

June 13, 2023



Oklahoma State Pension Commission

Meeting Materials



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Executive Summary



OKLAHOMA STATE PENSION COMMISSION

Q1 2023 EXECUTIVE SUMMARY

Economic and Capital Market Review

During Q1 2023, both defensive and risk assets generally provided positive returns, following a difficult environment in 2022 characterized by geopolitical risk and rising interest rates. In March, market price action, investor sentiment, and headlines were driven by the failure of multiple US banks, the most prominent being Silicon Valley Bank and Signature Bank – both which represented the second and third largest bank failures in US history. Following the collapse of these banks, concerns around liquidity spread, causing sharp declines in market value for other US regional banks and some European banks. The Federal Reserve, US Treasury Department, and Federal Deposit Insurance Corporation all intervened to assure depositors of access to their capital and calm funding markets. Among European banks, investor confidence in Credit Suisse declined most acutely, after which the firm sought liquidity from the Swiss National Bank before agreeing to an acquisition by UBS. Despite the volatility experienced in the second half of the quarter, broad equity market indexes finished Q1 in positive territory. However, the quarter saw significant dispersion among styles and market caps, with growth-oriented stocks providing positive returns. Conversely, US value, US small cap, and European value indexes each depreciated sharply, given the heavier exposure to the failed banks and other banks perceived to be at-risk. Unlike in 2022, the broad bond market delivered positive returns amidst equity market volatility as market participants changed expectations on future interest rate moves from pricing in rate hikes to discounting rate pauses, or in some circumstances, cuts. Following the bank failures, the FOMC decided to increase the federal funds rate to a target range between 4.75% - 5.00%, representing a second straight monthly increase of 0.25% after a string of 0.50% to 0.75% increases. The increase to the federal funds rate was preceded by a Consumer Price Index (CPI) report finding year-over-year inflation of 6.0% in February, which met market expectations. Labor markets have provided mixed signals in recent months, as payroll growth was revised higher for February (well above expectations), although reports for March indicated moderating levels of payroll growth. Key market index returns as of March 31, 2023 can be observed in **Figure 1** below.

Figure 1: Key Market Index Returns
Period Ending March 31, 2023

Index	Asset Class	QTD	CYTD	1 Year	5 Year	10 Year
S&P 500 Index	US Equity	7.5	7.5	-7.7	11.2	12.2
MSCI ACW Ex-US Index (Net)	International Equity	6.9	6.9	-5.1	2.5	4.2
Bloomberg US Agg	US Fixed Income	3.0	3.0	-4.8	0.9	1.4
NCREIF ODCE (AWA) (Net)	Core Real Estate	-3.4	-3.4	-3.9	6.6	8.5
HFRX Absolute Return Index	Hedge Funds	-0.2	-0.2	0.5	1.8	1.9
Bloomberg Commodity Index	Commodities	-5.4	-5.4	-12.5	5.4	-1.7

Internationally, moderate winter temperatures helped to ease energy price inflation in Europe, but uncertainty around supply shortages persisted due to the ongoing war in Ukraine. In early April, the International Monetary Fund (IMF) revised its global GDP growth forecast at the end of the quarter to 2.8%, a decline from its January 2023 forecast of 2.9%. Despite pockets of higher GDP growth being forecasted outside of developed markets, the growth from advanced economies was estimated at 1.3% in 2023. The IMF also outlined a scenario where banking sector stress persists, causing further tightening of global

financial conditions and leading to global GDP growth of 2.5% in 2023, with developed economy growth sinking to 1.0%. Additionally, the IMF estimated that global inflation levels would moderate to 7.0% in 2023, a decline from 8.7% in 2022, while noting that target levels are unlikely to be reached until 2025.

Performance Highlights

Total Fund Performance and Attribution

During the 1st Quarter of 2023, the Oklahoma State Pension Funds produced positive returns, ranging between 2.1% to 6.9% net of fees. Relative to policy benchmarks, performance was mixed over the trailing 12-month period, with four out of seven plans outperforming their respective policy benchmark net of fees. Detailed comparative performance of the seven plans can be found on **pages 12-15** of the performance report.

In terms of performance attribution, the fundamental drivers have not changed substantially over the longer periods. In the case of the Oklahoma State Pension Funds, the following high-level strategic decisions explain most of the strong performance. The more significant drivers are described below.

1. **High Allocation to Growth Oriented Assets** – Overall, the Pension Plans have a higher than median allocation, when compared to their peers, to growth-oriented assets. This remains appropriate given the Plans' extended time horizons, healthy funded statuses, cash needs, and tolerance for risk. However, such risk posturing can lead to meaningful drawdowns that the plans experienced in down markets such as 2022.
2. **Bias Toward US Equities** – In general, the Pension Plans are invested more heavily in US equities. International equities have fallen more than their US counterparts year-to-date as recessionary pressures, political changes, and geopolitical pressures have weighed more heavily on non-US stocks; the strategic tilt has benefited the plans over the longer-term as US stocks continue to outpace international over the trailing 10-year time period. This tilt may be appropriate since the plans' liabilities and contributions are closely influenced by US economic conditions.
3. **Avoidance of Dilutive Asset Classes** – Institutional investors are constantly approached with marketing pitches on new investment strategies. Many of these strategies many only add alpha during one type of market environment or are largely unproven over multiple market cycles. They may add portfolio complexity and higher costs without providing commensurate benefits or tend to shift into new asset classes after an increase in their performance. In comparison to peers, the Oklahoma Pension Plans have resisted the temptation to invest in these products, which have kept fees low and avoided the unnecessary dilution of returns.
4. **Selective Use of Active Management** – When evaluating the potential benefits and costs of active management, it is often the case that the costs outweigh the benefits. The relative magnitude of these gap varies by asset class and the unique attributes of the investors themselves. In general, the Oklahoma State Pension Plans have employed active management strategies in a manner that extracted benefits that have exceeded the associated costs. This has enhanced absolute returns and performance relative to peers.

RVK continues to believe that the Oklahoma Plans are well-positioned and are appropriately monitored for success in a manner that aligns with each Plan's objective, risk tolerance, constraints, and unique

competitive advantages.

Asset Class Performance – Q1 2023

Asset class returns varied but have increasingly entered positive territory during the first quarter. Performance highlights for specific asset classes are provided below, and detailed performance numbers can be found on **pages 16-27** of the performance report.

1. **US Equity** – Absolute US equity returns were positive during Q1, despite turmoil caused by the banking sector in March and uncertainty regarding the Fed's path for short-term interest rates. Relative to benchmarks, returns mostly underperformed, with only one out of six plans outperforming their respective benchmark. US equity returns ranged from approximately 5.4% (Teachers) to 9.4% (Wildlife). Longer term performance over 3-, 5-, 7-, and 10-year periods continues to mostly lag broad indexes of US equities.
2. **International Equity** – International equity returns were positive on an absolute basis, with underlying plans generally keeping pace or outperforming their asset class benchmark during the first quarter. Returns for the quarter ranged from approximately 7.0% (Judges) to 8.0% (Firefighters). The use of active management in this asset class has yielded mixed results over long time periods. Two out of six plans with dedicated international equity buckets outperformed their respective indices over the 10-year trailing period. The Police plan measures total domestic and international equity against a broad, global benchmark of equities, and has delivered mixed results across all trailing periods.
3. **Fixed Income** – Fixed income absolute returns were positive in the first quarter with six out seven plans outperforming their respective asset class benchmarks. Returns ranged from approximately 2.2% (Police) to 3.8% (Teachers). Over longer periods of time, as measured by 7- and 10-year periods, most plans are exceeding or roughly flat against their respective benchmarks.

4. **Real Estate** – Real estate returns are largely reported on a lagged basis and were mostly negative for the quarter, but positive for the trailing year. For the quarter, the NFI-ODCE Index (Net) delivered a return of -3.2% on a preliminary and gross of fees basis, comprised of 0.8% income and -4.0% price appreciation. The income return continues to trend at the lower end of historical levels while price appreciation continues to trend negatively.
5. **Hedge Funds** – Hedge funds returns were positive in the first quarter. Returns ranged from a low of approximately 2.3% (Law Enforcement) to a high of 14.8%. (Firefighters). Longer-term returns for Oklahoma Plans’ hedge fund allocations have been challenged, providing negative or low single-digit positive returns over the trailing 7- and 10-year time periods.
6. **Private Equity** – Private equity produced mixed returns over the quarter, but the level of performance varied across the different pension plans. This variability is consistent with expectations given that each plan has different exposures by investment strategy and vintage year. Further, performance versus benchmarks varied considerably, but this is primarily due to the fact that one plan (Teachers) uses a public equity benchmark, while the others use a private benchmark.

Long-Term Performance

In aggregate, the 5-Year and 10-Year absolute and risk-adjusted returns for the Oklahoma Pension Plans continue to compare favorably relative to peers. Three out of seven plans performed at or above median on both metrics. Performance is more favorable on an asset-weighted basis, with 68.2% outperforming the median plan over the trailing 10-year period. The 5-Year and 10-Year return metrics are provided below in **Figure 3** and **Figure 4**.

Figure 3: Five and Ten-Year Performance of Oklahoma Pension Plans
Ordered by Level of 10-Year Net-of-Fees Return as of March 31, 2023

Plan	Percent of Assets	5-Year Return Net of Fees	10-Year Return Net of Fees	10-Year Rank vs. All Public Plans ¹
Firefighters	8.5	6.9	8.2	3rd
Teachers	52.0	6.6	7.7	11th
Public Employees	27.8	5.5	6.7	57th
Police	7.7	6.1	6.6	47th
Judges	1.0	5.4	6.6	63rd
Wildlife	0.3	5.8	6.5	59th
Law Enforcement	2.8	4.9	6.1	61st

¹ Peer ranking are based on gross of fees; therefore, it is possible for a Plan to be ranked higher relative to peers despite having a lower net of fees return.

**Figure 4: 10-Year Risk-Adjusted Returns for Oklahoma Pension Plans
Ranked by Sharpe Ratio as of March 31, 2023**

Plan	Percent of Assets	Sharpe Ratio	10-Year Rank vs. All Public Plans
Firefighters	8.5	0.77	13 th
Police	7.7	0.76	13 th
Teachers	52.0	0.68	36 th
Wildlife	0.3	0.63	53 rd
Law Enforcement	2.8	0.61	64 th
Public Employees	27.8	0.57	75 th
Judges	1.0	0.56	78 th

68.2% of assets

**Figure 5: Calendar Year Yields for Oklahoma Pension Plans
Ranked by Yield % as of 12/31/2022**

Plan	Percent Yield
Teachers	2.3
Wildlife	2.1
Law Enforcement	1.4
Public Employees	1.4
Firefighters	0.9
Judges	0.8
Police	0.7

Yield percentages were calculated as total income for the year of 2022 by plan divided by the average market value of 2022 by plan.

Active vs Passive Manager Allocations (Quarterly)

Overall, the seven plans all exhibit a mix of active and passive management. The charts in Figure 6 show the percentage allocated to active and passive managers by plan for the quarter.

Figure 6: Active vs Passive Manager Allocations
Period Ending March 31, 2023



Asset Allocation Changes (5-Year)

Overall, the seven plans all exhibit characteristics of increasingly diversified, institutional quality portfolios. Exposures to equities (capital appreciation or “growth” assets) make up the largest component for each plan. The charts in Figure 7 show a 5-year asset allocation “lookback” for each plan and how they have moved to today’s portfolio and target.

Figure 7: Asset Allocation Changes (5 Years)
Period Ending March 31, 2023



Total Equity excludes Private Equity. Total Fixed Income includes Private Debt. Other Assets consist of both Private Equity and Hedge Funds for the OFPRS plan since the target allocation combines these into one asset class.

Individual Plan Performance Highlights

Oklahoma Teachers' Retirement System (OTRS)

Detailed performance of the OTRS plan begins on **page 39** of the performance report. As of March 31, 2023, the market value of assets for OTRS was approximately **\$20.25 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OTRS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS Total Fund (Net)	4.03	4.03	5.32	-5.08	12.55	6.62	8.25	7.68
OTRS Policy Index	4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58
<i>Difference</i>	-0.82	-0.82	-2.23	0.62	-0.20	-0.44	-0.06	0.10
OTRS Actual Allocation Index	5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66
<i>Difference</i>	-1.00	-1.00	-1.42	1.02	-0.05	-0.16	0.08	0.02
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	56	56	51	49	11	22	9	11

Commentary

The OTRS Total Fund returned 4.03% for the quarter, trailing its policy index by -0.82%. The largest sources of underperformance over the quarter were the Private Equity and Real Estate allocations, which trailed their benchmarks by -3.76% and -1.49% respectively. Over long-term periods, the Plan has provided mixed returns relative to its policy index; however, the Plan outperformed its policy index by 0.10% over the 10-year period. Relative to a broad group of pension plans, the Plan has ranked in or near the top quartile over the quarter, trailing 3-year, and all longer time periods. Favorable peer rankings were driven by the higher allocation to public equities (and US equity in particular) relative to other public plans.

In summary, while the OTRS Plan has delivered low single-digit returns for the quarter, longer-term performance remains robust and has outperformed its Policy Index by 0.10% annually over the trailing 10-year period. In addition, the Plan has produced strong returns relative to peers over longer-term trailing periods. Finally, on a risk-adjusted basis, the Plan ranks above median relative to other public plans, as well as other Oklahoma plans, as illustrated in **Figure 4** on the previous page.

Oklahoma Public Employees Retirement System (OPERS)

Detailed performance of the OPERS plan begins on **page 59** of the performance report. As of March 31, 2023, the market value of assets for OPERS was approximately **\$10.83 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPERS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPERS Total Fund (Net)	6.07	6.07	6.97	-6.41	9.99	5.49	6.99	6.70
OPERS Policy Index	5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64
<i>Difference</i>	0.27	0.27	0.33	0.13	0.26	0.01	-0.03	0.06
OPERS Actual Allocation Index	5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91
<i>Difference</i>	0.32	0.32	0.53	0.46	0.38	-0.54	-0.37	-0.21
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	3	3	10	85	67	67	62	57

Commentary

The OPERS Total Fund continues to provide returns in line with its policy index over all time periods but has ranked below median over the longer-term trailing periods shown relative to a broad peer group of public plans. Among equity strategies, most International Equity composites were successful in exceeding its benchmark for the quarter, but US Equity composites generally trailed their respective benchmarks. Fixed Income performed positively returning in the lower single digits, with the Hoisington Long Duration Fixed Income (SA) fund performing best on an absolute and relative basis.

In summary, the OPERS plan has generated long-term returns in line with its policy index but has lagged relative to peers over longer-term trailing periods shown. This is due to the plan being much more heavily weighted towards traditional assets rather than alternative assets. On a risk-adjusted basis, the Plan has ranked below median relative to other public plans and 6th among the group of seven Oklahoma plans.

Oklahoma Firefighters Pension & Retirement System (OFPRS)

Detailed performance of the OFPRS plan begins on **page 76** of the performance report. As of March 31, 2023, the market value of assets for OFPRS was approximately **\$3.32 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OFPRS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OFPRS Total Fund (Net)	4.39	4.39	4.89	-5.19	11.68	6.86	8.51	8.19
OFPRS Policy Index	4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35
<i>Difference</i>	-0.38	-0.38	-0.94	0.72	-0.38	-0.55	0.00	-0.16
OFPRS Actual Allocation Index	4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07
<i>Difference</i>	-0.26	-0.26	-0.20	0.46	-0.55	-0.35	-0.03	0.12
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	38	38	61	47	23	12	6	3

Commentary

The Firefighters Plan continues to demonstrate the strongest long-term returns among the seven Oklahoma pension plans on an absolute basis, though the Plan trailed its policy and actual allocation index in the first quarter with mixed performance over all longer periods. Relative to peers, the Firefighters has ranked above median over almost all of the longer trailing periods shown above. Over the trailing ten years, the Plan ranked in the 3rd percentile relative to a broad peer group of public pension plans and 1st among the group of seven Oklahoma pension plans.

In summary, the Firefighters' Plan has generally outpaced the performance of peers and other Oklahoma pension plans and has exceeded its required return of 7.5% over the trailing 3-, 7-, and 10-year periods. In addition, the Plan has performed well on a risk-adjusted basis, ranking in the 13th percentile relative to other public plans and 1st among the other Oklahoma Plans.

Oklahoma Police Pension & Retirement System (OPPRS)

Detailed performance of the OPPRS plan begins on **page 99** of the performance report. As of March 31, 2023, the market value of assets for OPPRS was approximately **\$2.98 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPPRS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPPRS Total Fund (Net)	2.12	2.12	1.07	-6.38	10.66	6.05	7.16	6.61
OPPRS Policy Index	5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38
<i>Difference</i>	<i>-3.32</i>	<i>-3.32</i>	<i>-5.03</i>	<i>-1.25</i>	0.03	0.00	<i>-0.03</i>	0.23
OPPRS Actual Allocation Index	4.01	4.01	5.02	-5.96	9.84	5.52	6.81	6.21
<i>Difference</i>	<i>-1.89</i>	<i>-1.89</i>	<i>-3.95</i>	<i>-0.42</i>	0.82	0.53	0.35	0.40
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	94	94	98	79	46	37	42	47

Commentary

The Police Plan provided absolute returns that ranked above median and exceeded both the policy index and actual allocation index over most longer trailing periods. It should be noted that the portfolio is intentionally allocated to reduce downside risk in the portfolio to protect the funded status of the plan. Absolute and risk-adjusted performance for the portfolio are consistent with this objective. As illustrated in **Figure 4** on page 5, the OPPRS 10-year Sharpe ratio is ranked 1st relative to other Oklahoma Plans and in the 13th percentile relative to a broad peer group of public plans. Thus, on a risk-adjusted basis, the OPPRS plan has performed well over the long term and in a manner that is consistent with its stated objectives.

In summary, while the OPPRS plan has struggled to deliver annualized returns in excess of its 7.5% actuarial rate, the portfolio has generally outpaced the performance of peers and other Oklahoma pension plans both on an absolute and risk-adjusted basis due to the emphasis on downside risk protection.

Oklahoma Law Enforcement Retirement System (OLERS)

The detailed performance of the OLERS plan begins on **page 113** of the performance report. As of March 31, 2023, the market value of assets for OLERS was approximately **\$1.08 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OLERS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OLERS Total Fund (Net)	3.72	3.72	3.55	-6.79	9.92	4.91	6.56	6.13
OLERS Policy Index	4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98
<i>Difference</i>	<i>-0.52</i>	<i>-0.52</i>	<i>-1.28</i>	<i>-0.65</i>	<i>-0.13</i>	<i>-1.01</i>	<i>-0.58</i>	<i>-0.85</i>
OLERS Actual Allocation Index	4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64
<i>Difference</i>	<i>-1.13</i>	<i>-1.13</i>	<i>-2.45</i>	<i>-1.11</i>	<i>-2.64</i>	<i>-2.57</i>	<i>-1.74</i>	<i>-1.51</i>
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	<i>68</i>	<i>68</i>	<i>82</i>	<i>86</i>	<i>61</i>	<i>72</i>	<i>62</i>	<i>61</i>

Commentary

The Law Enforcement Plan generated a return of 3.72% for the quarter, trailing its Policy Index and Actual Allocation Index by -0.52% and -1.13%, respectively. Underperformance was driven primarily by Private Equity, which ended the quarter with a 0.78% return, trailing its benchmark by -8.04%.

In summary, the OLERS Plan has ranked below median relative to peers for all trailing periods and has trailed other Oklahoma plans in terms of absolute returns over various trailing periods. The Plan has also ranked slightly below peers on a risk-adjusted basis, as represented by a Sharpe ratio, ranking in the 64th percentile relative to peers over the trailing 10-year period.

Uniform Retirement System for Justices & Judges (URSJJ)

Detailed performance of the URSJJ plan begins on **page 127** of the performance report. As of March 31, 2023, the market value of assets for URSJJ was approximately **\$369.72 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

URSJJ Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
URSJJ Total Fund (Net)	5.81	5.81	6.60	-6.84	9.61	5.40	6.95	6.60
URSJJ Policy Index	5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64
<i>Difference</i>	0.01	0.01	-0.04	-0.30	-0.12	-0.09	-0.07	-0.04
URSJJ Actual Allocation Index	5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82
<i>Difference</i>	0.06	0.06	0.15	-0.01	0.11	-0.59	-0.38	-0.22
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	6	6	17	92	76	71	66	63

Commentary

The Judges Plan generated a 10-year absolute return that ranked 5th relative to other Oklahoma Pension Plans, and in the 63rd percentile relative to a broad peer group of public plans over the trailing 10 years. The plan has delivered performance that is generally in line with the benchmark given its significant use of passive management.

Overall, the URSJJ Plan has delivered returns in excess of its 6.5% actuarial rate for the FYTD and most longer-term trailing periods but has trailed relative to a broad peer group of public plans and to other Oklahoma plans. On a risk-adjusted basis, the Plan performed below median over the past 10 years relative to peers (with a Sharpe ratio ranking in the 78th percentile) and ranked 7th relative to Oklahoma Plans.

Oklahoma Wildlife Conservation Retirement System (OWCRS)

Detailed performance of the OWCRS plan begins on **page 139** of the performance report. As of March 31, 2023, the market value of assets for OWCRS was approximately **\$124.10 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OWCRS Annualized Net-of-Fees Returns

Period Ending March 31, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OWCRS Total Fund (Net)	6.88	6.88	8.10	-3.97	9.64	5.78	6.79	6.52
OWCRS Policy Index	5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53
<i>Difference</i>	1.45	1.45	1.28	1.99	1.23	1.24	1.11	0.99
OWCRS Actual Allocation Index	5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48
<i>Difference</i>	1.53	1.53	1.83	1.94	0.77	0.29	0.10	0.04
All Public Plans – Total Fund Median	4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95
<i>Rank</i>	1	1	3	23	69	52	64	59

Commentary

The Wildlife Plan generated a return of 6.88% for the quarter, outperforming its policy benchmark by 1.45%. Alternative and equity investments were the primary drivers of relative performance, outperforming their custom indexes by 3.78% and 1.72%, respectively. The plan has exceeded the policy benchmark over all time periods shown. Relative to peers, the Wildlife Plan provided 10-year absolute returns that ranked 6th when compared to other Oklahoma Pension Plans and below median relative to a broad peer group of public plans over all longer trailing periods.

Overall, the OWCRS Plan performed below median relative to a broad peer group of public plans over all longer periods shown. On a risk-adjusted basis, the Plan also ranked below median over the past 10 years, with a Sharpe ratio ranking in the 53rd percentile relative to other public plans and ranking 4th relative to the group of seven Oklahoma Plans.

Overview of Fundamental Investment Performance Drivers

When reviewing the performance of the Oklahoma Pension Plans, it is important to understand the key drivers of investment returns, which we will reference throughout this document. In short, the return of an investment portfolio can be attributed to the following three, fundamental factors.

1. **Strategic Asset Allocation** – The long-term strategic asset allocation of a portfolio is by far the most significant driver of absolute returns in the long term. In other words, the percentages that a plan allocates to various asset classes, such as US equity, international equity, private equity, real estate, etc., tend to dominate. To this end, the most significant decision for pension plan boards is the extent of their exposure to various types of assets – especially equities. To this point, the degree of equity exposure is primarily a function of a plan’s risk tolerance and long-term return requirements; thus, understanding these requirements is the most critical responsibility of pension plan sponsors and their advisors.
2. **Tactical Asset Allocation** – Tactical asset allocation is a term that describes the return impact when a portfolio deviates from its long-term strategic asset allocation targets. In general, use of intentional tactical allocation at the total portfolio level is unlikely to add value, thus most institutional investors wisely avoid it. However, some degree of *unintentional* tactical allocation is inevitable due to the inability of institutional investors to match allocations with desired targets at all times. This is especially true in illiquid asset classes, such as private equity, as investors have limited control over the investment and distribution of capital from underlying funds. Nevertheless, even though some degree of tactical allocation is unavoidable, its overall impact on performance is generally modest.
3. **Active Management** – The third driver of investment performance is active management. Active management involves the construction of a portfolio of securities that differs from the mix in a comparable reference index. Although active management is usually not the most important driver of long-term *absolute returns*, it is an important driver of *relative returns* in comparison to peer organizations with similar allocation strategies. In general, there are three primary ways in which active management is incorporated into an institutional investment strategy.
 - a. **Use of Style Tilts within Asset Classes** – When all securities available for investment are aggregated within an asset class, the resulting portfolio can be categorized into various market segments. For example, the US equity market can be divided into small-, mid-, and large-sized companies, as well as value- and growth-oriented companies. Thus, one form of active management is to deliberately tilt a portfolio toward specific market segments in a manner that differs from the broad universe. For example, investors with a “small cap bias” make an active decision to favor investment in small companies rather than large companies. The degree to which this “style tilt” pays off is measured by evaluating an investor’s asset class performance relative to a broad asset class index. After adjusting for manager performance relative to their individual benchmarks, this reveals whether the style tilt added or detracted value.
 - b. **Use of Active Managers in Traditional Asset Classes with Index Fund Alternatives** – In many traditional asset classes, such as US equity, investors can choose a low-cost index fund or a more expensive, actively managed fund. An actively managed fund holds

securities that differ from a reference index representative of the asset class. For example, an active US equity manager may hold a portfolio of stocks that have different weightings than the S&P 500 Index. If an investor chooses to invest in an actively managed fund, their objective is to outperform the reference index. This can be evaluated on an absolute return basis and/or a risk-adjusted basis (i.e., the manager may provide a lower return but with less risk).

- c. **Use of Alternative Asset Classes that Lack Index Funds** – The final way in which active management is used is by investing in asset classes in which index funds are unavailable. Examples include private equity, hedge funds, private real estate, and several other niche market segments. In these situations, the key to evaluating performance is to gauge absolute and risk-adjusted returns versus a relatively comparable public market index or fundamental economic indicator (e.g., the consumer price index, which may be used as a proxy for inflation). In addition, peer rankings can be useful to gauge whether plans are selecting top tier managers relative to other institutional investors, as superior manager selection is essential in these asset classes. Although there are performance metrics that can be useful in these markets, it is also important to acknowledge that these metrics are considerably less precise than the metrics used in traditional asset classes. In addition, the metrics offer particularly limited value over shorter time periods.

In summary, it is important for institutional investors to be aware of the three factors that drive absolute and relative performance of institutional investment portfolios. When evaluating the performance of the Oklahoma pension plans, both individually and collectively, we will often refer to these three performance drivers.



Quarterly Investment Performance Analysis

Oklahoma State Pension Commission

Period Ended: March 31, 2023



2022 Greenwich Quality Leader Award

RVK is 1 of 3 firms in the Overall U.S. Investment Consulting “large consultants” category to receive a 2022 *Coalition Greenwich Quality Leader* award. We are proud to be the only firm in this category to receive recognition for a 6th consecutive year. Coalition Greenwich issued the award on April 25, 2023, based on their February through November 2022 study. No direct or indirect compensation has been paid by RVK in connection with obtaining or using this award.



***We are deeply grateful for your continued confidence and support.
From all of us here at RVK, thank you for the opportunity to serve you!***

Award Criteria

- Understanding of Client Goals and Objectives
- Advice on Long-Term Asset Allocation and Liability Issues
- Advice on DC Plan Structure and Design
- Communication of Philosophy and Investment Beliefs
- Proactive Advice and Innovative Ideas
- Client Satisfaction with Manager Recommendations
- Usefulness of Written Investment Performance Reviews
- Sufficient Professional Resources
- Credibility with Investment Committee or Trustees
- Capability of Consultants Assigned to Clients
- Responsiveness and Prompt Follow-up on Client Requests
- Timeliness in Providing Written Reports
- Usefulness of Personal Meetings
- Reasonable Fees Relative to Value Delivered

Please refer to the following URL to learn more:

<https://www.greenwich.com/asset-management/investment-consultants-support-us-asset-owners-volatile-markets>

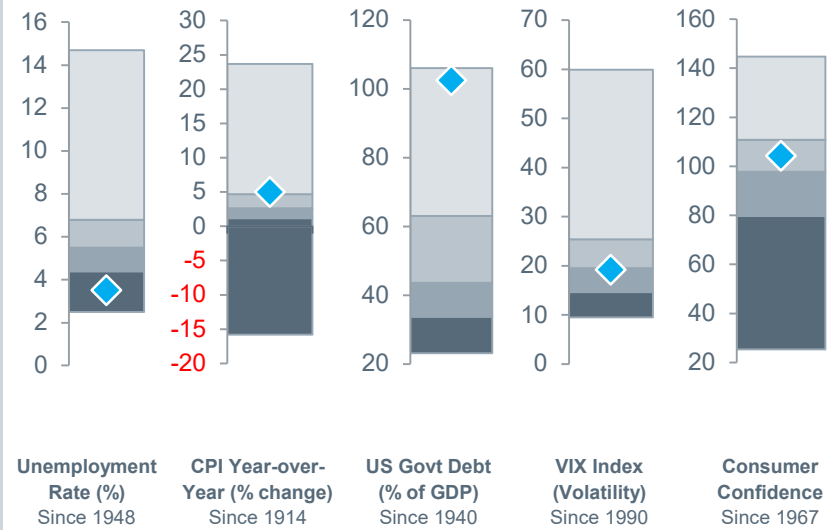
Capital Markets Metrics



First Quarter Economic Environment

During Q1, both defensive and risk assets generally provided positive returns, following a difficult environment in 2022 characterized by geopolitical risk and rising interest rates. Although, capital markets continued to experience bouts of volatility. Despite this volatility, broad equity market indexes finished Q1 in positive territory. The broad bond market delivered positive returns in Q1 as market participants changed expectations on future interest rate moves from pricing in rate hikes to discounting rate pauses, or in some circumstances, cuts. Internationally, moderate winter temperatures helped to ease energy price inflation in Europe, but the uncertainty around supply shortages persisted due to the ongoing war in Ukraine. The FOMC decided to increase the federal funds rate in Q1 to a target range between 4.75% - 5.00%, representing a second straight monthly increase of 0.25% after a string of 0.50% to 0.75% increases. The FOMC's actions demonstrated continued focus on combating inflation, although FOMC data indicated that most officials expect only one more rate hike in 2023. The most recent data release indicated that Headline CPI for March came in slightly below average expectations, with estimated year-over-year inflation of 5.00%. Recessionary risks remained a concern, and recent FOMC minutes indicated that members thought it was increasingly likely that the US will enter a recession later in 2023 due to banking sector stresses. The IMF revised its global GDP growth forecast at the end of the quarter to 2.80%, a decline from its January 2023 forecast of 2.90%.

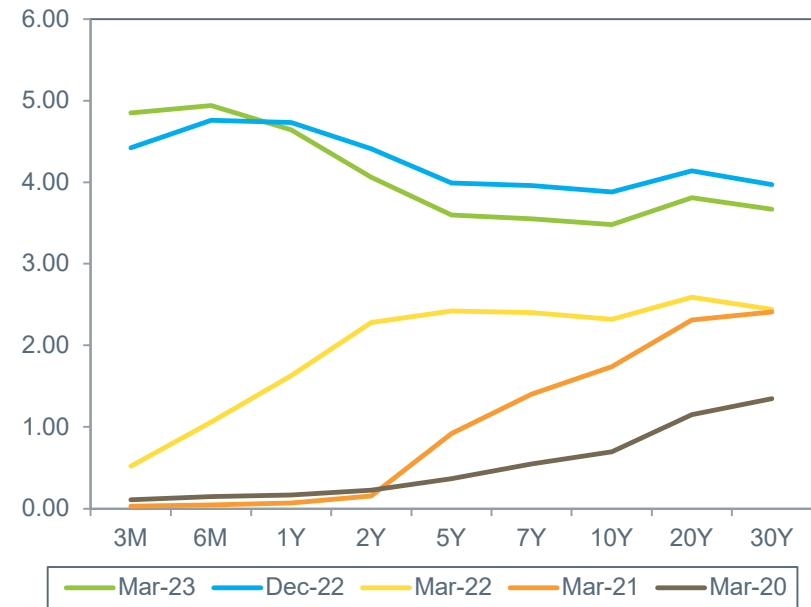
Key Economic Indicators



Economic Indicators

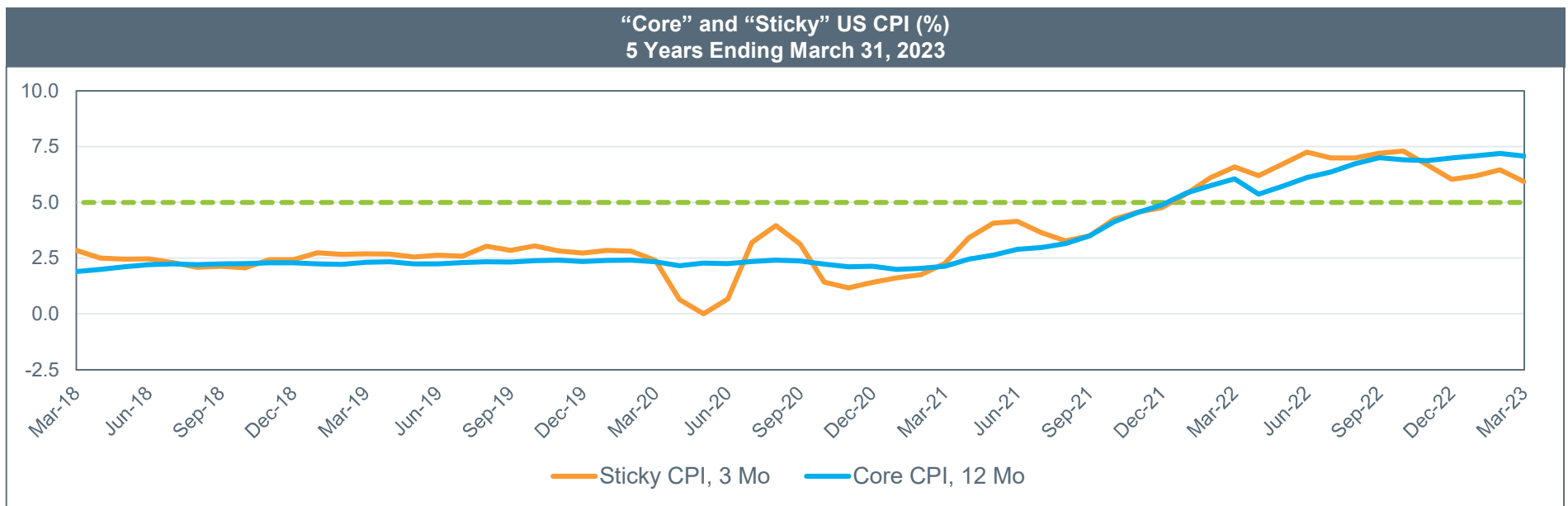
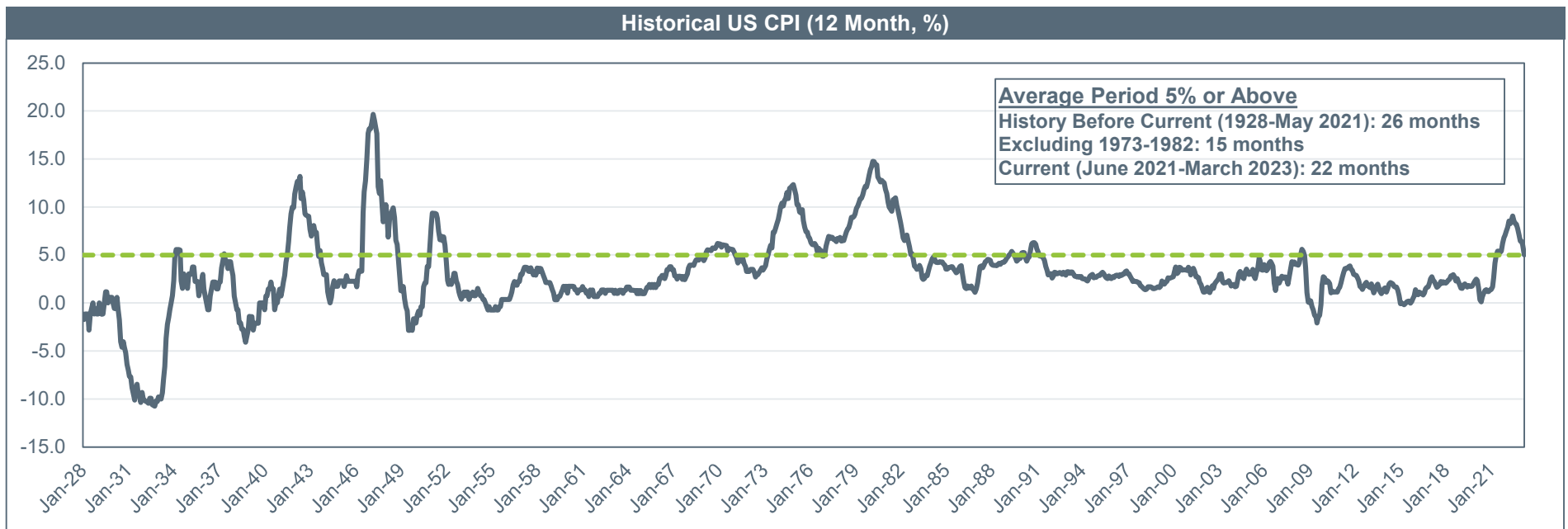
	Mar-23	Dec-22	Mar-22	Mar-20	20 Yr
Federal Funds Rate (%)	4.83 ▲	4.33	0.33	0.08	1.34
Breakeven Infl. - 5 Yr (%)	2.47 ▲	2.38	3.43	0.53	1.93
Breakeven Infl. - 10 Yr (%)	2.33 ▲	2.30	2.83	0.93	2.09
CPI YoY (Headline) (%)	5.0 ▼	6.5	8.5	1.5	2.5
Unemployment Rate (%)	3.5 —	3.5	3.6	4.4	6.0
Real GDP YoY (%)	1.6 ▲	0.9	3.7	0.8	2.0
PMI - Manufacturing	46.3 ▼	48.4	57.1	49.1	53.6
USD Total Wtd Idx	119.48 ▼	121.40	115.35	122.55	103.40
WTI Crude Oil per Barrel (\$)	75.7 ▼	80.3	100.3	20.5	68.4
Gold Spot per Oz (\$)	1,979 ▲	1,824	1,937	1,577	1,179

Treasury Yield Curve (%)



Market Performance (%)

	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	7.50	7.50	-7.73	11.19	12.24
Russell 2000	2.74	2.74	-11.61	4.71	8.04
MSCI EAFE (Net)	8.47	8.47	-1.38	3.52	5.00
MSCI EAFE SC (Net)	4.92	4.92	-9.83	0.87	5.86
MSCI Emg Mkts (Net)	3.96	3.96	-10.70	-0.91	2.00
Bloomberg US Agg Bond	2.96	2.96	-4.78	0.90	1.36
ICE BofAML 3 Mo US T-Bill	1.07	1.07	2.50	1.41	0.87
NCREIF ODCE (Gross)	-3.16	-3.16	-3.07	7.52	9.45
FTSE NAREIT Eq REIT (TR)	2.68	2.68	-19.19	6.02	5.97
HFRI FOF Comp	0.71	0.71	-1.94	3.10	3.24
Bloomberg Cmdty (TR)	-5.36	-5.36	-12.49	5.36	-1.72



As of March 31, 2023. Sources: US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, and Federal Reserve Bank of Atlanta. Core CPI is represented by the Revised FRB Cleveland Trimmed Mean, 12-month. Sticky CPI is represented by the FRB Atlanta Sticky-Price Index, 3-month.

First Quarter Review

Broad Market

US equity markets performed well in Q1 overall, despite market turmoil caused by the banking sector in March and uncertainty regarding the Fed's path for short-term interest rates. The Russell 1000 Index was up 7.5%, while the Russell 2000 Index was up 2.7%. At the beginning of Q1, US stocks were buoyed by investor optimism after economic data indicated that inflation continued to cool, leading to expectations that the Fed's rate hiking cycle could end soon. However, the remainder of Q1 saw significant volatility due to both bank failures and weakening earnings.

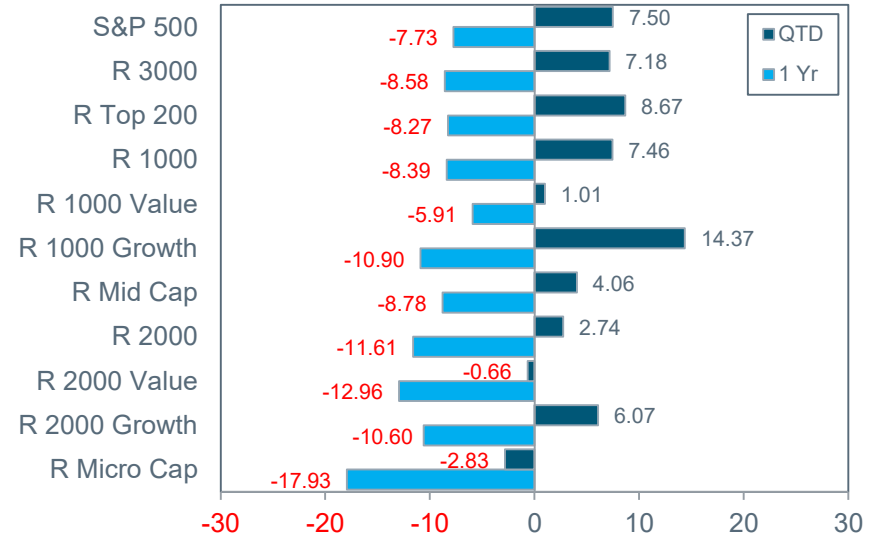
Market Cap

Active large- and mid-cap managers across all style groups struggled to outpace their respective benchmarks in Q1. Small-cap managers performed well, with value-oriented managers having a better success rate than core and growth managers.

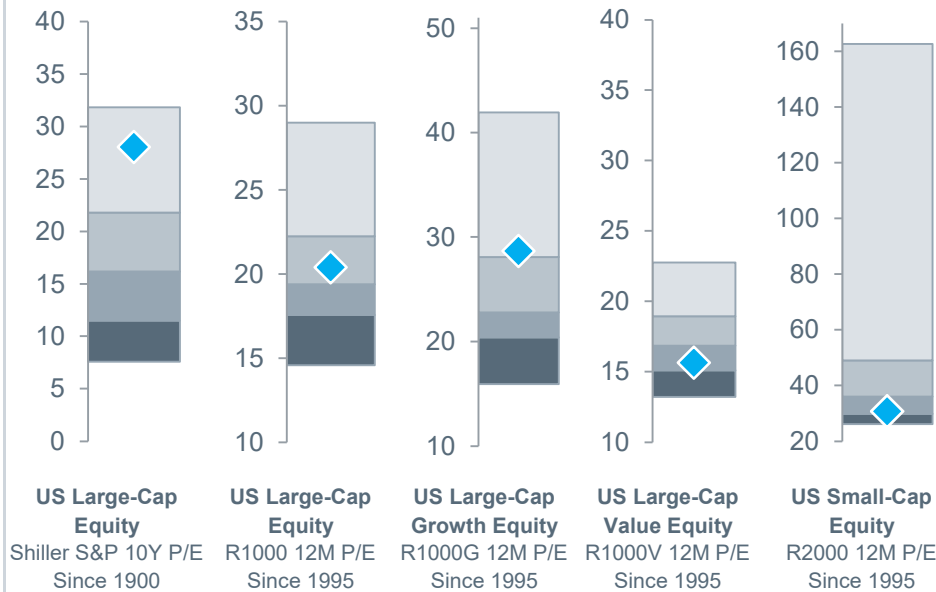
Style and Sector

There was a strong rotation back into growth stocks across market capitalizations in Q1. The Russell 1000 Growth and Russell 2000 Growth indexes exceeded their value counterparts by 13.4% and 6.7%, respectively. Information technology and communication services were the best performing sectors while energy, healthcare, financials, and utilities were the largest contractors.

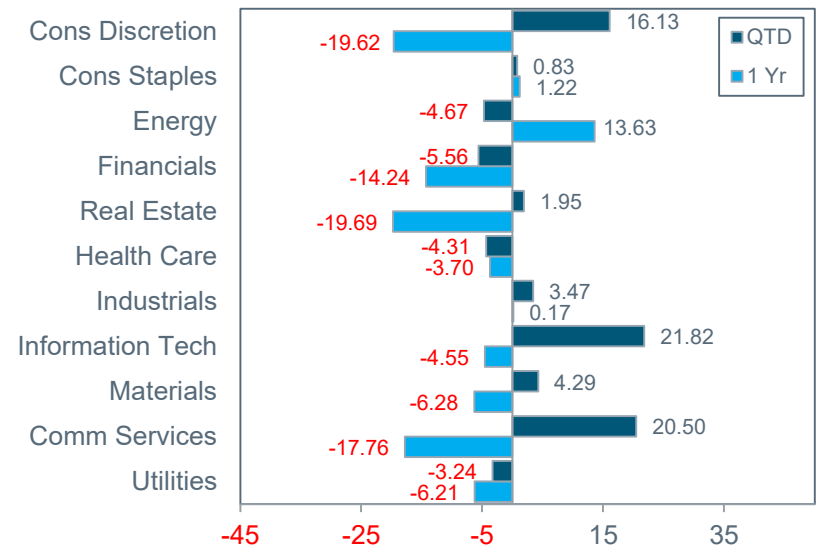
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



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



First Quarter Review

Developed Markets

Q1 represented another strong showing for developed international equity markets, with the MSCI EAFE returning 8.5%, which outperformed both US as well as emerging markets. Growth stocks outperformed value stocks during the quarter, but they still lagged when measured over the trailing three-year period. Small-cap stocks underperformed large-cap stocks. Active management was broadly additive during the quarter.

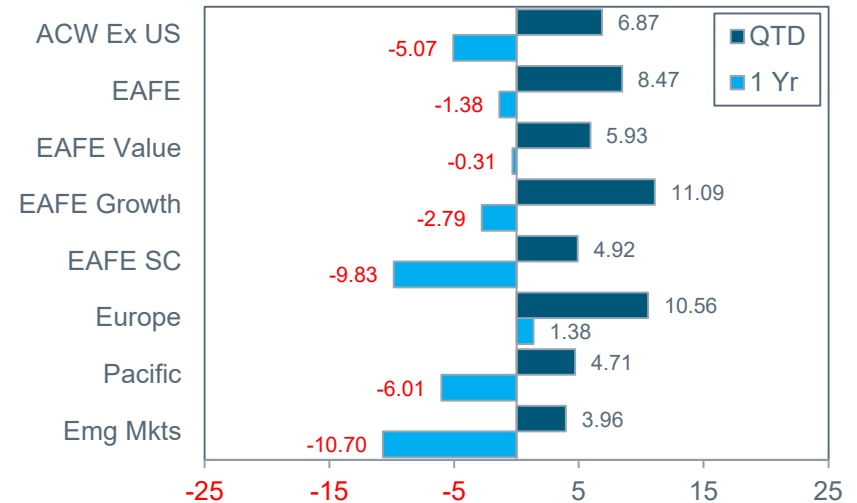
Emerging Markets

Although concerns about bank stability began in the US, they soon spread to Europe. After turmoil at Swiss bank Credit Suisse, UBS stepped in at the end of March to buy the troubled firm for \$3.25 billion, averting a major failure.

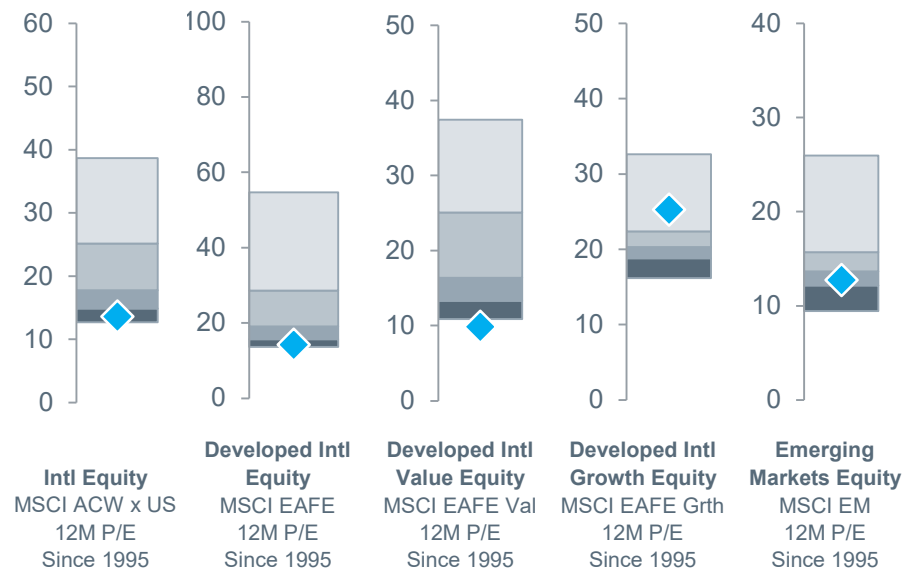
Market Cap & Style

As noted above, emerging markets continued to lag developed markets during Q1 with the MSCI Emerging Market Index returning 4.0%.

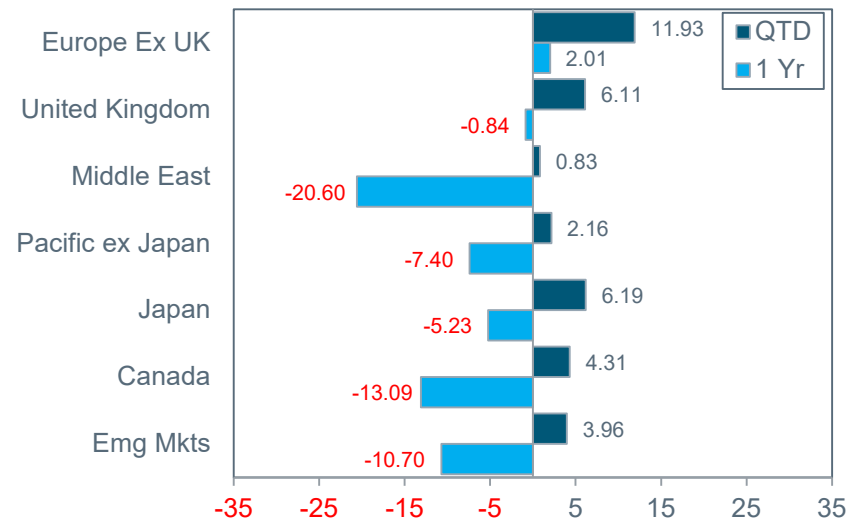
MSCI Style and Capitalization Market Performance (%)



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.



First Quarter Review

Broad Market

The decline in yields across Treasury notes and bonds produced a tailwind for fixed income markets, as the Bloomberg US Aggregate Bond Index experienced its best quarter in three years, returning 3.0% in Q1. However, volatility from 2022 continued into the new year as the Fed appeared to maintain its focus on fighting inflation. After initially declining in January, intermediate and long-term Treasury yields rose in February before falling again in March.

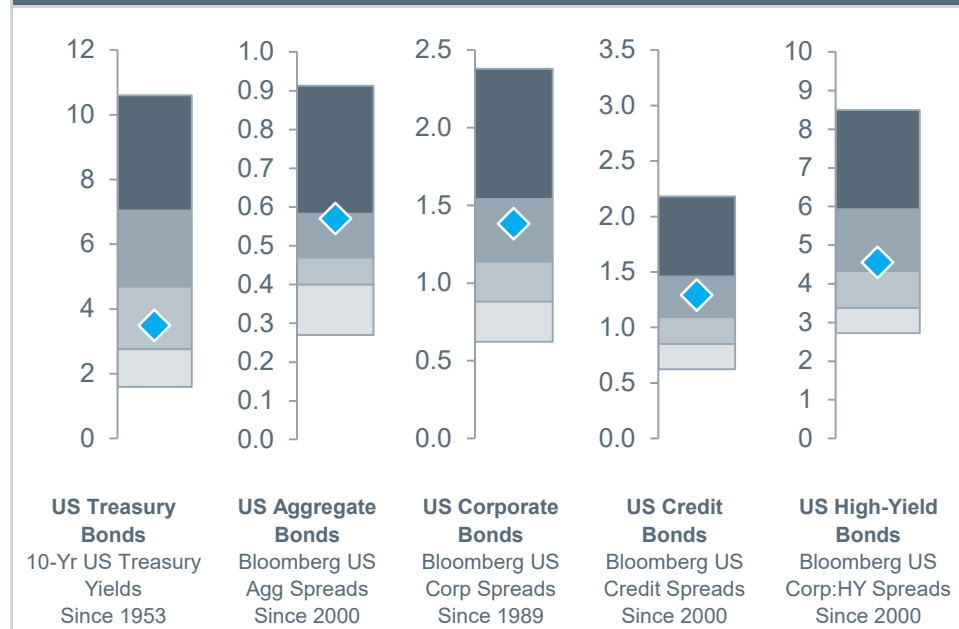
Credit Market

Corporate credit rallied to start the year amid expectations for a more dovish Fed. The optimism proved to be short-lived, however, as the banking crisis pushed spreads wider again in March. The Bloomberg US Credit Index returned 3.5% in Q1, lagging the Bloomberg US High Yield Index return of 3.6%.

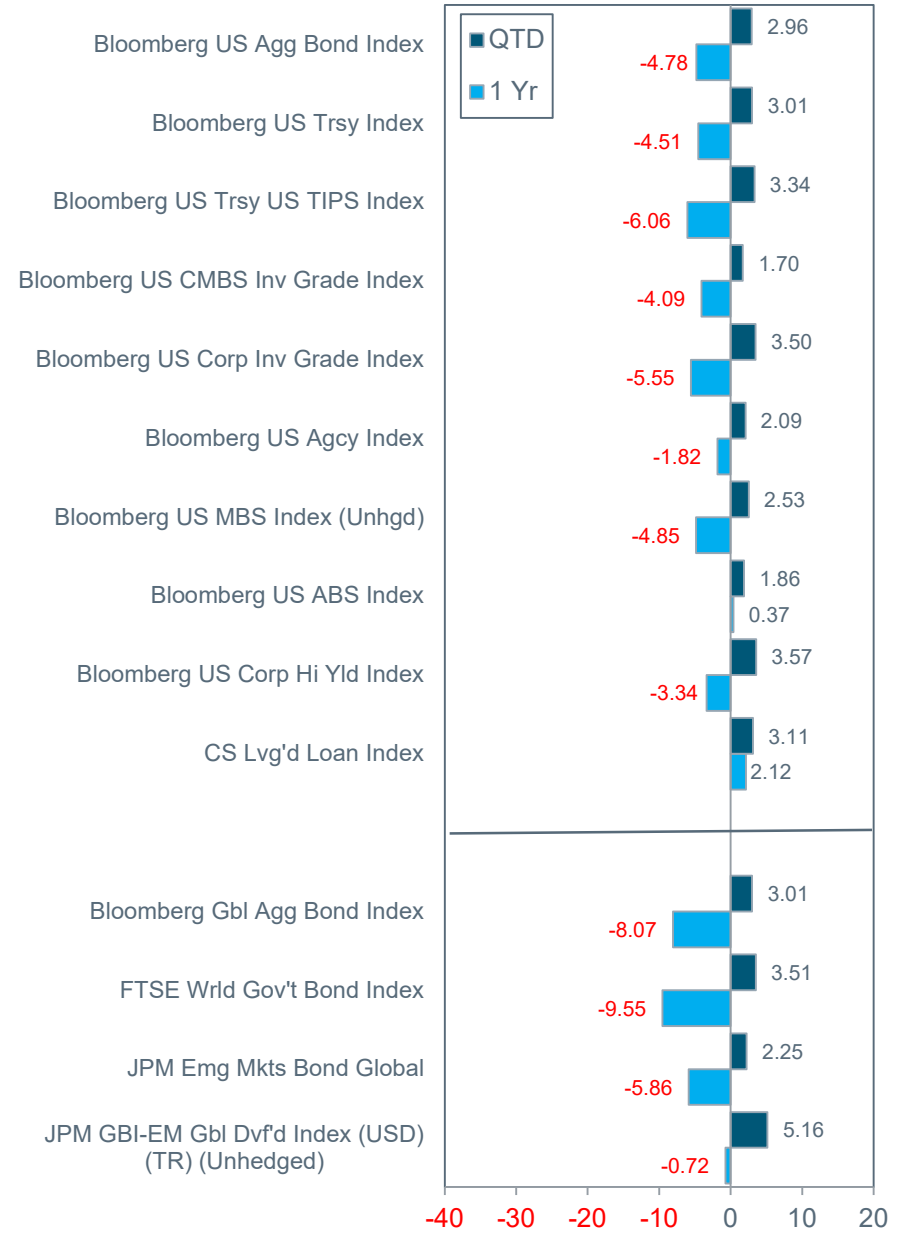
Emerging Market Debt

Emerging market debt added to its recent rally, with the JPMorgan EMBI Global Diversified Index returning 1.9% in Q1, benefitting from the decline in Treasury yields. Despite a resurgence in February, the US dollar weakened over the quarter vs. emerging market currencies, and the JPMorgan GBI-EM Global Diversified Index ended the quarter up 5.2%.

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.



First Quarter Review - Absolute Return

General Market - Hedge Funds

During Q1, hedge funds broadly delivered positive results across most peer groups. Led by strong conditions for long/short equity and fixed income trading, the HFRI Fund-Weighted Composite Index delivered a quarterly return of 1.3%. Macro-oriented strategies, one of the top performing peer groups in 2022, widely struggled in Q1, driven by shifting momentum across interest rate and commodity trends that provided strong tailwinds in recent quarters. Although there were significant fluctuations throughout, overall alpha was broadly flat for the quarter, with longs performing above global indices as shorts struggled.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generally posted positive returns during Q1 with moderate dispersion. Almost all active managers with significant diversification underperformed a US centric blend of 60% equity and 40% fixed income during the quarter, which favored larger market cap companies globally.

First Quarter Review - Real Assets

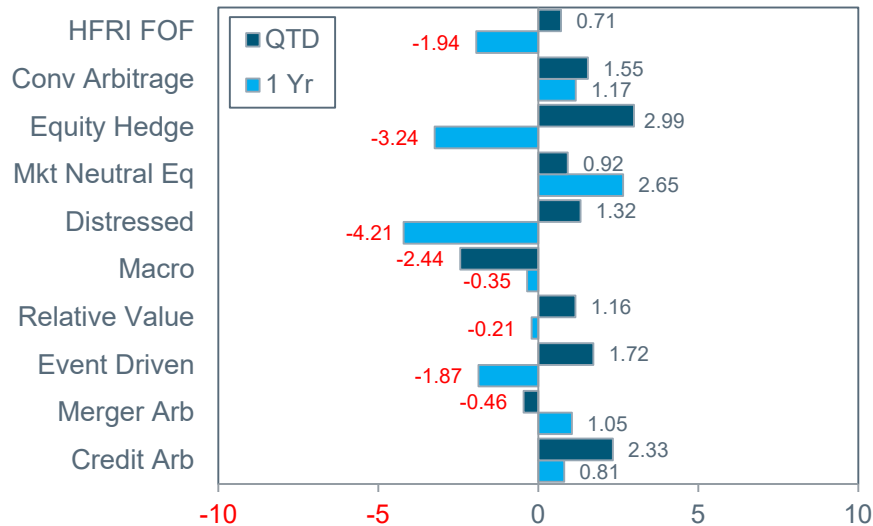
General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategy (DIS) managers tracked closely by RVK generally underperformed a US-centric blend of 60% equity and 40% fixed income over the quarter. Managers with larger exposures to TIPS and energy commodities, lagged peers most significantly in a quarter where strong equity performance on a global basis outperformed nearly all inflation sensitive asset classes.

