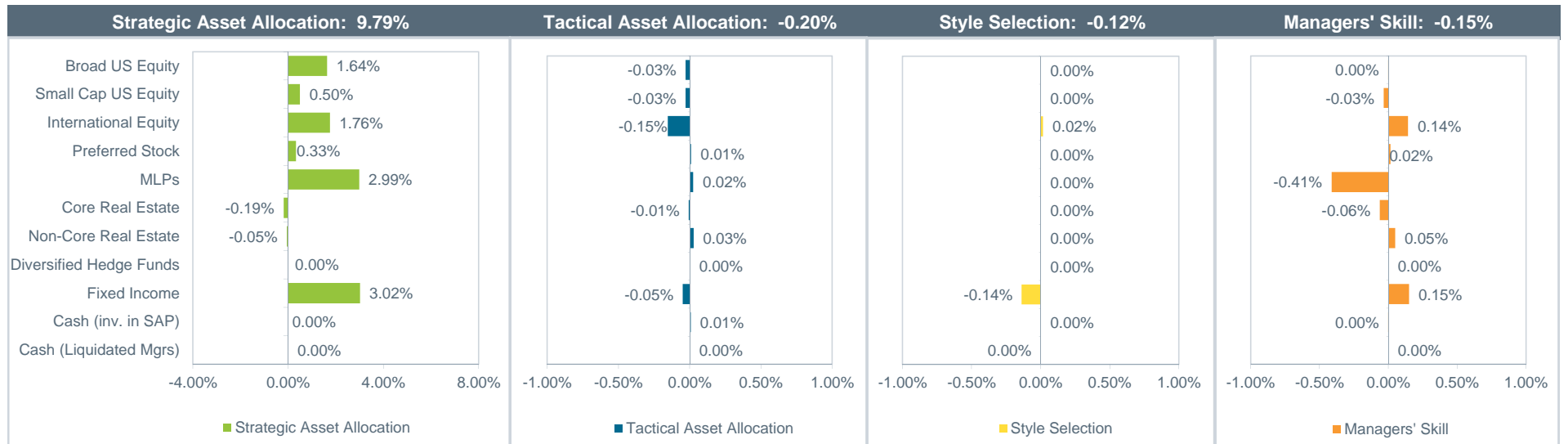
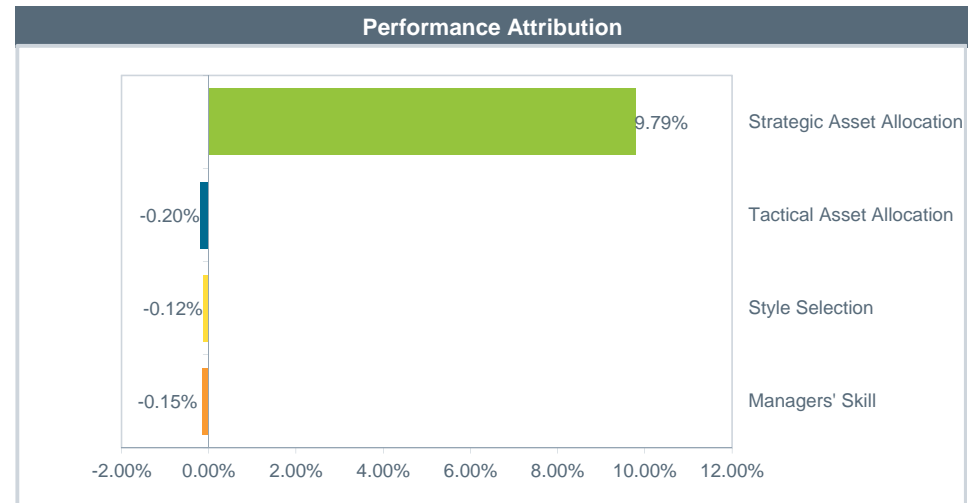
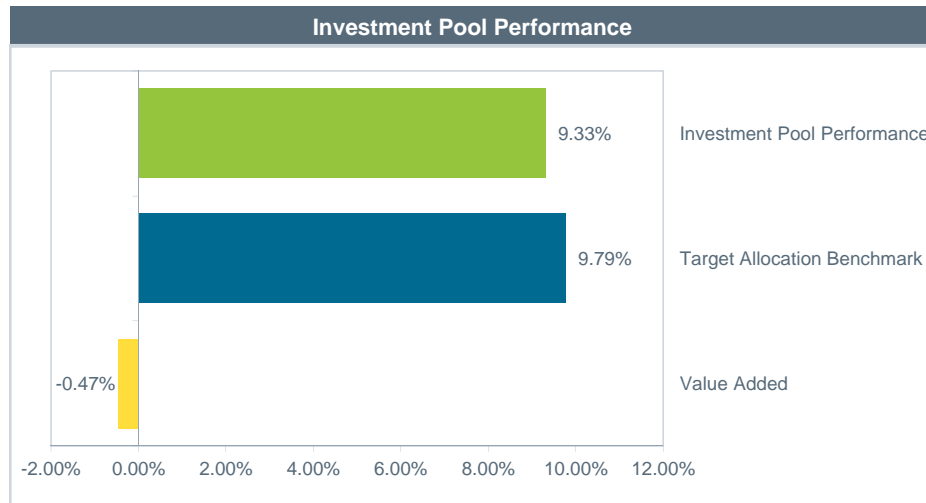
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Hathaway Scholarship Endowment Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



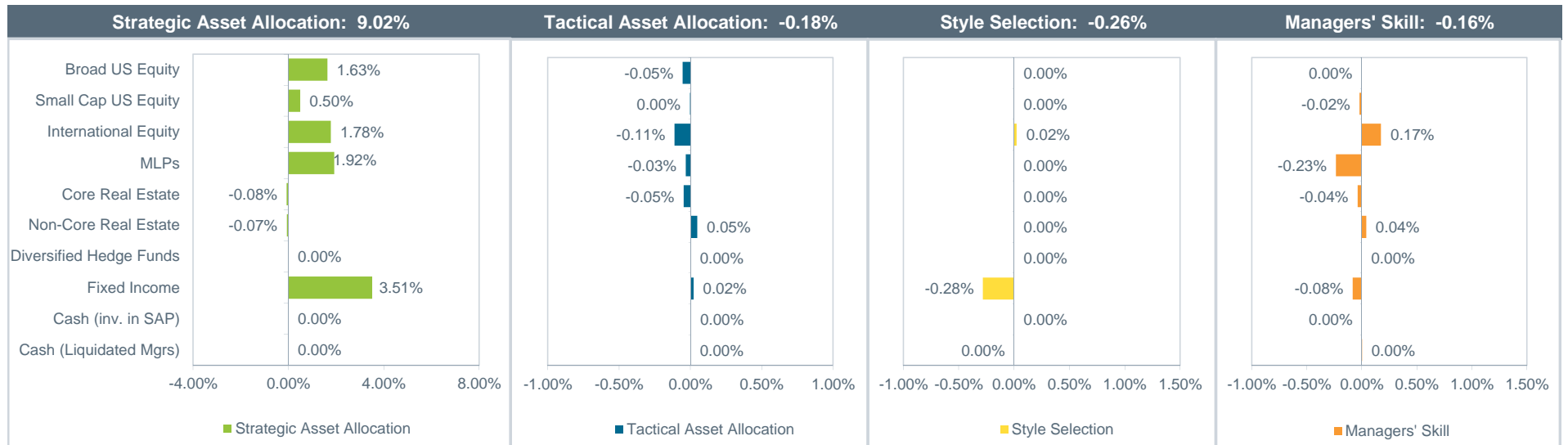
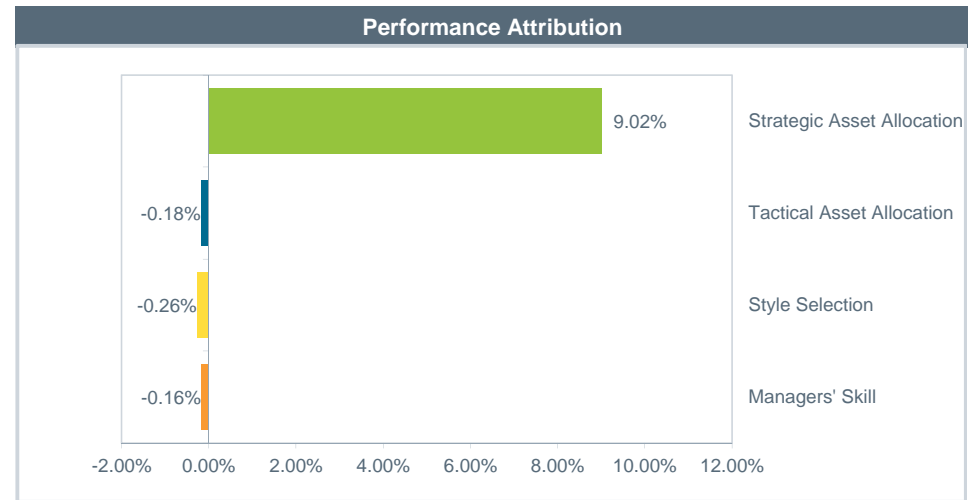
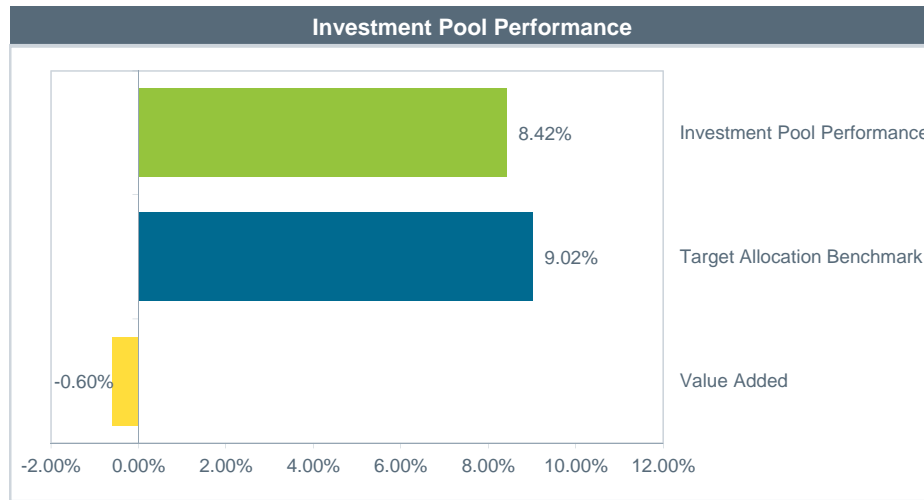
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Higher Education Endowment Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020



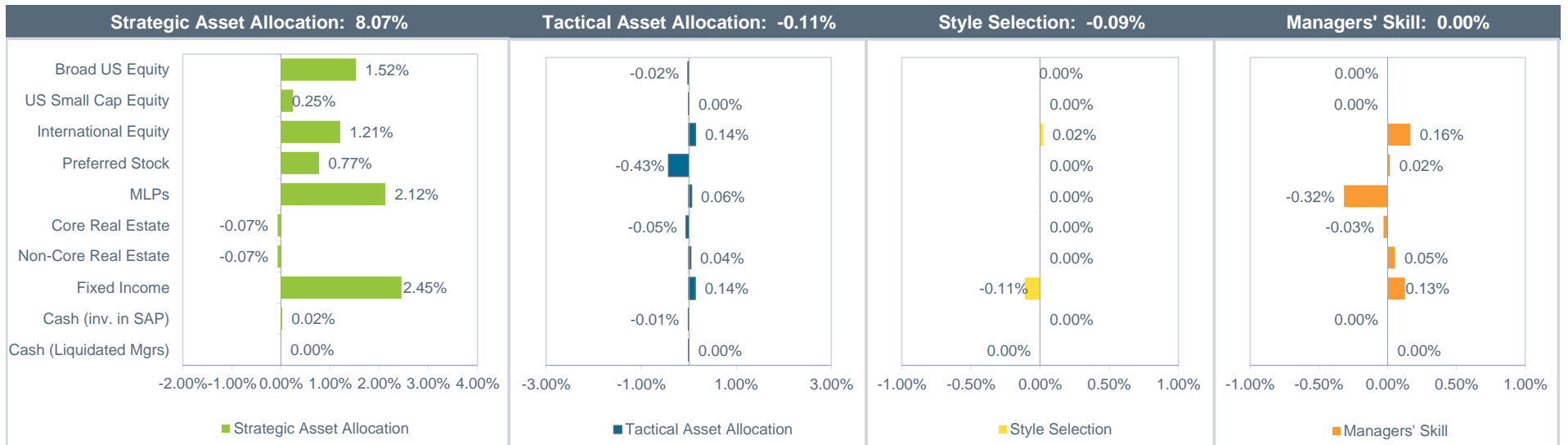
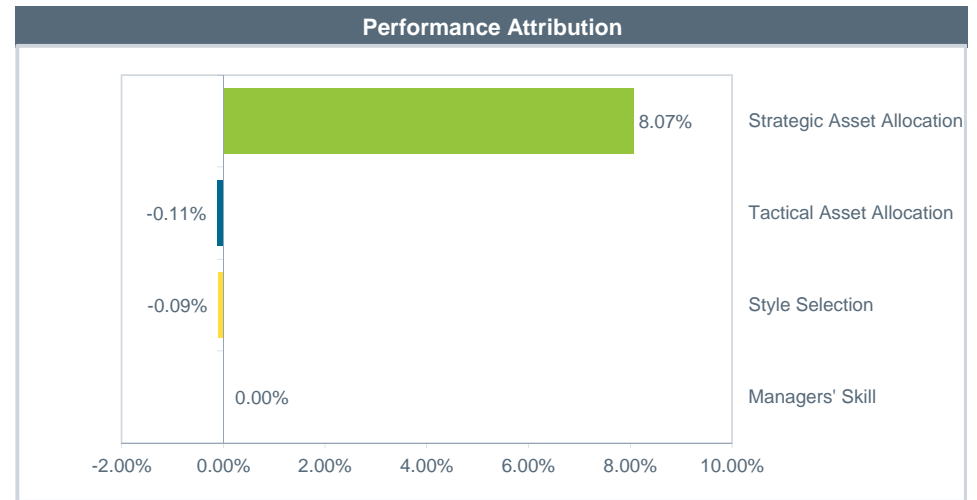
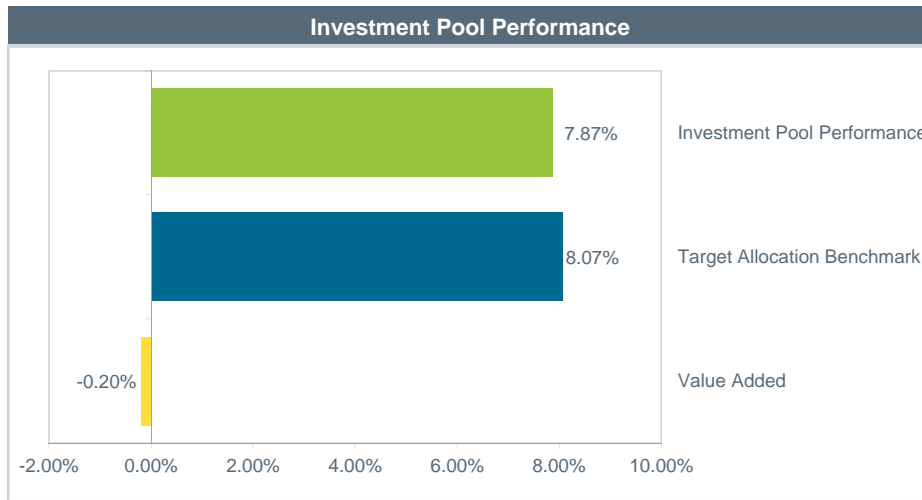
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index. Actual Allocation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

**Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Workers Compensation Fund vs. Target Allocation Index
1 Quarter Ending June 30, 2020**



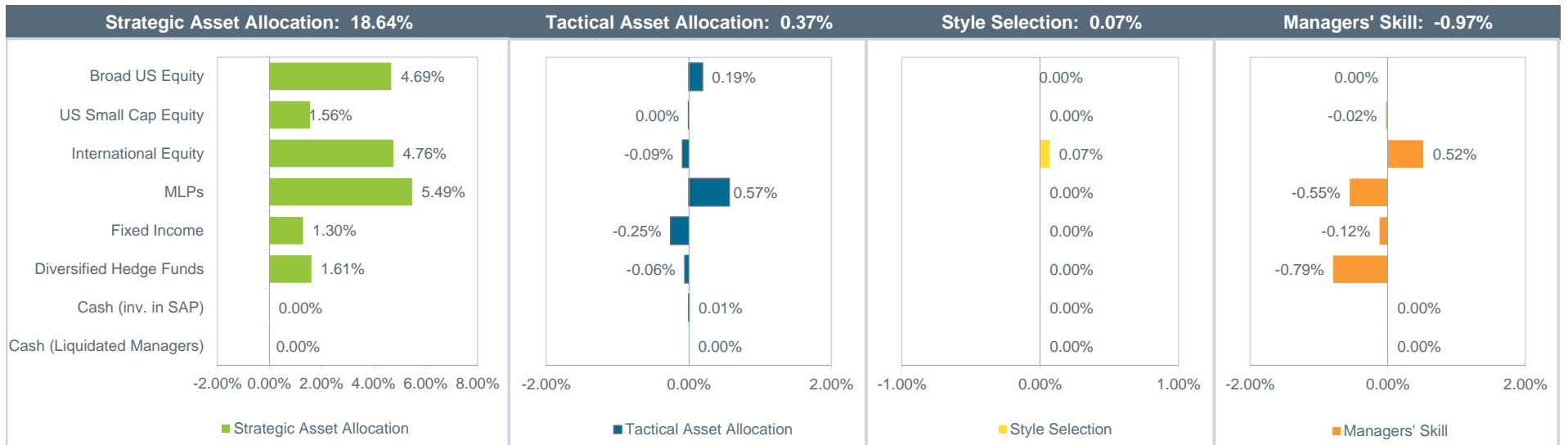
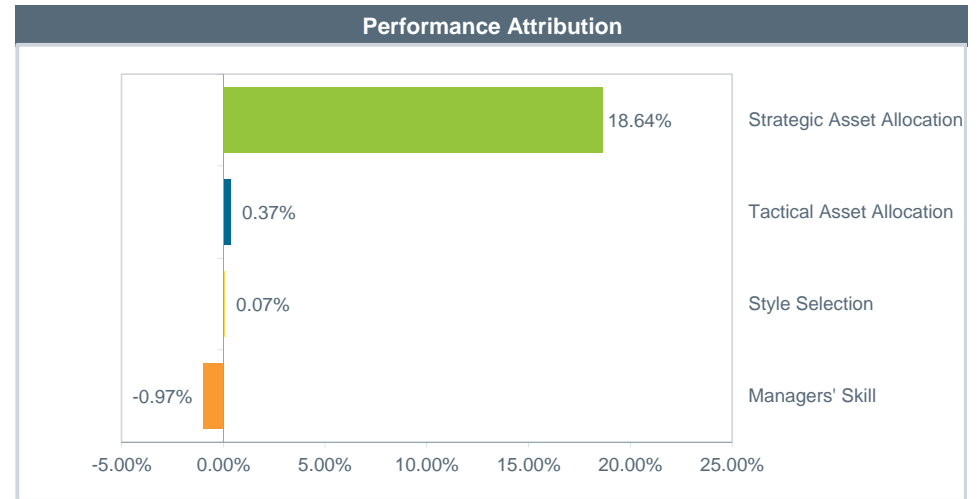
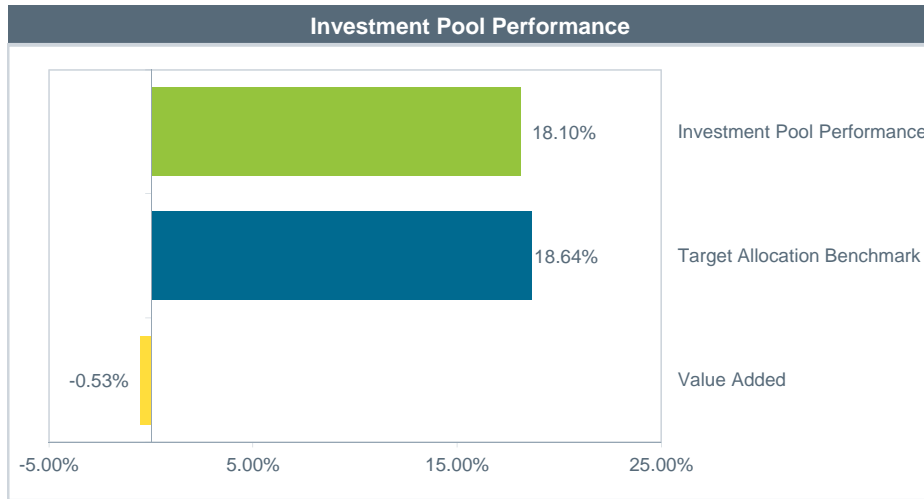
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. The benchmark utilized in this analysis is a passive target allocation index rather than an active actual allocation index.
Actual Allocation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

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
Pool A vs. Target Allocation Index
1 Quarter Ending June 30, 2020



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.

Wyoming State Treasurer's Office
Pool Attribution - IDP Methodology
LSRA LT Reserve vs. Target Allocation Index
1 Quarter Ending June 30, 2020



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.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Permanent Funds	15,493,658,635	68.1	10.0	-0.9	3.2	3.2	4.5	4.5	5.3	6.2	5.9	07/01/2002
Permanent Mineral Trust	7,990,956,831	35.1	10.6	-2.1	2.1	2.1	4.1	4.3	5.2	6.2	5.8	06/01/2001
Permanent Mineral Trust - Actual Allocation Index			10.8	-2.1	1.9	1.9	4.2	4.4	5.3	6.0	5.2	
Difference			-0.2	0.0	0.2	0.2	-0.1	-0.1	-0.1	0.2	0.6	
Common School Permanent Land Fund	4,125,664,118	18.1	9.8	-1.3	2.2	2.2	4.2	4.4	5.3	6.4	6.0	06/01/2001
Common School - Actual Allocation Index			10.1	-1.5	1.8	1.8	4.1	4.4	5.3	6.1	5.2	
Difference			-0.3	0.2	0.4	0.4	0.1	0.0	0.0	0.3	0.8	
Permanent Land Fund	202,823,913	0.9	10.2	-1.8	2.4	2.4	4.2	4.3	5.2	6.1	5.1	02/01/2006
Permanent Land Fund - Actual Allocation Index			10.3	-1.9	2.1	2.1	4.3	4.4	5.2	6.0	4.8	
Difference			-0.1	0.1	0.3	0.3	-0.1	-0.1	0.0	0.1	0.3	
University Permanent Land Fund	26,615,611	0.1	12.4	-2.6	1.3	1.3	4.3	4.5	5.4	6.2	5.0	05/01/2006
University PLF - Actual Allocation Index			12.9	-2.5	1.2	1.2	4.5	4.7	5.5	6.2	4.9	
Difference			-0.5	-0.1	0.1	0.1	-0.2	-0.2	-0.1	0.0	0.1	
Hathaway Scholarship	592,278,846	2.6	10.6	-2.0	2.1	2.1	3.9	4.1	4.7	5.7	5.1	09/01/2007
Hathaway Scholarship - Actual Allocation Index			10.8	-1.7	2.1	2.1	4.0	4.2	4.9	5.6	4.9	
Difference			-0.2	-0.3	0.0	0.0	-0.1	-0.1	-0.2	0.1	0.2	
Higher Education	119,493,551	0.5	9.3	-2.1	1.4	1.4	3.6	3.9	4.6	5.5	4.9	09/01/2007
Higher Education - Actual Allocation Index			9.5	-2.3	0.9	0.9	3.5	3.9	4.7	5.4	4.7	
Difference			-0.2	0.2	0.5	0.5	0.1	0.0	-0.1	0.1	0.2	
Workers Compensation Fund	2,435,825,765	10.7	8.4	4.4	9.0	9.0	6.9	5.6	5.5	5.8	5.8	06/01/2001
Workers Compensation - Actual Allocation Index			8.6	3.7	8.2	8.2	6.6	5.5	5.5	5.6	5.4	
Difference			-0.2	0.7	0.8	0.8	0.3	0.1	0.0	0.2	0.4	
Non-Permanent Funds	7,247,374,315	31.9	2.0	1.4	3.0	3.0	2.9	2.7	2.6	2.9	3.8	07/01/2002
Pool A	241,213,542	1.1	7.9	1.1	4.0	4.0	3.7	3.3	3.2	3.5	4.3	01/01/2000
Pool A - Actual Allocation Index			8.0	0.5	3.1	3.1	3.2	3.0	3.1	3.2	4.9	
Difference			-0.1	0.6	0.9	0.9	0.5	0.3	0.1	0.3	-0.6	
LSRA	1,551,541,169	6.8	6.8	-1.0	1.5	1.5	N/A	N/A	N/A	N/A	1.5	07/01/2019
LSRA - Actual Allocation Index			6.8	-1.1	1.4	1.4	N/A	N/A	N/A	N/A	1.4	
Difference			0.0	0.1	0.1	0.1	N/A	N/A	N/A	N/A	0.1	
LSRA Long Term Reserve	639,617,676	2.8	18.1	-9.9	-5.9	-5.9	N/A	N/A	N/A	N/A	-5.9	07/01/2019
LSRA Long Term Reserve - Actual Allocation Index			19.0	-9.7	-5.7	-5.7	N/A	N/A	N/A	N/A	-5.7	
Difference			-0.9	-0.2	-0.2	-0.2	N/A	N/A	N/A	N/A	-0.2	
LSRA Intermediate Term Reserve	426,740,263	1.9	4.0	6.9	N/A	N/A	N/A	N/A	N/A	N/A	9.3	08/01/2019
LSRA Intermediate Term Reserve - Actual Allocation Index			2.9	6.1	N/A	N/A	N/A	N/A	N/A	N/A	8.5	
Difference			1.1	0.8	N/A	N/A	N/A	N/A	N/A	N/A	0.8	
LSRA Short Term Reserve	485,183,230	2.1	0.2	2.9	N/A	N/A	N/A	N/A	N/A	N/A	2.9	01/01/2020
LSRA Short Term Reserve - Actual Allocation Index			0.3	3.0	N/A	N/A	N/A	N/A	N/A	N/A	3.0	
Difference			-0.1	-0.1	N/A	N/A	N/A	N/A	N/A	N/A	-0.1	
State Agency Pool	5,454,619,605	24.0	0.4	2.6	3.8	3.8	3.2	2.9	2.7	2.9	3.9	06/01/2001
State Agency Pool - Actual Allocation Index			0.4	2.4	3.5	3.5	2.9	2.7	2.7	2.8	3.8	
Difference			0.0	0.2	0.3	0.3	0.3	0.2	0.0	0.1	0.1	
Total Fund	22,741,032,950	100.0	7.5	-0.5	2.9	2.9	4.1	4.0	4.5	5.1	5.4	10/01/1996
Wyoming State Custom Index			7.6	-0.7	2.6	2.6	3.9	4.0	4.4	5.0	5.3	
Difference			-0.1	0.2	0.3	0.3	0.2	0.0	0.1	0.1	0.1	

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

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation	Performance (%)									
	Market Value (\$)	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Permanent Funds	15,493,658,635	10.0	-0.9	3.2	3.2	4.5	4.5	5.3	6.2	5.9	07/01/2002
Permanent Mineral Trust	7,990,956,831	10.6	-2.1	2.1	2.1	4.1	4.3	5.2	6.2	5.8	06/01/2001
Permanent Mineral Trust - Target Allocation Index		10.6	-2.4	1.8	1.8	4.5	4.7	5.6	6.5	N/A	
Difference		0.0	0.3	0.3	0.3	-0.4	-0.4	-0.4	-0.3	N/A	
Common School Permanent Land Fund	4,125,664,118	9.8	-1.3	2.2	2.2	4.2	4.4	5.3	6.4	6.0	06/01/2001
Common School - Target Allocation Index		9.8	-1.9	1.2	1.2	3.7	4.2	5.2	6.2	N/A	
Difference		0.0	0.6	1.0	1.0	0.5	0.2	0.1	0.2	N/A	
Permanent Land Fund	202,823,913	10.2	-1.8	2.4	2.4	4.2	4.3	5.2	6.1	5.1	02/01/2006
Permanent Land Fund - Target Allocation Index		10.6	-2.4	1.8	1.8	4.5	4.7	5.5	6.4	N/A	
Difference		-0.4	0.6	0.6	0.6	-0.3	-0.4	-0.3	-0.3	N/A	
University Permanent Land Fund	26,615,611	12.4	-2.6	1.3	1.3	4.3	4.5	5.4	6.2	5.0	05/01/2006
University PLF - Target Allocation Index		10.6	-2.4	1.8	1.8	4.5	4.7	5.5	6.4	N/A	
Difference		1.8	-0.2	-0.5	-0.5	-0.2	-0.2	-0.1	-0.2	N/A	
Hathaway Scholarship	592,278,846	10.6	-2.0	2.1	2.1	3.9	4.1	4.7	5.7	5.1	09/01/2007
Hathaway Scholarship - Target Allocation Index		10.6	-2.4	1.8	1.8	4.5	4.6	5.3	6.2	N/A	
Difference		0.0	0.4	0.3	0.3	-0.6	-0.5	-0.6	-0.5	N/A	
Higher Education	119,493,551	9.3	-2.1	1.4	1.4	3.6	3.9	4.6	5.5	4.9	09/01/2007
Higher Education - Target Allocation Index		9.8	-1.9	1.2	1.2	3.7	4.1	4.9	5.9	N/A	
Difference		-0.5	-0.2	0.2	0.2	-0.1	-0.2	-0.3	-0.4	N/A	
Workers Compensation Fund	2,435,825,765	8.4	4.4	9.0	9.0	6.9	5.6	5.5	5.8	5.8	06/01/2001
Workers Compensation - Target Allocation Index		9.0	3.3	8.0	8.0	6.6	5.5	5.6	5.8	N/A	
Difference		-0.6	1.1	1.0	1.0	0.3	0.1	-0.1	0.0	N/A	
Non-Permanent Funds	7,247,374,315	2.0	1.4	3.0	3.0	2.9	2.7	2.6	2.9	3.8	07/01/2002
Pool A	241,213,542	7.9	1.1	4.0	4.0	3.7	3.3	3.2	3.5	4.3	01/01/2000
Pool A - Target Allocation Index		8.1	0.1	3.3	3.3	3.9	3.5	3.5	3.6	N/A	
Difference		-0.2	1.0	0.7	0.7	-0.2	-0.2	-0.3	-0.1	N/A	
LSRA	1,551,541,169	6.8	-1.0	1.5	1.5	N/A	N/A	N/A	N/A	1.5	07/01/2019
LSRA - Target Allocation Index		6.7	-0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference		0.1	-0.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LSRA Long Term Reserve	639,617,676	18.1	-9.9	-5.9	-5.9	N/A	N/A	N/A	N/A	-5.9	07/01/2019
LSRA Long Term Reserve - Target Allocation Index		18.6	-8.6	-4.7	-4.7	N/A	N/A	N/A	N/A	-4.7	
Difference		-0.5	-1.3	-1.2	-1.2	N/A	N/A	N/A	N/A	-1.2	
LSRA Intermediate Term Reserve	426,740,263	4.0	6.9	N/A	N/A	N/A	N/A	N/A	N/A	9.3	08/01/2019
LSRA Intermediate Term Reserve - Target Allocation Index		2.9	6.1	N/A	N/A	N/A	N/A	N/A	N/A	8.5	
Difference		1.1	0.8	N/A	N/A	N/A	N/A	N/A	N/A	0.8	
LSRA Short Term Reserve	485,183,230	0.2	2.9	N/A	N/A	N/A	N/A	N/A	N/A	2.9	01/01/2020
LSRA Short Term Reserve - Target Allocation Index		0.3	3.0	N/A	N/A	N/A	N/A	N/A	N/A	3.0	
Difference		-0.1	-0.1	N/A	N/A	N/A	N/A	N/A	N/A	-0.1	
State Agency Pool	5,454,619,605	0.4	2.6	3.8	3.8	3.2	2.9	2.7	2.9	3.9	06/01/2001
Total Fund	22,741,032,950	7.5	-0.5	2.9	2.9	4.1	4.0	4.5	5.1	5.4	10/01/1996
Wyoming State Custom Index		7.6	-0.7	2.6	2.6	3.9	4.0	4.4	5.0	5.3	
Difference		-0.1	0.2	0.3	0.3	0.2	0.0	0.1	0.1	0.1	

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

June 30, 2020 : \$4,717,587,812



	Market Value (\$)	Allocation (%)
State Street All Cap	1,614,943,234	34.23
UW Portfolio Mgmt Program	1,389,900	0.03
State Street Russell 2000	231,424,731	4.91
Van Berkorn	202,424,251	4.29
Northern Trust	1,295,468,268	27.46
Arrowstreet	717,266,333	15.20
Harding Loevner	654,671,093	13.88

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

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
All Cap US Equity Composite	1,614,943,234	34.23	20.53	-3.77	6.17	6.17	9.14	9.23	N/A	N/A	30.40	10.05	11/01/2014
All Cap US Equity Custom Index			20.54	-3.10	6.94	6.94	10.18	10.12	11.74	13.77	31.02	9.71	
Difference			-0.01	-0.67	-0.77	-0.77	-1.04	-0.89	N/A	N/A	-0.62	0.34	
State Street All Cap	1,614,943,234	34.23	20.53	-3.77	6.17	6.17	9.64	9.81	N/A	N/A	30.29	9.12	01/01/2015
State Street All Cap Custom Index			20.54	-3.69	6.06	6.06	9.55	9.77	11.36	13.57	30.11	9.13	
Difference			-0.01	-0.08	0.11	0.11	0.09	0.04	N/A	N/A	0.18	-0.01	
UW Portfolio Mgmt Program	1,389,900	0.03	15.80	-5.65	3.44	3.44	6.52	7.95	10.11	9.41	25.88	4.98	04/01/2006
S&P 500 Index (Cap Wtd)			20.54	-3.08	7.51	7.51	10.73	10.73	12.13	13.99	31.49	8.57	
Difference			-4.74	-2.57	-4.07	-4.07	-4.21	-2.78	-2.02	-4.58	-5.61	-3.59	
Small Cap US Equity Composite	433,848,983	9.20	23.94	-13.90	-7.56	-7.56	-0.44	2.18	N/A	N/A	25.40	2.71	11/01/2014
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	5.16	
Difference			-1.48	-0.92	-0.93	-0.93	-2.45	-2.11	N/A	N/A	-0.13	-2.45	
State Street Russell 2000	231,424,731	4.91	25.42	-12.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-6.79	11/01/2019
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	-6.78	
Difference			0.00	0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	
Van Berkorn	202,424,251	4.29	22.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.57	03/01/2020
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	-1.83	
Difference			-2.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.74	

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 June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Int'l Equity Composite	2,667,405,694	56.54	18.10	-8.07	-1.16	-1.16	2.35	3.08	4.29	5.73	23.33	5.15	01/01/2004
International Equity Custom Index			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	5.02	21.51	4.56	
Difference			1.98	2.93	3.64	3.64	1.22	0.82	0.58	0.71	1.82	0.59	
Northern Trust	1,295,468,268	27.46	16.04	-10.90	-4.65	-4.65	1.40	2.40	3.85	N/A	21.62	4.24	08/01/2010
MSCI ACW Ex US Index (USD) (Net)			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	4.97	21.51	4.10	
Difference			-0.08	0.10	0.15	0.15	0.27	0.14	0.14	N/A	0.11	0.14	
Arrowstreet	717,266,333	15.20	21.10	-6.96	0.91	0.91	N/A	N/A	N/A	N/A	22.89	-1.90	03/01/2018
MSCI ACW Ex US IM Index (USD) (Net)			16.96	-11.24	-4.74	-4.74	0.96	2.30	3.84	5.11	21.63	-3.75	
Difference			4.14	4.28	5.65	5.65	N/A	N/A	N/A	N/A	1.26	1.85	
Harding Loevner	654,671,093	13.88	18.06	-4.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.85	01/01/2020
MSCI ACW Ex US Index (USD) (Net)			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	4.97	21.51	-11.00	
Difference			1.94	6.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.15	

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 June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
All Cap US Equity Composite	1,614,943,234	34.23	20.54	-3.75	6.20	6.20	9.24	9.36	N/A	N/A	30.46	10.20	11/01/2014
All Cap US Equity Custom Index			20.54	-3.10	6.94	6.94	10.18	10.12	11.74	13.77	31.02	9.71	
Difference			0.00	-0.65	-0.74	-0.74	-0.94	-0.76	N/A	N/A	-0.56	0.49	
State Street All Cap	1,614,943,234	34.23	20.54	-3.75	6.20	6.20	9.68	9.85	N/A	N/A	30.34	9.16	01/01/2015
State Street All Cap Custom Index			20.54	-3.69	6.06	6.06	9.55	9.77	11.36	13.57	30.11	9.13	
Difference			0.00	-0.06	0.14	0.14	0.13	0.08	N/A	N/A	0.23	0.03	
IM U.S. All Cap Equity (SA+CF) Median			21.38	-8.35	0.85	0.85	7.77	7.81	10.38	12.58	28.99	7.94	
State Street All Cap Rank			56	38	36	36	41	40	N/A	N/A	44	42	
UW Portfolio Mgmt Program	1,389,900	0.03	15.80	-5.65	3.44	3.44	6.52	7.95	10.11	9.41	25.88	4.98	04/01/2006
S&P 500 Index (Cap Wtd)			20.54	-3.08	7.51	7.51	10.73	10.73	12.13	13.99	31.49	8.57	
Difference			-4.74	-2.57	-4.07	-4.07	-4.21	-2.78	-2.02	-4.58	-5.61	-3.59	
IM U.S. Large Cap Core Equity (SA+CF) Median			20.18	-4.32	5.25	5.25	9.71	9.67	11.72	13.76	29.98	8.61	
UW Portfolio Mgmt Program Rank			85	67	65	65	82	77	79	95	80	98	
Small Cap US Equity Composite	433,848,983	9.20	24.03	-13.80	-7.38	-7.38	-0.10	2.64	N/A	N/A	25.62	3.19	11/01/2014
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	5.16	
Difference			-1.39	-0.82	-0.75	-0.75	-2.11	-1.65	N/A	N/A	0.09	-1.97	
State Street Russell 2000	231,424,731	4.91	25.40	-12.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-6.78	11/01/2019
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	-6.78	
Difference			-0.02	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	
Van Berkomp	202,424,251	4.29	22.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.35	03/01/2020
Russell 2000 Index			25.42	-12.98	-6.63	-6.63	2.01	4.29	7.17	10.50	25.53	-1.83	
Difference			-2.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.52	
IM U.S. Small Cap Core Equity (SA+CF) Median			25.08	-14.30	-8.36	-8.36	2.26	5.19	8.32	11.86	25.11	-2.49	
Van Berkomp Rank			72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	

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
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Int'l Equity Composite	2,667,405,694	56.54	18.18	-7.94	-0.95	-0.95	2.54	3.30	4.53	5.99	23.55	5.35	01/01/2004
International Equity Custom Index			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	5.02	21.51	4.56	
Difference			2.06	3.06	3.85	3.85	1.41	1.04	0.82	0.97	2.04	0.79	
Northern Trust	1,295,468,268	27.46	16.04	-10.88	-4.62	-4.62	1.43	2.44	3.88	N/A	21.66	4.28	08/01/2010
MSCI ACW Ex US Index (USD) (Net)			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	4.97	21.51	4.10	
Difference			-0.08	0.12	0.18	0.18	0.30	0.18	0.17	N/A	0.15	0.18	
Arrowstreet	717,266,333	15.20	21.22	-6.77	1.33	1.33	N/A	N/A	N/A	N/A	23.43	-1.46	03/01/2018
MSCI ACW Ex US IM Index (USD) (Net)			16.96	-11.24	-4.74	-4.74	0.96	2.30	3.84	5.11	21.63	-3.75	
Difference			4.26	4.47	6.07	6.07	N/A	N/A	N/A	N/A	1.80	2.29	
IM All ACWI Ex US (SA+CF) Median			18.02	-8.24	-0.88	-0.88	2.65	3.80	5.44	7.21	24.92	-1.43	
Arrowstreet Rank			24	41	40	40	N/A	N/A	N/A	N/A	57	52	
Harding Loevner	654,671,093	13.88	18.20	-4.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.61	01/01/2020
MSCI ACW Ex US Index (USD) (Net)			16.12	-11.00	-4.80	-4.80	1.13	2.26	3.71	4.97	21.51	-11.00	
Difference			2.08	6.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.39	
IM All ACWI Ex US (SA+CF) Median			18.02	-8.24	-0.88	-0.88	2.65	3.80	5.44	7.21	24.92	-8.24	
Harding Loevner Rank			48	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	33	

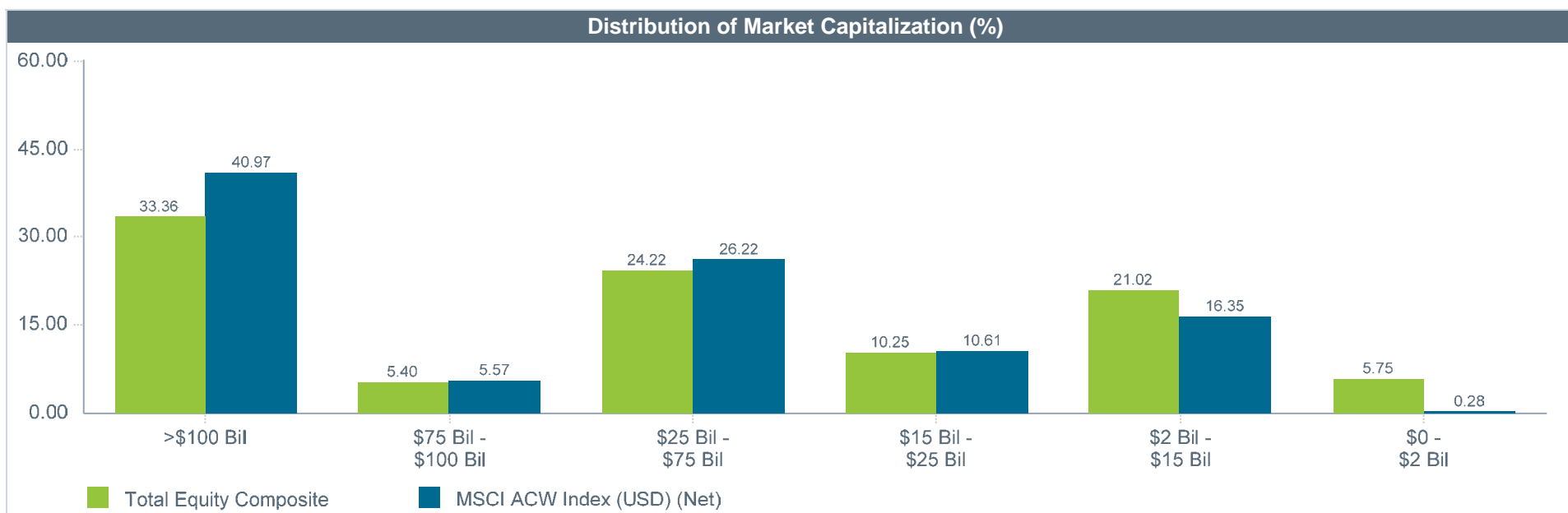
Performance shown is gross of fees. International Equity Custom Index consists of the MSCI EAFE Index (Gross) through July 2010 and the MSCI ACW Ex US Index (Net) thereafter. The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter. SSGA 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 Composite vs. MSCI ACW Index (USD) (Net)
Portfolio Characteristics

As of June 30, 2020

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	2.07	3.09	-1.02	29.40
Apple Inc	2.00	3.35	-1.35	43.84
Amazon.com Inc	1.55	2.45	-0.90	41.50
Roche Holding AG	1.15	0.51	0.64	6.38
Tencent Holdings LTD	1.08	0.77	0.31	31.53
Alibaba Group Holding Ltd	1.07	0.85	0.22	10.91
Taiwan Semiconductor Mfg (ADR)	0.97	0.55	0.42	19.68
Facebook Inc	0.73	1.15	-0.42	36.13
Nestle SA, Cham Und Vevey	0.59	0.69	-0.10	9.93
AIA Group Ltd	0.58	0.24	0.34	4.44
% of Portfolio	11.79	13.65	-1.86	

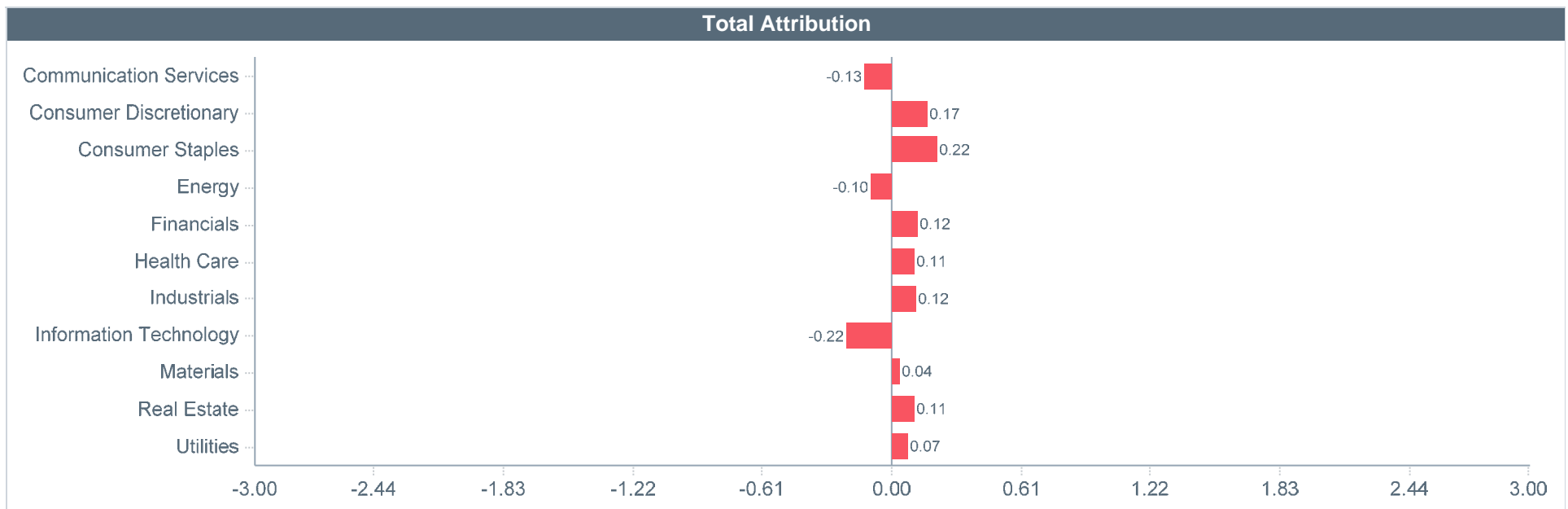
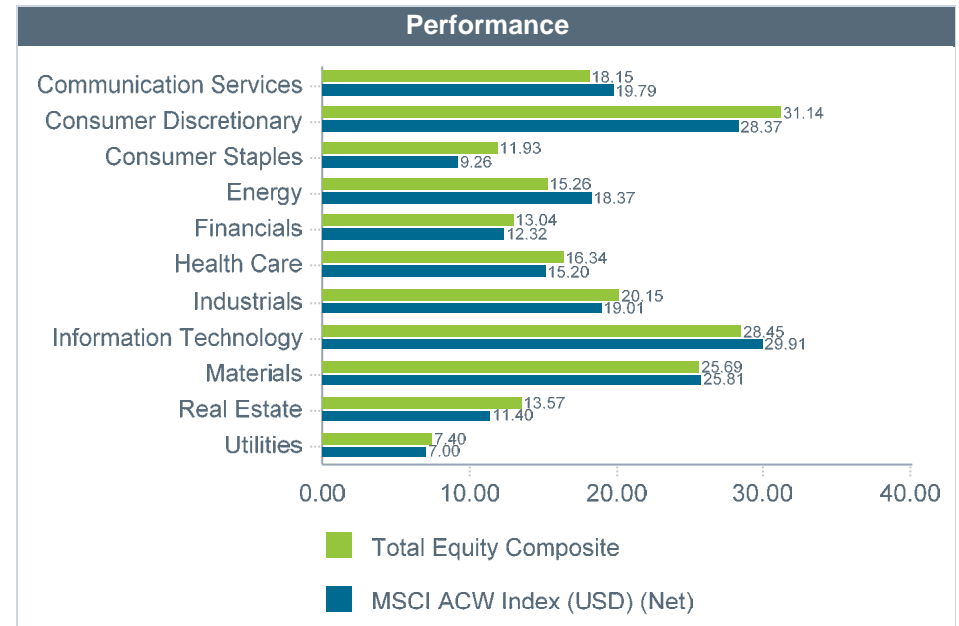
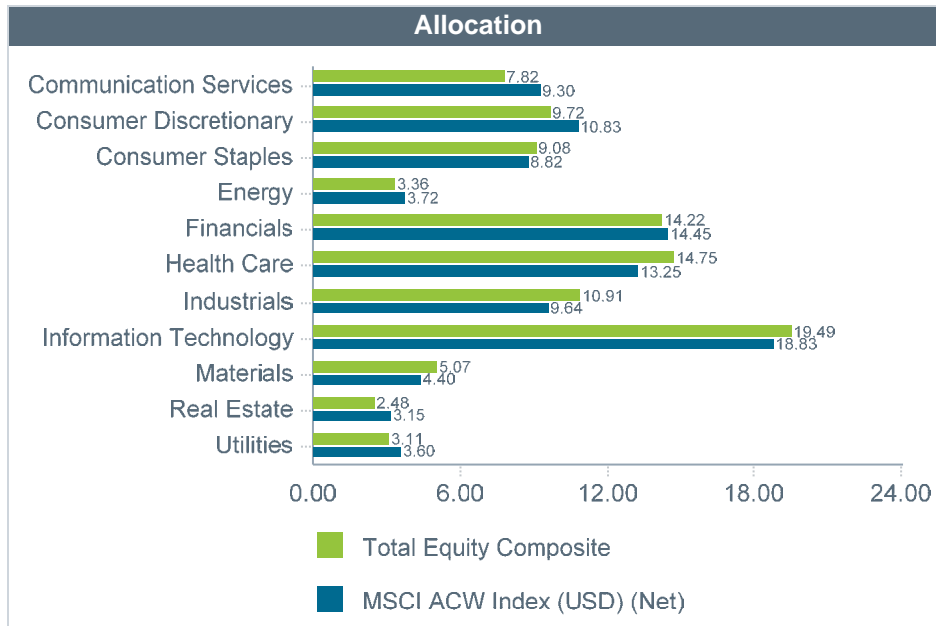
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	180,295	243,204
Median Mkt. Cap (\$M)	3,007	9,464
Price/Earnings Ratio	18.96	19.78
Price/Book Ratio	3.14	3.40
5 Yr. EPS Growth Rate (%)	9.49	10.16
Current Yield (%)	2.26	2.22
Beta (5 Years, Monthly)	1.01	1.00
Number of Securities	5,047	2,988



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

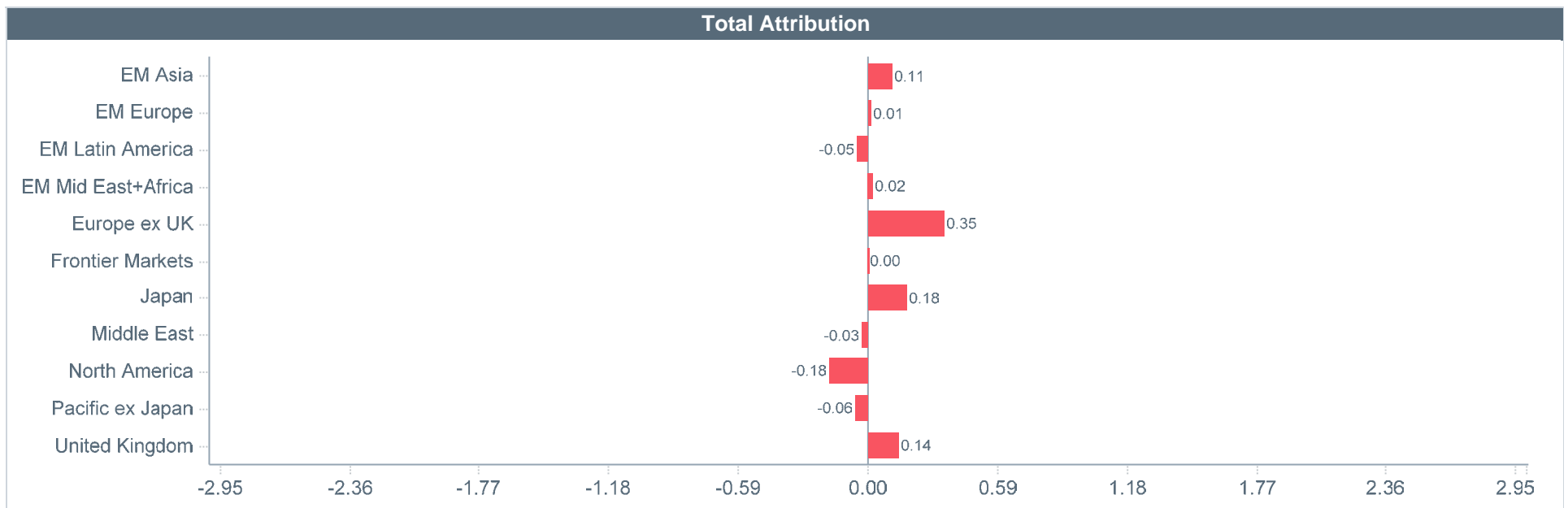
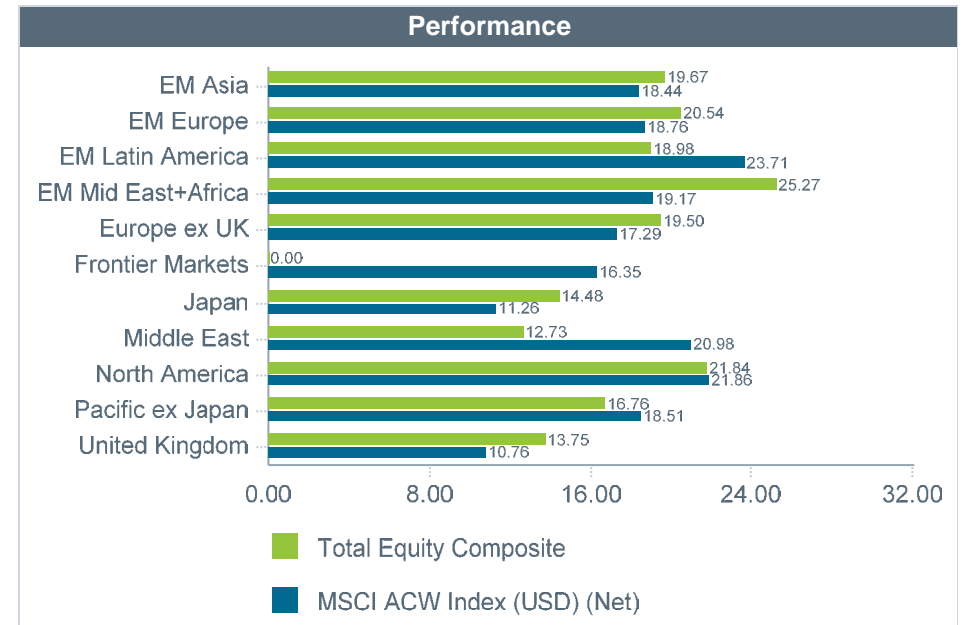
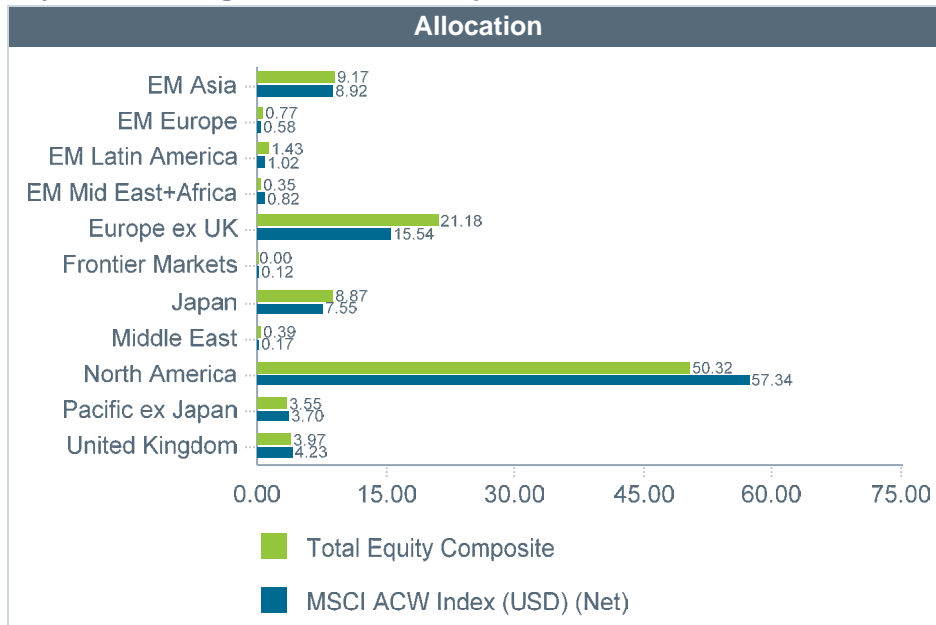
Wyoming State Treasurer's Office
Total Equity Composite vs. MSCI ACW Index (USD) (Net)
Buy and Hold Sector Attribution Graph

1 Quarter Ending June 30, 2020



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

1 Quarter Ending June 30, 2020

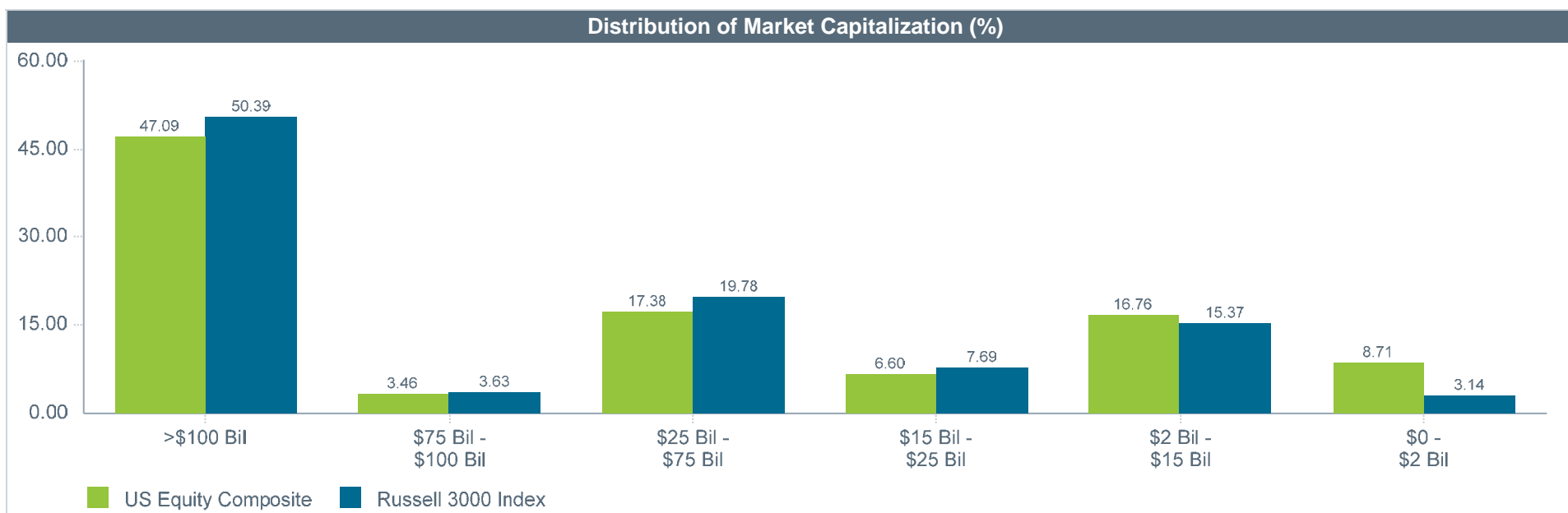


Wyoming State Treasurer's Office
US Equity Composite vs. Russell 3000 Index
Portfolio Characteristics

As of June 30, 2020

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	4.76	5.00	-0.24	29.40
Apple Inc	4.59	4.89	-0.30	43.84
Amazon.com Inc	3.56	3.84	-0.28	41.50
Facebook Inc	1.69	1.79	-0.10	36.13
Alphabet Inc	1.31	1.40	-0.09	22.04
Alphabet Inc	1.28	1.37	-0.09	21.57
Johnson & Johnson	1.14	1.22	-0.08	8.00
Berkshire Hathaway Inc	1.07	1.14	-0.07	-2.36
Visa Inc	1.01	1.07	-0.06	20.10
Procter & Gamble Co (The)	0.91	0.96	-0.05	9.42
% of Portfolio	21.32	22.68	-1.36	

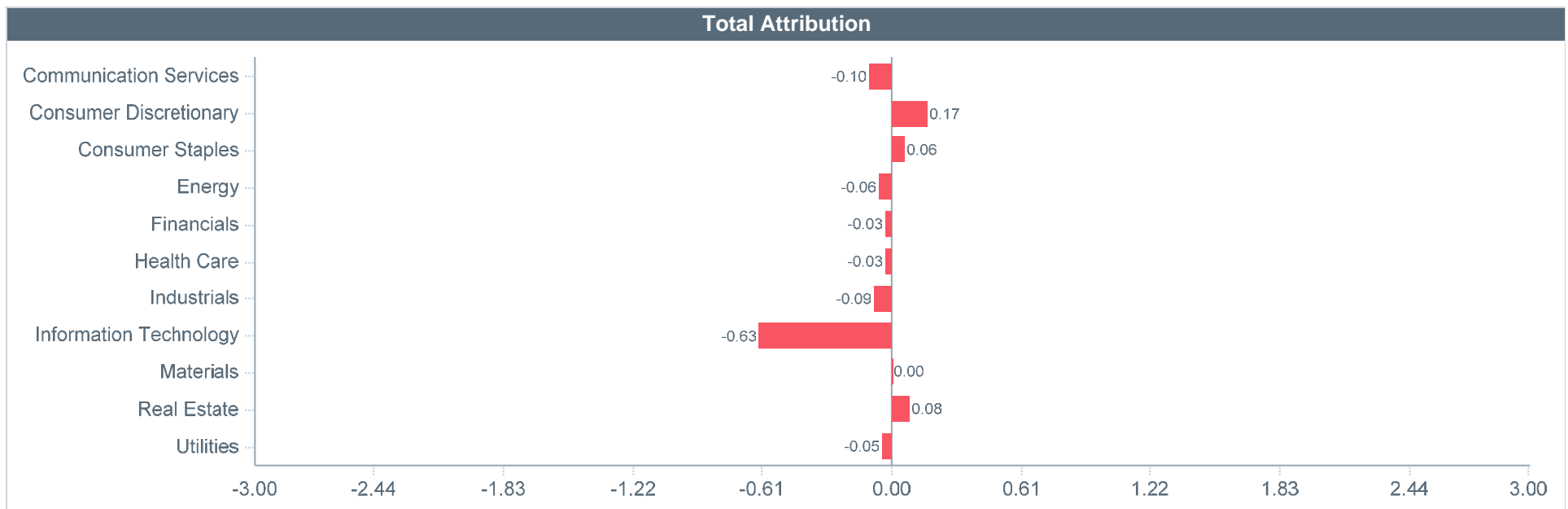
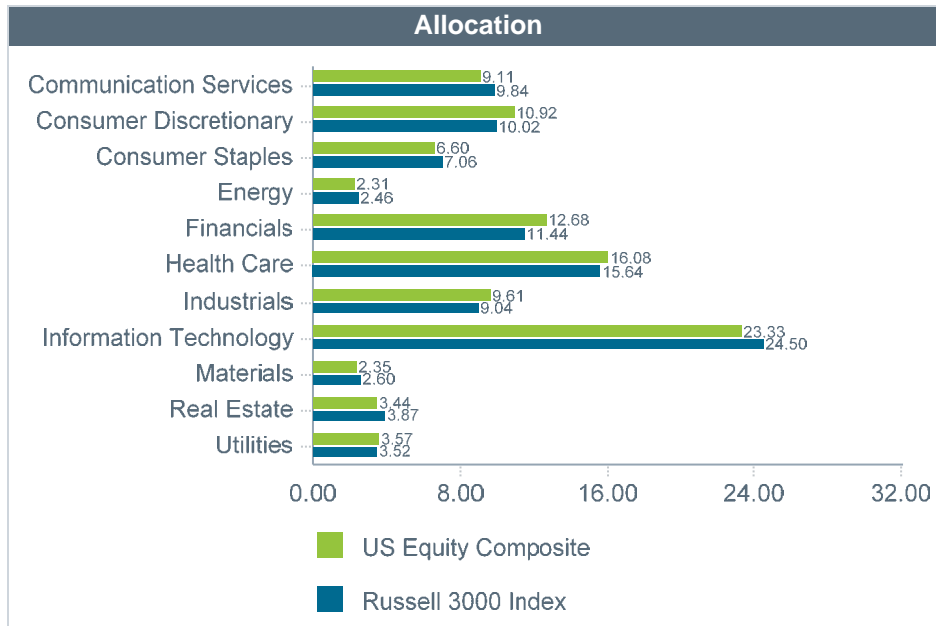
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	303,861	324,318
Median Mkt. Cap (\$M)	1,042	1,460
Price/Earnings Ratio	22.46	22.81
Price/Book Ratio	3.70	3.93
5 Yr. EPS Growth Rate (%)	11.46	12.15
Current Yield (%)	1.71	1.74
Beta (5 Years, Monthly)	1.01	1.00
Number of Securities	2,524	3,009



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

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

1 Quarter Ending June 30, 2020

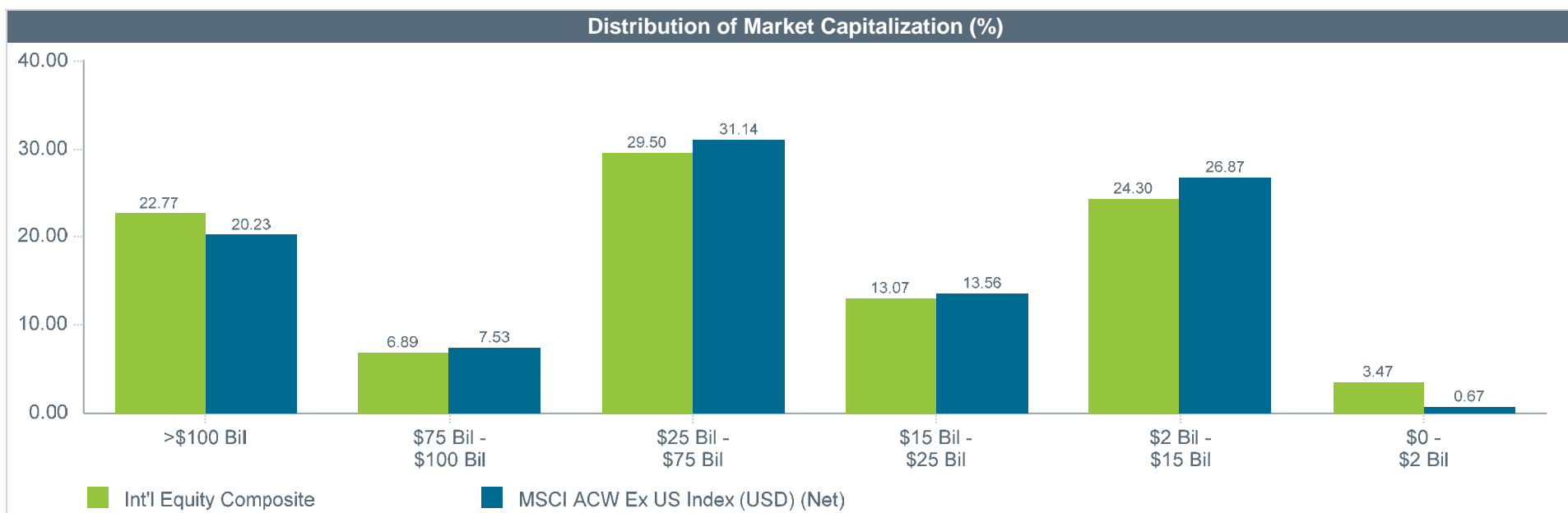


Wyoming State Treasurer's Office
Int'l Equity Composite vs. MSCI ACW Ex US Index (USD) (Net)
Portfolio Characteristics