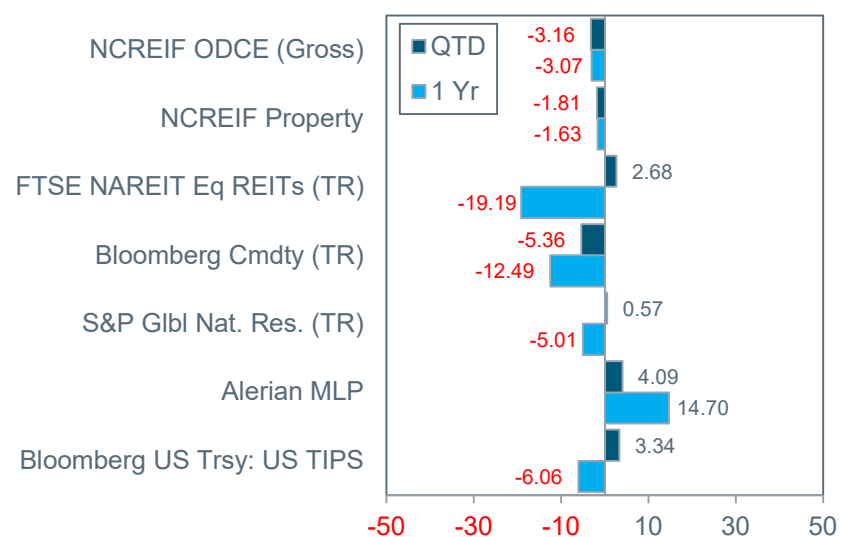
General Market - Real Estate

Core private real estate returned -3.2% in Q1 (gross of fees), as reported by the NCREIF ODCE Index. The total return comprised of 0.8% income and -4.0% price appreciation. Income returns continue to trend at the lower end of historical levels, while price appreciation continues to trend negatively. Investors of publicly traded real estate outperformed private market, delivering a Q1 total return of 1.5%, as measured by FTSE NAREIT All REIT Index.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of March 31, 2023

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD
Best	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	16.09	8.47
	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47	7.50
	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46	5.76
	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.31	4.92
	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19	3.96
	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85	3.57
	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01	3.34
	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45	2.96
	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11	2.74
	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09	2.68
	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44	1.57
	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.39	1.07
	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.37	-3.16
Worst	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09	-5.36
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



Oklahoma State Pension Commission



All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	38,957,623,166	100.00												
OTRS (Teachers) Total Fund	20,254,210,136	51.99	4.03	4.03	5.32	-5.08	12.55	6.62	8.25	7.68	-13.25	18.20	13.22	19.48
OTRS Policy Index			4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	-14.07	15.60	15.24	21.72
Difference			-0.82	-0.82	-2.23	0.62	-0.20	-0.44	-0.06	0.10	0.82	2.60	-2.02	-2.24
OTRS Actual Allocation Index			5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	-15.02	16.21	16.98	18.94
Difference			-1.00	-1.00	-1.42	1.02	-0.05	-0.16	0.08	0.02	1.77	1.99	-3.76	0.54
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			2.32	2.32	0.11	-12.08	5.55	-0.38	1.25	0.68	-20.25	11.20	6.22	12.48
OPERS (Public Employees) Total Fund	10,828,014,755	27.79	6.07	6.07	6.97	-6.41	9.99	5.49	6.99	6.70	-16.74	12.29	15.18	21.23
OPERS Policy Index			5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	-16.62	11.54	15.19	21.46
Difference			0.27	0.27	0.33	0.13	0.26	0.01	-0.03	0.06	-0.12	0.75	-0.01	-0.23
OPERS Actual Allocation Index			5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	-16.87	12.14	18.93	20.87
Difference			0.32	0.32	0.53	0.46	0.38	-0.54	-0.37	-0.21	0.13	0.15	-3.75	0.36
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			4.48	4.48	2.13	-12.91	3.49	-1.01	0.49	0.20	-23.24	5.79	8.68	14.73
OFPRS (Firefighters) Total Fund	3,319,387,670	8.52	4.39	4.39	4.89	-5.19	11.68	6.86	8.51	8.19	-13.34	13.46	17.97	19.77
OFPRS Policy Index			4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	-13.50	16.12	15.02	21.76
Difference			-0.38	-0.38	-0.94	0.72	-0.38	-0.55	0.00	-0.16	0.16	-2.66	2.95	-1.99
OFPRS Actual Allocation Index			4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	-12.83	16.99	14.72	20.30
Difference			-0.26	-0.26	-0.20	0.46	-0.55	-0.35	-0.03	0.12	-0.51	-3.53	3.25	-0.53
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			2.57	2.57	-0.68	-12.69	4.18	-0.64	1.01	0.69	-20.84	5.96	10.47	12.27
OPPRS (Police) Total Fund	2,984,121,134	7.66	2.12	2.12	1.07	-6.38	10.66	6.05	7.16	6.61	-10.39	17.28	12.17	15.22
OPPRS Policy Index			5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	-13.27	14.76	12.66	19.13
Difference			-3.32	-3.32	-5.03	-1.25	0.03	0.00	-0.03	0.23	2.88	2.52	-0.49	-3.91
OPPRS Actual Allocation Index			4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	-12.42	13.63	14.47	15.02
Difference			-1.89	-1.89	-3.96	-0.42	0.82	0.53	0.35	0.40	2.03	3.65	-2.30	0.20
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.30	0.30	-4.50	-13.88	3.16	-1.45	-0.34	-0.89	-17.89	9.78	4.67	7.72

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OLERS (Law Enforcement) Total Fund	1,078,069,479	2.77	3.72	3.72	3.55	-6.79	9.92	4.91	6.56	6.13	-14.24	14.56	12.26	17.44
OLERS Policy Index			4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	-13.75	14.02	12.84	19.12
Difference			-0.52	-0.52	-1.28	-0.65	-0.13	-1.01	-0.58	-0.85	-0.49	0.54	-0.58	-1.68
OLERS Actual Allocation Index			4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	-13.91	14.75	21.88	17.33
Difference			-1.13	-1.13	-2.45	-1.11	-2.64	-2.57	-1.74	-1.51	-0.33	-0.19	-9.62	0.11
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			1.90	1.90	-2.02	-14.29	2.42	-2.59	-0.94	-1.37	-21.74	7.06	4.76	9.94
URSJJ (Judges) Total Fund	369,717,606	0.95	5.81	5.81	6.60	-6.84	9.61	5.40	6.95	6.60	-16.95	12.08	15.06	21.36
URSJJ Policy Index			5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	-16.62	11.54	15.19	21.51
Difference			0.01	0.01	-0.04	-0.30	-0.12	-0.09	-0.07	-0.04	-0.33	0.54	-0.13	-0.15
URSJJ Actual Allocation Index			5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	-16.86	12.10	18.70	21.01
Difference			0.06	0.06	0.15	-0.01	0.11	-0.59	-0.38	-0.22	-0.09	-0.02	-3.64	0.35
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			4.22	4.22	1.76	-13.34	3.11	-1.10	0.45	0.10	-23.45	5.58	8.56	14.86
OWCRS (Wildlife) Total Fund	124,102,385	0.32	6.88	6.88	8.10	-3.97	9.64	5.78	6.79	6.52	-14.41	11.58	13.00	19.21
OWCRS Policy Index			5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	-15.39	10.17	12.67	17.53
Difference			1.45	1.45	1.28	1.99	1.23	1.24	1.11	0.99	0.98	1.41	0.33	1.68
OWCRS Actual Allocation Index			5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	-15.18	10.28	13.21	20.53
Difference			1.53	1.53	1.83	1.94	0.77	0.29	0.10	0.04	0.77	1.30	-0.21	-1.32
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			5.17	5.17	2.89	-10.97	2.64	-1.22	-0.21	-0.48	-21.41	4.58	6.00	12.21

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



All Plans Summary

Asset Allocation & Performance - Gross of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	38,957,623,166	100.00												
All Public Plans-Total Fund Median			4.17	4.17	5.45	-4.96	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57
OTRS (Teachers) Total Fund	20,254,210,136	51.99	4.07	4.07	5.46	-4.91	12.77	6.87	8.55	8.04	-13.08	18.42	13.45	19.83
OTRS Policy Index			4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	-14.07	15.60	15.24	21.72
Difference			-0.78	-0.78	-2.09	0.79	0.02	-0.19	0.24	0.46	0.99	2.82	-1.79	-1.89
OTRS Actual Allocation Index			5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	-15.02	16.21	16.98	18.94
Difference			-0.96	-0.96	-1.28	1.19	0.17	0.09	0.38	0.38	1.94	2.21	-3.53	0.89
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			2.36	2.36	0.25	-11.91	5.77	-0.13	1.55	1.04	-20.08	11.42	6.45	12.83
Rank			56	56	51	49	11	22	9	11	55	9	38	32
OPERS (Public Employees) Total Fund	10,828,014,755	27.79	6.10	6.10	7.07	-6.30	10.13	5.62	7.12	6.82	-16.64	12.46	15.34	21.38
OPERS Policy Index			5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	-16.62	11.54	15.19	21.46
Difference			0.30	0.30	0.43	0.24	0.40	0.14	0.10	0.18	-0.02	0.92	0.15	-0.08
OPERS Actual Allocation Index			5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	-16.87	12.14	18.93	20.87
Difference			0.35	0.35	0.63	0.57	0.52	-0.41	-0.24	-0.09	0.23	0.32	-3.59	0.51
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			4.51	4.51	2.23	-12.80	3.63	-0.88	0.62	0.32	-23.14	5.96	8.84	14.88
Rank			3	3	10	85	67	67	62	57	95	72	19	12
OFPRS (Firefighters) Total Fund	3,319,387,670	8.52	4.46	4.46	5.16	-4.86	12.08	7.23	8.88	8.55	-13.03	13.87	18.44	20.15
OFPRS Policy Index			4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	-13.50	16.12	15.02	21.76
Difference			-0.31	-0.31	-0.67	1.05	0.02	-0.18	0.37	0.20	0.47	-2.25	3.42	-1.61
OFPRS Actual Allocation Index			4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	-12.83	16.99	14.72	20.30
Difference			-0.19	-0.19	0.07	0.79	-0.15	0.02	0.34	0.48	-0.20	-3.12	3.72	-0.15
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			2.64	2.64	-0.41	-12.36	4.58	-0.27	1.38	1.05	-20.53	6.37	10.94	12.65
Rank			38	38	61	47	23	12	6	3	54	53	5	27

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



All Plans Summary

Asset Allocation & Performance - Gross of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OPPRS (Police) Total Fund	2,984,121,134	7.66	2.18	2.18	1.30	-6.03	11.06	6.45	7.58	7.05	-9.99	17.71	12.54	15.68
OPPRS Policy Index			5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	-13.27	14.76	12.66	19.13
Difference			-3.26	-3.26	-4.80	-0.90	0.43	0.40	0.39	0.67	3.28	2.95	-0.12	-3.45
OPPRS Actual Allocation Index			4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	-12.42	13.63	14.47	15.02
Difference			-1.83	-1.83	-3.73	-0.07	1.22	0.93	0.77	0.84	2.43	4.08	-1.93	0.66
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.36	0.36	-4.27	-13.53	3.56	-1.05	0.08	-0.45	-17.49	10.21	5.04	8.18
Rank			94	94	98	79	46	37	42	47	21	12	50	85
OLERS (Law Enforcement) Total Fund	1,078,069,479	2.77	3.84	3.84	3.88	-6.38	10.41	5.41	7.10	6.68	-13.87	15.04	12.80	18.07
OLERS Policy Index			4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	-13.75	14.02	12.84	19.12
Difference			-0.40	-0.40	-0.95	-0.24	0.36	-0.51	-0.04	-0.30	-0.12	1.02	-0.04	-1.05
OLERS Actual Allocation Index			4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	-13.91	14.75	21.88	17.33
Difference			-1.01	-1.01	-2.12	-0.70	-2.15	-2.07	-1.20	-0.96	0.04	0.29	-9.08	0.74
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			2.02	2.02	-1.69	-13.88	2.91	-2.09	-0.40	-0.82	-21.37	7.54	5.30	10.57
Rank			68	68	82	86	61	72	62	61	65	35	47	57
URSJJ (Judges) Total Fund	369,717,606	0.95	5.83	5.83	6.62	-6.81	9.65	5.44	6.99	6.65	-16.93	12.12	15.10	21.40
URSJJ Policy Index			5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	-16.62	11.54	15.19	21.51
Difference			0.03	0.03	-0.02	-0.27	-0.08	-0.05	-0.03	0.01	-0.31	0.58	-0.09	-0.11
URSJJ Actual Allocation Index			5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	-16.86	12.10	18.70	21.01
Difference			0.08	0.08	0.17	0.02	0.15	-0.55	-0.34	-0.17	-0.07	0.02	-3.60	0.39
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			4.24	4.24	1.78	-13.31	3.15	-1.06	0.49	0.15	-23.43	5.62	8.60	14.90
Rank			6	6	17	92	76	71	66	63	97	77	22	11
OWCRS (Wildlife) Total Fund	124,102,385	0.32	6.97	6.97	8.36	-3.65	10.00	6.07	7.05	6.76	-14.14	11.95	13.34	19.46
OWCRS Policy Index			5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	-15.39	10.17	12.67	17.53
Difference			1.54	1.54	1.54	2.31	1.59	1.53	1.37	1.23	1.25	1.78	0.67	1.93
OWCRS Actual Allocation Index			5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	-15.18	10.28	13.21	20.53
Difference			1.62	1.62	2.09	2.26	1.13	0.58	0.36	0.28	1.04	1.67	0.13	-1.07
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			5.26	5.26	3.15	-10.65	3.00	-0.93	0.05	-0.24	-21.14	4.95	6.34	12.46
Rank			1	1	3	23	69	52	64	59	68	79	39	37

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
US Equity												
OTRS US Equity	5.41	5.41	8.88	-7.22	19.44	8.22	10.57	10.46	-16.72	24.40	15.40	27.64
Russell 3000 Index	7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	-19.21	25.66	20.89	31.02
Difference	-1.77	-1.77	-0.87	1.36	0.96	-2.23	-1.42	-1.27	2.49	-1.26	-5.49	-3.38
OPERS US Equity	6.77	6.77	10.15	-8.01	19.68	10.08	11.85	11.53	-17.77	25.96	20.37	29.26
OPERS US Equity Custom Index	6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	-19.29	24.73	20.97	30.56
Difference	-0.02	-0.02	0.64	0.82	1.20	0.08	0.13	0.05	1.52	1.23	-0.60	-1.30
OFPRS US Equity	6.99	6.99	10.03	-8.43	17.43	9.44	11.53	11.24	-20.77	19.50	25.45	31.05
Wilshire 5000 Index	7.29	7.29	9.80	-8.62	18.80	10.71	12.19	11.91	-19.04	26.70	20.82	31.02
Difference	-0.30	-0.30	0.23	0.19	-1.37	-1.27	-0.66	-0.67	-1.73	-7.20	4.63	0.03
OLERS US Equity	6.00	6.00	9.20	-9.82	19.04	8.64	11.17	10.62	-20.76	25.49	19.46	32.12
S&P 500 Index (Cap Wtd)	7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	-18.11	28.71	18.40	31.49
Difference	-1.50	-1.50	-0.78	-2.09	0.44	-2.55	-1.25	-1.62	-2.65	-3.22	1.06	0.63
URSJJ US Equity	6.75	6.75	9.51	-8.84	18.47	9.95	11.69	11.45	-19.30	24.69	21.02	30.49
URSJJ US Equity Custom Index	6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	-19.29	24.73	20.97	30.56
Difference	-0.04	-0.04	0.00	-0.01	-0.01	-0.05	-0.03	-0.03	-0.01	-0.04	0.05	-0.07
OWCRS US Equity	9.35	9.35	12.07	-5.17	18.94	10.45	12.18	11.92	-17.26	26.38	18.87	28.92
Russell 3000 Index	7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	-19.21	25.66	20.89	31.02
Difference	2.17	2.17	2.32	3.41	0.46	0.00	0.19	0.19	1.95	0.72	-2.02	-2.10

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
International Equity												
OTRS International Equity	7.19	7.19	8.75	-7.53	12.35	1.48	5.43	4.74	-20.25	11.24	12.13	21.38
MSCI ACW Ex US IM Index (USD) (Gross)	6.70	6.70	10.20	-5.34	12.72	2.84	6.32	4.76	-16.15	8.99	11.59	22.24
Difference	0.49	0.49	-1.45	-2.19	-0.37	-1.36	-0.89	-0.02	-4.10	2.25	0.54	-0.86
OPERS International Equity	7.88	7.88	10.50	-4.44	11.71	2.84	5.93	4.57	-17.40	6.98	12.30	23.21
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	0.88	0.88	0.12	0.12	-0.61	-0.13	-0.44	-0.08	-1.83	-1.31	1.17	1.08
OFPRS International Equity	8.03	8.03	10.43	-4.10	11.64	5.18	8.55	6.35	-21.14	7.00	31.77	26.48
MSCI ACW Ex US Index (USD) (Net)	6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	-16.00	7.82	10.65	21.51
Difference	1.16	1.16	0.40	0.97	-0.16	2.71	2.69	2.18	-5.14	-0.82	21.12	4.97
OLERS International Equity	7.67	7.67	8.63	-6.24	11.06	2.31	5.68	4.11	-19.15	7.51	12.49	23.70
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	0.67	0.67	-1.75	-1.68	-1.26	-0.66	-0.69	-0.54	-3.58	-0.78	1.36	1.57
URSJJ International Equity	6.97	6.97	10.21	-4.73	12.09	2.77	6.14	4.43	-15.73	8.06	10.86	21.83
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	-0.03	-0.03	-0.17	-0.17	-0.23	-0.20	-0.23	-0.22	-0.16	-0.23	-0.27	-0.30
OWCRS International Equity	7.52	7.52	11.54	-2.08	12.18	2.12	5.93	4.42	-15.79	5.57	10.17	23.05
MSCI ACW Ex US Index (USD) (Net)	6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	-16.00	7.82	10.65	21.51
Difference	0.65	0.65	1.51	2.99	0.38	-0.35	0.07	0.25	0.21	-2.25	-0.48	1.54
Total Equity												
OPPRS Total Equity	3.62	3.62	2.95	-8.75	15.65	8.17	9.66	8.84	-15.22	23.58	18.46	21.98
MSCI ACW Index (USD) (Gross)	7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	-17.96	19.04	16.82	27.30
Difference	-3.82	-3.82	-7.19	-1.79	-0.25	0.71	-0.06	0.22	2.74	4.54	1.64	-5.32

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Fixed Income												
OTRS Fixed Income	3.78	3.78	1.34	-6.77	-1.20	1.71	2.43	2.53	-15.24	0.05	11.91	11.84
Bloomberg US Unv Bond Index	2.93	2.93	0.55	-4.61	-2.02	1.05	1.24	1.62	-12.99	-1.10	7.58	9.29
Difference	0.85	0.85	0.79	-2.16	0.82	0.66	1.19	0.91	-3.25	1.15	4.33	2.55
OPERS Fixed Income	3.59	3.59	-0.10	-6.15	-2.77	1.49	1.35	1.78	-15.02	-0.82	10.54	10.12
OPERS Fixed Income Custom Index	3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	-15.08	-1.01	9.08	9.43
Difference	0.11	0.11	0.62	0.20	0.51	0.48	0.42	0.35	0.06	0.19	1.46	0.69
OFPRS Fixed Income	3.69	3.69	0.94	-7.19	-0.73	-0.79	0.41	0.88	-14.23	-2.93	8.25	6.97
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.73	0.73	1.03	-2.41	2.04	-1.69	-0.47	-0.48	-1.22	-1.38	0.74	-1.75
OPPRS Fixed Income	2.18	2.18	1.48	-3.55	1.31	1.48	2.15	2.02	-8.90	1.28	6.63	7.24
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	-0.78	-0.78	1.57	1.23	4.08	0.58	1.27	0.66	4.11	2.83	-0.88	-1.48
OLERS Fixed Income	3.28	3.28	0.51	-5.04	-2.66	-0.30	0.61	0.88	-13.40	-1.91	5.47	6.01
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.32	0.32	0.60	-0.26	0.11	-1.20	-0.27	-0.48	-0.39	-0.36	-2.04	-2.71
URSJJ Fixed Income	3.60	3.60	-0.14	-6.19	-2.87	1.45	1.31	1.74	-15.07	-0.92	10.58	10.06
URSJJ Fixed Income Custom Index	3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	-15.08	-1.01	9.08	9.43
Difference	0.12	0.12	0.58	0.16	0.41	0.44	0.38	0.31	0.01	0.09	1.50	0.63
OWCRS Fixed Income	3.23	3.23	0.95	-4.11	-1.36	1.42	1.05	1.35	-12.29	-0.41	8.29	7.94
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.27	0.27	1.04	0.67	1.41	0.52	0.17	-0.01	0.72	1.14	0.78	-0.78

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Real Estate												
OTRS Real Estate	-3.30	-3.30	0.51	7.37	7.33	6.69	6.90	N/A	18.29	11.65	-2.48	5.59
NCREIF Property Index	-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	5.52	17.70	1.60	6.42
Difference	-1.49	-1.49	5.22	9.00	0.18	-0.02	0.05	N/A	12.77	-6.05	-4.08	-0.83
NCREIF ODCE Index (AWA) (Net)	-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.55	21.02	0.34	4.39
Difference	0.08	0.08	8.59	11.28	-0.13	0.13	0.15	N/A	11.74	-9.37	-2.82	1.20
OPERS Real Estate	1.59	1.59	6.14	6.70	-3.69	-1.56	0.12	N/A	6.35	-8.15	-8.51	2.90
NCREIF ODCE Index (AWA) (Net)	-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.55	21.02	0.34	4.39
Difference	4.97	4.97	14.22	10.61	-11.15	-8.12	-6.63	N/A	-0.20	-29.17	-8.85	-1.49
OFPRS Real Estate	-2.26	-2.26	-5.52	-2.70	5.78	5.83	6.42	8.39	6.39	16.14	-0.50	3.99
NCREIF ODCE Index (AWA) (Net)	-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.55	21.02	0.34	4.39
Difference	1.12	1.12	2.56	1.21	-1.68	-0.73	-0.33	-0.08	-0.16	-4.88	-0.84	-0.40
Real Assets												
OPPRS Real Assets	-3.80	-3.80	-5.96	0.46	7.49	5.57	6.04	6.00	11.32	17.79	-1.07	3.52
OPPRS Real Assets Blended Benchmark	-3.38	-3.38	-8.08	-3.91	7.46	5.43	5.87	4.29	6.55	21.02	0.34	4.43
Difference	-0.42	-0.42	2.12	4.37	0.03	0.14	0.17	1.71	4.77	-3.23	-1.41	-0.91
OLERS Real Assets	-3.40	-3.40	-7.91	-4.74	5.93	4.67	5.26	5.61	4.82	18.80	0.06	2.74
OLERS Real Assets Blended Benchmark	-3.38	-3.38	-8.08	-3.91	7.46	5.54	5.96	5.09	6.55	21.02	0.34	4.46
Difference	-0.02	-0.02	0.17	-0.83	-1.53	-0.87	-0.70	0.52	-1.73	-2.22	-0.28	-1.72

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Oklahoma State Pension Commission
 All Plans Summary
 Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Hedge Funds												
OFPRS Hedge Fund	14.83	14.83	44.87	43.61	-6.45	-4.15	-0.97	-0.50	0.36	-26.04	-4.62	3.52
HFRI FOF: Cnsvt Index	0.92	0.92	2.60	0.85	7.64	3.93	4.06	3.45	0.08	7.62	6.47	6.30
Difference	13.91	13.91	42.27	42.76	-14.09	-8.08	-5.03	-3.95	0.28	-33.66	-11.09	-2.78
OPPRS Long/Short Equity												
OPPRS Long/Short Equity	3.04	3.04	6.46	-8.68	4.51	2.78	4.45	4.42	-17.32	0.11	22.33	16.34
MSCI ACW Index (USD) (Gross)	7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	-17.96	19.04	16.82	27.30
Difference	-4.40	-4.40	-3.68	-1.72	-11.39	-4.68	-5.27	-4.20	0.64	-18.93	5.51	-10.96
HFRI FOF: Strategic Index	1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	-11.71	6.26	14.62	10.52
Difference	1.84	1.84	4.37	-3.83	-2.77	0.53	0.58	1.29	-5.61	-6.15	7.71	5.82
OLERS Long/Short Equity												
OLERS Long/Short Equity	2.34	2.34	5.84	-8.45	1.25	-0.20	2.51	2.83	-17.54	-1.52	13.12	12.40
MSCI ACW Index (USD) (Gross)	7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	-17.96	19.04	16.82	27.30
Difference	-5.10	-5.10	-4.30	-1.49	-14.65	-7.66	-7.21	-5.79	0.42	-20.56	-3.70	-14.90
HFRI FOF: Strategic Index	1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	-11.71	6.26	14.62	10.52
Difference	1.14	1.14	3.75	-3.60	-6.03	-2.45	-1.36	-0.30	-5.83	-7.78	-1.50	1.88

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Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Net of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Private Equity												
OTRS Private Equity	-0.01	-0.01	-3.89	-0.21	21.99	21.80	19.50	18.03	-0.26	57.72	17.27	17.73
R 2000 Index+4%	3.75	3.75	9.94	-8.07	22.21	8.90	12.89	12.36	-17.25	19.41	24.76	30.55
Difference	-3.76	-3.76	-13.83	7.86	-0.22	12.90	6.61	5.67	16.99	38.31	-7.49	-12.82
OFPRS Private Equity	2.86	2.86	1.85	7.74	20.85	17.43	16.09	N/A	10.18	49.68	7.49	6.45
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	2.86	2.86	0.77	10.73	-2.58	1.94	0.05	N/A	12.52	9.07	-14.88	-7.39
OPPRS Private Equity	-2.76	-2.76	-11.45	-10.04	21.84	17.94	15.30	14.39	-1.91	67.32	15.87	10.51
MSCI ACW Index (USD) (Gross)	7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	-17.96	19.04	16.82	27.30
Difference	-10.20	-10.20	-21.59	-3.08	5.94	10.48	5.58	5.77	16.05	48.28	-0.95	-16.79
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	-2.76	-2.76	-12.53	-7.05	-1.59	2.45	-0.74	-0.14	0.43	26.71	-6.50	-3.33
OLERS Private Equity	0.78	0.78	-1.50	-1.56	22.23	14.74	13.25	12.22	-0.26	41.10	20.25	14.02
S&P 500 Index+5%	8.82	8.82	14.08	-3.11	24.53	16.75	18.04	17.85	-14.02	35.14	24.32	38.06
Difference	-8.04	-8.04	-15.58	1.55	-2.30	-2.01	-4.79	-5.63	13.76	5.96	-4.07	-24.04
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	0.78	0.78	-2.58	1.43	-1.20	-0.75	-2.79	-2.31	2.08	0.49	-2.12	0.18
Other Alternatives												
OWCRS Alternative Investments	4.49	4.49	6.94	-1.70	9.19	3.63	4.74	2.90	-6.41	8.64	2.14	15.31
OWCRS Alternatives Custom Index	0.72	0.72	2.10	-1.93	7.17	3.10	3.91	N/A	-5.31	6.17	10.88	8.38
Difference	3.77	3.77	4.84	0.23	2.02	0.53	0.83	N/A	-1.10	2.47	-8.74	6.93

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Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Gross of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
US Equity												
OTRS US Equity	5.43	5.43	8.95	-7.12	19.62	8.46	10.88	10.70	-15.60	24.61	15.62	28.03
Russell 3000 Index	7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	-19.21	25.66	20.89	31.02
Difference	-1.75	-1.75	-0.80	1.46	1.14	-1.99	-1.11	-1.03	2.61	-1.05	-5.27	-2.99
OPERS US Equity	6.79	6.79	10.31	-7.86	19.86	10.23	11.99	11.66	-17.63	26.13	20.53	29.50
OPERS US Equity Custom Index	6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	-19.29	24.73	20.97	30.56
Difference	0.00	0.00	0.80	0.97	1.38	0.23	0.27	0.18	1.66	1.40	-0.44	-1.06
OPPRS US Equity	7.06	7.06	10.31	-8.12	17.81	9.77	11.85	11.56	-20.49	19.85	25.89	31.43
Russell 3000 Index	7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	-19.21	25.66	20.89	31.02
Difference	-0.12	-0.12	0.56	0.46	-0.67	-0.68	-0.14	-0.17	-1.28	-5.81	5.00	0.41
OLERS US Equity	6.14	6.14	9.62	-9.33	19.63	9.20	11.73	11.19	-20.32	26.08	20.00	32.83
S&P 500 Index (Cap Wtd)	7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	-18.11	28.71	18.40	31.49
Difference	-1.36	-1.36	-0.36	-1.60	1.03	-1.99	-0.69	-1.05	-2.21	-2.63	1.60	1.34
URSJJ US Equity	6.75	6.75	9.51	-8.83	18.48	9.96	11.70	11.46	-19.30	24.70	21.03	30.51
URSJJ US Equity Custom Index	6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	-19.29	24.73	20.97	30.56
Difference	-0.04	-0.04	0.00	0.00	0.00	-0.04	-0.02	-0.02	-0.01	-0.03	0.06	-0.05
OWCRS US Equity	9.39	9.39	12.19	-5.03	19.12	10.68	12.43	12.13	-17.14	26.59	19.18	29.17
Russell 3000 Index	7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	-19.21	25.66	20.89	31.02
Difference	2.21	2.21	2.44	3.55	0.64	0.23	0.44	0.40	2.07	0.93	-1.71	-1.85

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Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Gross of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
International Equity												
OTRS International Equity	7.28	7.28	9.06	-7.16	12.82	1.92	5.91	5.21	-19.91	11.72	12.61	21.95
MSCI ACW Ex US IM Index (USD) (Gross)	6.70	6.70	10.20	-5.34	12.72	2.84	6.32	4.76	-16.15	8.99	11.59	22.24
Difference	0.58	0.58	-1.14	-1.82	0.10	-0.92	-0.41	0.45	-3.76	2.73	1.02	-0.29
OPERS International Equity	7.91	7.91	10.60	-4.32	11.90	3.00	6.10	4.74	-17.30	7.22	12.53	23.34
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	0.91	0.91	0.22	0.24	-0.42	0.03	-0.27	0.09	-1.73	-1.07	1.40	1.21
OFPRS International Equity	8.14	8.14	10.89	-3.55	12.27	5.81	9.24	6.99	-20.65	7.66	32.50	27.22
MSCI ACW Ex US Index (USD) (Net)	6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	-16.00	7.82	10.65	21.51
Difference	1.27	1.27	0.86	1.52	0.47	3.34	3.38	2.82	-4.65	-0.16	21.85	5.71
OLERS International Equity	7.83	7.83	9.13	-5.66	11.69	2.89	6.29	4.67	-18.42	7.69	13.02	24.39
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	0.83	0.83	-1.25	-1.10	-0.63	-0.08	-0.08	0.02	-2.85	-0.60	1.89	2.26
URSJJ International Equity	6.99	6.99	10.22	-4.70	12.11	2.80	6.17	4.46	-15.72	8.09	10.87	21.86
MSCI ACW Ex US Index (USD) (Gross)	7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	-15.57	8.29	11.13	22.13
Difference	-0.01	-0.01	-0.16	-0.14	-0.21	-0.17	-0.20	-0.19	-0.15	-0.20	-0.26	-0.27
OWCRS International Equity	7.65	7.65	11.98	-1.56	12.80	2.74	6.64	5.00	-15.34	6.16	10.82	23.86
MSCI ACW Ex US Index (USD) (Net)	6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	-16.00	7.82	10.65	21.51
Difference	0.78	0.78	1.95	3.51	1.00	0.27	0.78	0.83	0.66	-1.66	0.17	2.35
Total Equity												
OPPRS Total Equity	3.67	3.67	3.11	-8.56	15.93	8.47	9.98	9.19	-15.04	23.90	18.81	22.38
MSCI ACW Index (USD) (Gross)	7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	-17.96	19.04	16.82	27.30
Difference	-3.77	-3.77	-7.03	-1.60	0.03	1.01	0.26	0.57	2.92	4.86	1.99	-4.92

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Oklahoma State Pension Commission
All Plans Summary
Asset Class Performance - Gross of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Fixed Income												
OTRS Fixed Income	3.84	3.84	1.50	-6.60	-1.02	1.90	2.64	2.75	-16.10	0.23	12.11	12.05
Bloomberg US Unv Bond Index	2.93	2.93	0.55	-4.61	-2.02	1.05	1.24	1.62	-12.99	-1.10	7.58	9.29
Difference	0.91	0.91	0.95	-1.99	1.00	0.85	1.40	1.13	-3.11	1.33	4.53	2.76
OPERS Fixed Income	3.62	3.62	-0.05	-6.09	-2.68	1.57	1.43	1.87	-14.97	-0.72	10.65	10.19
OPERS Fixed Income Custom Index	3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	-15.08	-1.01	9.08	9.43
Difference	0.14	0.14	0.67	0.26	0.60	0.56	0.50	0.44	0.11	0.29	1.57	0.76
OFPRS Fixed Income	3.77	3.77	1.19	-6.85	-0.46	-0.53	0.67	1.15	-13.89	-2.70	8.41	7.22
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.81	0.81	1.28	-2.07	2.31	-1.43	-0.21	-0.21	-0.88	-1.15	0.90	-1.50
OPPRS Fixed Income	2.34	2.34	1.80	-3.17	1.66	1.87	2.57	2.47	-8.60	1.60	6.98	7.74
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	-0.62	-0.62	1.89	1.61	4.43	0.97	1.69	1.11	4.41	3.15	-0.53	-0.98
OLERS Fixed Income	3.35	3.35	0.70	-4.82	-2.45	-0.07	0.87	1.15	-13.22	-1.71	5.74	6.29
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.39	0.39	0.79	-0.04	0.32	-0.97	-0.01	-0.21	-0.21	-0.16	-1.77	-2.43
URSJJ Fixed Income	3.63	3.63	-0.09	-6.12	-2.78	1.54	1.39	1.83	-15.02	-0.82	10.70	10.14
URSJJ Fixed Income Custom Index	3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	-15.08	-1.01	9.08	9.43
Difference	0.15	0.15	0.63	0.23	0.50	0.53	0.46	0.40	0.06	0.19	1.62	0.71
OWCRS Fixed Income	3.30	3.30	1.18	-3.81	-1.04	1.61	1.19	1.45	-12.01	-0.10	8.56	7.94
Bloomberg US Agg Bond Index	2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-13.01	-1.55	7.51	8.72
Difference	0.34	0.34	1.27	0.97	1.73	0.71	0.31	0.09	1.00	1.45	1.05	-0.78

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Oklahoma State Pension Commission
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As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Real Estate												
OTRS Real Estate	-3.23	-3.23	0.71	7.66	7.60	6.92	7.11	N/A	18.60	11.92	-3.27	5.77
NCREIF Property Index	-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	5.52	17.70	1.60	6.42
Difference	-1.42	-1.42	5.42	9.29	0.45	0.21	0.26	N/A	13.08	-5.78	-3.87	-0.65
NCREIF ODCE Index (AWA) (Gross)	-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.47	22.17	1.19	5.34
Difference	-0.06	-0.06	8.21	10.75	-0.80	-0.59	-0.60	N/A	11.13	-10.25	-3.46	0.43
OPERS Real Estate	1.59	1.59	6.14	6.70	-3.69	-1.56	0.12	N/A	6.35	-8.15	-8.51	2.90
NCREIF ODCE Index (AWA) (Gross)	-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.47	22.17	1.19	5.34
Difference	4.76	4.76	13.64	9.79	-12.09	-9.07	-7.59	N/A	-1.12	-30.32	-9.70	-2.44
OFPRS Real Estate	-2.12	-2.12	-5.12	-2.13	6.43	6.50	7.11	9.05	7.01	16.84	0.18	4.69
NCREIF Property Index	-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	5.52	17.70	1.60	6.42
Difference	-0.31	-0.31	-0.41	-0.50	-0.72	-0.21	0.26	0.71	1.49	-0.86	-1.42	-1.73
NCREIF ODCE Index (AWA) (Gross)	-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.47	22.17	1.19	5.34
Difference	1.05	1.05	2.38	0.96	-1.97	-1.01	-0.60	-0.40	-0.46	-5.33	-1.01	-0.65
Real Assets												
OPPRS Real Assets	-3.84	-3.84	-5.57	1.45	8.54	6.51	6.95	6.84	13.11	19.08	-0.51	4.21
OPPRS Real Assets Blended Benchmark	-3.38	-3.38	-8.08	-3.91	7.46	5.43	5.87	4.29	6.55	21.02	0.34	4.43
Difference	-0.46	-0.46	2.51	5.36	1.08	1.08	1.08	2.55	6.56	-1.94	-0.85	-0.22
OLERS Real Assets	-3.20	-3.20	-7.40	-4.03	6.81	5.56	6.18	6.55	5.60	19.82	0.94	3.67
OLERS Real Assets Blended Benchmark	-3.38	-3.38	-8.08	-3.91	7.46	5.54	5.96	5.09	6.55	21.02	0.34	4.46
Difference	0.18	0.18	0.68	-0.12	-0.65	0.02	0.22	1.46	-0.95	-1.20	0.60	-0.79

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
 All Plans Summary
 Asset Class Performance - Gross of Fees

As of March 31, 2023

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Hedge Funds												
OFPRS Hedge Fund	14.83	14.83	44.87	43.61	-6.45	-4.15	-0.97	-0.50	0.36	-26.04	-4.62	3.52
HFRI FOF: Cnsvt Index	0.92	0.92	2.60	0.85	7.64	3.93	4.06	3.45	0.08	7.62	6.47	6.30
Difference	13.91	13.91	42.27	42.76	-14.09	-8.08	-5.03	-3.95	0.28	-33.66	-11.09	-2.78
OPPRS Long/Short Equity	3.04	3.04	6.46	-8.67	4.59	3.00	4.75	4.78	-17.31	0.14	22.68	16.85
HFRI FOF: Strategic Index	1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	-11.71	6.26	14.62	10.52
Difference	1.84	1.84	4.37	-3.82	-2.69	0.75	0.88	1.65	-5.60	-6.12	8.06	6.33
OLERS Long/Short Equity	2.34	2.34	5.85	-8.43	1.43	0.24	3.11	3.56	-17.53	-1.46	13.93	13.34
HFRI FOF: Strategic Index	1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	-11.71	6.26	14.62	10.52
Difference	1.14	1.14	3.76	-3.58	-5.85	-2.01	-0.76	0.43	-5.82	-7.72	-0.69	2.82

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
 All Plans Summary
 Asset Class Performance - Gross of Fees

As of March 31, 2023

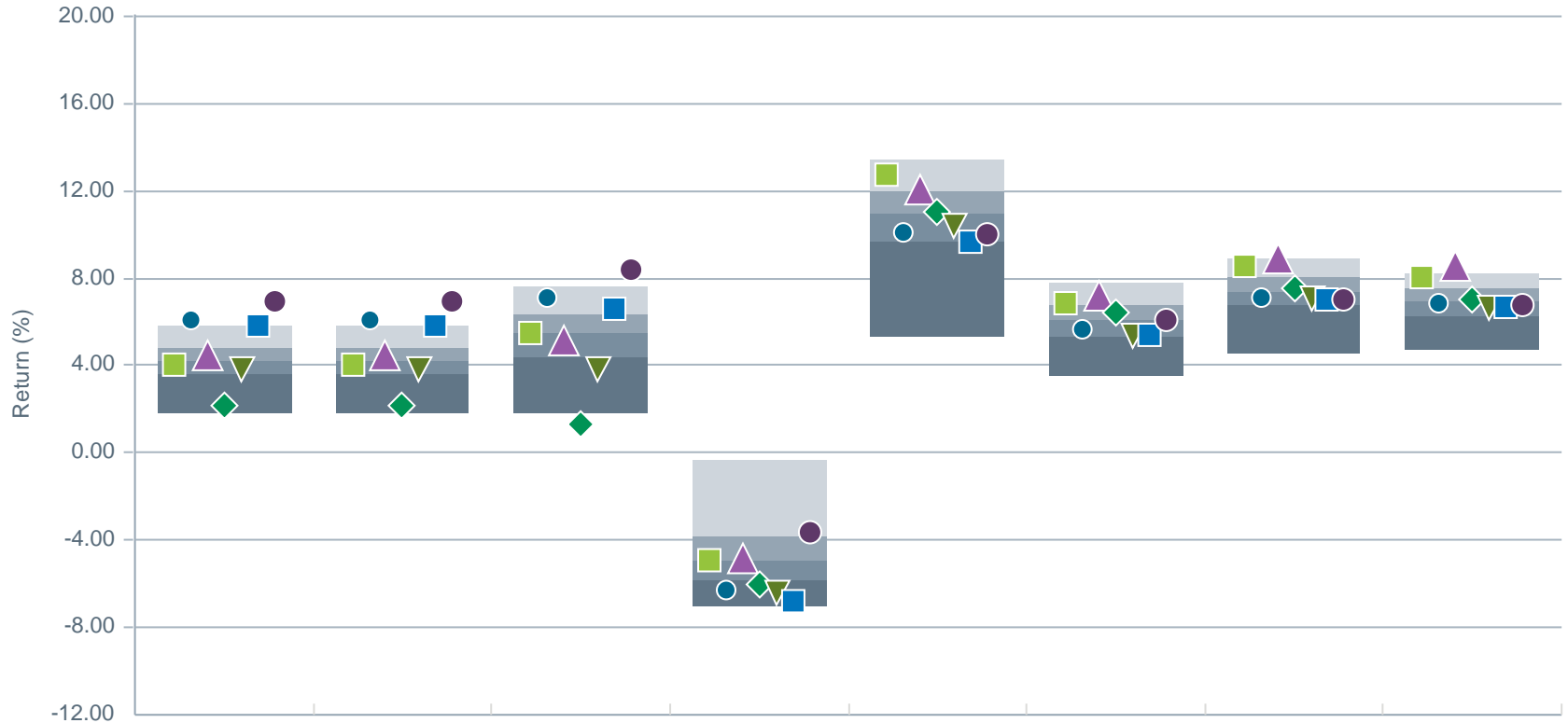
	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Private Equity												
OTRS Private Equity	-0.01	-0.01	-3.89	-0.21	21.99	21.80	19.50	18.03	-0.26	57.72	17.27	17.73
R 2000 Index+4%	3.75	3.75	9.94	-8.07	22.21	8.90	12.89	12.36	-17.25	19.41	24.76	30.55
Difference	-3.76	-3.76	-13.83	7.86	-0.22	12.90	6.61	5.67	16.99	38.31	-7.49	-12.82
OFPRS Private Equity	2.86	2.86	1.85	7.74	20.85	17.43	16.09	N/A	10.18	49.68	7.49	6.45
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	2.86	2.86	0.77	10.73	-2.58	1.94	0.05	N/A	12.52	9.07	-14.88	-7.39
OPPRS Private Equity	-2.76	-2.76	-11.45	-10.04	21.84	17.94	15.30	14.39	-1.91	67.32	15.87	10.51
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	-2.76	-2.76	-12.53	-7.05	-1.59	2.45	-0.74	-0.14	0.43	26.71	-6.50	-3.33
OLERS Private Equity	0.78	0.78	-1.50	-1.56	22.23	14.74	13.25	12.22	-0.26	41.10	20.25	14.02
Cambridge US Prvt Eq Index	0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	-2.34	40.61	22.37	13.84
Difference	0.78	0.78	-2.58	1.43	-1.20	-0.75	-2.79	-2.31	2.08	0.49	-2.12	0.18
Other Alternatives												
OWCRS Alternative Investments	4.78	4.78	7.77	-0.72	10.17	4.18	5.14	3.18	-5.53	9.60	2.74	15.31
OWCRS Alternatives Custom Index	0.72	0.72	2.10	-1.93	7.17	3.10	3.91	N/A	-5.31	6.17	10.88	8.38
Difference	4.06	4.06	5.67	1.21	3.00	1.08	1.23	N/A	-0.22	3.43	-8.14	6.93

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. OPPRS Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
 All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



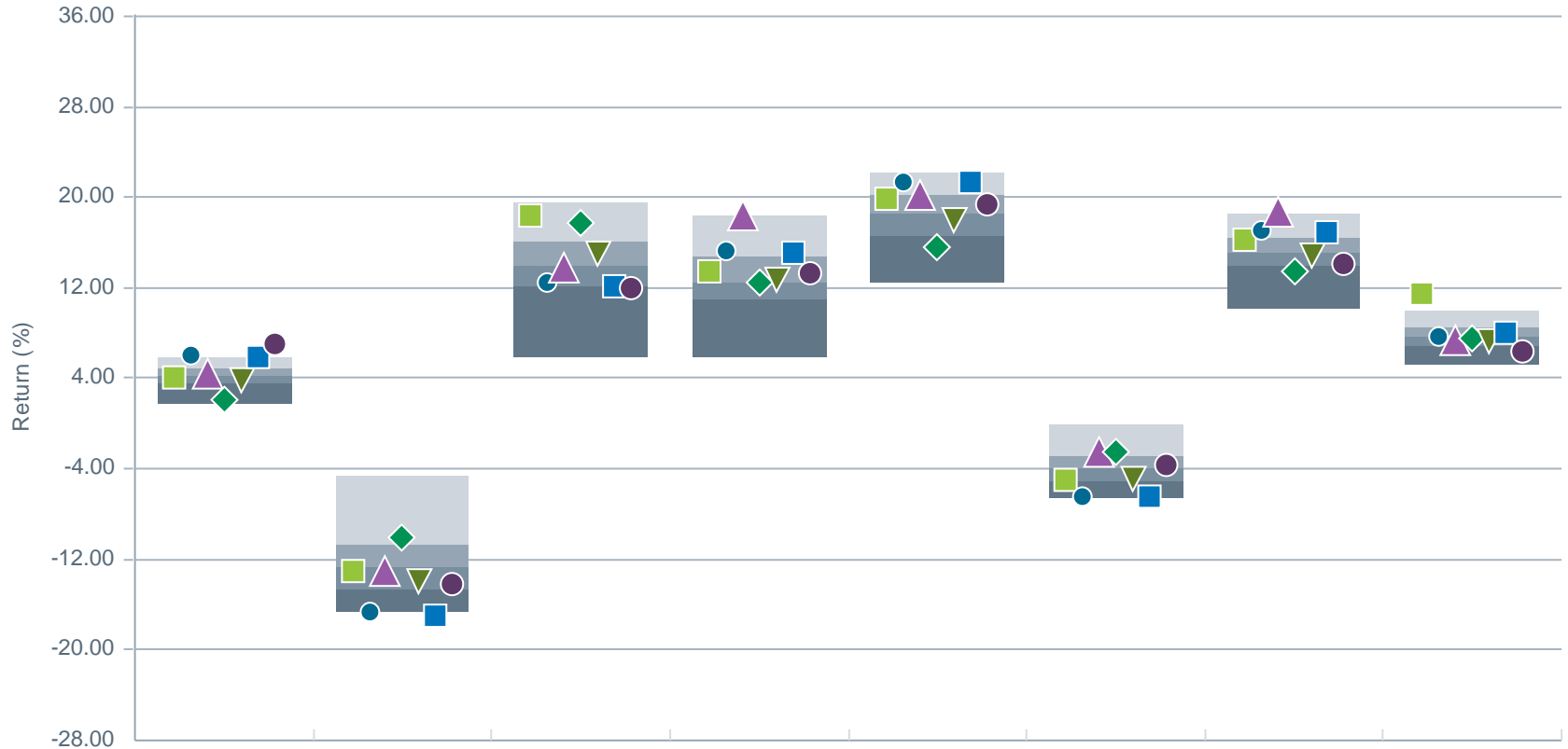
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OTRS (Teachers)	4.07 (56)	4.07 (56)	5.46 (51)	-4.91 (49)	12.77 (11)	6.87 (22)	8.55 (9)	8.04 (11)
● OPERS (Public Employees)	6.10 (3)	6.10 (3)	7.07 (10)	-6.30 (85)	10.13 (67)	5.62 (67)	7.12 (62)	6.82 (57)
▲ OFPRS (Firefighters)	4.46 (38)	4.46 (38)	5.16 (61)	-4.86 (47)	12.08 (23)	7.23 (12)	8.88 (6)	8.55 (3)
◆ OPPRS (Police)	2.18 (94)	2.18 (94)	1.30 (98)	-6.03 (79)	11.06 (46)	6.45 (37)	7.58 (42)	7.05 (47)
▼ OLERS (Law Enforcement)	3.84 (68)	3.84 (68)	3.88 (82)	-6.38 (86)	10.41 (61)	5.41 (72)	7.10 (62)	6.68 (61)
■ URSJJ (Judges)	5.83 (6)	5.83 (6)	6.62 (17)	-6.81 (92)	9.65 (76)	5.44 (71)	6.99 (66)	6.65 (63)
● OWCRS (Wildlife)	6.97 (1)	6.97 (1)	8.36 (3)	-3.65 (23)	10.00 (69)	6.07 (52)	7.05 (64)	6.76 (59)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



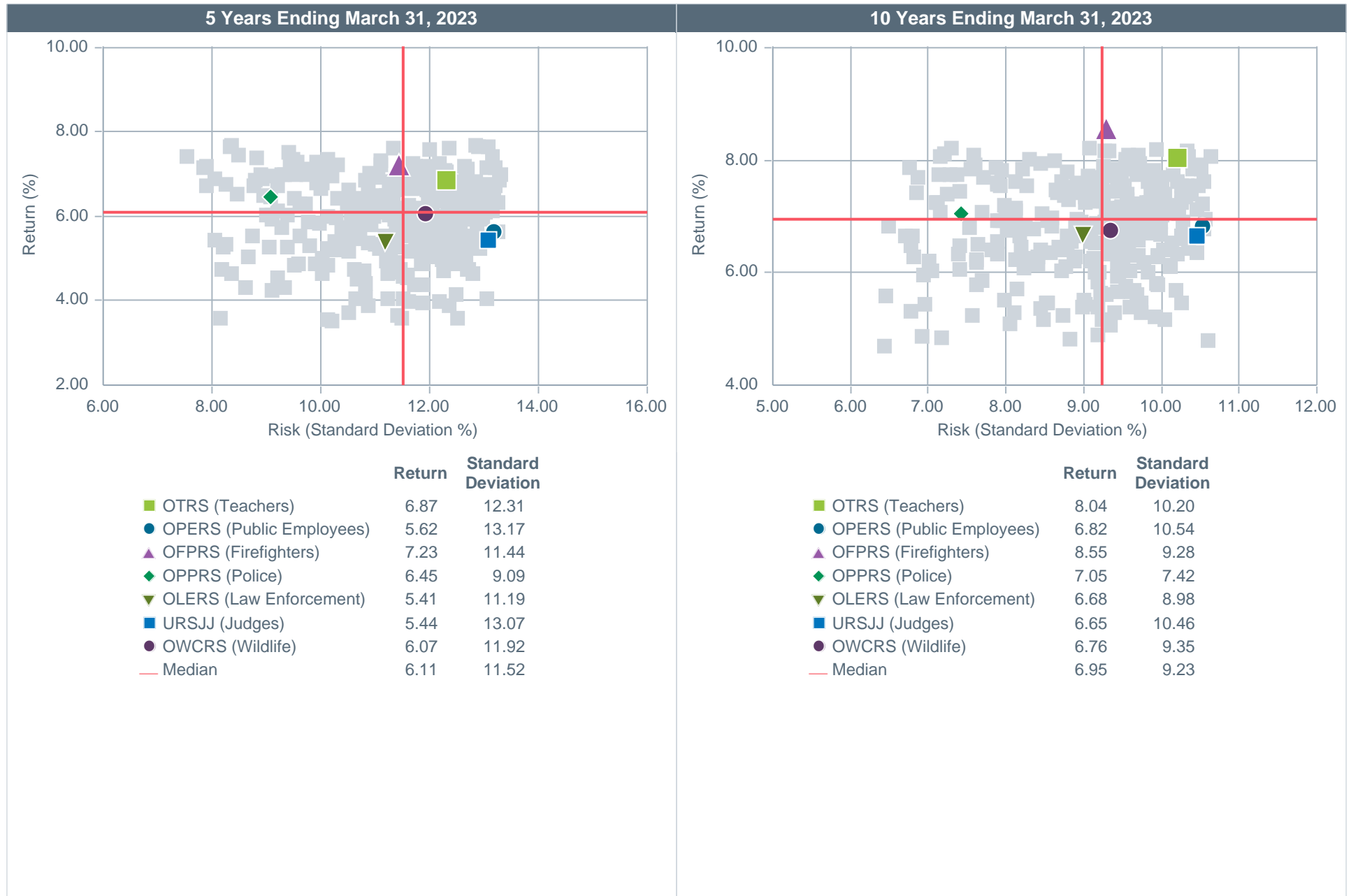
	CYTD	2022	2021	2020	2019	2018	2017	2016
■ OTRS (Teachers)	4.07 (56)	-13.08 (55)	18.42 (9)	13.45 (38)	19.83 (32)	-4.98 (73)	16.20 (29)	11.54 (1)
● OPERS (Public Employees)	6.10 (3)	-16.64 (95)	12.46 (72)	15.34 (19)	21.38 (12)	-6.48 (94)	17.13 (15)	7.69 (51)
▲ OFPRS (Firefighters)	4.46 (38)	-13.03 (54)	13.87 (53)	18.44 (5)	20.15 (27)	-2.46 (19)	18.67 (5)	7.42 (59)
◆ OPPRS (Police)	2.18 (94)	-9.99 (21)	17.71 (12)	12.54 (50)	15.68 (85)	-2.46 (19)	13.40 (83)	7.47 (57)
▼ OLERS (Law Enforcement)	3.84 (68)	-13.87 (65)	15.04 (35)	12.80 (47)	18.07 (57)	-4.76 (67)	15.00 (53)	7.38 (61)
■ URSJJ (Judges)	5.83 (6)	-16.93 (97)	12.12 (77)	15.10 (22)	21.40 (11)	-6.38 (93)	16.89 (18)	8.09 (39)
● OWCRS (Wildlife)	6.97 (1)	-14.14 (68)	11.95 (79)	13.34 (39)	19.46 (37)	-3.68 (44)	14.13 (71)	6.39 (86)
5th Percentile	5.85	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97
1st Quartile	4.83	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51
Median	4.18	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69
3rd Quartile	3.61	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92
95th Percentile	1.83	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28

Performance shown is gross of fees. Parentheses contain percentile ranks. Oklahoma State Pension Commission fiscal year begins on 07/01.



All Plans

Total Fund Risk & Return vs. All Public Plans-Total Fund

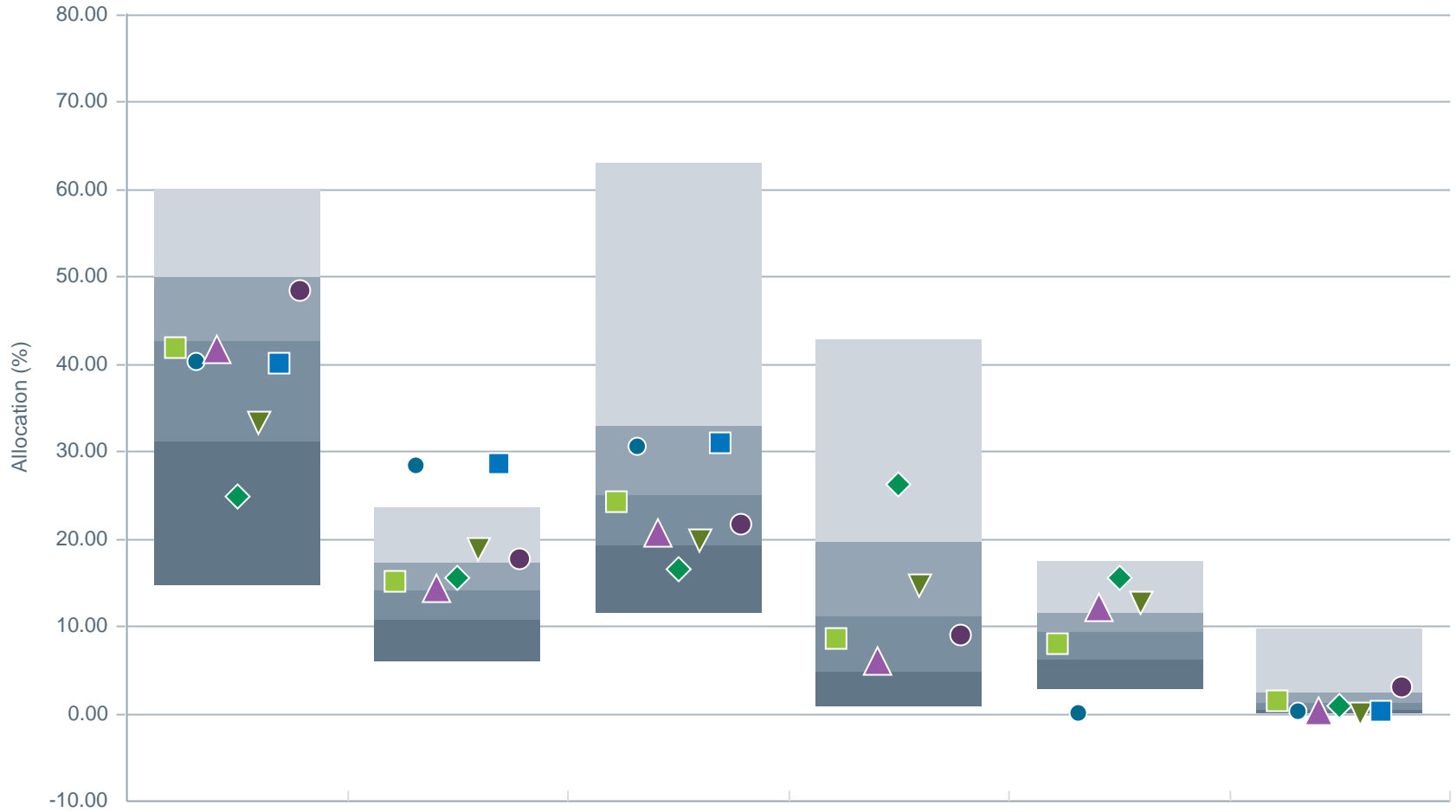


Performance shown is gross of fees. Calculation is based on monthly periodicity.



Oklahoma State Pension Commission
 All Plans Total Fund vs. All Public Plans-Total Fund
 Plan Sponsor TF Asset Allocation

As of March 31, 2023



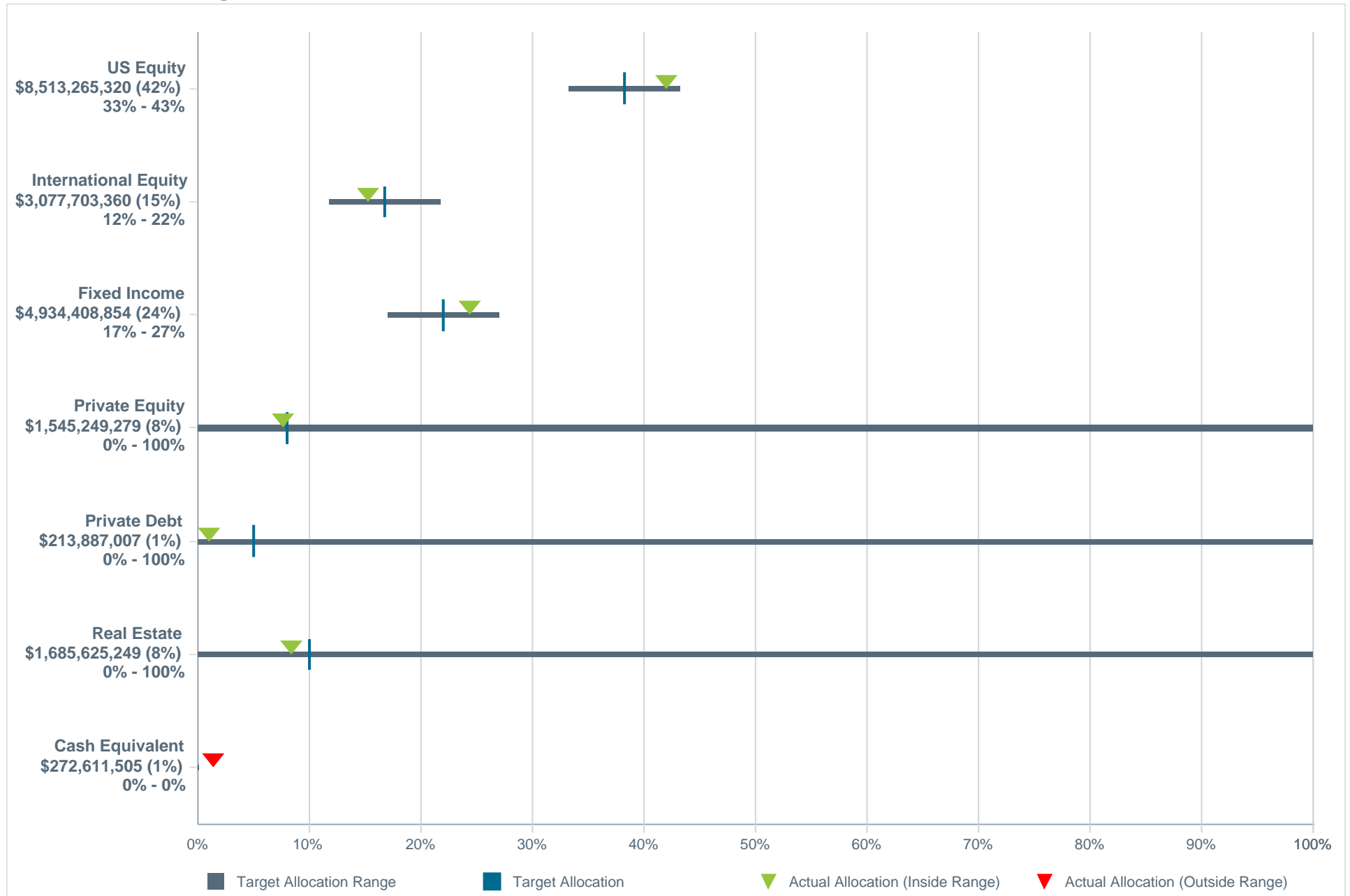
	US Equity	Global ex-US Equity	Total Fixed Income	Alternatives	Total Real Estate	Cash & Equivalents
OTRS (Teachers)	42.03	15.20	24.36	8.69	8.11	1.40
OPERS (Public Employees)	40.37	28.48	30.69	N/A	0.08	0.38
OFPRS (Firefighters)	41.75	14.34	20.76	6.12	12.23	0.32
OPPRS (Police)	24.96	15.60	16.63	26.34	15.60	0.87
OLERS (Law Enforcement)	33.47	18.89	19.98	14.76	12.70	0.19
URSJJ (Judges)	40.11	28.62	31.05	N/A	N/A	0.22
OWCRS (Wildlife)	48.44	17.70	21.78	8.97	N/A	3.12
Median	42.68	14.28	25.11	11.30	9.41	1.23

Parentheses contain percentile ranks.



Oklahoma State Pension Commission
 Oklahoma Teachers' Retirement System
 Asset Allocation vs. Target Allocation

As of March 31, 2023

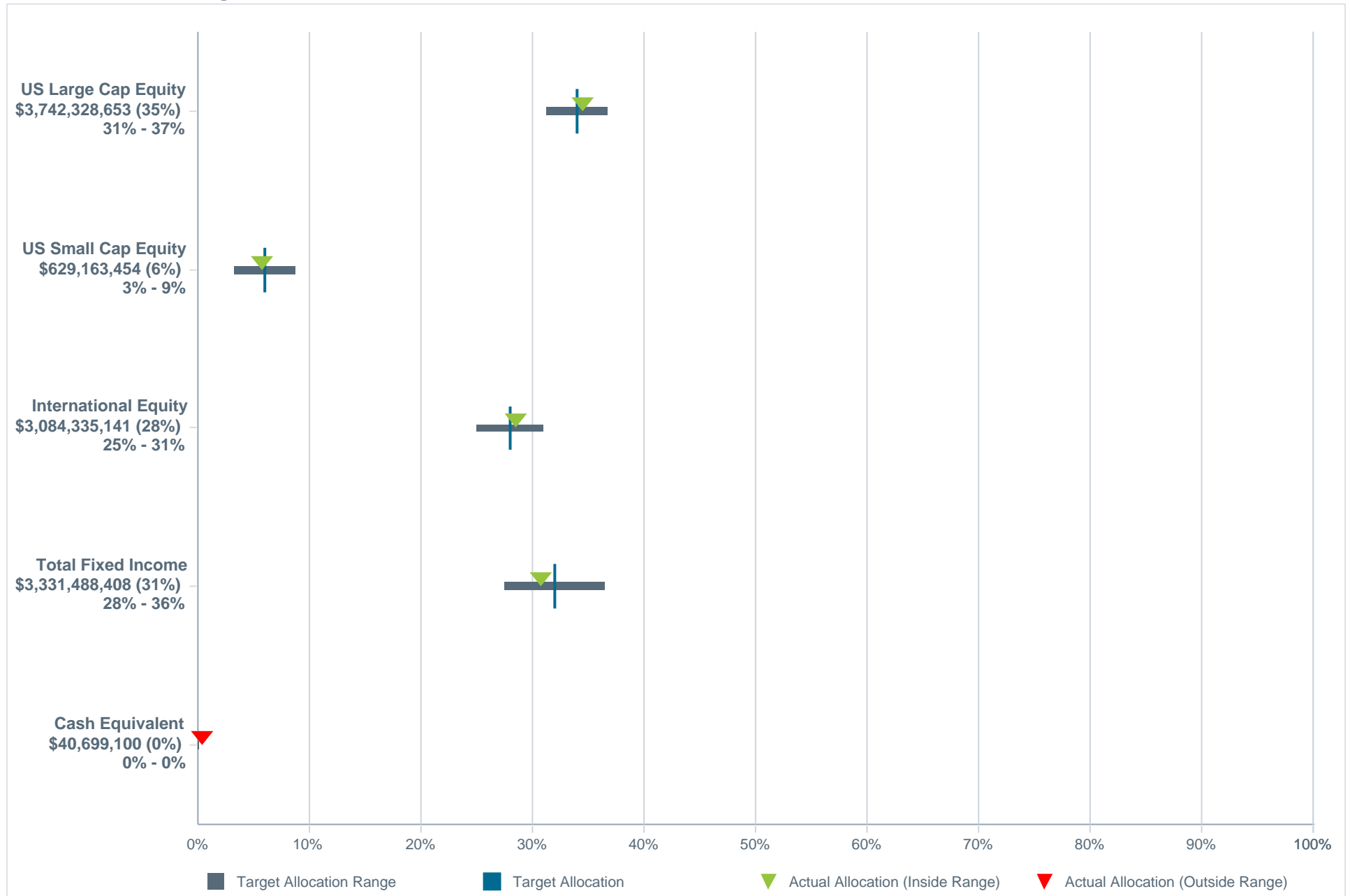


Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Private Equity includes Private Credit. Cash held in short-term investments with the Custodian shall be considered as domestic fixed income for rebalancing purposes.