As of June 30, 2020

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Roche Holding AG	2.03	1.20	0.83	6.38
Tencent Holdings LTD	1.91	1.82	0.09	31.53
Alibaba Group Holding Ltd	1.89	2.00	-0.11	10.91
Taiwan Semiconductor Mfg (ADR)	1.71	1.30	0.41	19.68
Nestle SA, Cham Und Vevey	1.04	1.63	-0.59	9.93
AIA Group Ltd	1.04	0.56	0.48	4.44
L'Oreal S.A., Paris	1.02	0.40	0.62	22.48
Samsung Electronics Co Ltd	0.97	1.04	-0.07	12.84
Atlas Copco AB	0.87	0.14	0.73	27.52
Allianz SE	0.86	0.42	0.44	25.92
% of Portfolio	13.34	10.51	2.83	

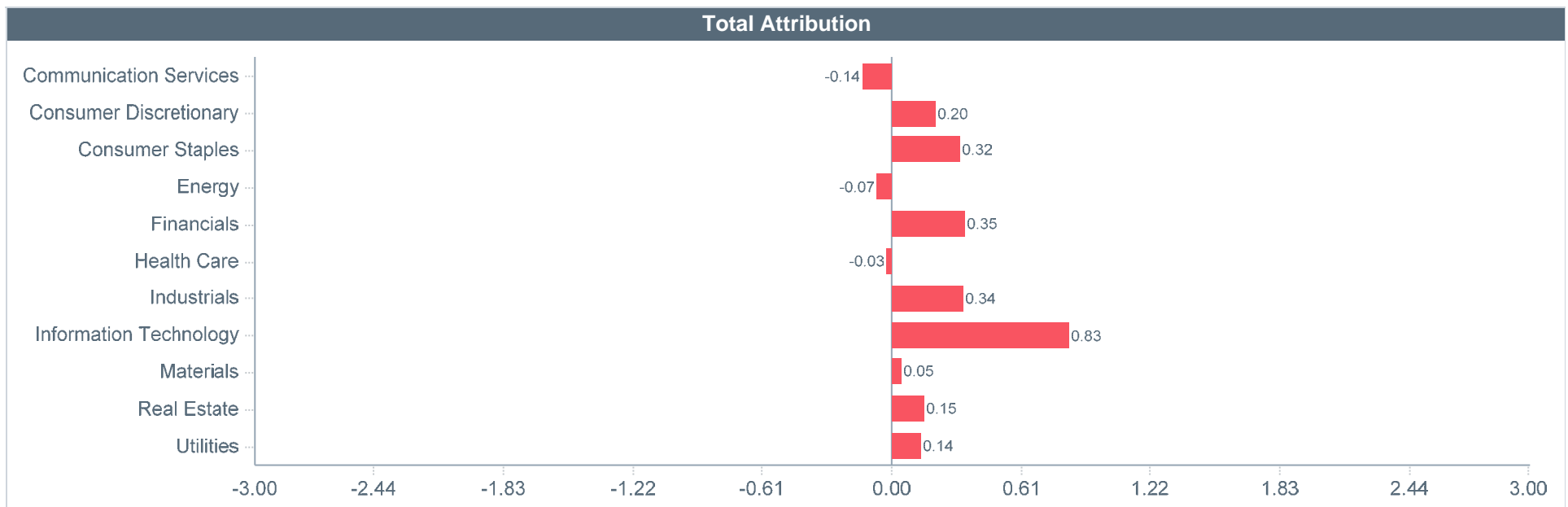
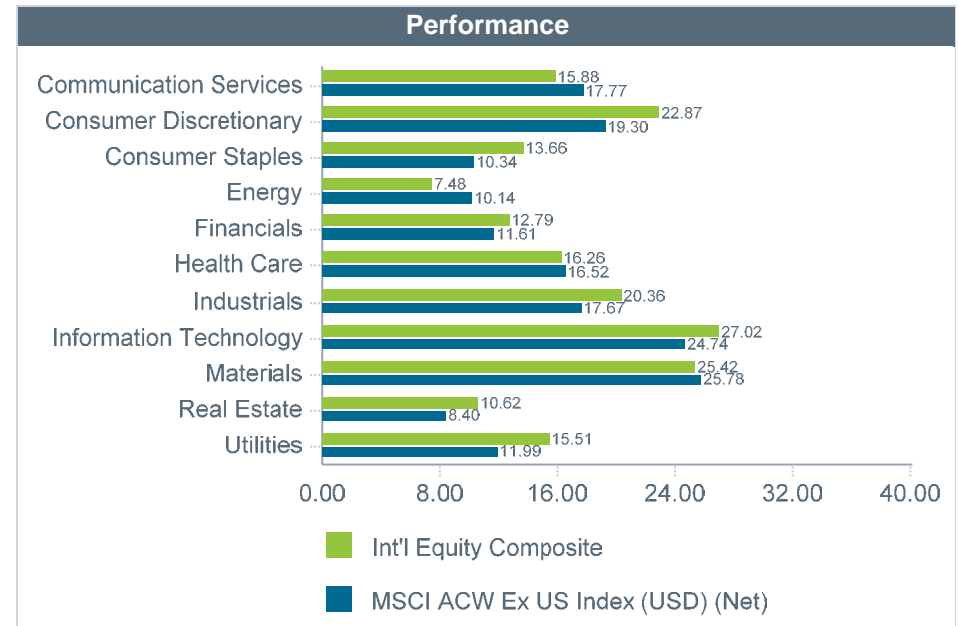
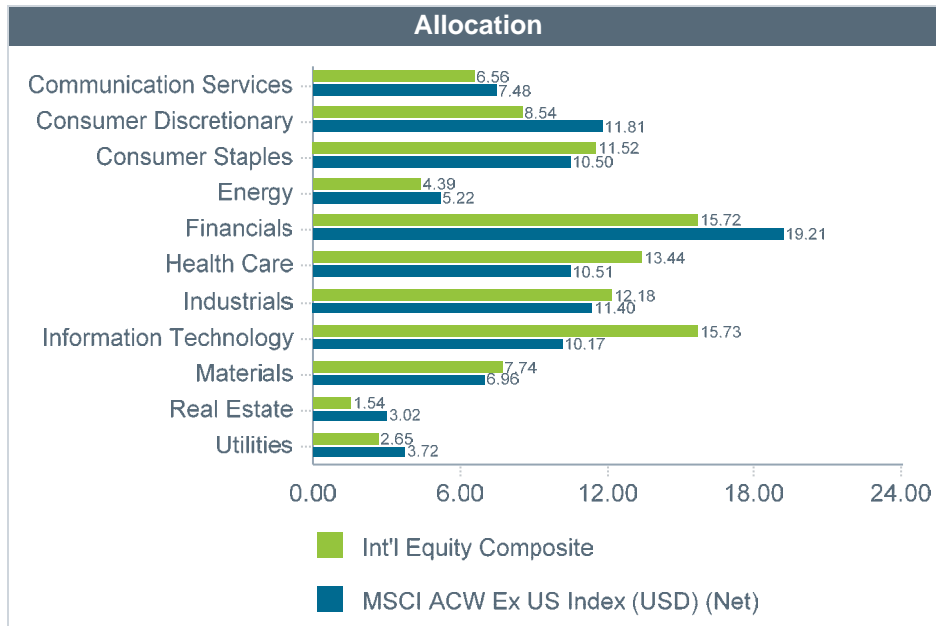
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	84,905	80,702
Median Mkt. Cap (\$M)	6,841	7,497
Price/Earnings Ratio	16.74	16.19
Price/Book Ratio	2.76	2.62
5 Yr. EPS Growth Rate (%)	7.85	7.11
Current Yield (%)	2.69	2.80
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	2,526	2,372



The International Equity Custom Index currently consists of the MSCI ACW Ex US Index (USD) (Net).

Wyoming State Treasurer's Office
 Int'l Equity Composite vs. MSCI ACW Ex US Index (USD) (Net)
 Buy and Hold Sector Attribution Graph

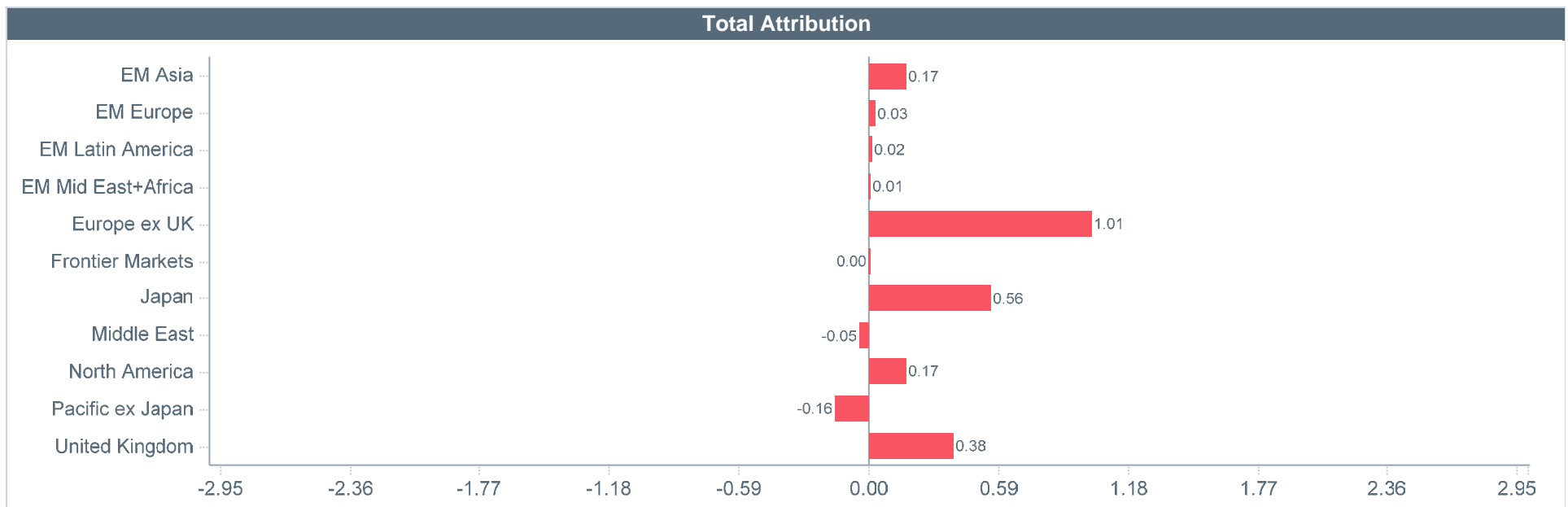
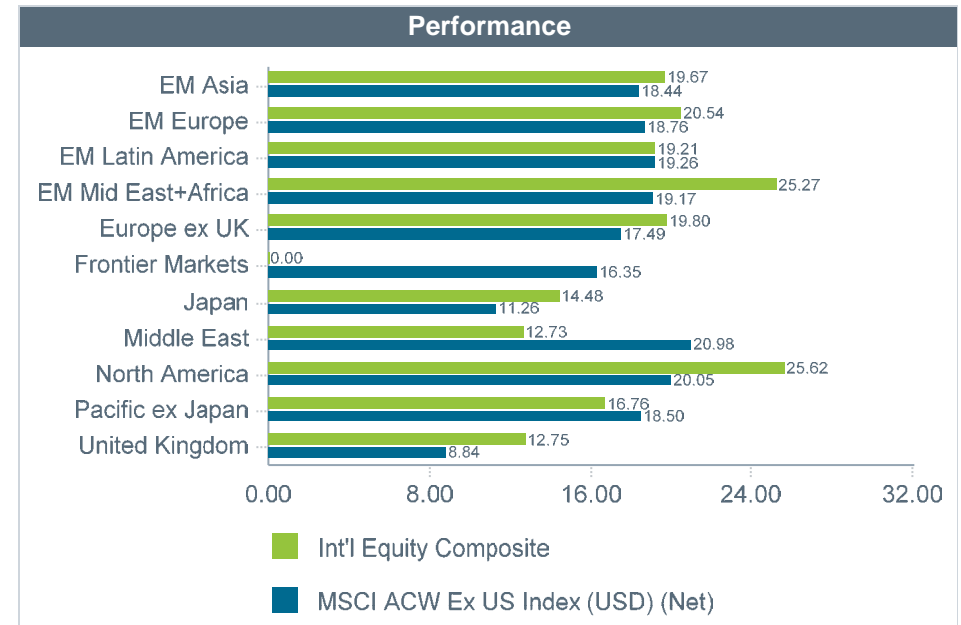
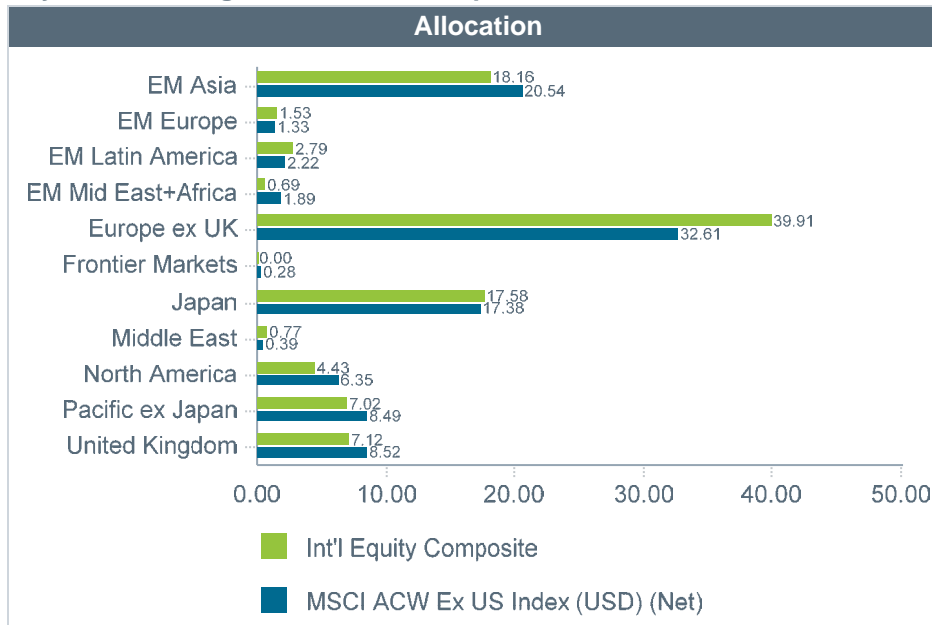
1 Quarter Ending June 30, 2020



The International Equity Custom Index currently consists of the MSCI ACW Ex US Index (USD) (Net).

Wyoming State Treasurer's Office
 Int'l Equity Composite vs. MSCI ACW Ex US Index (USD) (Net)
 Buy and Hold Region Attribution Graph

1 Quarter Ending June 30, 2020



The International Equity Custom Index currently consists of the MSCI ACW Ex US Index (USD) (Net).

June 30, 2020 : \$1,026,400,941



	Market Value (\$)	Allocation (%)
Cohen & Steers Preferred Stock	148,949,732	14.51
Harvest Fund Advisors	419,163,914	40.84
Harvest Fund Advisors Passive	458,287,294	44.65

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

Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Cohen & Steers Preferred Stock	11.36	-3.23	3.51	3.51	N/A	N/A	N/A	N/A	19.32	6.37	07/01/2018
S&P US Preferred Stock Index	10.78	-5.74	-0.03	-0.03	2.32	4.06	4.90	6.35	17.64	2.40	
Difference	0.58	2.51	3.54	3.54	N/A	N/A	N/A	N/A	1.68	3.97	
MLP Composite	36.13	-31.74	-36.00	-36.00	N/A	N/A	N/A	N/A	13.12	-22.94	08/01/2018
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-23.42	
Difference	-5.40	0.60	2.36	2.36	N/A	N/A	N/A	N/A	5.57	0.48	
Harvest Fund Advisors	32.68	-31.70	-35.96	-35.96	N/A	N/A	N/A	N/A	13.12	-22.92	08/01/2018
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-23.42	
Difference	-8.85	0.64	2.40	2.40	N/A	N/A	N/A	N/A	5.57	0.50	
Harvest Fund Advisors Passive	39.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-29.47	02/01/2020
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-29.29	
Difference	-2.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	

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.

Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

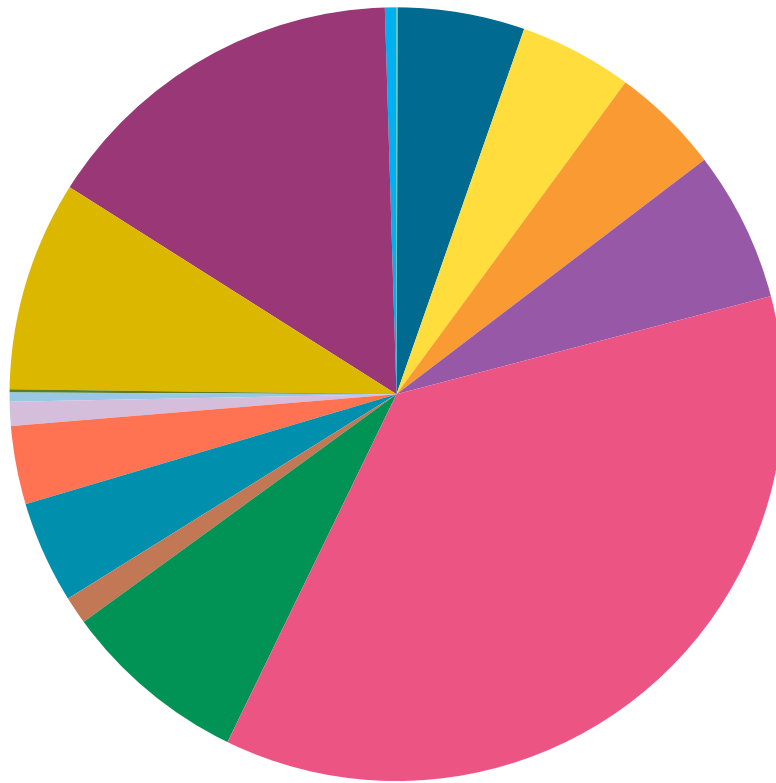
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Cohen & Steers Preferred Stock	11.44	-3.08	3.82	3.82	N/A	N/A	N/A	N/A	19.68	6.71	07/01/2018
S&P US Preferred Stock Index	10.78	-5.74	-0.03	-0.03	2.32	4.06	4.90	6.35	17.64	2.40	
Difference	0.66	2.66	3.85	3.85	N/A	N/A	N/A	N/A	2.04	4.31	
MLP Composite	36.22	-31.64	-35.70	-35.70	N/A	N/A	N/A	N/A	13.82	-22.51	08/01/2018
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-23.42	
Difference	-5.31	0.70	2.66	2.66	N/A	N/A	N/A	N/A	6.27	0.91	
Harvest Fund Advisors	32.87	-31.50	-35.57	-35.57	N/A	N/A	N/A	N/A	13.82	-22.43	08/01/2018
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-23.42	
Difference	-8.66	0.84	2.79	2.79	N/A	N/A	N/A	N/A	6.27	0.99	
Harvest Fund Advisors Passive	39.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-29.47	02/01/2020
MLP Custom Index	41.53	-32.34	-38.36	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-29.29	
Difference	-2.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	

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.

Wyoming State Treasurer's Office
Asset Allocation by Manager - Total Alternative Assets

As of June 30, 2020

June 30, 2020 : \$3,131,698,872



	Market Value (\$)	Allocation (%)
Access Venture Partners II	1,755,169	0.06
Cheyenne Equity Capital Fund, L.P.	165,839,306	5.30
BlackRock Long Term Private Capital	147,953,066	4.72
Hamilton Lane Nowood Fund, L.P.	142,888,665	4.56
Neuberger Berman Sauger Fund, L.P.	196,784,515	6.28
Clarion Lion	1,136,011,809	36.27
UBS Trumbull	243,815,177	7.79
M&G	36,244,862	1.16
Northwood	133,728,445	4.27
SC Capital	102,534,813	3.27
Realterm	31,519,959	1.01
WestRiver	11,806,817	0.38
PAAMCO - Jackalope Fund	4,277,742	0.14
Grosvenor Diversified Hedge Funds	274,987,673	8.78
Internal Diversified Hedge Funds	486,453,930	15.53
Grosvenor Silvery Lupine Fund Class D	15,096,925	0.48

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

Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Core Real Estate Composite	-2.07	-1.02	1.42	1.42	4.31	5.95	7.68	9.43	2.68	5.35	01/01/2006
NCREIF ODCE Index (AWA) (Net)	-1.75	-1.01	1.33	1.33	4.72	6.35	8.09	9.78	4.39	5.55	
Difference	-0.32	-0.01	0.09	0.09	-0.41	-0.40	-0.41	-0.35	-1.71	-0.20	
Clarion Lion	-1.96	-0.73	2.64	2.64	6.19	7.55	9.12	11.17	6.61	5.31	01/01/2006
NCREIF ODCE Index (AWA) (Net)	-1.75	-1.01	1.33	1.33	4.72	6.35	8.09	9.78	4.39	5.55	
Difference	-0.21	0.28	1.31	1.31	1.47	1.20	1.03	1.39	2.22	-0.24	
UBS Trumbull	-2.61	-2.36	-1.79	-1.79	1.40	3.64	5.53	7.29	-2.81	4.59	07/01/2006
NCREIF ODCE Index (AWA) (Net)	-1.75	-1.01	1.33	1.33	4.72	6.35	8.09	9.78	4.39	5.21	
Difference	-0.86	-1.35	-3.12	-3.12	-3.32	-2.71	-2.56	-2.49	-7.20	-0.62	
Diversified Hedge Funds Composite	4.90	-3.10	-1.19	-1.19	0.86	0.24	1.96	3.08	4.07	1.99	12/01/2007
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	1.08	
Difference	-2.95	-1.48	-1.63	-1.63	-1.38	-1.25	-0.74	0.29	-4.32	0.91	
Grosvenor Diversified Hedge Funds	7.05	-1.33	1.68	1.68	N/A	N/A	N/A	N/A	5.67	0.48	07/01/2018
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	0.80	
Difference	-0.80	0.29	1.24	1.24	N/A	N/A	N/A	N/A	-2.72	-0.32	
Internal Diversified Hedge Funds	3.83	-4.05	-2.35	-2.35	N/A	N/A	N/A	N/A	6.08	1.32	07/01/2018
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	0.80	
Difference	-4.02	-2.43	-2.79	-2.79	N/A	N/A	N/A	N/A	-2.31	0.52	
Grosvenor Opportunistic Class D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2020
Grosvenor Opportunistic Class D Custom Benchmark	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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.

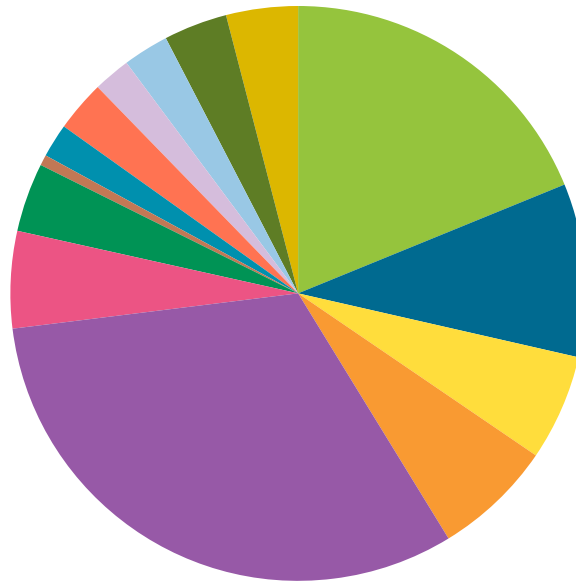
Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Core Real Estate Composite	-1.93	-0.73	2.00	2.00	5.00	6.70	8.49	10.31	3.33	6.19	01/01/2006
NCREIF ODCE Index (AWA) (Gross)	-1.56	-0.60	2.22	2.22	5.66	7.31	9.07	10.80	5.34	6.52	
Difference	-0.37	-0.13	-0.22	-0.22	-0.66	-0.61	-0.58	-0.49	-2.01	-0.33	
Clarion Lion	-1.82	-0.46	3.20	3.20	6.86	8.26	9.87	11.97	7.26	6.09	01/01/2006
NCREIF ODCE Index (AWA) (Gross)	-1.56	-0.60	2.22	2.22	5.66	7.31	9.07	10.80	5.34	6.52	
Difference	-0.26	0.14	0.98	0.98	1.20	0.95	0.80	1.17	1.92	-0.43	
UBS Trumbull	-2.43	-2.01	-1.07	-1.07	2.15	4.48	6.46	8.27	-2.11	5.54	07/01/2006
NCREIF ODCE Index (AWA) (Gross)	-1.56	-0.60	2.22	2.22	5.66	7.31	9.07	10.80	5.34	6.18	
Difference	-0.87	-1.41	-3.29	-3.29	-3.51	-2.83	-2.61	-2.53	-7.45	-0.64	
Diversified Hedge Funds Composite	4.90	-3.10	-1.19	-1.19	0.86	0.24	1.96	3.08	4.07	1.99	12/01/2007
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	1.08	
Difference	-2.95	-1.48	-1.63	-1.63	-1.38	-1.25	-0.74	0.29	-4.32	0.91	
Grosvenor Diversified Hedge Funds	7.05	-1.33	1.68	1.68	N/A	N/A	N/A	N/A	5.67	0.48	07/01/2018
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	0.80	
Difference	-0.80	0.29	1.24	1.24	N/A	N/A	N/A	N/A	-2.72	-0.32	
Internal Diversified Hedge Funds	3.83	-4.05	-2.35	-2.35	N/A	N/A	N/A	N/A	6.08	1.32	07/01/2018
HFRI FOF Comp Index	7.85	-1.62	0.44	0.44	2.24	1.49	2.70	2.79	8.39	0.80	
Difference	-4.02	-2.43	-2.79	-2.79	N/A	N/A	N/A	N/A	-2.31	0.52	
Grosvenor Opportunistic Class D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2020
Grosvenor Opportunistic Class D Custom Benchmark	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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 Diversified Hedge Funds managers. Wyoming State Treasurer's Office fiscal year ends June 30th. Since Inception date shown represents the first full month following initial funding.

June 30, 2020 : \$12,013,839,104



	Market Value (\$)	Allocation (%)
PIMCO Core	2,261,419,729	18.82
Internal Intermediate Govt Fixed Income Portfolio	1,170,677,551	9.74
Payden & Rygel IGC	716,381,745	5.96
JP Morgan MBS	807,441,873	6.72
Internal Ladder Portfolio	3,818,647,307	31.79
Credit Suisse	655,626,364	5.46
Octagon	465,803,874	3.88
Grosvenor Silvery Lupine Fund	70,930,128	0.59
Investec	228,135,522	1.90
Global Evolution	345,149,949	2.87
Goldman Sachs	250,884,818	2.09
Internal Long Duration Govt Fixed Income Portfolio	308,589,453	2.57
Logan Circle	428,906,762	3.57
Internal Low Duration Fixed Income Portfolio	485,244,029	4.04

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

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Core Fixed Income Composite	4,955,920,898	41.25	3.39	6.66	9.30	9.30	5.49	4.36	4.00	N/A	8.01	3.37	01/01/2013
Bloomberg US Agg Bond Index			2.90	6.14	8.74	8.74	5.32	4.30	3.96	3.82	8.72	3.35	
Difference			0.49	0.52	0.56	0.56	0.17	0.06	0.04	N/A	-0.71	0.02	
Internal Aggregate Core Fixed Income	2,694,501,169	22.43	2.79	6.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.55	11/01/2019
Bloomberg US Agg Bond Index			2.90	6.14	8.74	8.74	5.32	4.30	3.96	3.82	8.72	6.01	
Difference			-0.11	0.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.54	
PIMCO Core	2,261,419,729	18.82	3.95	6.78	9.44	9.44	5.50	4.39	3.99	N/A	7.60	3.35	01/01/2013
PIMCO Custom Index			3.31	6.76	9.38	9.38	5.17	4.22	3.90	3.78	7.30	3.29	
Difference			0.64	0.02	0.06	0.06	0.33	0.17	0.09	N/A	0.30	0.06	
Internal Intermediate Govt Fixed Income Portfolio	1,170,677,551	9.74	0.26	8.46	9.51	9.51	4.96	3.69	3.37	2.86	4.53	4.83	10/01/1996
Internal Intermediate Govt Fixed Income Portfolio Index			0.48	8.71	9.49	9.49	4.88	3.44	2.93	2.75	4.70	4.83	
Difference			-0.22	-0.25	0.02	0.02	0.08	0.25	0.44	0.11	-0.17	0.00	
Payden & Rygel IGC	716,381,745	5.96	9.15	5.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.85	11/01/2019
Payden & Rygel Custom Index			8.98	4.12	8.56	8.56	6.03	5.65	5.23	5.38	14.54	4.71	
Difference			0.17	1.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.14	
JP Morgan MBS	807,441,873	6.72	1.43	4.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.50	11/01/2019
Bloomberg US MBS Index (Unhgd)			0.67	3.50	5.67	5.67	3.97	3.23	3.30	3.06	6.35	3.87	
Difference			0.76	0.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.63	
Opportunistic Fixed Income													
Grosvenor Silvery Lupine Fund	70,930,128	0.59	-0.08	-11.32	-8.85	-8.85	1.04	3.44	N/A	N/A	6.59	3.52	07/01/2014
CS Western Euro Hi Yld Index			11.31	-4.90	-0.50	-0.50	3.56	5.18	5.80	7.28	14.41	4.63	
Difference			-11.39	-6.42	-8.35	-8.35	-2.52	-1.74	N/A	N/A	-7.82	-1.11	

Performance shown is net of fees. Fiscal year ends on June 30th. The Internal Int Govt Fixed Income Portfolio Index currently consists of the BB US Treasury Index. Nov 2019 performance consists of the Internal Int Govt Fixed Income Portfolio. Prior to November 2019, the index consists of BB US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the BB US Gov't Crdt Bond Index. The PIMCO Custom Index consists of the BB US Agg Bond Index through February 2018, the BB US Agg Int Index through June 2019, the BB US Agg Bond Index through 03/26/2020, account performance from 03/27/2020 through 04/03/2020, and the BB US Agg Bond Index thereafter. The Payden & Rygel Custom Index consists of the BB US Corp Inv Grade Index through 03/25/2020, account performance from 03/26/2020 through 03/31/2020, and BB US Corp Inv Grade Index thereafter.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)											Inception Date
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.		
Bank Loans	1,121,430,238	9.33	8.66	-3.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.99	09/01/2019	
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50		
Difference			-1.04	1.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.51		
Credit Suisse	655,626,364	5.46	8.73	-4.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.91	09/01/2019	
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50		
Difference			-0.97	0.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.59		
Octagon	465,803,874	3.88	8.53	-3.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.31	09/01/2019	
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50		
Difference			-1.17	0.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.19		
Emerging Market Debt Fixed Income Composite	824,170,289	6.86	11.10	-6.43	-2.63	-2.63	0.21	1.27	-1.20	N/A	12.98	-2.19	04/01/2013	
EMD Custom Benchmark			10.22	-6.69	-2.61	-2.61	1.21	2.39	-0.15	1.66	13.47	-1.15		
Difference			0.88	0.26	-0.02	-0.02	-1.00	-1.12	-1.05	N/A	-0.49	-1.04		
Investec	228,135,522	1.90	10.36	-7.04	-3.26	-3.26	0.65	1.46	-0.81	N/A	13.55	-1.73	04/01/2013	
JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)			9.82	-6.89	-2.82	-2.82	1.14	2.34	-0.19	1.64	13.47	-1.18		
Difference			0.54	-0.15	-0.44	-0.44	-0.49	-0.88	-0.62	N/A	0.08	-0.55		
Global Evolution	345,149,949	2.87	10.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-6.28	02/01/2020	
JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)			9.82	-6.89	-2.82	-2.82	1.14	2.34	-0.19	1.64	13.47	-5.68		
Difference			0.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.60		
Goldman Sachs	250,884,818	2.09	12.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.38	03/01/2020	
JPM CEMBI Brd Dvf'd Index			11.15	-0.16	3.74	3.74	4.52	5.13	5.35	5.68	13.09	-1.66		
Difference			1.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.72		

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

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Laddered Treasury Composite	3,818,647,307	31.79	0.21	3.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.52	10/01/2019
Internal Ladder Portfolio	3,818,647,307	31.79	0.21	3.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.52	10/01/2019
Long Duration Fixed Income Composite	737,496,214	6.14	4.53	15.46	21.18	21.18	N/A	N/A	N/A	N/A	19.11	23.67	01/01/2019
Bloomberg US Gov't Crdt Lng Trm Bond Index			6.23	12.82	18.91	18.91	10.32	8.98	8.20	7.84	19.59	22.10	
Difference			-1.70	2.64	2.27	2.27	N/A	N/A	N/A	N/A	-0.48	1.57	
Internal Long Duration Govt Fixed Income Portfolio	308,589,453	2.57	-0.81	20.55	24.44	24.44	N/A	N/A	N/A	N/A	14.61	24.05	01/01/2019
Bloomberg US Gov't Lng Trm Bond Index			0.28	20.97	25.14	25.14	11.96	9.21	8.38	7.71	14.75	24.44	
Difference			-1.09	-0.42	-0.70	-0.70	N/A	N/A	N/A	N/A	-0.14	-0.39	
Logan Circle Long Credit	428,906,762	3.57	10.84	9.62	17.08	17.08	N/A	N/A	N/A	N/A	23.48	21.34	11/01/2018
Bloomberg US Lng Crdt Index			11.08	5.92	13.19	13.19	8.70	8.51	7.86	7.77	23.36	18.84	
Difference			-0.24	3.70	3.89	3.89	N/A	N/A	N/A	N/A	0.12	2.50	
Low Duration Fixed Income Composite	485,244,029	4.04	0.20	2.94	4.43	4.43	N/A	N/A	N/A	N/A	3.96	4.83	12/01/2018
Low Duration Fixed Income Custom Index			0.26	2.99	4.12	4.12	2.85	2.09	1.79	1.63	3.84	4.84	
Difference			-0.06	-0.05	0.31	0.31	N/A	N/A	N/A	N/A	0.12	-0.01	
Internal Low Duration Fixed Income Portfolio	485,244,029	4.04	0.20	2.94	4.43	4.43	N/A	N/A	N/A	N/A	3.80	3.72	03/01/2018
Bloomberg US Gov't 1-3 Yr Bond Index			0.26	2.99	4.12	4.12	2.71	1.86	1.57	1.36	3.59	3.66	
Difference			-0.06	-0.05	0.31	0.31	N/A	N/A	N/A	N/A	0.21	0.06	

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.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)											Inception Date
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.		
Core Fixed Income Composite	4,955,920,898	41.25	3.43	6.71	9.40	9.40	5.60	4.48	4.13	N/A	8.12	3.50	01/01/2013	
Bloomberg US Agg Bond Index			2.90	6.14	8.74	8.74	5.32	4.30	3.96	3.82	8.72	3.35		
Difference			0.53	0.57	0.66	0.66	0.28	0.18	0.17	N/A	-0.60	0.15		
IM U.S. Broad Mkt Core Fixed Income (SA+CF) Median			4.36	6.24	8.93	8.93	5.57	4.68	4.35	4.33	9.19	3.72		
Core Fixed Income Composite Rank			73	33	31	31	49	70	73	N/A	93	72		
Internal Aggregate Core Fixed Income	2,694,501,169	22.43	2.82	6.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.60	11/01/2019	
Bloomberg US Agg Bond Index			2.90	6.14	8.74	8.74	5.32	4.30	3.96	3.82	8.72	6.01		
Difference			-0.08	0.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.59		
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			4.36	6.24	8.93	8.93	5.57	4.68	4.35	4.33	9.19	6.14		
Internal Aggregate Core Fixed Income Rank			90	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31		
PIMCO Core	2,261,419,729	18.82	3.98	6.84	9.55	9.55	5.61	4.51	4.14	N/A	7.71	3.50	01/01/2013	
PIMCO Custom Index			3.31	6.76	9.38	9.38	5.17	4.22	3.90	3.78	7.30	3.29		
Difference			0.67	0.08	0.17	0.17	0.44	0.29	0.24	N/A	0.41	0.21		
IM U.S. Broad Mkt Core Fixed Income (SA+CF) Median			4.36	6.24	8.93	8.93	5.57	4.68	4.35	4.33	9.19	3.72		
PIMCO Core Rank			60	28	29	29	48	67	72	N/A	95	72		
Internal Intermediate Govt Fixed Income Portfolio	1,170,677,551	9.74	0.26	8.46	9.51	9.51	4.96	3.69	3.37	2.86	4.53	4.83	10/01/1996	
Internal Intermediate Govt Fixed Income Portfolio Index			0.48	8.71	9.49	9.49	4.88	3.44	2.93	2.75	4.70	4.83		
Difference			-0.22	-0.25	0.02	0.02	0.08	0.25	0.44	0.11	-0.17	0.00		
IM U.S. Government Bonds (SA+CF) Median			0.42	5.92	8.67	8.67	4.99	3.62	2.86	2.79	6.31	5.21		
Internal Intermediate Govt Fixed Income Portfolio Rank			67	46	50	50	51	50	48	49	76	57		
Payden & Rygel IGC	716,381,745	5.96	9.27	5.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.97	11/01/2019	
Payden & Rygel Custom Index			8.98	4.12	8.56	8.56	6.03	5.65	5.23	5.38	14.54	4.71		
Difference			0.29	1.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.26		
IM U.S. Corporate Bonds (SA+CF) Median			10.05	5.71	10.39	10.39	6.88	6.38	5.99	6.37	15.08	6.35		
Payden & Rygel IGC Rank			67	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	57		
JP Morgan MBS	807,441,873	6.72	1.45	4.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.56	11/01/2019	
Bloomberg US MBS Index (Unhgd)			0.67	3.50	5.67	5.67	3.97	3.23	3.30	3.06	6.35	3.87		
Difference			0.78	0.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.69		
IM U.S. Mortgage Backed Bonds (SA+CF) Median			1.47	3.11	5.02	5.02	4.00	3.47	3.54	3.86	6.56	3.17		
JP Morgan MBS Rank			52	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9		

Performance shown is gross of fees. Fiscal year ends on June 30th. The Internal Int Govt Fixed Income Portfolio Index currently consists of the BB US Treasury Index. Nov 2019 performance consists of the Internal Int Govt Fixed Income Portfolio. Prior to November 2019, the index consists of BB US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the BB US Gov't Crdt Bond Index. The PIMCO Custom Index consists of the BB US Agg Bond Index through February 2018, the BB US Agg Int Index through June 2019, the BB US Agg Bond Index through 03/26/2020, account performance from 03/27/2020 through 04/03/2020, and the BB US Agg Bond Index thereafter. The Payden & Rygel Custom Index consists of the BB US Corp Inv Grade Index through 03/25/2020, account performance from 03/26/2020 through 03/31/2020, and BB US Corp Inv Grade Index thereafter.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
Opportunistic Fixed Income													
Grosvenor Silvery Lupine Fund	70,930,128	0.59	-0.08	-11.32	-8.85	-8.85	1.04	3.44	N/A	N/A	6.59	3.52	07/01/2014
CS Western Euro Hi Yld Index			11.31	-4.90	-0.50	-0.50	3.56	5.18	5.80	7.28	14.41	4.63	
Difference			-11.39	-6.42	-8.35	-8.35	-2.52	-1.74	N/A	N/A	-7.82	-1.11	
Bank Loans	1,121,430,238	9.33	8.75	-2.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.77	09/01/2019
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50	
Difference			-0.95	1.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.73	
IM U.S. Bank Loans (SA+CF) Median			8.14	-4.57	-1.41	-1.41	2.30	2.99	3.34	4.55	8.71	-2.15	
Bank Loans Rank			38	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12	
Credit Suisse	655,626,364	5.46	8.82	-3.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.74	09/01/2019
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50	
Difference			-0.88	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.76	
IM U.S. Bank Loans (SA+CF) Median			8.14	-4.57	-1.41	-1.41	2.30	2.99	3.34	4.55	8.71	-2.15	
Credit Suisse Rank			35	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35	
Octagon	465,803,874	3.88	8.61	-3.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.98	09/01/2019
S&P/LSTA Lvg'd Loan Index			9.70	-4.61	-1.99	-1.99	2.07	2.89	3.12	4.18	8.64	-2.50	
Difference			-1.09	0.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.52	
IM U.S. Bank Loans (SA+CF) Median			8.14	-4.57	-1.41	-1.41	2.30	2.99	3.34	4.55	8.71	-2.15	
Octagon Rank			39	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	

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.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

	Allocation		Performance (%)											Inception Date
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.		
Emerging Market Debt Fixed Income Composite	824,170,289	6.86	11.14	-6.37	-2.39	-2.39	0.62	1.76	-0.68	N/A	13.42	-1.67	04/01/2013	
EMD Custom Benchmark			10.22	-6.69	-2.61	-2.61	1.21	2.39	-0.15	1.66	13.47	-1.15		
Difference			0.92	0.32	0.22	0.22	-0.59	-0.63	-0.53	N/A	-0.05	-0.52		
IM Emerging Markets Debt (SA+CF) Median			12.64	-3.73	-0.77	-0.77	2.77	4.84	4.43	5.60	14.23	3.33		
Emerging Market Debt Fixed Income Composite Rank			71	72	69	69	90	95	97	N/A	68	96		
Investec	228,135,522	1.90	10.38	-7.00	-3.04	-3.04	1.13	2.00	-0.26	N/A	14.10	-1.18	04/01/2013	
JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)			9.82	-6.89	-2.82	-2.82	1.14	2.34	-0.19	1.64	13.47	-1.18		
Difference			0.56	-0.11	-0.22	-0.22	-0.01	-0.34	-0.07	N/A	0.63	0.00		
IM Emerging Markets Debt (SA+CF) Median			12.64	-3.73	-0.77	-0.77	2.77	4.84	4.43	5.60	14.23	3.33		
Investec Rank			86	78	76	76	81	92	94	N/A	54	93		
Global Evolution	345,149,949	2.87	10.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-6.17	02/01/2020	
JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)			9.82	-6.89	-2.82	-2.82	1.14	2.34	-0.19	1.64	13.47	-5.68		
Difference			0.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.49		
IM Emerging Markets Debt (SA+CF) Median			12.64	-3.73	-0.77	-0.77	2.77	4.84	4.43	5.60	14.23	-4.85		
Global Evolution Rank			84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	74		
Goldman Sachs	250,884,818	2.09	12.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.38	03/01/2020	
JPM CEMBI Brd Dvf'd Index			11.15	-0.16	3.74	3.74	4.52	5.13	5.35	5.68	13.09	-1.66		
Difference			1.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.72		
IM Emerging Markets Debt (SA+CF) Median			12.64	-3.73	-0.77	-0.77	2.77	4.84	4.43	5.60	14.23	-2.95		
Goldman Sachs Rank			48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32		
Laddered Treasury Composite	3,818,647,307	31.79	0.21	3.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.52	10/01/2019	
Internal Ladder Portfolio	3,818,647,307	31.79	0.21	3.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.52	10/01/2019	

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 and 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter.

Wyoming State Treasurer's Office
Asset Allocation & Performance

As of June 30, 2020

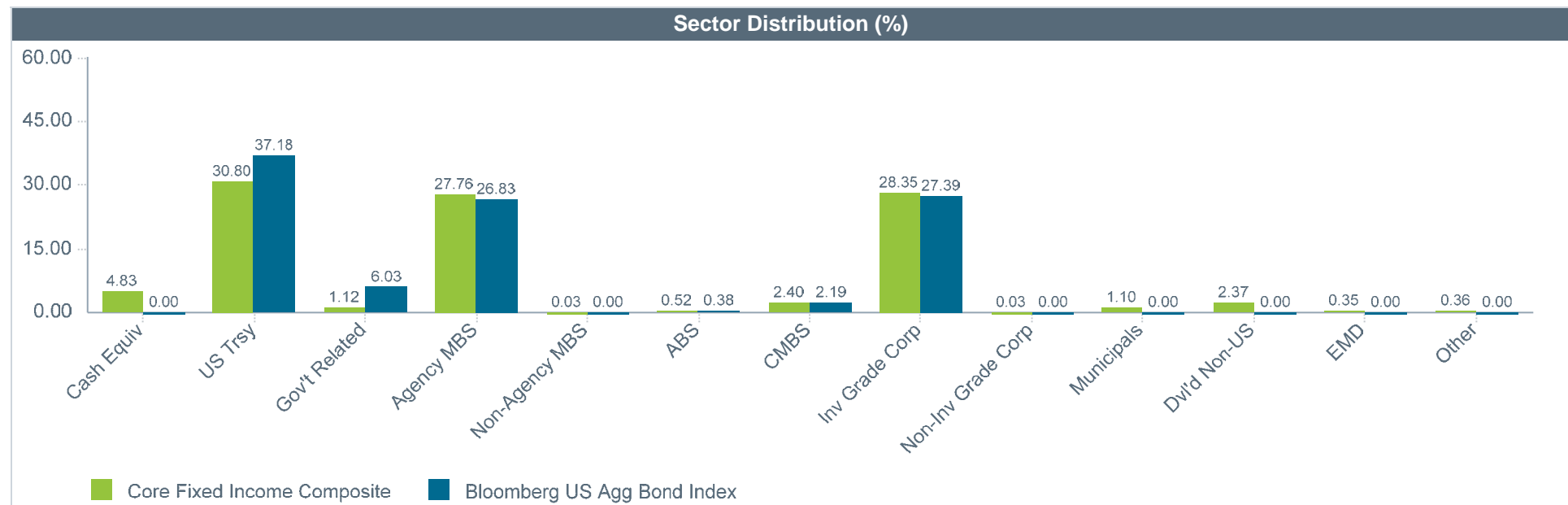
	Allocation		Performance (%)											Inception Date
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.		
Long Duration Fixed Income Composite	737,496,214	6.14	4.56	15.51	21.29	21.29	N/A	N/A	N/A	N/A	19.24	23.79	01/01/2019	
Bloomberg US Gov't Crdt Lng Trm Bond Index			6.23	12.82	18.91	18.91	10.32	8.98	8.20	7.84	19.59	22.10		
Difference			-1.67	2.69	2.38	2.38	N/A	N/A	N/A	N/A	-0.35	1.69		
IM U.S. Long Duration (SA+CF) Median			7.91	11.77	18.32	18.32	10.42	9.39	8.54	8.41	20.13	22.31		
Long Duration Fixed Income Composite Rank			98	9	15	15	N/A	N/A	N/A	N/A	75	20		
Internal Long Duration Govt Fixed Income Portfolio	308,589,453	2.57	-0.81	20.55	24.44	24.44	N/A	N/A	N/A	N/A	14.61	24.05	01/01/2019	
Bloomberg US Gov't Lng Trm Bond Index			0.28	20.97	25.14	25.14	11.96	9.21	8.38	7.71	14.75	24.44		
Difference			-1.09	-0.42	-0.70	-0.70	N/A	N/A	N/A	N/A	-0.14	-0.39		
IM U.S. Long Duration (SA+CF) Median			7.91	11.77	18.32	18.32	10.42	9.39	8.54	8.41	20.13	22.31		
Internal Long Duration Govt Fixed Income Portfolio Rank			100	1	2	2	N/A	N/A	N/A	N/A	91	12		
Logan Circle	428,906,762	3.57	10.90	9.73	17.31	17.31	N/A	N/A	N/A	N/A	23.73	21.60	11/01/2018	
Bloomberg US Lng Crdt Index			11.08	5.92	13.19	13.19	8.70	8.51	7.86	7.77	23.36	18.84		
Difference			-0.18	3.81	4.12	4.12	N/A	N/A	N/A	N/A	0.37	2.76		
IM U.S. Long Duration (SA+CF) Median			7.91	11.77	18.32	18.32	10.42	9.39	8.54	8.41	20.13	22.22		
Logan Circle Rank			20	63	59	59	N/A	N/A	N/A	N/A	9	61		
Low Duration Fixed Income Composite	485,244,029	4.04	0.20	2.94	4.43	4.43	N/A	N/A	N/A	N/A	3.96	4.84	12/01/2018	
Low Duration Fixed Income Custom Index			0.26	2.99	4.12	4.12	2.85	2.09	1.79	1.63	3.84	4.84		
Difference			-0.06	-0.05	0.31	0.31	N/A	N/A	N/A	N/A	0.12	0.00		
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.59	2.87	4.22	4.22	3.12	2.44	2.16	2.09	4.51	4.91		
Low Duration Fixed Income Composite Rank			100	42	39	39	N/A	N/A	N/A	N/A	78	59		
Internal Low Duration Fixed Income Portfolio	485,244,029	4.04	0.20	2.94	4.43	4.43	N/A	N/A	N/A	N/A	3.80	3.72	03/01/2018	
Bloomberg US Gov't 1-3 Yr Bond Index			0.26	2.99	4.12	4.12	2.71	1.86	1.57	1.36	3.59	3.66		
Difference			-0.06	-0.05	0.31	0.31	N/A	N/A	N/A	N/A	0.21	0.06		
IM U.S. Short Duration Fixed Income (SA+CF) Median			2.59	2.87	4.22	4.22	3.12	2.44	2.16	2.09	4.51	3.93		
Internal Low Duration Fixed Income Portfolio Rank			100	42	39	39	N/A	N/A	N/A	N/A	83	71		

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
Core Fixed Income Composite vs. Bloomberg US Agg Bond Index
Portfolio Characteristics

As of June 30, 2020

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.89	6.04
Convexity	0.36	0.44
Avg. Maturity	7.65	8.14
Avg. Quality	Aa2	Aa1/Aa2
Yield To Maturity (%)	1.40	1.27
Coupon Rate (%)	2.79	3.03
Current Yield (%)	2.62	N/A

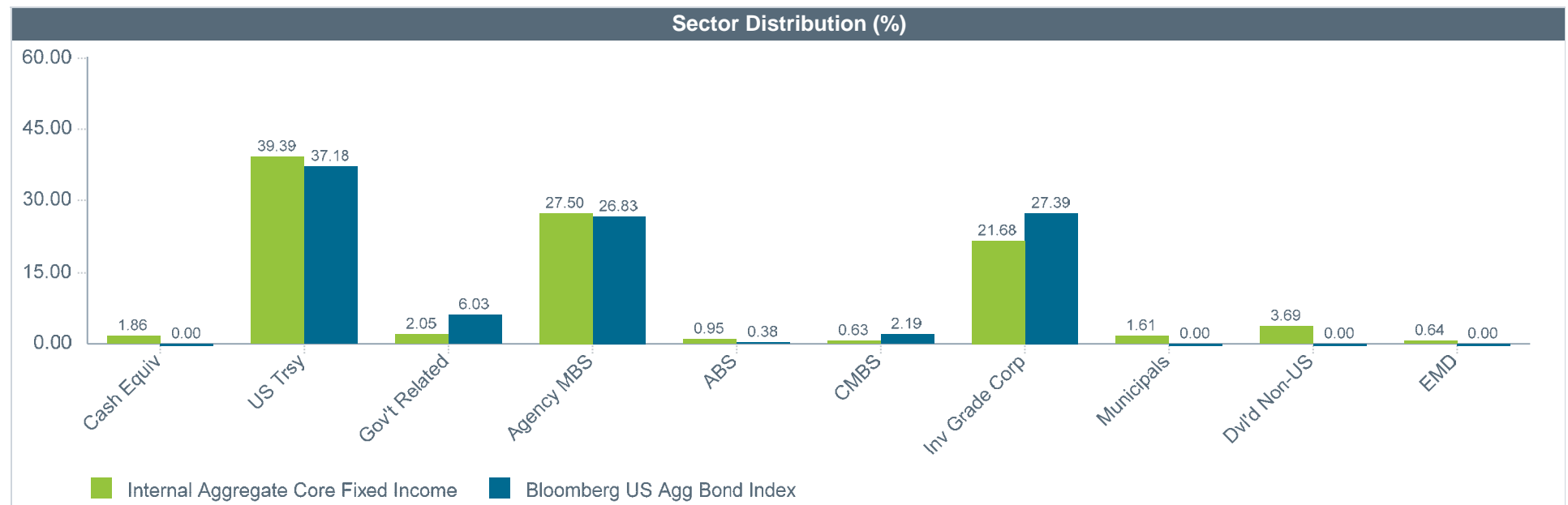


The statistics are calculated based on a weighted average of the underlying managers. Allocation to "Other" consists of Euro/Yankee securities.

Wyoming State Treasurer's Office
Internal Aggregate Core Fixed Income vs. Bloomberg US Agg Bond Index
Portfolio Characteristics

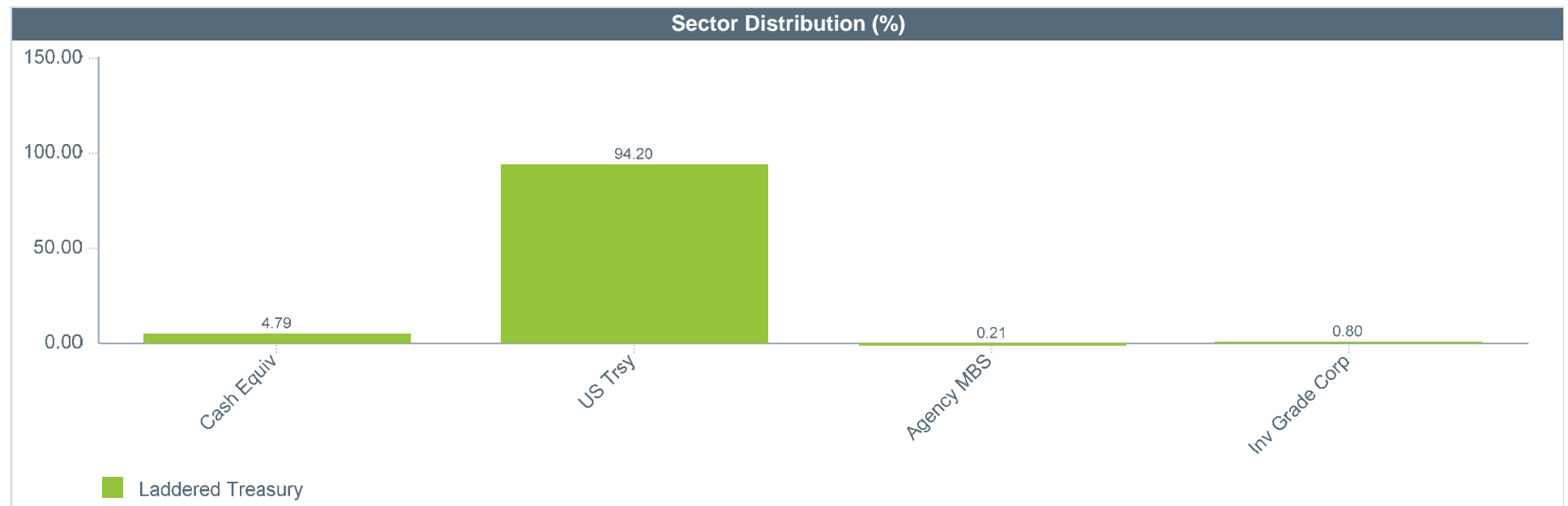
As of June 30, 2020

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.89	6.04
Convexity	0.71	0.44
Avg. Maturity	8.25	8.14
Avg. Quality	Aa2	Aa1/Aa2
Yield To Maturity (%)	1.18	1.27
Coupon Rate (%)	3.09	3.03
Current Yield (%)	2.91	N/A



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

Portfolio Characteristics	
	Portfolio
Effective Duration	1.84
Convexity	0.05
Avg. Maturity	1.87
Avg. Quality	Aaa
Yield To Maturity (%)	0.18
Coupon Rate (%)	1.28

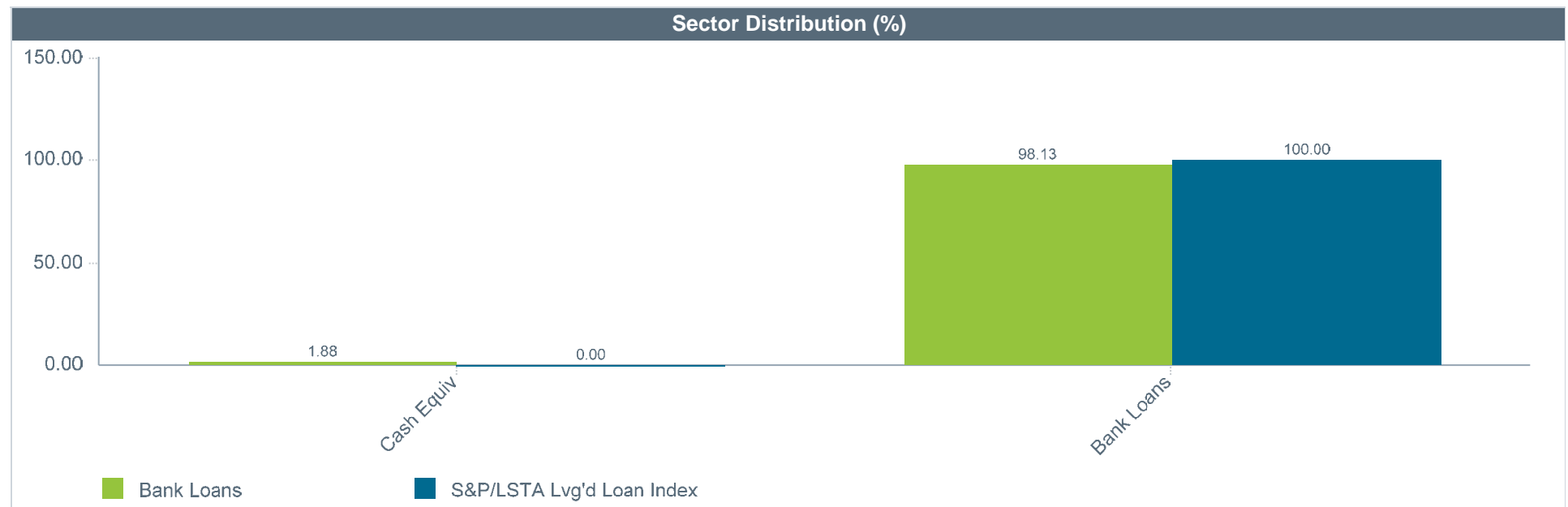


The statistics are calculated based on a weighted average of the underlying managers.

Wyoming State Treasurer's Office
Bank Loans vs. S&P/LSTA Lvg'd Loan Index
Portfolio Characteristics

As of June 30, 2020

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	0.25	N/A
Avg. Maturity	5.15	4.77
Avg. Quality	B1	B1
Yield To Maturity (%)	5.61	7.97
Coupon Rate (%)	3.83	4.38
Current Yield (%)	4.14	7.97

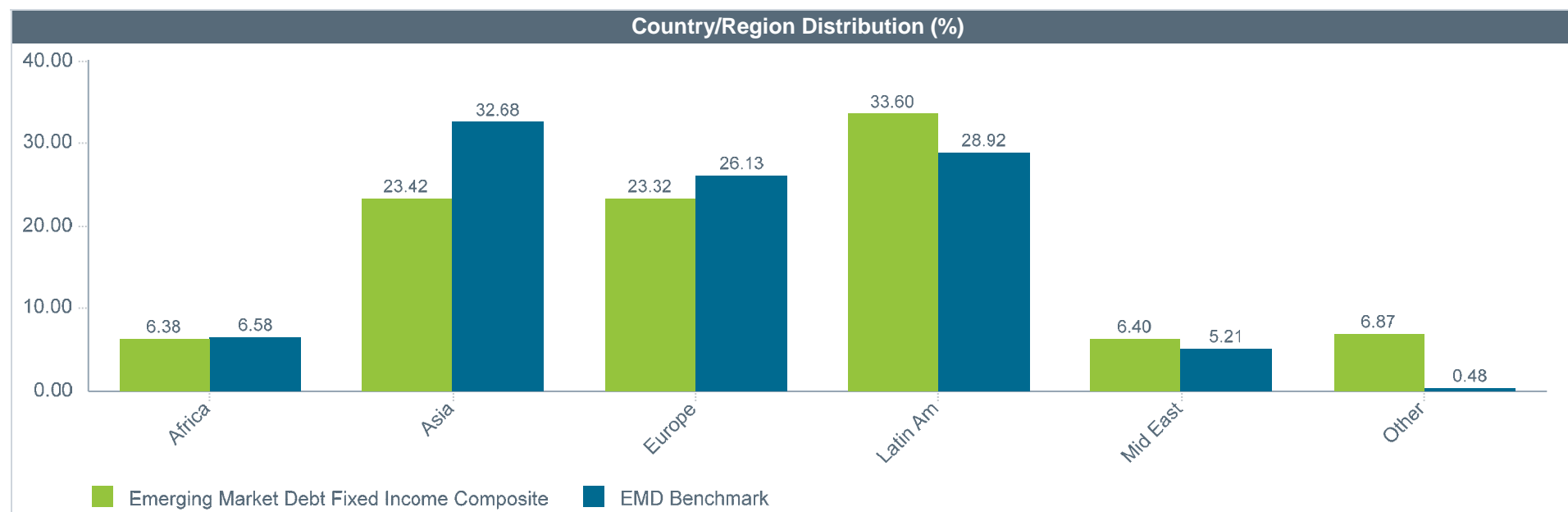


The statistics are calculated based on a weighted average of the underlying managers.

Wyoming State Treasurer's Office
Emerging Market Debt Fixed Income Composite vs. EMD Benchmark
Portfolio Characteristics

As of June 30, 2020

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.83	5.31
Convexity	N/A	0.42
Avg. Maturity	11.22	8.02
Avg. Quality	Baa2	Ba2
Yield To Maturity (%)	5.15	4.63
Coupon Rate (%)	5.66	5.72
Yield To Worst (%)	5.14	4.51
Current Yield (%)	5.29	5.30

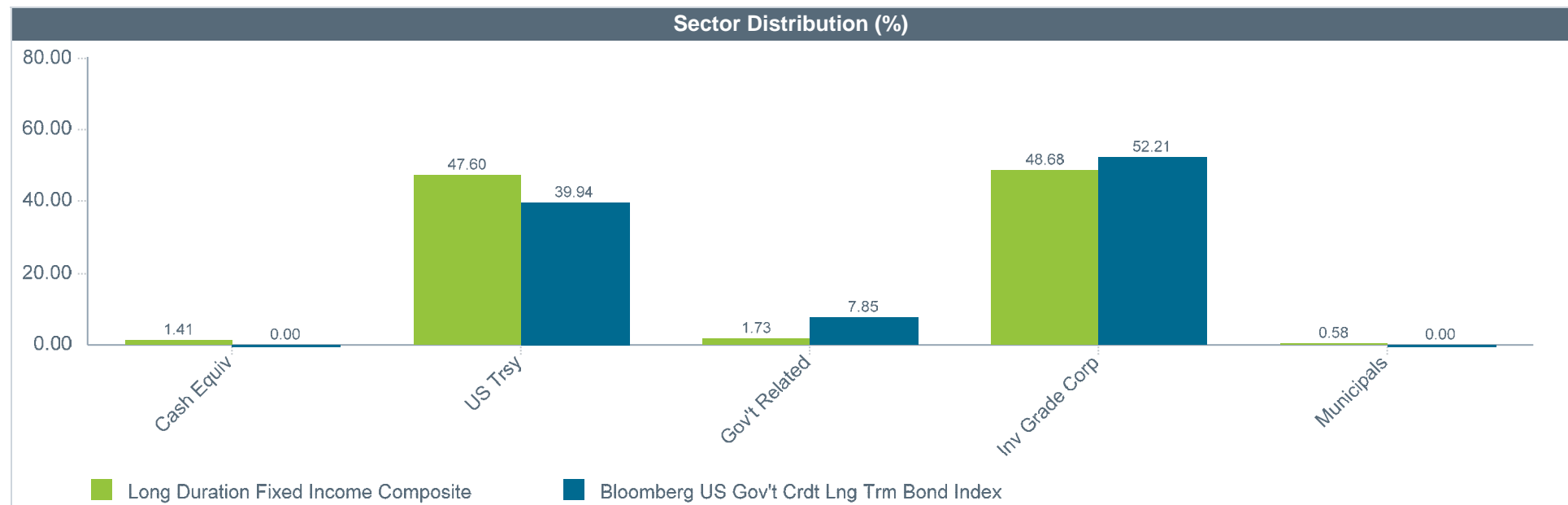


The statistics are calculated based on a weighted average of the underlying managers. Region allocation to "Other" consists of cash. The EMD Custom Index consists of the JPM GBI-EM Gbl Dvf'd Index through 02/29/2020 and 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd Index thereafter.

Long Duration Fixed Income Composite vs. Bloomberg US Gov't Crdt Lng Trm Bond Index

Portfolio Characteristics

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	16.22	16.76
Convexity	3.51	3.73
Avg. Quality	A1	Aa3/A1
Yield To Maturity (%)	2.33	2.42
Coupon Rate (%)	3.69	4.06

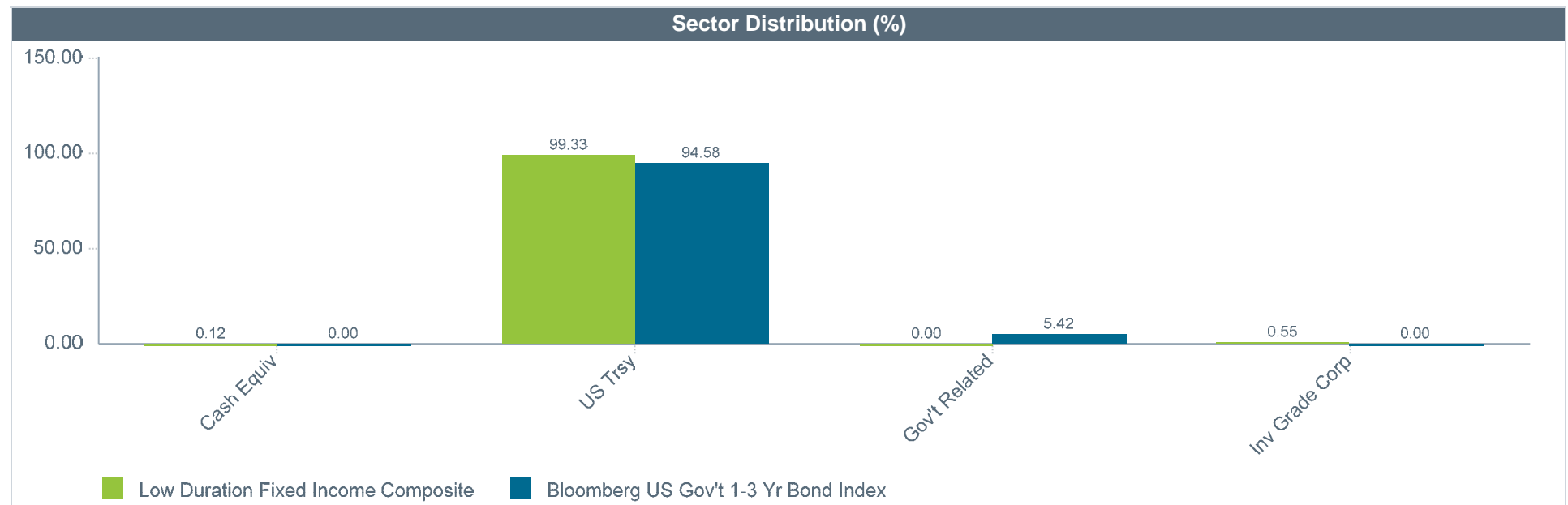


The statistics are calculated based on a weighted average of the underlying managers.

Wyoming State Treasurer's Office
Low Duration Fixed Income Composite vs. Bloomberg US Gov't 1-3 Yr Bond Index
Portfolio Characteristics

As of June 30, 2020

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	1.68	1.91
Convexity	0.04	0.01
Avg. Quality	Aaa	Aaa/Aa1
Yield To Maturity (%)	0.15	0.18
Coupon Rate (%)	1.92	1.73



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

Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
JP Morgan Cash Composite	0.05	0.41	1.46	1.46	1.71	1.20	0.91	0.71	2.42	1.53	01/01/2006
JP Morgan Cash Custom Index	0.02	0.60	1.63	1.63	1.81	1.24	0.95	0.77	2.47	1.56	
Difference	0.03	-0.19	-0.17	-0.17	-0.10	-0.04	-0.04	-0.06	-0.05	-0.03	
Wyo-Star Cash Composite	0.09	1.07	2.09	2.09	1.93	1.31	1.03	0.81	2.57	3.20	10/01/1996
Wyo-Star Cash Custom Index	0.11	1.22	2.33	2.33	2.08	1.41	1.11	0.90	2.81	2.65	
Difference	-0.02	-0.15	-0.24	-0.24	-0.15	-0.10	-0.08	-0.09	-0.24	0.55	
WYO STAR II Total Fund	3.74	2.58	4.31	4.31	N/A	N/A	N/A	N/A	4.97	5.06	01/01/2019
Bloomberg US Corp 1-3 Yr Index	4.07	2.48	4.36	4.36	3.29	2.73	2.44	2.57	5.30	5.21	
Difference	-0.33	0.10	-0.05	-0.05	N/A	N/A	N/A	N/A	-0.33	-0.15	

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.