Oklahoma State Pension Commission
 Oklahoma Public Employees Retirement System
 Asset Allocation vs. Target Allocation

As of March 31, 2023

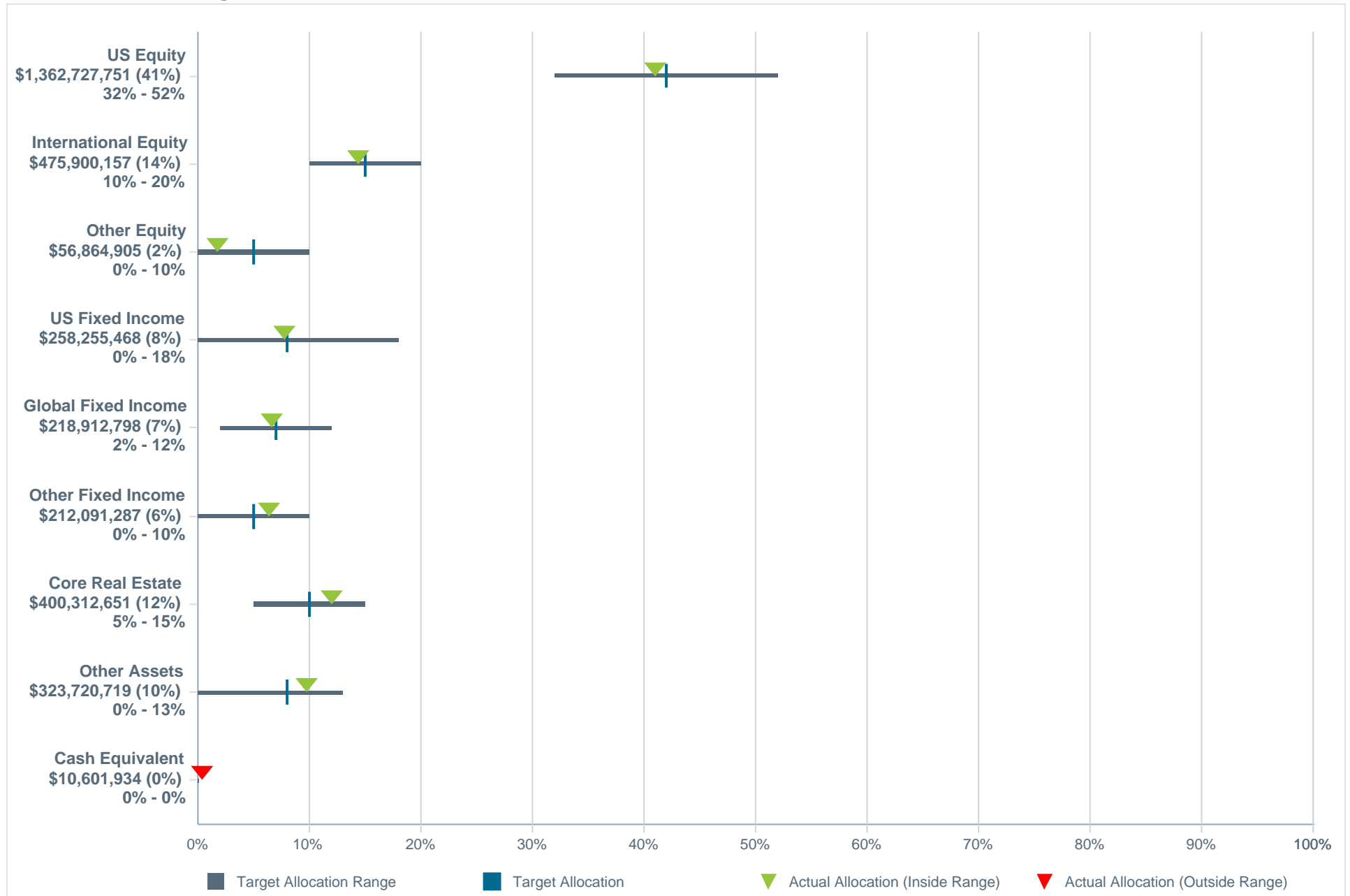


Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.



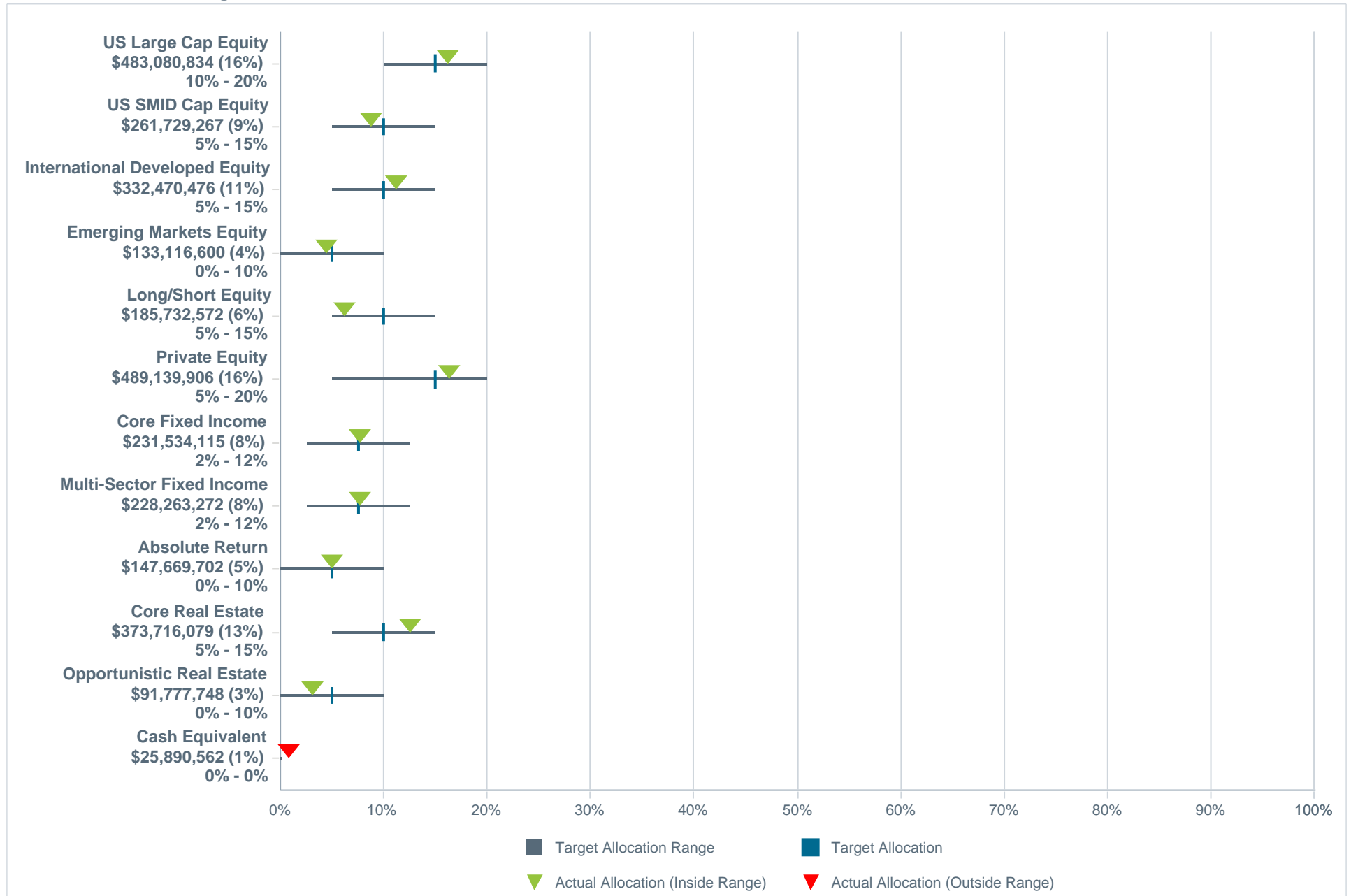
Oklahoma State Pension Commission
 Oklahoma Firefighters Pension & Retirement System
 Asset Allocation vs. Target Allocation

As of March 31, 2023

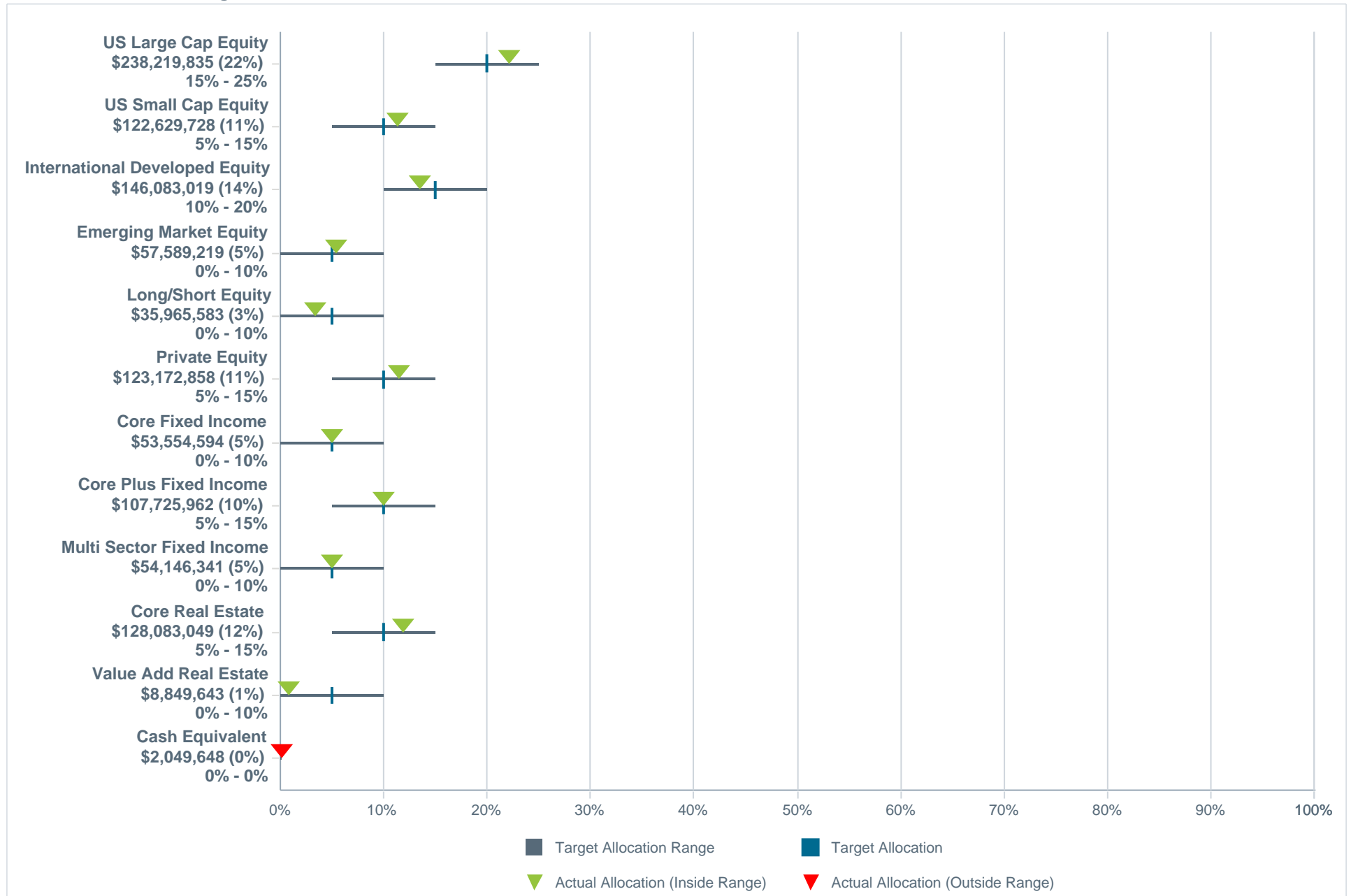


Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include Hedge Funds and Private Equity.





Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Multi-Sector Fixed Income includes Private Credit.

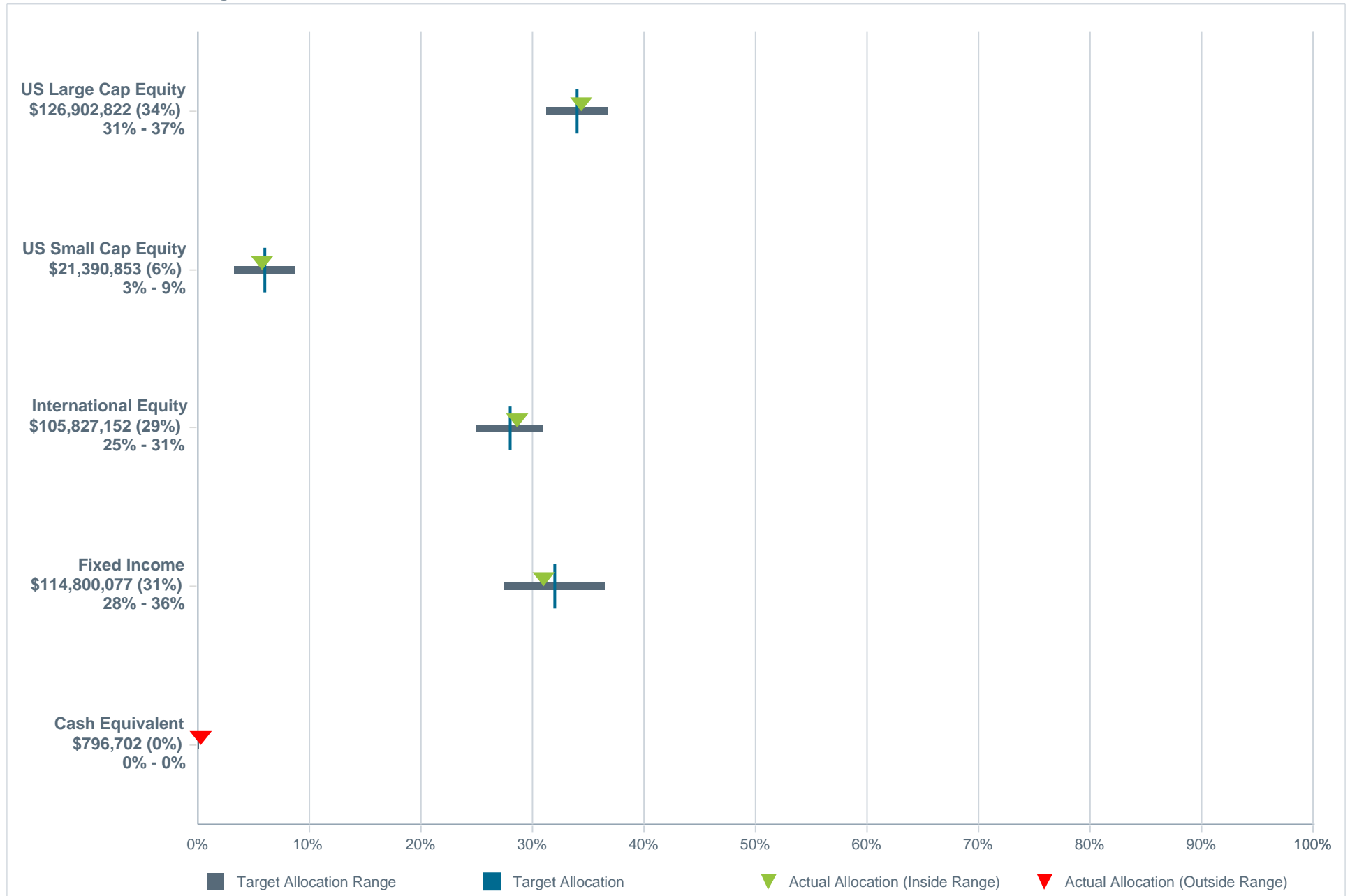


Allocations shown may not sum up to 100% exactly due to rounding. Short term cash reserves shall be considered as fixed income for rebalancing purposes.



Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges
 Asset Allocation vs. Target Allocation

As of March 31, 2023

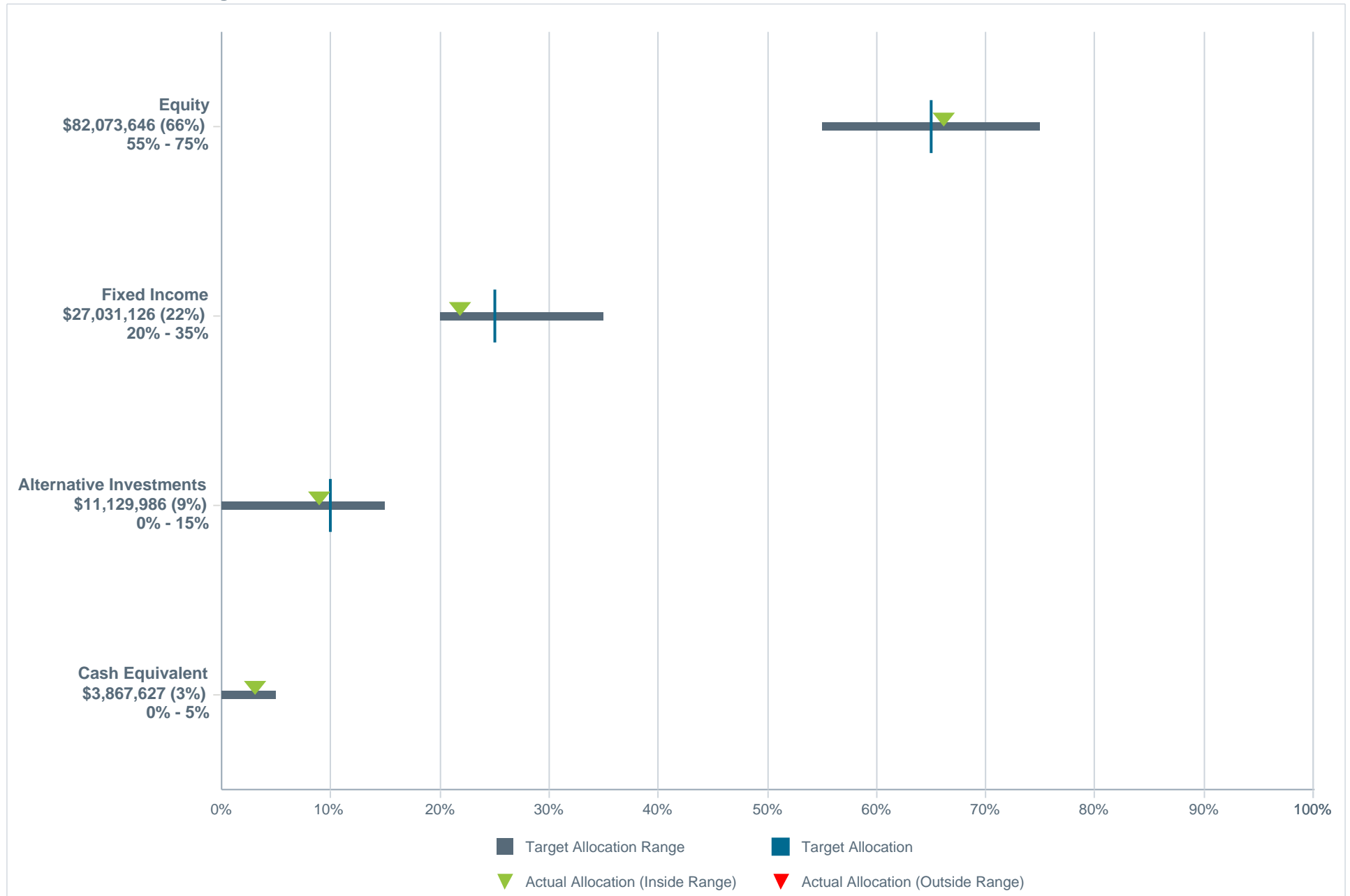


Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.



Oklahoma State Pension Commission
 Oklahoma Wildlife Conservation Retirement System
 Asset Allocation vs. Target Allocation

As of March 31, 2023



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

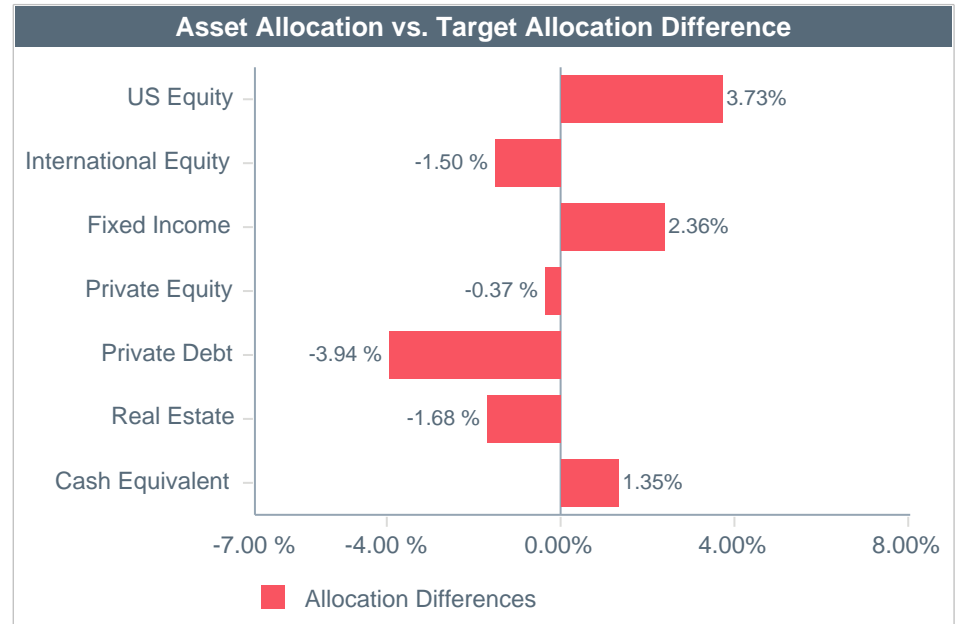


Oklahoma Teachers' Retirement System (OTRS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OTRS Total Fund (Net)	4.03	4.03	5.32	-5.08	12.55	6.62	8.25	7.68	-13.25	18.20	13.22	19.48	-5.29
OTRS Policy Index	4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	-14.07	15.60	15.24	21.72	-4.75
Difference	-0.82	-0.82	-2.23	0.62	-0.20	-0.44	-0.06	0.10	0.82	2.60	-2.02	-2.24	-0.54
OTRS Actual Allocation Index	5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	-15.02	16.21	16.98	18.94	-4.70
Difference	-1.00	-1.00	-1.42	1.02	-0.05	-0.16	0.08	0.02	1.77	1.99	-3.76	0.54	-0.59
Actuarial Discount Rate (7.0%)	1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	2.32	2.32	0.11	-12.08	5.55	-0.38	1.25	0.68	-20.25	11.20	6.22	12.48	-12.29
OTRS Total Fund (Gross)	4.07	4.07	5.46	-4.91	12.77	6.87	8.55	8.04	-13.08	18.42	13.45	19.83	-4.98
OTRS Policy Index	4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	-14.07	15.60	15.24	21.72	-4.75
Difference	-0.78	-0.78	-2.09	0.79	0.02	-0.19	0.24	0.46	0.99	2.82	-1.79	-1.89	-0.23
OTRS Actual Allocation Index	5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	-15.02	16.21	16.98	18.94	-4.70
Difference	-0.96	-0.96	-1.28	1.19	0.17	0.09	0.38	0.38	1.94	2.21	-3.53	0.89	-0.28
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	56	56	51	49	11	22	9	11	55	9	38	32	73

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OTRS (Teachers)	20,254,210,136	100.00	100.00
US Equity	8,513,265,320	42.03	38.30
International Equity	3,077,703,360	15.20	16.70
Fixed Income	4,934,408,854	24.36	22.00
Private Equity	1,545,249,279	7.63	8.00
Private Debt	213,887,007	1.06	5.00
Real Estate	1,685,625,249	8.32	10.00
Cash Equivalent	272,611,505	1.35	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Opportunistic Fixed Income accounts for 1.06% of the Total Fund. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,254,210,136	100.00	4.03	4.03	5.32	-5.08	12.55	6.62	8.25	7.68	8.69	12/01/1991
OTRS Policy Index			4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	8.75	
Difference			-0.82	-0.82	-2.23	0.62	-0.20	-0.44	-0.06	0.10	-0.06	
OTRS Actual Allocation Index			5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	N/A	
Difference			-1.00	-1.00	-1.42	1.02	-0.05	-0.16	0.08	0.02	N/A	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			2.32	2.32	0.11	-12.08	5.55	-0.38	1.25	0.68	1.69	
US Equity	8,513,265,320	42.03	5.41	5.41	8.88	-7.22	19.44	8.22	10.57	10.46	10.46	04/01/1990
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	10.09	
Difference			-1.77	-1.77	-0.87	1.36	0.96	-2.23	-1.42	-1.27	0.37	
US Active Equity	833,947,112	4.12	6.01	6.01	9.97	-7.07	22.76	8.23	10.66	10.44	8.46	12/01/1998
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	7.52	
Difference			-1.17	-1.17	0.22	1.51	4.28	-2.22	-1.33	-1.29	0.94	
Frontier Small Cap Value Equity (SA)	421,735,835	2.08	3.68	3.68	13.75	-1.33	29.81	7.30	9.51	N/A	9.19	06/01/2013
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	7.03	
Difference			4.34	4.34	11.01	11.63	8.80	2.75	1.65	N/A	2.16	
Geneva US Small Cap Growth Equity (SA)	412,211,277	2.04	8.44	8.44	8.93	-5.18	15.01	8.20	11.69	N/A	11.51	06/01/2013
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	8.17	
Difference			2.37	2.37	-1.79	5.42	1.65	3.94	2.95	N/A	3.34	
US Passive Equity (Cap Wgt)	4,604,526,432	22.73	7.17	7.17	9.64	-13.02	16.75	9.14	10.63	10.99	11.36	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,604,526,432	22.73	7.17	7.17	9.64	N/A	N/A	N/A	N/A	N/A	9.64	07/01/2022
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	9.75	
Difference			-0.01	-0.01	-0.11	N/A	N/A	N/A	N/A	N/A	-0.11	
US Passive Equity (Non-Cap Wgt)	3,074,285,908	15.18	2.72	2.72	8.23	-5.56	16.76	8.24	10.52	10.81	11.55	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			2.70	2.70	8.26	-5.48	16.81	8.28	N/A	N/A	N/A	
Difference			0.02	0.02	-0.03	-0.08	-0.05	-0.04	N/A	N/A	N/A	
SciBeta US High Factor Exposure Index (SA)	3,074,285,908	15.18	2.72	2.72	8.23	-5.56	16.76	8.24	N/A	N/A	7.63	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			2.70	2.70	8.26	-5.48	16.81	8.28	N/A	N/A	7.67	
Difference			0.02	0.02	-0.03	-0.08	-0.05	-0.04	N/A	N/A	-0.04	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,077,703,360	15.20	7.19	7.19	8.75	-7.53	12.35	1.48	5.43	4.74	7.08	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			6.70	6.70	10.20	-5.34	12.72	2.84	6.32	4.76	5.23	
Difference			0.49	0.49	-1.45	-2.19	-0.37	-1.36	-0.89	-0.02	1.85	
Causeway Intl Opportunities (SA)	627,503,755	3.10	11.98	11.98	17.84	5.21	17.51	3.23	6.71	5.18	7.75	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			5.33	5.33	9.44	-3.32	14.54	1.90	5.65	3.67	7.28	
Difference			6.65	6.65	8.40	8.53	2.97	1.33	1.06	1.51	0.47	
NT ACWI Ex US Investable Market Fund (CF)	1,191,069,709	5.88	7.06	7.06	N/A	N/A	N/A	N/A	N/A	N/A	10.43	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	10.21	
Difference			0.06	0.06	N/A	N/A	N/A	N/A	N/A	N/A	0.22	
Wellington Intl Quality Growth (SA)	592,984,637	2.93	7.53	7.53	6.30	-10.02	9.03	3.43	N/A	N/A	7.39	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	6.99	
Difference			-1.16	-1.16	-5.03	-3.99	-0.78	-0.28	N/A	N/A	0.40	
Wasatch International Small Cap Growth (SA)	204,797,100	1.01	5.61	5.61	5.32	-18.55	7.31	0.47	4.56	5.05	8.07	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			4.81	4.81	9.05	-9.91	15.53	2.10	6.09	5.47	6.86	
Difference			0.80	0.80	-3.73	-8.64	-8.22	-1.63	-1.53	-0.42	1.21	
Wellington International Small Cap Equity (CF)	178,595,553	0.88	1.93	1.93	10.59	-8.39	12.48	-1.93	2.78	4.06	6.26	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			5.05	5.05	9.83	-9.39	12.52	1.27	5.67	6.25	7.83	
Difference			-3.12	-3.12	0.76	1.00	-0.04	-3.20	-2.89	-2.19	-1.57	
SSGA Emerging Market Small Cap (CF)	282,738,419	1.40	4.07	4.07	7.63	-9.65	21.46	2.97	N/A	N/A	6.02	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.94	3.94	6.94	-10.47	21.25	2.24	6.22	3.56	5.56	
Difference			0.13	0.13	0.69	0.82	0.21	0.73	N/A	N/A	0.46	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	4,934,408,854	24.36	3.78	3.78	1.34	-6.77	-1.20	1.71	2.43	2.53	6.13	04/01/1990
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	N/A	
Difference			0.59	0.59	-0.72	-2.41	-0.97	0.10	0.27	0.32	N/A	
Loomis Sayles Multisector Full Discretion (SA)	1,430,362,714	7.06	2.67	2.67	2.80	-4.47	3.00	2.57	3.00	2.73	5.35	07/01/1999
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.71	
Difference			-0.52	-0.52	0.74	-0.11	3.23	0.96	0.84	0.52	0.64	
Mackay Shields Core+ Extended Discretion (SA)	1,400,617,816	6.92	3.80	3.80	3.24	-4.31	1.93	2.26	2.37	2.14	4.21	11/01/2004
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.05	
Difference			0.61	0.61	1.18	0.05	2.16	0.65	0.21	-0.07	0.16	
Lord Abbett Core Plus Full Discretion (SA)	1,371,210,763	6.77	3.43	3.43	1.60	-4.72	1.05	1.66	1.84	2.08	4.10	11/01/2004
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.05	
Difference			0.24	0.24	-0.46	-0.36	1.28	0.05	-0.32	-0.13	0.05	
Hoisington Active Duration Long Bonds (SA)	732,217,562	3.62	6.70	6.70	-5.07	-17.95	-13.23	-0.41	-0.61	1.63	4.90	11/01/2004
Bloomberg US Trsy Index			3.01	3.01	-0.76	-4.51	-4.20	0.74	0.38	0.90	2.70	
Difference			3.69	3.69	-4.31	-13.44	-9.03	-1.15	-0.99	0.73	2.20	
Private Equity	1,545,249,279	7.63	-0.01	-0.01	-3.89	-0.21	21.99	21.80	19.50	18.03	17.89	07/01/2015
R 2000 Index+4%			3.75	3.75	9.94	-8.07	22.21	8.90	12.89	12.36	10.47	
Difference			-3.76	-3.76	-13.83	7.86	-0.22	12.90	6.61	5.67	7.42	
Franklin Park Private Equity LP	1,538,782,370	7.60	-0.01	-0.01	-3.87	-0.19	22.11	22.07	19.71	17.54	17.99	07/01/2015
Private Debt	213,887,007	1.06	1.84	1.84	-0.70	2.28	8.53	8.33	8.88	N/A	8.34	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			2.95	2.95	8.19	2.45	6.53	3.41	4.28	3.34	3.58	
Difference			-1.11	-1.11	-8.89	-0.17	2.00	4.92	4.60	N/A	4.76	
PIMCO Bravo III LP	163,271,568	0.81	-1.05	-1.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO COF II LP	42,931,194	0.21	17.21	17.21	24.00	24.52	19.00	14.56	N/A	N/A	14.96	10/01/2016
Bloomberg US Unv Bond Index			2.93	2.93	0.55	-4.61	-2.02	1.05	1.24	1.62	0.80	
Difference			14.28	14.28	23.45	29.13	21.02	13.51	N/A	N/A	14.16	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate	1,685,625,249	8.32	-3.30	-3.30	0.51	7.37	7.33	6.69	6.90	N/A	7.68	07/01/2015
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	7.28	
Difference			-1.49	-1.49	5.22	9.00	0.18	-0.02	0.05	N/A	0.40	
AEW Core Property Trust (CF)	433,753,513	2.14	-5.11	-5.11	-0.16	8.12	9.38	8.08	7.80	8.52	8.28	07/01/2011
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.79	
Difference			-1.73	-1.73	7.92	12.03	1.92	1.52	1.05	0.05	-0.51	
Heitman America Real Estate (CF)	440,924,314	2.18	-4.29	-4.29	1.29	10.70	10.48	7.88	7.99	9.20	9.05	05/01/2011
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	9.05	
Difference			-0.91	-0.91	9.37	14.61	3.02	1.32	1.24	0.73	0.00	
American Strategic Value Realty (CF)	130,547,126	0.64	-3.45	-3.45	0.49	6.42	8.81	8.62	8.90	N/A	9.14	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.95	
Difference			-0.07	-0.07	8.57	10.33	1.35	2.06	2.15	N/A	1.19	
Angelo Gordon Value X LP	46,741,212	0.23	-0.12	-0.12	7.41	13.09	17.72	N/A	N/A	N/A	8.52	07/01/2019
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.80	
Difference			3.26	3.26	15.49	17.00	10.26	N/A	N/A	N/A	1.72	
AGXI Non-Core Real Estate	10,000,000	0.05	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	11/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-8.37	
Difference			3.38	3.38	N/A	N/A	N/A	N/A	N/A	N/A	8.37	
Artemis Real Estate III LP	25,922,603	0.13	-2.03	-2.03	7.03	7.44	28.07	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.60	
Difference			1.35	1.35	15.11	11.35	20.61	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	1,476,906	0.01	-24.08	-24.08	-62.46	N/A	N/A	N/A	N/A	N/A	-62.46	07/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-8.08	
Difference			-20.70	-20.70	-54.38	N/A	N/A	N/A	N/A	N/A	-54.38	
Blackstone Real Estate Partners X	374,495	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2023
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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Oklahoma State Pension Commission
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dune Real Estate III LP	34,317,555	0.17	-2.48	-2.48	-2.17	2.48	-2.58	0.26	3.66	N/A	4.27	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.86	
Difference			0.90	0.90	5.91	6.39	-10.04	-6.30	-3.09	N/A	-3.59	
Dune Real Estate IV LP	46,796,294	0.23	3.16	3.16	14.89	11.08	3.43	N/A	N/A	N/A	-4.06	09/01/2019
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.12	
Difference			6.54	6.54	22.97	14.99	-4.03	N/A	N/A	N/A	-11.18	
FCP Realty IV LP	40,299,202	0.20	0.40	0.40	4.08	26.76	16.40	N/A	N/A	N/A	0.30	12/01/2018
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.71	
Difference			3.78	3.78	12.16	30.67	8.94	N/A	N/A	N/A	-6.41	
FCP Realty V LP	52,382,407	0.26	2.36	2.36	1.62	2.53	N/A	N/A	N/A	N/A	-16.90	10/01/2021
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.10	
Difference			5.74	5.74	9.70	6.44	N/A	N/A	N/A	N/A	-24.00	
GreenOak US II LP	19,229,934	0.09	-13.65	-13.65	-19.56	-24.90	-22.32	-14.56	-9.38	N/A	-8.00	10/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.78	
Difference			-10.27	-10.27	-11.48	-20.99	-29.78	-21.12	-16.13	N/A	-15.78	
GreenOak US III LP	42,060,794	0.21	-1.38	-1.38	-0.94	7.34	-1.28	N/A	N/A	N/A	-7.85	06/01/2018
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.79	
Difference			2.00	2.00	7.14	11.25	-8.74	N/A	N/A	N/A	-14.64	
Harbert European Real Estate V LP	43,594,719	0.22	0.03	0.03	-0.79	3.42	8.44	N/A	N/A	N/A	-0.17	12/01/2018
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.71	
Difference			3.41	3.41	7.29	7.33	0.98	N/A	N/A	N/A	-6.88	
Invesco VI Global Real Estate Fund	40,902,663	0.20	-0.89	-0.89	N/A	N/A	N/A	N/A	N/A	N/A	2.83	10/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-8.37	
Difference			2.49	2.49	N/A	N/A	N/A	N/A	N/A	N/A	11.20	
Invesco Strategic Opportunity (CF)	14,293,584	0.07	0.00	0.00	14.79	15.77	52.36	N/A	N/A	N/A	43.46	10/01/2019
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.97	
Difference			3.38	3.38	22.87	19.68	44.90	N/A	N/A	N/A	36.49	

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Oklahoma State Pension Commission
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L&B Gloden Driller (SA)	76,658,967	0.38	-0.01	-0.01	-2.94	-2.95	-3.23	5.34	4.52	N/A	N/A	07/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.92	
Difference			3.37	3.37	5.14	0.96	-10.69	-1.22	-2.23	N/A	N/A	
Landmark Real Estate VII LP	5,467,352	0.03	0.00	0.00	-4.56	-0.95	-1.93	-0.74	3.58	N/A	7.00	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.95	
Difference			3.38	3.38	3.52	2.96	-9.39	-7.30	-3.17	N/A	-0.95	
Lyrical-OTRS Realty Partner IV LP	64,123,712	0.32	0.00	0.00	1.85	8.63	10.35	15.47	8.72	N/A	5.56	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.86	
Difference			3.38	3.38	9.93	12.54	2.89	8.91	1.97	N/A	-2.30	
Starwood Opportunity X LP	11,458,305	0.06	-2.77	-2.77	1.04	20.42	17.38	14.30	14.46	N/A	14.03	07/01/2015
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.23	
Difference			0.61	0.61	9.12	24.33	9.92	7.74	7.71	N/A	6.80	
Starwood Opportunity XI LP	51,318,371	0.25	0.00	0.00	-0.11	3.44	11.18	N/A	N/A	N/A	18.58	08/01/2018
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.64	
Difference			3.38	3.38	7.97	7.35	3.72	N/A	N/A	N/A	11.94	
Starwood Opportunity XII LP	34,650,099	0.17	0.82	0.82	5.46	14.37	N/A	N/A	N/A	N/A	15.81	01/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	2.35	
Difference			4.20	4.20	13.54	18.28	N/A	N/A	N/A	N/A	13.46	
TPG Real Estate IV LP	6,328,031	0.03	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	01/01/2023
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-3.38	
Difference			3.38	3.38	N/A	N/A	N/A	N/A	N/A	N/A	3.38	
Property ACQ Fund	10,400,000	0.05	0.00	0.00	0.00	3.17	-7.47	-9.93	N/A	N/A	-8.67	08/01/2017

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,254,210,136	100.00	4.07	4.07	5.46	-4.31	12.77	6.87	8.55	8.04	9.02	12/01/1991
OTRS Policy Index			4.85	4.85	7.55	-5.70	12.75	7.06	8.31	7.58	8.75	
Difference			-0.78	-0.78	-2.09	0.79	0.02	-0.19	0.24	0.46	0.27	
OTRS Actual Allocation Index			5.03	5.03	6.74	-6.10	12.60	6.78	8.17	7.66	N/A	
Difference			-0.96	-0.96	-1.28	1.19	0.17	0.09	0.38	0.38	N/A	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			2.36	2.36	0.25	-11.91	5.77	-0.13	1.55	1.04	2.02	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	7.87	
Rank			56	56	51	49	11	22	9	11	1	
US Equity	8,513,265,320	42.03	5.43	5.43	8.95	-7.12	19.62	8.46	10.88	10.70	10.53	04/01/1990
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	10.09	
Difference			-1.75	-1.75	-0.80	1.46	1.14	-1.99	-1.11	-1.03	0.44	
IM U.S. Equity (SA+CF) Median			5.05	5.05	9.77	-7.21	19.17	9.18	11.30	10.94	11.01	
Rank			48	48	59	50	47	60	56	55	67	
US Active Equity	833,947,112	4.12	6.12	6.12	10.55	-6.34	23.47	8.80	11.19	10.93	8.94	12/01/1998
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	7.52	
Difference			-1.06	-1.06	0.80	2.24	4.99	-1.65	-0.80	-0.80	1.42	
IM U.S. Equity (SA+CF) Median			5.05	5.05	9.77	-7.21	19.17	9.18	11.30	10.94	9.36	
Rank			42	42	40	44	22	56	53	51	57	
Frontier Small Cap Value Equity (SA)	421,735,835	2.08	3.80	3.80	14.07	-0.87	30.59	8.03	10.34	N/A	10.07	06/01/2013
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	7.03	
Difference			4.46	4.46	11.33	12.09	9.58	3.48	2.48	N/A	3.04	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	9.06	
Rank			30	30	14	19	15	32	35	N/A	28	
Geneva US Small Cap Growth Equity (SA)	412,211,277	2.04	8.55	8.55	9.21	-4.73	15.72	8.89	12.43	N/A	12.10	06/01/2013
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	8.17	
Difference			2.48	2.48	-1.51	5.87	2.36	4.63	3.69	N/A	3.93	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	11.11	
Rank			29	29	68	14	71	57	56	N/A	29	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Gross of Fees

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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Cap Wgt)	4,604,526,432	22.73	7.17	7.17	9.64	-13.02	16.76	9.15	10.64	11.00	11.37	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,604,526,432	22.73	7.17	7.17	9.64	N/A	N/A	N/A	N/A	N/A	9.64	07/01/2022
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	9.75	
Difference			-0.01	-0.01	-0.11	N/A	N/A	N/A	N/A	N/A	-0.11	
IM U.S. Large Cap Equity (SA+CF) Median			6.48	6.48	9.78	-7.19	18.53	10.50	12.13	12.01	9.78	
Rank			45	45	54	N/A	N/A	N/A	N/A	N/A	54	
US Passive Equity (Non-Cap Wgt)	3,074,285,908	15.18	2.73	2.73	8.26	-5.51	16.83	8.31	10.57	10.86	11.60	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			2.70	2.70	8.26	-5.48	16.81	8.28	N/A	N/A	N/A	
Difference			0.03	0.03	0.00	-0.03	0.02	0.03	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	3,074,285,908	15.18	2.73	2.73	8.26	-5.51	16.83	8.31	N/A	N/A	7.70	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			2.70	2.70	8.26	-5.48	16.81	8.28	N/A	N/A	7.67	
Difference			0.03	0.03	0.00	-0.03	0.02	0.03	N/A	N/A	0.03	
IM U.S. Large Cap Index Equity (SA+CF) Median			7.46	7.46	9.95	-8.01	18.56	10.91	12.26	12.05	10.27	
Rank			89	89	85	7	98	84	N/A	N/A	84	
International Equity	3,077,703,360	15.20	7.28	7.28	9.06	-7.16	12.82	1.92	5.91	5.21	7.52	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			6.70	6.70	10.20	-5.34	12.72	2.84	6.32	4.76	5.23	
Difference			0.58	0.58	-1.14	-1.82	0.10	-0.92	-0.41	0.45	2.29	
IM International Equity (SA+CF) Median			7.90	7.90	13.00	-3.45	13.47	3.64	6.84	5.99	7.01	
Rank			59	59	82	76	60	78	74	75	40	
Causeway Intl Opportunities (SA)	627,503,755	3.10	12.06	12.06	18.11	5.54	17.87	3.56	7.07	5.46	7.89	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			5.33	5.33	9.44	-3.32	14.54	1.90	5.65	3.67	7.28	
Difference			6.73	6.73	8.67	8.86	3.33	1.66	1.42	1.79	0.61	
IM ACWI Ex US Value (SA+CF) Median			9.28	9.28	15.14	-1.01	14.88	3.48	6.55	5.43	8.25	
Rank			6	6	23	22	26	45	42	50	60	
NT ACWI Ex US Investable Market Fund (CF)	1,191,069,709	5.88	7.07	7.07	N/A	N/A	N/A	N/A	N/A	N/A	10.44	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	10.21	
Difference			0.07	0.07	N/A	N/A	N/A	N/A	N/A	N/A	0.23	
IM ACWI Ex US Core (SA+CF) Median			7.56	7.56	12.25	-4.49	12.88	3.54	6.46	5.29	11.91	
Rank			65	65	N/A	N/A	N/A	N/A	N/A	N/A	79	
Wellington Intl Quality Growth (SA)	592,984,637	2.93	7.67	7.67	6.75	-9.51	9.62	4.00	N/A	N/A	7.99	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	6.99	
Difference			-1.02	-1.02	-4.58	-3.48	-0.19	0.29	N/A	N/A	1.00	
IM ACWI Ex US Growth (SA+CF) Median			9.86	9.86	14.81	-4.33	12.51	4.55	7.77	6.42	8.15	
Rank			87	87	97	91	84	71	N/A	N/A	54	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Gross of Fees

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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wasatch International Small Cap Growth (SA)	204,797,100	1.01	5.80	5.80	5.90	-17.93	8.07	1.22	5.37	5.90	8.95	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			4.81	4.81	9.05	-9.91	15.53	2.10	6.09	5.47	6.86	
Difference			0.99	0.99	-3.15	-8.02	-7.46	-0.88	-0.72	0.43	2.09	
IM International Small Cap Equity (SA+CF) Median			6.38	6.38	11.38	-7.43	14.20	2.51	6.65	7.01	8.78	
Rank			67	67	90	95	95	71	73	77	45	
Wellington International Small Cap Equity (CF)	178,595,553	0.88	2.04	2.04	10.93	-8.01	12.91	-1.47	3.35	4.68	6.93	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			5.05	5.05	9.83	-9.39	12.52	1.27	5.67	6.25	7.83	
Difference			-3.01	-3.01	1.10	1.38	0.39	-2.74	-2.32	-1.57	-0.90	
IM EAFE Core (SA+CF) Median			8.50	8.50	15.00	-1.09	13.89	3.99	6.69	5.98	7.37	
Rank			100	100	86	96	67	100	100	95	69	
SSGA Emerging Market Small Cap (CF)	282,738,419	1.40	4.27	4.27	8.21	-9.01	22.27	3.67	N/A	N/A	6.69	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.94	3.94	6.94	-10.47	21.25	2.24	6.22	3.56	5.56	
Difference			0.33	0.33	1.27	1.46	1.02	1.43	N/A	N/A	1.13	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	5.09	
Rank			64	64	22	54	6	13	N/A	N/A	22	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	4,934,408,854	24.36	3.84	3.84	1.50	-6.60	-1.02	1.90	2.64	2.75	6.31	04/01/1990
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	N/A	
Difference			0.65	0.65	-0.56	-2.24	-0.79	0.29	0.48	0.54	N/A	
IM U.S. Fixed Income (SA+CF) Median			2.90	2.90	1.50	-2.44	0.31	1.83	1.90	2.04	5.47	
Rank			15	15	50	89	73	47	31	33	22	
Loomis Sayles Multisector Full Discretion (SA)	1,430,362,714	7.06	2.73	2.73	3.03	-4.25	3.23	2.80	3.21	2.92	5.55	07/01/1999
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.71	
Difference			-0.46	-0.46	0.97	0.11	3.46	1.19	1.05	0.71	0.84	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	4.88	
Rank			88	88	14	34	11	11	16	17	17	
Mackay Shields Core+ Extended Discretion (SA)	1,400,617,816	6.92	3.90	3.90	3.40	-4.11	2.14	2.48	2.59	2.36	4.44	11/01/2004
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.05	
Difference			0.71	0.71	1.34	0.25	2.37	0.87	0.43	0.15	0.39	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	4.01	
Rank			3	3	10	31	16	18	24	41	29	
Lord Abbett Core Plus Full Discretion (SA)	1,371,210,763	6.77	3.47	3.47	1.72	-4.57	1.21	1.83	2.02	2.24	4.27	11/01/2004
OTRS Fixed Income Blended Benchmark			3.19	3.19	2.06	-4.36	-0.23	1.61	2.16	2.21	4.05	
Difference			0.28	0.28	-0.34	-0.21	1.44	0.22	-0.14	0.03	0.22	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	4.01	
Rank			25	25	28	46	23	41	50	49	35	
Hoisington Active Duration Long Bonds (SA)	732,217,562	3.62	6.72	6.72	-5.00	-17.88	-13.16	-0.32	-0.51	1.75	5.03	11/01/2004
Bloomberg US Trsy Index			3.01	3.01	-0.76	-4.51	-4.20	0.74	0.38	0.90	2.70	
Difference			3.71	3.71	-4.24	-13.37	-8.96	-1.06	-0.89	0.85	2.33	
IM U.S. Long Duration (SA+CF) Median			5.80	5.80	-0.60	-12.99	-4.85	1.36	2.07	2.88	5.41	
Rank			3	3	100	100	100	100	100	100	89	

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Private Equity	1,545,249,279	7.63	-0.01	-0.01	-3.89	-0.21	21.99	21.80	19.50	18.03	17.89	07/01/2015
R 2000 Index+4%			3.75	3.75	9.94	-8.07	22.21	8.90	12.89	12.36	10.47	
Difference			-3.76	-3.76	-13.83	7.86	-0.22	12.90	6.61	5.67	7.42	
Franklin Park Private Equity LP	1,538,782,370	7.60	-0.01	-0.01	-3.87	-0.19	22.11	22.07	19.76	17.66	18.14	07/01/2015
Private Debt	213,887,007	1.06	1.84	1.84	-0.70	2.28	8.53	8.33	8.88	N/A	8.34	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			2.95	2.95	8.19	2.45	6.53	3.41	4.28	3.34	3.58	
Difference			-1.11	-1.11	-8.89	-0.17	2.00	4.92	4.60	N/A	4.76	
PIMCO Bravo III LP	163,271,568	0.81	-1.05	-1.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO COF II LP	42,931,194	0.21	17.21	17.21	24.00	24.52	19.00	14.56	N/A	N/A	14.96	10/01/2016
Bloomberg US Unv Bond Index			2.93	2.93	0.55	-4.61	-2.02	1.05	1.24	1.62	0.80	
Difference			14.28	14.28	23.45	29.13	21.02	13.51	N/A	N/A	14.16	
Real Estate	1,685,625,249	8.32	-3.23	-3.23	0.71	7.66	7.60	6.92	7.11	N/A	7.88	07/01/2015
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	7.28	
Difference			-1.42	-1.42	5.42	9.29	0.45	0.21	0.26	N/A	0.60	
AEW Core Property Trust (CF)	433,753,513	2.14	-5.11	-5.11	-0.16	8.12	9.38	8.08	7.88	9.06	8.86	07/01/2011
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	9.79	
Difference			-1.94	-1.94	7.34	11.21	0.98	0.57	0.17	-0.39	-0.93	
Heitman America Real Estate (CF)	440,924,314	2.18	-4.12	-4.12	1.83	11.50	11.27	8.65	8.75	9.98	9.84	05/01/2011
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	10.06	
Difference			-0.95	-0.95	9.33	14.59	2.87	1.14	1.04	0.53	-0.22	
American Strategic Value Realty (CF)	130,547,126	0.64	-3.21	-3.21	1.29	7.57	10.03	9.86	10.11	N/A	10.44	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.94	
Difference			-0.04	-0.04	8.79	10.66	1.63	2.35	2.40	N/A	1.50	
Angelo Gordon Value X LP	46,741,212	0.23	-0.12	-0.12	7.41	13.09	17.72	N/A	N/A	N/A	8.52	07/01/2019
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.75	
Difference			3.05	3.05	14.91	16.18	9.32	N/A	N/A	N/A	0.77	
AGXI Non-Core Real Estate	10,000,000	0.05	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	11/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-7.98	
Difference			3.17	3.17	N/A	N/A	N/A	N/A	N/A	N/A	7.98	

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As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Artemis Real Estate III LP	25,922,603	0.13	-2.03	-2.03	7.03	7.44	28.07	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.56	
Difference			1.14	1.14	14.53	10.53	19.67	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	1,476,906	0.01	-24.08	-24.08	-62.46	N/A	N/A	N/A	N/A	N/A	-62.46	07/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-7.50	
Difference			-20.91	-20.91	-54.96	N/A	N/A	N/A	N/A	N/A	-54.96	
Blackstone Real Estate Partners X	374,495	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2023
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	34,317,555	0.17	-2.48	-2.48	-2.17	2.48	-2.58	0.26	3.78	N/A	5.20	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.85	
Difference			0.69	0.69	5.33	5.57	-10.98	-7.25	-3.93	N/A	-3.65	
Dune Real Estate IV LP	46,796,294	0.23	3.16	3.16	14.89	11.08	3.43	N/A	N/A	N/A	-4.06	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.12	
Difference			6.33	6.33	22.39	14.17	-4.97	N/A	N/A	N/A	-12.18	
FCP Realty IV LP	40,299,202	0.20	0.40	0.40	4.08	26.76	16.40	N/A	N/A	N/A	0.30	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.69	
Difference			3.57	3.57	11.58	29.85	8.00	N/A	N/A	N/A	-7.39	
FCP Realty V LP	52,382,407	0.26	2.36	2.36	1.62	2.53	N/A	N/A	N/A	N/A	-16.90	10/01/2021
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.07	
Difference			5.53	5.53	9.12	5.62	N/A	N/A	N/A	N/A	-24.97	
GreenOak US II LP	19,229,934	0.09	-13.65	-13.65	-19.56	-24.90	-22.32	-14.56	-9.26	N/A	-7.18	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.76	
Difference			-10.48	-10.48	-12.06	-21.81	-30.72	-22.07	-16.97	N/A	-15.94	
GreenOak US III LP	42,060,794	0.21	-1.38	-1.38	-0.94	7.34	-1.28	N/A	N/A	N/A	-7.85	06/01/2018
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.78	
Difference			1.79	1.79	6.56	10.43	-9.68	N/A	N/A	N/A	-15.63	
Harbert European Real Estate V LP	43,594,719	0.22	0.03	0.03	-0.79	3.42	8.44	N/A	N/A	N/A	-0.17	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.69	
Difference			3.20	3.20	6.71	6.51	0.04	N/A	N/A	N/A	-7.86	

During 03/2023, Blackstone Real Estate Partners X was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

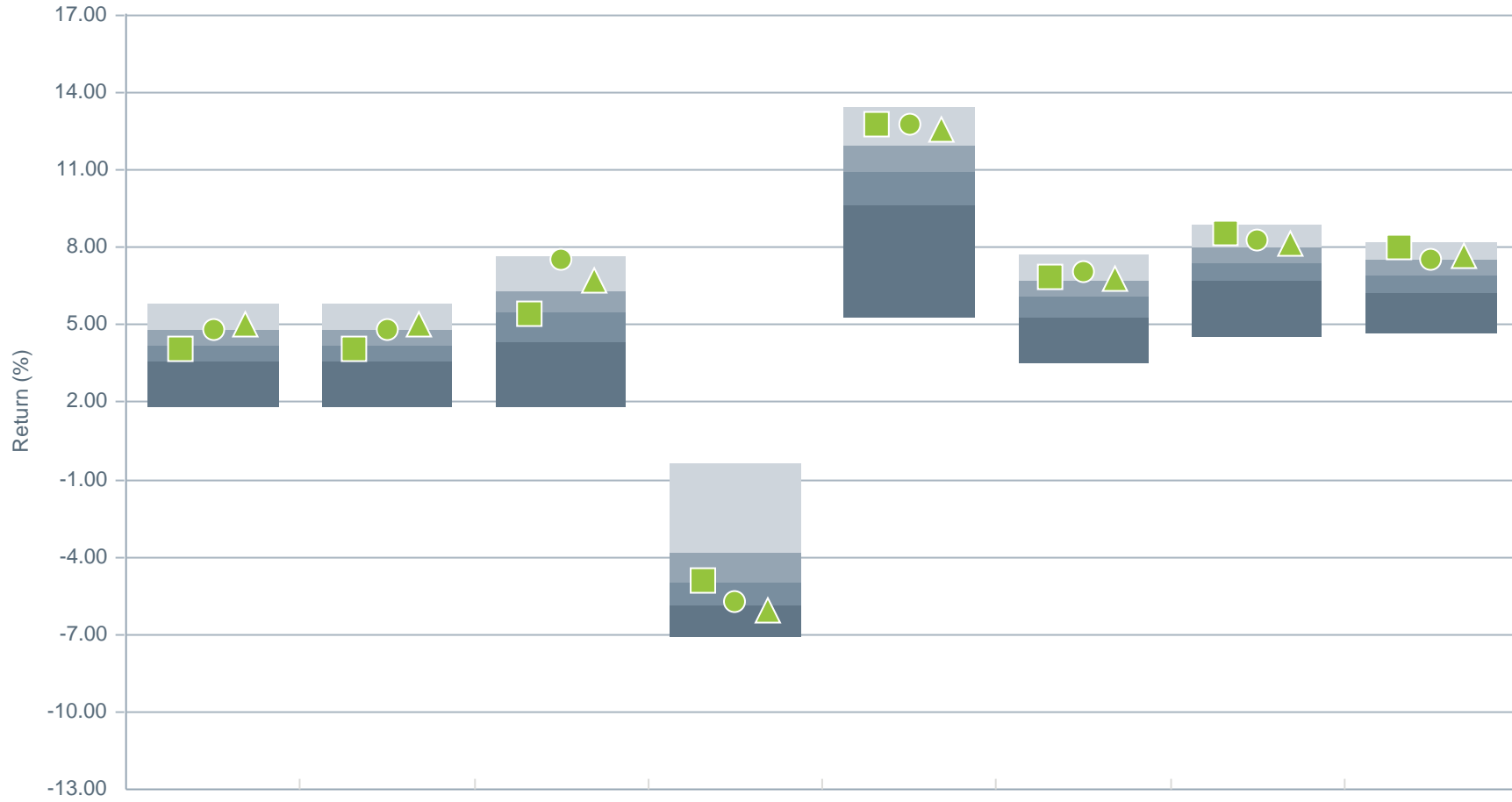
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco VI Global Real Estate Fund	40,902,663	0.20	-0.89	-0.89	N/A	N/A	N/A	N/A	N/A	N/A	2.83	10/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-7.98	
Difference			2.28	2.28	N/A	N/A	N/A	N/A	N/A	N/A	10.81	
Invesco Strategic Opportunity (CF)	14,293,584	0.07	0.00	0.00	14.79	15.77	52.36	N/A	N/A	N/A	43.46	10/01/2019
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.92	
Difference			3.17	3.17	22.29	18.86	43.96	N/A	N/A	N/A	35.54	
L&B Gloden Driller (SA)	76,658,967	0.38	-0.01	-0.01	-2.94	-2.95	-3.23	5.34	4.58	N/A	3.41	07/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.89	
Difference			3.16	3.16	4.56	0.14	-11.63	-2.17	-3.13	N/A	-5.48	
Landmark Real Estate VII LP	5,467,352	0.03	0.00	0.00	-4.56	-0.95	-1.93	-0.74	3.76	N/A	8.70	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.94	
Difference			3.17	3.17	2.94	2.14	-10.33	-8.25	-3.95	N/A	-0.24	
Lyrical-OTRS Realty Partner IV LP	64,123,712	0.32	0.00	0.00	1.85	8.63	10.35	15.47	8.94	N/A	7.38	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.85	
Difference			3.17	3.17	9.35	11.72	1.95	7.96	1.23	N/A	-1.47	
Starwood Opportunity X LP	11,458,305	0.06	-2.77	-2.77	1.04	20.42	17.38	14.30	14.67	N/A	14.79	07/01/2015
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.20	
Difference			0.40	0.40	8.54	23.51	8.98	6.79	6.96	N/A	6.59	
Starwood Opportunity XI LP	51,318,371	0.25	0.00	0.00	-0.11	3.44	11.18	N/A	N/A	N/A	18.58	08/01/2018
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.60	
Difference			3.17	3.17	7.39	6.53	2.78	N/A	N/A	N/A	10.98	
Starwood Opportunity XII LP	34,650,099	0.17	0.82	0.82	5.46	14.37	N/A	N/A	N/A	N/A	15.81	01/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	3.23	
Difference			3.99	3.99	12.96	17.46	N/A	N/A	N/A	N/A	12.58	
TPG Real Estate IV LP	6,328,031	0.03	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	01/01/2023
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-3.17	
Difference			3.17	3.17	N/A	N/A	N/A	N/A	N/A	N/A	3.17	
Property ACQ Fund	10,400,000	0.05	0.00	0.00	0.00	3.17	-7.45	-4.15	N/A	N/A	-3.51	08/01/2017

During 03/2023, Blackstone Real Estate Partners X was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



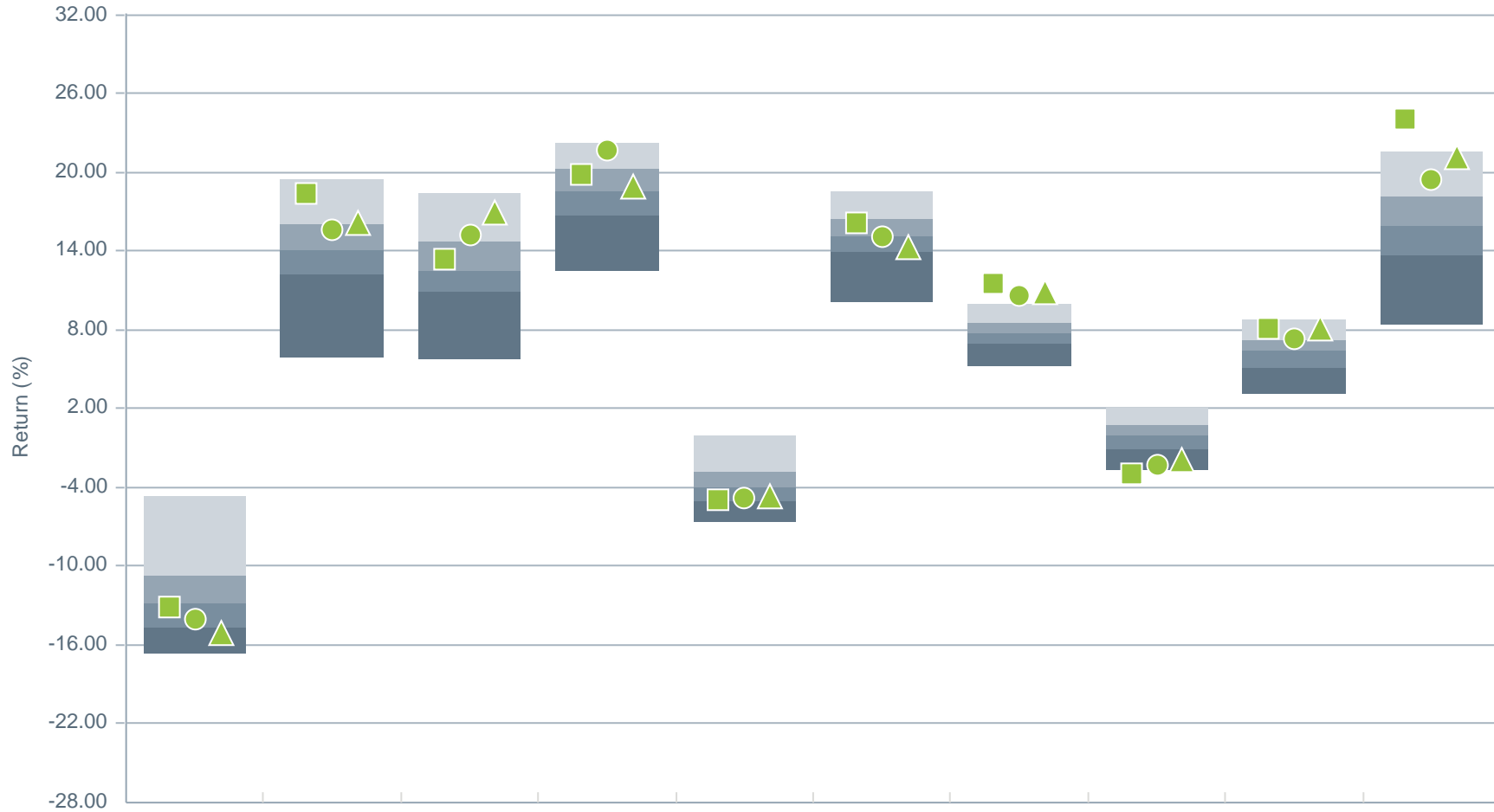
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OTRS Total Fund	4.07 (56)	4.07 (56)	5.46 (51)	-4.91 (49)	12.77 (11)	6.87 (22)	8.55 (9)	8.04 (11)
● OTRS Policy Index	4.85 (25)	4.85 (25)	7.55 (6)	-5.70 (71)	12.75 (11)	7.06 (15)	8.31 (16)	7.58 (24)
▲ OTRS Allocation Index	5.03 (18)	5.03 (18)	6.74 (16)	-6.10 (81)	12.60 (13)	6.78 (25)	8.17 (20)	7.66 (21)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

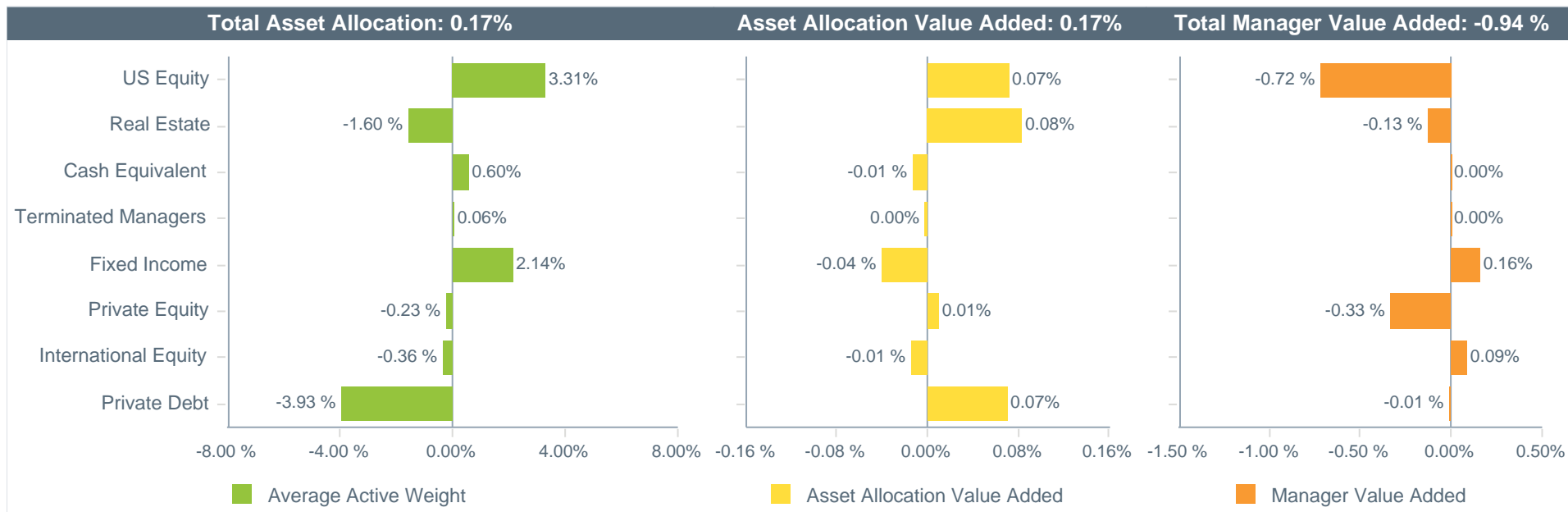
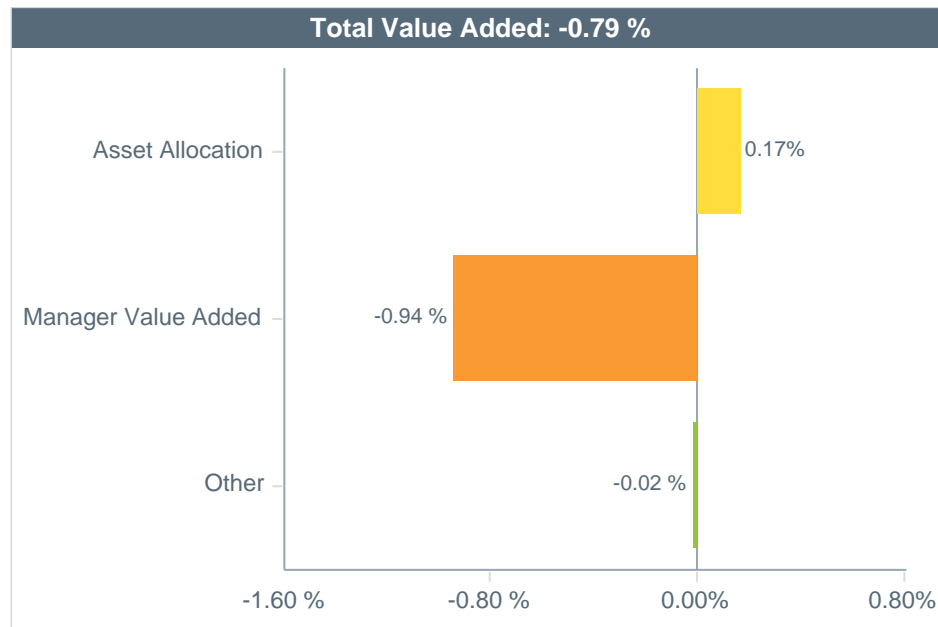
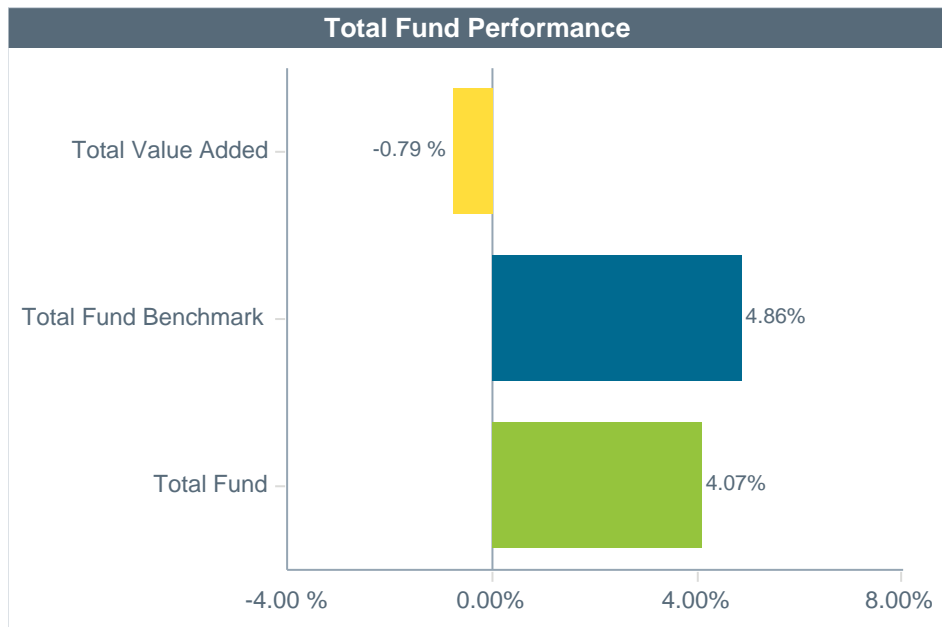
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OTRS Total Fund	-13.08 (55)	18.42 (9)	13.45 (38)	19.83 (32)	-4.98 (73)	16.20 (29)	11.54 (1)	-2.90 (97)	8.16 (10)	24.03 (2)
● OTRS Policy Index	-14.07 (67)	15.60 (30)	15.24 (20)	21.72 (9)	-4.75 (67)	15.16 (50)	10.65 (3)	-2.33 (93)	7.36 (23)	19.45 (15)
▲ OTRS Allocation Index	-15.02 (81)	16.21 (25)	16.98 (9)	18.94 (44)	-4.70 (64)	14.35 (67)	10.93 (2)	-1.95 (88)	8.15 (10)	21.24 (6)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.