Wyoming State Treasurer's Office
Comparative Performance

As of June 30, 2020

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	Since Incep.	Inception Date
JP Morgan Cash Composite	0.05	0.42	1.49	1.49	1.76	1.26	0.99	0.81	2.47	1.61	01/01/2006
JP Morgan Cash Custom Index	0.02	0.60	1.63	1.63	1.81	1.24	0.95	0.77	2.47	1.56	
Difference	0.03	-0.18	-0.14	-0.14	-0.05	0.02	0.04	0.04	0.00	0.05	
Wyo-Star Cash Composite	0.11	1.11	2.15	2.15	1.99	1.38	1.10	0.90	2.63	3.24	10/01/1996
Wyo-Star Cash Custom Index	0.11	1.22	2.33	2.33	2.08	1.41	1.11	0.90	2.81	2.65	
Difference	0.00	-0.11	-0.18	-0.18	-0.09	-0.03	-0.01	0.00	-0.18	0.59	
WYO STAR II Total Fund	3.76	2.62	4.37	4.37	N/A	N/A	N/A	N/A	5.03	5.12	01/01/2019
Bloomberg US Corp 1-3 Yr Index	4.07	2.48	4.36	4.36	3.29	2.73	2.44	2.57	5.30	5.21	
Difference	-0.31	0.14	0.01	0.01	N/A	N/A	N/A	N/A	-0.27	-0.09	

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.

Wyoming State Treasurer's Office
Investment Values by Fund
June 30, 2020

	Total Investment Value	Fiscal Year Ending 06/30/19 Market Value	Current Market Value	% of MV
Wyoming State Total Fund	\$21,802,251,932	\$21,444,953,937	\$22,741,032,950	100.0%
Permanent Mineral Trust	\$7,561,927,587	\$8,020,683,874	\$7,990,956,831	100.0%
US Equity	\$898,652,838	\$1,005,361,041	\$1,120,037,056	14.0%
International Equity	\$1,401,841,850	\$1,159,830,745	\$1,450,187,580	18.1%
MLPs	\$469,423,859	\$275,600,089	\$411,164,093	5.1%
Private Equity	\$379,567,065	\$384,982,809	\$504,572,829	6.3%
Real Estate	\$743,578,880	\$581,077,046	\$817,221,309	10.2%
Diversified Hedge Funds	\$616,430,087	\$591,606,799	\$611,293,123	7.6%
Fixed Income	\$2,859,615,575	\$3,699,446,318	\$2,881,829,152	36.1%
Opportunistic	\$8,291,260	\$0	\$8,284,086	0.1%
Public Purpose Investments	\$134,894,182	\$119,504,982	\$134,894,182	1.7%
Cash Equivalents (Liquidated Managers)	\$0	\$7,262,727	\$775,904	0.0%
Cash (invested in State Agency Pool)	\$49,631,990	\$196,011,318	\$50,697,517	0.6%
Common School Perm Land Fund	\$3,937,525,190	\$4,111,843,245	\$4,125,664,118	100.0%
US Equity	\$329,309,674	\$374,104,474	\$431,786,613	10.5%
International Equity	\$549,951,403	\$409,625,187	\$571,017,771	13.8%
Preferred Stock	\$114,718,559	\$132,252,837	\$136,896,867	3.3%
MLPs	\$302,569,528	\$188,918,891	\$264,856,326	6.4%
Private Equity	\$58,918,263	\$152,097,948	\$106,894,965	2.6%
Real Estate	\$538,627,489	\$234,141,119	\$569,776,232	13.8%
Diversified Hedge Funds	\$0	\$0	\$0	0.0%
Fixed Income	\$1,984,708,368	\$2,524,659,090	\$1,984,541,051	48.1%
Opportunistic	\$3,032,234	\$0	\$3,029,610	0.1%
Public Purpose Investments	\$18,359,738	\$18,359,738	\$18,359,738	0.4%
Cash Equivalents (Liquidated Managers)	\$0	\$3,298,790	\$373,592	0.0%
Cash (invested in State Agency Pool)	\$37,329,934	\$74,385,171	\$38,131,354	0.9%
Permanent Land Fund	\$196,254,526	\$200,449,034	\$202,823,913	100.0%
US Equity	\$25,412,539	\$28,524,769	\$26,357,892	13.0%
International Equity	\$34,904,913	\$27,582,682	\$36,024,093	17.8%
MLPs	\$11,623,549	\$6,809,105	\$10,174,773	5.0%
Private Equity	\$9,371,095	\$11,031,512	\$12,533,798	6.2%
Real Estate	\$18,517,348	\$14,416,934	\$20,345,582	10.0%
Diversified Hedge Funds	\$14,600,977	\$14,111,986	\$14,496,493	7.1%
Fixed Income	\$79,417,040	\$88,683,644	\$80,418,728	39.6%
Opportunistic	\$192,323	\$0	\$192,157	0.1%
Cash Equivalents (Liquidated Managers)	\$0	\$190,109	\$18,107	0.0%
Cash (invested in State Agency Pool)	\$2,214,742	\$9,098,295	\$2,262,290	1.1%
University Permanent Land Fund	\$21,760,017	\$21,714,545	\$26,615,611	100.0%
US Equity	\$3,258,892	\$1,789,046	\$7,746,560	29.1%
International Equity	\$4,937,646	\$3,357,145	\$5,026,537	18.9%
MLPs	\$1,330,935	\$817,896	\$1,121,367	4.2%
Private Equity	\$1,088,294	\$967,444	\$1,413,897	5.3%
Real Estate	\$2,496,406	\$1,696,960	\$2,712,270	10.2%
Diversified Hedge Funds	\$1,536,386	\$1,479,925	\$1,524,638	5.7%
Fixed Income	\$6,477,453	\$11,539,791	\$6,421,657	24.1%
Opportunistic	\$46,311	\$0	\$46,271	0.2%
Cash Equivalents (Liquidated Managers)	\$0	\$21,415	\$2,103	0.0%
Cash (invested in State Agency Pool)	\$587,694	\$44,923	\$600,311	2.3%

Wyoming State Treasurer's Office
Investment Values by Fund
June 30, 2020

	Total Investment Value	Fiscal Year Ending 06/30/19 Market Value	Current Market Value	% of MV
Wyoming State Total Fund	\$21,802,251,932	\$21,444,953,937	\$22,741,032,950	100.0%
Hathaway Scholarship	\$565,509,009	\$595,618,082	\$592,278,846	100.0%
US Equity	\$67,218,000	\$74,650,590	\$83,725,477	14.1%
International Equity	\$105,705,223	\$85,687,204	\$109,180,435	18.4%
MLPs	\$34,408,827	\$20,680,678	\$30,044,142	5.1%
Private Equity	\$25,830,431	\$14,557,053	\$29,805,233	5.0%
Real Estate	\$55,493,950	\$45,012,657	\$61,310,651	10.4%
Diversified Hedge Funds	\$57,262,330	\$43,771,735	\$56,302,857	9.5%
Fixed Income	\$215,735,267	\$294,456,125	\$217,927,539	36.8%
Opportunistic	\$613,759	\$0	\$613,228	0.1%
Cash Equivalents (Liquidated Managers)	\$0	\$631,552	\$58,480	0.0%
Cash (invested in State Agency Pool)	\$3,241,220	\$16,170,488	\$3,310,805	0.6%
Higher Education	\$115,001,178	\$121,336,620	\$119,493,551	100.0%
US Equity	\$8,832,438	\$11,818,524	\$11,880,131	9.9%
International Equity	\$15,514,573	\$12,438,625	\$16,098,931	13.5%
Preferred Stock	\$2,992,219	\$4,022,509	\$3,615,540	3.0%
MLPs	\$7,790,262	\$5,649,849	\$6,858,964	5.7%
Real Estate	\$13,974,878	\$8,260,669	\$15,055,391	12.6%
Diversified Hedge Funds	\$0	\$0	\$0	0.0%
Fixed Income	\$65,422,065	\$74,550,744	\$65,489,749	54.8%
Opportunistic	\$95,003	\$0	\$94,921	0.1%
Cash Equivalents (Liquidated Managers)	\$0	\$132,692	\$12,032	0.0%
Cash (invested in State Agency Pool)	\$379,740	\$4,463,008	\$387,893	0.3%
Workers Compensation Fund	\$2,257,370,638	\$2,248,008,408	\$2,435,825,765	100.0%
US Equity	\$189,474,726	\$193,066,261	\$225,494,197	9.3%
International Equity	\$292,571,636	\$224,247,867	\$298,231,850	12.2%
MLPs	\$105,994,799	\$48,082,691	\$92,124,054	3.8%
Real Estate	\$181,750,572	\$68,996,557	\$188,888,293	7.8%
Diversified Hedge Funds	\$0	\$0	\$0	0.0%
Fixed Income	\$1,367,222,155	\$1,645,399,320	\$1,508,044,796	61.9%
Opportunistic	\$1,626,195	\$0	\$1,624,788	0.1%
Cash Equivalents (Liquidated Managers)	\$0	\$1,665,041	\$138,257	0.0%
Cash (invested in State Agency Pool)	\$118,730,555	\$66,550,670	\$121,279,529	5.0%
Pool A	\$245,461,429	\$238,994,704	\$241,213,542	100.0%
US Equity	\$19,053,248	\$18,175,266	\$19,934,042	8.3%
International Equity	\$24,157,135	\$14,426,418	\$24,783,825	10.3%
Preferred Stock	\$17,336,752	\$7,621,480	\$8,437,326	3.5%
MLPs	\$12,458,324	\$8,981,010	\$11,195,190	4.6%
Real Estate	\$20,541,822	\$0	\$20,352,153	8.4%
Fixed Income	\$148,668,727	\$182,445,671	\$153,198,832	63.5%
Opportunistic	\$161,128	\$0	\$160,988	0.1%
Cash Equivalents (Liquidated Managers)	\$0	\$450,213	\$677	0.0%
Cash (invested in State Agency Pool)	\$3,084,293	\$6,894,645	\$3,150,508	1.3%
LSRA	\$1,561,464,389	\$1,534,130,150	\$1,551,541,169	100.0%
US Equity	\$119,735,897	\$119,152,165	\$123,220,149	7.9%
International Equity	\$157,496,794	\$155,423,626	\$156,854,672	10.1%
MLPs	\$60,868,978	\$0	\$49,912,298	3.2%
Diversified Hedge Funds	\$83,610,024	\$100,627,859	\$82,102,235	5.3%
Fixed Income	\$959,457,187	\$0	\$955,309,111	61.6%
Opportunistic	\$1,051,786	\$0	\$1,050,876	0.1%
Cash (invested in State Agency Pool)	\$179,243,723	\$1,158,926,501	\$183,091,827	11.8%
State Agency Pool	\$5,339,977,967	\$4,352,175,275	\$5,454,619,605	100.0%
Fixed Income	\$3,761,008,882	\$1,897,854,585	\$3,874,466,372	71.0%
Public Purpose Investments	\$123,339,388	\$142,626,490	\$123,339,388	2.3%
Cash Equivalents	\$1,455,629,698	\$2,311,694,200	\$1,456,813,845	26.7%

Wyoming State Treasurer's Office
Investment Values by Manager
June 30, 2020

	Total Investment Value	Fiscal Year Ending 06/30/19 Market Value	Current Market Value	% of MV
Wyoming State Total Fund	\$21,802,251,932	\$21,444,953,937	\$22,741,032,950	100.0%
US Equity	\$1,660,948,252	\$1,666,098,819	\$2,050,182,117	9.0%
State Street All Cap	\$1,270,377,091	\$1,664,662,199	\$1,614,943,234	
UW Portfolio Management Program	\$1,000,000	\$1,436,620	\$1,389,900	
Van Berkum	\$156,745,762	\$0	\$202,424,251	
State Street Small Cap	\$232,825,399	\$0	\$231,424,731	
International Equity	\$2,587,081,173	\$2,092,619,499	\$2,667,405,694	11.7%
Northern Trust	\$1,255,446,732	\$1,381,786,102	\$1,295,468,268	
Harding Loevner	\$646,176,328	\$0	\$654,671,093	
Arrowstreet	\$685,458,114	\$710,833,396	\$717,266,333	
Mixed Assets	\$1,141,516,591	\$699,437,035	\$1,026,400,941	4.5%
Cohen & Steers	\$135,047,530	\$143,896,826	\$148,949,732	
Harvest	\$487,646,802	\$555,540,208	\$419,163,914	
Harvest Passive	\$518,822,259	\$0	\$458,287,294	
Private Equity	\$474,775,150	\$563,636,766	\$655,220,721	2.9%
Access Venture Partners II	\$2,449,913	\$1,865,656	\$1,755,169	
Cheyenne Capital	\$99,835,777	\$211,623,592	\$165,839,306	
Hamilton Lane Nowood	\$131,717,009	\$151,720,725	\$142,888,665	
BlackRock LTPC	\$140,284,027	\$0	\$147,953,066	
Neuberger Berman Sauger	\$100,488,423	\$198,426,794	\$196,784,515	
Real Estate	\$1,571,565,775	\$951,724,820	\$1,695,661,881	7.5%
Clarion Lion	\$1,058,075,224	\$354,681,028	\$1,136,011,809	
UBS Trumbull	\$226,050,421	\$270,503,057	\$243,815,177	
M&G	\$56,188,796	\$47,744,275	\$36,244,862	
Northwood	\$97,614,721	\$146,601,385	\$133,728,445	
SC Capital	\$99,592,288	\$78,983,905	\$102,534,813	
Realterm	\$30,766,387	\$0	\$31,519,959	
WestRiver	\$3,277,938	\$53,211,171	\$11,806,817	
Diversified Hedge Funds	\$773,439,804	\$751,598,303	\$765,719,345	3.4%
PAAMCO - Jackalope	\$8,370,646	\$9,952,532	\$4,277,742	
Grosvenor Diversified Hedge Funds	\$274,000,000	\$246,497,039	\$274,987,673	
Internal Diversified Hedge Funds	\$491,069,158	\$495,148,732	\$486,453,930	
Fixed Income	\$11,711,992,253	\$6,435,440,640	\$12,013,839,104	52.8%
PIMCO	\$2,173,580,535	\$2,230,795,802	\$2,261,419,729	
Payden & Rygel	\$687,314,307	\$0	\$716,381,745	
JPM MBS	\$786,489,757	\$0	\$807,441,873	
Credit Suisse	\$695,737,521	\$0	\$655,626,364	
Octagon	\$462,552,523	\$0	\$465,803,874	
Grosvenor Silvery Lupine Fund	\$58,227,318	\$166,179,246	\$70,930,128	
Investec	\$274,469,775	\$200,205,291	\$228,135,522	
Global Evolution	\$375,048,376	\$0	\$345,149,949	
Goldman Sachs	\$259,826,400	\$0	\$250,884,818	
Internal Long Duration Govt Portfolio	\$236,844,095	\$404,443,766	\$308,589,453	
Logan Circle	\$371,189,939	\$393,795,617	\$428,906,762	
Internal Int. Duration Govt Portfolio	\$1,135,461,040	\$1,918,424,288	\$1,170,677,551	
Internal Low Duration Govt Portfolio	\$489,836,582	\$1,121,596,630	\$485,244,029	
Wyoming Internal Ladder Portfolio	\$3,705,414,086.49	\$0	\$3,818,647,307	
Opportunistic	\$15,110,000	\$0	\$15,096,925	0.1%
Grosvenor D	\$15,110,000	\$0	\$15,096,925	
Public Purpose Investments	\$285,703,920	\$330,714,719	\$285,703,920	1.3%
Cash & Cash Equivalents	\$1,580,119,014	\$7,953,683,337	\$1,565,802,302	6.9%
Epoch	\$0	\$0	\$0	
Internal Equity Russell 2000	\$0	\$160,543,319	\$1,095	
Fisher Investments	\$0	\$2,558,658	\$1,108,212	
Cornerstone	\$83,682	\$1,821,910	\$2,363	
Heitman	\$1,759,375	\$19,469	\$3	
TA Realty	\$1,572,513	\$35,742	\$26,122	
Allianz Global Investors	\$0	\$7,410,494	\$36,305	
C.S. McKee	\$4,588,726	\$1,286,501,718	\$2	
JP Morgan Core	\$5,247,147	\$1,454,650,728	\$0	
Neuberger Berman Credit	\$0	\$796,482,423	\$574,113	
Seix	\$0	\$949,531,882	\$1,520	
State Street TIPS	\$3,565,316	\$891,039	\$0	
State Street Low Duration	\$0	\$163,834,297	\$29,707	
Stone Harbor	\$150,719	\$14,992,922	\$1	
JP Morgan Cash Composite	\$1,563,151,535	\$3,114,408,736	\$1,564,022,859	

Investment Manager Profiles



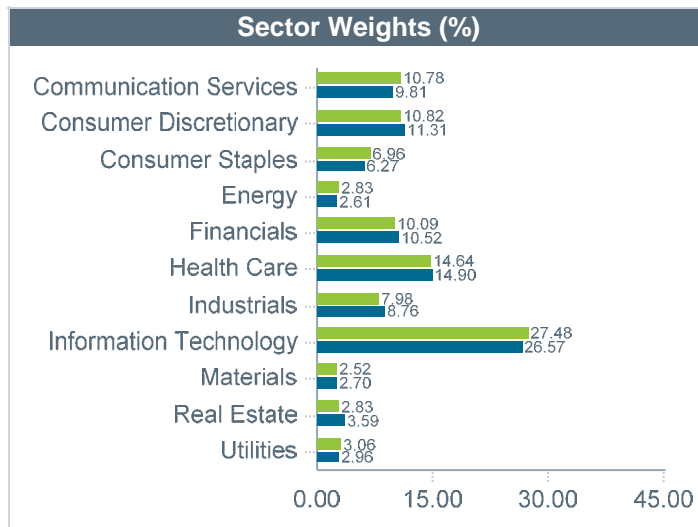
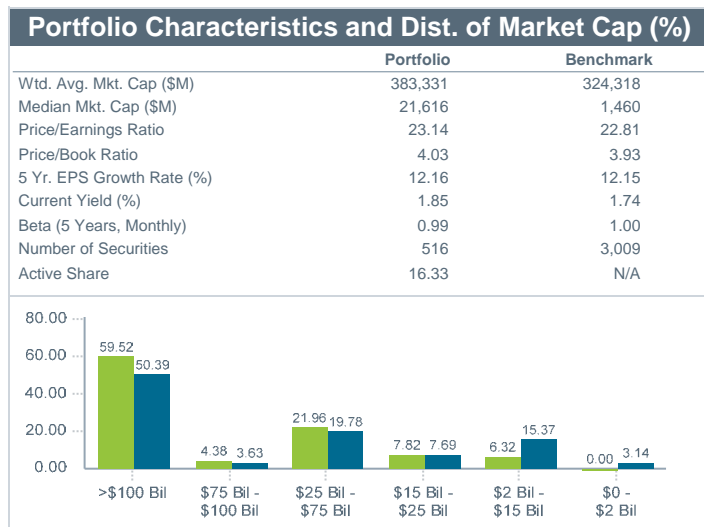
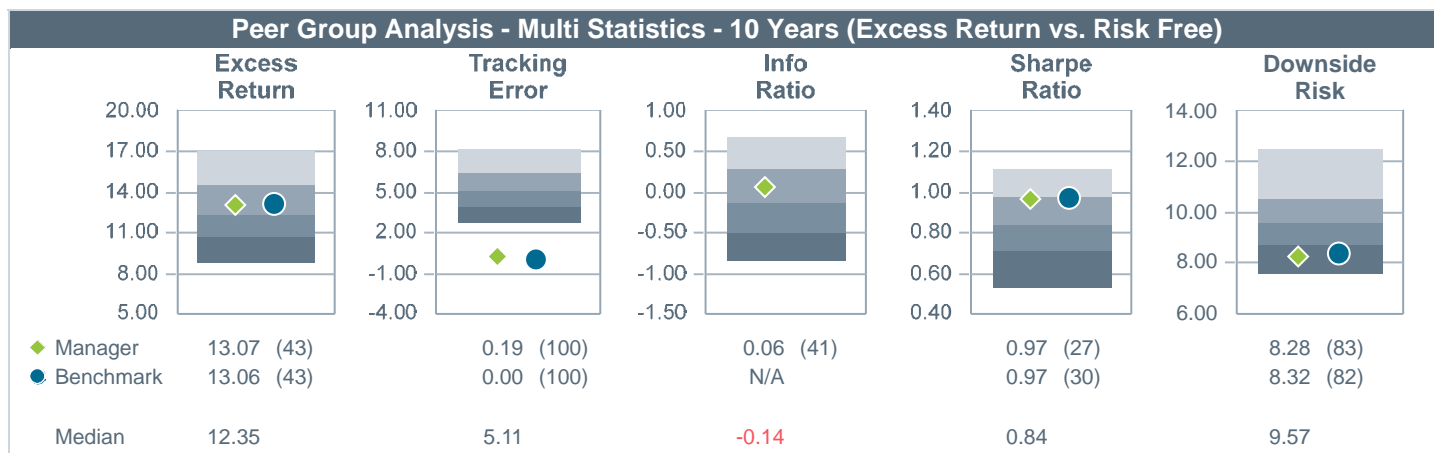
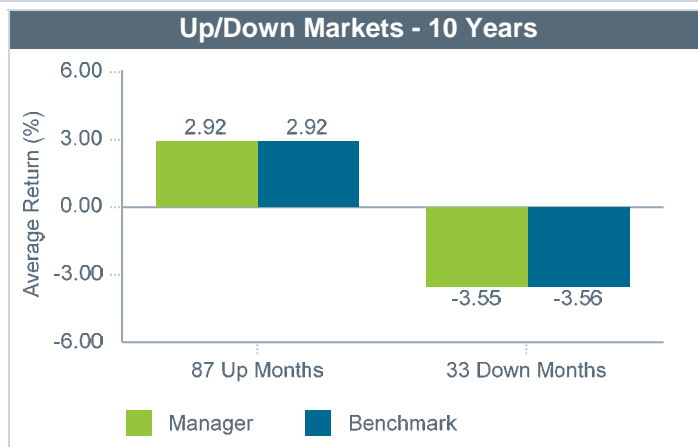
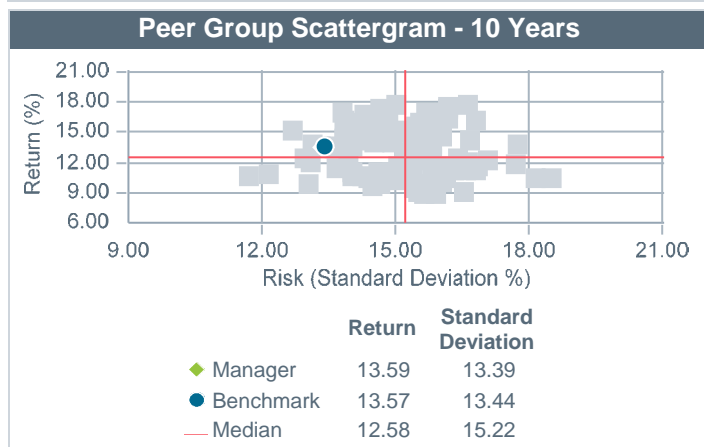
Manager: State Street All Cap

As of June 30, 2020

Benchmark: State Street All Cap Custom Index

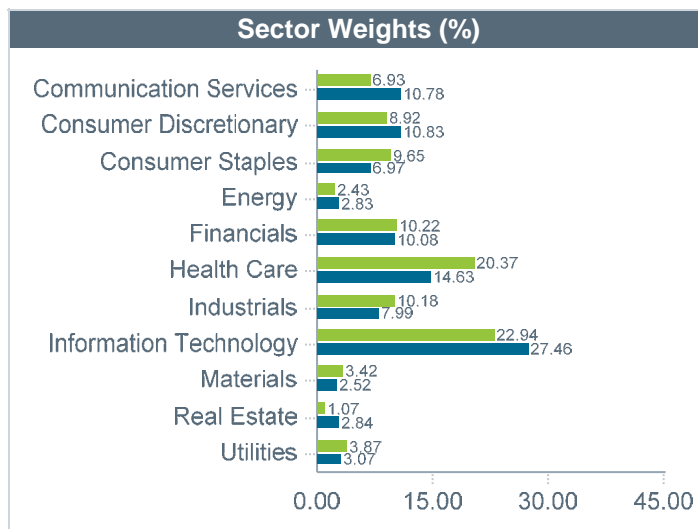
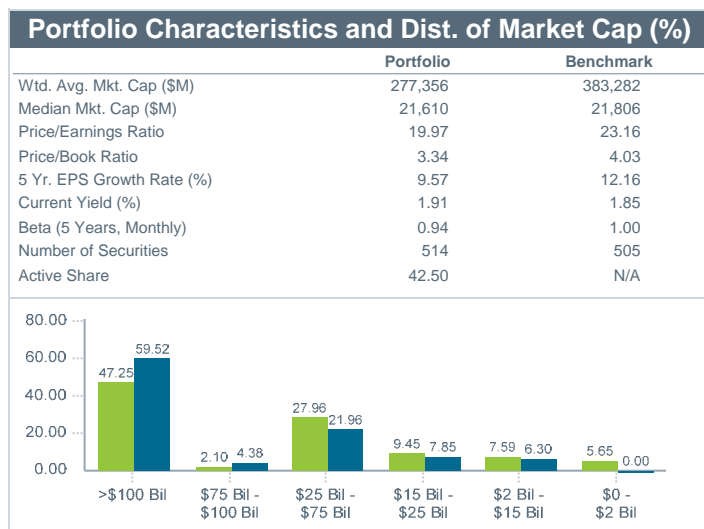
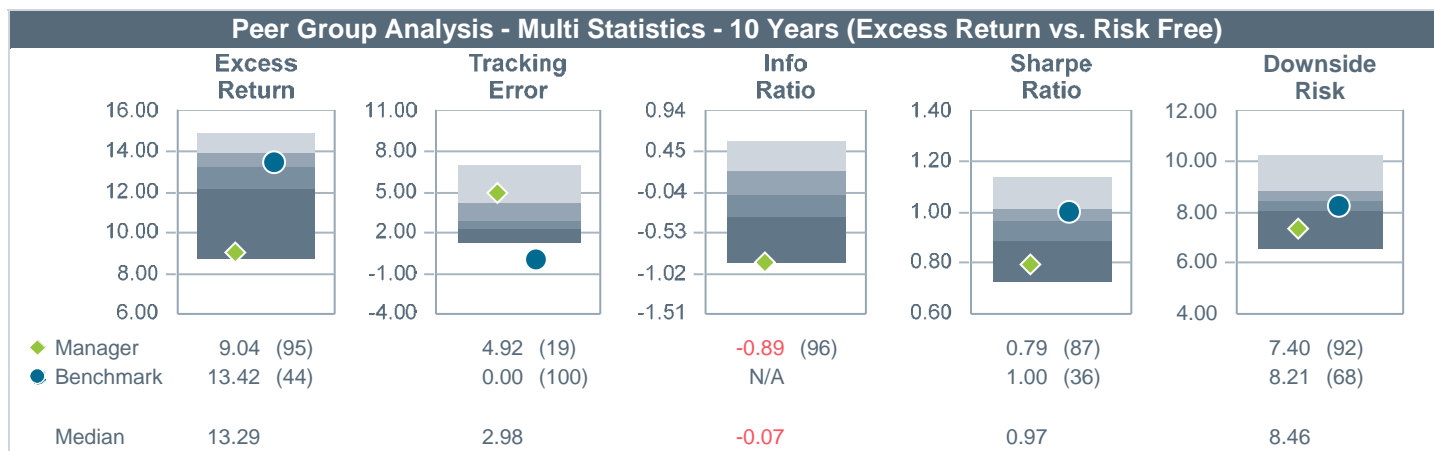
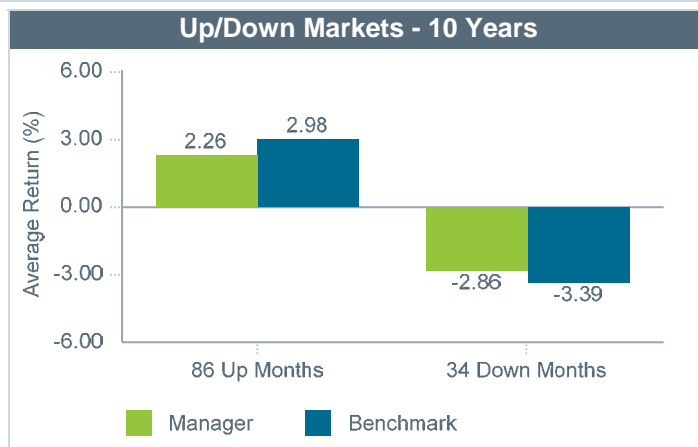
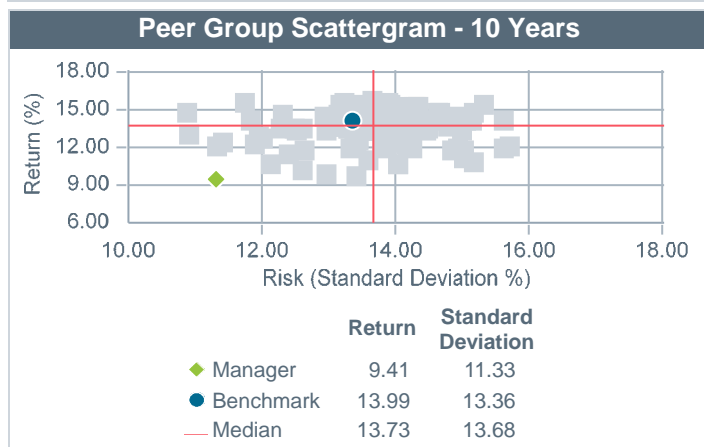
Peer Group: IM U.S. All Cap Equity (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	20.54	6.20	9.68	9.85	11.39	13.59	30.34	-5.25	19.79	13.77	-0.02
Benchmark	20.54	6.06	9.55	9.77	11.36	13.57	30.11	-5.50	19.85	13.78	0.12
Difference	0.00	0.14	0.13	0.08	0.03	0.02	0.23	0.25	-0.06	-0.01	-0.14
Peer Group Median	21.38	0.85	7.77	7.81	10.27	12.32	28.99	-5.70	20.23	12.73	-0.37
Rank	56	36	41	40	40	41	44	47	54	44	48
Population	154	153	149	142	132	113	164	171	178	193	196



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	2019	2018	2017	2016	2015
Manager	15.80	3.44	6.52	7.95	10.11	9.41	25.88	-8.04	21.83	10.87	1.03
Benchmark	20.54	7.51	10.73	10.73	12.13	13.99	31.49	-4.38	21.83	11.96	1.38
Difference	-4.74	-4.07	-4.21	-2.78	-2.02	-4.58	-5.61	-3.66	0.00	-1.09	-0.35
Peer Group Median	20.18	5.25	9.71	9.67	11.72	13.76	29.98	-5.17	21.84	10.54	1.43
Rank	85	65	82	77	79	95	80	84	51	47	56
Population	217	215	212	204	195	171	238	267	291	312	328



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

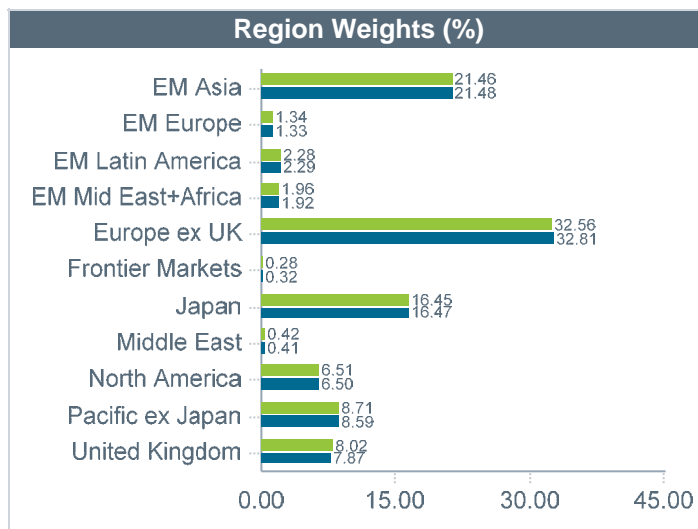
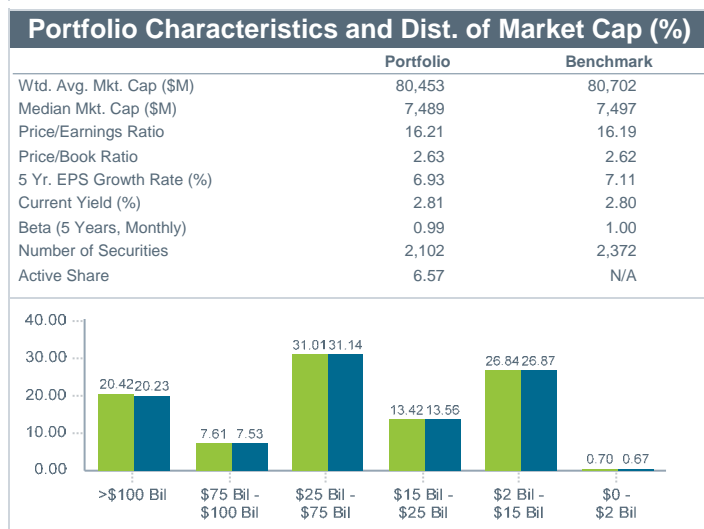
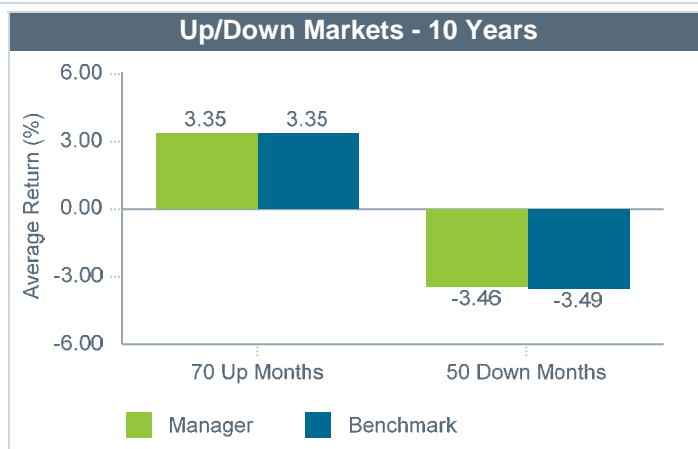
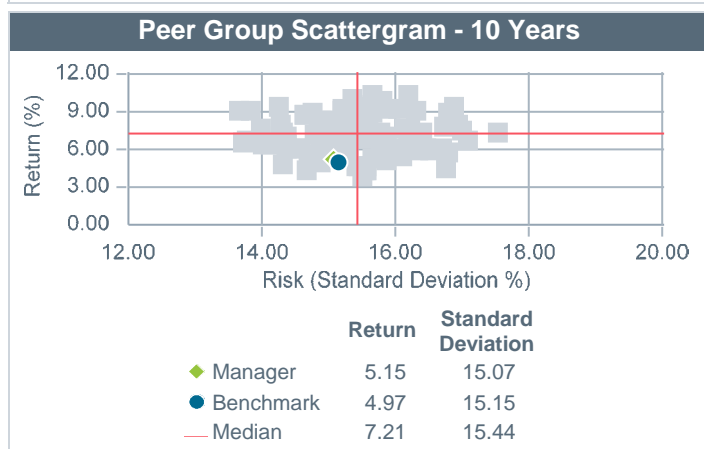
Manager: Northern Trust