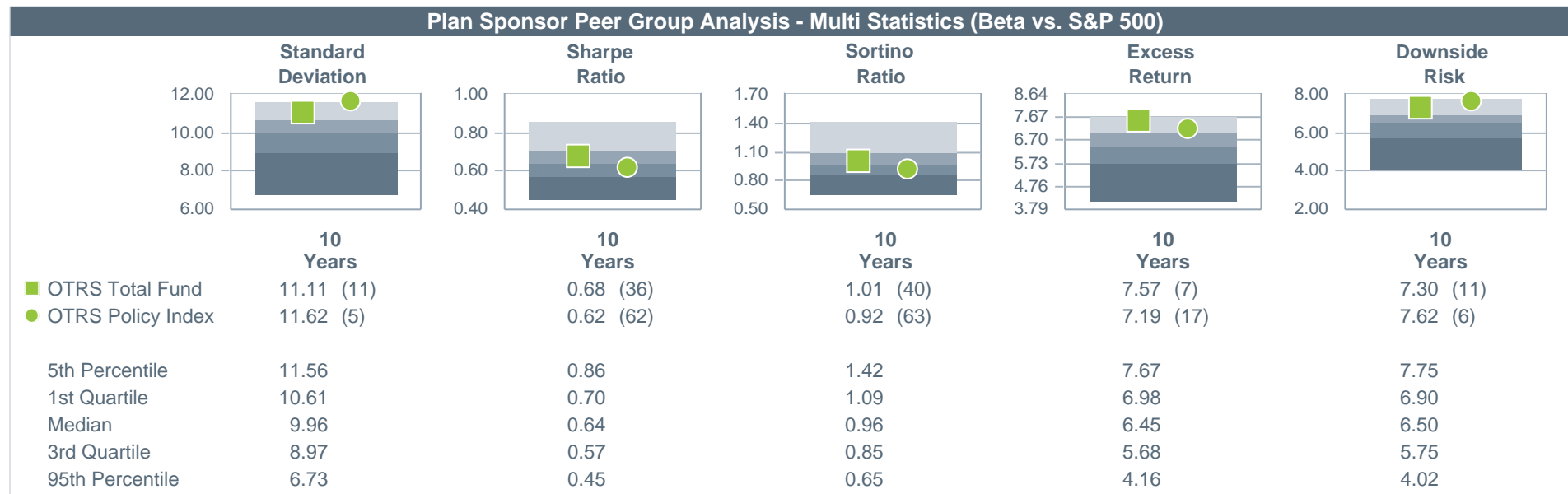
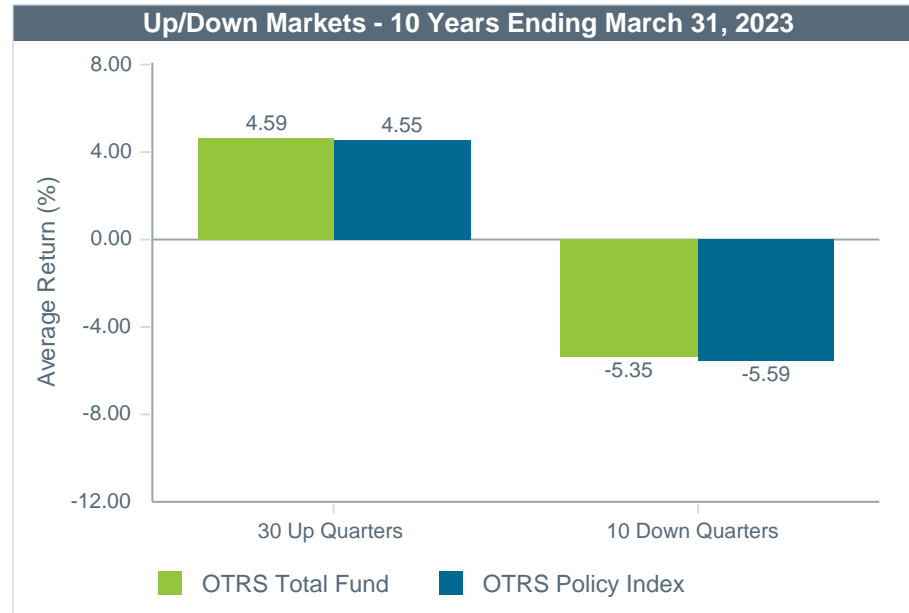
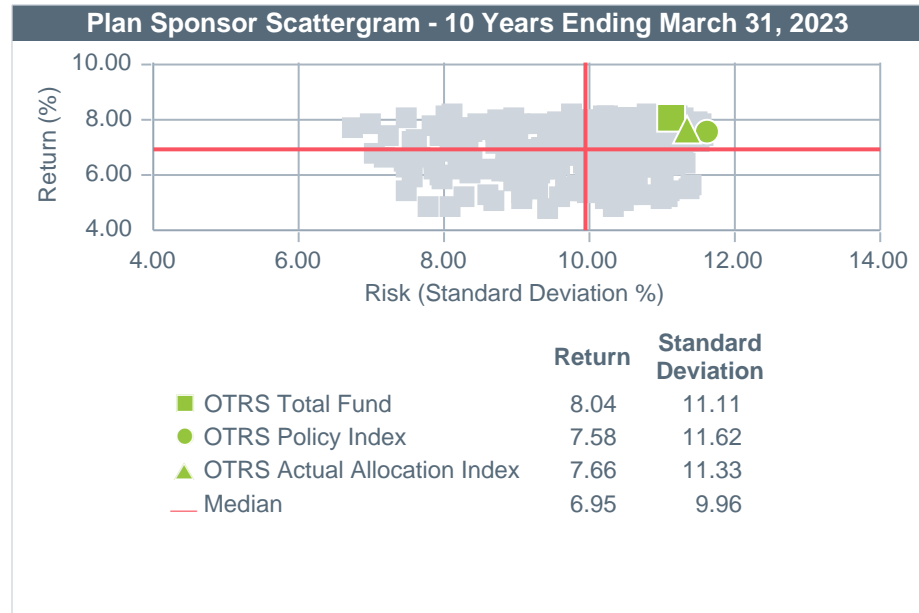




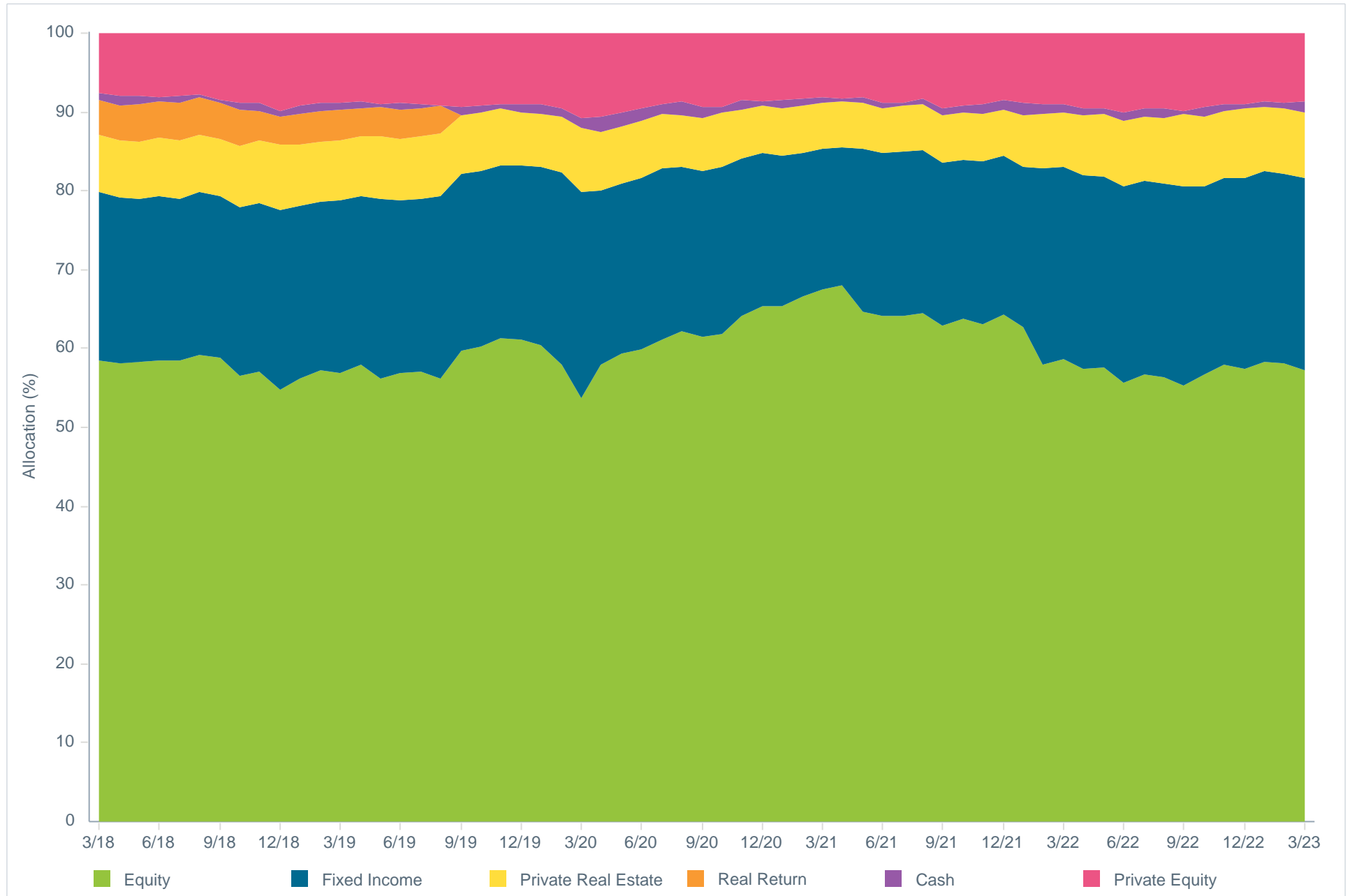
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Private Equity includes Private Credit.



Total Fund Risk & Return, Up/Down Markets, and Multi Statistics



Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma Public Employees Retirement System (OPERS)

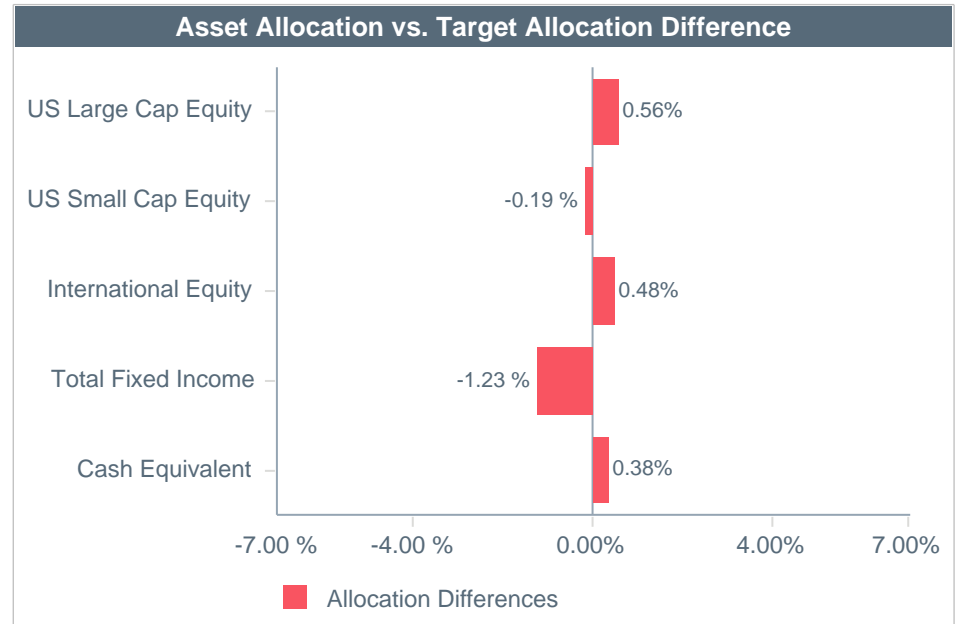


Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Total Fund Summary

As of March 31, 2023

	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OPERS Total Fund (Net)	6.07	6.07	6.97	-6.41	9.99	5.49	6.99	6.70	-16.74	12.29	15.18	21.23	-6.57
OPERS Policy Index	5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	-16.62	11.54	15.19	21.46	-6.09
Difference	0.27	0.27	0.33	0.13	0.26	0.01	-0.03	0.06	-0.12	0.75	-0.01	-0.23	-0.48
OPERS Actual Allocation Index	5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	-16.87	12.14	18.93	20.87	-6.49
Difference	0.32	0.32	0.53	0.46	0.38	-0.54	-0.37	-0.21	0.13	0.15	-3.75	0.36	-0.08
Actuarial Discount Rate (6.5%)	1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference	4.48	4.48	2.13	-12.91	3.49	-1.01	0.49	0.20	-23.24	5.79	8.68	14.73	-13.07
OPERS Total Fund (Gross)	6.10	6.10	7.07	-6.30	10.13	5.62	7.12	6.82	-16.64	12.46	15.34	21.38	-6.48
OPERS Policy Index	5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	-16.62	11.54	15.19	21.46	-6.09
Difference	0.30	0.30	0.43	0.24	0.40	0.14	0.10	0.18	-0.02	0.92	0.15	-0.08	-0.39
OPERS Actual Allocation Index	5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	-16.87	12.14	18.93	20.87	-6.49
Difference	0.35	0.35	0.63	0.57	0.52	-0.41	-0.24	-0.09	0.23	0.32	-3.59	0.51	0.01
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	3	3	10	85	67	67	62	57	95	72	19	12	94

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPERS (Public Employees)	10,828,014,755	100.00	100.00
US Large Cap Equity	3,742,328,653	34.56	34.00
US Small Cap Equity	629,163,454	5.81	6.00
International Equity	3,084,335,141	28.48	28.00
Total Fixed Income	3,331,488,408	30.77	32.00
Cash Equivalent	40,699,100	0.38	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Fixed Income includes the Grand Centre Real Estate allocation for Policy purposes. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,828,014,755	100.00	6.07	6.07	6.97	-6.41	9.99	5.49	6.99	6.70	N/A	03/01/1987
OPERS Policy Index			5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	7.90	
Difference			0.27	0.27	0.33	0.13	0.26	0.01	-0.03	0.06	N/A	
OPERS Actual Allocation Index			5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	7.95	
Difference			0.32	0.32	0.53	0.46	0.38	-0.54	-0.37	-0.21	N/A	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			4.48	4.48	2.13	-12.91	3.49	-1.01	0.49	0.20	N/A	
US Equity	4,371,492,107	40.37	6.77	6.77	10.15	-8.01	19.68	10.08	11.85	11.53	N/A	09/01/1988
OPERS US Equity Custom Index			6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	N/A	
Difference			-0.02	-0.02	0.64	0.82	1.20	0.08	0.13	0.05	N/A	
US Active Large Cap Equity	346,742,489	3.20	14.07	14.07	13.37	-11.84	14.48	7.26	10.12	9.91	N/A	08/01/2003
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.74	
Difference			6.61	6.61	3.44	-3.45	-4.07	-3.61	-2.11	-2.10	N/A	
Westfield Large Cap Growth Equity (SA)	346,742,489	3.20	14.07	14.07	13.37	-11.84	16.92	12.38	N/A	N/A	14.58	02/01/2017
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	15.43	
Difference			-0.30	-0.30	0.70	-0.94	-1.66	-1.28	N/A	N/A	-0.85	
US Large Cap Enhanced Index Equity	1,256,275,530	11.60	7.71	7.71	10.46	-7.14	19.27	10.05	11.47	11.57	N/A	03/01/2000
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	6.95	
Difference			0.25	0.25	0.53	1.25	0.72	-0.82	-0.76	-0.44	N/A	
State Street Large Cap Enhanced Index (SA)	617,732,680	5.70	7.39	7.39	10.97	-6.42	19.45	11.02	12.21	12.19	9.32	09/01/2004
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.58	
Difference			-0.07	-0.07	1.04	1.97	0.90	0.15	-0.02	0.18	-0.26	
Mellon EB DV Large Cap Stock Index (SA)	638,542,850	5.90	8.02	8.02	9.92	-7.88	19.09	9.07	10.73	10.93	8.70	06/01/2004
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.37	
Difference			0.56	0.56	-0.01	0.51	0.54	-1.80	-1.50	-1.08	-0.67	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Passive Equity	2,139,310,634	19.76	6.44	6.44	9.43	-7.98	18.86	11.06	12.33	12.15	N/A	01/01/2003
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	10.18	
Difference			-1.02	-1.02	-0.50	0.41	0.31	0.19	0.10	0.14	N/A	
BlackRock Russell 1000 Value (CF)	311,024,646	2.87	1.02	1.02	6.98	-6.16	N/A	N/A	N/A	N/A	7.05	01/01/2021
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	7.18	
Difference			0.01	0.01	-0.19	-0.25	N/A	N/A	N/A	N/A	-0.13	
Blackrock Russell 1000 Index (CF)	1,828,285,989	16.88	7.41	7.41	9.88	-8.37	18.57	10.90	12.25	12.04	13.58	09/01/2010
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	13.55	
Difference			-0.05	-0.05	-0.05	0.02	0.02	0.03	0.02	0.03	0.03	
US Active Small Cap Equity	629,163,454	5.81	2.48	2.48	10.28	-7.88	25.82	9.07	12.34	10.43	N/A	08/01/2003
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	8.43	
Difference			-0.26	-0.26	3.53	3.73	8.31	4.36	3.79	2.39	N/A	
BHMS Small Cap Value Equity (SA)	216,167,138	2.00	3.02	3.02	14.36	-3.00	28.89	8.23	11.38	10.11	10.30	12/01/2004
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	6.52	
Difference			3.68	3.68	11.62	9.96	7.88	3.68	3.52	2.89	3.78	
UBS US Small Cap Growth Equity (SA)	187,536,769	1.73	3.61	3.61	8.63	-17.01	18.24	8.79	12.76	10.77	N/A	06/01/2003
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	9.04	
Difference			-2.46	-2.46	-2.09	-6.41	4.88	4.53	4.02	2.28	N/A	
DePrince Race & Zollo Small Cap Value (SA)	225,459,547	2.08	1.05	1.05	7.88	-5.05	27.93	8.46	11.58	9.48	9.76	03/01/2011
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	7.43	
Difference			1.71	1.71	5.14	7.91	6.92	3.91	3.72	2.26	2.33	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,084,335,141	28.48	7.88	7.88	10.50	-4.44	11.71	2.84	5.93	4.57	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.37	
Difference			0.88	0.88	0.12	0.12	-0.61	-0.13	-0.44	-0.08	N/A	
International Core Active Equity	677,794,727	6.26	8.57	8.57	8.68	-1.96	12.25	1.93	4.60	3.82	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	6.99	
Difference			1.57	1.57	-1.70	2.60	-0.07	-1.04	-1.77	-0.83	N/A	
Mondrian ACWI ex US Equity (SA)	677,794,727	6.26	8.57	8.57	8.68	-1.96	12.25	1.93	4.60	3.82	N/A	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			5.33	5.33	9.44	-3.32	14.54	1.90	5.65	3.67	5.71	
Difference			3.24	3.24	-0.76	1.36	-2.29	0.03	-1.05	0.15	N/A	
International Core Passive Equity	1,758,044,020	16.24	6.98	6.98	10.22	-4.72	12.10	2.78	6.15	4.43	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	6.99	
Difference			-0.02	-0.02	-0.16	-0.16	-0.22	-0.19	-0.22	-0.22	N/A	
Blackrock ACWI Ex US Index (CF)	1,758,044,020	16.24	6.98	6.98	10.22	-4.72	12.10	2.78	6.15	4.43	4.85	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.07	
Difference			-0.02	-0.02	-0.16	-0.16	-0.22	-0.19	-0.22	-0.22	-0.22	
International Growth Equity	648,496,395	5.99	9.65	9.65	13.27	-6.18	9.64	3.32	6.38	5.17	5.78	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.96	
Difference			0.96	0.96	1.94	-0.15	-0.17	-0.39	-0.45	-0.28	-0.18	
Baillie Gifford Intl Growth Equity (SA)	305,818,376	2.82	10.93	10.93	15.87	-6.77	8.60	3.01	6.17	N/A	4.96	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.11	
Difference			2.24	2.24	4.54	-0.74	-1.21	-0.70	-0.66	N/A	-0.15	
Blackrock ACWI Ex US Growth (CF)	342,678,018	3.16	8.53	8.53	11.04	-5.64	10.64	3.58	6.54	5.04	5.62	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.96	
Difference			-0.16	-0.16	-0.29	0.39	0.83	-0.13	-0.29	-0.41	-0.34	

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Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,322,838,408	30.69	3.59	3.59	-0.10	-6.15	-2.77	1.49	1.35	1.78	N/A	04/01/1989
OPERS Fixed Income Custom Index			3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	N/A	
Difference			0.11	0.11	0.62	0.20	0.51	0.48	0.42	0.35	N/A	
Active Fixed Income	1,285,019,924	11.87	4.19	4.19	-0.85	-8.15	-4.83	1.23	1.10	1.88	N/A	08/01/2003
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.28	
Difference			1.23	1.23	-0.76	-3.37	-2.06	0.33	0.22	0.52	N/A	
MetWest Core Plus Fixed Income (SA)	993,935,891	9.18	3.51	3.51	0.43	-4.90	-1.78	1.58	1.54	1.83	N/A	09/01/2001
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.53	
Difference			0.55	0.55	0.52	-0.12	0.99	0.68	0.66	0.47	N/A	
Hoisington Long Duration Fixed Income (SA)	291,084,033	2.69	6.55	6.55	-5.02	-17.74	-13.09	-0.45	-0.64	1.73	N/A	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			6.17	6.17	-4.62	-16.00	-11.33	-0.35	-0.49	1.45	6.20	
Difference			0.38	0.38	-0.40	-1.74	-1.76	-0.10	-0.15	0.28	N/A	
Enhanced Fixed Income	1,633,151,470	15.08	3.15	3.15	0.46	-4.55	-2.11	1.28	1.22	1.67	N/A	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.19	0.19	0.55	0.23	0.66	0.38	0.34	0.31	N/A	
Blackrock Enhanced Core (SA)	1,633,151,470	15.08	3.15	3.15	0.46	-4.55	-2.11	1.28	1.22	1.67	N/A	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.19	0.19	0.55	0.23	0.66	0.38	0.34	0.31	N/A	
Passive Fixed Income	404,667,014	3.74	3.53	3.53	0.06	-6.04	1.86	3.03	2.56	1.59	3.11	03/01/2010
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	2.28	
Difference			0.57	0.57	0.15	-1.26	4.63	2.13	1.68	0.23	0.83	
Blackrock TIPS (CF)	404,667,014	3.74	3.53	3.53	0.06	-6.04	1.86	3.03	2.56	1.59	3.11	03/01/2010
Bloomberg US Trsy US TIPS Index			3.34	3.34	0.02	-6.06	1.75	2.94	2.44	1.49	3.07	
Difference			0.19	0.19	0.04	0.02	0.11	0.09	0.12	0.10	0.04	

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Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,828,014,755	100.00	6.10	6.10	7.07	-6.30	10.13	5.62	7.12	6.82	8.06	03/01/1987
OPERS Policy Index			5.80	5.80	6.64	-6.54	9.73	5.48	7.02	6.64	7.90	
Difference			0.30	0.30	0.43	0.24	0.40	0.14	0.10	0.18	0.16	
OPERS Actual Allocation Index			5.75	5.75	6.44	-6.87	9.61	6.03	7.36	6.91	7.95	
Difference			0.35	0.35	0.63	0.57	0.52	-0.41	-0.24	-0.09	0.11	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			4.51	4.51	2.23	-12.80	3.63	-0.88	0.62	0.32	1.56	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	8.14	
Rank			3	3	10	85	67	67	62	57	62	
US Equity	4,371,492,107	40.37	6.79	6.79	10.31	-7.86	19.86	10.23	11.99	11.66	10.22	09/01/1988
OPERS US Equity Custom Index			6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	N/A	
Difference			0.00	0.00	0.80	0.97	1.38	0.23	0.27	0.18	N/A	
IM U.S. Equity (SA+CF) Median			5.05	5.05	9.77	-7.21	19.17	9.18	11.30	10.94	11.36	
Rank			37	37	42	58	45	37	41	39	90	
US Active Large Cap Equity	346,742,489	3.20	14.09	14.09	13.46	-11.74	14.58	7.34	10.22	10.05	8.49	08/01/2003
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.74	
Difference			6.63	6.63	3.53	-3.35	-3.97	-3.53	-2.01	-1.96	-1.25	
IM U.S. Large Cap Equity (SA+CF) Median			6.48	6.48	9.78	-7.19	18.53	10.50	12.13	12.01	9.99	
Rank			12	12	13	87	88	91	79	81	93	
Westfield Large Cap Growth Equity (SA)	346,742,489	3.20	14.09	14.09	13.46	-11.74	17.04	12.48	N/A	N/A	14.76	02/01/2017
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	15.43	
Difference			-0.28	-0.28	0.79	-0.84	-1.54	-1.18	N/A	N/A	-0.67	
IM U.S. Large Cap Growth Equity (SA+CF) Median			12.78	12.78	11.63	-10.60	16.39	11.87	13.80	13.73	14.14	
Rank			34	34	32	59	40	40	N/A	N/A	34	

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Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Enhanced Index Equity	1,256,275,530	11.60	7.72	7.72	10.48	-7.12	19.30	10.08	11.50	11.59	6.07	03/01/2000
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	6.95	
Difference			0.26	0.26	0.55	1.27	0.75	-0.79	-0.73	-0.42	-0.88	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			7.09	7.09	9.74	-7.76	18.99	10.60	12.04	12.07	7.49	
Rank			31	31	22	31	44	62	64	74	100	
State Street Large Cap Enhanced Index (SA)	617,732,680	5.70	7.40	7.40	11.00	-6.39	19.49	11.05	12.24	12.22	9.37	09/01/2004
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.58	
Difference			-0.06	-0.06	1.07	2.00	0.94	0.18	0.01	0.21	-0.21	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			7.09	7.09	9.74	-7.76	18.99	10.60	12.04	12.07	9.72	
Rank			40	40	10	26	41	28	46	46	72	
Mellon EB DV Large Cap Stock Index (SA)	638,542,850	5.90	8.03	8.03	9.95	-7.86	19.10	9.09	10.75	10.95	8.74	06/01/2004
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	9.37	
Difference			0.57	0.57	0.02	0.53	0.55	-1.78	-1.48	-1.06	-0.63	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			7.09	7.09	9.74	-7.76	18.99	10.60	12.04	12.07	9.52	
Rank			21	21	41	54	49	81	82	80	93	
US Large Cap Passive Equity	2,139,310,634	19.76	6.45	6.45	9.44	-7.97	18.87	11.07	12.33	12.16	10.39	01/01/2003
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	10.18	
Difference			-1.01	-1.01	-0.49	0.42	0.32	0.20	0.10	0.15	0.21	
BlackRock Russell 1000 Value (CF)	311,024,646	2.87	1.02	1.02	6.99	-6.16	N/A	N/A	N/A	N/A	7.06	01/01/2021
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	7.18	
Difference			0.01	0.01	-0.18	-0.25	N/A	N/A	N/A	N/A	-0.12	
IM U.S. Large Cap Value Equity (SA+CF) Median			0.91	0.91	7.88	-4.49	20.03	9.08	10.40	10.21	9.04	
Rank			48	48	67	71	N/A	N/A	N/A	N/A	75	
Blackrock Russell 1000 Index (CF)	1,828,285,989	16.88	7.41	7.41	9.89	-8.37	18.58	10.91	12.26	12.05	13.59	09/01/2010
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	13.55	
Difference			-0.05	-0.05	-0.04	0.02	0.03	0.04	0.03	0.04	0.04	
IM U.S. Large Cap Index Equity (SA+CF) Median			7.46	7.46	9.95	-8.01	18.56	10.91	12.26	12.05	13.59	
Rank			60	60	66	60	39	51	50	50	50	

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Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Active Small Cap Equity	629,163,454	5.81	2.55	2.55	11.28	-6.96	26.90	9.95	13.09	11.14	11.52	08/01/2003
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	8.43	
Difference			-0.19	-0.19	4.53	4.65	9.39	5.24	4.54	3.10	3.09	
IM U.S. Small Cap Equity (SA+CF) Median			3.88	3.88	9.51	-7.75	21.64	7.47	10.50	10.07	10.51	
Rank			73	73	33	43	18	19	19	28	22	
BHMS Small Cap Value Equity (SA)	216,167,138	2.00	3.15	3.15	14.63	-2.64	29.47	8.75	11.92	10.66	10.92	12/01/2004
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	6.52	
Difference			3.81	3.81	11.89	10.32	8.46	4.20	4.06	3.44	4.40	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	8.89	
Rank			39	39	11	30	20	23	13	23	9	
UBS US Small Cap Growth Equity (SA)	187,536,769	1.73	3.61	3.61	8.93	-16.73	19.47	9.79	13.55	11.53	10.69	06/01/2003
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	9.04	
Difference			-2.46	-2.46	-1.79	-6.13	6.11	5.53	4.81	3.04	1.65	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	11.51	
Rank			92	92	69	83	30	41	41	47	87	
DePrince Race & Zollo Small Cap Value (SA)	225,459,547	2.08	1.12	1.12	10.05	-3.05	29.13	9.46	12.42	10.25	10.51	03/01/2011
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	7.43	
Difference			1.78	1.78	7.31	9.91	8.12	4.91	4.56	3.03	3.08	
IM U.S. Micro Cap Equity (SA+CF) Median			4.02	4.02	8.80	-7.27	25.99	7.92	11.79	11.29	11.08	
Rank			75	75	41	28	32	31	41	63	62	
International Equity	3,084,335,141	28.48	7.91	7.91	10.60	-4.32	11.90	3.00	6.10	4.74	5.62	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.37	
Difference			0.91	0.91	0.22	0.24	-0.42	0.03	-0.27	0.09	0.25	
IM All ACWI Ex US (SA+CF) Median			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	7.05	
Rank			66	66	79	62	75	73	75	82	100	
International Core Active Equity	677,794,727	6.26	8.66	8.66	8.96	-1.62	12.65	2.29	4.97	4.20	6.64	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	6.99	
Difference			1.66	1.66	-1.42	2.94	0.33	-0.68	-1.40	-0.45	-0.35	
IM All ACWI Ex US (SA+CF) Median			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	7.75	
Rank			52	52	90	34	56	82	86	92	93	
Mondrian ACWI ex US Equity (SA)	677,794,727	6.26	8.66	8.66	8.96	-1.62	12.65	2.29	4.97	4.20	6.52	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			5.33	5.33	9.44	-3.32	14.54	1.90	5.65	3.67	5.71	
Difference			3.33	3.33	-0.48	1.70	-1.89	0.39	-0.68	0.53	0.81	
IM ACWI Ex US Core (SA+CF) Median			7.56	7.56	12.25	-4.49	12.88	3.54	6.46	5.29	6.57	
Rank			21	21	91	14	52	77	76	96	65	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,758,044,020	16.24	7.00	7.00	10.24	-4.69	12.13	2.81	6.18	4.47	6.27	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	6.99	
Difference			0.00	0.00	-0.14	-0.13	-0.19	-0.16	-0.19	-0.18	-0.72	
Blackrock ACWI Ex US Index (CF)	1,758,044,020	16.24	7.00	7.00	10.24	-4.69	12.13	2.81	6.18	4.47	4.89	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.07	
Difference			0.00	0.00	-0.14	-0.13	-0.19	-0.16	-0.19	-0.18	-0.18	
International Growth Equity	648,496,395	5.99	9.69	9.69	13.36	-6.05	10.04	3.60	6.66	5.41	5.95	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.96	
Difference			1.00	1.00	2.03	-0.02	0.23	-0.11	-0.17	-0.04	-0.01	
IM ACWI Ex US Growth (SA+CF) Median			9.86	9.86	14.81	-4.33	12.51	4.55	7.77	6.42	7.01	
Rank			54	54	70	66	82	73	74	99	97	
Baillie Gifford Intl Growth Equity (SA)	305,818,376	2.82	10.97	10.97	16.03	-6.57	9.32	3.49	6.67	N/A	5.40	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.11	
Difference			2.28	2.28	4.70	-0.54	-0.49	-0.22	-0.16	N/A	0.29	
IM ACWI Ex US Growth (SA+CF) Median			9.86	9.86	14.81	-4.33	12.51	4.55	7.77	6.42	6.01	
Rank			19	19	28	69	88	76	74	N/A	76	
Blackrock ACWI Ex US Growth (CF)	342,678,018	3.16	8.58	8.58	11.09	-5.57	10.70	3.64	6.59	5.09	5.68	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			8.69	8.69	11.33	-6.03	9.81	3.71	6.83	5.45	5.96	
Difference			-0.11	-0.11	-0.24	0.46	0.89	-0.07	-0.24	-0.36	-0.28	
IM ACWI Ex US Growth (SA+CF) Median			9.86	9.86	14.81	-4.33	12.51	4.55	7.77	6.42	7.37	
Rank			75	75	87	62	78	73	79	100	99	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,322,838,408	30.69	3.62	3.62	-0.05	-6.09	-2.68	1.57	1.43	1.87	6.12	04/01/1989
OPERS Fixed Income Custom Index			3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	N/A	
Difference			0.14	0.14	0.67	0.26	0.60	0.56	0.50	0.44	N/A	
IM U.S. Broad Market Fixed Income (SA+CF) Median			3.17	3.17	0.52	-4.63	-1.25	1.49	1.63	1.96	5.85	
Rank			12	12	84	97	92	45	67	61	16	
Active Fixed Income	1,285,019,924	11.87	4.20	4.20	-0.80	-8.08	-4.71	1.35	1.21	2.01	5.04	08/01/2003
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.28	
Difference			1.24	1.24	-0.71	-3.30	-1.94	0.45	0.33	0.65	1.76	
IM U.S. Broad Market Fixed Income (SA+CF) Median			3.17	3.17	0.52	-4.63	-1.25	1.49	1.63	1.96	3.96	
Rank			2	2	100	100	100	64	84	49	11	
MetWest Core Plus Fixed Income (SA)	993,935,891	9.18	3.53	3.53	0.47	-4.85	-1.66	1.70	1.64	1.95	4.62	09/01/2001
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.53	
Difference			0.57	0.57	0.56	-0.07	1.11	0.80	0.76	0.59	1.09	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	4.48	
Rank			20	20	71	65	83	53	75	73	40	
Hoisington Long Duration Fixed Income (SA)	291,084,033	2.69	6.58	6.58	-4.91	-17.62	-12.97	-0.32	-0.51	1.87	6.91	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			6.17	6.17	-4.62	-16.00	-11.33	-0.35	-0.49	1.45	6.20	
Difference			0.41	0.41	-0.29	-1.62	-1.64	0.03	-0.02	0.42	0.71	
IM U.S. Long Duration (SA+CF) Median			5.80	5.80	-0.60	-12.99	-4.85	1.36	2.07	2.88	N/A	
Rank			4	4	100	100	100	100	100	100	N/A	
Enhanced Fixed Income	1,633,151,470	15.08	3.19	3.19	0.52	-4.47	-2.03	1.36	1.30	1.76	4.29	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.23	0.23	0.61	0.31	0.74	0.46	0.42	0.40	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	4.44	
Rank			45	45	26	33	64	48	62	55	73	
Blackrock Enhanced Core (SA)	1,633,151,470	15.08	3.19	3.19	0.52	-4.47	-2.03	1.36	1.30	1.76	4.29	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.23	0.23	0.61	0.31	0.74	0.46	0.42	0.40	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	4.44	
Rank			45	45	26	33	64	48	62	55	73	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
Oklahoma Public Employees Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

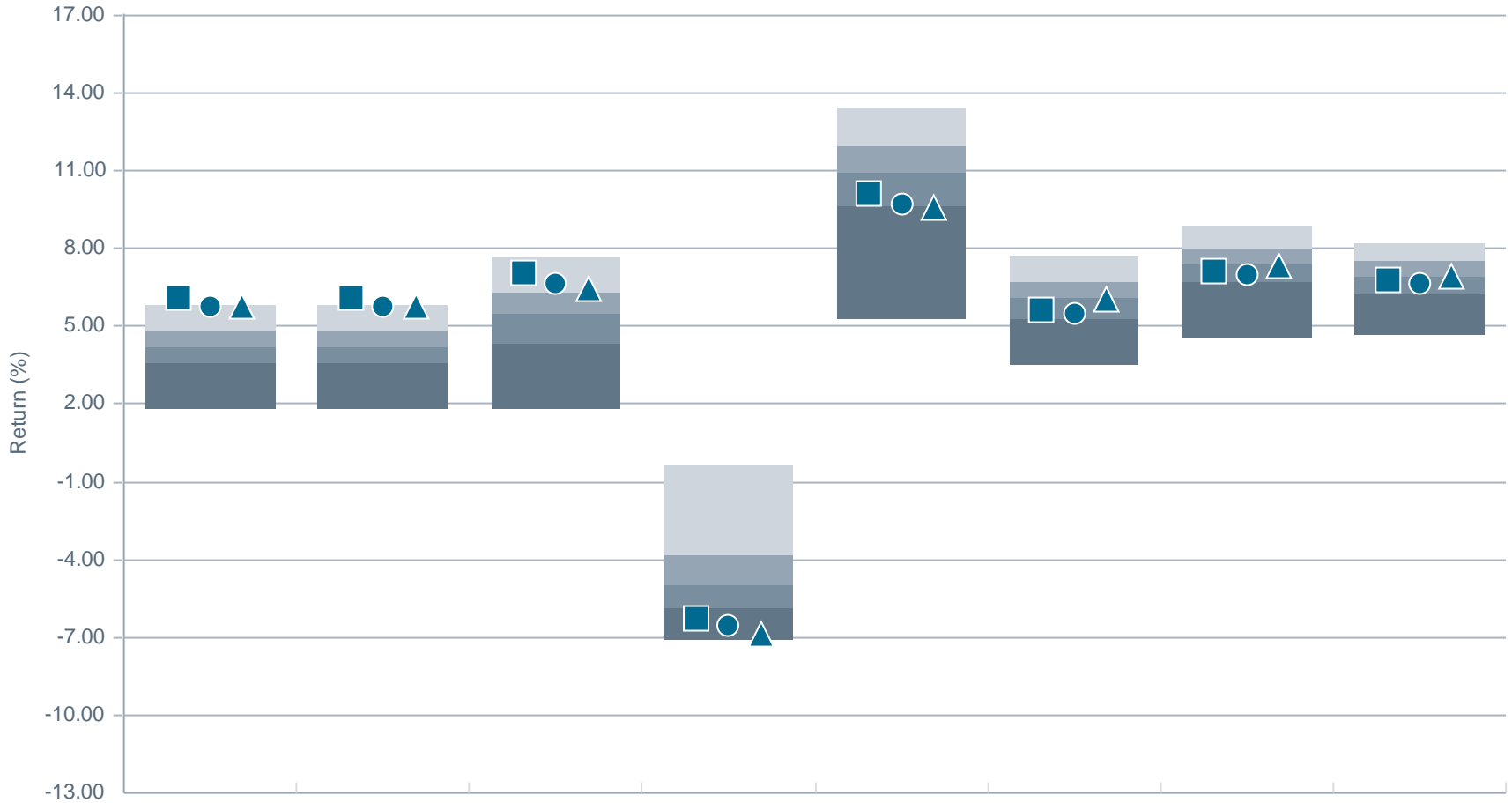
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Passive Fixed Income	404,667,014	3.74	3.54	3.54	0.07	-6.03	1.87	3.04	2.57	1.60	3.12	03/01/2010
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	2.28	
Difference			0.58	0.58	0.16	-1.25	4.64	2.14	1.69	0.24	0.84	
Blackrock TIPS (CF)	404,667,014	3.74	3.54	3.54	0.07	-6.03	1.87	3.04	2.57	1.60	3.12	03/01/2010
Bloomberg US Trsy US TIPS Index			3.34	3.34	0.02	-6.06	1.75	2.94	2.44	1.49	3.07	
Difference			0.20	0.20	0.05	0.03	0.12	0.10	0.13	0.11	0.05	
IM U.S. TIPS (SA+CF) Median			3.41	3.41	0.22	-5.97	2.01	3.04	2.57	1.60	3.12	
Rank			23	23	71	52	58	50	50	48	51	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Grand Centre Real Estate holding is considered Fixed Income for policy purposes; benchmark shown is for illustrative purposes only.



Oklahoma State Pension Commission
 Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



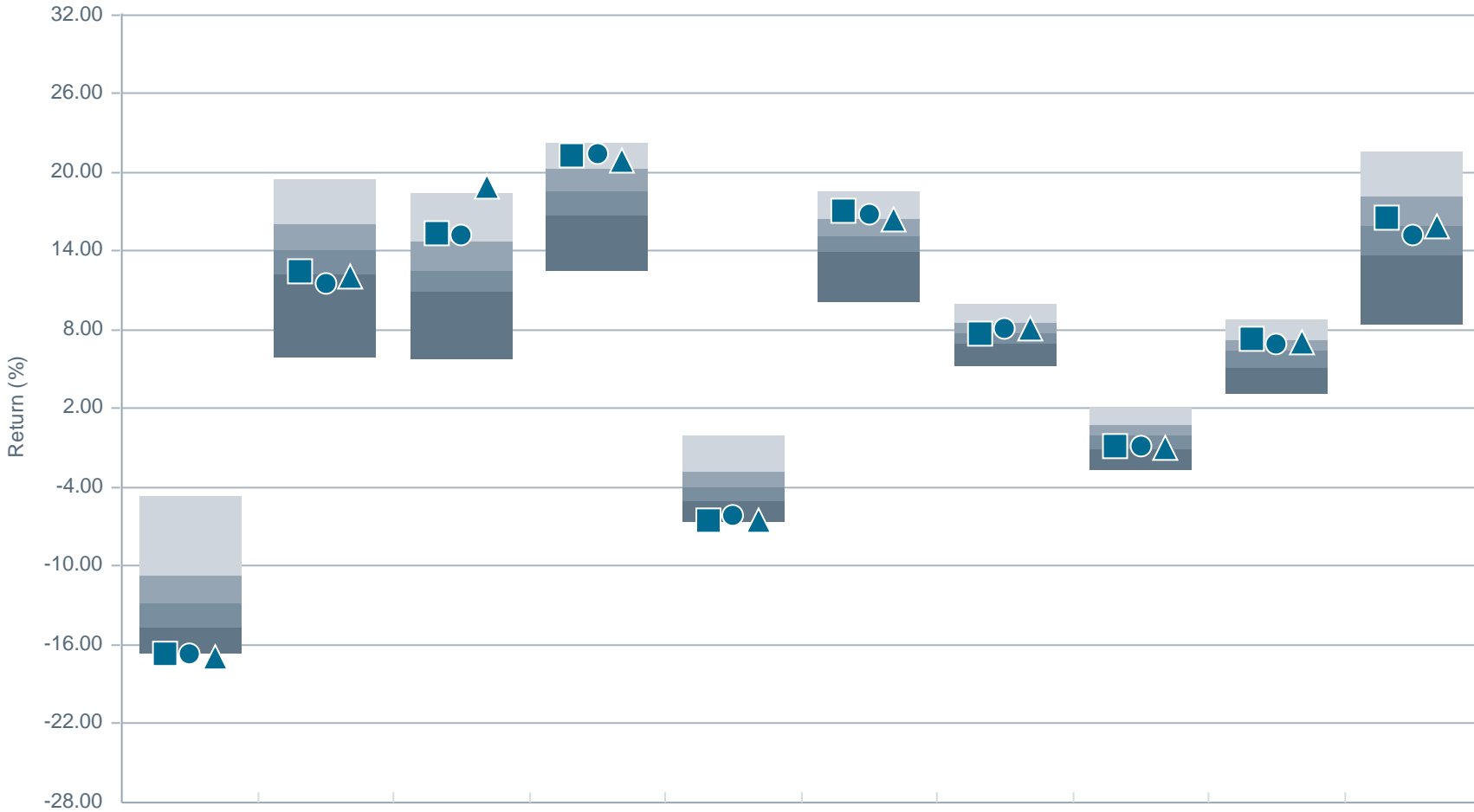
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OPERS Total Fund	6.10 (3)	6.10 (3)	7.07 (10)	-6.30 (85)	10.13 (67)	5.62 (67)	7.12 (62)	6.82 (57)
● OPERS Policy Index	5.80 (6)	5.80 (6)	6.64 (17)	-6.54 (90)	9.73 (74)	5.48 (70)	7.02 (65)	6.64 (64)
▲ OPERS Allocation Index	5.75 (6)	5.75 (6)	6.44 (22)	-6.87 (93)	9.61 (76)	6.03 (53)	7.36 (54)	6.91 (53)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

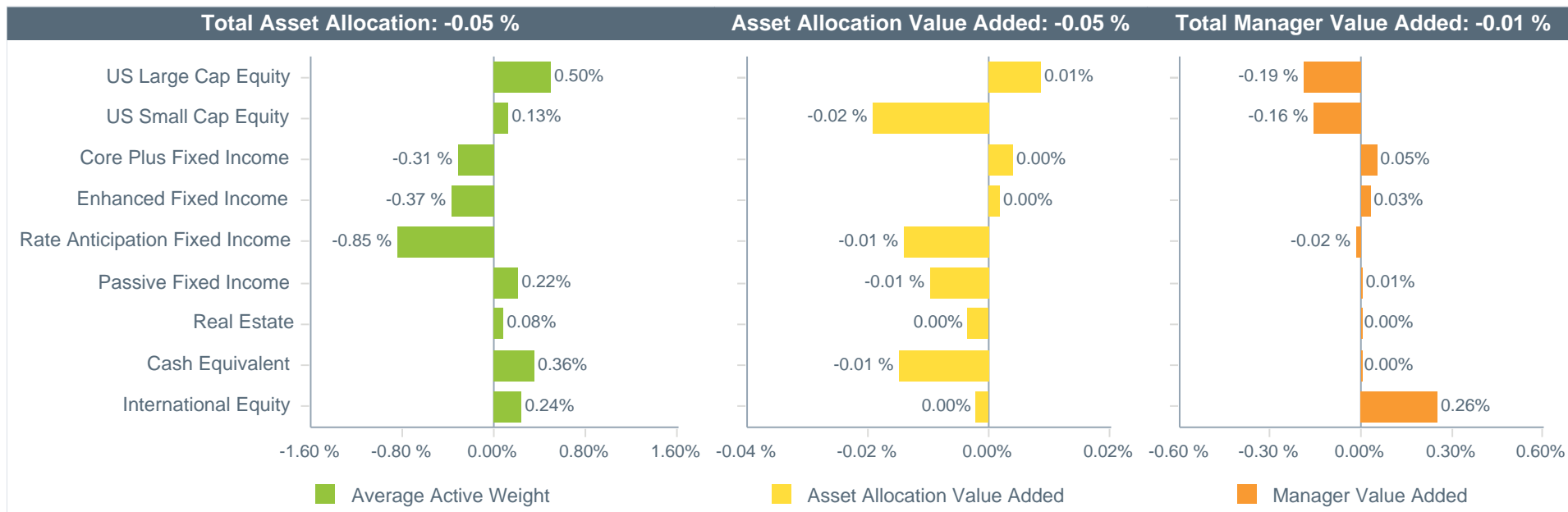
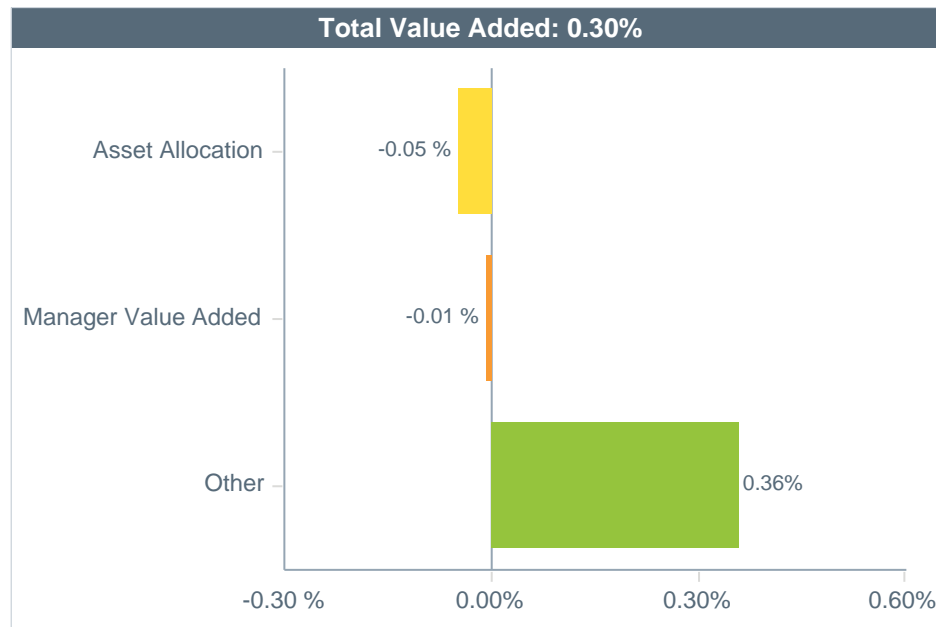
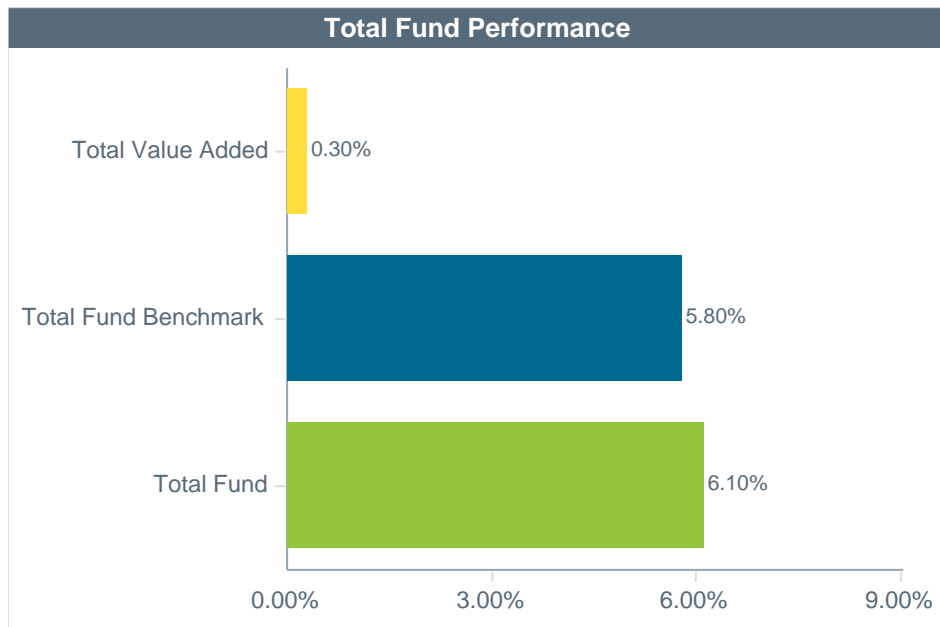
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OPERS Total Fund	-16.64 (95)	12.46 (72)	15.34 (19)	21.38 (12)	-6.48 (94)	17.13 (15)	7.69 (51)	-0.77 (67)	7.37 (23)	16.60 (44)
● OPERS Policy Index	-16.62 (95)	11.54 (82)	15.19 (21)	21.46 (11)	-6.09 (91)	16.86 (18)	8.12 (38)	-0.89 (71)	7.00 (32)	15.27 (58)
▲ OPERS Allocation Index	-16.87 (97)	12.14 (77)	18.93 (4)	20.87 (17)	-6.49 (94)	16.51 (24)	8.09 (39)	-0.94 (72)	7.05 (30)	15.94 (50)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

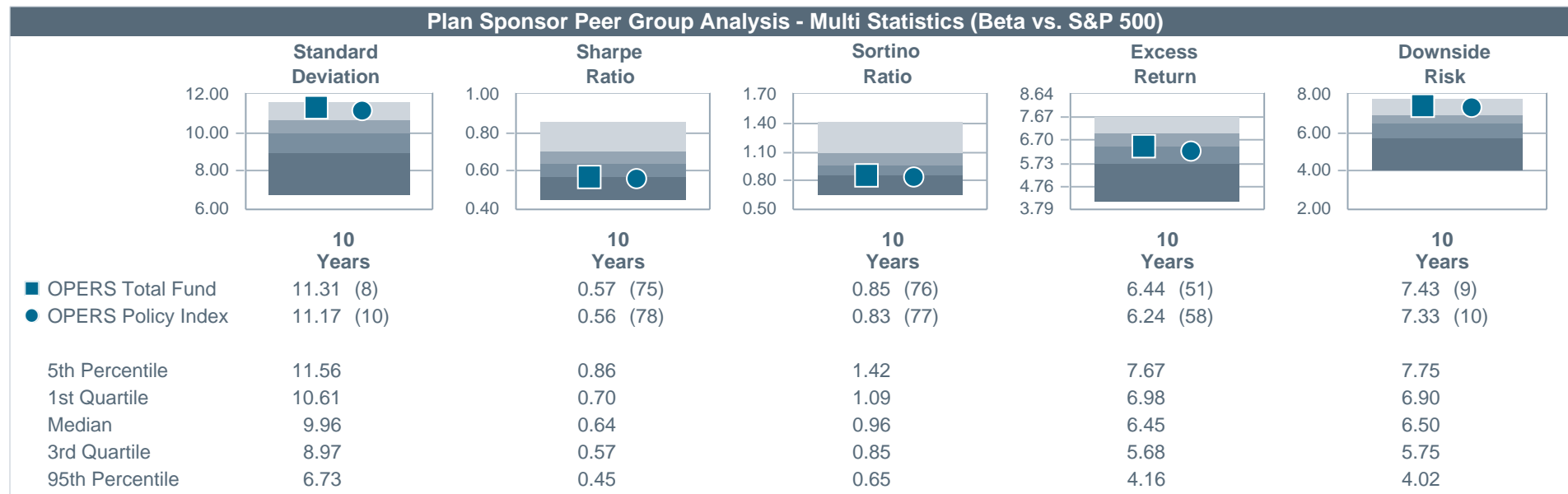
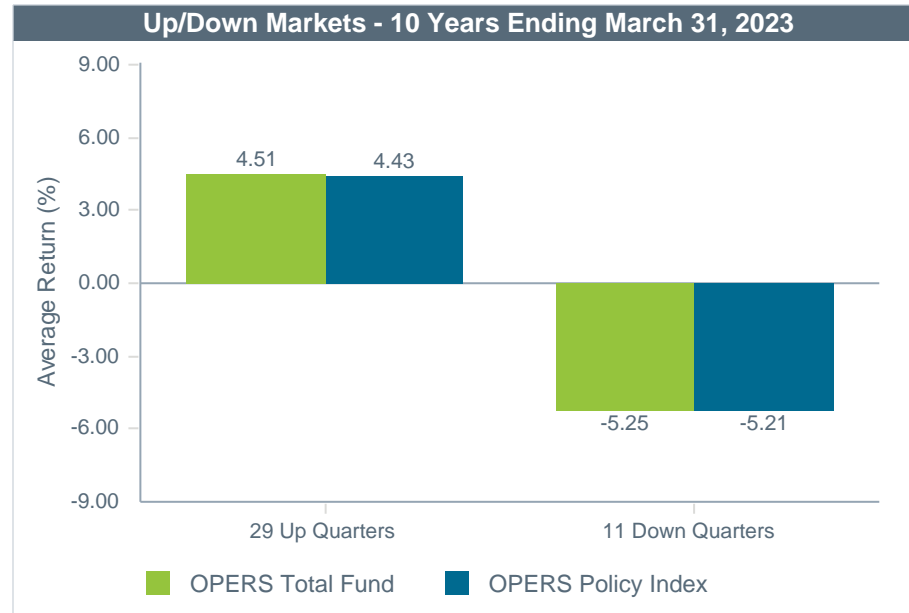
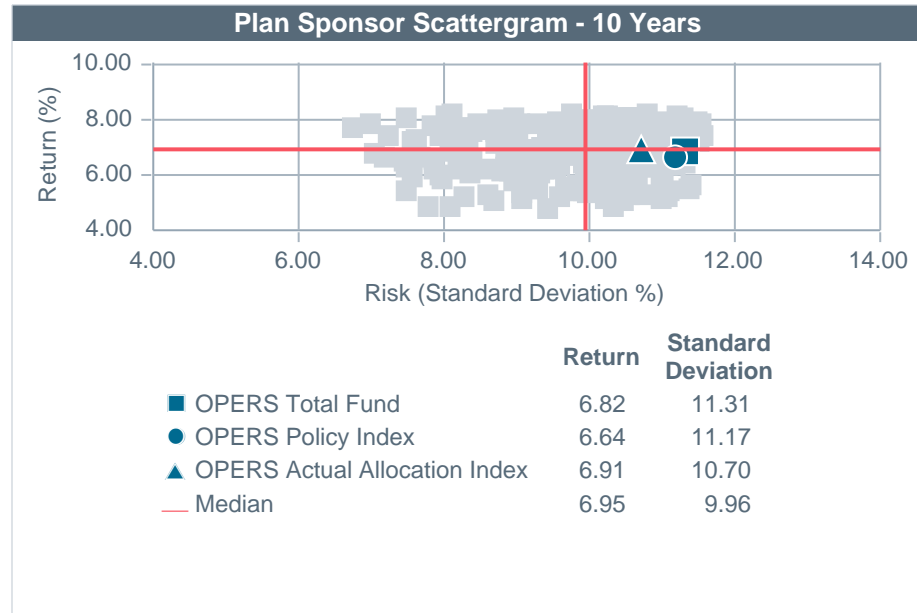
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



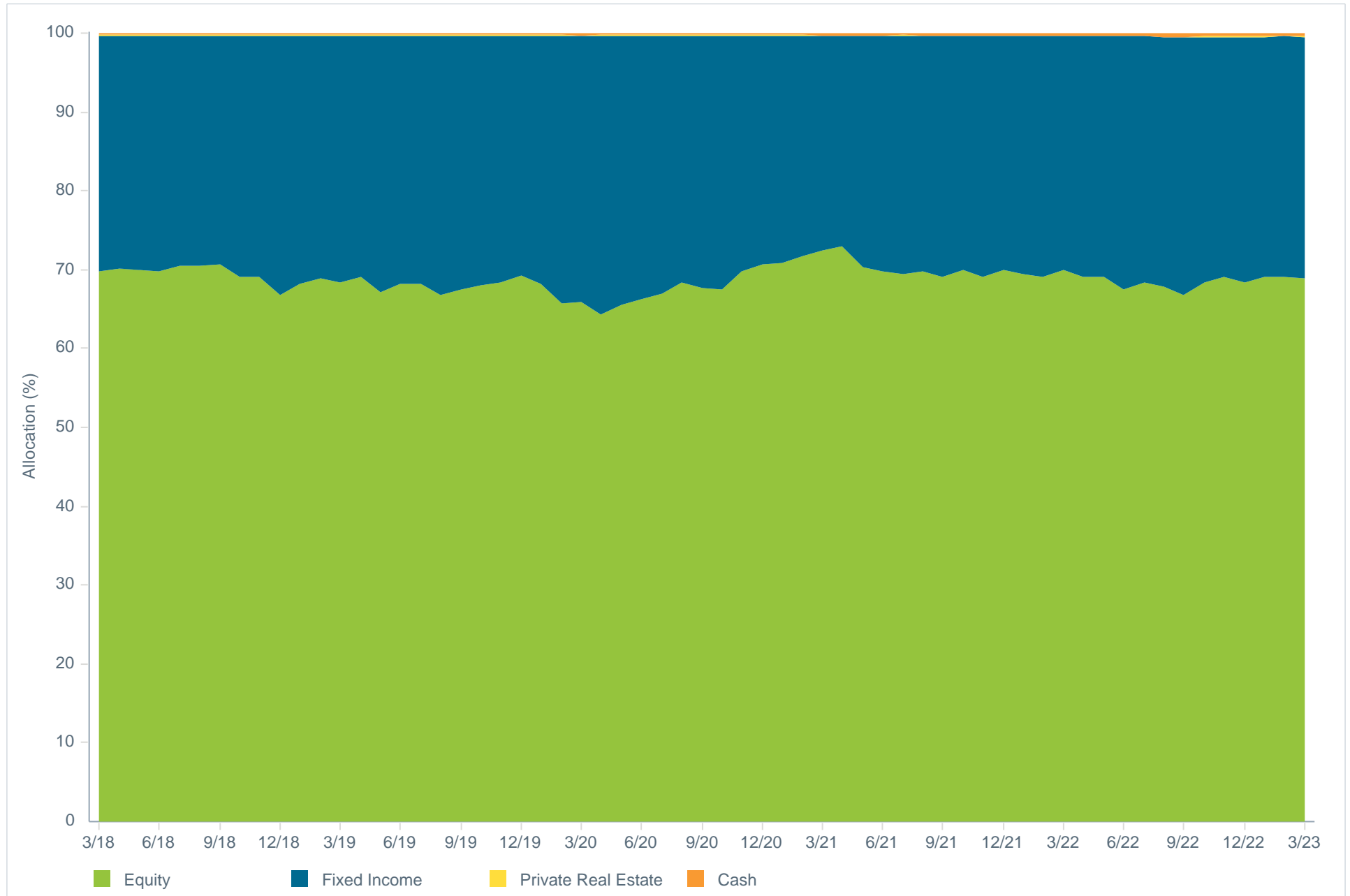


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.

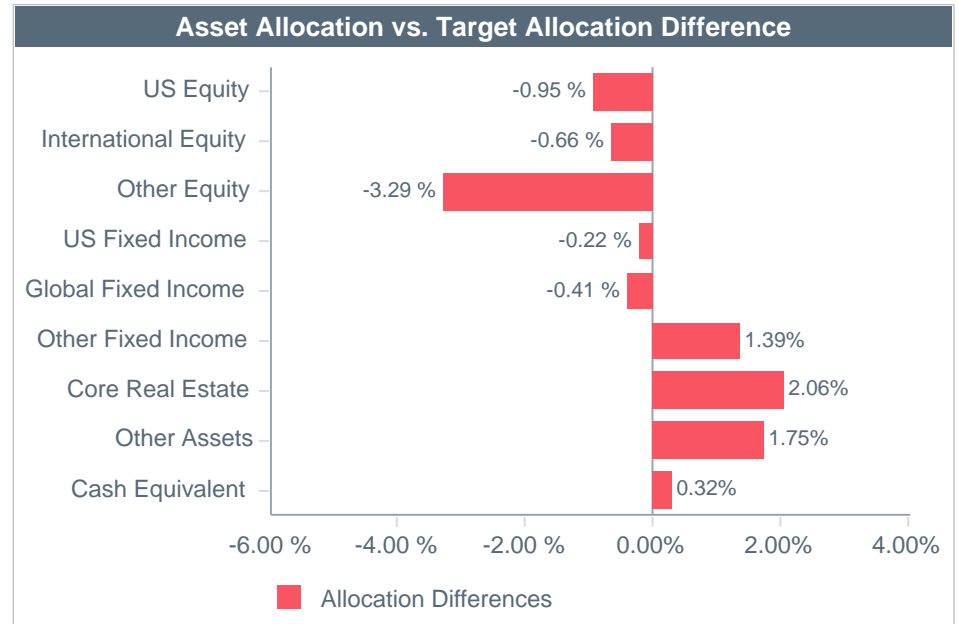


Oklahoma Firefighters Pension & Retirement System (OFPRS)



	Performance (%)												
	Trailing								Calendar Year				
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OFPRS Total Fund (Net)	4.39	4.39	4.89	-5.19	11.68	6.86	8.51	8.19	-13.34	13.46	17.97	19.77	-2.77
OFPRS Policy Index	4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	-13.50	16.12	15.02	21.76	-3.80
Difference	-0.38	-0.38	-0.94	0.72	-0.38	-0.55	0.00	-0.16	0.16	-2.66	2.95	-1.99	1.03
OFPRS Actual Allocation Index	4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	-12.83	16.99	14.72	20.30	-3.93
Difference	-0.26	-0.26	-0.20	0.46	-0.55	-0.35	-0.03	0.12	-0.51	-3.53	3.25	-0.53	1.16
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	2.57	2.57	-0.68	-12.69	4.18	-0.64	1.01	0.69	-20.84	5.96	10.47	12.27	-10.27
OFPRS Total Fund (Gross)	4.46	4.46	5.16	-4.66	12.08	7.23	8.88	8.55	-13.03	13.87	18.44	20.15	-2.46
OFPRS Policy Index	4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	-13.50	16.12	15.02	21.76	-3.80
Difference	-0.31	-0.31	-0.67	1.05	0.02	-0.18	0.37	0.20	0.47	-2.25	3.42	-1.61	1.34
OFPRS Actual Allocation Index	4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	-12.83	16.99	14.72	20.30	-3.93
Difference	-0.19	-0.19	0.07	0.79	-0.15	0.02	0.34	0.48	-0.20	-3.12	3.72	-0.15	1.47
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	38	38	61	47	23	12	6	3	54	53	5	27	19

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OFPRS (Firefighters)	3,319,387,670	100.00	100.00
US Equity	1,362,727,751	41.05	42.00
International Equity	475,900,157	14.34	15.00
Other Equity	56,864,905	1.71	5.00
US Fixed Income	258,255,468	7.78	8.00
Global Fixed Income	218,912,798	6.59	7.00
Other Fixed Income	212,091,287	6.39	5.00
Core Real Estate	400,312,651	12.06	10.00
Other Assets	323,720,719	9.75	8.00
Cash Equivalent	10,601,934	0.32	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,319,387,670	100.00	4.39	4.39	4.89	-5.19	11.68	6.86	8.51	8.19	6.94	01/01/1997
OFPRS Policy Index			4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	7.42	
Difference			-0.38	-0.38	-0.94	0.72	-0.38	-0.55	0.00	-0.16	-0.48	
OFPRS Actual Allocation Index			4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	7.31	
Difference			-0.26	-0.26	-0.20	0.46	-0.55	-0.35	-0.03	0.12	-0.37	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.57	2.57	-0.68	-12.69	4.18	-0.64	1.01	0.69	-0.56	
Total Equity	1,838,627,907	55.39	7.27	7.27	10.20	-7.34	16.01	8.49	10.94	10.28	7.57	01/01/1997
Wilshire 5000 Index			7.29	7.29	9.80	-8.62	18.80	10.71	12.19	11.91	8.79	
Difference			-0.02	-0.02	0.40	1.28	-2.79	-2.22	-1.25	-1.63	-1.22	
US Equity	1,362,727,751	41.05	6.99	6.99	10.03	-8.43	17.43	9.44	11.53	11.24	8.05	01/01/1997
Wilshire 5000 Index			7.29	7.29	9.80	-8.62	18.80	10.71	12.19	11.91	8.79	
Difference			-0.30	-0.30	0.23	0.19	-1.37	-1.27	-0.66	-0.67	-0.74	
US Large Cap Equity	974,387,654	29.35	7.79	7.79	10.29	-8.03	17.43	9.79	11.49	11.45	8.18	12/01/1996
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	8.72	
Difference			0.33	0.33	0.36	0.36	-1.12	-1.08	-0.74	-0.56	-0.54	
US Large Cap Core Equity	474,451,086	14.29	7.32	7.32	9.90	-7.85	19.44	10.35	11.81	11.87	8.60	12/01/1997
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	7.91	
Difference			-0.18	-0.18	-0.08	-0.12	0.84	-0.84	-0.61	-0.37	0.69	
Liquidity Pool - SSgA Equity Index (CF)	228,089,435	6.87	7.47	7.47	9.96	-7.75	N/A	N/A	N/A	N/A	N/A	03/01/2021
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	5.31	
Difference			-0.03	-0.03	-0.02	-0.02	N/A	N/A	N/A	N/A	N/A	
Intech Enhanced Investment Tech (SA)	246,361,651	7.42	7.28	7.28	10.12	-7.73	18.19	10.12	11.73	11.92	8.88	01/01/2002
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	8.29	
Difference			-0.22	-0.22	0.14	0.00	-0.41	-1.07	-0.69	-0.32	0.59	
US Large Cap Value Equity	244,049,467	7.35	3.31	3.31	11.42	-0.02	17.86	7.98	9.68	8.98	7.64	12/01/1996
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	8.09	
Difference			2.30	2.30	4.25	5.89	-0.07	0.48	0.66	-0.15	-0.45	
Beutel Goodman American Equity (SA)	120,571,536	3.63	2.40	2.40	13.56	3.79	19.24	11.44	11.96	N/A	11.96	04/01/2016
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	9.02	
Difference			1.39	1.39	6.39	9.70	1.31	3.94	2.94	N/A	2.94	

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Oklahoma State Pension Commission
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Aristotle US Equity (SA)	123,477,931	3.72	3.87	3.87	8.83	-4.45	N/A	N/A	N/A	N/A	9.31	09/01/2020
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	11.53	
Difference			2.86	2.86	1.66	1.46	N/A	N/A	N/A	N/A	-2.22	
US Large Cap Growth Equity	255,887,101	7.71	13.42	13.42	9.46	-17.52	11.00	9.74	12.29	12.67	7.18	12/01/1996
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	8.83	
Difference			-0.95	-0.95	-3.21	-6.62	-7.58	-3.92	-2.72	-1.92	-1.65	
Fred Alger Capital Appreciation (SA)	255,887,101	7.71	13.42	13.42	9.46	-17.02	11.38	9.97	12.44	12.78	13.55	07/01/2010
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	15.66	
Difference			-0.95	-0.95	-3.21	-6.12	-7.20	-3.69	-2.57	-1.81	-2.11	
US Small Cap Equity	388,340,097	11.70	4.94	4.94	9.79	-8.47	17.82	8.60	11.60	10.80	8.50	01/01/1997
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	7.71	
Difference			2.20	2.20	3.04	3.14	0.31	3.89	3.05	2.76	0.79	
Liquidity Pool - SSGA Small Cap Completeness Index (CF)	59,544,274	1.79	5.90	5.90	8.41	-13.23	N/A	N/A	N/A	N/A	N/A	03/01/2021
Russell Sm Cap Compl Index			5.88	5.88	8.38	-13.25	17.86	6.50	9.65	9.19	-8.70	
Difference			0.02	0.02	0.03	0.02	N/A	N/A	N/A	N/A	N/A	
US Small Cap Value Equity	160,146,776	4.82	2.93	2.93	9.25	-6.54	20.34	7.38	10.24	9.49	8.89	12/01/1996
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	8.53	
Difference			3.59	3.59	6.51	6.42	-0.67	2.83	2.38	2.27	0.36	
Earnest Partner Small Cap Value Equity (SA)	79,898,565	2.41	1.76	1.76	10.38	-7.13	23.63	9.12	11.95	10.88	8.72	08/01/2005
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	6.25	
Difference			2.42	2.42	7.64	5.83	2.62	4.57	4.09	3.66	2.47	
River Road Small Cap Value Equity (SA)	80,248,211	2.42	2.41	2.41	9.40	-1.37	21.07	7.80	10.09	9.15	6.81	04/01/2007
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	5.55	
Difference			3.07	3.07	6.66	11.59	0.06	3.25	2.23	1.93	1.26	
US Small Cap Growth Equity	168,649,047	5.08	7.76	7.76	9.24	-15.62	9.33	6.25	10.47	10.31	6.29	07/01/1995
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	7.03	
Difference			1.69	1.69	-1.48	-5.02	-4.03	1.99	1.73	1.82	-0.74	
Lord Abbett Small Cap Growth Equity (SA)	85,507,897	2.58	8.07	8.07	8.57	-13.68	12.79	9.17	13.02	10.80	9.85	04/01/2011
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	8.31	
Difference			2.00	2.00	-2.15	-3.08	-0.57	4.91	4.28	2.31	1.54	
Delaware SMID Focus Growth Equity (SA)	83,141,150	2.50	7.43	7.43	9.94	-15.82	6.63	3.87	8.43	9.85	9.52	04/01/2011
Russell 2500 Grth Index			6.54	6.54	11.43	-10.35	14.75	6.82	10.39	10.05	9.71	
Difference			0.89	0.89	-1.49	-5.47	-8.12	-2.95	-1.96	-0.20	-0.19	

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Oklahoma State Pension Commission
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Equity												
OFP Adams Street Co-Invest Fund V	7,966,320	0.24	7.00	7.00	4.66	N/A	N/A	N/A	N/A	N/A	4.66	07/01/2022
OFP LGT Co-Invest Fund III	15,070,370	0.45	1.99	1.99	4.78	4.61	N/A	N/A	N/A	N/A	3.27	01/01/2022
OFP Schroders P/E Global DIR III	33,828,215	1.02	0.00	0.00	-7.19	3.10	N/A	N/A	N/A	N/A	2.47	01/01/2022
International Equity												
MSCI ACW Ex US Index (USD) (Net)	475,900,157	14.34	8.03	8.03	10.43	-4.10	11.64	5.18	8.55	6.35	5.11	01/01/1997
Difference			1.16	1.16	0.40	0.97	-0.16	2.71	2.69	2.18	0.26	
International Developed Equity												
MSCI ACW Ex US Index (USD) (Net)	307,053,668	9.25	8.85	8.85	12.72	-3.22	12.82	7.75	10.16	8.35	5.86	01/01/1997
Difference			1.98	1.98	2.69	1.85	1.02	5.28	4.30	4.18	1.01	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)												
MSCI ACW Ex US Index (USD) (Net)	62,203,306	1.87	6.98	6.98	10.12	-4.76	N/A	N/A	N/A	N/A	N/A	03/01/2021
Difference			0.11	0.11	0.09	0.31	N/A	N/A	N/A	N/A	N/A	
Chautauqua Intl Growth Equity (CF)												
MSCI ACW Ex US Index (USD) (Net)	157,999,996	4.76	8.42	8.42	12.51	1.01	11.72	6.81	9.76	8.32	8.84	08/01/2012
Difference			1.55	1.55	2.48	6.08	-0.08	4.34	3.90	4.15	3.51	
WCM Berkeley Street Intl Equity (SA)												
MSCI EAFE Index (USD) (Net)	149,023,776	4.49	10.58	10.58	14.75	-6.24	13.68	8.66	10.58	9.30	10.07	08/01/2012
Difference			2.11	2.11	-0.61	-4.86	0.69	5.14	4.37	4.30	3.72	
Emerging Markets Equity												
MSCI Emg Mkts Index (USD) (Net)	106,643,183	3.21	5.12	5.12	2.72	-7.51	8.08	-2.23	3.82	0.80	3.50	08/01/2012
Difference			1.16	1.16	1.88	3.19	0.25	-1.32	-1.09	-1.20	0.74	
RBC GAM Emerging Markets Equity (CF)												
MSCI Emg Mkts Index (USD) (Net)	55,574,150	1.67	6.11	6.11	6.57	-3.82	9.77	N/A	N/A	N/A	2.52	01/01/2019
Difference			2.15	2.15	5.73	6.88	1.94	N/A	N/A	N/A	-0.49	
Wellington Emerging Markets (CF)												
MSCI Emg Mkts Index (USD) (Net)	51,069,033	1.54	4.06	4.06	-1.17	-11.23	6.37	N/A	N/A	N/A	-0.20	01/01/2019
Difference			0.10	0.10	-2.01	-0.53	-1.46	N/A	N/A	N/A	-3.21	

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Oklahoma State Pension Commission
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	477,168,267	14.38	3.69	3.69	0.94	-7.19	-0.73	-0.79	0.41	0.88	4.18	01/01/1997
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.26	
Difference			0.73	0.73	1.03	-2.41	2.04	-1.69	-0.47	-0.48	-0.08	
Garcia Hamilton Core Fixed Income (SA)	103,840,813	3.13	4.04	4.04	0.33	-3.61	-1.42	1.10	1.17	N/A	1.78	07/01/2014
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	1.34	
Difference			1.08	1.08	0.42	1.17	1.35	0.20	0.29	N/A	0.44	
Orleans Core Fixed Income (SA)	88,478,227	2.67	3.19	3.19	0.84	-4.25	-1.70	1.07	1.07	N/A	1.34	07/01/2014
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	1.34	
Difference			0.23	0.23	0.93	0.53	1.07	0.17	0.19	N/A	0.00	
Liquidity Pool - SSgA Aggregate Bond (CF)	62,358,990	1.88	3.16	3.16	-0.07	-4.80	N/A	N/A	N/A	N/A	N/A	03/01/2021
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-4.87	
Difference			0.20	0.20	0.02	-0.02	N/A	N/A	N/A	N/A	N/A	
Brandywine Global Fixed Income (CF)	218,912,798	6.59	3.92	3.92	1.51	-10.86	1.24	-1.72	0.59	0.53	2.80	08/01/2009
FTSE Wrld Gov't Bond Index			3.51	3.51	-0.71	-9.55	-5.29	-2.35	-1.06	-0.60	0.46	
Difference			0.41	0.41	2.22	-1.31	6.53	0.63	1.65	1.13	2.34	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
Comvest Credit Partners VI LP	16,045,904	0.48	0.29	0.29	N/A	N/A	N/A	N/A	N/A	N/A	0.29	01/01/2023
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	3.57	
Difference			-3.28	-3.28	N/A	N/A	N/A	N/A	N/A	N/A	-3.28	
PIMCO Corporate Opp II (CF)	15,159,804	0.46	17.35	17.35	24.32	24.81	18.75	14.54	N/A	N/A	14.66	12/01/2016
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	3.86	
Difference			13.78	13.78	17.13	28.15	12.84	11.33	N/A	N/A	10.80	
PIMCO Bravo III (CF)	46,322,067	1.40	-1.09	-1.09	-2.51	1.20	8.58	9.00	N/A	N/A	9.77	12/01/2017
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	2.90	
Difference			-4.66	-4.66	-9.70	4.54	2.67	5.79	N/A	N/A	6.87	
PIMCO Private Income (CF)	96,379,591	2.90	-0.61	-0.61	-1.45	-0.17	7.62	N/A	N/A	N/A	7.04	05/01/2019
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	2.23	
Difference			-4.18	-4.18	-8.64	3.17	1.71	N/A	N/A	N/A	4.81	
PIMCO Bravo IV (CF)	38,183,921	1.15	-14.22	-14.22	-17.28	-14.05	N/A	N/A	N/A	N/A	-10.47	10/01/2021
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	-4.97	
Difference			-17.79	-17.79	-24.47	-10.71	N/A	N/A	N/A	N/A	-5.50	
Core Real Estate												
NCREIF ODCE Index (AWA) (Net)	400,312,651	12.06	-2.26	-2.26	-5.52	-2.70	5.78	5.83	6.42	8.39	6.39	05/01/2005
Difference			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.68	
Difference			1.12	1.12	2.56	1.21	-1.68	-0.73	-0.33	-0.08	-0.29	
JP Morgan Strategic Property (CF)	116,379,169	3.51	-3.24	-3.24	-9.66	-5.63	5.93	5.52	5.94	7.92	7.07	04/01/2005
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.65	
Difference			0.14	0.14	-1.58	-1.72	-1.53	-1.04	-0.81	-0.55	0.42	
Angelo Gordon Net Lease III LP	21,493,633	0.65	0.77	0.77	3.99	5.76	7.05	7.40	7.46	N/A	5.46	03/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.20	
Difference			4.15	4.15	12.07	9.67	-0.41	0.84	0.71	N/A	-2.74	
Angelo Gordon Realty Value Fund XI LP	4,635,590	0.14	-9.11	-9.11	N/A	N/A	N/A	N/A	N/A	N/A	-9.11	11/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-8.37	
Difference			-5.73	-5.73	N/A	N/A	N/A	N/A	N/A	N/A	-0.74	
Mesirow Real Estate Value IV LP	23,016,503	0.69	1.72	1.72	3.19	3.91	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	11.60	
Difference			5.10	5.10	11.27	7.82	N/A	N/A	N/A	N/A	N/A	

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Dune Real Estate III LP	15,961,618	0.48	-2.48	-2.48	-2.17	2.48	-2.49	0.27	4.16	N/A	5.53	05/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.08	
Difference			0.90	0.90	5.91	6.39	-9.95	-6.29	-2.59	N/A	-2.55	
Portfolio Advisors Real Estate LP	3,384,633	0.10	-4.59	-4.59	-5.68	-2.04	-6.44	-4.22	-1.83	N/A	2.00	06/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.16	
Difference			-1.21	-1.21	2.40	1.87	-13.90	-10.78	-8.58	N/A	-6.16	
Landmark Real Estate VII LP	3,645,219	0.11	-6.29	-6.29	-10.56	-11.66	-4.13	-2.18	0.89	N/A	7.40	09/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.08	
Difference			-2.91	-2.91	-2.48	-7.75	-11.59	-8.74	-5.86	N/A	-0.68	
JP Morgan Special Situation Property (CF)	66,240,095	2.00	-5.36	-5.36	-15.52	-13.12	4.42	5.27	6.22	N/A	8.00	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.86	
Difference			-1.98	-1.98	-7.44	-9.21	-3.04	-1.29	-0.53	N/A	0.14	
Hall Capital III LP	5,413,765	0.16	-27.19	-27.19	-27.03	-26.98	-6.69	-1.26	1.59	N/A	-1.30	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.86	
Difference			-23.81	-23.81	-18.95	-23.07	-14.15	-7.82	-5.16	N/A	-9.16	
Dune Real Estate IV LP	38,996,902	1.17	3.28	3.28	14.98	11.10	3.23	N/A	N/A	N/A	0.22	08/01/2019
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.96	
Difference			6.66	6.66	23.06	15.01	-4.23	N/A	N/A	N/A	-6.74	
Hall Capital Real Estate LP	10,379,908	0.31	-15.79	-15.79	-13.88	-12.12	6.81	N/A	N/A	N/A	5.63	09/01/2018
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	6.76	
Difference			-12.41	-12.41	-5.80	-8.21	-0.65	N/A	N/A	N/A	-1.13	
Terracap Partners V LP	53,574,585	1.61	6.35	6.35	6.72	7.99	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	11.06	
Difference			9.73	9.73	14.80	11.90	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	13,755,268	0.41	2.85	2.85	N/A	N/A	N/A	N/A	N/A	N/A	-12.35	08/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	-8.08	
Difference			6.23	6.23	N/A	N/A	N/A	N/A	N/A	N/A	-4.27	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	323,644,302	9.75	2.86	2.86	1.85	7.74	20.85	17.43	16.09	N/A	16.95	03/01/2014
Capital Dynamics Global Secondaries IV	23,869,873	0.72	-1.28	-1.28	-9.48	-5.64	6.45	10.33	9.84	N/A	9.64	12/01/2014
Capital Dynamics Global Secondaries VI	10,463,140	0.32	76.16	76.16	N/A	N/A	N/A	N/A	N/A	N/A	76.16	01/01/2023
Ardian AESF VI LP	36,115,578	1.09	1.86	1.86	2.62	3.68	16.87	12.94	N/A	N/A	13.74	02/01/2017
Pomona Capital IX LP	23,360,176	0.70	0.01	0.01	-8.49	-4.29	22.06	30.80	N/A	N/A	29.67	02/01/2018
Pomona Capital X LP	17,059,116	0.51	0.00	0.00	-21.25	40.37	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	22,644,986	0.68	0.01	0.01	32.28	65.78	23.35	N/A	N/A	N/A	15.91	08/01/2018
Argonaut Private Equity V LP	11,654,397	0.35	0.02	0.02	1.99	0.09	N/A	N/A	N/A	N/A	0.07	01/01/2022
Ardian ASF VIII LP	49,611,584	1.49	1.74	1.74	-6.51	-5.87	N/A	N/A	N/A	N/A	31.98	05/01/2020
IFM Global Infrastructure Fund LP	114,719,700	3.46	2.57	2.57	6.90	9.62	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap Fund VI LP	5,304,682	0.16	-8.10	-8.10	N/A	N/A	N/A	N/A	N/A	N/A	-17.26	10/01/2022

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,319,387,670	100.00	4.46	4.46	5.16	-4.86	12.08	7.23	8.88	8.55	8.21	07/01/1989
OFPRS Policy Index			4.77	4.77	5.83	-5.91	12.06	7.41	8.51	8.35	N/A	
Difference			-0.31	-0.31	-0.67	1.05	0.02	-0.18	0.37	0.20	N/A	
OFPRS Actual Allocation Index			4.65	4.65	5.09	-5.65	12.23	7.21	8.54	8.07	8.05	
Difference			-0.19	-0.19	0.07	0.79	-0.15	0.02	0.34	0.48	0.16	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.64	2.64	-0.41	-12.36	4.58	-0.27	1.38	1.05	0.71	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	8.04	
Rank			38	38	61	47	23	12	6	3	38	
Total Equity	1,838,627,907	55.39	7.36	7.36	10.52	-6.97	16.44	8.89	11.28	10.52	9.14	07/01/1989
Wilshire 5000 Index			7.29	7.29	9.80	-8.62	18.80	10.71	12.19	11.91	10.08	
Difference			0.07	0.07	0.72	1.65	-2.36	-1.82	-0.91	-1.39	-0.94	
US Equity	1,362,727,751	41.05	7.06	7.06	10.31	-8.12	17.81	9.77	11.85	11.56	9.60	07/01/1989
Wilshire 5000 Index			7.29	7.29	9.80	-8.62	18.80	10.71	12.19	11.91	10.08	
Difference			-0.23	-0.23	0.51	0.50	-0.99	-0.94	-0.34	-0.35	-0.48	
IM U.S. Equity (SA+CF) Median			5.05	5.05	9.77	-7.21	19.17	9.18	11.30	10.94	11.03	
Rank			35	35	42	60	68	43	43	41	94	
US Large Cap Equity	974,387,654	29.35	7.84	7.84	10.49	-7.80	17.67	9.99	11.69	11.66	9.95	07/01/1989
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	10.21	
Difference			0.38	0.38	0.56	0.59	-0.88	-0.88	-0.54	-0.35	-0.26	
IM U.S. Large Cap Equity (SA+CF) Median			6.48	6.48	9.78	-7.19	18.53	10.50	12.13	12.01	10.60	
Rank			31	31	34	59	64	59	58	59	92	
US Large Cap Core Equity	474,451,086	14.29	7.33	7.33	9.95	-7.79	19.50	10.40	11.86	11.94	9.62	11/01/1996
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	8.90	
Difference			-0.17	-0.17	-0.03	-0.06	0.90	-0.79	-0.56	-0.30	0.72	
IM U.S. Large Cap Core Equity (SA+CF) Median			6.36	6.36	9.48	-6.82	18.43	10.39	12.15	12.11	9.50	
Rank			31	31	41	65	29	50	58	57	45	
Liquidity Pool - SSgA Equity Index (CF)	228,089,435	6.87	7.47	7.47	9.96	-7.75	N/A	N/A	N/A	N/A	3.26	04/01/2021
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	3.30	
Difference			-0.03	-0.03	-0.02	-0.02	N/A	N/A	N/A	N/A	-0.04	
IM U.S. Large Cap Core Equity (SA+CF) Median			6.36	6.36	9.48	-6.82	18.43	10.39	12.15	12.11	2.92	
Rank			27	27	40	65	N/A	N/A	N/A	N/A	44	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	246,361,651	7.42	7.30	7.30	10.21	-7.62	18.33	10.24	11.87	12.13	9.11	02/01/2002
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	8.40	
Difference			-0.20	-0.20	0.23	0.11	-0.27	-0.95	-0.55	-0.11	0.71	
IM U.S. Large Cap Index Equity (SA+CF) Median			7.46	7.46	9.95	-8.01	18.56	10.91	12.26	12.05	8.48	
Rank			62	62	16	21	77	79	78	46	11	
US Large Cap Value Equity	244,049,467	7.35	3.42	3.42	11.80	0.43	18.33	8.36	10.06	9.28	9.21	06/01/1990
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	9.51	
Difference			2.41	2.41	4.63	6.34	0.40	0.86	1.04	0.15	-0.30	
IM U.S. Large Cap Value Equity (SA+CF) Median			0.91	0.91	7.88	-4.49	20.03	9.08	10.40	10.21	10.58	
Rank			24	24	15	6	72	62	59	84	96	
Beutel Goodman American Equity (SA)	120,571,536	3.63	2.51	2.51	13.95	4.27	19.73	11.91	12.44	N/A	12.76	05/01/2016
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	8.81	
Difference			1.50	1.50	6.78	10.18	1.80	4.41	3.42	N/A	3.95	
IM U.S. Large Cap Value Equity (SA+CF) Median			0.91	0.91	7.88	-4.49	20.03	9.08	10.40	10.21	10.30	
Rank			33	33	7	1	54	9	15	N/A	11	
Aristotle US Equity (SA)	123,477,931	3.72	3.99	3.99	9.20	-4.01	N/A	N/A	N/A	N/A	9.78	09/01/2020
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	11.53	
Difference			2.98	2.98	2.03	1.90	N/A	N/A	N/A	N/A	-1.75	
IM U.S. Large Cap Value Equity (SA+CF) Median			0.91	0.91	7.88	-4.49	20.03	9.08	10.40	10.21	13.04	
Rank			21	21	33	44	N/A	N/A	N/A	N/A	81	
US Large Cap Growth Equity	255,887,101	7.71	13.53	13.53	9.82	-17.16	11.47	10.21	12.77	13.18	9.53	07/01/1989
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	10.48	
Difference			-0.84	-0.84	-2.85	-6.26	-7.11	-3.45	-2.24	-1.41	-0.95	
IM U.S. Large Cap Growth Equity (SA+CF) Median			12.78	12.78	11.63	-10.60	16.39	11.87	13.80	13.73	11.49	
Rank			42	42	74	92	92	80	75	65	100	
Fred Alger Capital Appreciation (SA)	255,887,101	7.71	13.53	13.53	9.82	-16.66	11.87	10.44	12.92	13.28	14.19	08/01/2010
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	15.15	
Difference			-0.84	-0.84	-2.85	-5.76	-6.71	-3.22	-2.09	-1.31	-0.96	
IM U.S. Large Cap Growth Equity (SA+CF) Median			12.78	12.78	11.63	-10.60	16.39	11.87	13.80	13.73	14.29	
Rank			42	42	74	90	91	78	72	63	54	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	388,340,097	11.70	5.07	5.07	10.24	-7.95	18.35	9.14	12.12	11.27	9.70	07/01/1992
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	9.09	
Difference			2.33	2.33	3.49	3.66	0.84	4.43	3.57	3.23	0.61	
IM U.S. Small Cap Equity (SA+CF) Median			3.88	3.88	9.51	-7.75	21.64	7.47	10.50	10.07	12.37	
Rank			39	39	44	52	74	29	26	26	92	
Liquidity Pool - SSgA Small Cap Completeness Index (CF)	59,544,274	1.79	5.90	5.90	8.41	-13.23	N/A	N/A	N/A	N/A	-8.98	04/01/2021
Russell Sm Cap Compl Index			5.88	5.88	8.38	-13.25	17.86	6.50	9.65	9.19	-8.99	
Difference			0.02	0.02	0.03	0.02	N/A	N/A	N/A	N/A	0.01	
IM U.S. Small Cap Equity (SA+CF) Median			3.88	3.88	9.51	-7.75	21.64	7.47	10.50	10.07	-3.20	
Rank			34	34	60	87	N/A	N/A	N/A	N/A	83	
US Small Cap Value Equity	160,146,776	4.82	3.16	3.16	9.96	-5.66	21.42	8.41	11.22	10.43	10.49	09/01/1992
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	9.90	
Difference			3.82	3.82	7.22	7.30	0.41	3.86	3.36	3.21	0.59	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	12.68	
Rank			38	38	43	54	84	26	22	24	100	
Earnest Partner Small Cap Value Equity (SA)	79,898,565	2.41	2.05	2.05	11.49	-5.80	25.00	10.25	12.99	11.87	9.46	09/01/2005
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	6.42	
Difference			2.71	2.71	8.75	7.16	3.99	5.70	5.13	4.65	3.04	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	8.59	
Rank			54	54	31	55	46	8	8	5	29	
River Road Small Cap Value Equity (SA)	80,248,211	2.42	2.58	2.58	10.01	-0.65	22.03	8.80	11.08	10.07	7.60	05/01/2007
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	5.51	
Difference			3.24	3.24	7.27	12.31	1.02	4.25	3.22	2.85	2.09	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	7.77	
Rank			47	47	42	19	77	23	25	31	62	
US Small Cap Growth Equity	168,649,047	5.08	7.84	7.84	9.59	-15.28	9.78	6.68	10.87	10.70	7.68	07/01/1992
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	7.80	
Difference			1.77	1.77	-1.13	-4.68	-3.58	2.42	2.13	2.21	-0.12	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	12.49	
Rank			39	39	60	80	97	85	85	79	100	
Lord Abbett Small Cap Growth Equity (SA)	85,507,897	2.58	8.24	8.24	9.25	-13.01	13.69	10.05	13.87	11.60	10.34	05/01/2011
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	8.04	
Difference			2.17	2.17	-1.47	-2.41	0.33	5.79	5.13	3.11	2.30	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	10.71	
Rank			31	31	67	70	88	36	35	45	63	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Delaware SMID Focus Growth Equity (SA)	83,141,150	2.50	7.43	7.43	9.94	-15.82	6.63	3.87	8.43	9.85	9.37	05/01/2011
Russell 2500 Grth Index			6.54	6.54	11.43	-10.35	14.75	6.82	10.39	10.05	9.47	
Difference			0.89	0.89	-1.49	-5.47	-8.12	-2.95	-1.96	-0.20	-0.10	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			7.91	7.91	11.54	-11.02	17.61	10.03	12.68	11.53	10.84	
Rank			55	55	75	85	98	98	98	88	86	
Other Equity												
OFP Adams Street Co-Invest Fund V	7,966,320	0.24	7.00	7.00	4.66	N/A	N/A	N/A	N/A	N/A	4.66	07/01/2022
OFP LGT Co-Invest Fund III	15,070,370	0.45	1.99	1.99	4.78	4.61	N/A	N/A	N/A	N/A	3.27	01/01/2022
OFP Schroders P/E Global DIR III	33,828,215	1.02	0.00	0.00	-7.19	3.10	N/A	N/A	N/A	N/A	2.47	01/01/2022
International Equity												
MSCI ACW Ex US Index (USD) (Net)	475,900,157	14.34	8.14	8.14	10.89	-3.55	12.27	5.81	9.24	6.99	N/A	07/01/1989
Difference			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	N/A	
IM International Equity (SA+CF) Median			1.27	1.27	0.86	1.52	0.47	3.34	3.38	2.82	N/A	
Rank			7.90	7.90	13.00	-3.45	13.47	3.64	6.84	5.99	7.95	
			47	47	66	52	69	19	15	28	N/A	
International Developed Equity												
MSCI ACW Ex US Index (USD) (Net)	307,053,668	9.25	9.00	9.00	13.34	-2.47	13.63	8.55	11.04	9.19	6.60	04/01/1994
Difference			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	5.10	
IM International Equity Developed Markets (SA+CF) Median			2.13	2.13	3.31	2.60	1.83	6.08	5.18	5.02	1.50	
Rank			8.03	8.03	13.24	-3.30	13.41	3.56	6.79	6.05	7.18	
			33	33	49	45	49	4	4	5	72	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)												
MSCI ACW Ex US Index (USD) (Net)	62,203,306	1.87	6.98	6.98	10.12	-4.76	N/A	N/A	N/A	N/A	-3.07	04/01/2021
Difference			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	-3.29	
IM All ACWI Ex US (SA+CF) Median			0.11	0.11	0.09	0.31	N/A	N/A	N/A	N/A	0.22	
Rank			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	-2.63	
			80	80	85	70	N/A	N/A	N/A	N/A	56	
Chautauqua Intl Growth Equity (CF)												
MSCI ACW Ex US Index (USD) (Net)	157,999,996	4.76	8.42	8.42	12.51	1.01	11.72	6.83	9.94	8.60	9.20	09/01/2012
Difference			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	5.16	
IM All ACWI Ex US (SA+CF) Median			1.55	1.55	2.48	6.08	-0.08	4.36	4.08	4.43	4.04	
Rank			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	6.96	
			58	58	66	19	77	10	10	7	8	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
WCM Berkeley Street Intl Equity (SA)	149,023,776	4.49	10.88	10.88	16.16	-4.63	15.34	10.13	12.04	10.67	11.59	09/01/2012
MSCI EAFE Index (USD) (Net)			8.47	8.47	15.36	-1.38	12.99	3.52	6.21	5.00	6.14	
Difference			2.41	2.41	0.80	-3.25	2.35	6.61	5.83	5.67	5.45	
IM EAFE Core (SA+CF) Median			8.50	8.50	15.00	-1.09	13.89	3.99	6.69	5.98	6.97	
Rank			7	7	28	87	13	1	1	1	1	
Emerging Markets Equity	106,643,183	3.21	5.20	5.20	3.02	-7.16	8.48	-1.94	4.04	1.00	2.12	09/01/2012
MSCI Emg Mkts Index (USD) (Net)			3.96	3.96	0.84	-10.70	7.83	-0.91	4.91	2.00	2.82	
Difference			1.24	1.24	2.18	3.54	0.65	-1.03	-0.87	-1.00	-0.70	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	4.40	
Rank			42	42	61	38	67	94	93	100	100	
RBC GAM Emerging Markets Equity (CF)	55,574,150	1.67	6.11	6.11	6.57	-3.82	9.77	N/A	N/A	N/A	2.57	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			3.96	3.96	0.84	-10.70	7.83	-0.91	4.91	2.00	1.01	
Difference			2.15	2.15	5.73	6.88	1.94	N/A	N/A	N/A	1.56	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	3.18	
Rank			28	28	32	19	54	N/A	N/A	N/A	64	
Wellington Emerging Markets (CF)	51,069,033	1.54	4.23	4.23	-0.58	-10.54	7.13	N/A	N/A	N/A	0.51	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			3.96	3.96	0.84	-10.70	7.83	-0.91	4.91	2.00	1.01	
Difference			0.27	0.27	-1.42	0.16	-0.70	N/A	N/A	N/A	-0.50	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	3.18	
Rank			65	65	88	69	82	N/A	N/A	N/A	91	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	477,168,267	14.38	3.77	3.77	1.19	-6.85	-0.46	-0.53	0.67	1.15	5.18	07/01/1989
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	5.22	
Difference			0.81	0.81	1.28	-2.07	2.31	-1.43	-0.21	-0.21	-0.04	
IM Global Fixed Income (SA+CF) Median			3.14	3.14	2.71	-5.39	2.10	1.70	2.58	2.14	N/A	
Rank			20	20	73	62	70	73	77	58	N/A	
Garcia Hamilton Core Fixed Income (SA)	103,840,813	3.13	4.09	4.09	0.47	-3.43	-1.25	1.28	1.36	N/A	1.94	08/01/2014
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	1.38	
Difference			1.13	1.13	0.56	1.35	1.52	0.38	0.48	N/A	0.56	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	1.81	
Rank			2	2	29	7	28	60	54	N/A	34	
Orleans Core Fixed Income (SA)	88,478,227	2.67	3.23	3.23	0.96	-4.10	-1.57	1.21	1.22	N/A	1.56	08/01/2014
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	1.38	
Difference			0.27	0.27	1.05	0.68	1.20	0.31	0.34	N/A	0.18	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	1.81	
Rank			38	38	10	17	40	68	69	N/A	79	
Liquidity Pool - SSgA Aggregate Bond (CF)	62,358,990	1.88	3.16	3.16	-0.07	-4.80	N/A	N/A	N/A	N/A	-4.48	04/01/2021
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-4.47	
Difference			0.20	0.20	0.02	-0.02	N/A	N/A	N/A	N/A	-0.01	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	-4.22	
Rank			52	52	80	65	N/A	N/A	N/A	N/A	82	
Brandywine Global Fixed Income (CF)	218,912,798	6.59	4.06	4.06	1.97	-10.24	1.69	-1.29	1.04	1.04	3.42	10/01/2009
FTSE Wrld Gov't Bond Index			3.51	3.51	-0.71	-9.55	-5.29	-2.35	-1.06	-0.60	0.15	
Difference			0.55	0.55	2.68	-0.69	6.98	1.06	2.10	1.64	3.27	
IM Global Fixed Income (SA+CF) Median			3.14	3.14	2.71	-5.39	2.10	1.70	2.58	2.14	2.78	
Rank			15	15	63	90	55	84	72	61	45	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
Comvest Credit Partners VI LP	16,045,904	0.48	0.29	0.29	N/A	N/A	N/A	N/A	N/A	N/A	0.29	01/01/2023
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	3.57	
Difference			-3.28	-3.28	N/A	N/A	N/A	N/A	N/A	N/A	-3.28	
PIMCO Corporate Opp II (CF)	15,159,804	0.46	17.35	17.35	24.32	24.81	18.75	14.54	N/A	N/A	14.87	01/01/2017
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	3.61	
Difference			13.78	13.78	17.13	28.15	12.84	11.33	N/A	N/A	11.26	
PIMCO Bravo III (CF)	46,322,067	1.40	-1.09	-1.09	-2.51	1.20	8.58	9.00	N/A	N/A	9.77	12/01/2017
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	2.90	
Difference			-4.66	-4.66	-9.70	4.54	2.67	5.79	N/A	N/A	6.87	
PIMCO Private Income (CF)	96,379,591	2.90	-0.61	-0.61	-1.45	-0.17	7.62	N/A	N/A	N/A	7.04	05/01/2019
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	2.23	
Difference			-4.18	-4.18	-8.64	3.17	1.71	N/A	N/A	N/A	4.81	
PIMCO Bravo IV (CF)	38,183,921	1.15	-14.22	-14.22	-17.28	-14.05	N/A	N/A	N/A	N/A	-10.47	10/01/2021
Bloomberg US Corp Hi Yld Index			3.57	3.57	7.19	-3.34	5.91	3.21	5.08	4.10	-4.97	
Difference			-17.79	-17.79	-24.47	-10.71	N/A	N/A	N/A	N/A	-5.50	
Core Real Estate												
NCREIF ODCE Index (AWA) (Gross)	400,312,651	12.06	-2.12	-2.12	-5.12	-2.13	6.43	6.50	7.11	9.05	6.86	05/01/2005
Difference			1.05	1.05	2.38	0.96	-1.97	-1.01	-0.60	-0.40	-0.81	
JP Morgan Strategic Property (CF)	116,379,169	3.51	-2.99	-2.99	-8.98	-4.69	6.98	6.53	6.94	8.87	7.77	05/01/2005
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.67	
Difference			0.18	0.18	-1.48	-1.60	-1.42	-0.98	-0.77	-0.58	0.10	
Angelo Gordon Net Lease III LP	21,493,633	0.65	0.77	0.77	3.99	5.76	7.05	7.40	7.46	N/A	5.52	04/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.98	
Difference			3.94	3.94	11.49	8.85	-1.35	-0.11	-0.25	N/A	-3.46	
Angelo Gordon Realty Value Fund XI LP	4,635,590	0.14	-9.11	-9.11	N/A	N/A	N/A	N/A	N/A	N/A	-9.11	11/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-7.98	
Difference			-5.94	-5.94	N/A	N/A	N/A	N/A	N/A	N/A	-1.13	
Mesirow Real Estate Value IV LP	23,016,503	0.69	1.72	1.72	3.19	3.91	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	12.70	
Difference			4.89	4.89	10.69	7.00	N/A	N/A	N/A	N/A	N/A	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dune Real Estate III LP	15,961,618	0.48	-2.48	-2.48	-2.17	2.48	-2.49	0.27	4.16	N/A	5.58	06/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	9.16	
Difference			0.69	0.69	5.33	5.57	-10.89	-7.24	-3.55	N/A	-3.58	
Landmark Real Estate VII LP	3,645,219	0.11	-6.29	-6.29	-10.56	-11.66	-4.13	-2.18	0.89	N/A	7.48	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.76	
Difference			-3.12	-3.12	-3.06	-8.57	-12.53	-9.69	-6.82	N/A	-1.28	
JP Morgan Special Situation Property (CF)	66,240,095	2.00	-4.97	-4.97	-14.54	-11.81	6.24	7.07	8.00	N/A	9.81	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.94	
Difference			-1.80	-1.80	-7.04	-8.72	-2.16	-0.44	0.29	N/A	0.87	
Hall Capital III LP	5,413,765	0.16	-27.19	-27.19	-27.03	-26.98	-6.69	-1.26	1.59	N/A	-1.32	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.94	
Difference			-24.02	-24.02	-19.53	-23.89	-15.09	-8.77	-6.12	N/A	-10.26	
Dune Real Estate IV LP	38,996,902	1.17	3.28	3.28	14.98	11.10	3.23	N/A	N/A	N/A	0.22	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.12	
Difference			6.45	6.45	22.48	14.19	-5.17	N/A	N/A	N/A	-7.90	
Hall Capital Real Estate LP	10,379,908	0.31	-15.79	-15.79	-13.88	-12.12	6.81	N/A	N/A	N/A	5.73	10/01/2018
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	7.40	
Difference			-12.62	-12.62	-6.38	-9.03	-1.59	N/A	N/A	N/A	-1.67	
Terracap Partners V LP	53,574,585	1.61	6.35	6.35	6.72	7.99	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	12.11	
Difference			9.52	9.52	14.22	11.08	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	13,755,268	0.41	2.85	2.85	N/A	N/A	N/A	N/A	N/A	N/A	-12.35	08/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	-7.50	
Difference			6.02	6.02	N/A	N/A	N/A	N/A	N/A	N/A	-4.85	

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Oklahoma State Pension Commission
Oklahoma Firefighters Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

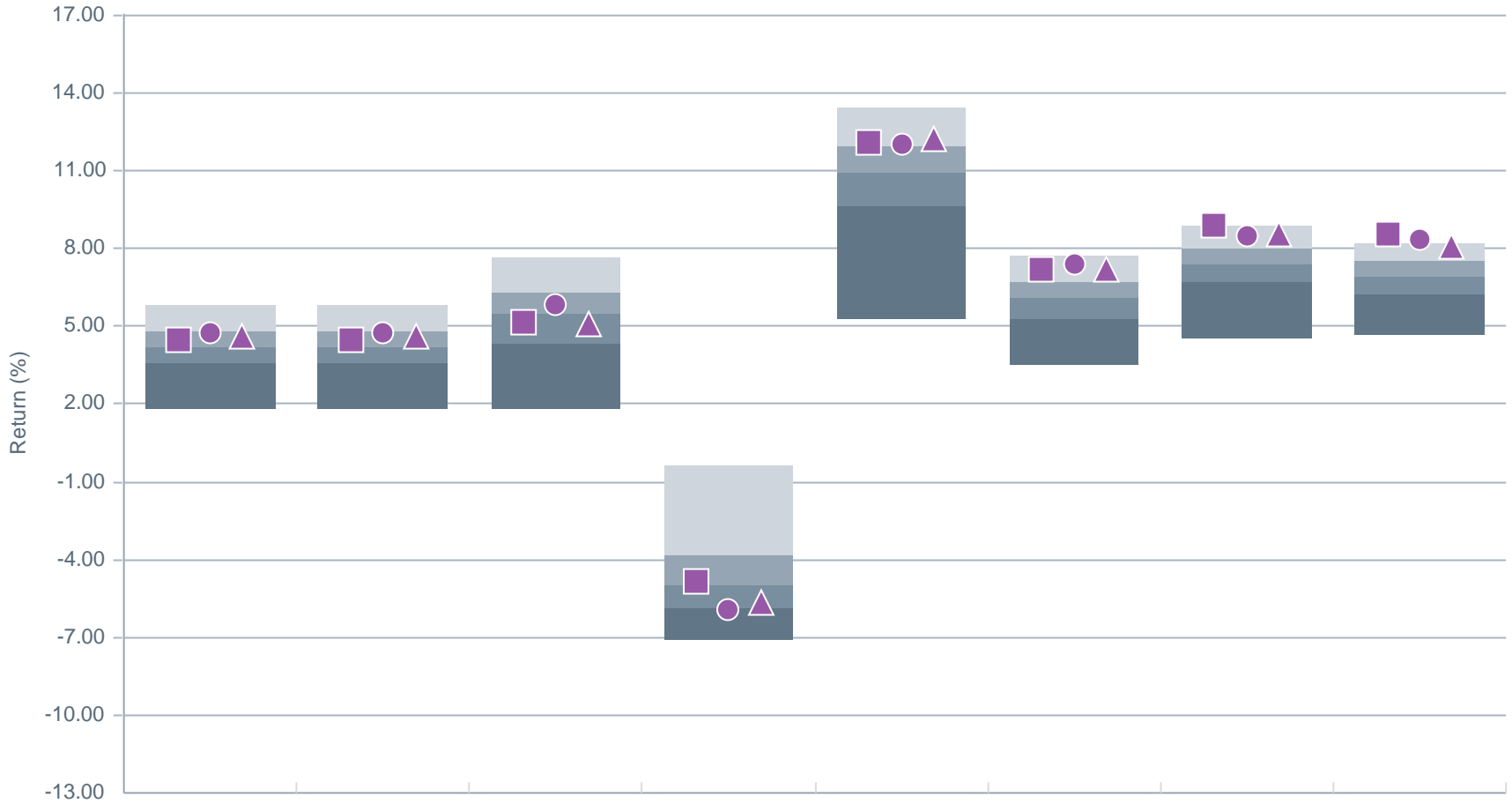
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	323,644,302	9.75	2.86	2.86	1.85	7.74	20.85	17.43	16.09	N/A	17.12	04/01/2014
Capital Dynamics Global Secondaries IV	23,869,873	0.72	-1.28	-1.28	-9.48	-5.64	6.45	10.33	9.84	N/A	9.75	01/01/2015
Capital Dynamics Global Secondaries VI	10,463,140	0.32	76.16	76.16	N/A	N/A	N/A	N/A	N/A	N/A	76.16	01/01/2023
Ardian AESF VI LP	36,115,578	1.09	1.86	1.86	2.62	3.68	16.87	12.94	N/A	N/A	14.15	04/01/2017
Pomona Capital IX LP	23,360,176	0.70	0.01	0.01	-8.49	-4.29	22.06	30.80	N/A	N/A	30.22	03/01/2018
Pomona Capital X LP	17,059,116	0.51	0.00	0.00	-21.25	40.37	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	22,644,986	0.68	0.01	0.01	32.28	65.78	23.35	N/A	N/A	N/A	16.23	09/01/2018
Argonaut Private Equity V LP	11,654,397	0.35	0.02	0.02	1.99	0.09	N/A	N/A	N/A	N/A	0.07	01/01/2022
Ardian ASF VIII LP	49,611,584	1.49	1.74	1.74	-6.51	-5.87	N/A	N/A	N/A	N/A	31.98	05/01/2020
IFM Global Infrastructure Fund LP	114,719,700	3.46	2.57	2.57	6.90	9.62	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap Fund VI LP	5,304,682	0.16	-8.10	-8.10	N/A	N/A	N/A	N/A	N/A	N/A	-17.26	10/01/2022

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Oklahoma State Pension Commission
 Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



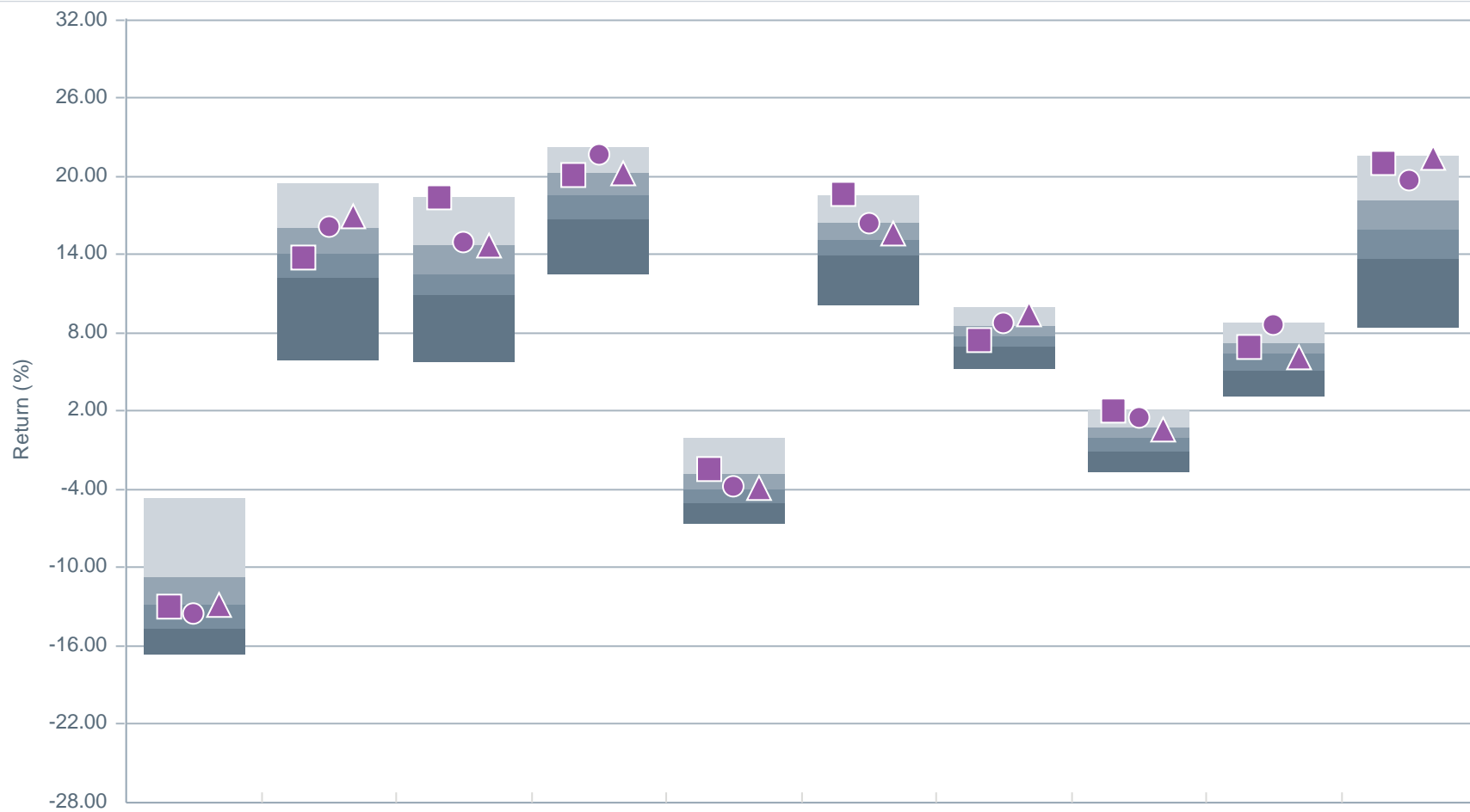
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OFPRS Total Fund	4.46 (38)	4.46 (38)	5.16 (61)	-4.86 (47)	12.08 (23)	7.23 (12)	8.88 (6)	8.55 (3)
● OFPRS Policy Index	4.77 (27)	4.77 (27)	5.83 (40)	-5.91 (77)	12.06 (24)	7.41 (9)	8.51 (11)	8.35 (5)
▲ OFPRS Allocation Index	4.65 (31)	4.65 (31)	5.09 (62)	-5.65 (70)	12.23 (19)	7.21 (12)	8.54 (10)	8.07 (10)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