As of June 30, 2020

Benchmark: MSCI ACW Ex US Index (USD) (Net)

Peer Group: IM All ACWI Ex US (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	16.04	-4.62	1.43	2.44	3.88	5.15	21.66	-13.81	27.51	4.48	-5.70
Benchmark	16.12	-4.80	1.13	2.26	3.71	4.97	21.51	-14.20	27.19	4.50	-5.66
Difference	-0.08	0.18	0.30	0.18	0.17	0.18	0.15	0.39	0.32	-0.02	-0.04
Peer Group Median	18.02	-0.88	2.65	3.80	5.44	7.21	24.92	-14.64	28.74	2.11	-0.59
Rank	70	66	63	64	74	86	67	41	62	30	86
Population	161	161	161	160	149	130	170	181	191	205	216



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

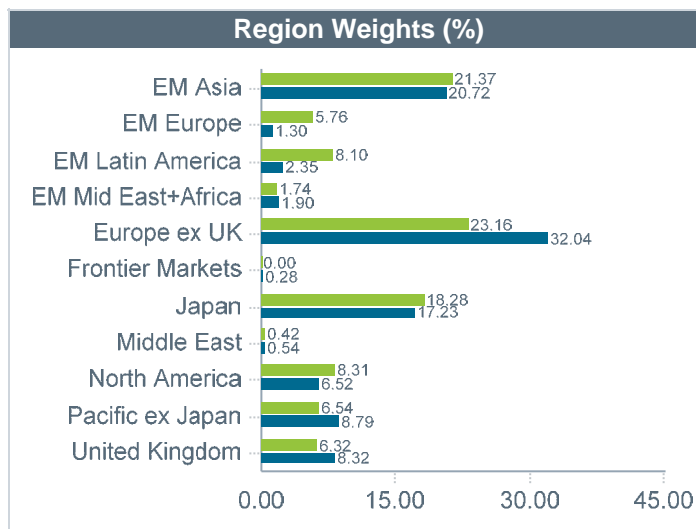
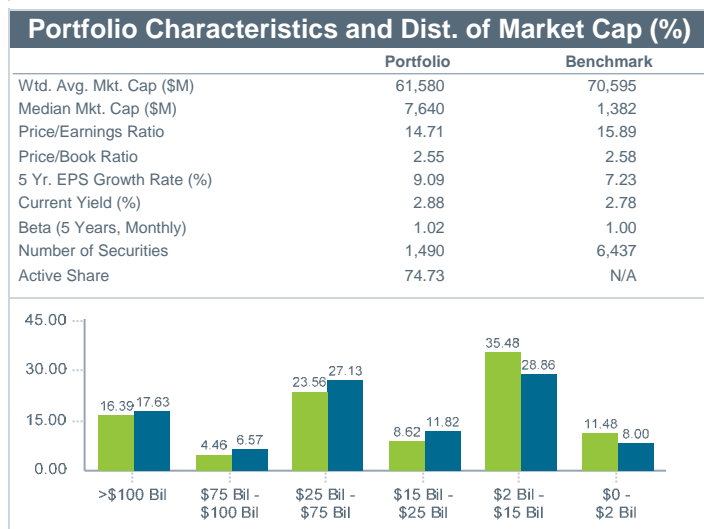
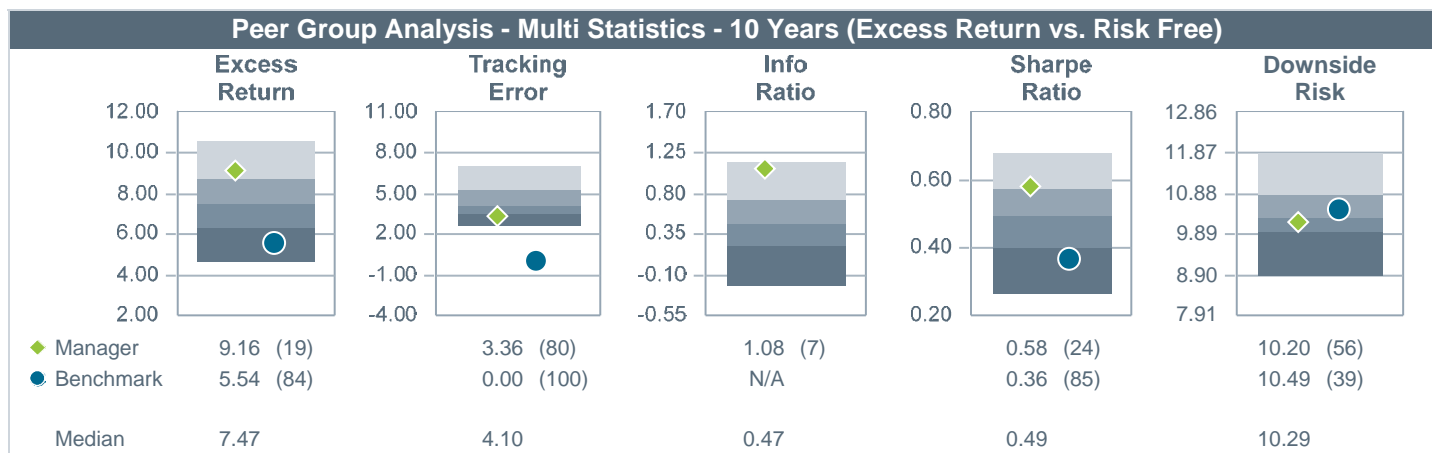
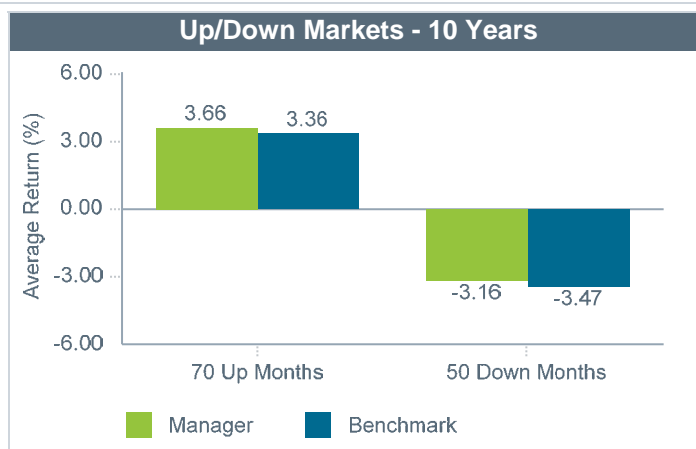
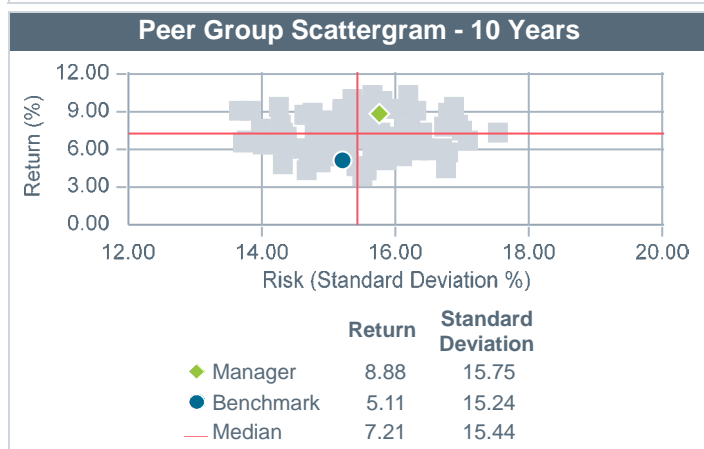
Manager: Arrowstreet

As of June 30, 2020

Benchmark: MSCI ACW Ex US IM Index (USD) (Net)

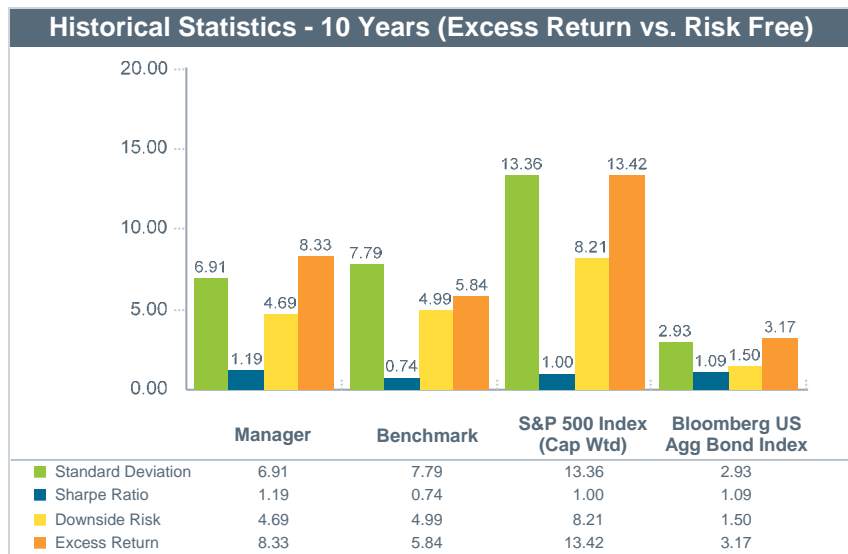
Peer Group: IM All ACWI Ex US (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	21.22	1.33	3.30	5.17	7.61	8.88	23.43	-13.84	29.12	8.06	0.01
Benchmark	16.96	-4.74	0.96	2.30	3.84	5.11	21.63	-14.76	27.81	4.41	-4.60
Difference	4.26	6.07	2.34	2.87	3.77	3.77	1.80	0.92	1.31	3.65	4.61
Peer Group Median	18.02	-0.88	2.65	3.80	5.44	7.21	24.92	-14.64	28.74	2.11	-0.59
Rank	24	40	44	30	20	20	57	41	48	10	46
Population	161	161	161	160	149	130	170	181	191	205	216



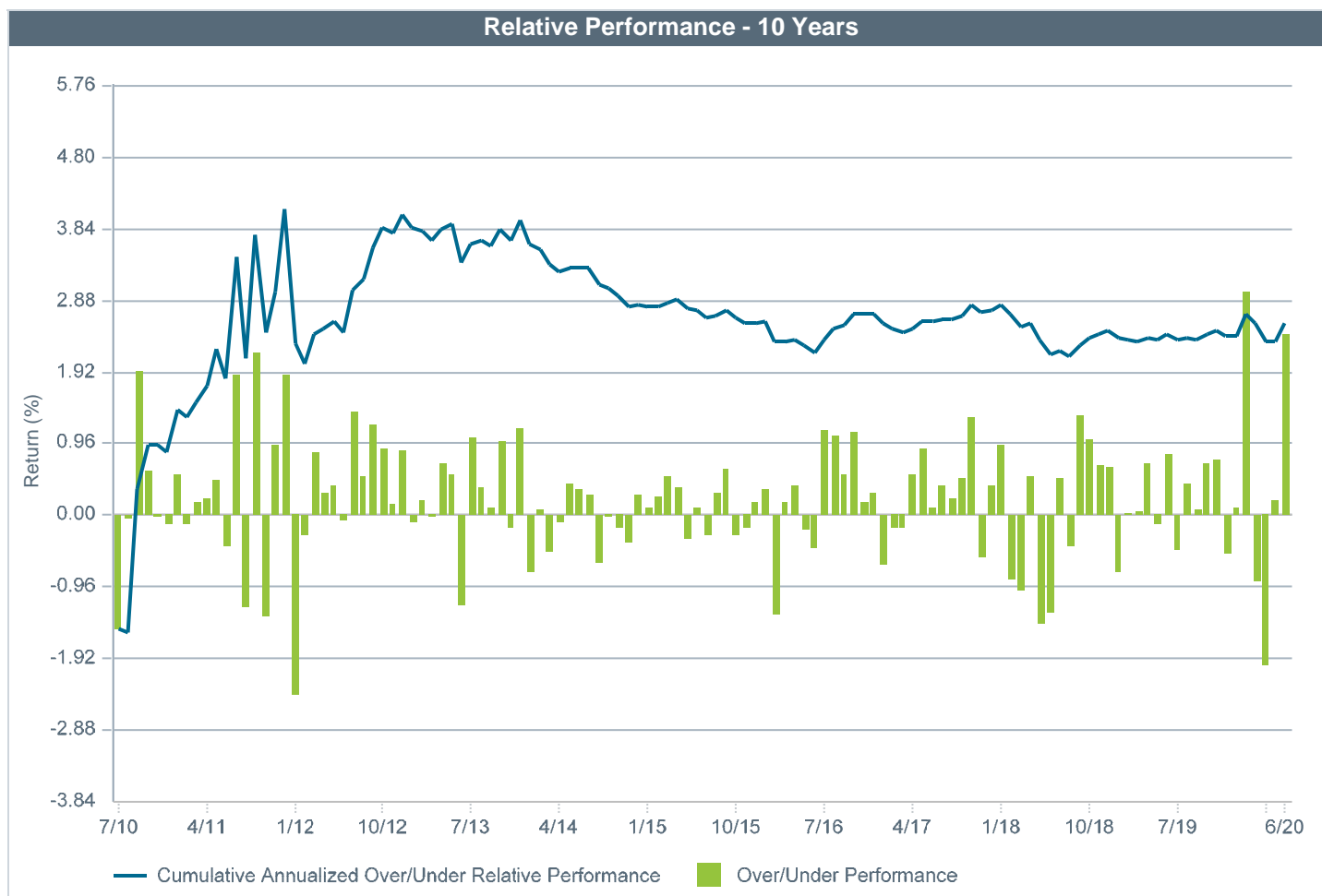
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	11.44	3.82	4.88	6.54	7.22	9.08	19.68	-3.68	12.31	5.43	7.04
Benchmark	10.78	-0.03	2.32	4.06	4.90	6.35	17.64	-4.25	9.11	1.94	5.47
Difference	0.66	3.85	2.56	2.48	2.32	2.73	2.04	0.57	3.20	3.49	1.57



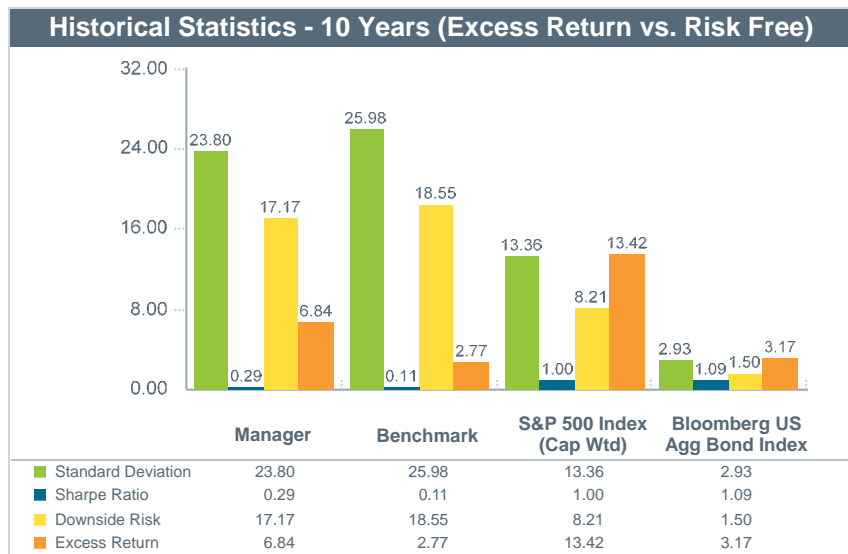
Actual Correlation - 10 Years

	Actual Correlation
S&P US Preferred Stock Index	0.96
S&P 500 Index (Cap Wtd)	0.79
Russell 2000 Index	0.73
MSCI EAFE Index (USD) (Net)	0.82
MSCI Emg Mkts Index (USD) (Net)	0.78
Bloomberg US Agg Bond Index	0.16
Bloomberg US Trsy US TIPS Index	0.29
NCREIF ODCE Index (AWA) (Gross)	-0.05
Wilshire US REIT Index	0.78
HFRI FOF Comp Index	0.79
Bloomberg Cmnty Index (TR)	0.59
ICE BofAML 3 Mo US T-Bill Index	-0.25
Cons Price Index (Unadjusted)	0.13



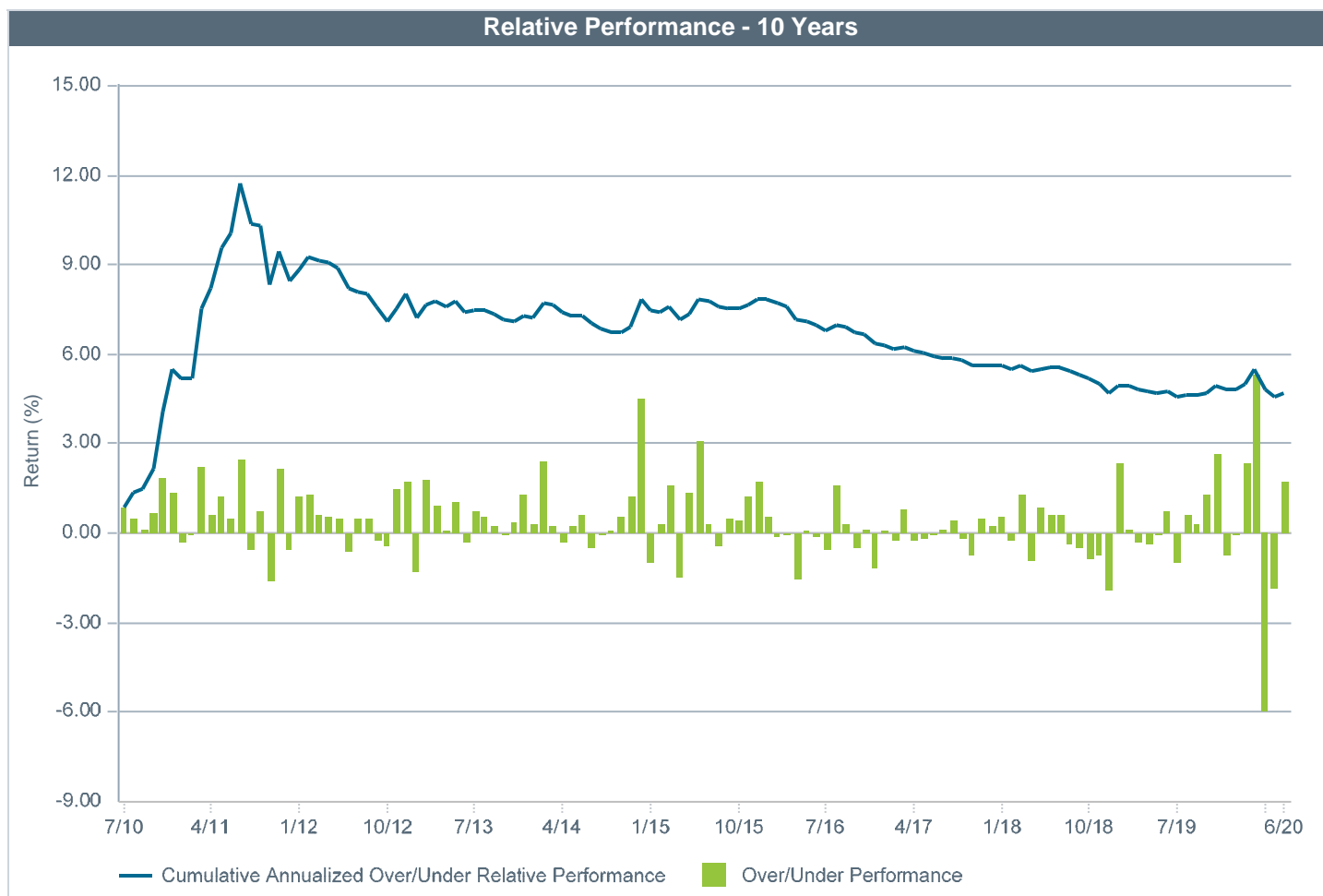
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on quarterly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	32.87	-35.57	-12.86	-10.67	-5.01	4.48	13.82	-13.12	-4.98	20.34	-29.94
Benchmark	41.53	-38.36	-14.49	-12.15	-8.29	-0.23	7.55	-11.67	-5.58	21.95	-35.07
Difference	-8.66	2.79	1.63	1.48	3.28	4.71	6.27	-1.45	0.60	-1.61	5.13



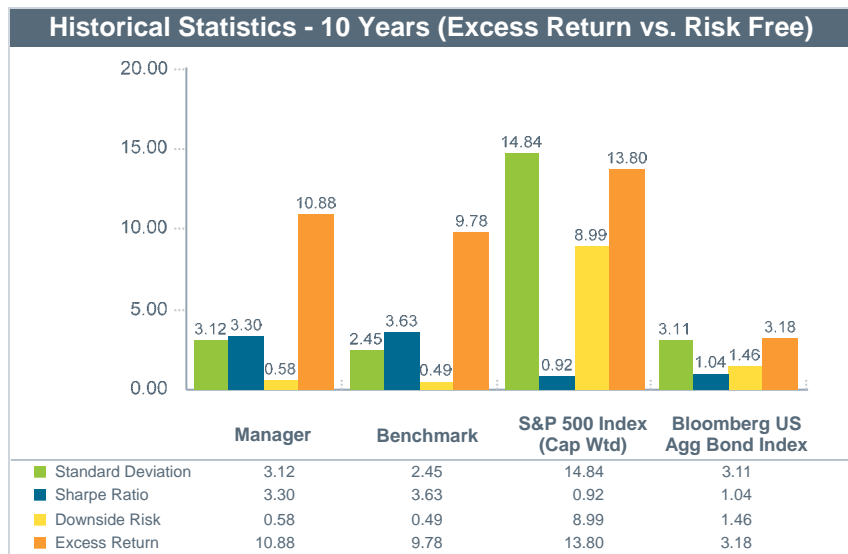
Actual Correlation - 10 Years

	Actual Correlation
MLP Custom Index	0.99
S&P 500 Index (Cap Wtd)	0.82
Russell 2000 Index	0.81
MSCI EAFE Index (USD) (Net)	0.69
MSCI Emg Mkts Index (USD) (Net)	0.61
Bloomberg US Agg Bond Index	-0.08
Bloomberg US Trsy US TIPS Index	0.18
NCREIF ODCE Index (AWA) (Gross)	0.00
Wilshire US REIT Index	0.67
HFRI FOF Comp Index	0.78
Bloomberg Cmdty Index (TR)	0.70
ICE BofAML 3 Mo US T-Bill Index	-0.31
Cons Price Index (Unadjusted)	0.24



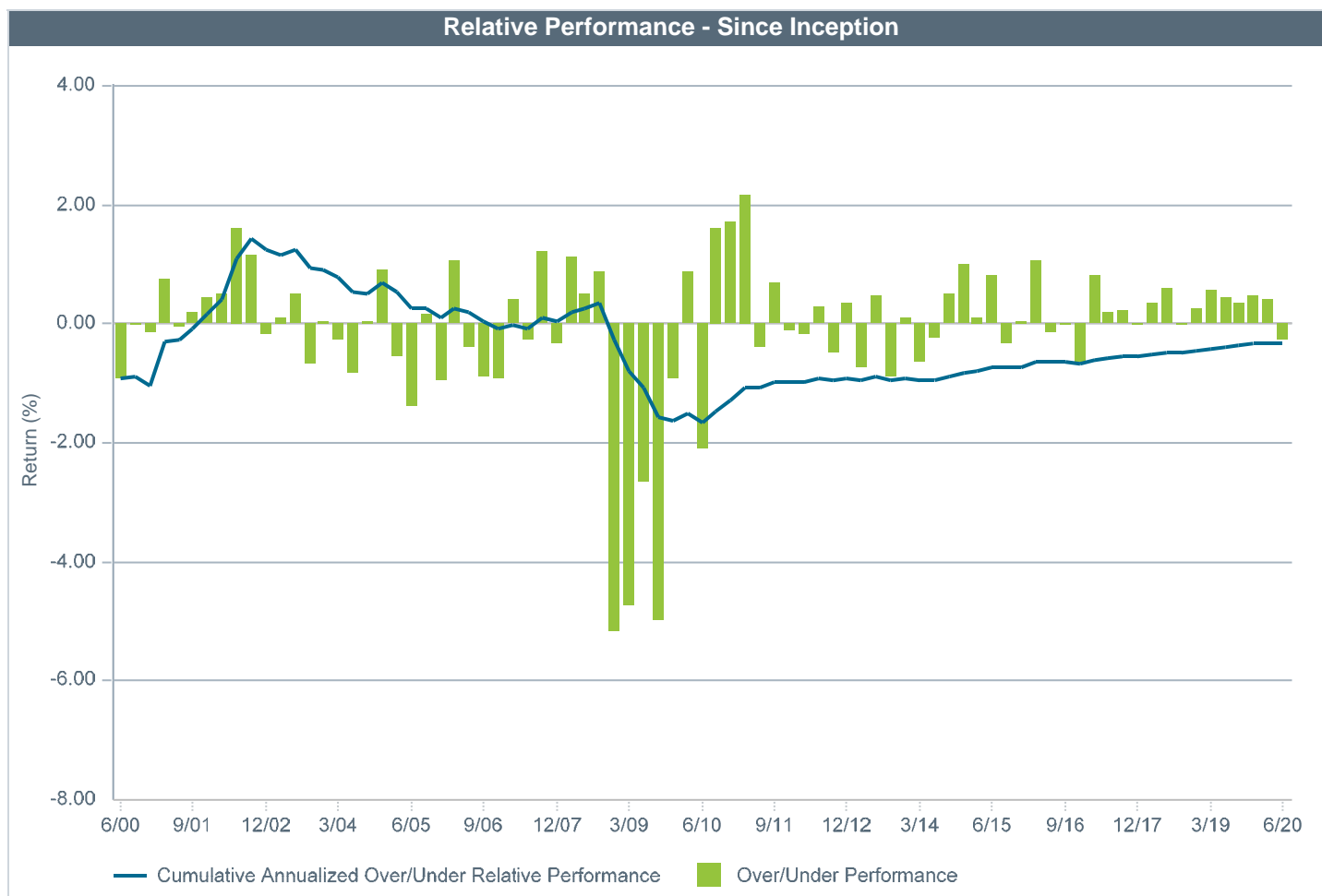
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on quarterly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	-1.82	3.20	6.86	8.26	9.87	11.97	7.26	9.66	8.99	9.09	15.71
Benchmark	-1.56	2.22	5.66	7.31	9.07	10.80	5.34	8.35	7.62	8.77	15.02
Difference	-0.26	0.98	1.20	0.95	0.80	1.17	1.92	1.31	1.37	0.32	0.69



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.91
S&P 500 Index (Cap Wtd)	-0.06
Russell 2000 Index	-0.03
MSCI EAFE Index (USD) (Net)	-0.01
MSCI Emg Mkts Index (USD) (Net)	-0.05
Bloomberg US Agg Bond Index	-0.20
Bloomberg US Trsy US TIPS Index	-0.16
Wilshire US REIT Index	0.09
HFRI FOF Comp Index	-0.10
Bloomberg Cmtty Index (TR)	0.09
ICE BofAML 3 Mo US T-Bill Index	-0.38
Cons Price Index (Unadjusted)	0.05



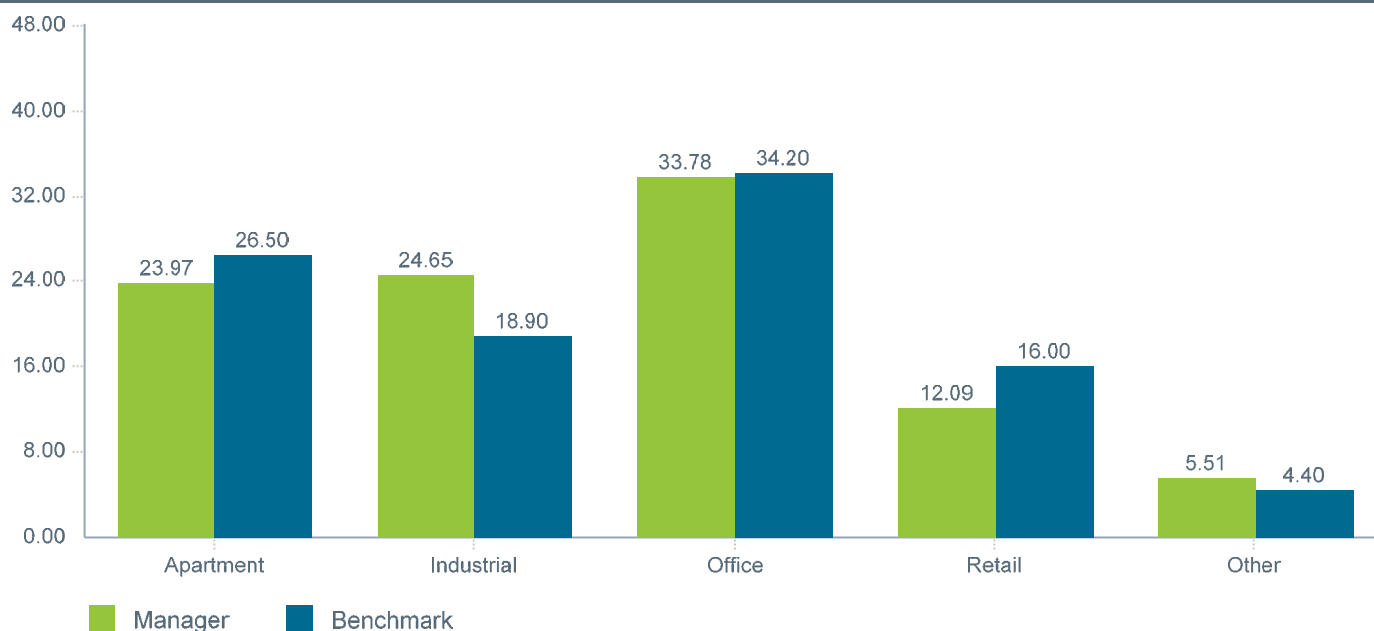
Investment Strategy

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, with 70% of return expected to be generated by the income component. 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.