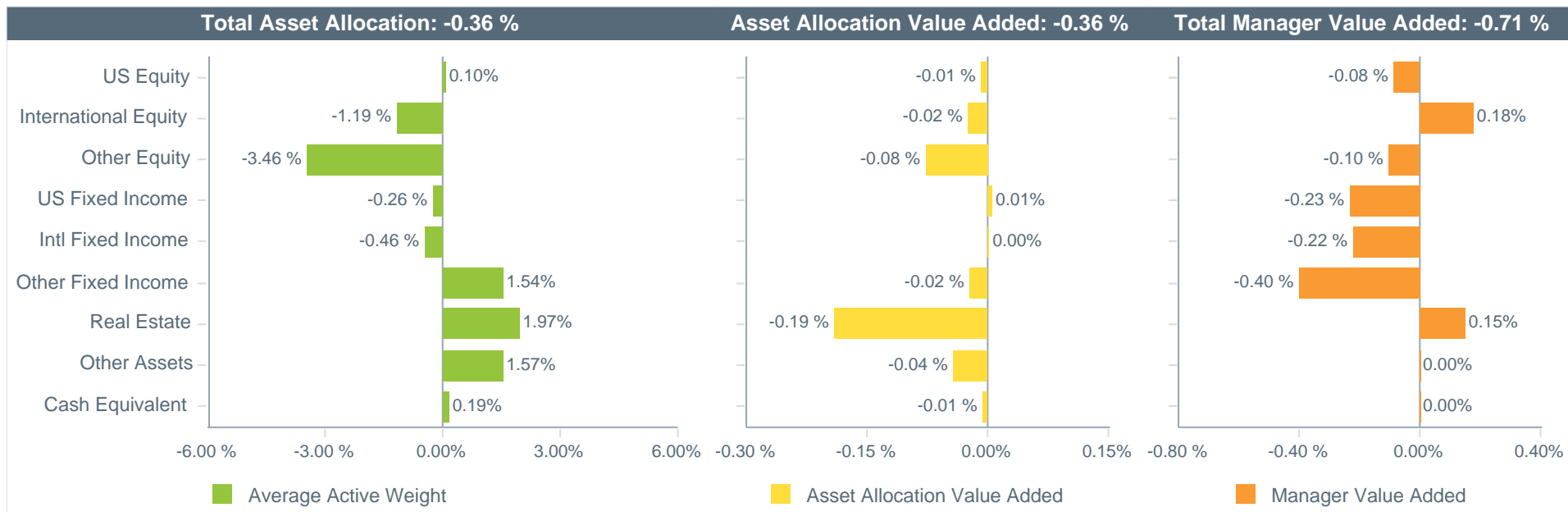
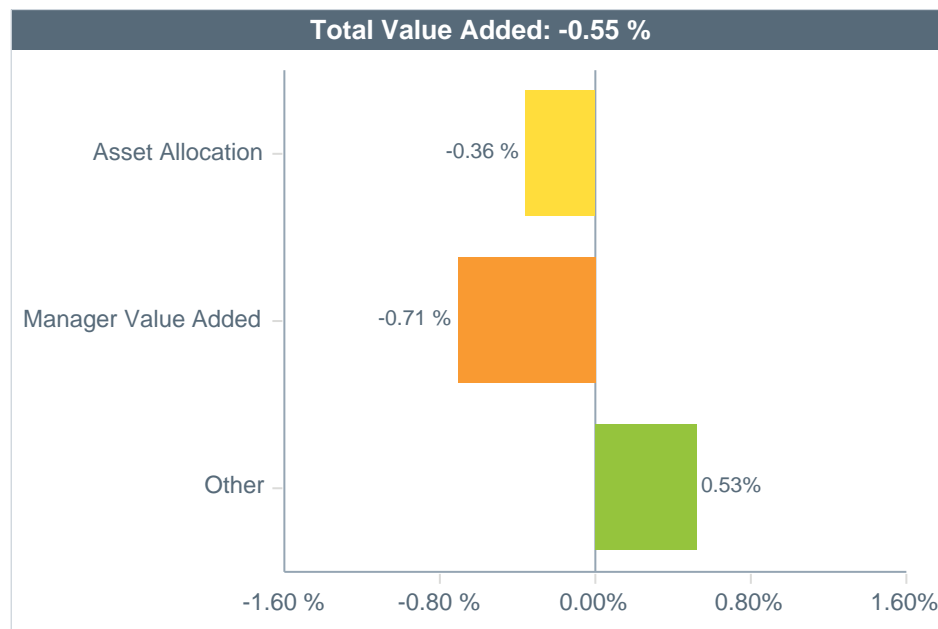
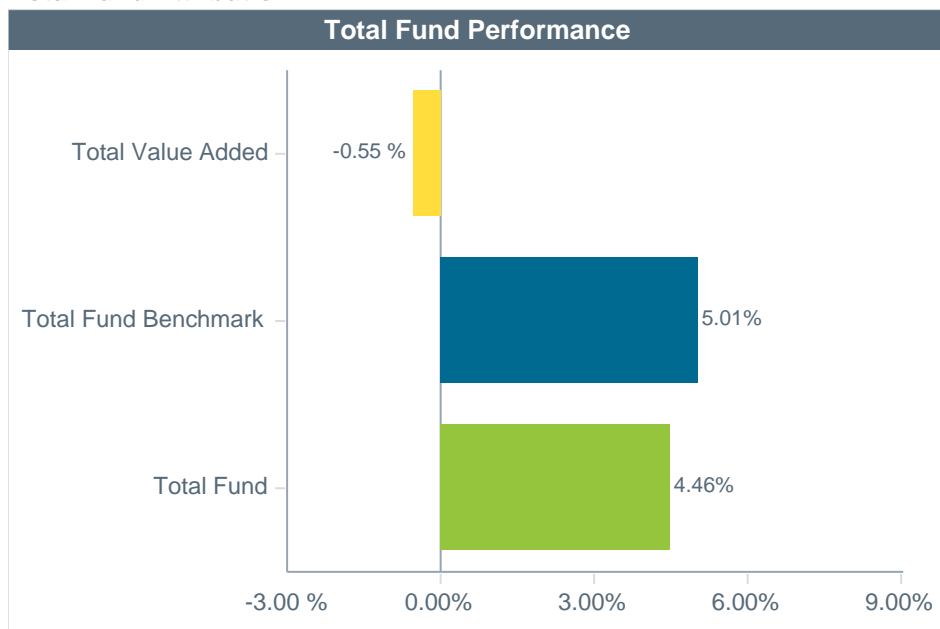
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OFPRS Total Fund	-13.03 (54)	13.87 (53)	18.44 (5)	20.15 (27)	-2.46 (19)	18.67 (5)	7.42 (59)	2.12 (5)	6.91 (36)	21.10 (6)
● OFPRS Policy Index	-13.50 (59)	16.12 (25)	15.02 (22)	21.76 (9)	-3.80 (46)	16.41 (26)	8.76 (20)	1.60 (10)	8.64 (6)	19.76 (13)
▲ OFPRS Allocation Index	-12.83 (51)	16.99 (18)	14.72 (25)	20.30 (24)	-3.93 (48)	15.64 (40)	9.45 (10)	0.56 (30)	6.12 (57)	21.48 (6)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

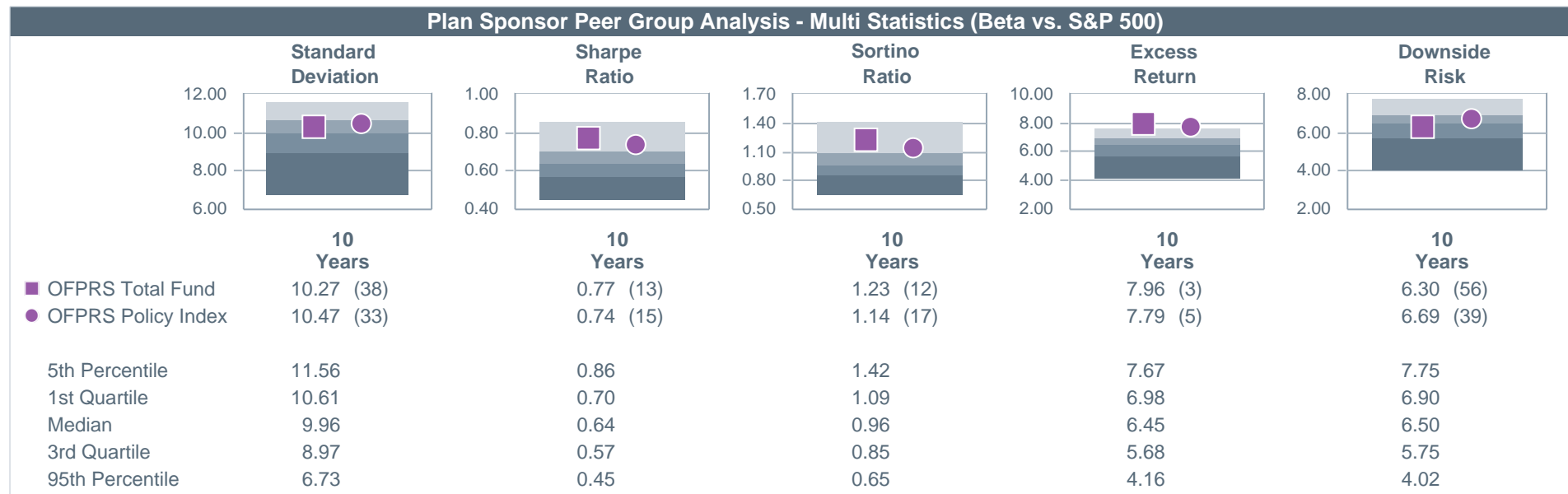
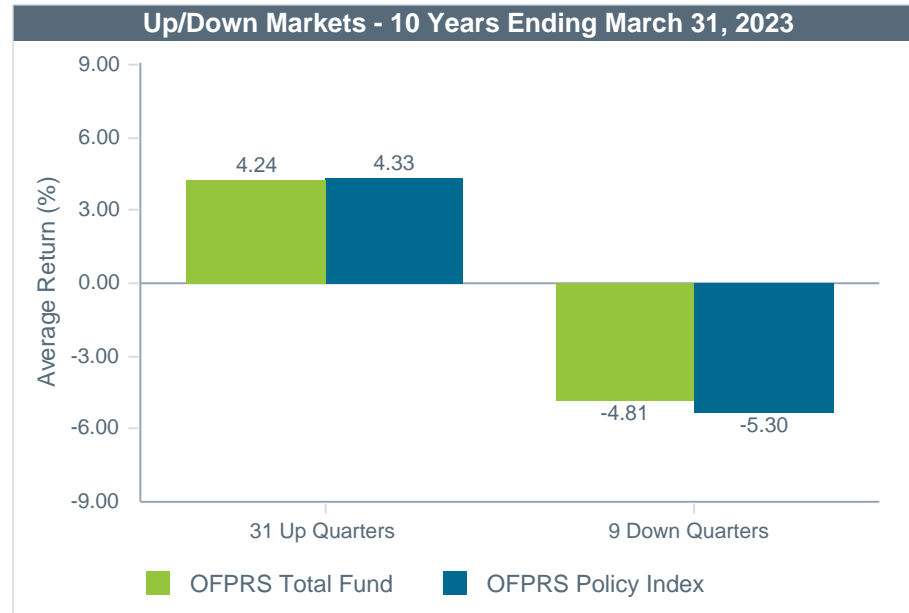
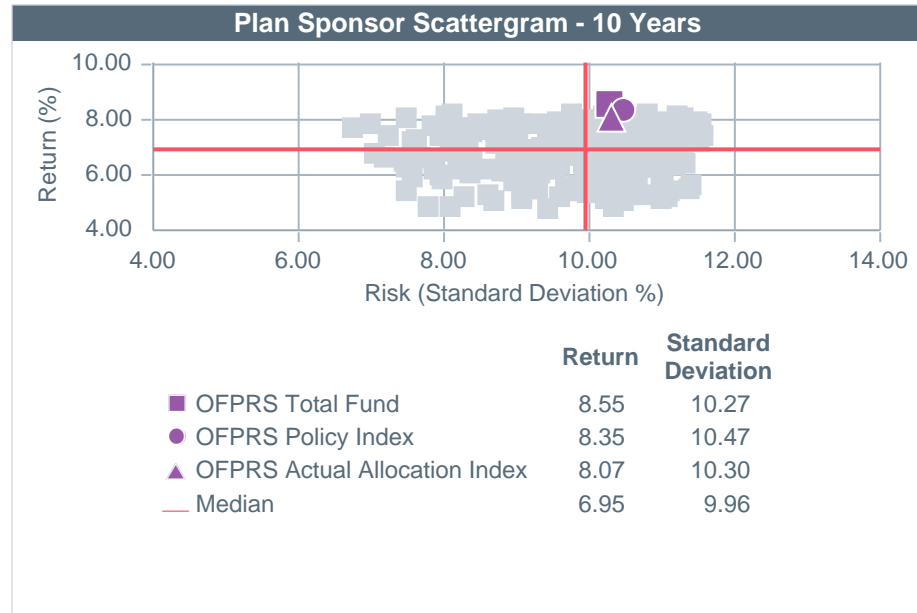
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



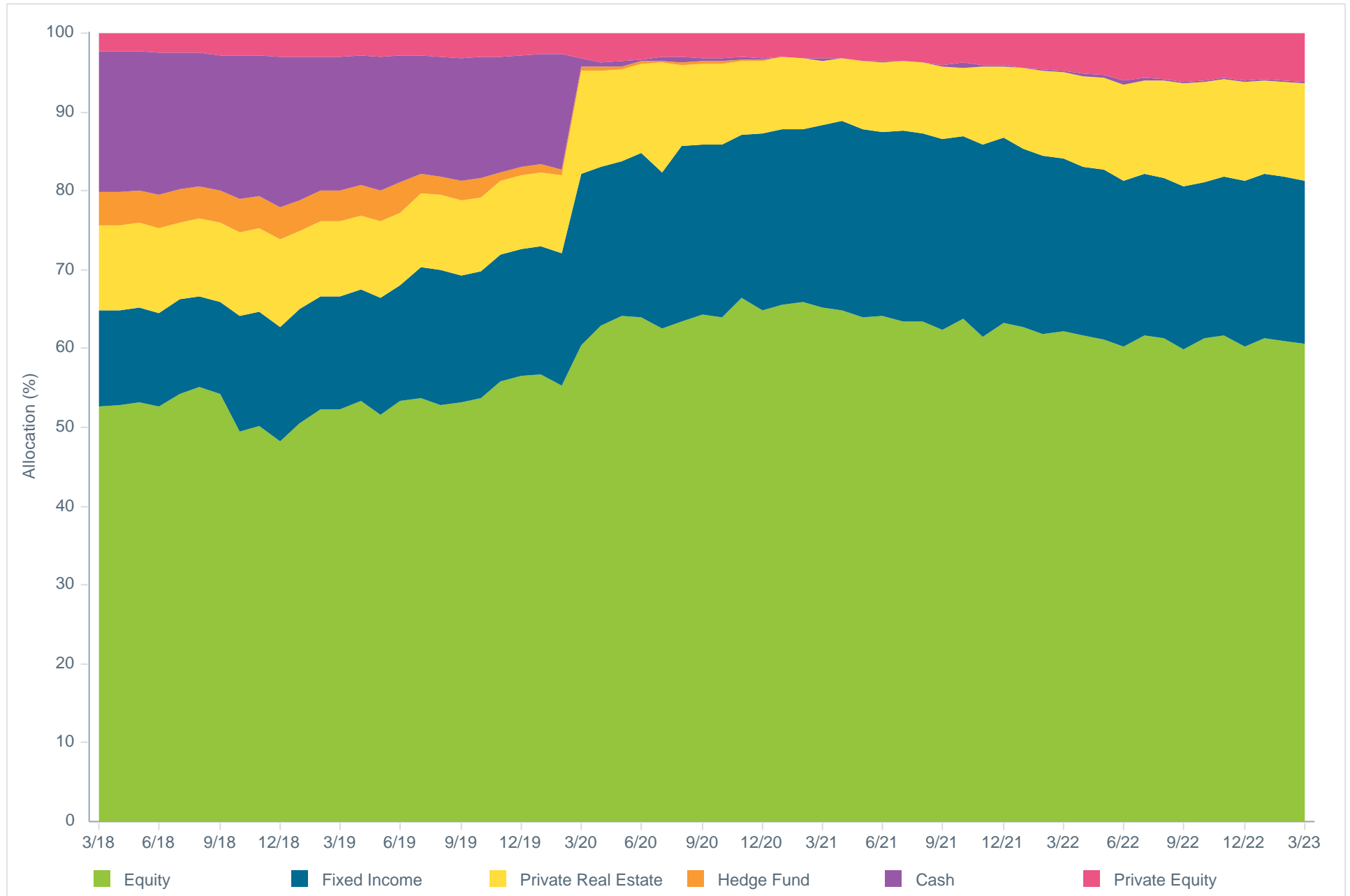


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include Hedge Funds and Private Equity.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma Police Pension & Retirement System (OPPRS)

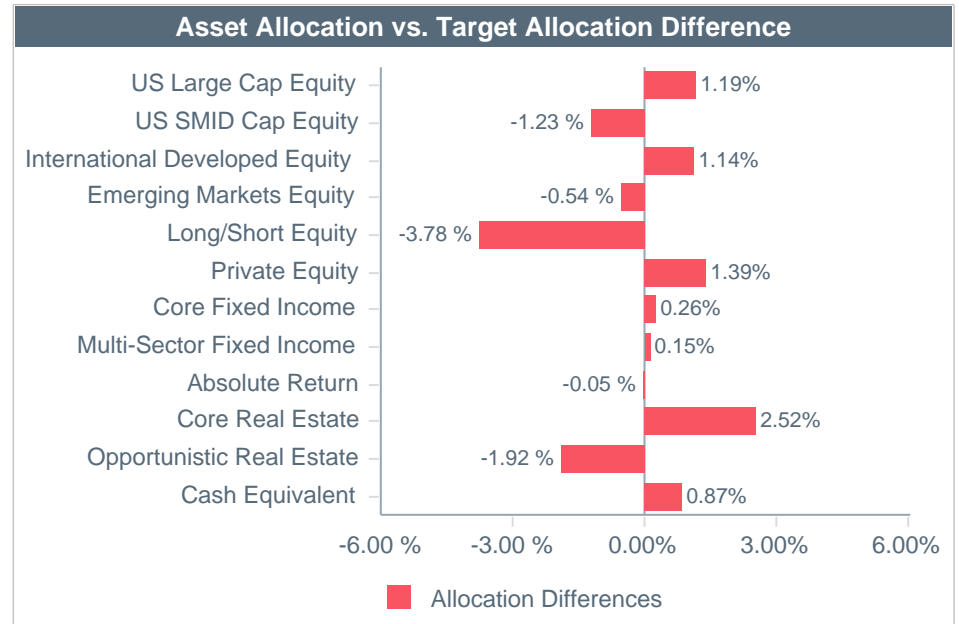


Oklahoma State Pension Commission
 Oklahoma Police Pension & Retirement System
 Total Fund Summary

As of March 31, 2023

	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OPPRS Total Fund (Net)	2.12	2.12	1.07	-6.38	10.66	6.05	7.16	6.61	-10.39	17.28	12.17	15.22	-2.85
OPPRS Policy Index	5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	-13.27	14.76	12.66	19.13	-5.34
Difference	-3.32	-3.32	-5.03	-1.25	0.03	0.00	-0.03	0.23	2.88	2.52	-0.49	-3.91	2.49
OPPRS Actual Allocation Index	4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	-12.42	13.63	14.47	15.02	-3.70
Difference	-1.89	-1.89	-3.96	-0.42	0.82	0.53	0.35	0.40	2.03	3.65	-2.30	0.20	0.85
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	0.30	0.30	-4.50	-13.88	3.16	-1.45	-0.34	-0.89	-17.89	9.78	4.67	7.72	-10.35
OPPRS Total Fund (Gross)	2.18	2.18	1.30	-6.03	11.06	6.45	7.58	7.05	-9.99	17.71	12.54	15.68	-2.46
OPPRS Policy Index	5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	-13.27	14.76	12.66	19.13	-5.34
Difference	-3.26	-3.26	-4.80	-0.90	0.43	0.40	0.39	0.67	3.28	2.95	-0.12	-3.45	2.88
OPPRS Actual Allocation Index	4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	-12.42	13.63	14.47	15.02	-3.70
Difference	-1.83	-1.83	-3.73	-0.07	1.22	0.93	0.77	0.84	2.43	4.08	-1.93	0.66	1.24
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	94	94	98	79	46	37	42	47	21	12	50	85	19

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPPRS (Police)	2,984,121,134	100.00	100.00
US Large Cap Equity	483,080,834	16.19	15.00
US SMID Cap Equity	261,729,267	8.77	10.00
International Developed Equity	332,470,476	11.14	10.00
Emerging Markets Equity	133,116,600	4.46	5.00
Long/Short Equity	185,732,572	6.22	10.00
Private Equity	489,139,906	16.39	15.00
Core Fixed Income	231,534,115	7.76	7.50
Multi-Sector Fixed Income	228,263,272	7.65	7.50
Absolute Return	147,669,702	4.95	5.00
Core Real Estate	373,716,079	12.52	10.00
Opportunistic Real Estate	91,777,748	3.08	5.00
Cash Equivalent	25,890,562	0.87	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	2,984,121,134	100.00	2.12	2.12	1.07	-6.38	10.66	6.05	7.16	6.61	6.29	07/01/2005
OPPRS Policy Index			5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	6.10	
Difference			-3.32	-3.32	-5.03	-1.25	0.03	0.00	-0.03	0.23	0.19	
OPPRS Actual Allocation Index			4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	6.13	
Difference			-1.89	-1.89	-3.96	-0.42	0.82	0.53	0.35	0.40	0.16	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			0.30	0.30	-4.50	-13.88	3.16	-1.45	-0.34	-0.89	-1.21	
Total Equity	1,885,269,655	63.18	3.62	3.62	2.95	-8.75	15.65	8.17	9.66	8.84	7.46	07/01/2005
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	7.47	
Difference			-3.82	-3.82	-7.19	-1.79	-0.25	0.71	-0.06	0.22	-0.01	
US Equity												
Northern Trust Russell 1000 Index (SA)	483,080,834	16.19	7.46	7.46	9.93	-8.39	18.55	10.87	12.22	12.01	N/A	07/01/1998
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	7.48	
Difference			0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	N/A	
Boston Partners SMID Value Equity (SA)	141,038,754	4.73	2.61	2.61	5.78	-6.68	26.00	5.76	8.60	8.32	N/A	06/01/1997
Russell 2500 Val Index			1.40	1.40	5.75	-10.53	21.80	5.61	7.97	7.72	8.91	
Difference			1.21	1.21	0.03	3.85	4.20	0.15	0.63	0.60	N/A	
Silvercrest Small Cap Growth Equity (SA)	120,690,513	4.04	3.74	3.74	13.50	-12.48	24.34	11.09	14.67	N/A	7.38	01/01/2014
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	6.46	
Difference			-2.33	-2.33	2.78	-1.88	10.98	6.83	5.93	N/A	0.92	
International Equity												
Mondrian International Value Equity (SA)	161,111,712	5.40	9.56	9.56	9.64	-0.93	12.34	2.24	4.75	4.48	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			6.14	6.14	14.21	0.38	15.29	2.38	5.78	4.35	4.93	
Difference			3.42	3.42	-4.57	-1.31	-2.95	-0.14	-1.03	0.13	N/A	
Barings Focused EAFE Plus Equity (SA)	171,358,764	5.74	8.00	8.00	13.62	-1.63	9.76	2.62	5.87	4.76	4.41	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.34	
Difference			1.00	1.00	3.24	2.93	-2.56	-0.35	-0.50	0.11	-0.93	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Axiom Emerging Markets Equity (SA)	84,993,045	2.85	3.97	3.97	N/A	N/A	N/A	N/A	N/A	N/A	-2.32	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	1.33	
Difference			-0.05	-0.05	N/A	N/A	N/A	N/A	N/A	N/A	-3.65	
Wasatch EM Small Cap (SA)	48,123,555	1.61	7.11	7.11	6.03	-19.40	14.84	4.26	7.27	3.40	4.72	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.94	3.94	6.94	-10.47	21.25	2.24	6.22	3.56	5.04	
Difference			3.17	3.17	-0.91	-8.93	-6.41	2.02	1.05	-0.16	-0.32	
Fixed Income	607,467,090	20.36	2.18	2.18	1.48	-3.55	1.31	1.48	2.15	2.02	N/A	07/01/2005
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.04	
Difference			-0.78	-0.78	1.57	1.23	4.08	0.58	1.27	0.66	N/A	
Agincourt Core Fixed Income (SA)	231,534,115	7.76	2.93	2.93	0.18	-4.71	-2.18	1.24	1.25	1.65	N/A	07/01/1998
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.97	
Difference			-0.03	-0.03	0.27	0.07	0.59	0.34	0.37	0.29	N/A	
Loomis Sayles Global World Bond (SA)	72,964,307	2.45	2.89	2.89	-0.27	-10.35	-3.03	-1.90	-0.08	-0.13	1.62	05/01/2008
FTSE Wrld Gov't Bond Index			3.51	3.51	-0.71	-9.55	-5.29	-2.35	-1.06	-0.60	0.74	
Difference			-0.62	-0.62	0.44	-0.80	2.26	0.45	0.98	0.47	0.88	
Oaktree Global Credit (SA)	129,861,863	4.35	2.74	2.74	5.79	-1.80	7.47	2.31	3.83	3.36	5.16	01/01/1998
Oaktree Global Credit Custom Index			3.36	3.36	7.41	-1.04	6.56	2.27	1.85	2.05	4.33	
Difference			-0.62	-0.62	-1.62	-0.76	0.91	0.04	1.98	1.31	0.83	
Absolute Return	147,669,702	4.95	0.76	0.76	2.15	1.43	2.58	1.58	2.11	2.01	2.40	12/01/2010
Wellington Global Total Return (CF)	83,091,280	2.78	-0.40	-0.40	1.43	2.76	2.42	3.16	N/A	N/A	2.98	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.07	2.07	5.45	6.60	4.92	5.46	5.26	4.90	5.36	
Difference			-2.47	-2.47	-4.02	-3.84	-2.50	-2.30	N/A	N/A	-2.38	
TCW MetWest Unconstrained (SA)	61,849,000	2.07	2.31	2.31	3.07	-0.51	N/A	N/A	N/A	N/A	-1.30	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			1.82	1.82	4.69	5.58	3.91	4.45	4.25	3.90	4.18	
Difference			0.49	0.49	-1.62	-6.09	N/A	N/A	N/A	N/A	-5.48	
Private Credit	25,437,102	0.85	-1.10	-1.10	-5.38	-6.77	7.44	7.28	N/A	N/A	7.72	10/01/2016

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Assets	465,493,828	15.60	-3.80	-3.80	-5.96	0.46	7.49	5.57	6.04	6.00	N/A	01/01/1998
OPPRS Real Assets Blended Benchmark			-3.38	-3.38	-8.08	-3.91	7.46	5.43	5.87	4.29	5.99	
Difference			-0.42	-0.42	2.12	4.37	0.03	0.14	0.17	1.71	N/A	
JP Morgan Strategic Property (CF)	182,212,283	6.11	-3.19	-3.19	-9.54	-5.46	6.17	5.67	6.04	7.93	5.16	11/01/2007
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	5.02	
Difference			0.19	0.19	-1.46	-1.55	-1.29	-0.89	-0.71	-0.54	0.14	
Blackstone Property Partners (CF)	191,503,796	6.42	-6.41	-6.41	-5.03	3.96	7.04	7.16	7.70	N/A	9.00	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.95	
Difference			-3.03	-3.03	3.05	7.87	-0.42	0.60	0.95	N/A	1.05	
Private Real Estate	91,777,748	3.08	0.75	0.75	-0.33	6.38	11.33	11.56	10.43	11.21	9.86	08/01/2011
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	8.86	
Difference			4.13	4.13	7.75	10.29	3.87	5.00	3.68	2.74	1.00	
Columbus Square (SA)	4,539,380	0.15	2.50	2.50	6.16	7.25	-0.24	2.51	4.22	4.94	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.97	
Difference			5.88	5.88	14.24	11.16	-7.70	-4.05	-2.53	-3.53	N/A	
Long/Short Equity	185,732,572	6.22	3.04	3.04	6.46	-8.68	4.51	2.78	4.45	4.42	4.75	05/01/2012
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	9.03	
Difference			-4.40	-4.40	-3.68	-1.72	-11.39	-4.68	-5.27	-4.20	-4.28	
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	3.37	
Difference			1.84	1.84	4.37	-3.83	-2.77	0.53	0.58	1.29	1.38	
K2 Ascent (CF)	185,273,319	6.21	3.11	3.11	6.59	-8.60	5.54	N/A	N/A	N/A	1.20	06/01/2020
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	4.85	
Difference			1.91	1.91	4.50	-3.75	-1.74	N/A	N/A	N/A	-3.65	
Private Equity	489,139,906	16.39	-2.76	-2.76	-11.45	-10.04	21.84	17.94	15.30	14.39	13.34	07/01/2003
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	8.50	
Difference			-10.20	-10.20	-21.59	-3.08	5.94	10.48	5.58	5.77	4.84	
Cambridge US Prvt Eq Index			0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	14.93	
Difference			-2.76	-2.76	-12.53	-7.05	-1.59	2.45	-0.74	-0.14	-1.59	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	2,984,121,134	100.00	2.18	2.18	1.30	-6.03	11.06	6.45	7.58	7.05	6.64	07/01/2005
OPPRS Policy Index			5.44	5.44	6.10	-5.13	10.63	6.05	7.19	6.38	6.10	
Difference			-3.26	-3.26	-4.80	-0.90	0.43	0.40	0.39	0.67	0.54	
OPPRS Actual Allocation Index			4.01	4.01	5.03	-5.96	9.84	5.52	6.81	6.21	6.13	
Difference			-1.83	-1.83	-3.73	-0.07	1.22	0.93	0.77	0.84	0.51	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			0.36	0.36	-4.27	-13.53	3.56	-1.05	0.08	-0.45	-0.86	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	6.53	
Rank			94	94	98	79	46	37	42	47	45	
Total Equity	1,885,269,655	63.18	3.67	3.67	3.11	-8.56	15.93	8.47	9.98	9.19	7.74	07/01/2005
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	7.47	
Difference			-3.77	-3.77	-7.03	-1.60	0.03	1.01	0.26	0.57	0.27	
IM Global Equity (SA+CF) Median			6.81	6.81	10.84	-5.32	15.84	7.44	9.45	8.84	7.89	
Rank			81	81	94	79	50	33	42	42	56	
US Equity												
Northern Trust Russell 1000 Index (SA)	483,080,834	16.19	7.47	7.47	9.93	-8.38	18.56	10.88	12.23	12.02	7.59	07/01/1998
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	7.48	
Difference			0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.11	
IM U.S. Large Cap Index Equity (SA+CF) Median			7.46	7.46	9.95	-8.01	18.56	10.91	12.26	12.05	7.39	
Rank			49	49	58	61	49	59	58	55	3	
Boston Partners SMID Value Equity (SA)	141,038,754	4.73	2.76	2.76	6.22	-6.15	26.74	6.37	9.23	8.97	9.53	06/01/1997
Russell 2500 Val Index			1.40	1.40	5.75	-10.53	21.80	5.61	7.97	7.72	8.91	
Difference			1.36	1.36	0.47	4.38	4.94	0.76	1.26	1.25	0.62	
IM U.S. SMID Cap Value Equity (SA+CF) Median			2.77	2.77	8.59	-5.38	23.67	7.49	9.71	9.56	N/A	
Rank			52	52	76	60	22	76	66	70	N/A	
Silvercrest Small Cap Growth Equity (SA)	120,690,513	4.04	3.90	3.90	14.14	-11.76	25.38	12.03	15.66	N/A	8.32	01/01/2014
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	6.46	
Difference			-2.17	-2.17	3.42	-1.16	12.02	7.77	6.92	N/A	1.86	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	9.33	
Rank			87	87	20	60	14	18	18	N/A	78	

Performance shown for Private Equity is net of fees. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Mondrian International Value Equity (SA)	161,111,712	5.40	9.67	9.67	9.98	-0.51	12.82	2.68	5.18	4.94	5.65	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			6.14	6.14	14.21	0.38	15.29	2.38	5.78	4.35	4.93	
Difference			3.53	3.53	-4.23	-0.89	-2.47	0.30	-0.60	0.59	0.72	
IM International Value Equity (SA+CF) Median			8.48	8.48	14.50	0.17	15.70	3.34	6.46	5.67	6.70	
Rank			31	31	84	59	73	65	77	72	82	
Barings Focused EAFE Plus Equity (SA)	171,358,764	5.74	8.10	8.10	13.97	-1.23	10.33	3.03	6.44	5.36	4.94	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.34	
Difference			1.10	1.10	3.59	3.33	-1.99	0.06	0.07	0.71	-0.40	
IM International Value Equity (SA+CF) Median			7.90	7.90	13.00	-3.45	13.47	3.64	6.84	5.99	7.14	
Rank			47	47	42	36	83	61	62	71	93	
Axiom Emerging Markets Equity (SA)	84,993,045	2.85	3.97	3.97	N/A	N/A	N/A	N/A	N/A	N/A	-2.32	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	1.33	
Difference			-0.05	-0.05	N/A	N/A	N/A	N/A	N/A	N/A	-3.65	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	3.56	
Rank			71	71	N/A	N/A	N/A	N/A	N/A	N/A	91	
Wasatch EM Small Cap (SA)	48,123,555	1.61	7.41	7.41	6.90	-18.51	16.23	5.49	8.61	4.63	5.91	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.94	3.94	6.94	-10.47	21.25	2.24	6.22	3.56	5.04	
Difference			3.47	3.47	-0.04	-8.04	-5.02	3.25	2.39	1.07	0.87	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	4.43	
Rank			14	14	30	98	19	6	11	24	21	
Fixed Income												
Bloomberg US Agg Bond Index	607,467,090	20.36	2.34	2.34	1.80	-3.17	1.66	1.87	2.57	2.47	4.16	07/01/2005
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.04	
Difference			-0.62	-0.62	1.89	1.61	4.43	0.97	1.69	1.11	1.12	
IM U.S. Fixed Income (SA+CF) Median			2.90	2.90	1.50	-2.44	0.31	1.83	1.90	2.04	3.56	
Rank			69	69	44	55	33	48	33	39	31	
Agincourt Core Fixed Income (SA)	231,534,115	7.76	2.97	2.97	0.30	-4.57	-2.03	1.39	1.41	1.82	4.40	07/01/1998
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.97	
Difference			0.01	0.01	0.39	0.21	0.74	0.49	0.53	0.46	0.43	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	4.37	
Rank			77	77	45	43	64	41	49	45	49	

Performance shown for Private Equity is net of fees. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Loomis Sayles Global World Bond (SA)	72,964,307	2.45	2.98	2.98	0.00	-10.03	-2.70	-1.57	0.25	0.21	1.94	05/01/2008
FTSE Wrld Gov't Bond Index			3.51	3.51	-0.71	-9.55	-5.29	-2.35	-1.06	-0.60	0.74	
Difference			-0.53	-0.53	0.71	-0.48	2.59	0.78	1.31	0.81	1.20	
IM Global Fixed Income (SA+CF) Median			3.14	3.14	2.71	-5.39	2.10	1.70	2.58	2.14	2.59	
Rank			62	62	84	88	90	87	83	81	67	
Oaktree Global Credit (SA)	129,861,863	4.35	2.89	2.89	6.28	-1.17	8.13	2.95	4.47	3.98	5.65	01/01/1998
Oaktree Global Credit Custom Index			3.36	3.36	7.41	-1.04	6.56	2.27	1.85	2.05	4.33	
Difference			-0.47	-0.47	-1.13	-0.13	1.57	0.68	2.62	1.93	1.32	
Absolute Return	147,669,702	4.95	1.17	1.17	2.75	2.11	3.11	2.15	2.74	2.62	2.90	12/01/2010
Wellington Global Total Return (CF)	83,091,280	2.78	0.24	0.24	2.21	3.62	2.87	3.69	N/A	N/A	3.43	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.07	2.07	5.45	6.60	4.92	5.46	5.26	4.90	5.36	
Difference			-1.83	-1.83	-3.24	-2.98	-2.05	-1.77	N/A	N/A	-1.93	
TCW MetWest Unconstrained (SA)	61,849,000	2.07	2.43	2.43	3.42	-0.06	N/A	N/A	N/A	N/A	-0.83	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			1.82	1.82	4.69	5.58	3.91	4.45	4.25	3.90	4.18	
Difference			0.61	0.61	-1.27	-5.64	N/A	N/A	N/A	N/A	-5.01	
Private Credit	25,437,102	0.85	-1.10	-1.10	-5.38	-6.77	7.44	7.28	N/A	N/A	7.72	10/01/2016
Real Assets	465,493,828	15.60	-3.84	-3.84	-5.57	1.45	8.54	6.51	6.95	6.84	5.95	01/01/1998
OPPRS Real Assets Blended Benchmark			-3.38	-3.38	-8.08	-3.91	7.46	5.43	5.87	4.29	5.99	
Difference			-0.46	-0.46	2.51	5.36	1.08	1.08	1.08	2.55	-0.04	
JP Morgan Strategic Property (CF)	182,212,283	6.11	-2.99	-2.99	-8.98	-4.69	7.03	6.56	6.96	8.89	6.07	11/01/2007
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	5.98	
Difference			0.18	0.18	-1.48	-1.60	-1.37	-0.95	-0.75	-0.56	0.09	
Blackstone Property Partners (CF)	191,503,796	6.42	-6.68	-6.68	-4.65	5.65	8.66	8.76	9.47	N/A	10.61	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.94	
Difference			-3.51	-3.51	2.85	8.74	0.26	1.25	1.76	N/A	1.67	
Private Real Estate	91,777,748	3.08	0.75	0.75	-0.33	6.38	11.33	11.56	10.43	11.21	9.86	08/01/2011
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	9.86	
Difference			3.92	3.92	7.17	9.47	2.93	4.05	2.72	1.76	0.00	
Columbus Square (SA)	4,539,380	0.15	2.50	2.50	6.16	7.25	-0.24	2.51	4.24	5.12	11.90	03/01/1995
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.99	
Difference			5.67	5.67	13.66	10.34	-8.64	-5.00	-3.47	-4.33	2.91	

Performance shown for Private Equity is net of fees. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
Oklahoma Police Pension & Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

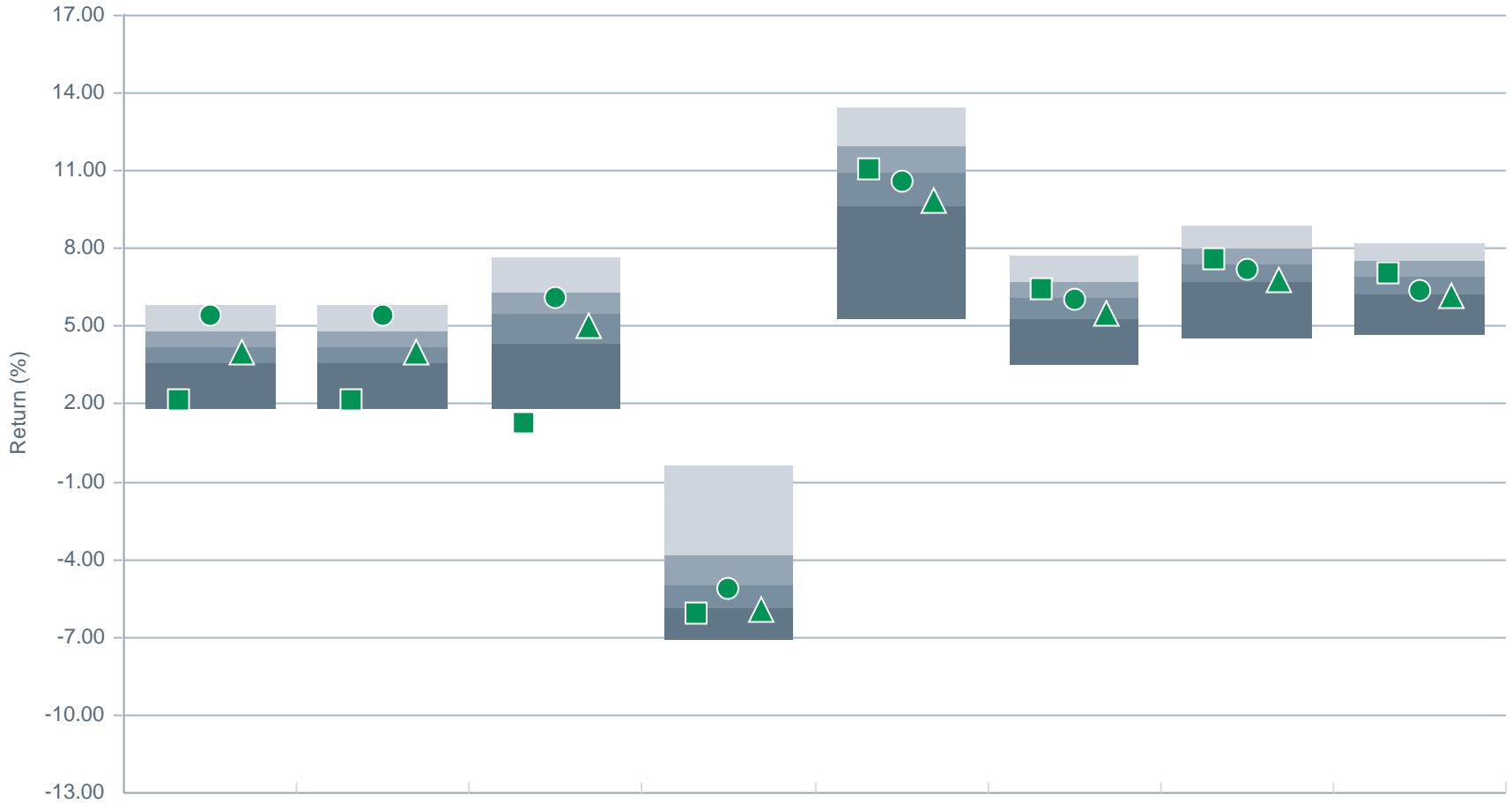
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Long/Short Equity	185,732,572	6.22	3.04	3.04	6.46	-8.67	4.59	3.00	4.75	4.78	5.13	05/01/2012
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	9.03	
Difference			-4.40	-4.40	-3.68	-1.71	-11.31	-4.46	-4.97	-3.84	-3.90	
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	3.37	
Difference			1.84	1.84	4.37	-3.82	-2.69	0.75	0.88	1.65	1.76	
K2 Ascent (CF)	185,273,319	6.21	3.11	3.11	6.59	-8.60	5.54	N/A	N/A	N/A	1.20	06/01/2020
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	4.85	
Difference			1.91	1.91	4.50	-3.75	-1.74	N/A	N/A	N/A	-3.65	
Private Equity	489,139,906	16.39	-2.76	-2.76	-11.45	-10.04	21.84	17.94	15.30	14.39	13.34	07/01/2003
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	8.50	
Difference			-10.20	-10.20	-21.59	-3.08	5.94	10.48	5.58	5.77	4.84	
Cambridge US Prvt Eq Index			0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	14.93	
Difference			-2.76	-2.76	-12.53	-7.05	-1.59	2.45	-0.74	-0.14	-1.59	

Performance shown for Private Equity is net of fees. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



Oklahoma State Pension Commission
 Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



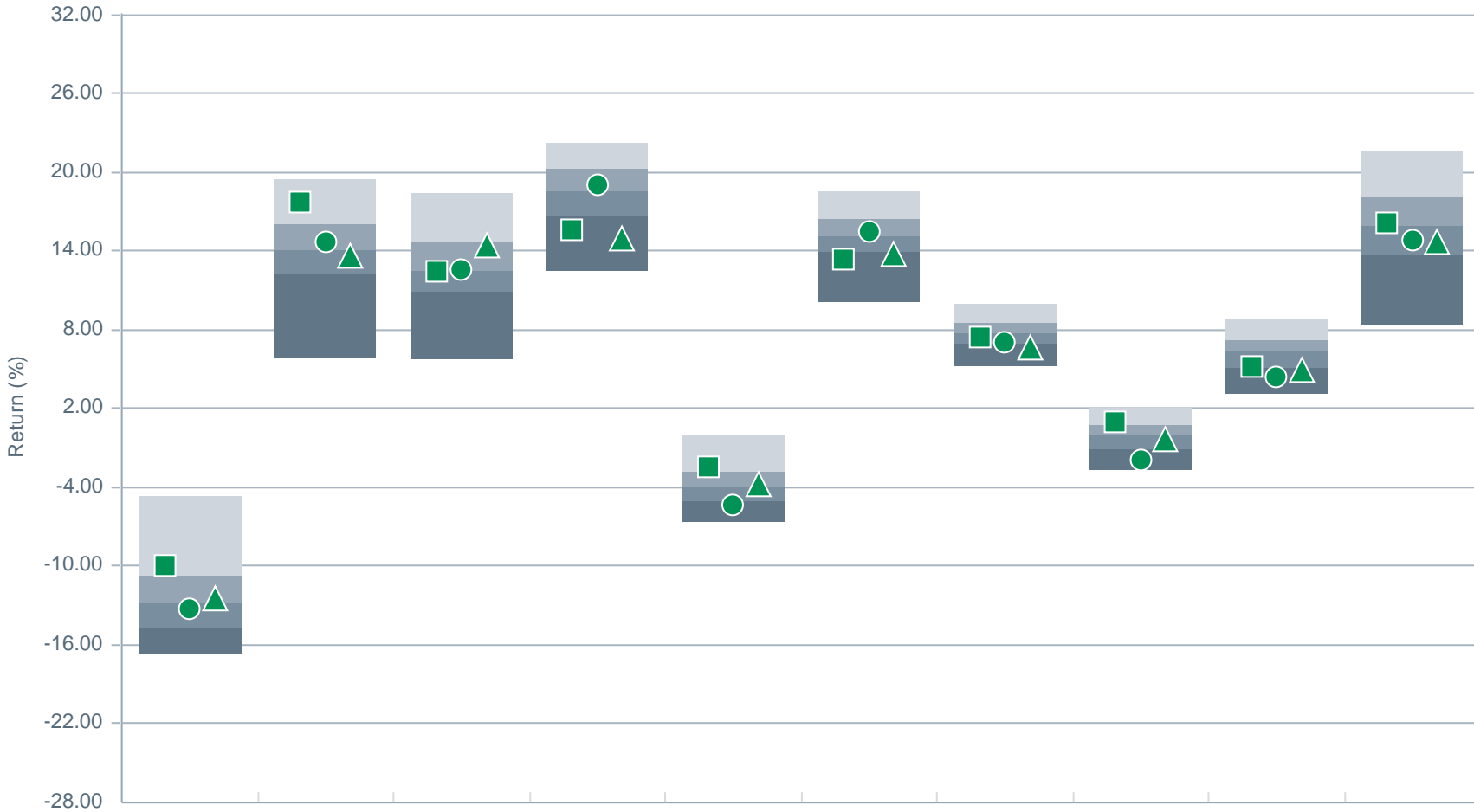
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OPPRS Total Fund	2.18 (94)	2.18 (94)	1.30 (98)	-6.03 (79)	11.06 (46)	6.45 (37)	7.58 (42)	7.05 (47)
● OPPRS Policy Index	5.44 (10)	5.44 (10)	6.10 (32)	-5.13 (57)	10.63 (57)	6.05 (52)	7.19 (60)	6.38 (71)
▲ OPPRS Allocation Index	4.01 (57)	4.01 (57)	5.03 (64)	-5.96 (78)	9.84 (72)	5.52 (70)	6.81 (74)	6.21 (77)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

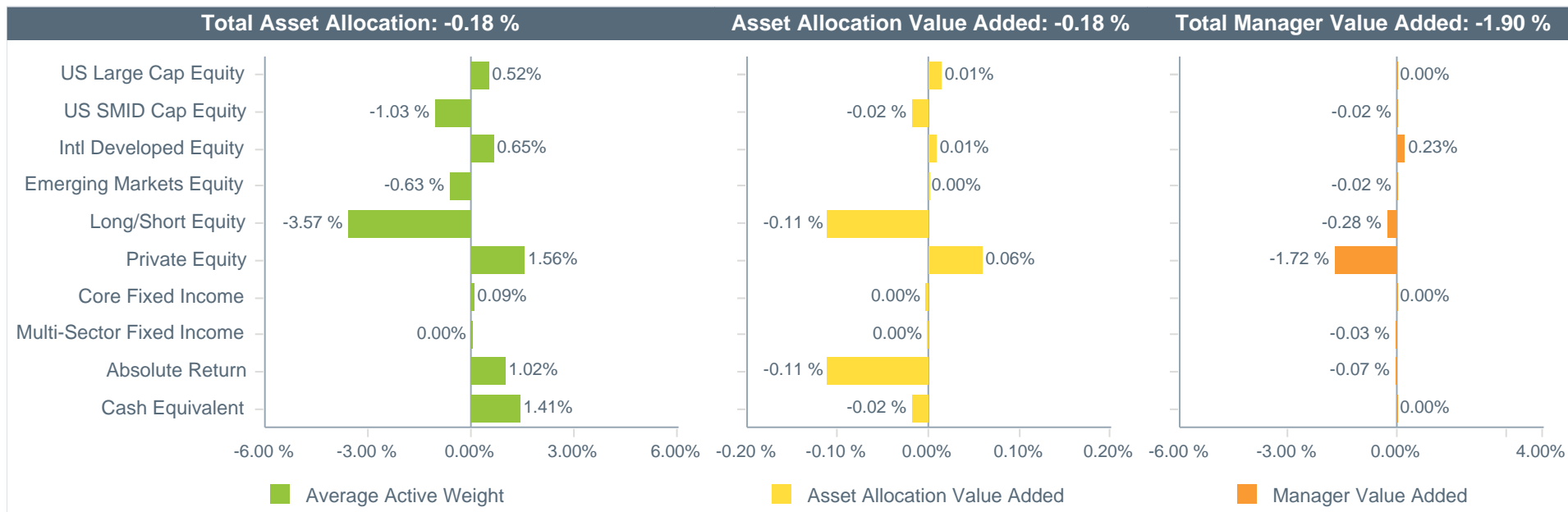
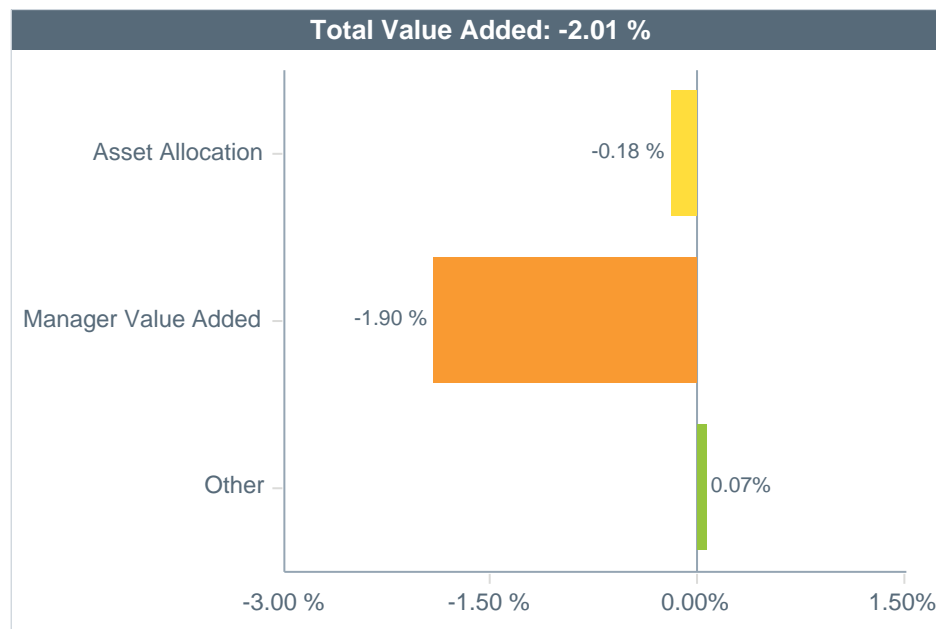
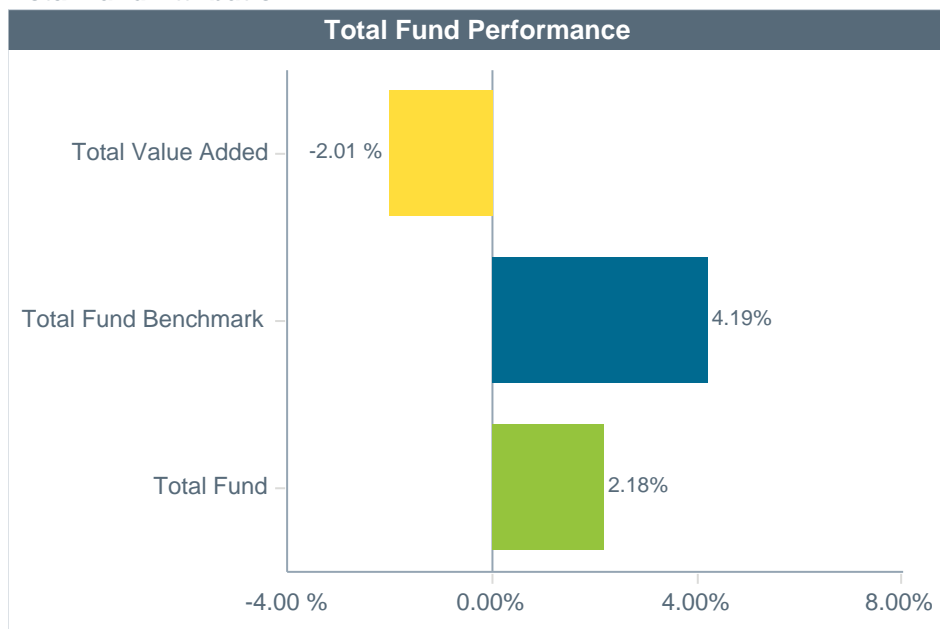
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OPPRS Total Fund	-9.99 (21)	17.71 (12)	12.54 (50)	15.68 (85)	-2.46 (19)	13.40 (83)	7.47 (57)	1.05 (17)	5.20 (74)	16.18 (47)
● OPPRS Policy Index	-13.27 (57)	14.76 (38)	12.66 (49)	19.13 (41)	-5.34 (80)	15.45 (44)	7.07 (71)	-1.93 (88)	4.47 (86)	14.82 (62)
▲ OPPRS Allocation Index	-12.42 (46)	13.63 (56)	14.47 (28)	15.02 (89)	-3.70 (44)	13.78 (77)	6.66 (82)	-0.35 (57)	4.97 (79)	14.77 (63)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

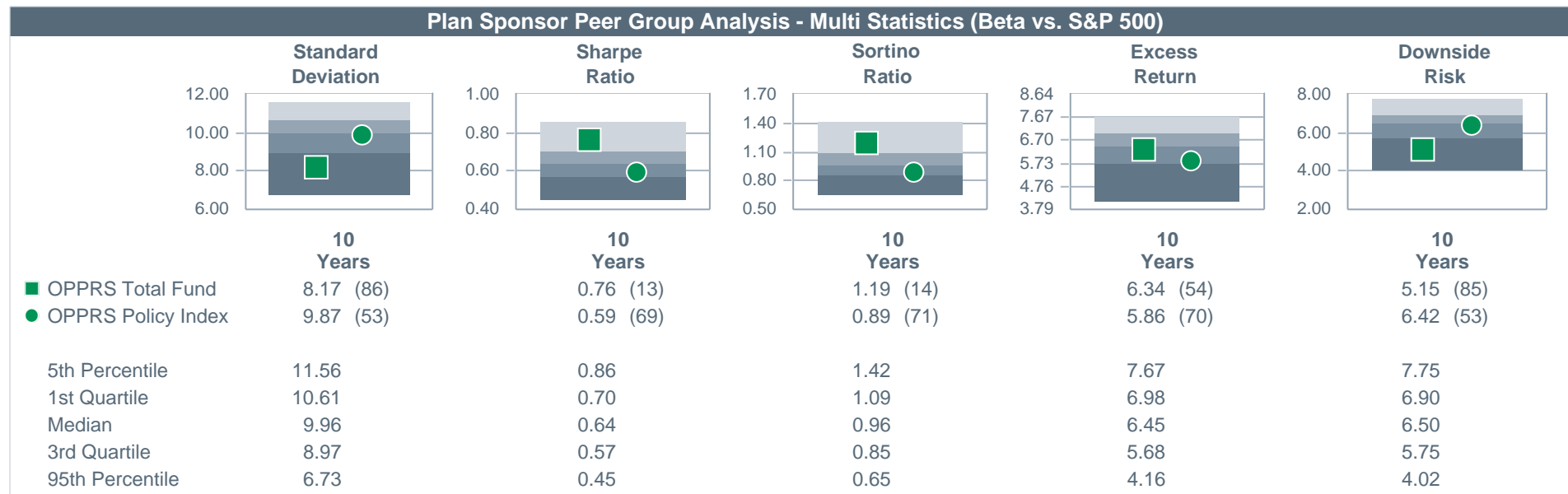
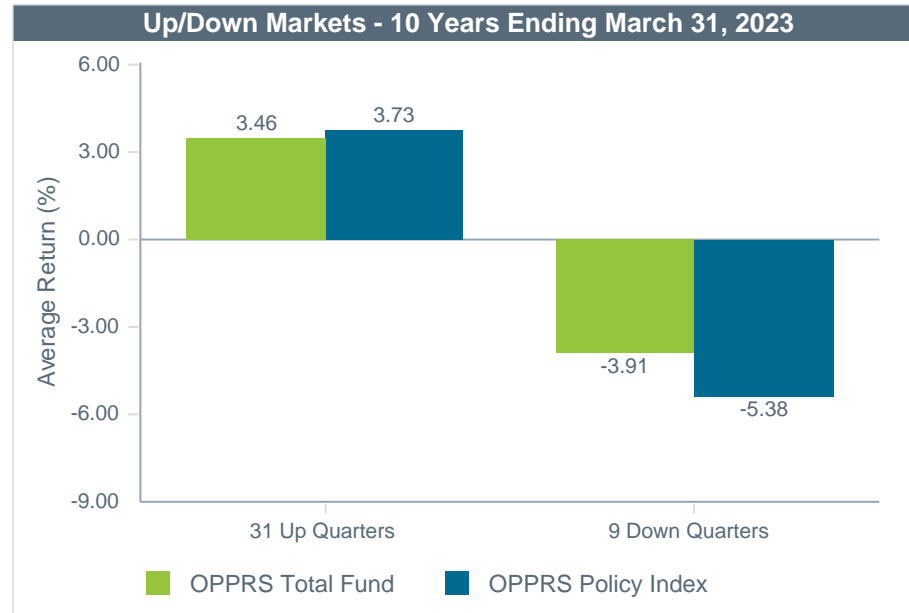
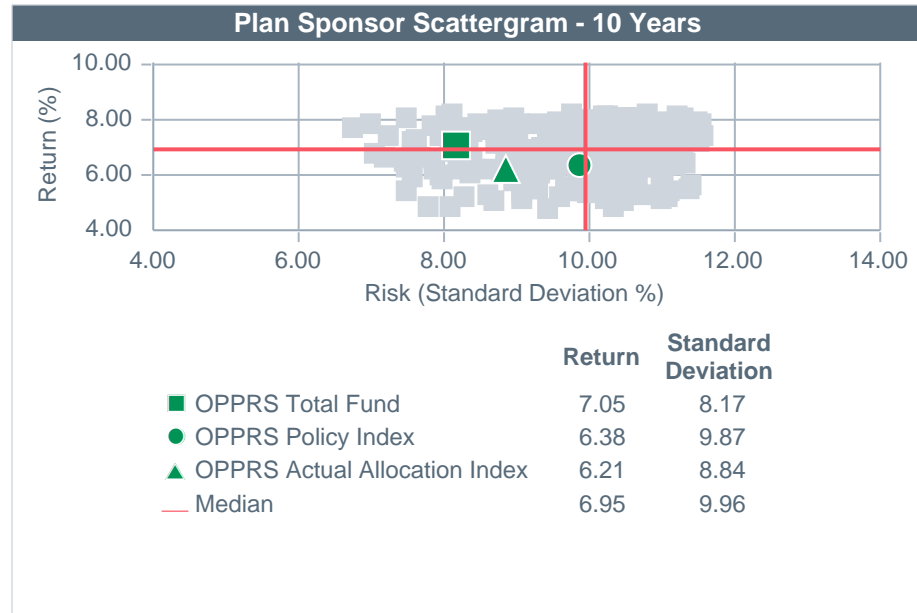
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



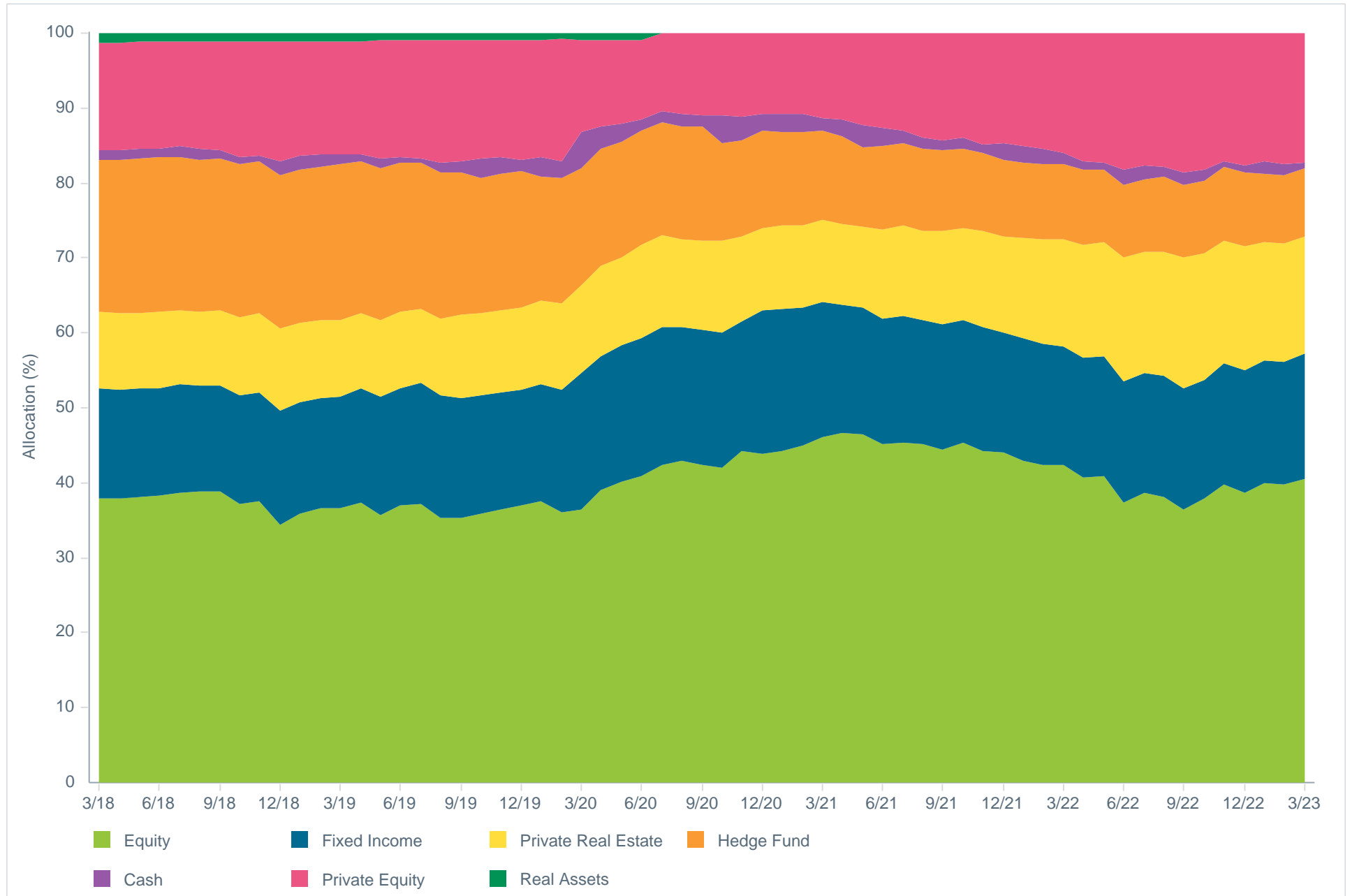


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Multi-Sector Fixed Income includes Private Credit.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Allocation to Fixed Income includes Private Credit.

Oklahoma Law Enforcement Retirement System (OLERS)

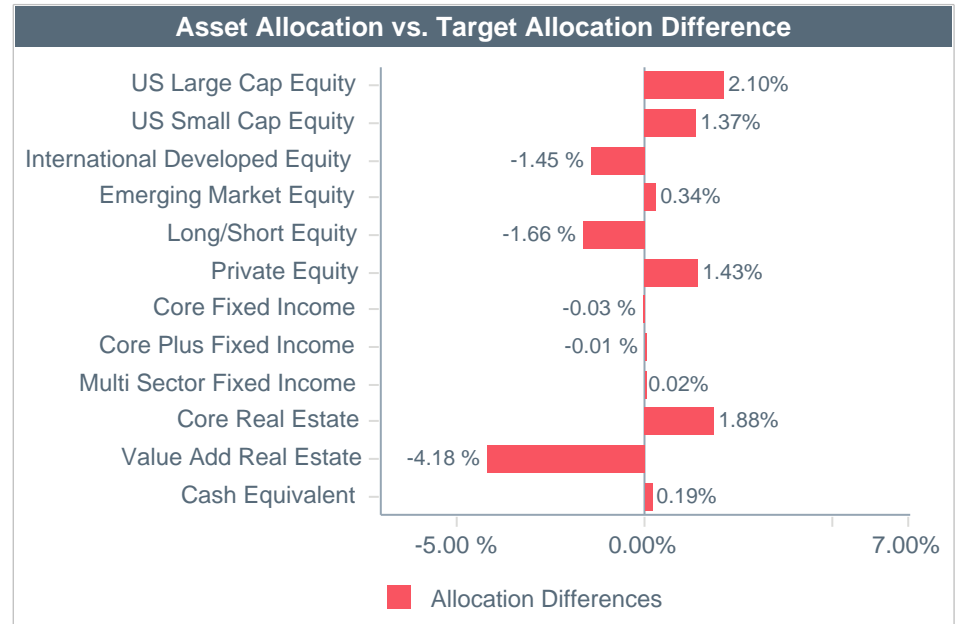


Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Total Fund Summary

As of March 31, 2023

	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OLERS Total Fund (Net)	3.72	3.72	3.55	-6.79	9.92	4.91	6.56	6.13	-14.24	14.56	12.26	17.44	-5.30
OLERS Policy Index	4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	-13.75	14.02	12.84	19.12	-3.67
Difference	-0.52	-0.52	-1.28	-0.65	-0.13	-1.01	-0.58	-0.85	-0.49	0.54	-0.58	-1.68	-1.63
OLERS Actual Allocation Index	4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	-13.91	14.75	21.88	17.33	-3.47
Difference	-1.13	-1.13	-2.45	-1.11	-2.64	-2.57	-1.74	-1.51	-0.33	-0.19	-9.62	0.11	-1.83
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	1.90	1.90	-2.02	-14.29	2.42	-2.59	-0.94	-1.37	-21.74	7.06	4.76	9.94	-12.80
OLERS Total Fund (Gross)	3.84	3.84	3.88	-6.38	10.41	5.41	7.10	6.68	-13.87	15.04	12.80	18.07	-4.76
OLERS Policy Index	4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	-13.75	14.02	12.84	19.12	-3.67
Difference	-0.40	-0.40	-0.95	-0.24	0.36	-0.51	-0.04	-0.30	-0.12	1.02	-0.04	-1.05	-1.09
OLERS Actual Allocation Index	4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	-13.91	14.75	21.88	17.33	-3.47
Difference	-1.01	-1.01	-2.12	-0.70	-2.15	-2.07	-1.20	-0.96	0.04	0.29	-9.08	0.74	-1.29
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	68	68	82	86	61	72	62	61	65	35	47	57	67

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OLERS (Law Enforcement)	1,078,069,479	100.00	100.00
US Large Cap Equity	238,219,835	22.10	20.00
US Small Cap Equity	122,629,728	11.37	10.00
International Developed Equity	146,083,019	13.55	15.00
Emerging Market Equity	57,589,219	5.34	5.00
Long/Short Equity	35,965,583	3.34	5.00
Private Equity	123,172,858	11.43	10.00
Core Fixed Income	53,554,594	4.97	5.00
Core Plus Fixed Income	107,725,962	9.99	10.00
Multi Sector Fixed Income	54,146,341	5.02	5.00
Core Real Estate	128,083,049	11.88	10.00
Value Add Real Estate	8,849,643	0.82	5.00
Cash Equivalent	2,049,648	0.19	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,078,069,479	100.00	3.72	3.72	3.55	-6.79	9.92	4.91	6.56	6.13	30.32	10/01/1990
OLERS Policy Index			4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	8.36	
Difference			-0.52	-0.52	-1.28	-0.65	-0.13	-1.01	-0.58	-0.85	21.96	
OLERS Actual Allocation Index			4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	8.35	
Difference			-1.13	-1.13	-2.45	-1.11	-2.64	-2.57	-1.74	-1.51	21.97	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			1.90	1.90	-2.02	-14.29	2.42	-2.59	-0.94	-1.37	22.82	
US Large Cap Equity	238,219,835	22.10	7.93	7.93	9.97	-9.78	18.76	10.37	12.34	12.08	12.11	04/01/2010
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	12.34	
Difference			0.43	0.43	-0.01	-2.05	0.16	-0.82	-0.08	-0.16	-0.23	
Hotchkis Wiley Large Cap Value Equity (SA)	67,352,774	6.25	3.12	3.12	11.96	-4.30	26.17	8.30	10.84	10.45	11.63	11/01/1990
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	10.27	
Difference			2.11	2.11	4.79	1.61	8.24	0.80	1.82	1.32	1.36	
NTGI S&P 500 Index (CF)	100,916,893	9.36	7.49	7.49	9.97	-7.74	18.62	11.18	12.40	12.22	10.57	08/01/2008
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	10.57	
Difference			-0.01	-0.01	-0.01	-0.01	0.02	-0.01	-0.02	-0.02	0.00	
Polen Focus Growth (CF)	69,950,168	6.49	14.15	14.15	7.80	-17.93	10.63	N/A	N/A	N/A	12.18	01/01/2019
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	17.06	
Difference			-0.22	-0.22	-4.87	-7.03	-7.95	N/A	N/A	N/A	-4.88	
US Small Cap Equity	122,629,728	11.37	2.31	2.31	7.61	-10.06	19.15	5.30	8.85	7.81	N/A	11/01/2009
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	10.54	
Difference			-0.43	-0.43	0.86	1.55	1.64	0.59	0.30	-0.23	N/A	
Kennedy Capital Small Cap Value Equity (SA)	60,284,744	5.59	0.08	0.08	7.78	-6.72	26.37	6.34	9.01	8.85	20.65	02/01/1996
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	8.88	
Difference			0.74	0.74	5.04	6.24	5.36	1.79	1.15	1.63	11.77	
Wellington Small Cap Growth (CF)	62,344,984	5.78	4.57	4.57	7.70	-13.26	11.75	3.76	N/A	N/A	7.19	08/01/2016
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	7.65	
Difference			-1.50	-1.50	-3.02	-2.66	-1.61	-0.50	N/A	N/A	-0.46	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	203,672,238	18.89	7.67	7.67	8.63	-6.24	11.06	2.31	5.68	4.11	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.48	
Difference			0.67	0.67	-1.75	-1.68	-1.26	-0.66	-0.69	-0.54	N/A	
Mondrian International Equity (SA)	76,895,492	7.13	9.53	9.53	9.56	-1.02	12.25	2.13	4.61	4.35	4.39	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.17	
Difference			2.53	2.53	-0.82	3.54	-0.07	-0.84	-1.76	-0.30	-0.78	
Barings Focused Intl Equity (SA)	69,187,527	6.42	8.00	8.00	13.62	-1.63	9.79	2.64	5.88	4.70	4.75	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.34	
Difference			1.00	1.00	3.24	2.93	-2.53	-0.33	-0.49	0.05	-0.59	
William Blair Emerging Markets Leaders (CF)	41,087,590	3.81	4.06	4.06	0.57	-15.71	6.81	-0.34	N/A	N/A	4.30	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	4.34	
Difference			0.04	0.04	-0.60	-5.41	-1.42	0.19	N/A	N/A	-0.04	
Wasatch EM Small Cap CI A (CF)	16,501,629	1.53	7.11	7.11	6.03	-19.40	14.84	4.26	7.27	3.40	4.77	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	3.30	
Difference			3.09	3.09	4.86	-9.10	6.61	4.79	1.96	1.03	1.47	
Long/Short Equity	35,965,583	3.34	2.34	2.34	5.84	-8.45	1.25	-0.20	2.51	2.83	3.35	04/01/2010
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	8.56	
Difference			-5.10	-5.10	-4.30	-1.49	-14.65	-7.66	-7.21	-5.79	-5.21	
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	2.93	
Difference			1.14	1.14	3.75	-3.60	-6.03	-2.45	-1.36	-0.30	0.42	
Mauna Kea (CF)	35,669,357	3.31	2.38	2.38	5.98	-8.45	N/A	N/A	N/A	N/A	-0.99	08/01/2020
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	8.33	
Difference			-5.06	-5.06	-4.16	-1.49	N/A	N/A	N/A	N/A	-9.32	
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	2.93	
Difference			1.18	1.18	3.89	-3.60	N/A	N/A	N/A	N/A	-3.92	
Private Equity	123,172,858	11.43	0.78	0.78	-1.50	-1.56	22.23	14.74	13.25	12.22	9.58	12/01/2001
S&P 500 Index+5%			8.82	8.82	14.08	-3.11	24.53	16.75	18.04	17.85	13.71	
Difference			-8.04	-8.04	-15.58	1.55	-2.30	-2.01	-4.79	-5.63	-4.13	
Cambridge US Prvt Eq Index			0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	13.69	
Difference			0.78	0.78	-2.58	1.43	-1.20	-0.75	-2.79	-2.31	-4.11	

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Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	215,426,896	19.98	3.28	3.28	0.51	-5.04	-2.66	-0.30	0.61	0.88	N/A	10/01/1990
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	5.15	
Difference			0.32	0.32	0.60	-0.26	0.11	-1.20	-0.27	-0.48	N/A	
NTGI Aggregate Index (SA)	53,554,594	4.97	2.92	2.92	-0.05	-4.69	-2.80	0.92	0.88	1.37	3.10	04/01/2004
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.06	
Difference			-0.04	-0.04	0.04	0.09	-0.03	0.02	0.00	0.01	0.04	
TCW Core Plus Fixed Income (SA)	107,725,962	9.99	3.47	3.47	-0.05	-5.57	-1.72	1.44	1.55	1.88	4.83	12/01/1993
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.45	
Difference			0.51	0.51	0.04	-0.79	1.05	0.54	0.67	0.52	0.38	
Loomis Sayles	54,146,341	5.02	3.25	3.25	2.25	-4.49	N/A	N/A	N/A	N/A	-6.61	09/01/2021
Bloomberg US Gov't Crdt Bond Index			3.17	3.17	0.23	-4.81	-2.63	1.16	1.10	1.50	-7.51	
Difference			0.08	0.08	2.02	0.32	N/A	N/A	N/A	N/A	0.90	
Real Assets	136,932,692	12.70	-3.40	-3.40	-7.91	-4.74	5.93	4.67	5.26	5.61	N/A	06/01/1999
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	7.37	
Difference			-0.02	-0.02	0.17	-0.83	-1.53	-1.89	-1.49	-2.86	N/A	
Core Real Estate												
JPMCB Strategic Property (CF)	105,394,827	9.78	-3.21	-3.21	-9.58	-5.52	6.05	5.58	5.95	7.85	8.26	04/01/2012
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	8.54	
Difference			-1.40	-1.40	-4.87	-3.89	-1.10	-1.13	-0.90	-0.49	-0.28	
UBS Trumbull Property (SA)	17,888,222	1.66	-5.37	-5.37	-5.51	-5.66	3.54	2.39	3.27	5.40	5.43	01/01/2013
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	8.40	
Difference			-3.56	-3.56	-0.80	-4.03	-3.61	-4.32	-3.58	-2.94	-2.97	
Colcord Center (CF)	4,800,000	0.45	-3.09	-3.09	2.87	-1.00	4.60	4.89	4.79	5.63	5.03	05/01/2008
Value Add Real Estate	8,849,643	0.82	-1.51	-1.51	6.47	6.47	N/A	N/A	N/A	N/A	16.67	03/01/2022
NCREIF ODCE Index (AWA) (Net)			-3.38	-3.38	-8.08	-3.91	7.46	6.56	6.75	8.47	2.72	
Difference			1.87	1.87	14.55	10.38	N/A	N/A	N/A	N/A	13.95	

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Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,078,069,479	100.00	3.84	3.84	3.88	-6.38	10.41	5.41	7.10	6.68	7.84	10/01/1990
OLERS Policy Index			4.24	4.24	4.83	-6.14	10.05	5.92	7.14	6.98	8.36	
Difference			-0.40	-0.40	-0.95	-0.24	0.36	-0.51	-0.04	-0.30	-0.52	
OLERS Actual Allocation Index			4.85	4.85	6.00	-5.68	12.56	7.48	8.30	7.64	8.35	
Difference			-1.01	-1.01	-2.12	-0.70	-2.15	-2.07	-1.20	-0.96	-0.51	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.02	2.02	-1.69	-13.88	2.91	-2.09	-0.40	-0.82	0.34	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	8.17	
Rank			68	68	82	86	61	72	62	61	76	
US Large Cap Equity	238,219,835	22.10	8.03	8.03	10.23	-9.46	19.10	10.72	12.70	12.48	12.42	04/01/2010
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	12.34	
Difference			0.53	0.53	0.25	-1.73	0.50	-0.47	0.28	0.24	0.08	
Hotchkis Wiley Large Cap Value Equity (SA)	67,352,774	6.25	3.30	3.30	12.45	-3.67	26.68	8.84	11.36	11.05	11.64	11/01/1990
Russell 1000 Val Index			1.01	1.01	7.17	-5.91	17.93	7.50	9.02	9.13	10.27	
Difference			2.29	2.29	5.28	2.24	8.75	1.34	2.34	1.92	1.37	
IM U.S. Large Cap Value Equity (SA+CF) Median			0.91	0.91	7.88	-4.49	20.03	9.08	10.40	10.21	11.28	
Rank			25	25	12	40	7	54	27	26	34	
NTGI S&P 500 Index (CF)	100,916,893	9.36	7.50	7.50	9.98	-7.73	18.64	11.20	12.42	12.25	10.59	08/01/2008
S&P 500 Index (Cap Wtd)			7.50	7.50	9.98	-7.73	18.60	11.19	12.42	12.24	10.57	
Difference			0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.01	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			7.46	7.46	9.95	-8.01	18.56	10.91	12.26	12.05	10.56	
Rank			24	24	31	34	11	23	29	28	39	
Polen Focus Growth (CF)	69,950,168	6.49	14.29	14.29	8.19	-17.52	11.18	N/A	N/A	N/A	12.74	01/01/2019
Russell 1000 Grth Index			14.37	14.37	12.67	-10.90	18.58	13.66	15.01	14.59	17.06	
Difference			-0.08	-0.08	-4.48	-6.62	-7.40	N/A	N/A	N/A	-4.32	
IM U.S. Large Cap Growth Equity (SA+CF) Median			12.78	12.78	11.63	-10.60	16.39	11.87	13.80	13.73	14.83	
Rank			31	31	89	93	93	N/A	N/A	N/A	83	

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Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	122,629,728	11.37	2.53	2.53	8.33	-9.26	20.17	6.20	9.77	8.69	N/A	11/01/2009
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	10.54	
Difference			-0.21	-0.21	1.58	2.35	2.66	1.49	1.22	0.65	N/A	
Kennedy Capital Small Cap Value Equity (SA)	60,284,744	5.59	0.32	0.32	8.52	-5.94	27.49	7.30	10.01	9.86	12.35	02/01/1996
Russell 2000 Val Index			-0.66	-0.66	2.74	-12.96	21.01	4.55	7.86	7.22	8.88	
Difference			0.98	0.98	5.78	7.02	6.48	2.75	2.15	2.64	3.47	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.34	2.34	9.43	-5.18	24.49	6.86	9.58	9.27	11.45	
Rank			83	83	55	56	27	40	40	36	12	
Wellington Small Cap Growth (CF)	62,344,984	5.78	4.78	4.78	8.38	-12.53	12.66	4.60	N/A	N/A	8.01	08/01/2016
Russell 2000 Grth Index			6.07	6.07	10.72	-10.60	13.36	4.26	8.74	8.49	7.65	
Difference			-1.29	-1.29	-2.34	-1.93	-0.70	0.34	N/A	N/A	0.36	
IM U.S. Small Cap Growth Equity (SA+CF) Median			7.27	7.27	10.84	-10.48	17.85	9.44	12.84	11.42	11.86	
Rank			79	79	74	67	93	94	N/A	N/A	97	
International Equity	203,672,238	18.89	7.83	7.83	9.13	-5.66	11.69	2.89	6.29	4.67	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.48	
Difference			0.83	0.83	-1.25	-1.10	-0.63	-0.08	-0.08	0.02	N/A	
IM International Equity (SA+CF) Median			7.90	7.90	13.00	-3.45	13.47	3.64	6.84	5.99	7.21	
Rank			52	52	81	67	76	63	64	82	N/A	
Mondrian International Equity (SA)	76,895,492	7.13	9.67	9.67	9.98	-0.51	12.82	2.68	5.18	4.94	4.89	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.17	
Difference			2.67	2.67	-0.40	4.05	0.50	-0.29	-1.19	0.29	-0.28	
IM All ACWI Ex US (SA+CF) Median			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	6.13	
Rank			35	35	87	26	53	80	83	79	90	
Barings Focused Intl Equity (SA)	69,187,527	6.42	8.10	8.10	13.97	-1.23	10.34	3.24	6.60	5.47	5.48	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.34	
Difference			1.10	1.10	3.59	3.33	-1.98	0.27	0.23	0.82	0.14	
IM All ACWI Ex US (SA+CF) Median			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	6.92	
Rank			62	62	45	31	86	68	59	68	86	
William Blair Emerging Markets Leaders (CF)	41,087,590	3.81	4.26	4.26	1.19	-15.01	7.65	0.46	N/A	N/A	5.09	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	4.34	
Difference			0.24	0.24	0.02	-4.71	-0.58	0.99	N/A	N/A	0.75	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	5.09	
Rank			64	64	74	91	77	54	N/A	N/A	50	

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Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wasatch EM Small Cap CI A (CF)	16,501,629	1.53	7.48	7.48	7.10	-18.31	16.40	5.73	8.82	4.91	6.29	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			4.02	4.02	1.17	-10.30	8.23	-0.53	5.31	2.37	3.30	
Difference			3.46	3.46	5.93	-8.01	8.17	6.26	3.51	2.54	2.99	
IM Emerging Markets Equity (SA+CF) Median			4.97	4.97	3.84	-8.74	9.98	0.69	6.14	3.34	4.57	
Rank			14	14	29	98	19	6	10	19	17	
Long/Short Equity	35,965,583	3.34	2.34	2.34	5.85	-8.43	1.43	0.24	3.11	3.56	3.94	04/01/2010
MSCI ACW Index (USD) (Gross)			7.44	7.44	10.14	-6.96	15.90	7.46	9.72	8.62	8.56	
Difference			-5.10	-5.10	-4.29	-1.47	-14.47	-7.22	-6.61	-5.06	-4.62	
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	2.93	
Difference			1.14	1.14	3.76	-3.58	-5.85	-2.01	-0.76	0.43	1.01	
Mauna Kea (CF)	35,669,357	3.31	2.38	2.38	5.98	-8.45	N/A	N/A	N/A	N/A	-0.99	08/01/2020
HFRI FOF: Strategic Index			1.20	1.20	2.09	-4.85	7.28	2.25	3.87	3.13	2.93	
Difference			1.18	1.18	3.89	-3.60	N/A	N/A	N/A	N/A	-3.92	
Private Equity	123,172,858	11.43	0.78	0.78	-1.50	-1.56	22.23	14.74	13.25	12.22	N/A	10/01/1990
S&P 500 Index+5%			8.82	8.82	14.08	-3.11	24.53	16.75	18.04	17.85	16.08	
Difference			-8.04	-8.04	-15.58	1.55	-2.30	-2.01	-4.79	-5.63	N/A	
Cambridge US Prvt Eq Index			0.00	0.00	1.08	-2.99	23.43	15.49	16.04	14.53	14.73	
Difference			0.78	0.78	-2.58	1.43	-1.20	-0.75	-2.79	-2.31	N/A	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Law Enforcement Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

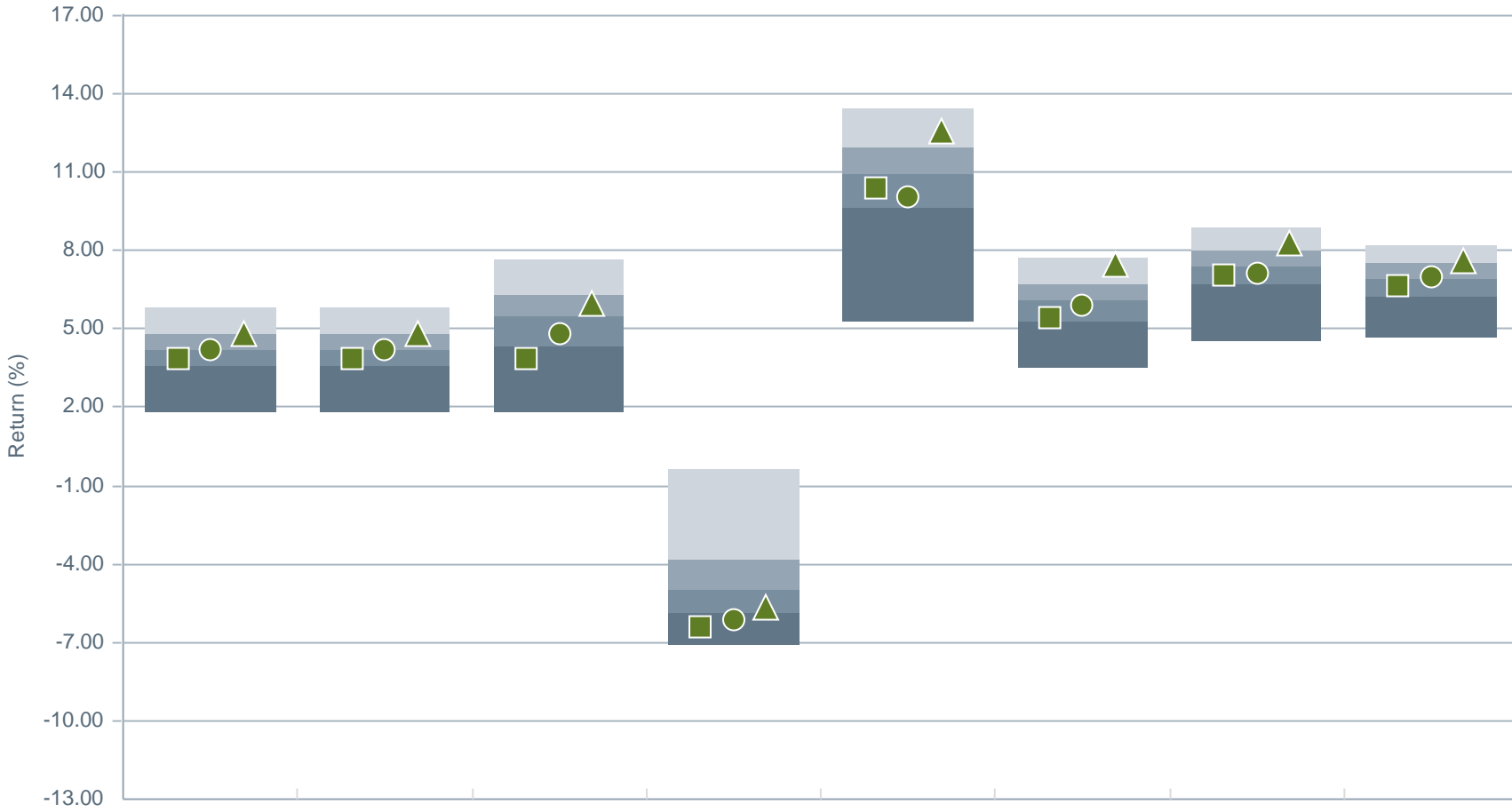
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	215,426,896	19.98	3.35	3.35	0.70	-4.82	-2.45	-0.07	0.87	1.15	5.96	10/01/1990
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	5.15	
Difference			0.39	0.39	0.79	-0.04	0.32	-0.97	-0.01	-0.21	0.81	
IM Global Fixed Income (SA+CF) Median			3.14	3.14	2.71	-5.39	2.10	1.70	2.58	2.14	N/A	
Rank			37	37	80	45	88	69	75	58	N/A	
NTGI Aggregate Index (SA)	53,554,594	4.97	2.93	2.93	-0.04	-4.67	-2.77	0.95	0.91	1.39	3.07	04/01/2004
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.06	
Difference			-0.03	-0.03	0.05	0.11	0.00	0.05	0.03	0.03	0.01	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			3.16	3.16	0.21	-4.67	-1.82	1.34	1.40	1.78	3.50	
Rank			81	81	70	50	92	89	88	88	94	
TCW Core Plus Fixed Income (SA)	107,725,962	9.99	3.55	3.55	0.20	-5.26	-1.41	1.77	1.88	2.21	5.20	12/01/1993
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.45	
Difference			0.59	0.59	0.29	-0.48	1.36	0.87	1.00	0.85	0.75	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	5.30	
Rank			19	19	83	77	78	48	60	52	56	
Loomis Sayles	54,146,341	5.02	3.34	3.34	2.52	-4.24	N/A	N/A	N/A	N/A	-6.45	09/01/2021
Bloomberg US Gov't Crdt Bond Index			3.17	3.17	0.23	-4.81	-2.63	1.16	1.10	1.50	-7.51	
Difference			0.17	0.17	2.29	0.57	N/A	N/A	N/A	N/A	1.06	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			3.21	3.21	1.02	-4.67	-0.38	1.74	2.01	2.23	-6.97	
Rank			40	40	16	33	N/A	N/A	N/A	N/A	34	
Real Assets	136,932,692	12.70	-3.20	-3.20	-7.40	-4.03	6.81	5.56	6.18	6.55	6.97	06/01/1999
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	8.37	
Difference			-0.03	-0.03	0.10	-0.94	-1.59	-1.95	-1.53	-2.90	-1.40	
Core Real Estate												
JPMCB Strategic Property (CF)	105,394,827	9.78	-2.99	-2.99	-8.99	-4.70	7.03	6.57	6.96	8.89	9.24	04/01/2012
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	8.54	
Difference			-1.18	-1.18	-4.28	-3.07	-0.12	-0.14	0.11	0.55	0.70	
UBS Trumbull Property (SA)	17,888,222	1.66	-5.20	-5.20	-5.19	-5.19	4.18	3.14	4.13	6.38	6.39	01/01/2013
NCREIF Property Index			-1.81	-1.81	-4.71	-1.63	7.15	6.71	6.85	8.34	8.40	
Difference			-3.39	-3.39	-0.48	-3.56	-2.97	-3.57	-2.72	-1.96	-2.01	
Colcord Center (CF)	4,800,000	0.45	-3.09	-3.09	2.87	-1.00	4.60	4.89	4.79	5.63	5.03	05/01/2008
Value Add Real Estate	8,849,643	0.82	-1.51	-1.51	6.47	6.47	N/A	N/A	N/A	N/A	16.67	03/01/2022
NCREIF ODCE Index (AWA) (Gross)			-3.17	-3.17	-7.50	-3.09	8.40	7.51	7.71	9.45	3.74	
Difference			1.66	1.66	13.97	9.56	N/A	N/A	N/A	N/A	12.93	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



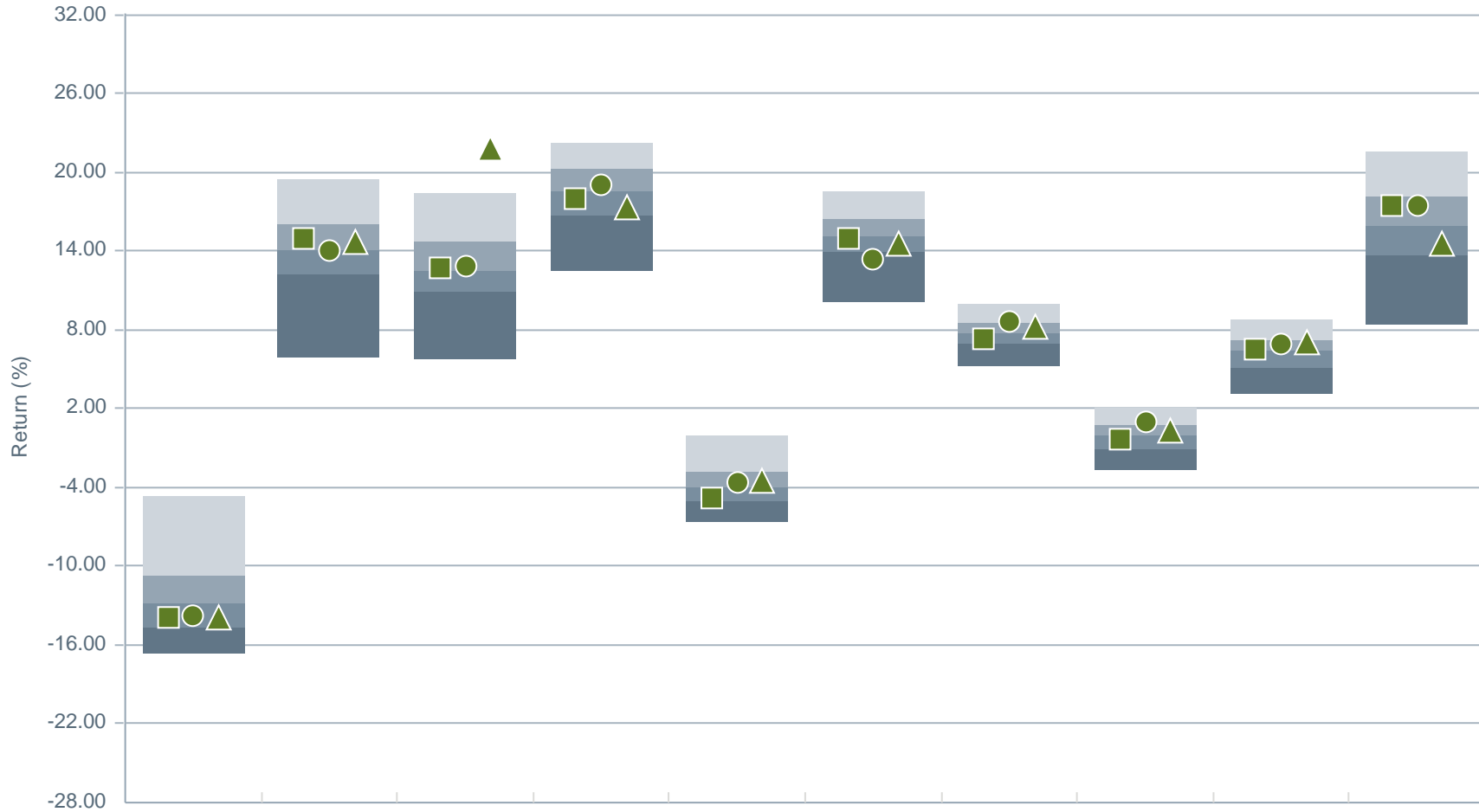
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OLERS Total Fund	3.84 (68)	3.84 (68)	3.88 (82)	-6.38 (86)	10.41 (61)	5.41 (72)	7.10 (62)	6.68 (61)
● OLERS Policy Index	4.24 (47)	4.24 (47)	4.83 (68)	-6.14 (81)	10.05 (68)	5.92 (59)	7.14 (61)	6.98 (48)
▲ OLERS Allocation Index	4.85 (25)	4.85 (25)	6.00 (34)	-5.68 (71)	12.56 (13)	7.48 (8)	8.30 (17)	7.64 (22)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

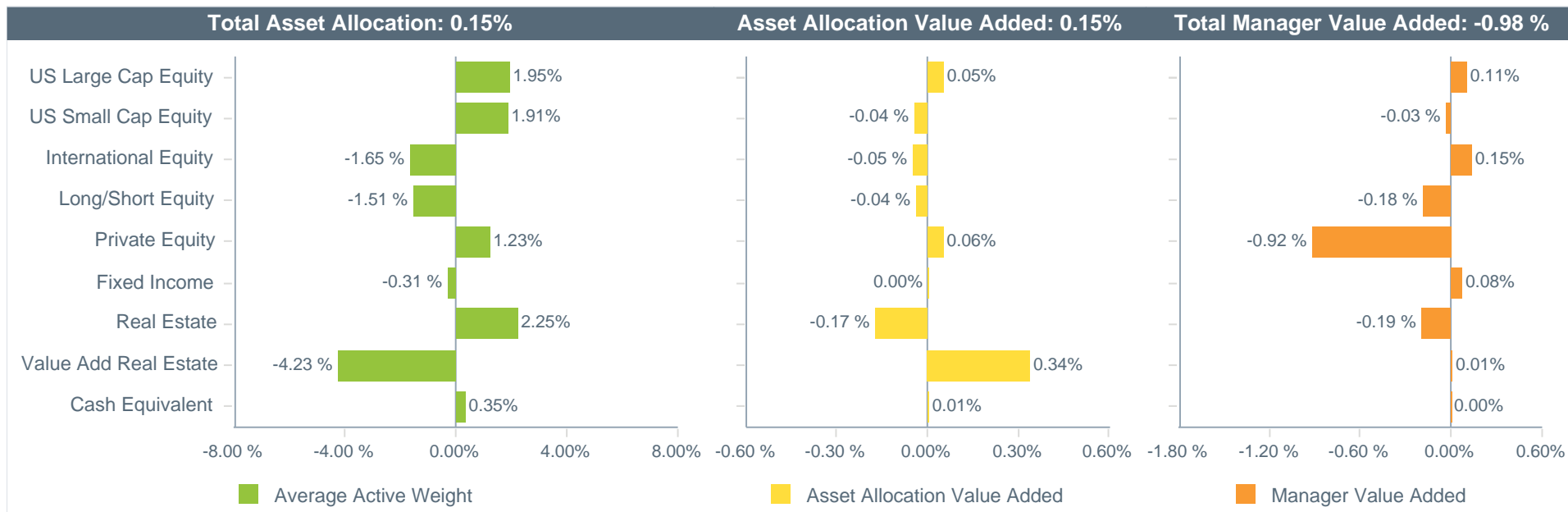
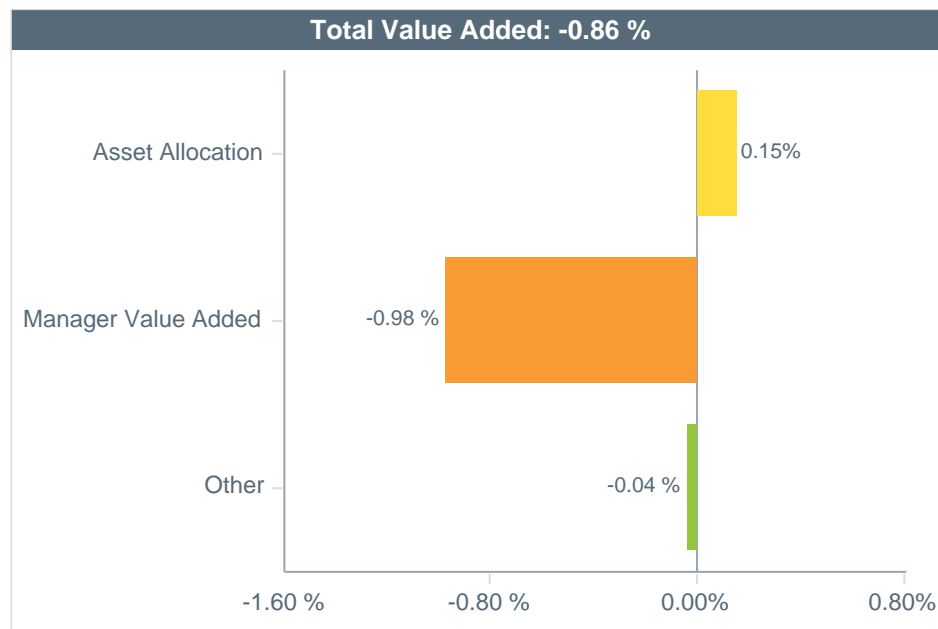
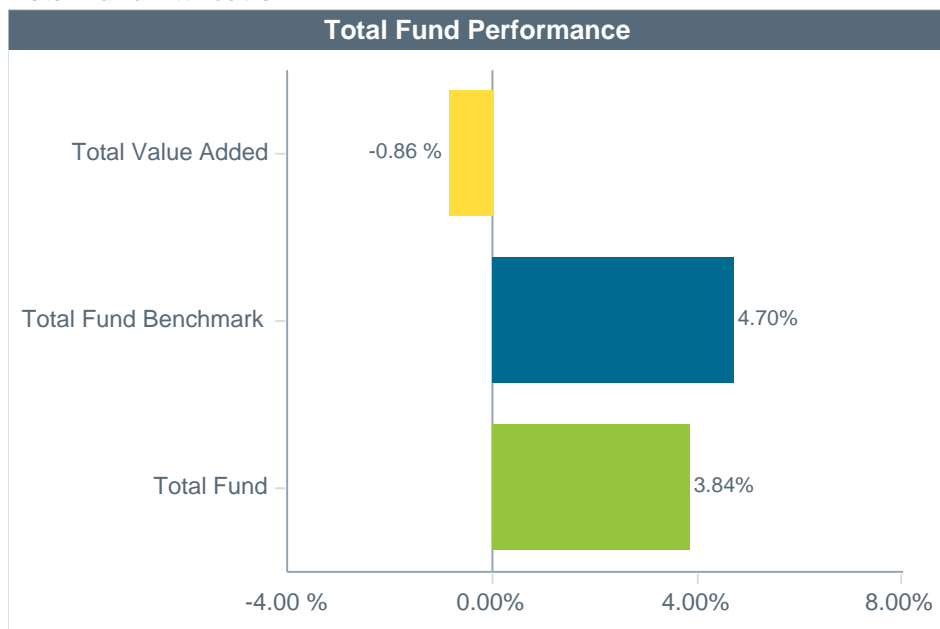
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OLERS Total Fund	-13.87 (65)	15.04 (35)	12.80 (47)	18.07 (57)	-4.76 (67)	15.00 (53)	7.38 (61)	-0.25 (54)	6.51 (47)	17.46 (33)
● OLERS Policy Index	-13.75 (63)	14.02 (50)	12.84 (47)	19.12 (42)	-3.67 (43)	13.36 (83)	8.64 (23)	1.00 (18)	7.01 (31)	17.53 (32)
▲ OLERS Allocation Index	-13.91 (65)	14.75 (38)	21.88 (1)	17.33 (67)	-3.47 (38)	14.63 (61)	8.27 (33)	0.33 (37)	7.07 (30)	14.59 (65)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

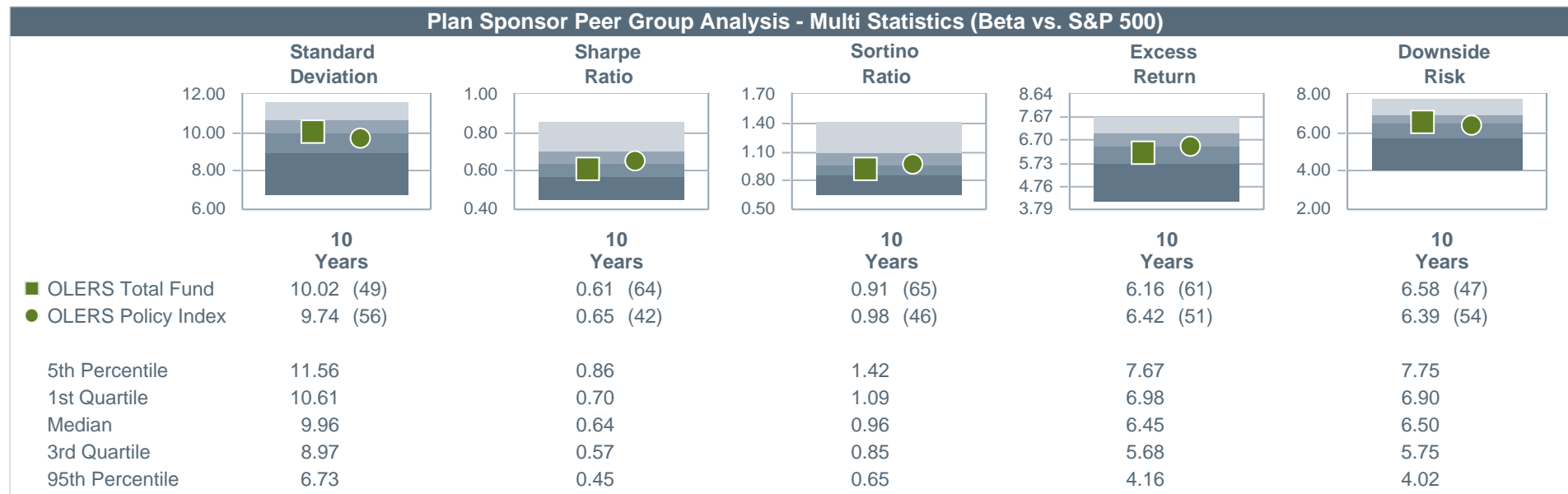
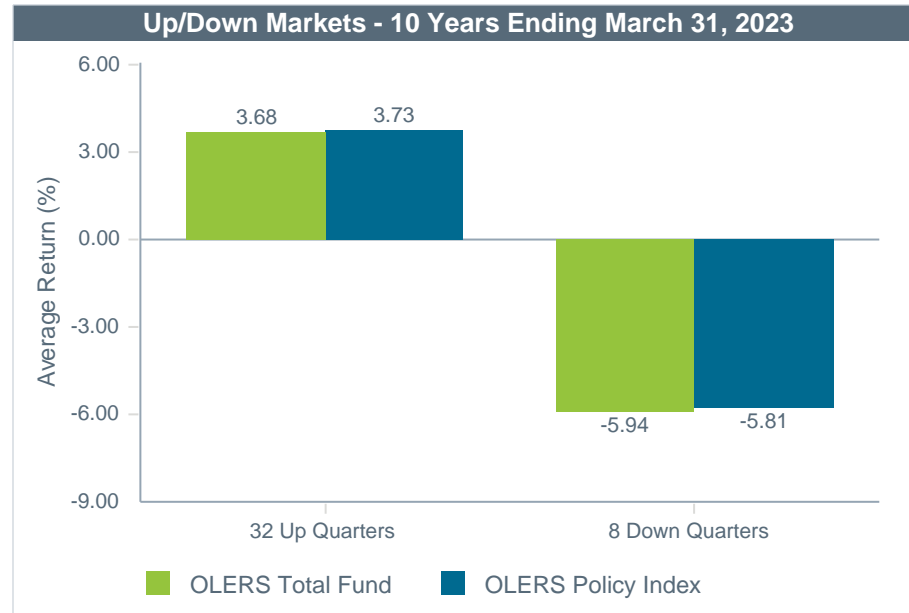
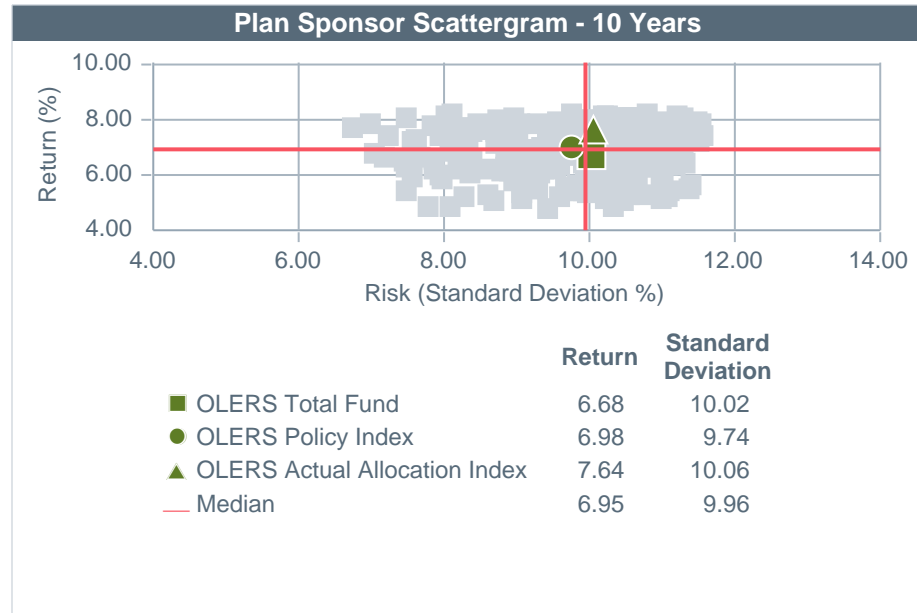
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



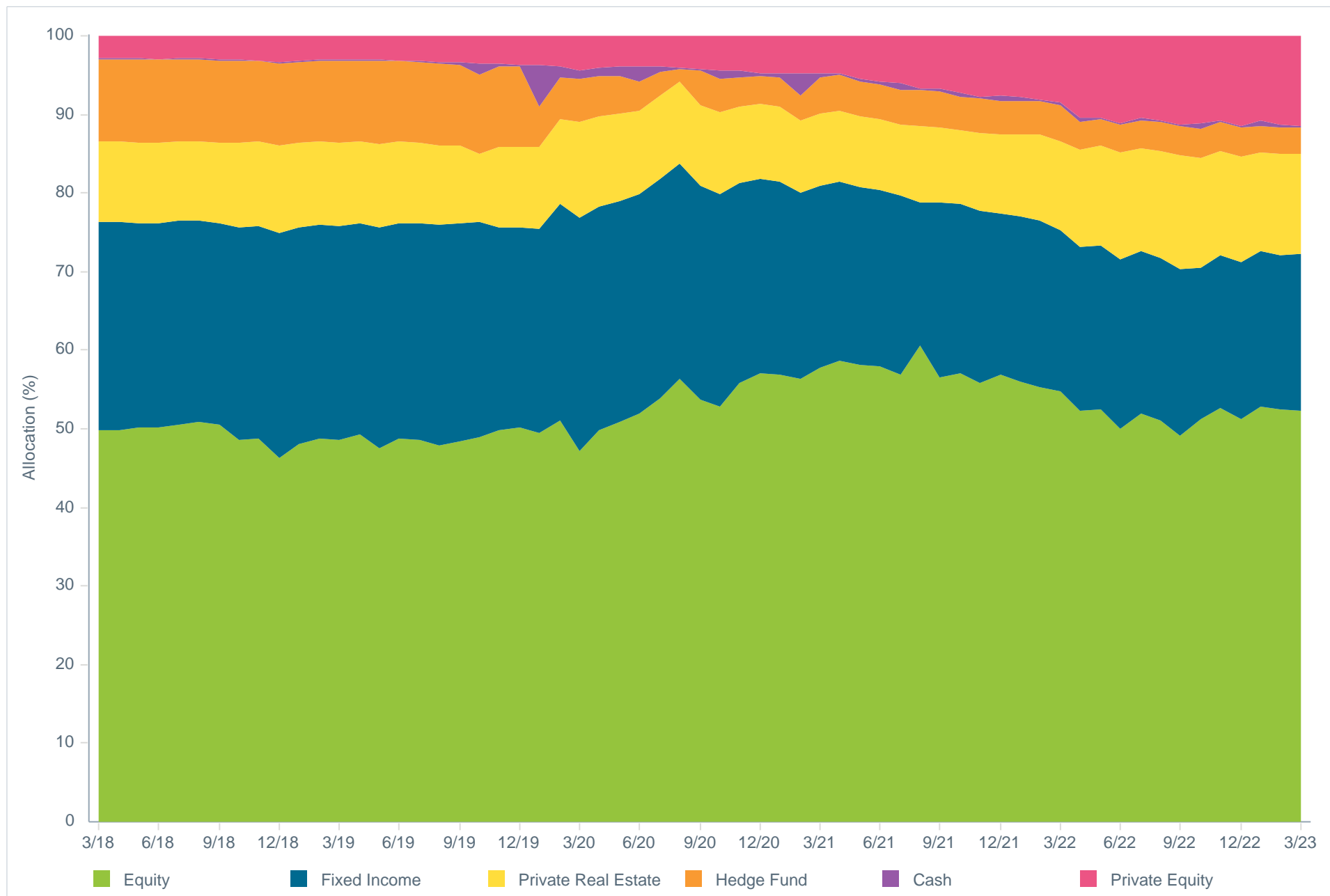


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Uniform Retirement System for Justices & Judges (URSJJ)

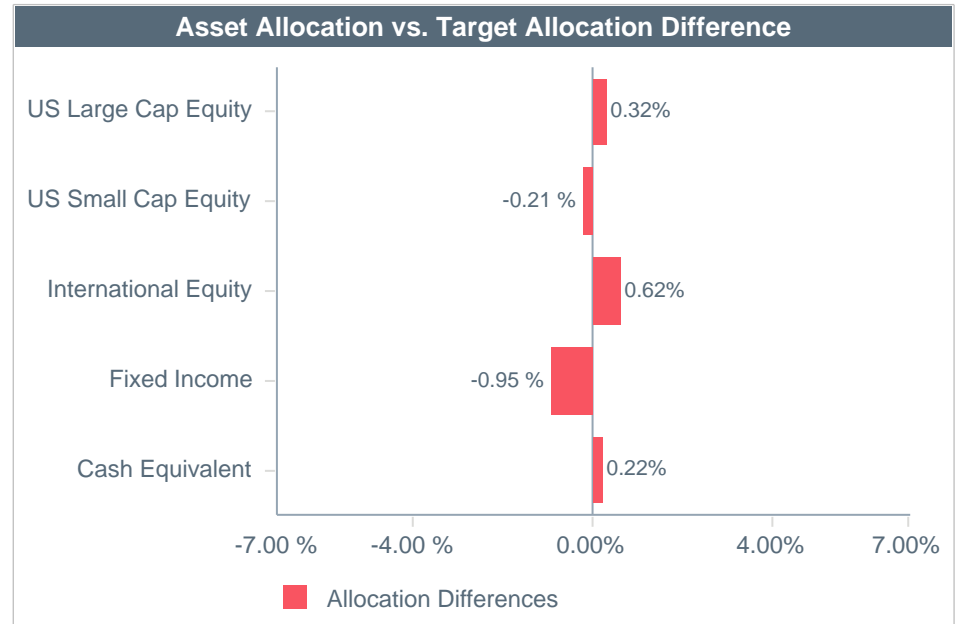


Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges
 Total Fund Summary

As of March 31, 2023

	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
URSJJ Total Fund (Net)	5.81	5.81	6.60	-6.84	9.61	5.40	6.95	6.60	-16.95	12.08	15.06	21.36	-6.43
URSJJ Policy Index	5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	-16.62	11.54	15.19	21.51	-6.09
Difference	0.01	0.01	-0.04	-0.30	-0.12	-0.09	-0.07	-0.04	-0.33	0.54	-0.13	-0.15	-0.34
URSJJ Actual Allocation Index	5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	-16.86	12.10	18.70	21.01	-6.52
Difference	0.06	0.06	0.15	-0.01	0.11	-0.59	-0.38	-0.22	-0.09	-0.02	-3.64	0.35	0.09
Actuarial Discount Rate (6.5%)	1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference	4.22	4.22	1.76	-13.34	3.11	-1.10	0.45	0.10	-23.45	5.58	8.56	14.86	-12.93
URSJJ Total Fund (Gross)	5.83	5.83	6.62	-6.81	9.65	5.44	6.99	6.65	-16.93	12.12	15.10	21.40	-6.38
URSJJ Policy Index	5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	-16.62	11.54	15.19	21.51	-6.09
Difference	0.03	0.03	-0.02	-0.27	-0.08	-0.05	-0.03	0.01	-0.31	0.58	-0.09	-0.11	-0.29
URSJJ Actual Allocation Index	5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	-16.86	12.10	18.70	21.01	-6.52
Difference	0.08	0.08	0.17	0.02	0.15	-0.55	-0.34	-0.17	-0.07	0.02	-3.60	0.39	0.14
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	6	6	17	92	76	71	66	63	97	77	22	11	93

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
URSJJ (Judges)	369,717,606	100.00	100.00
US Large Cap Equity	126,902,822	34.32	34.00
US Small Cap Equity	21,390,853	5.79	6.00
International Equity	105,827,152	28.62	28.00
Fixed Income	114,800,077	31.05	32.00
Cash Equivalent	796,702	0.22	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Uniform Retirement System for Justices & Judges
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	369,717,606	100.00	5.81	5.81	6.60	-6.84	9.61	5.40	6.95	6.60	N/A	06/01/1986
URSJJ Policy Index			5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	8.44	
Difference			0.01	0.01	-0.04	-0.30	-0.12	-0.09	-0.07	-0.04	N/A	
URSJJ Actual Allocation Index			5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	8.01	
Difference			0.06	0.06	0.15	-0.01	0.11	-0.59	-0.38	-0.22	N/A	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			4.22	4.22	1.76	-13.34	3.11	-1.10	0.45	0.10	N/A	
US Equity	148,293,676	40.11	6.75	6.75	9.51	-8.84	18.47	9.95	11.69	11.45	N/A	10/01/1989
URSJJ US Equity Custom Index			6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	N/A	
Difference			-0.04	-0.04	0.00	-0.01	-0.01	-0.05	-0.03	-0.03	N/A	
BlackRock Russell 1000 Index (CF)	126,902,822	34.32	7.43	7.43	9.95	-8.38	18.57	10.88	12.24	12.03	13.11	07/01/2009
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	13.68	
Difference			-0.03	-0.03	0.02	0.01	0.02	0.01	0.01	0.02	-0.57	
BlackRock Russell 2000 Index (CF)	21,390,853	5.79	2.84	2.84	6.90	-11.46	17.66	4.83	8.71	8.22	11.29	07/01/2009
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	11.13	
Difference			0.10	0.10	0.15	0.15	0.15	0.12	0.16	0.18	0.16	
International Equity	105,827,152	28.62	6.97	6.97	10.21	-4.73	12.09	2.77	6.14	4.43	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.37	
Difference			-0.03	-0.03	-0.17	-0.17	-0.23	-0.20	-0.23	-0.22	N/A	
BlackRock MSCI ACWI Ex US (CF)	105,827,152	28.62	6.97	6.97	10.21	-4.73	12.09	2.77	6.14	4.43	4.81	10/01/2009
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	4.94	
Difference			-0.03	-0.03	-0.17	-0.17	-0.23	-0.20	-0.23	-0.22	-0.13	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Uniform Retirement System for Justices & Judges
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	114,800,077	31.05	3.60	3.60	-0.14	-6.19	-2.87	1.45	1.31	1.74	N/A	10/01/1989
URSJJ Fixed Income Custom Index			3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	N/A	
Difference			0.12	0.12	0.58	0.16	0.41	0.44	0.38	0.31	N/A	
BlackRock US Fixed Income (SA)	56,712,246	15.34	3.12	3.12	0.42	-4.56	-2.14	1.24	1.18	1.64	N/A	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.16	0.16	0.51	0.22	0.63	0.34	0.30	0.28	N/A	
MetWest US Fixed Income (SA)	34,367,219	9.30	3.54	3.54	0.41	-4.86	-1.80	1.59	1.52	1.81	N/A	09/01/2001
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.53	
Difference			0.58	0.58	0.50	-0.08	0.97	0.69	0.64	0.45	N/A	
Hoisington US Long Duration Fixed Income (SA)	10,253,333	2.77	6.66	6.66	-5.07	-17.92	-13.15	-0.45	-0.62	1.59	N/A	10/01/1991
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.83	
Difference			3.70	3.70	-4.98	-13.14	-10.38	-1.35	-1.50	0.23	N/A	
BlackRock TIPS (CF)	13,467,279	3.64	3.53	3.53	0.06	-6.04	1.86	3.03	2.56	1.59	3.11	03/01/2010
Bloomberg US Trsy US TIPS Index			3.34	3.34	0.02	-6.06	1.75	2.94	2.44	1.49	3.07	
Difference			0.19	0.19	0.04	0.02	0.11	0.09	0.12	0.10	0.04	

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Oklahoma State Pension Commission
Uniform Retirement System for Justices & Judges
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	369,717,606	100.00	5.83	5.83	6.62	-6.81	9.65	5.44	6.99	6.65	8.15	06/01/1986
URSJJ Policy Index			5.80	5.80	6.64	-6.54	9.73	5.49	7.02	6.64	8.44	
Difference			0.03	0.03	-0.02	-0.27	-0.08	-0.05	-0.03	0.01	-0.29	
URSJJ Actual Allocation Index			5.75	5.75	6.45	-6.83	9.50	5.99	7.33	6.82	8.01	
Difference			0.08	0.08	0.17	0.02	0.15	-0.55	-0.34	-0.17	0.14	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			4.12	4.12	1.41	-13.81	2.65	-1.56	-0.01	-0.35	1.15	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	8.14	
Rank			6	6	17	92	76	71	66	63	50	
US Equity	148,293,676	40.11	6.75	6.75	9.51	-8.83	18.48	9.96	11.70	11.46	9.50	10/01/1989
URSJJ US Equity Custom Index			6.79	6.79	9.51	-8.83	18.48	10.00	11.72	11.48	N/A	
Difference			-0.04	-0.04	0.00	0.00	0.00	-0.04	-0.02	-0.02	N/A	
All Public Plans-US Equity Segment Median			6.85	6.85	9.40	-7.89	18.39	9.46	11.32	10.97	N/A	
Rank			52	52	47	73	47	35	35	30	N/A	
BlackRock Russell 1000 Index (CF)	126,902,822	34.32	7.43	7.43	9.96	-8.38	18.58	10.89	12.25	12.04	13.11	07/01/2009
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	13.68	
Difference			-0.03	-0.03	0.03	0.01	0.03	0.02	0.02	0.03	-0.57	
IM U.S. Large Cap Core Equity (SA+CF) Median			6.36	6.36	9.48	-6.82	18.43	10.39	12.15	12.11	13.62	
Rank			28	28	39	77	45	42	47	54	74	
BlackRock Russell 2000 Index (CF)	21,390,853	5.79	2.84	2.84	6.91	-11.45	17.67	4.85	8.74	8.25	11.32	07/01/2009
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	11.13	
Difference			0.10	0.10	0.16	0.16	0.16	0.14	0.19	0.21	0.19	
IM U.S. Small Cap Core Equity (SA+CF) Median			3.76	3.76	9.72	-7.40	22.00	7.90	10.72	10.43	13.31	
Rank			71	71	79	86	92	90	88	94	98	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Uniform Retirement System for Justices & Judges
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	105,827,152	28.62	6.99	6.99	10.22	-4.70	12.11	2.80	6.17	4.46	5.38	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.37	
Difference			-0.01	-0.01	-0.16	-0.14	-0.21	-0.17	-0.20	-0.19	0.01	
All Public Plans-Intl. Equity Segment Median			7.61	7.61	11.32	-4.60	13.28	3.83	7.03	5.57	N/A	
Rank			67	67	64	57	77	73	82	96	N/A	
BlackRock MSCI ACWI Ex US (CF)	105,827,152	28.62	6.99	6.99	10.22	-4.70	12.11	2.80	6.17	4.46	4.88	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			7.00	7.00	10.38	-4.56	12.32	2.97	6.37	4.65	5.07	
Difference			-0.01	-0.01	-0.16	-0.14	-0.21	-0.17	-0.20	-0.19	-0.19	
IM All ACWI Ex US (SA+CF) Median			8.71	8.71	13.37	-3.13	12.96	3.90	6.92	5.99	6.59	
Rank			80	80	85	70	74	77	70	90	93	
Fixed Income	114,800,077	31.05	3.63	3.63	-0.09	-6.12	-2.78	1.54	1.39	1.83	5.89	10/01/1989
URSJJ Fixed Income Custom Index			3.48	3.48	-0.72	-6.35	-3.28	1.01	0.93	1.43	N/A	
Difference			0.15	0.15	0.63	0.23	0.50	0.53	0.46	0.40	N/A	
BlackRock US Fixed Income (SA)	56,712,246	15.34	3.17	3.17	0.49	-4.48	-2.06	1.32	1.26	1.72	4.34	06/01/2000
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.07	
Difference			0.21	0.21	0.58	0.30	0.71	0.42	0.38	0.36	0.27	
IM U.S. Broad Market Fixed Income (SA+CF) Median			3.17	3.17	0.52	-4.63	-1.25	1.49	1.63	1.96	4.70	
Rank			51	51	52	39	82	68	81	77	78	
MetWest US Fixed Income (SA)	34,367,219	9.30	3.55	3.55	0.45	-4.81	-1.68	1.70	1.61	1.92	4.48	09/01/2001
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.53	
Difference			0.59	0.59	0.54	-0.03	1.09	0.80	0.73	0.56	0.95	
IM U.S. Broad Market Fixed Income (SA+CF) Median			3.17	3.17	0.52	-4.63	-1.25	1.49	1.63	1.96	4.19	
Rank			15	15	53	68	64	38	52	55	27	
Hoisington US Long Duration Fixed Income (SA)	10,253,333	2.77	6.70	6.70	-4.97	-17.80	-13.03	-0.31	-0.49	1.74	6.86	10/01/1991
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	4.83	
Difference			3.74	3.74	-4.88	-13.02	-10.26	-1.21	-1.37	0.38	2.03	
IM U.S. Long Duration (SA+CF) Median			5.80	5.80	-0.60	-12.99	-4.85	1.36	2.07	2.88	N/A	
Rank			3	3	100	100	100	100	100	100	N/A	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges
 Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

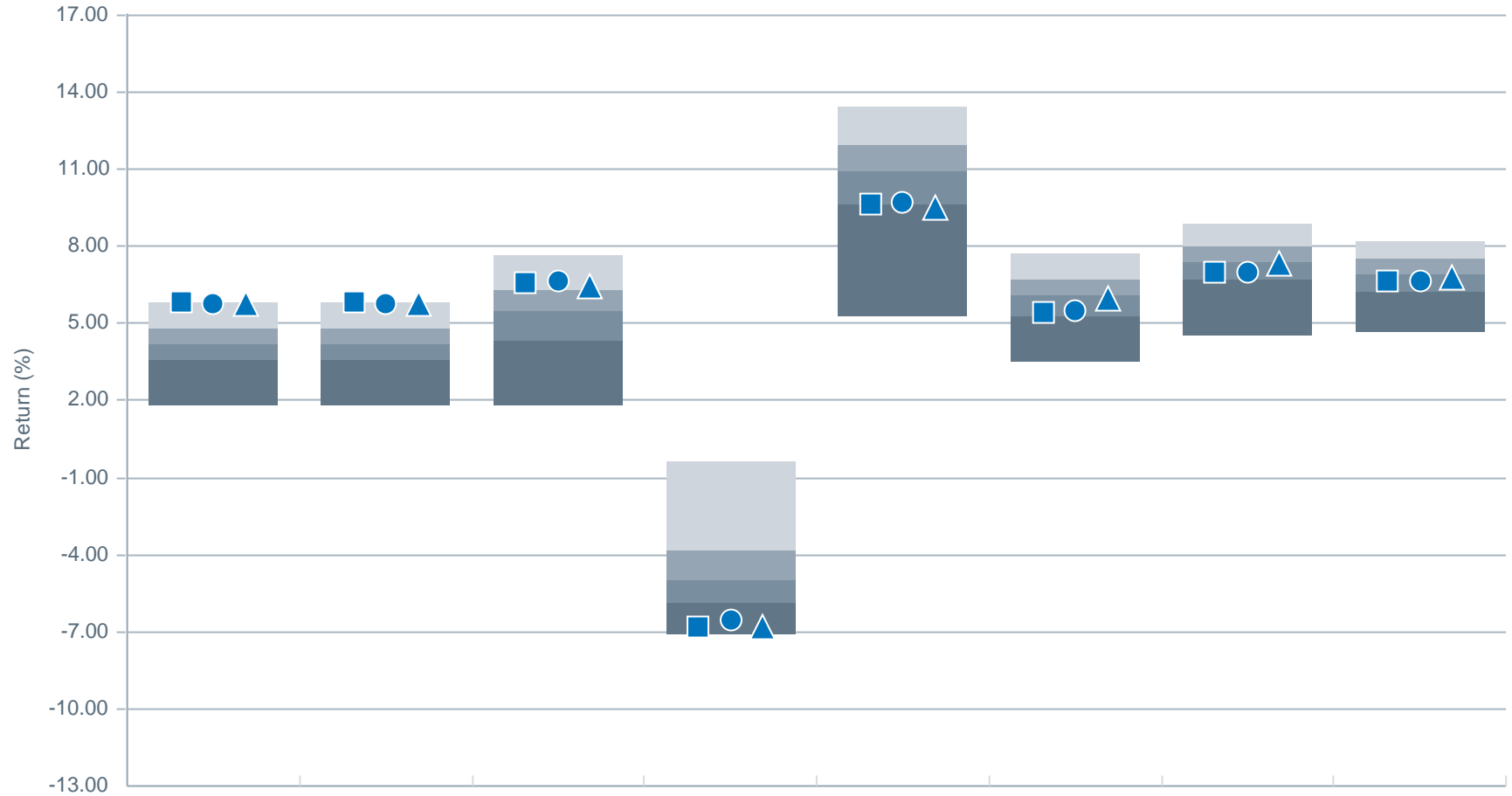
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock TIPS (CF)	13,467,279	3.64	3.54	3.54	0.07	-6.03	1.87	3.04	2.57	1.60	3.12	03/01/2010
Bloomberg US Trsy US TIPS Index			3.34	3.34	0.02	-6.06	1.75	2.94	2.44	1.49	3.07	
Difference			0.20	0.20	0.05	0.03	0.12	0.10	0.13	0.11	0.05	
IM U.S. TIPS (SA+CF) Median			3.41	3.41	0.22	-5.97	2.01	3.04	2.57	1.60	3.12	
Rank			23	23	71	52	58	50	50	48	49	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