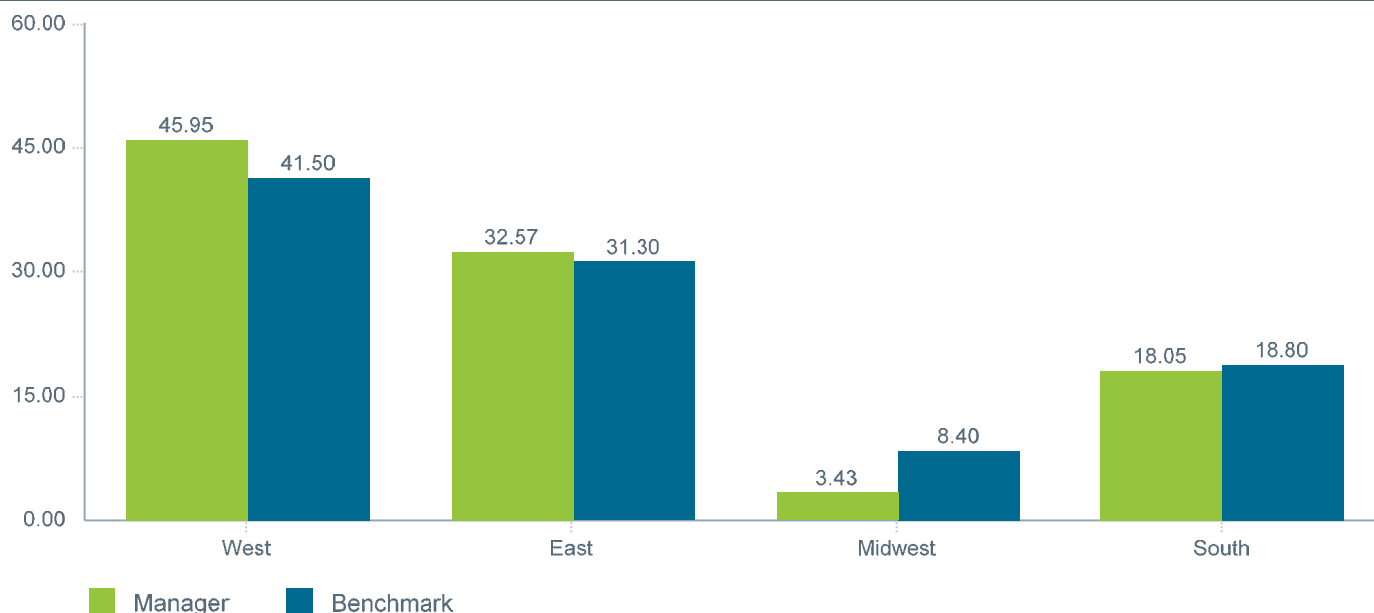
Investment Profile

Fund Inception	2000
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	16,339
Fund Leverage %	21.70
Portfolio Occupancy %	94.60
Cash Reserve %	6.40
Number of Investments	158
Number of Limited Partners	525

Property Type Allocation (%)

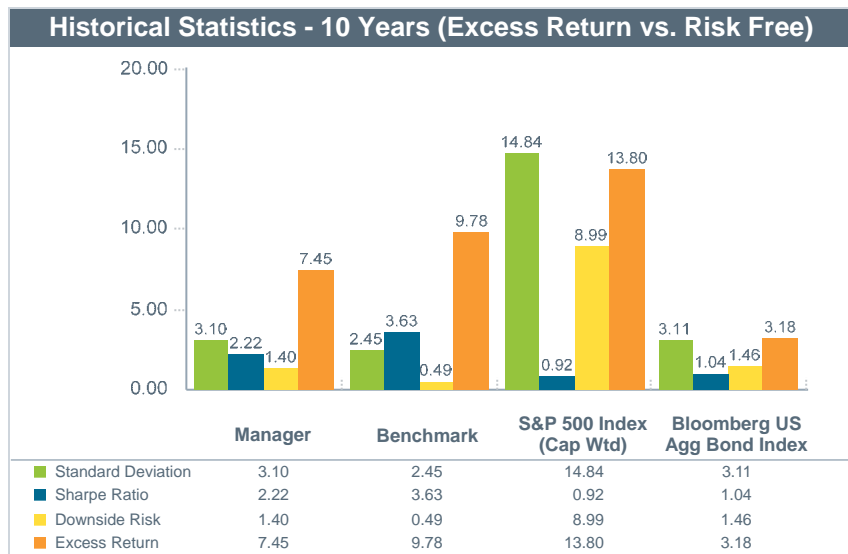


Geographic Allocation (%)



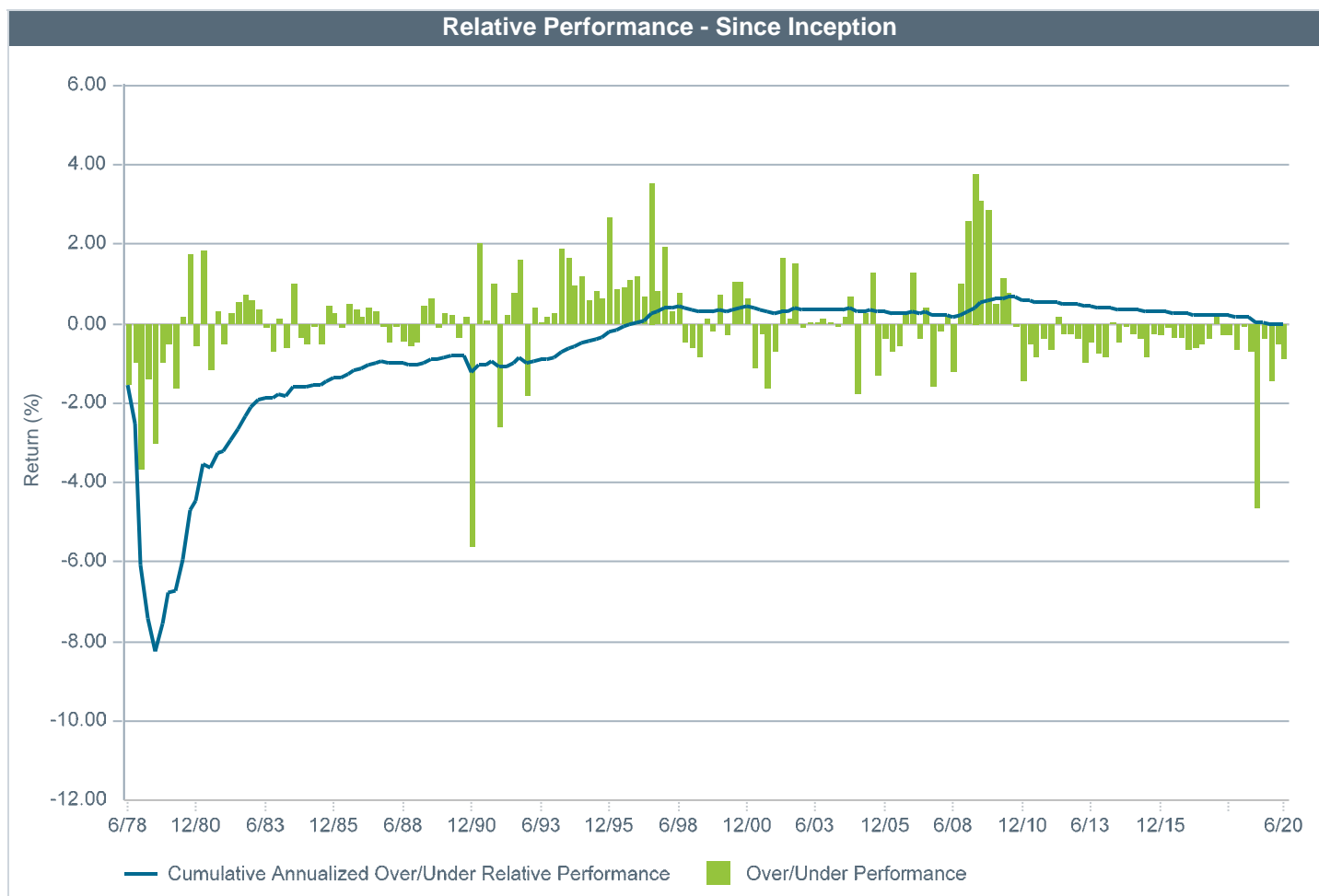
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of lab-office properties. 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	2019	2018	2017	2016	2015
Manager	-2.43	-1.06	2.16	4.50	6.47	8.28	-2.10	6.99	6.30	7.21	12.94
Benchmark	-1.56	2.22	5.66	7.31	9.07	10.80	5.34	8.35	7.62	8.77	15.02
Difference	-0.87	-3.28	-3.50	-2.81	-2.60	-2.52	-7.44	-1.36	-1.32	-1.56	-2.08



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.88
S&P 500 Index (Cap Wtd)	-0.12
Russell 2000 Index	-0.09
MSCI EAFE Index (USD) (Net)	-0.06
MSCI Emg Mkts Index (USD) (Net)	-0.11
Bloomberg US Agg Bond Index	-0.25
Bloomberg US Trsy US TIPS Index	-0.22
Wilshire US REIT Index	0.10
HFRI FOF Comp Index	-0.16
Bloomberg Cmtty Index (TR)	-0.01
ICE BofAML 3 Mo US T-Bill Index	-0.58
Cons Price Index (Unadjusted)	-0.01



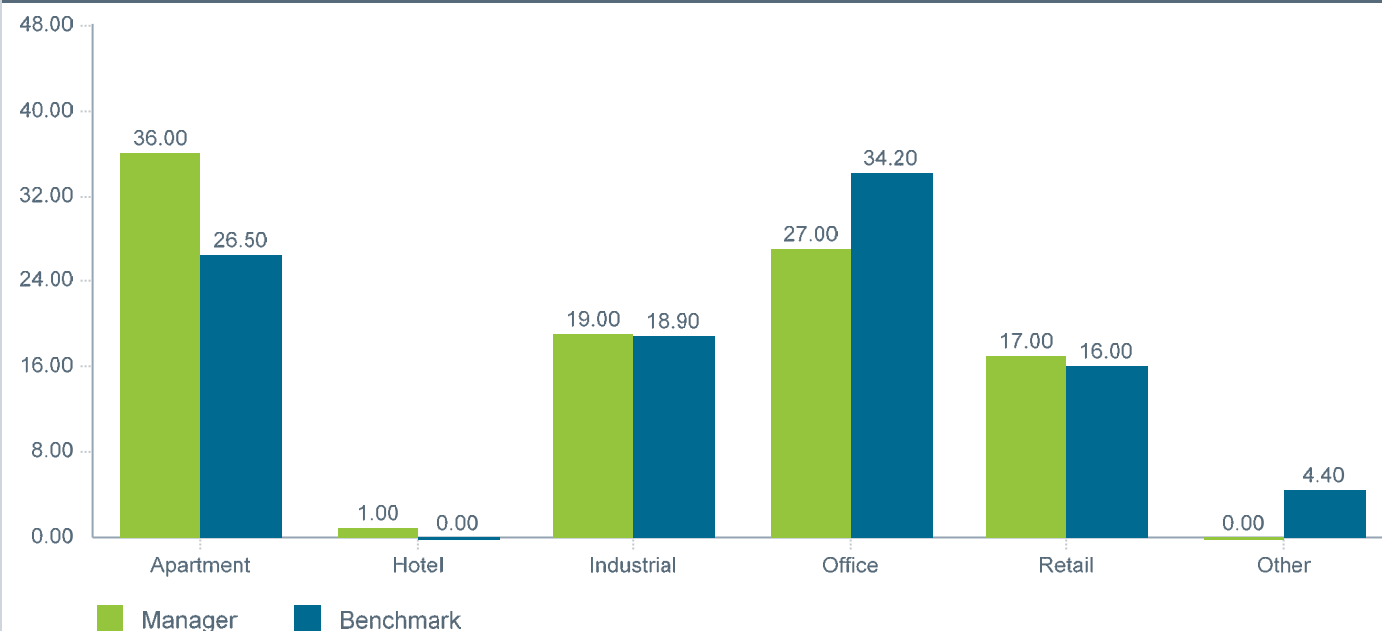
Investment Strategy

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.

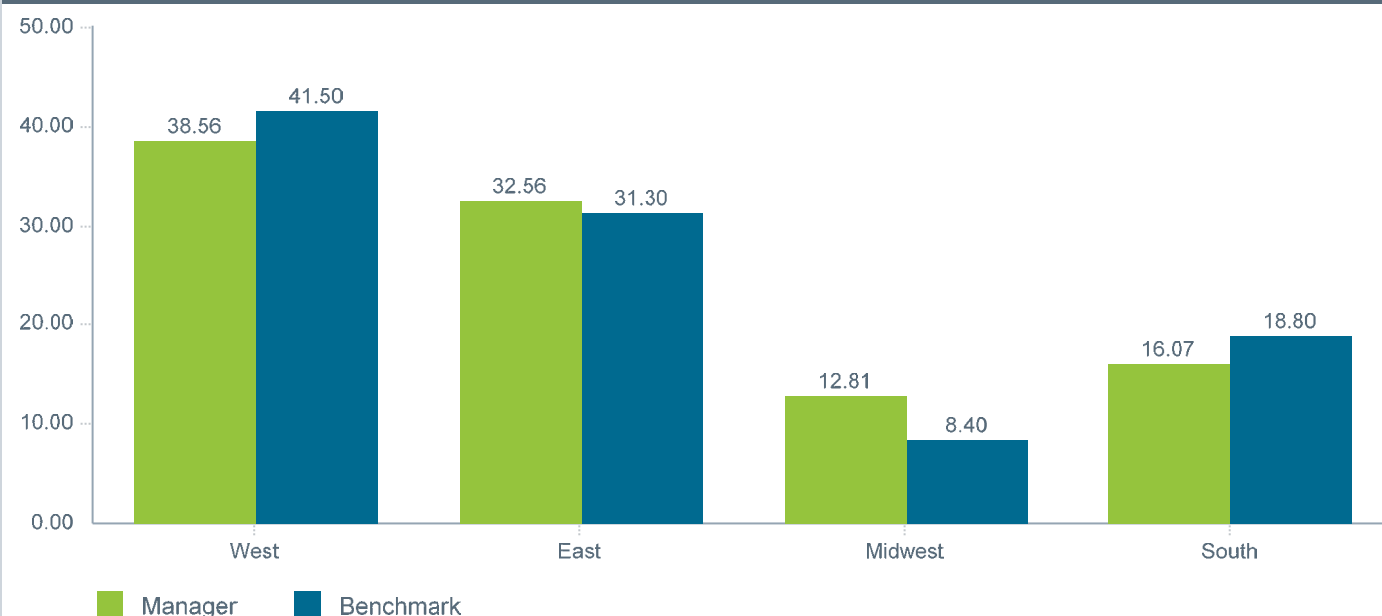
Investment Profile

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	19,396
Fund Leverage %	18.60
Portfolio Occupancy %	93.40
Cash Reserve %	1.50
Number of Investments	184
Number of Limited Partners	446

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. 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

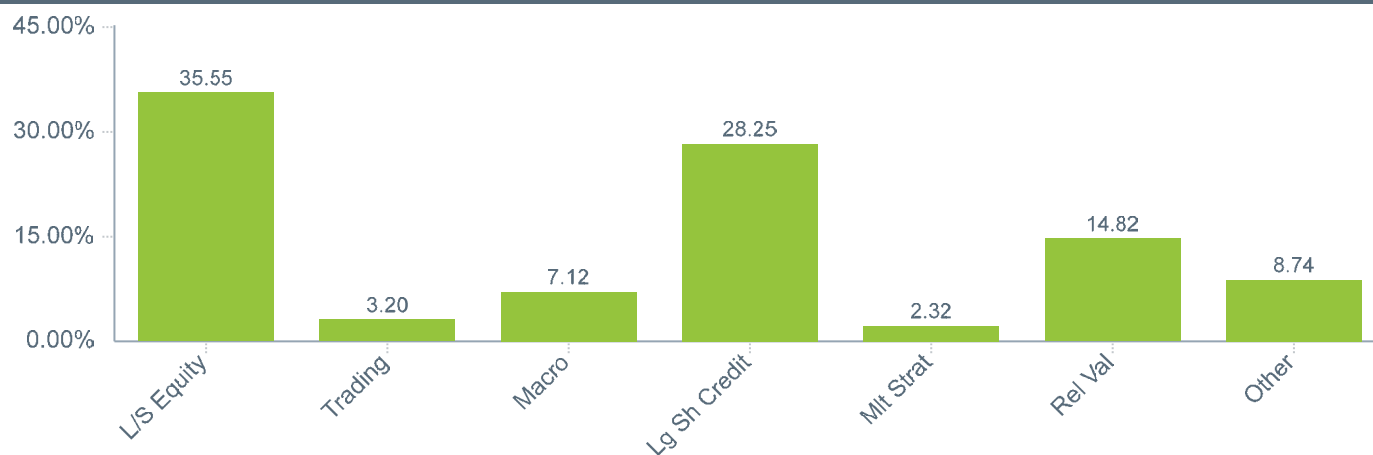
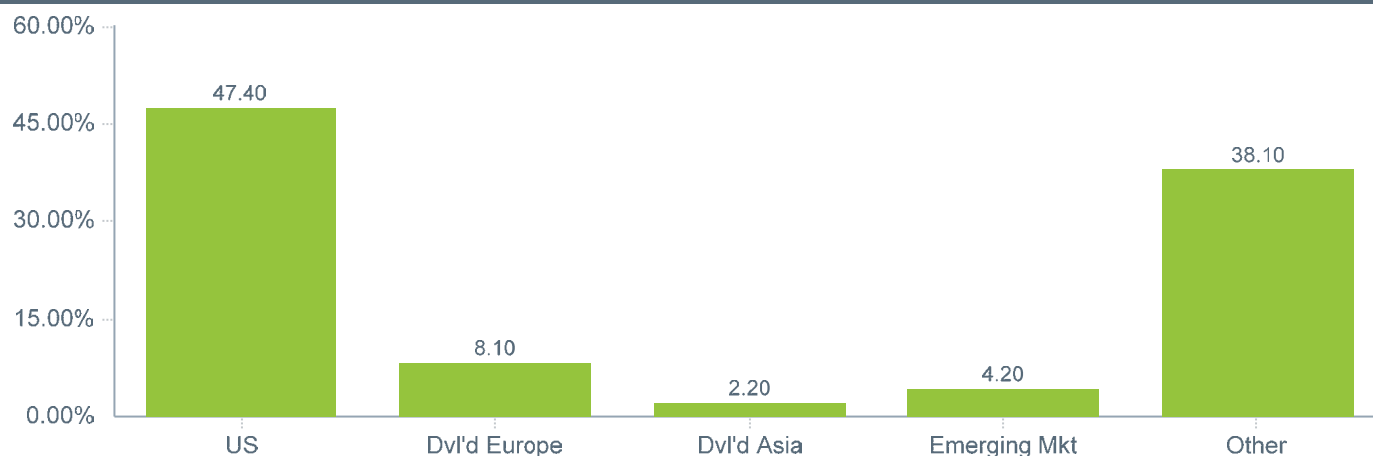
The Fund's investment objectives are to generate superior absolute and risk adjusted rates of return with low performance volatility and low correlation with global equity and fixed-income markets over a full market cycle. The Fund is also designed to preserve capital in challenging market environments.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

Firm Statistics

Year Firm Established	1971
Firm AUM (\$M)	23,836
Percentage Employee Owned %	92.00

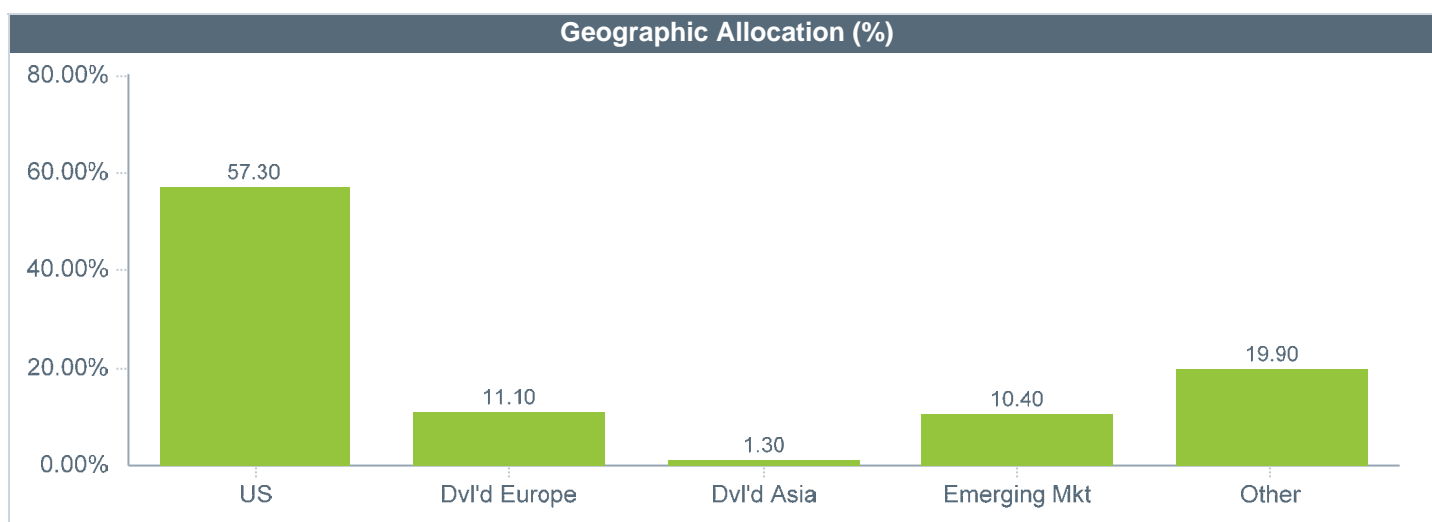
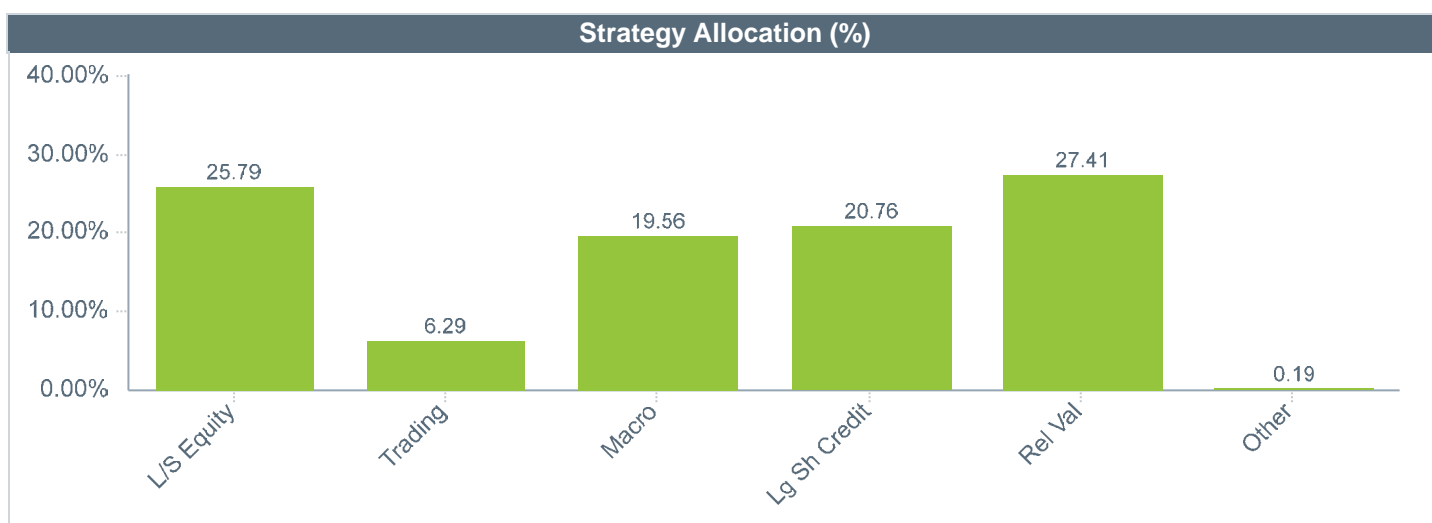
Fund Statistics

Fund Inception	2018
Fund Size(\$M)	275
Number of Underlying Managers	22
Maximum Weighting of an Underlying Manager %	10.00
Current Leverage (Assets/Equity)	3.50
Annual Manager Turnover %	40.00
Annual Management Fee %	0.60
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.

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)
	23,836
	Percentage Employee Owned %
	92.00
Fund Statistics	
Fund Inception	2018
Fund Size(\$M)	486
Number of Underlying Managers	13
Maximum Weighting of an Underlying Manager %	N/A
Current Leverage (Assets/Equity)	4.60
Annual Manager Turnover %	0.00
Annual Management Fee %	N/A
Performance Fee %	N/A
Hurdle %	N/A
Initial Lock-Up Periods	N/A
Redemption Frequency	N/A
Notification Period	N/A

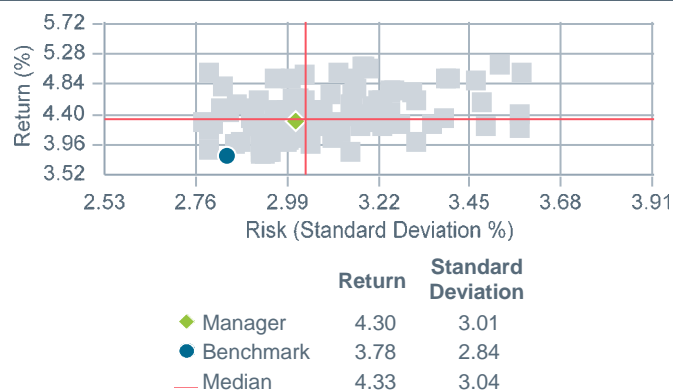


Strategy allocation to other consists of cash, expenses, and net receivable. Geographic allocation to other consists of cash or funds where geographic data are unavailable. Fund statistics shown are provided by GCM and are as of the most recently available quarter end.

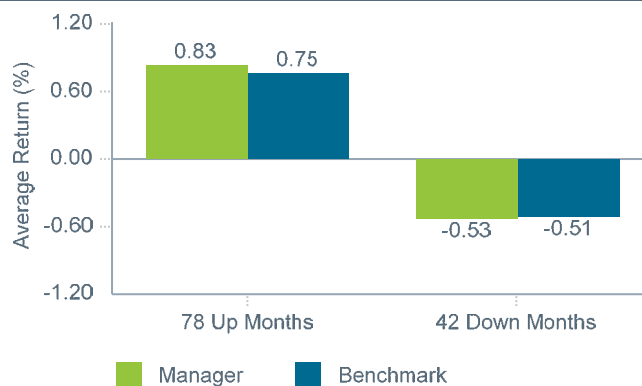
Performance

	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	3.98	9.55	5.61	4.51	4.14	4.30	7.71	0.58	4.27	3.35	0.50
Benchmark	3.31	9.38	5.17	4.22	3.90	3.78	7.30	0.32	3.54	2.65	0.55
Difference	0.67	0.17	0.44	0.29	0.24	0.52	0.41	0.26	0.73	0.70	-0.05
Peer Group Median	4.36	8.93	5.57	4.68	4.35	4.33	9.19	0.06	4.04	3.10	0.82
Rank	60	29	48	67	72	51	95	15	34	43	80
Population	144	144	141	139	135	130	150	156	161	168	173

Peer Group Scattergram - 10 Years



Up/Down Markets - 10 Years



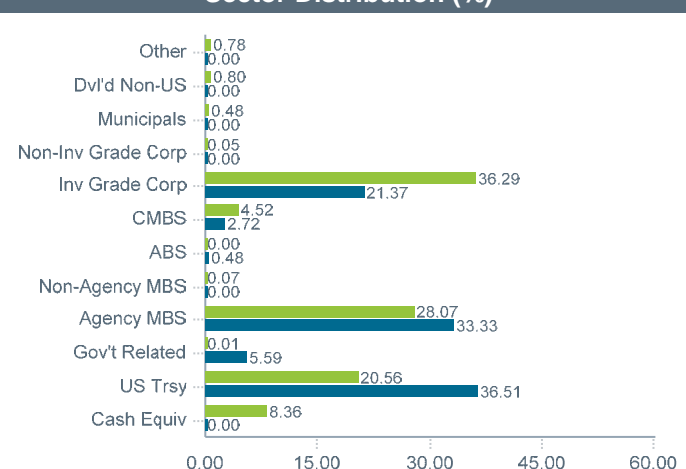
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.90	3.44
Spread Duration	4.02	3.94
Avg. Maturity	6.93	4.25
Avg. Quality	Aa2	Aa1/Aa2
Yield To Maturity (%)	1.66	0.99
Coupon Rate (%)	2.43	2.83
Current Yield (%)	2.27	N/A
Holdings Count	367	8,970

Sector Distribution (%)



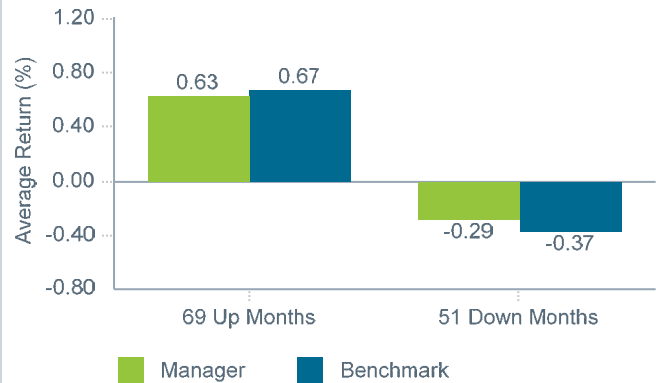
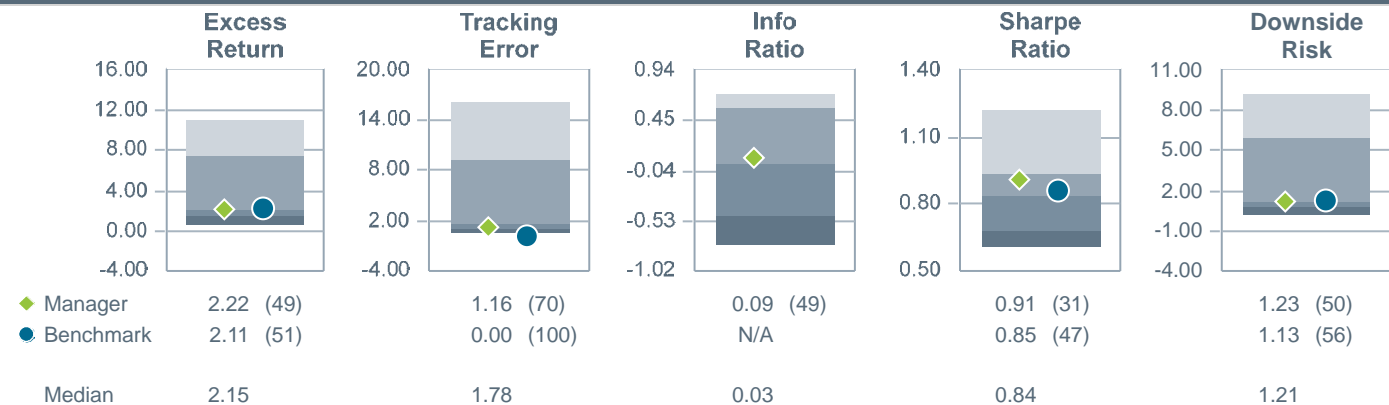
Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Sector allocation to "Other" consists of Euro/Yankee securities.

Manager: Internal Intermediate Gov't Fixed Income Portfolio
As of June 30, 2020
Benchmark: Internal Int Govt Fixed Income Portfolio Index

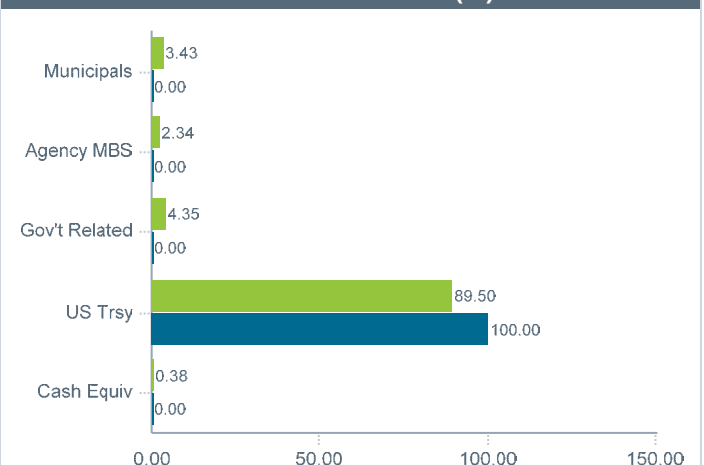
Peer Group: IM U.S. Government Bonds (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	0.26	9.51	4.96	3.69	3.37	2.86	4.53	1.85	1.84	0.95	1.83
Benchmark	0.48	9.49	4.88	3.44	2.93	2.75	4.70	1.43	1.14	1.05	1.18
Difference	-0.22	0.02	0.08	0.25	0.44	0.11	-0.17	0.42	0.70	-0.10	0.65
Peer Group Median	0.42	8.67	4.99	3.62	2.86	2.79	6.31	1.27	1.87	1.36	0.62
Rank	67	50	51	50	48	49	76	7	51	81	7
Population	43	42	42	41	39	38	43	49	48	49	49

Peer Group Scattergram - 10 Years

Up/Down Markets - 10 Years

Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	7.02	7.15
Spread Duration	6.91	6.94
Avg. Maturity	8.79	8.47
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	0.61	0.50
Coupon Rate (%)	2.21	2.12
Current Yield (%)	1.99	N/A
Holdings Count	51	260

Sector Distribution (%)


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.

Manager: Investec

As of June 30, 2020

Benchmark: JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)

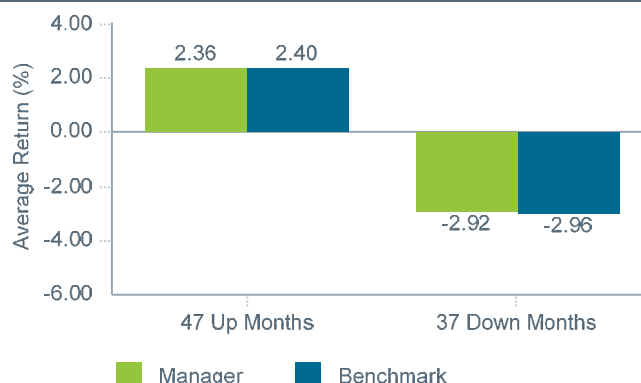
Peer Group: IM Emerging Markets Debt (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	10.38	-3.04	1.13	2.00	-0.26	N/A	14.10	-7.64	17.65	7.00	-14.68
Benchmark	9.82	-2.82	1.14	2.34	-0.19	1.64	13.47	-6.21	15.21	9.94	-14.92
Difference	0.56	-0.22	-0.01	-0.34	-0.07	N/A	0.63	-1.43	2.44	-2.94	0.24
Peer Group Median	12.64	-0.77	2.77	4.84	4.43	5.60	14.23	-5.32	12.42	11.04	-2.52
Rank	86	76	81	92	94	N/A	54	83	6	92	84
Population	124	124	121	112	95	63	146	162	167	176	181

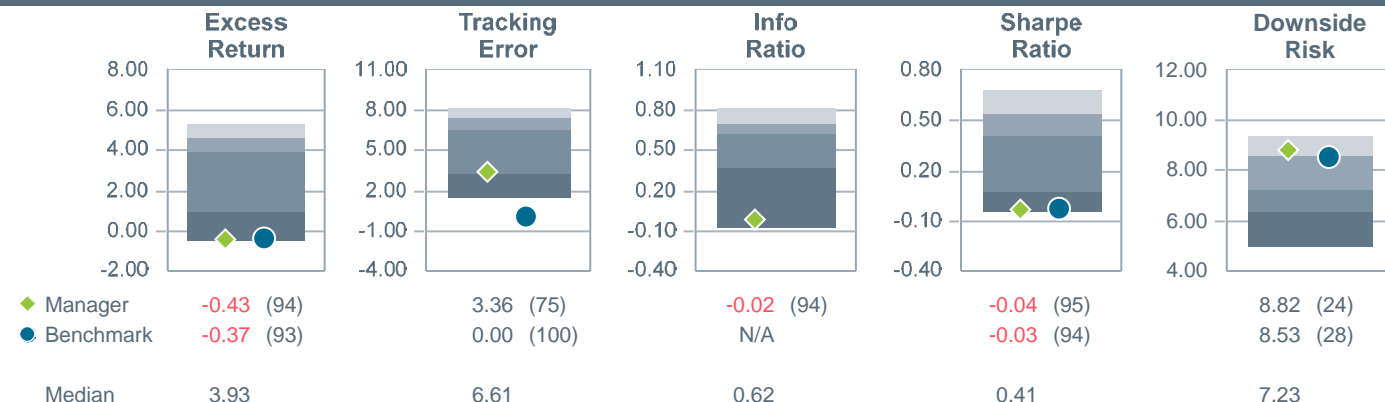
Peer Group Scattergram - 7 Years



Up/Down Markets - 7 Years



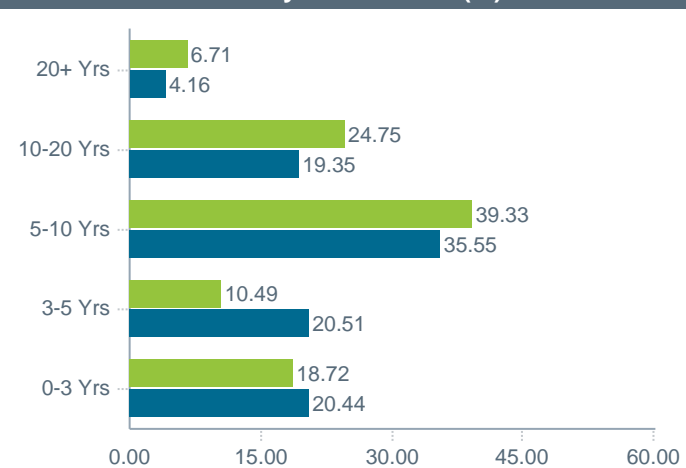
Peer Group Analysis - Multi Statistics - 7 Years (Excess Return vs. Risk Free)



Portfolio Characteristics (%)

	Portfolio	Benchmark
Effective Duration	6.35	5.54
Spread Duration	N/A	0.03
Avg. Maturity	9.34	7.49
Avg. Quality	Baa2	Ba2
Yield To Maturity (%)	4.76	4.38
Coupon Rate (%)	5.79	5.98
Current Yield (%)	5.98	5.40
Holdings Count	163	237

Maturity Distribution (%)

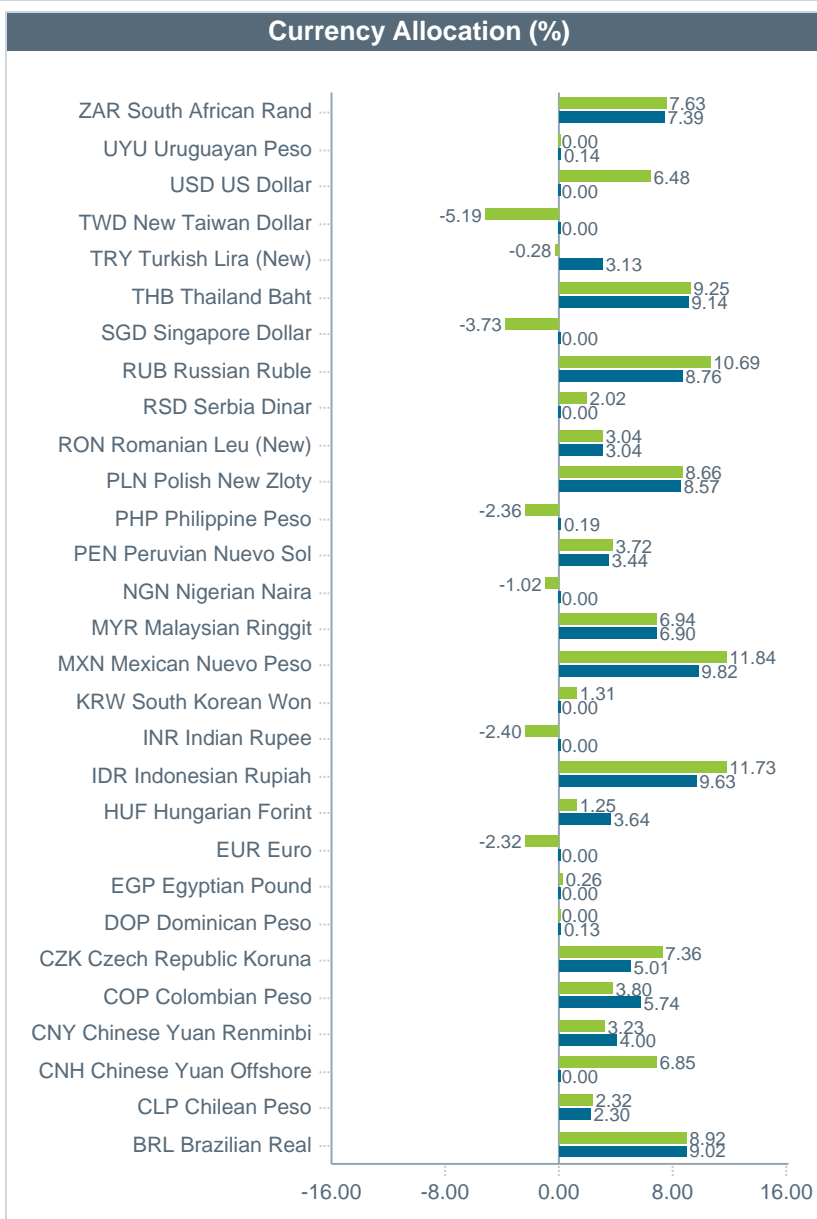
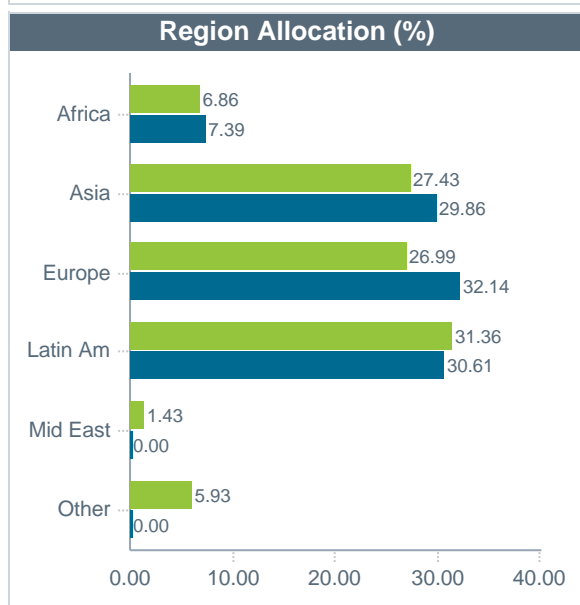
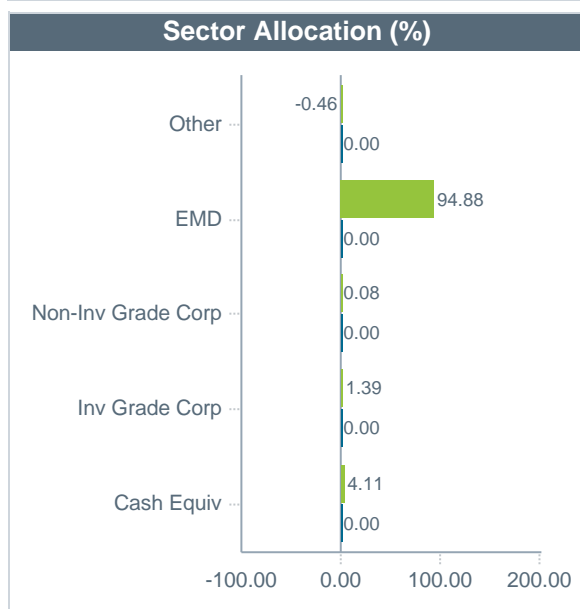
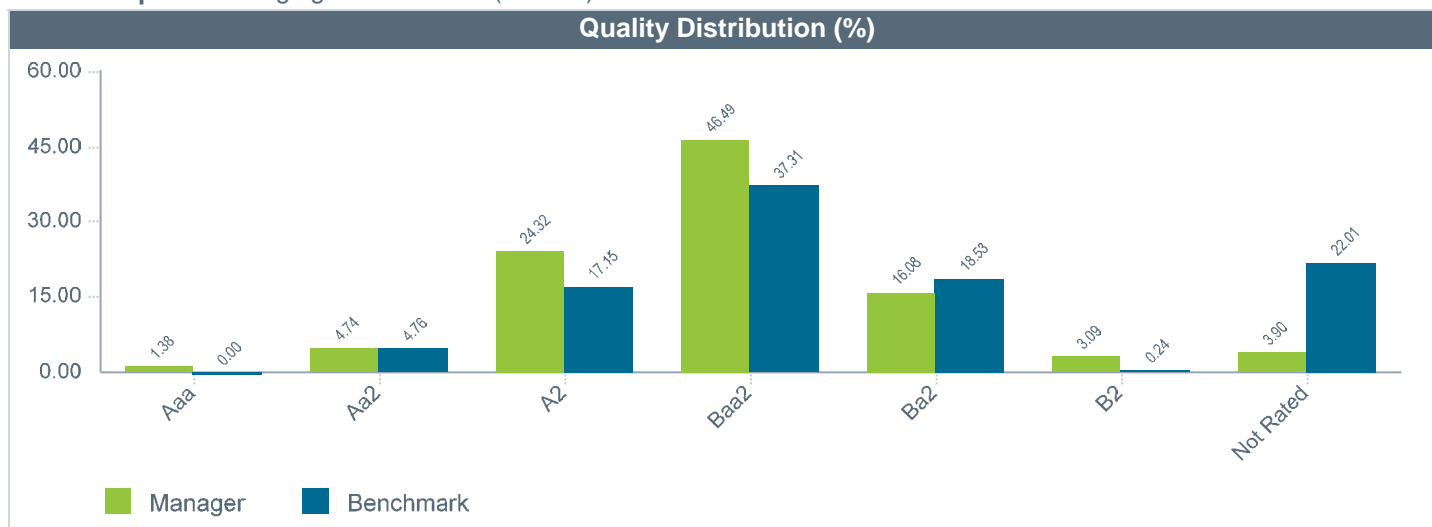


Manager: Investec

As of June 30, 2020

Benchmark: JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)

Peer Group: IM Emerging Markets Debt (SA+CF)



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 and interest rate swaps. Region allocation to "Other" consists of cash.

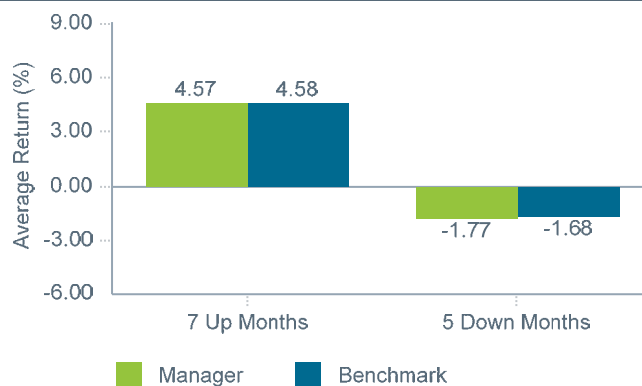
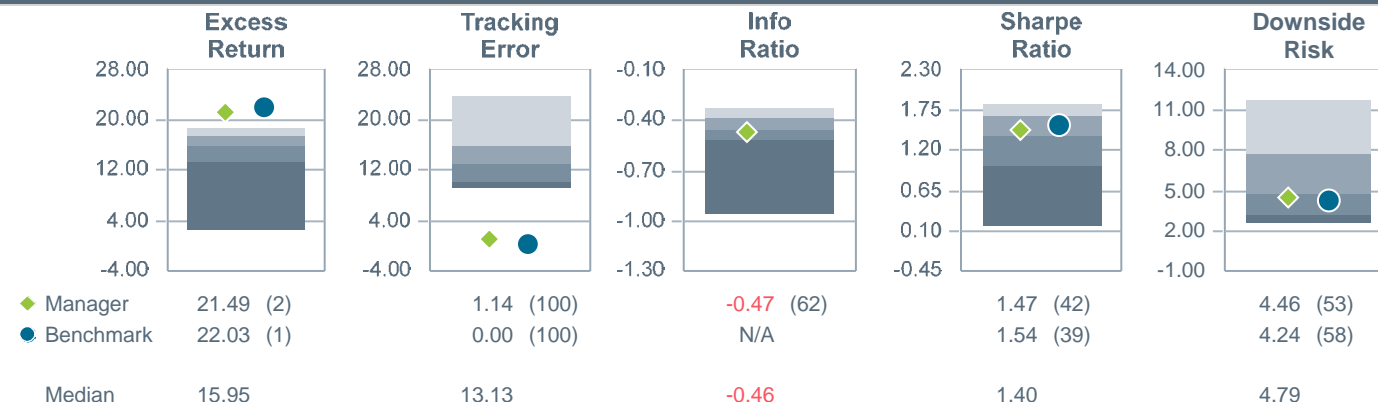


Manager: Internal Long Duration Fixed Income Portfolio
As of June 30, 2020
Benchmark: Bloomberg US Gov't Lng Trm Bond Index

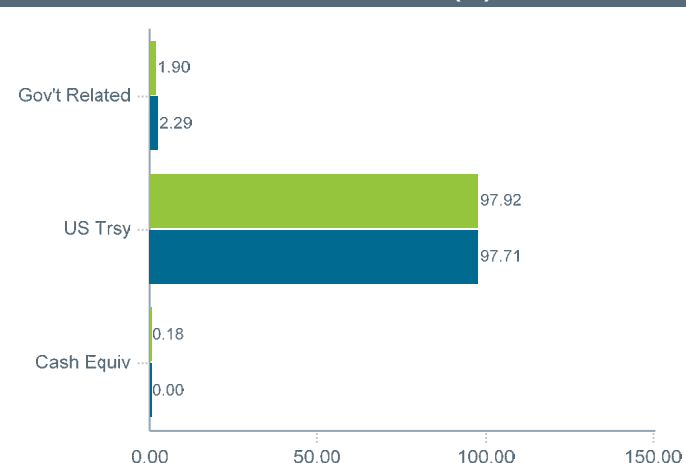
Peer Group: IM U.S. Long Duration (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	-0.81	24.44	N/A	N/A	N/A	N/A	14.61	N/A	N/A	N/A	N/A
Benchmark	0.28	25.14	11.96	9.21	8.38	7.71	14.75	-1.79	8.53	1.43	-1.16
Difference	-1.09	-0.70	N/A	N/A	N/A	N/A	-0.14	N/A	N/A	N/A	N/A
Peer Group Median	7.91	18.32	10.42	9.39	8.54	8.41	20.13	-4.73	11.20	7.41	-3.25
Rank	100	2	N/A	N/A	N/A	N/A	91	N/A	N/A	N/A	N/A
Population	58	58	57	53	49	46	60	71	74	76	77

Peer Group Scattergram - 1 Year

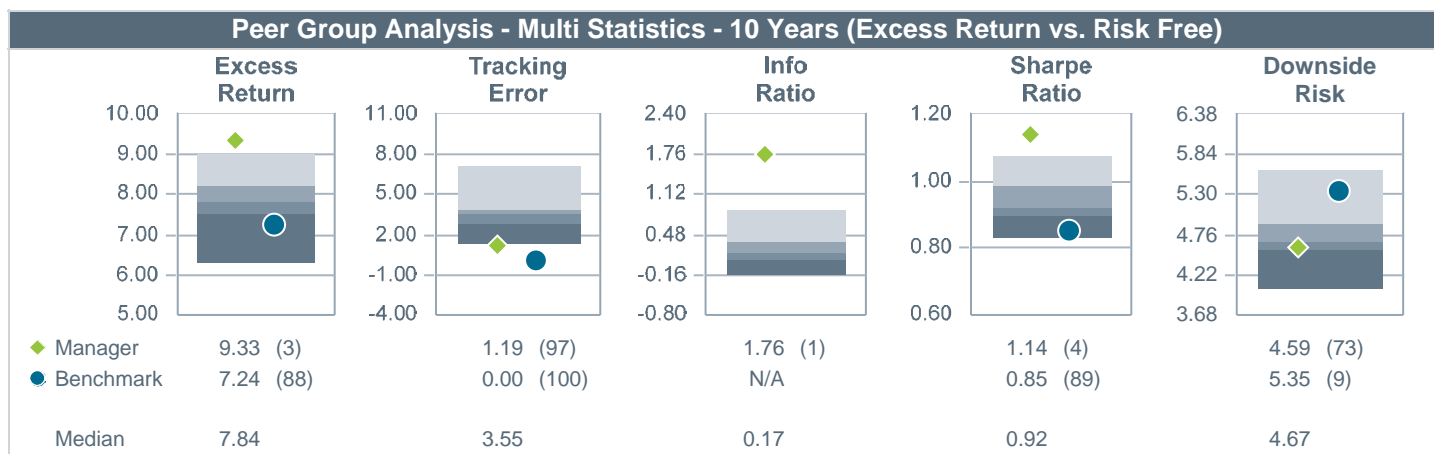
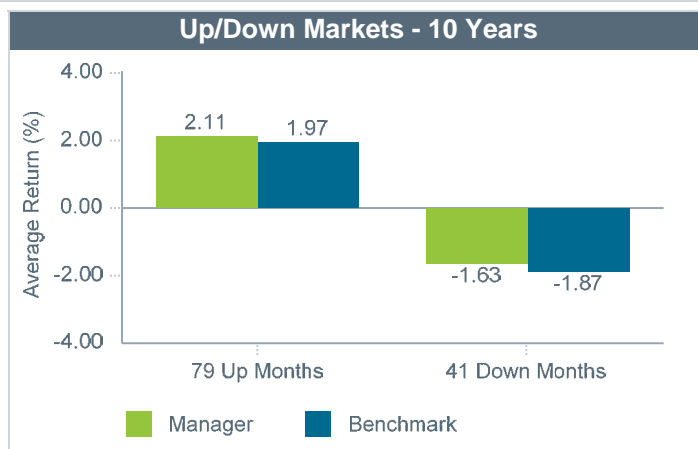
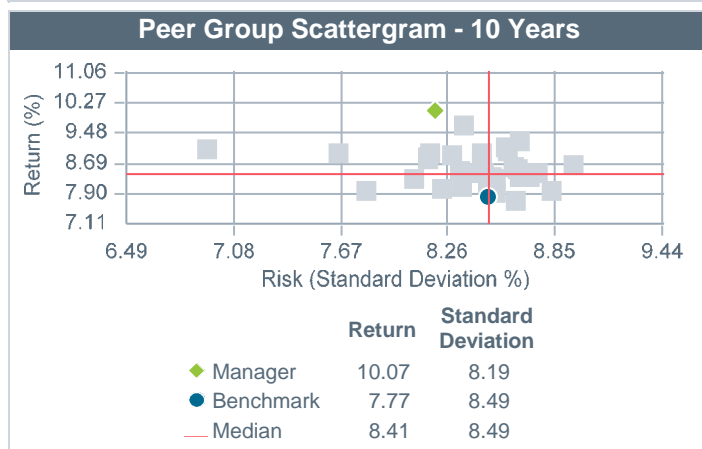
Up/Down Markets - 1 Year

Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	18.54	19.26
Spread Duration	18.33	18.30
Avg. Maturity	24.09	24.82
Avg. Quality	Aaa	Aaa/Aa1
Yield To Maturity (%)	1.30	1.32
Coupon Rate (%)	2.80	3.02
Current Yield (%)	2.17	N/A
Holdings Count	12	84

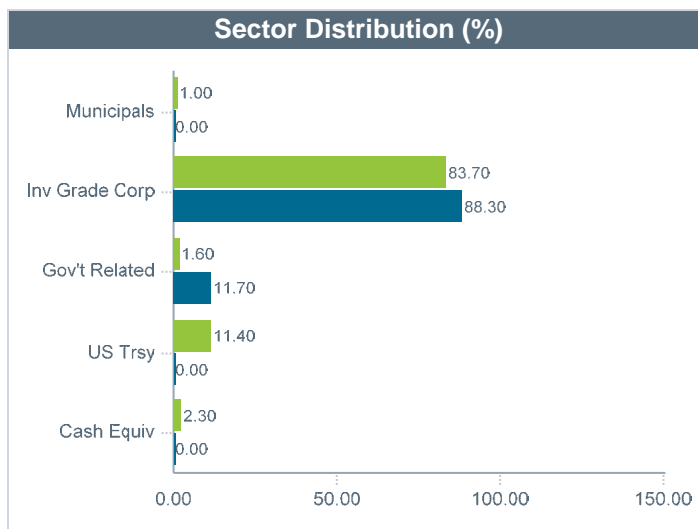
Sector Distribution (%)


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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	10.90	17.31	10.58	10.39	9.62	10.07	23.73	-5.68	13.59	13.40	-4.73
Benchmark	11.08	13.19	8.70	8.51	7.86	7.77	23.36	-6.76	12.21	10.22	-4.56
Difference	-0.18	4.12	1.88	1.88	1.76	2.30	0.37	1.08	1.38	3.18	-0.17
Peer Group Median	7.91	18.32	10.42	9.39	8.54	8.41	20.13	-4.73	11.20	7.41	-3.25
Rank	20	59	42	4	4	2	9	79	3	2	94
Population	58	58	57	53	49	46	60	71	74	76	77



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	14.55	15.03
Spread Duration	12.21	14.44
Avg. Maturity	22.58	23.75
Avg. Quality	A3	A2/A3
Yield To Maturity (%)	3.07	3.17
Coupon Rate (%)	4.33	4.73
Current Yield (%)	3.06	N/A
Holdings Count	238	2,636

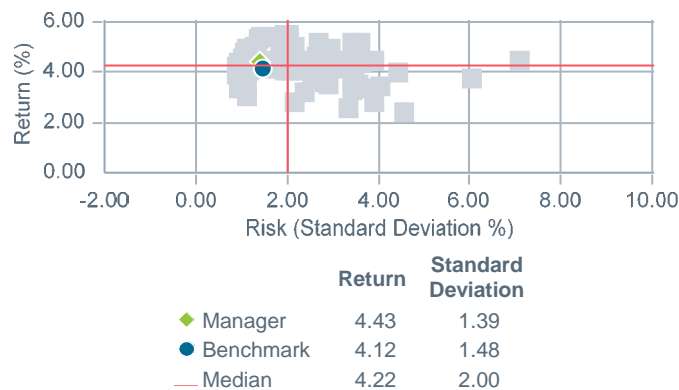
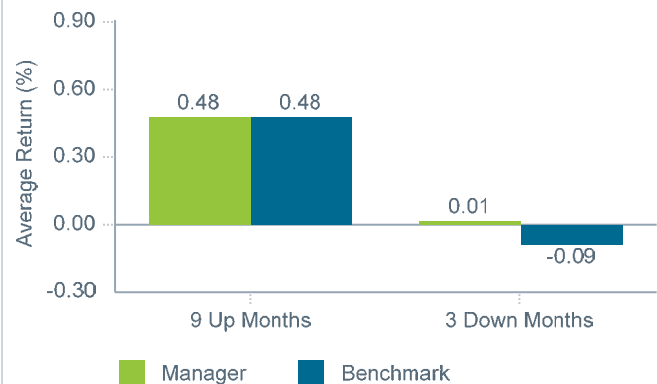
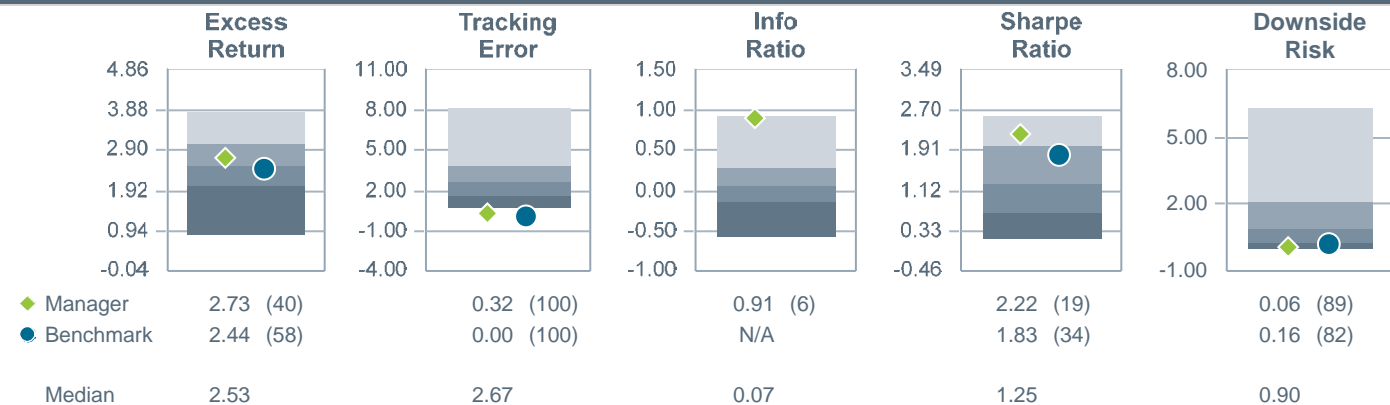


Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

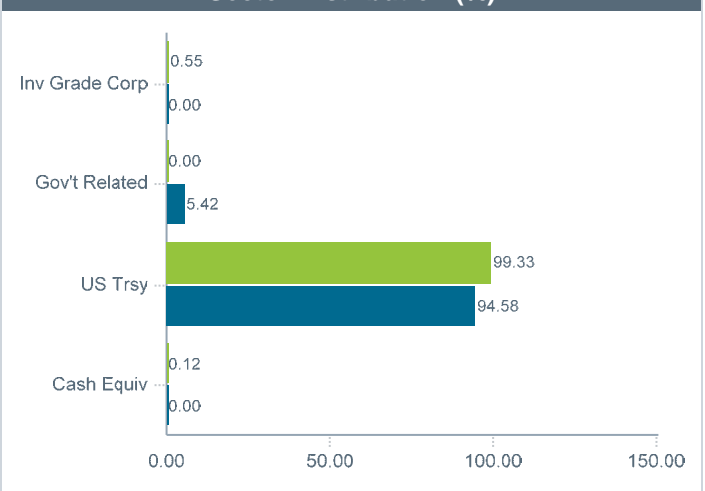
Manager: Internal Low Duration Fixed Income Portfolio
As of June 30, 2020
Benchmark: Bloomberg US Gov't 1-3 Yr Bond Index

Peer Group: IM U.S. Short Duration Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	0.20	4.43	N/A	N/A	N/A	N/A	3.80	N/A	N/A	N/A	N/A
Benchmark	0.26	4.12	2.71	1.86	1.57	1.36	3.59	1.58	0.45	0.87	0.57
Difference	-0.06	0.31	N/A	N/A	N/A	N/A	0.21	N/A	N/A	N/A	N/A
Peer Group Median	2.59	4.22	3.12	2.44	2.16	2.09	4.51	1.68	1.52	1.63	0.94
Rank	100	39	N/A	N/A	N/A	N/A	83	N/A	N/A	N/A	N/A
Population	111	109	108	102	98	93	112	123	126	128	128

Peer Group Scattergram - 1 Year

Up/Down Markets - 1 Year

Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	1.68	1.91
Spread Duration	1.68	1.91
Avg. Maturity	1.71	1.97
Avg. Quality	Aaa	Aaa/Aa1
Yield To Maturity (%)	0.15	0.18
Coupon Rate (%)	1.92	1.73
Current Yield (%)	1.87	N/A
Holdings Count	14	287

Sector Distribution (%)


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

State of Wyoming
State Loan and Investment Board
Investment Policy Objective Review

June 30, 2020

Investment Policy Guidelines	Meeting Objective			Explanation
	Yes	No	N/A	
1. Total Fund				
Exceed the rate of inflation (C.P.I.) over a market cycle of 5-years.	✓			Wyoming returned 4.0% vs. 1.6% 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 4.0% vs. 4.0% for the Actual Allocation 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
2. Investment Funds				
a) Permanent Mineral Trust Fund				
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 4.3% vs. 4.7% for the Target Allocation Index
b) Common School Permanent Land Fund				
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 4.4% vs. 4.2% for the Target Allocation Index
c) Permanent Land Fund				
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 4.3% vs. 4.7% for the Target Allocation Index
d) University Permanent Land Fund				
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 4.5% vs. 4.7% for the Target Allocation Index
e) Hathaway Scholarship Endowment Fund				
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 4.1% vs. 4.6% for the Target Allocation Index
f) Higher Education Endowment Fund				
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 3.9% vs. 4.1% for the Target Allocation Index
g) Workers Compensation Fund				
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 5.6% vs. 5.5% for the Target Allocation Index
h) Pool A				
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 3.3% vs. 3.5% for the Target Allocation Index
i) LSRA				
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.
j) State Agency Pool				
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 2.9% vs. 2.7% for the Actual Allocation Index

	Yes	No	N/A	Explanation
3. US Equity Portfolios				
a) State Street Global Advisors – All Cap – Passive				
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 = 6.02%
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 9.8% vs. 9.8% for the index

	Yes	No	N/A	Explanation
b) Van Berkom – Small Cap - Active				
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: 3/2020
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: 3/2020
c) State Street Russell 2000 – Small Cap - Passive				
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: Deckers Outdoor Corp = 0.31%
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 Russell 2000 Index, net 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
4. International Equity Portfolios				
a) Northern Trust – Int'l – Passive				
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: Alibaba Ltd = 2.01%
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 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 2.4% vs. 2.3% for the MSCI ACW Ex US Index (Net)
	Yes	No	N/A	Explanation
b) Arrowstreet – Int'l Active				
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: Roche Holding AG = 2.15%
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.			N/A	Inception date: 03/2018
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: 03/2018

	Yes	No	N/A	Explanation
c) Harding Loevner – Int'l Active				
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: Taiwan Semiconductor = 4.28%
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
5. Preferred Stock				
a) Cohen & Steers				
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 S&P U.S. Preferred Stock Index, net of fees, over a full market cycle, approximated by the most recent five-year period.			N/A	Inception date: 07/2018
	Yes	No	N/A	Explanation
6. MLPs				
a) Harvest				
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.			N/A	Inception date: 08/2018
b) Harvest Passive				
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
7. Alternative Strategies				
Core Real Estate				
a) Clarion Lion				
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 7.6% vs. 6.3% 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) UBS Trumbull				
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 3.6% vs. 6.3% 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.	✓			
Diversified Hedge Funds				
c) Grosvenor Diversified Hedge Funds				
Outperform the HFRI FOF Comp Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 07/2018
The portfolio shall be diversified across underlying hedge fund strategies and hedge fund managers.	✓			
d) Internal Diversified Hedge Funds				
Outperform the HFRI FOF Comp Index, net of fees, over a full market cycle, approximated by the most recent 5-year period.			N/A	Inception date: 07/2018
The portfolio shall be diversified across underlying hedge fund strategies and hedge fund managers.	✓			

	Yes	No	N/A	Explanation
8. Fixed Income Portfolios				
a) PIMCO – Core				
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 must fall in the range of +/- 20% of the manager's primary benchmark, but not to exceed the duration of the Bloomberg Barclays U.S. Aggregate Bond Index or the Bloomberg Barclays Intermediate U.S. Aggregate Bond Index by more than 20%.	✓			
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.	✓			
Standalone private placements, including 144A securities, are not permitted as direct purchase is not currently allowed under regulations of the Securities and Exchange Commission.	✓			
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 4.4% vs. 4.2% 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 67th percentile for Core Fixed Income

	Yes	No	N/A	Explanation
b) Internal Int. Govt Fixed Income Portfolio – Core				
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 must fall in the range of +/- 20% of the manager's primary benchmark, but not to exceed the duration of the Bloomberg Barclays U.S. Aggregate Bond Index or the Bloomberg Barclays Intermediate U.S. Aggregate Bond Index by more than 20%.	✓			
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.	✓			
Standalone private placements, including 144A securities, are not permitted as direct purchase is not currently allowed under regulations of the Securities and Exchange Commission.	✓			
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 3.7% vs. return of 3.4% 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 50th percentile for Government Fixed Income

	Yes	No	N/A	Explanation
c) Payden & Rygel – Core				
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 must fall in the range of +/- 20% of the manager's primary benchmark, but not to exceed the duration of the Bloomberg Barclays U.S. Aggregate Bond Index or the Bloomberg Barclays Intermediate U.S. Aggregate Bond Index by more than 20%.	✓			
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.	✓			
Standalone private placements are not permitted as direct purchase is not currently allowed under regulations of the Securities and Exchange Commission.	✓			
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
d) JPM MBS – Core				
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 must fall in the range of +/- 20% of the manager's primary benchmark, but not to exceed the duration of the Bloomberg Barclays U.S. Aggregate Bond Index or the Bloomberg Barclays Intermediate U.S. Aggregate Bond Index by more than 20%.	✓			
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.	✓			
Standalone private placements, including 144A securities, are not permitted as direct purchase is not currently allowed under regulations of the Securities and Exchange Commission.	✓			
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
e) Credit Suisse – Bank Loans				
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 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 S&P/LSTA Leveraged Loan 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
f) Octagon – Bank Loans				
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 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 S&P/LSTA Leveraged Loan 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
g) Grosvenor Silvery Lupine Fund – Opportunistic Fixed Income				
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 3.4% vs 5.2% for the index
h) Investec – Emerging Market Debt (Local Currency)				
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 be +/- 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.		✗		5-year: Investec net of fees return was 1.5% vs. the return of 2.3% for the JPM GBI-EM Gbl Dvf'd Index (USD) (TR) (Unhedged)
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: Investec ranked in the 92nd percentile for Emerging Market Debt (Local Currency)

	Yes	No	N/A	Explanation
i) Global Evolution – Emerging Market Debt (Local Currency)				
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 be +/- 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
j) Goldman Sachs – Emerging Market Debt (Corporate)				
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 be +/- 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
k) Logan Circle – Long Duration Credit				
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.			N/A	Inception date: 11/2018
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: 11/2018
	Yes	No	N/A	Explanation
l) Internal Long Duration – Long Duration Government				
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.			N/A	Inception date: 01/2019
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: 01/2019

	Yes	No	N/A	Explanation
m) Internal Low Duration – Low Duration Government				
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.			N/A	Inception date: 03/2018
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: 03/2018

	Yes	No	N/A	Explanation
9. Cash and Cash Equivalents Portfolios				
JP Morgan Cash Composite*				
a) JP Morgan Treasury Cash				
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 1.1% vs. 1.2% for the ICE BofAML 3 Mo US T-Bill Index

*During the fourth quarter of 2011, JP Morgan Treasury Cash and JP Morgan Treasury 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.

	Yes	No	N/A	Explanation
JP Morgan Wyo-Star Cash Composite*				
b) JP Morgan Wyo-Star Cash				
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 1.1% vs. 1.2% for the ICE BofAML 3 Mo US T-Bill Index
c) JP Morgan Wyo-Star Extended Cash				
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 1.9% vs. 2.0% 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 Actual Allocation Index is calculated using beginning month 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 Index for bank loans, EMD Blended Benchmark for EMD, NCREIF Open-End Diversified Core Equity Index (Gross) (AWA) for real estate, the State's actual private equity investment returns 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.

Pooled Fund actual allocation indices are calculated using beginning month 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 Index for bank loans, EMD Blended Benchmark for EMD, NCREIF Open-End Diversified Core Equity Index for real estate, the State's actual private equity investment returns for private equity, HFRI FOF Comp Index for Diversified Hedge Funds, and the State Agency Pool Custom Index for the State Agency Pool allocation.

- The Wyoming State Custom 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.
- 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 and the MSCI ACW Ex US Index (USD) (Net) 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, 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.
- 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 and 70% JPM GBI-EM Gbl Dvf'd Index / 30% JPM CEMBI Brd Dvf'd 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.

Miscellaneous Comments (Continued)

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.

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&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – Below Investment Grade		
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., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd 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.

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.

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, 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.

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.



Glossary

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

Glossary

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. Plan Sponsor Peer Groups are gross of fees.

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 4th 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 - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

Price to Earnings Ratio - The ratio of a company's share price to its per-share earnings

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>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Bank Loans	50
TIPS	95	Stable Value (Plan Sponsor Directed)	50
US Large Cap Equity	95	Absolute Return Strategies	35
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Non-US Large Cap Equity	90	<u>Not Liquid Investments</u>	
Global Tactical Asset Allocation	88	Core Real Estate	25
US Small Cap Equity	85	Core Plus Real Estate	15
REITS	85	Non-Core Real Estate	5
Non-US Small Cap Equity	85	Private Equity Funds of Funds	5
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.

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

Glossary

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 portfolios 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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