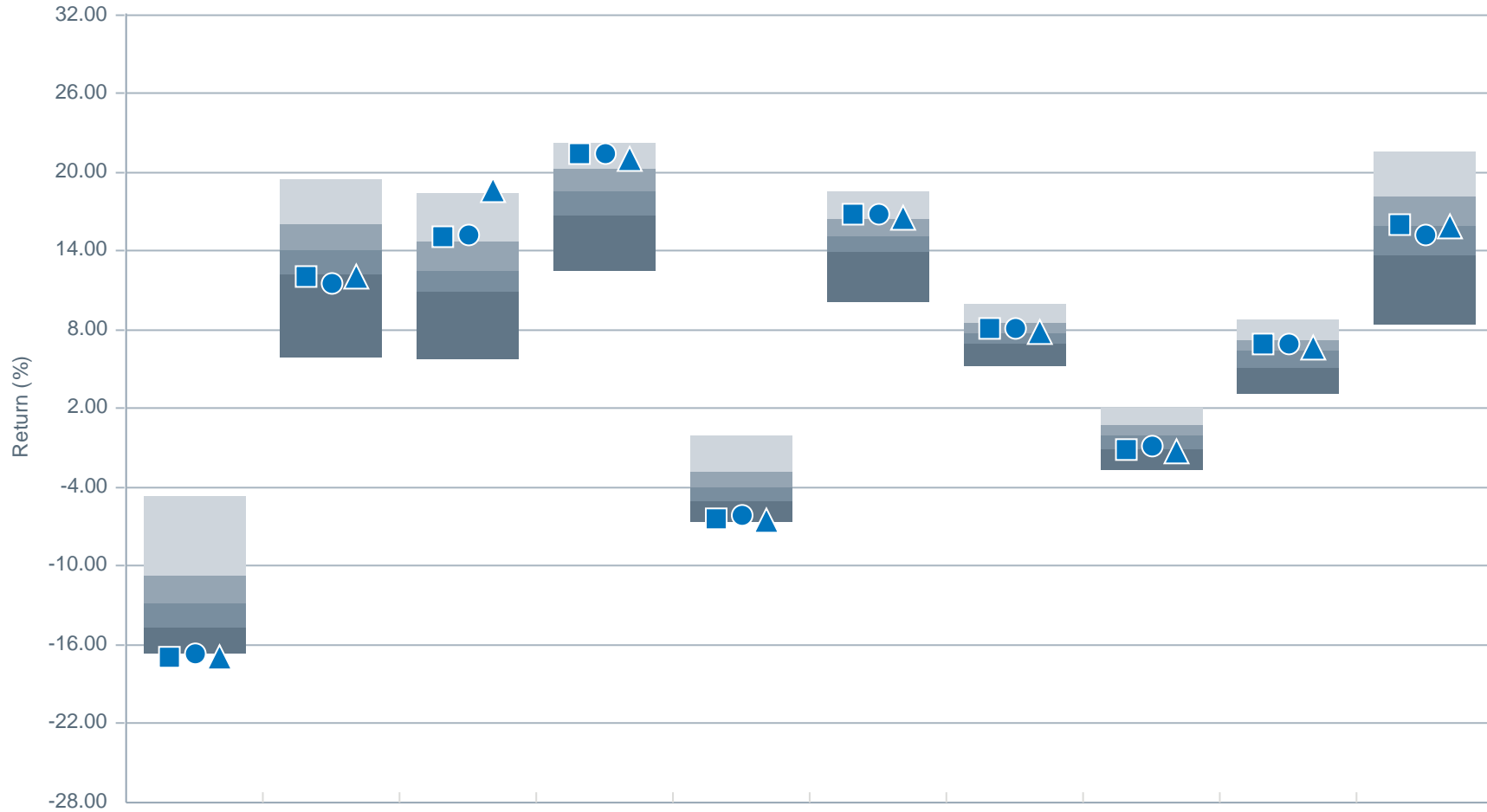
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ URSJJ Total Fund	5.83 (6)	5.83 (6)	6.62 (17)	-6.81 (92)	9.65 (76)	5.44 (71)	6.99 (66)	6.65 (63)
● URSJJ Policy Index	5.80 (6)	5.80 (6)	6.64 (17)	-6.54 (90)	9.73 (74)	5.49 (70)	7.02 (65)	6.64 (64)
▲ URSJJ Allocation Index	5.75 (6)	5.75 (6)	6.45 (22)	-6.83 (92)	9.50 (78)	5.99 (55)	7.33 (54)	6.82 (56)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

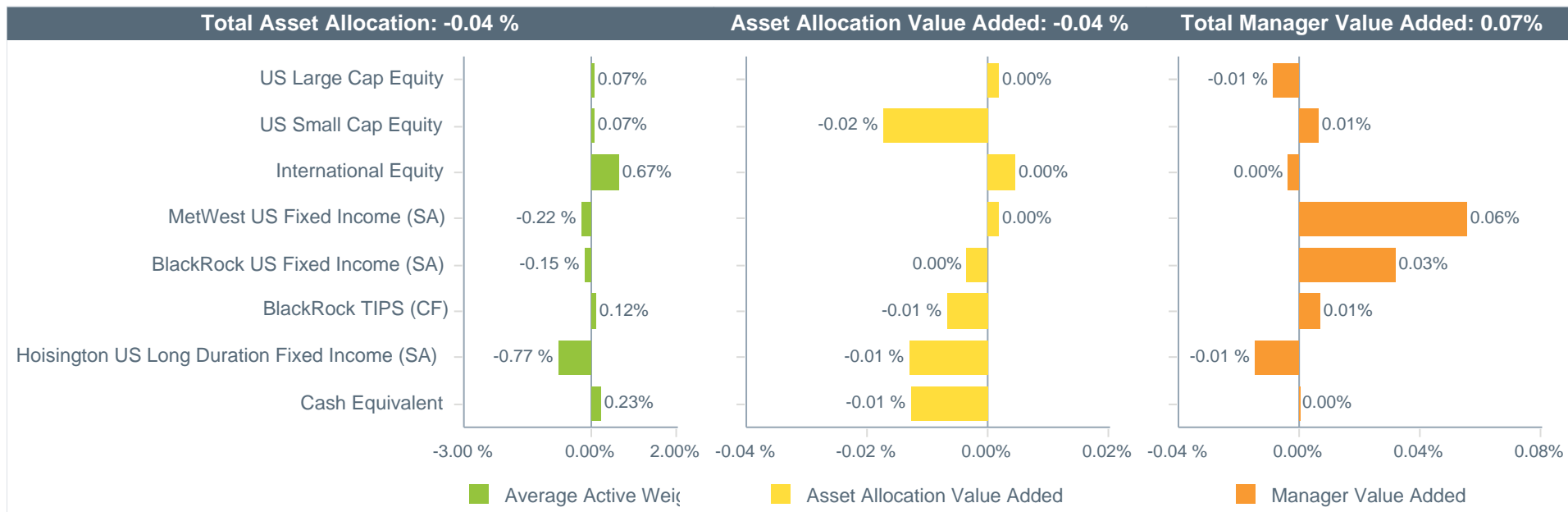
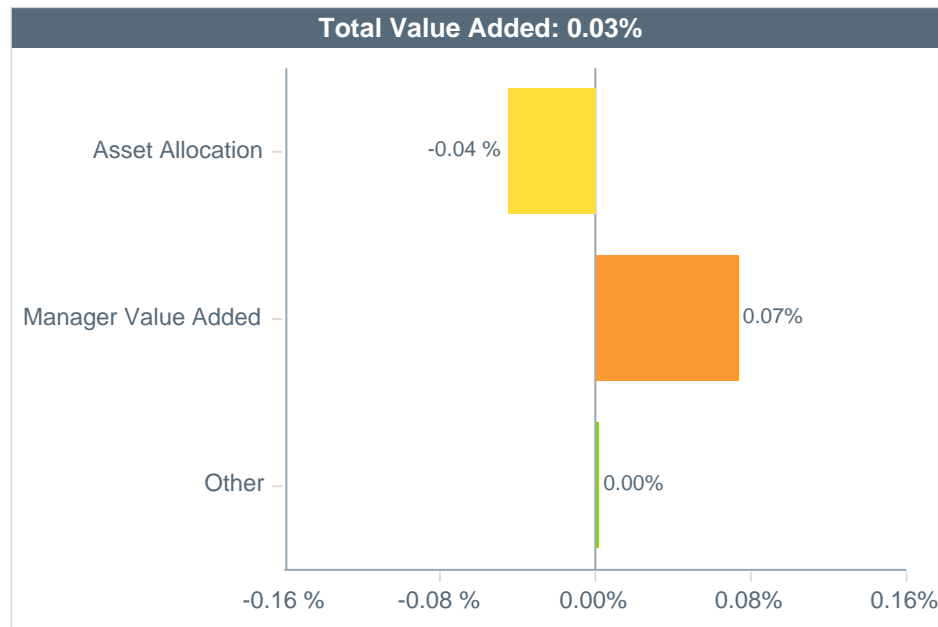
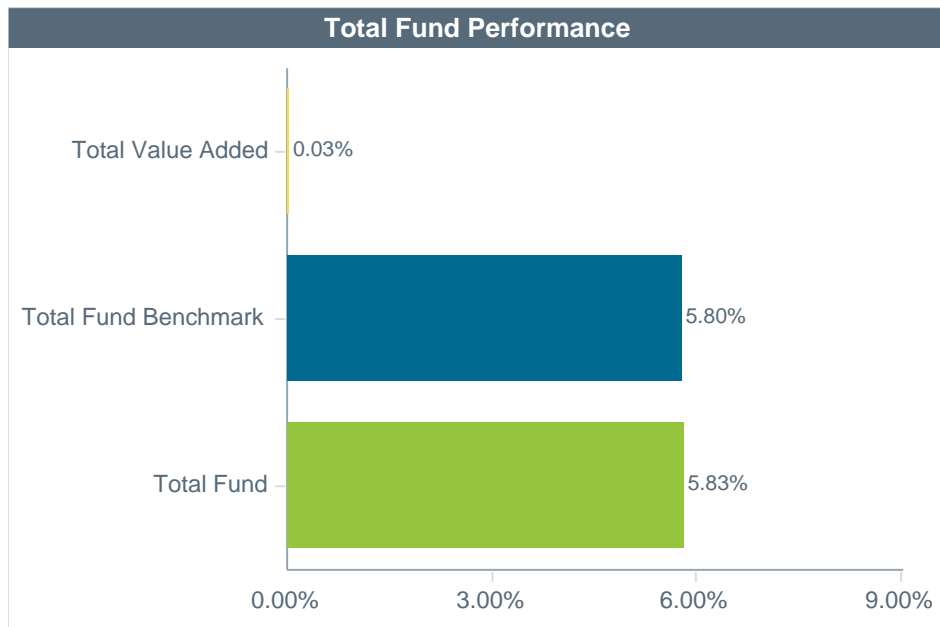
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ URSJJ Total Fund	-16.93 (97)	12.12 (77)	15.10 (22)	21.40 (11)	-6.38 (93)	16.89 (18)	8.09 (39)	-1.07 (74)	7.00 (32)	16.01 (49)
● URSJJ Policy Index	-16.62 (95)	11.54 (82)	15.19 (21)	21.51 (11)	-6.09 (91)	16.86 (18)	8.12 (38)	-0.89 (71)	7.00 (32)	15.27 (58)
▲ URSJJ Allocation Index	-16.86 (96)	12.10 (78)	18.70 (4)	21.01 (16)	-6.52 (94)	16.63 (22)	7.90 (46)	-1.19 (76)	6.67 (42)	15.87 (51)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

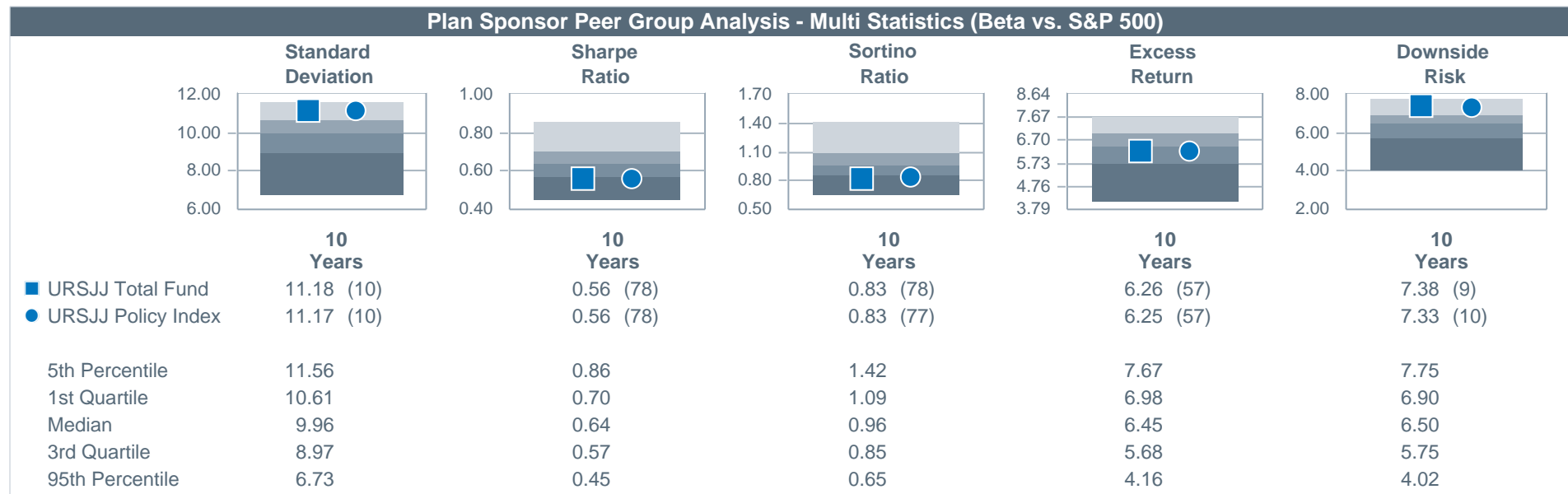
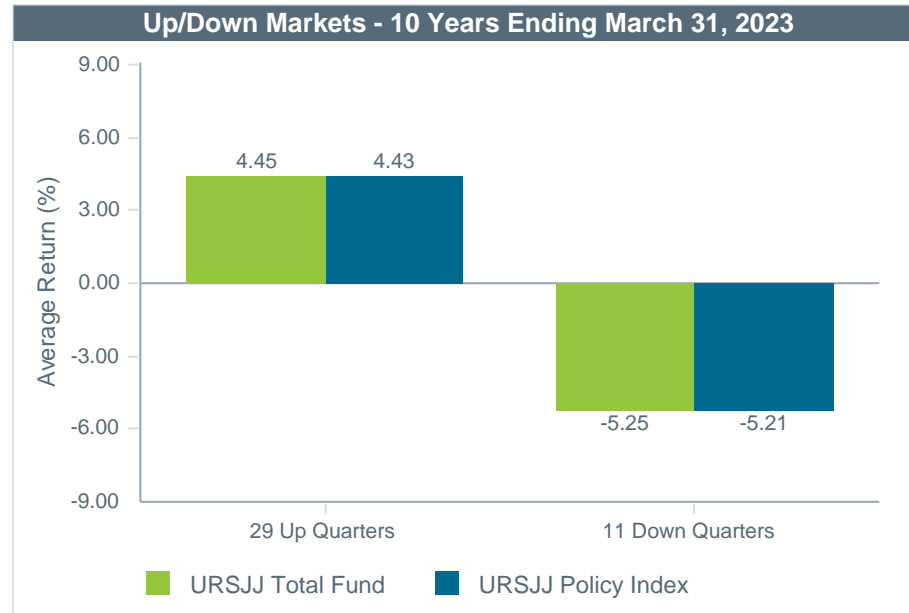
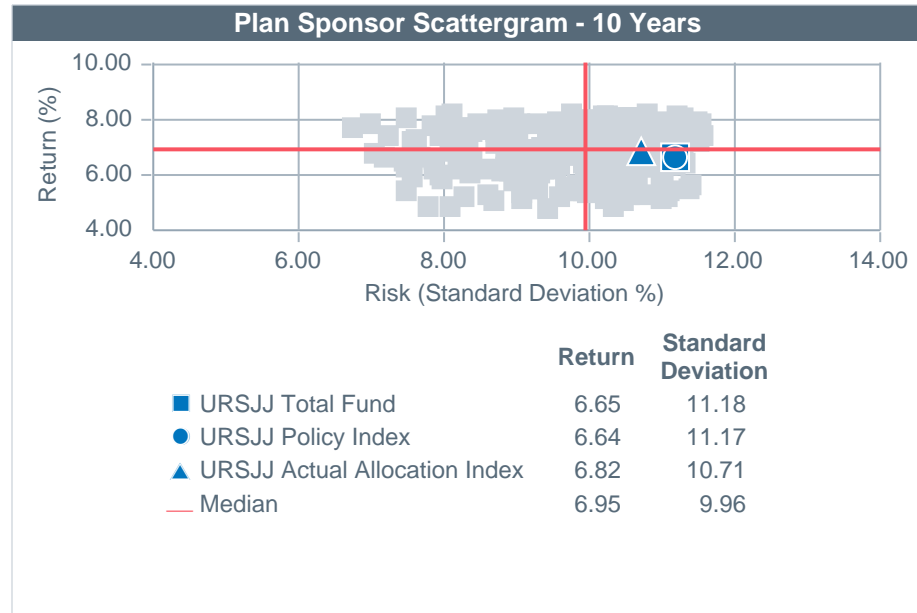
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



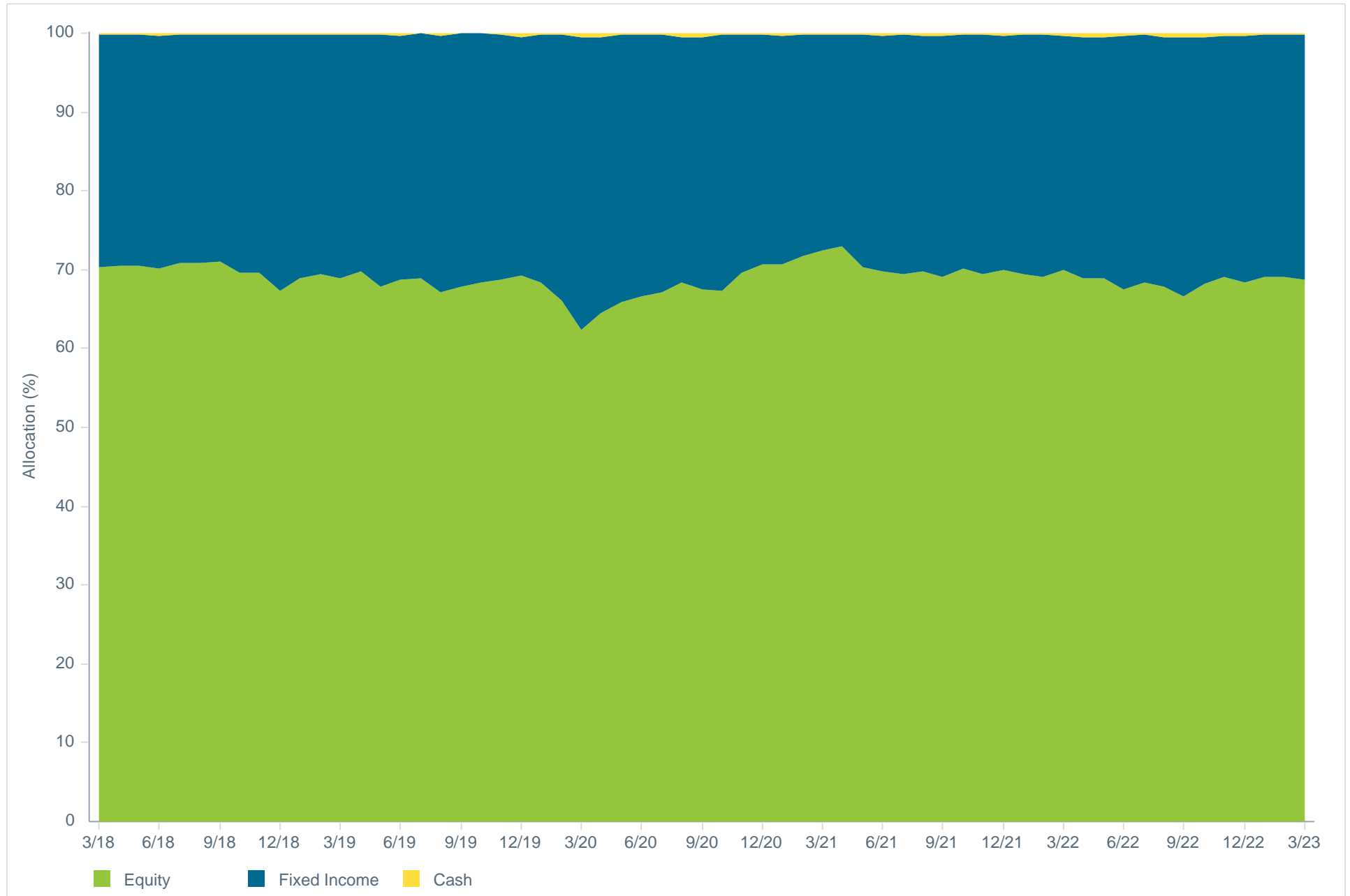


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma Wildlife Conservation Retirement System (OWCRS)

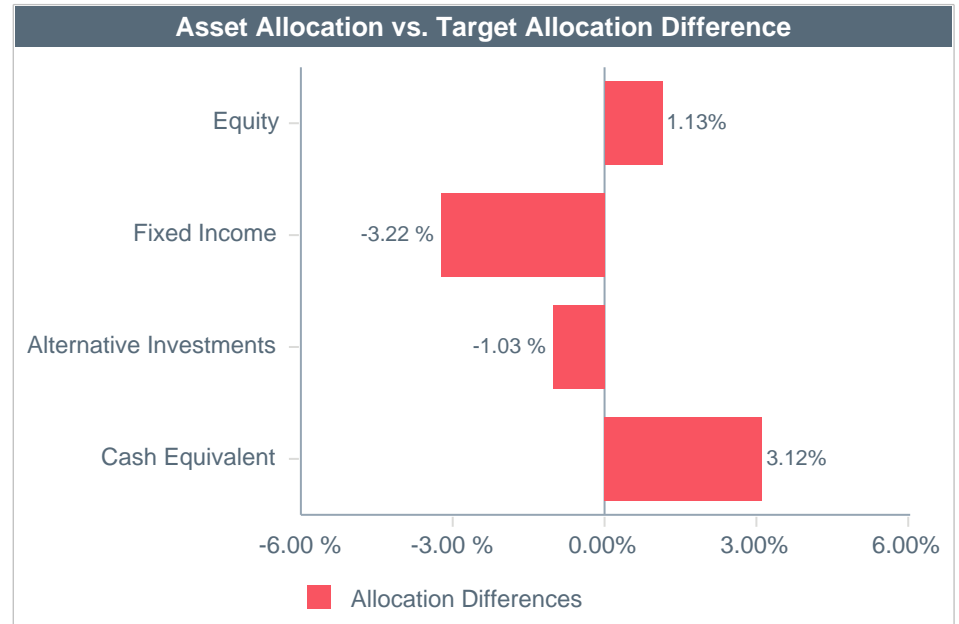


Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Total Fund Summary

As of March 31, 2023

	Performance (%)												
	Trailing							Calendar Year					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OWCRS Total Fund (Net)	6.88	6.88	8.10	-3.97	9.64	5.78	6.79	6.52	-14.41	11.58	13.00	19.21	-3.85
OWCRS Policy Index	5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	-15.39	10.17	12.67	17.53	-4.95
Difference	1.45	1.45	1.28	1.99	1.23	1.24	1.11	0.99	0.98	1.41	0.33	1.68	1.10
OWCRS Actual Allocation Index	5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	-15.18	10.28	13.21	20.53	-3.71
Difference	1.53	1.53	1.83	1.94	0.77	0.29	0.10	0.04	0.77	1.30	-0.21	-1.32	-0.14
Actuarial Discount Rate (7.0%)	1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	5.17	5.17	2.89	-10.97	2.64	-1.22	-0.21	-0.48	-21.41	4.58	6.00	12.21	-10.85
OWCRS Total Fund (Gross)	6.97	6.97	8.36	-3.65	10.00	6.07	7.05	6.76	-14.14	11.95	13.34	19.46	-3.68
OWCRS Policy Index	5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	-15.39	10.17	12.67	17.53	-4.95
Difference	1.54	1.54	1.54	2.31	1.59	1.53	1.37	1.23	1.25	1.78	0.67	1.93	1.27
OWCRS Actual Allocation Index	5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	-15.18	10.28	13.21	20.53	-3.71
Difference	1.62	1.62	2.09	2.26	1.13	0.58	0.36	0.28	1.04	1.67	0.13	-1.07	0.03
All Public Plans-Total Fund Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	-12.77	14.01	12.54	18.57	-4.02
Rank	1	1	3	23	69	52	64	59	68	79	39	37	44

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OWCRS (Wildlife)	124,102,385	100.00	100.00
Equity	82,073,646	66.13	65.00
Fixed Income	27,031,126	21.78	25.00
Alternative Investments	11,129,986	8.97	10.00
Cash Equivalent	3,867,627	3.12	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	124,102,385	100.00	6.88	6.88	8.10	-3.97	9.64	5.78	6.79	6.52	5.69	01/01/2006
OWCRS Policy Index			5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	5.69	
Difference			1.45	1.45	1.28	1.99	1.23	1.24	1.11	0.99	0.00	
OWCRS Actual Allocation Index			5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	6.03	
Difference			1.53	1.53	1.83	1.94	0.77	0.29	0.10	0.04	-0.34	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			5.17	5.17	2.89	-10.97	2.64	-1.22	-0.21	-0.48	-1.31	
Equity	82,073,646	66.13	8.82	8.82	11.73	-4.62	17.38	8.25	10.66	10.48	8.22	01/01/2006
OWCRS Equity Custom Index			7.10	7.10	9.96	-7.52	17.54	6.69	9.02	N/A	N/A	
Difference			1.72	1.72	1.77	2.90	-0.16	1.56	1.64	N/A	N/A	
iShares:Russell 1000 L/C Idx;K (BRGKX)	6,178,594	4.98	7.43	7.43	9.86	-8.44	17.93	10.46	11.89	11.74	12.13	03/01/2020
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	12.71	
Difference			-0.03	-0.03	-0.07	-0.05	-0.62	-0.41	-0.34	-0.27	-0.58	
Vanguard S-C Id;Inst (VSCIX)	4,525,124	3.65	3.74	3.74	9.10	-9.55	19.48	6.66	9.40	9.14	8.45	12/01/2005
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	7.25	
Difference			1.00	1.00	2.35	2.06	1.97	1.95	0.85	1.10	1.20	
Bank of Oklahoma Managed Equity (SA)	49,408,532	39.81	9.93	9.93	12.41	-4.50	18.38	N/A	N/A	N/A	18.38	04/01/2020
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	18.48	
Difference			2.75	2.75	2.66	4.08	-0.10	N/A	N/A	N/A	-0.10	
Vanguard Dev Mkt;Adm (VTMGX)	7,148,223	5.76	7.72	7.72	12.98	-2.91	13.85	3.42	6.43	5.24	4.18	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			8.02	8.02	13.96	-2.74	13.49	3.80	6.33	4.91	4.18	
Difference			-0.30	-0.30	-0.98	-0.17	0.36	-0.38	0.10	0.33	0.00	
Dodge & Cox Intl Stck;I (DODFX)	5,316,735	4.28	6.15	6.15	9.97	-0.46	17.28	2.90	6.69	5.06	3.14	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	3.30	
Difference			-0.72	-0.72	-0.06	4.61	5.48	0.43	0.83	0.89	-0.16	
MFS Intl New Discv;R6 (MIDLX)	5,341,524	4.30	6.00	6.00	10.80	-3.42	10.07	1.57	5.53	5.16	4.28	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			8.59	8.59	11.10	-6.35	9.49	3.36	6.47	5.08	4.43	
Difference			-2.59	-2.59	-0.30	2.93	0.58	-1.79	-0.94	0.08	-0.15	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Asset Allocation & Performance - Net of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Dev Mkt;R6 (ODVIX)	4,154,914	3.35	11.34	11.34	11.94	-0.77	5.81	-0.51	5.09	2.72	2.69	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			3.96	3.96	0.84	-10.70	7.83	-0.91	4.91	2.00	2.22	
Difference			7.38	7.38	11.10	9.93	-2.02	0.40	0.18	0.72	0.47	
Fixed Income	27,031,126	21.78	3.23	3.23	0.95	-4.11	-1.36	1.42	1.05	1.35	2.63	01/01/2006
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.14	
Difference			0.27	0.27	1.04	0.67	1.41	0.52	0.17	-0.01	-0.51	
Bank of Oklahoma Managed Fixed Income (SA)	14,207,150	11.45	3.64	3.64	0.13	-4.63	-2.30	0.88	0.59	0.94	2.42	12/01/2005
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.18	
Difference			0.68	0.68	0.22	0.15	0.47	-0.02	-0.29	-0.42	-0.76	
PIMCO:Income;Inst (PIMIX)	5,634,484	4.54	2.53	2.53	4.06	-1.33	3.58	2.26	3.75	3.98	2.40	08/01/2017
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	0.68	
Difference			-0.43	-0.43	4.15	3.45	6.35	1.36	2.87	2.62	1.72	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,219,064	2.59	2.83	2.83	1.26	-3.70	-0.44	1.02	2.01	2.74	-1.63	03/01/2020
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-2.89	
Difference			-0.13	-0.13	1.35	1.08	2.33	0.12	1.13	1.38	1.26	
Alternative Investments	11,129,986	8.97	4.49	4.49	6.94	-1.70	9.19	3.63	4.74	2.90	3.13	12/01/2010
OWCRS Alternatives Custom Index			0.72	0.72	2.10	-1.93	7.17	3.10	3.91	N/A	N/A	
Difference			3.77	3.77	4.84	0.23	2.02	0.53	0.83	N/A	N/A	
First Eagle:Global;I (SGIIX)	3,958,603	3.19	6.01	6.01	10.58	-0.96	14.66	6.30	7.29	6.70	6.22	08/01/2017
MSCI Wrld Index (USD) (Net)			7.73	7.73	10.93	-7.02	16.40	8.01	9.74	8.85	8.26	
Difference			-1.72	-1.72	-0.35	6.06	-1.74	-1.71	-2.45	-2.15	-2.04	
Calamos:Mkt Neut Inc;I (CMNIX)	3,592,888	2.90	3.13	3.13	6.15	0.09	4.31	3.19	3.84	3.46	3.31	08/01/2017
Bloomberg US Govt/Credit Bond Index			3.17	3.17	0.23	-4.81	-2.63	1.16	1.10	1.50	0.89	
Difference			-0.04	-0.04	5.92	4.90	6.94	2.03	2.74	1.96	2.42	
Neub Berman L/S;Inst (NLSIX)	3,578,495	2.88	4.24	4.24	4.98	-0.09	8.93	6.07	6.36	5.33	7.32	10/01/2022
HFRX Equity Hedge Index			0.80	0.80	2.42	-2.12	9.72	2.56	3.84	2.84	2.51	
Difference			3.44	3.44	2.56	2.03	-0.79	3.51	2.52	2.49	4.81	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	124,102,385	100.00	6.97	6.97	8.36	-3.65	10.00	6.07	7.05	6.76	5.92	01/01/2006
OWCRS Policy Index			5.43	5.43	6.82	-5.96	8.41	4.54	5.68	5.53	5.69	
Difference			1.54	1.54	1.54	2.31	1.59	1.53	1.37	1.23	0.23	
OWCRS Actual Allocation Index			5.35	5.35	6.27	-5.91	8.87	5.49	6.69	6.48	6.03	
Difference			1.62	1.62	2.09	2.26	1.13	0.58	0.36	0.28	-0.11	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			5.26	5.26	3.15	-10.65	3.00	-0.93	0.05	-0.24	-1.08	
All Public Plans-Total Fund Median			4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95	6.40	
Rank			1	1	3	23	69	52	64	59	73	
Equity	82,073,646	66.13	8.88	8.88	11.92	-4.40	17.67	8.40	10.77	10.56	8.26	01/01/2006
OWCRS Equity Custom Index			7.10	7.10	9.96	-7.52	17.54	6.69	9.02	N/A	N/A	
Difference			1.78	1.78	1.96	3.12	0.13	1.71	1.75	N/A	N/A	
iShares:Russell 1000 L/C Idx;K (BRGKX)	6,178,594	4.98	7.44	7.44	9.94	-8.33	18.10	10.62	12.05	11.90	12.29	03/01/2020
Russell 1000 Index			7.46	7.46	9.93	-8.39	18.55	10.87	12.23	12.01	12.71	
Difference			-0.02	-0.02	0.01	0.06	-0.45	-0.25	-0.18	-0.11	-0.42	
IM U.S. Large Cap Equity (MF) Median			7.39	7.39	9.53	-8.68	16.70	10.06	11.69	11.35	11.39	
Rank			50	50	44	46	30	38	41	38	35	
Vanguard S-C Id;Inst (VSCIX)	4,525,124	3.65	3.75	3.75	9.13	-9.52	19.52	6.70	9.45	9.18	8.50	12/01/2005
Russell 2000 Index			2.74	2.74	6.75	-11.61	17.51	4.71	8.55	8.04	7.25	
Difference			1.01	1.01	2.38	2.09	2.01	1.99	0.90	1.14	1.25	
IM U.S. Small Cap Core Equity (MF) Median			2.71	2.71	7.53	-8.35	21.15	5.51	8.31	8.01	7.33	
Rank			26	26	37	66	68	24	22	21	11	
Bank of Oklahoma Managed Equity (SA)	49,408,532	39.81	9.97	9.97	12.53	-4.36	18.55	N/A	N/A	N/A	18.55	04/01/2020
Russell 3000 Index			7.18	7.18	9.75	-8.58	18.48	10.45	11.99	11.73	18.48	
Difference			2.79	2.79	2.78	4.22	0.07	N/A	N/A	N/A	0.07	
Vanguard Dev Mkt;Adm (VTMGX)	7,148,223	5.76	7.74	7.74	13.04	-2.84	13.93	3.49	6.50	5.32	4.25	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			8.02	8.02	13.96	-2.74	13.49	3.80	6.33	4.91	4.18	
Difference			-0.28	-0.28	-0.92	-0.10	0.44	-0.31	0.17	0.41	0.07	
IM All ACWI Ex US (MF) Median			7.59	7.59	11.57	-4.23	12.08	2.53	5.85	4.58	4.74	
Rank			48	48	31	33	19	26	32	26	62	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dodge & Cox Intl Stck;I (DODFX)	5,316,735	4.28	6.31	6.31	10.48	0.16	18.01	3.55	7.37	5.72	3.79	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			6.87	6.87	10.03	-5.07	11.80	2.47	5.86	4.17	3.30	
Difference			-0.56	-0.56	0.45	5.23	6.21	1.08	1.51	1.55	0.49	
IM ACWI Ex US Core (MF) Median			7.30	7.30	11.16	-3.87	12.66	2.49	5.82	4.45	3.36	
Rank			82	82	60	6	6	21	11	4	25	
MFS Intl New Discv;R6 (MIDLX)	5,341,524	4.30	6.24	6.24	11.55	-2.55	11.07	2.51	6.50	6.13	5.24	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			8.59	8.59	11.10	-6.35	9.49	3.36	6.47	5.08	4.43	
Difference			-2.35	-2.35	0.45	3.80	1.58	-0.85	0.03	1.05	0.81	
IM ACWI Ex US Growth (MF) Median			9.23	9.23	12.69	-4.76	10.95	3.17	6.38	5.23	4.20	
Rank			86	86	63	21	48	69	49	28	29	
Invesco Dev Mkt;R6 (ODVIX)	4,154,914	3.35	11.56	11.56	12.62	0.04	6.67	0.31	5.96	3.57	3.54	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			3.96	3.96	0.84	-10.70	7.83	-0.91	4.91	2.00	2.22	
Difference			7.60	7.60	11.78	10.74	-1.16	1.22	1.05	1.57	1.32	
IM Emerging Markets Equity (MF) Median			5.02	5.02	2.83	-9.28	7.89	-1.08	4.67	1.77	1.96	
Rank			1	1	3	3	69	25	23	16	17	

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Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System
Asset Allocation & Performance - Gross of Fees

As of March 31, 2023

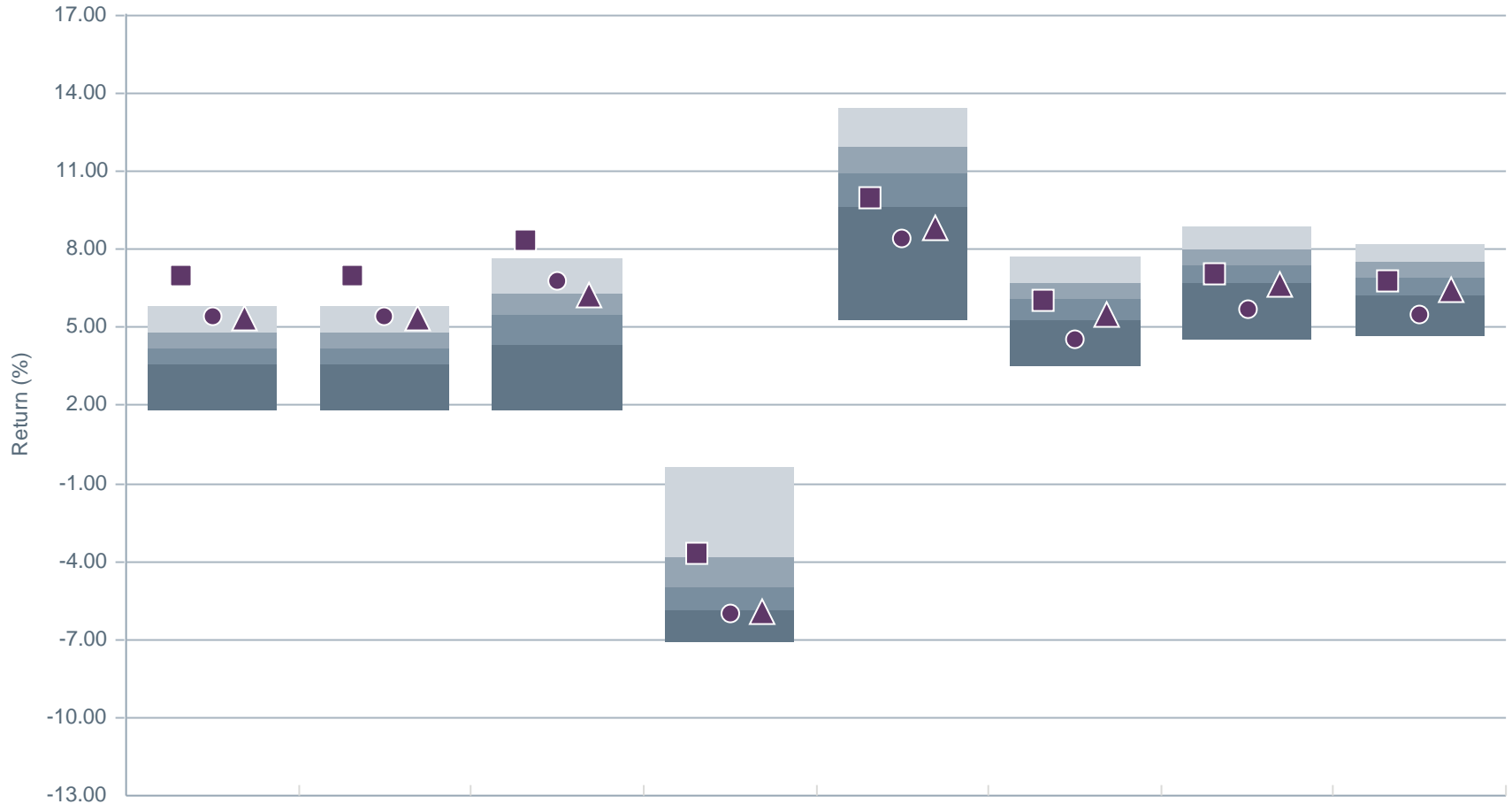
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	27,031,126	21.78	3.30	3.30	1.18	-3.81	-1.04	1.61	1.19	1.45	2.68	01/01/2006
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.14	
Difference			0.34	0.34	1.27	0.97	1.73	0.71	0.31	0.09	-0.46	
Bank of Oklahoma Managed Fixed Income (SA)	14,207,150	11.45	3.68	3.68	0.26	-4.47	-2.13	1.06	0.81	1.14	2.62	12/01/2005
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	3.18	
Difference			0.72	0.72	0.35	0.31	0.64	0.16	-0.07	-0.22	-0.56	
IM U.S. Broad Market Fixed Income (SA+CF) Median			3.17	3.17	0.52	-4.63	-1.25	1.49	1.63	1.96	3.86	
Rank			8	8	67	39	83	89	100	100	100	
PIMCO:Income;Inst (PIMIX)	5,634,484	4.54	2.66	2.66	4.45	-0.84	4.16	3.04	4.62	4.92	3.22	08/01/2017
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	0.68	
Difference			-0.30	-0.30	4.54	3.94	6.93	2.14	3.74	3.56	2.54	
IM Multi-Sector General Bond (MF) Median			2.75	2.75	2.21	-4.46	2.81	1.40	2.58	2.28	1.39	
Rank			55	55	15	7	16	4	2	1	2	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,219,064	2.59	2.96	2.96	1.64	-3.21	0.10	1.57	2.57	3.30	-1.10	03/01/2020
Bloomberg US Agg Bond Index			2.96	2.96	-0.09	-4.78	-2.77	0.90	0.88	1.36	-2.89	
Difference			0.00	0.00	1.73	1.57	2.87	0.67	1.69	1.94	1.79	
IM International Fixed Income (MF) Median			2.58	2.58	0.98	-6.18	-2.46	-2.83	-0.91	-1.07	-4.19	
Rank			23	23	43	6	14	2	1	1	5	
Alternative Investments	11,129,986	8.97	4.78	4.78	7.77	-0.72	10.17	4.18	5.14	3.18	3.36	12/01/2010
OWCRS Alternatives Custom Index			0.72	0.72	2.10	-1.93	7.17	3.10	3.91	N/A	N/A	
Difference			4.06	4.06	5.67	1.21	3.00	1.08	1.23	N/A	N/A	
First Eagle:Global;I (SGIIX)	3,958,603	3.19	6.23	6.23	11.28	-0.11	15.63	7.20	8.20	7.61	7.13	08/01/2017
MSCI Wrld Index (USD) (Net)			7.73	7.73	10.93	-7.02	16.40	8.01	9.74	8.85	8.26	
Difference			-1.50	-1.50	0.35	6.91	-0.77	-0.81	-1.54	-1.24	-1.13	
Calamos:Mkt Neut Inc;I (CMNIX)	3,592,888	2.90	3.36	3.36	6.91	1.03	5.30	4.20	4.86	4.49	4.33	08/01/2017
Bloomberg US Govt/Credit Bond Index			3.17	3.17	0.23	-4.81	-2.63	1.16	1.10	1.50	0.89	
Difference			0.19	0.19	6.68	5.84	7.93	3.04	3.76	2.99	3.44	
Neuberman L/S;Inst (NLSIX)	3,578,495	2.88	4.66	4.66	6.26	1.53	10.68	7.77	8.07	7.02	8.18	10/01/2022
HFRX Equity Hedge Index			0.80	0.80	2.42	-2.12	9.72	2.56	3.84	2.84	2.51	
Difference			3.86	3.86	3.84	3.65	0.96	5.21	4.23	4.18	5.67	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

As of March 31, 2023



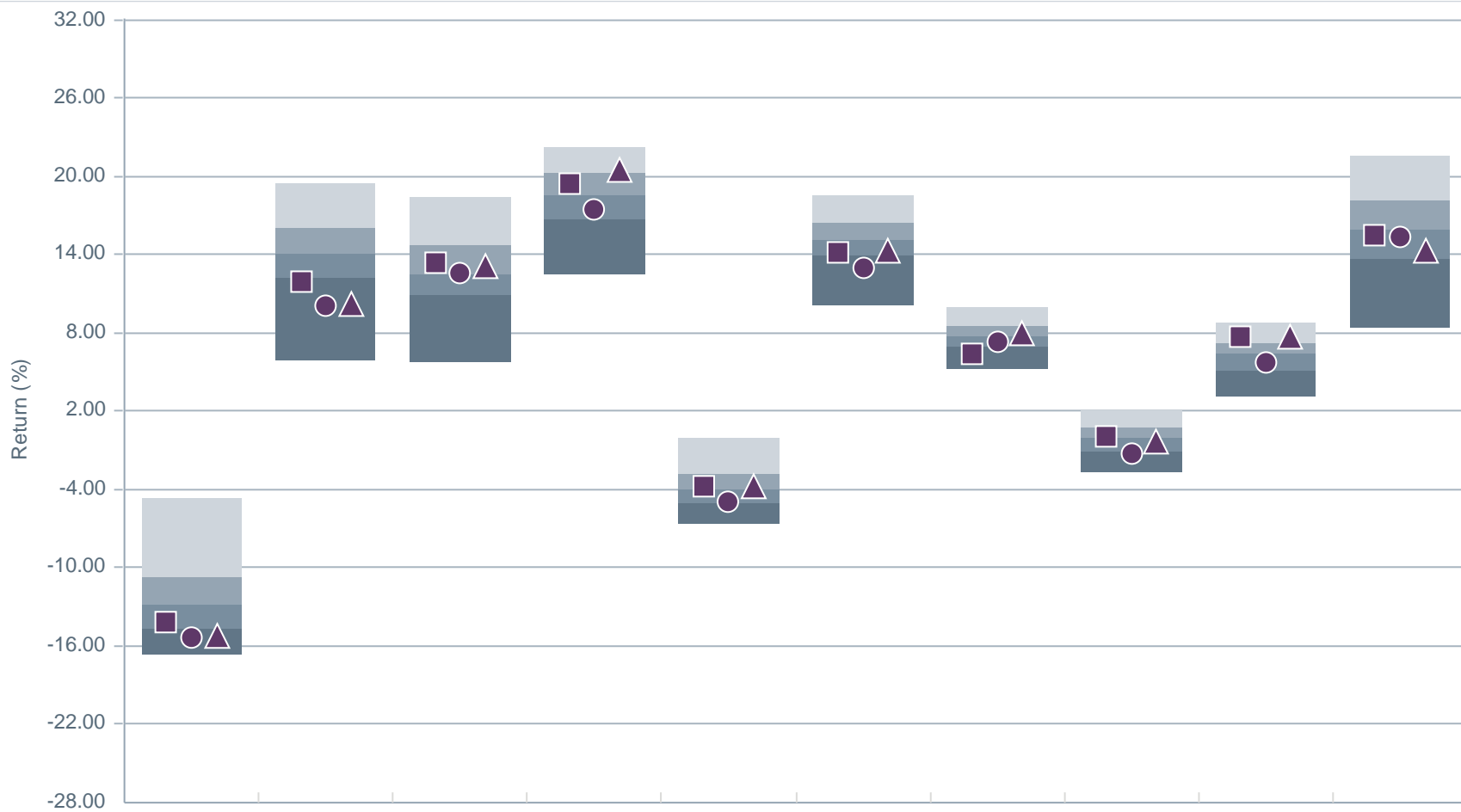
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OWCRS Total Fund	6.97 (1)	6.97 (1)	8.36 (3)	-3.65 (23)	10.00 (69)	6.07 (52)	7.05 (64)	6.76 (59)
● OWCRS Policy Index	5.43 (10)	5.43 (10)	6.82 (14)	-5.96 (78)	8.41 (89)	4.54 (90)	5.68 (88)	5.53 (87)
▲ OWCRS Allocation Index	5.35 (12)	5.35 (12)	6.27 (27)	-5.91 (77)	8.87 (86)	5.49 (70)	6.69 (78)	6.48 (67)
5th Percentile	5.85	5.85	7.65	-0.31	13.43	7.77	8.91	8.24
1st Quartile	4.83	4.83	6.33	-3.85	11.96	6.76	8.03	7.55
Median	4.18	4.18	5.48	-4.95	10.92	6.11	7.41	6.95
3rd Quartile	3.61	3.61	4.37	-5.88	9.67	5.31	6.76	6.24
95th Percentile	1.83	1.83	1.85	-7.09	5.32	3.53	4.52	4.70

Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.
 Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission
 Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund
 Plan Sponsor Peer Group Analysis

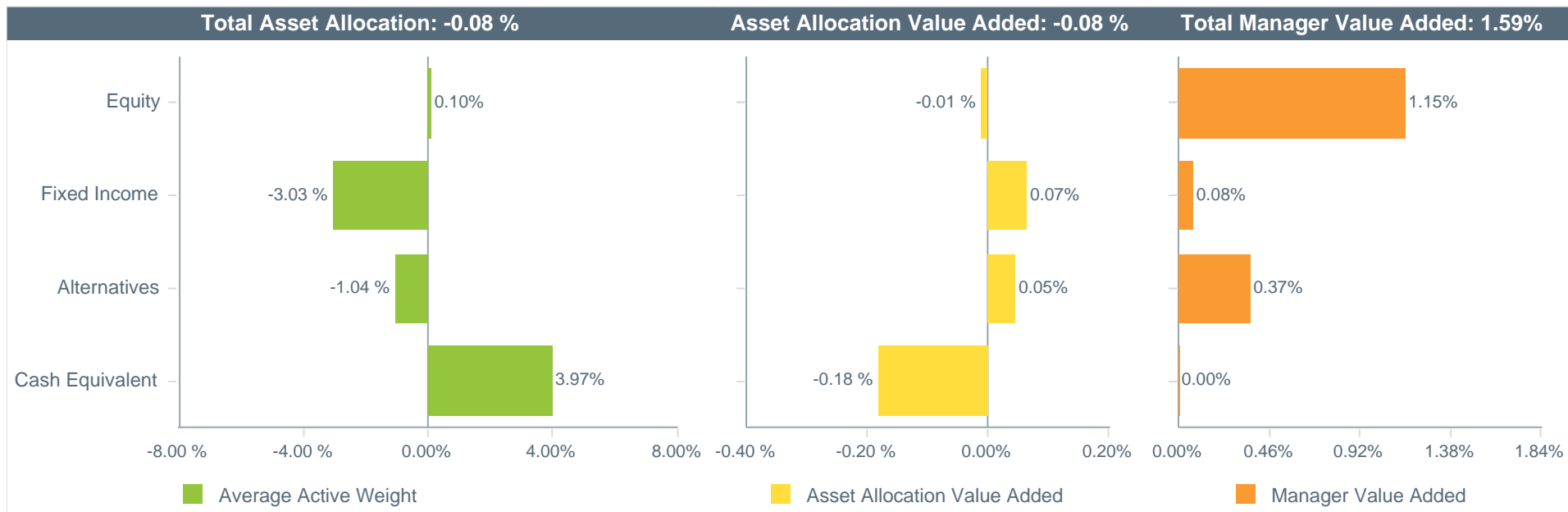
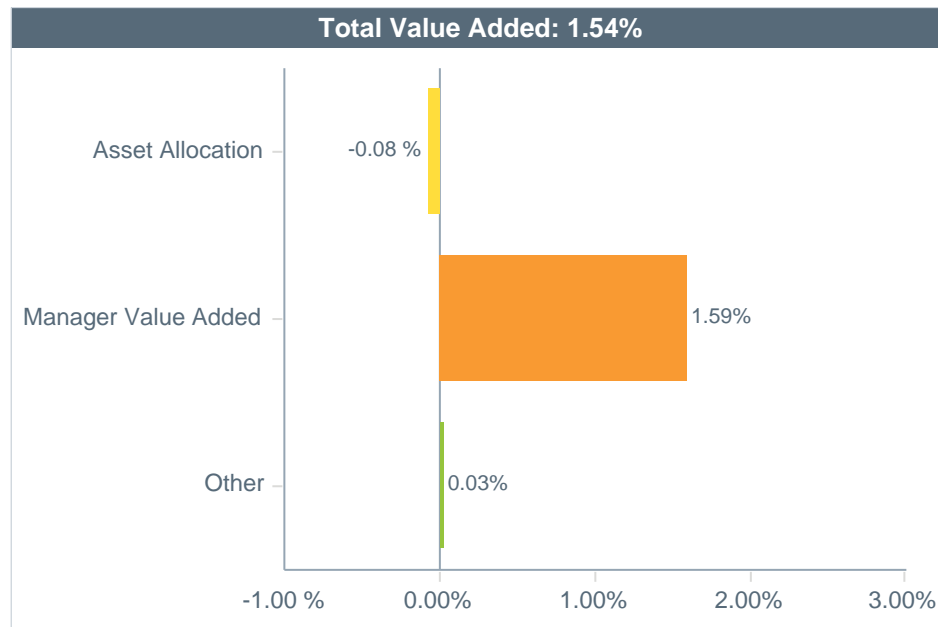
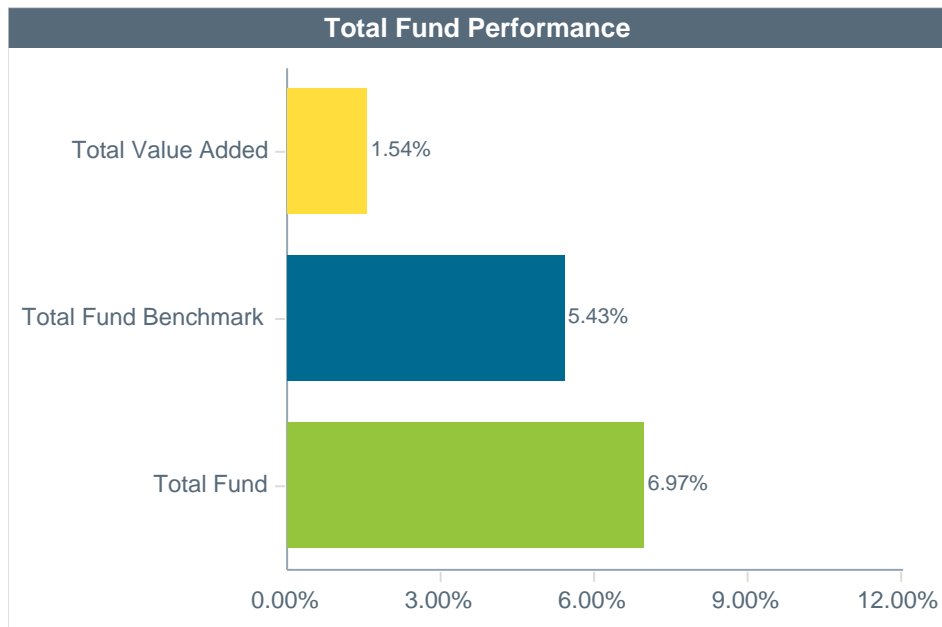
As of March 31, 2023



	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
■ OWCERS Total Fund	-14.14 (68)	11.95 (79)	13.34 (39)	19.46 (37)	-3.68 (44)	14.13 (71)	6.39 (86)	0.05 (46)	7.71 (17)	15.51 (55)
● OWCERS Policy Index	-15.39 (84)	10.17 (90)	12.67 (49)	17.53 (64)	-4.95 (72)	12.96 (86)	7.34 (63)	-1.27 (77)	5.80 (63)	15.43 (57)
▲ OWCERS Allocation Index	-15.18 (82)	10.28 (90)	13.21 (42)	20.53 (21)	-3.71 (44)	14.38 (67)	8.04 (41)	-0.28 (55)	7.68 (17)	14.39 (68)
5th Percentile	-4.59	19.52	18.43	22.21	-0.07	18.60	9.97	2.10	8.77	21.56
1st Quartile	-10.68	16.09	14.71	20.21	-2.88	16.44	8.51	0.73	7.27	18.11
Median	-12.77	14.01	12.54	18.57	-4.02	15.16	7.69	-0.10	6.37	15.92
3rd Quartile	-14.68	12.21	10.93	16.64	-5.11	13.87	6.92	-1.16	5.13	13.73
95th Percentile	-16.67	5.94	5.82	12.49	-6.65	10.13	5.28	-2.64	3.18	8.39

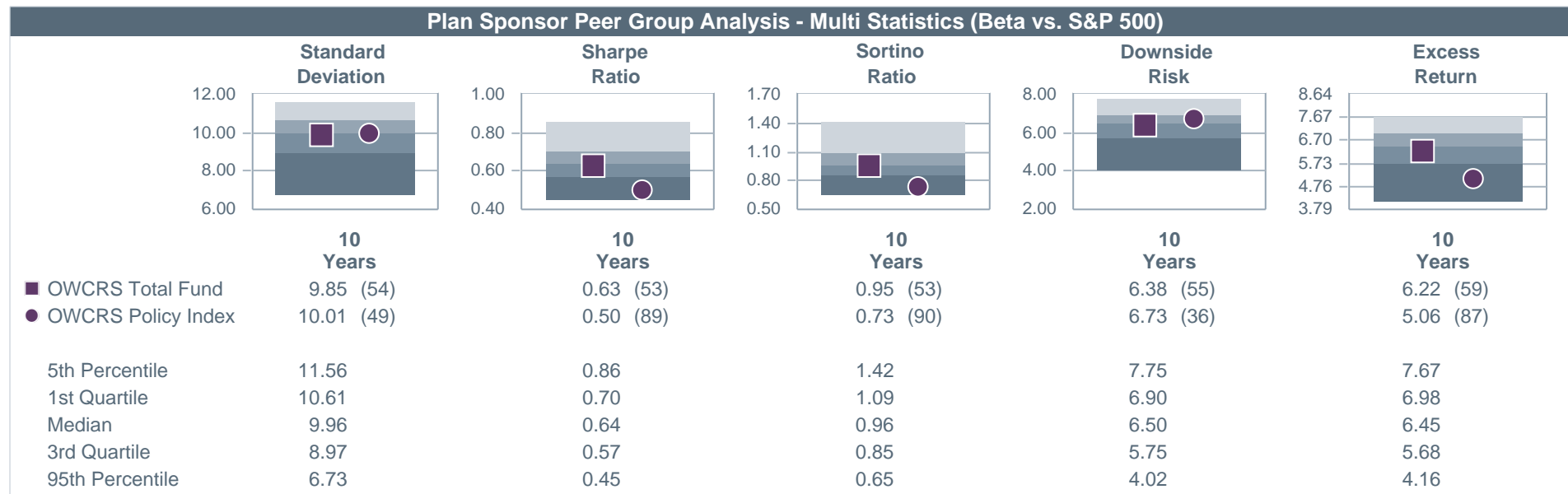
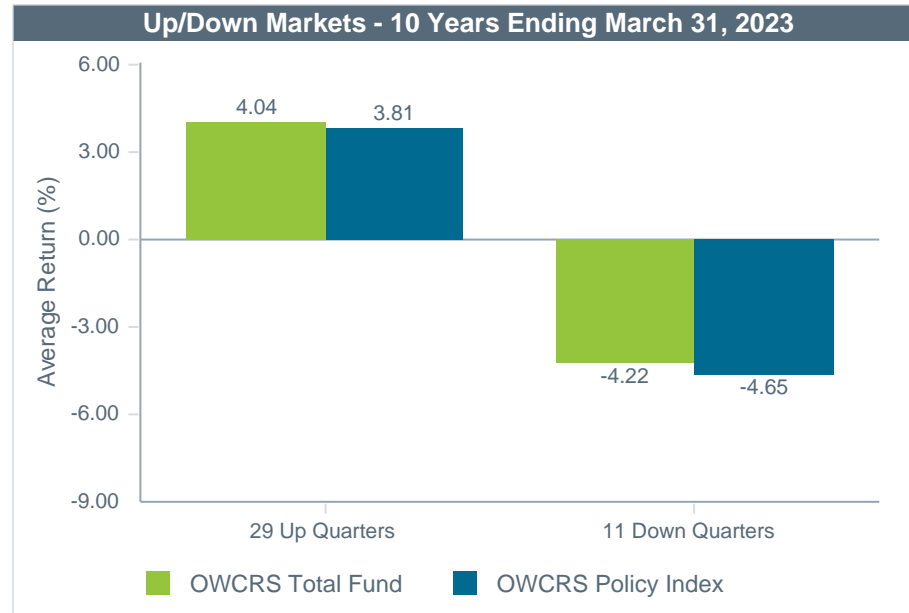
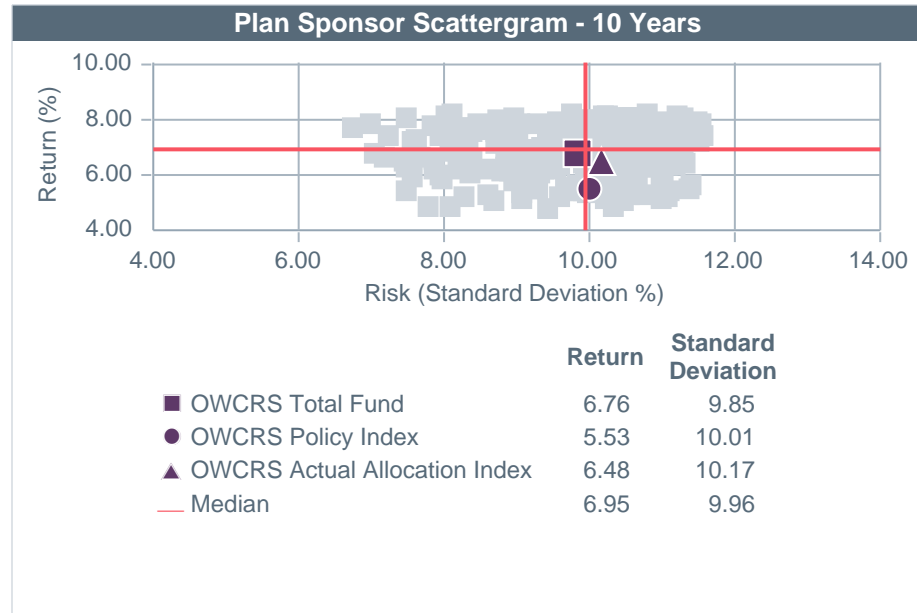
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.





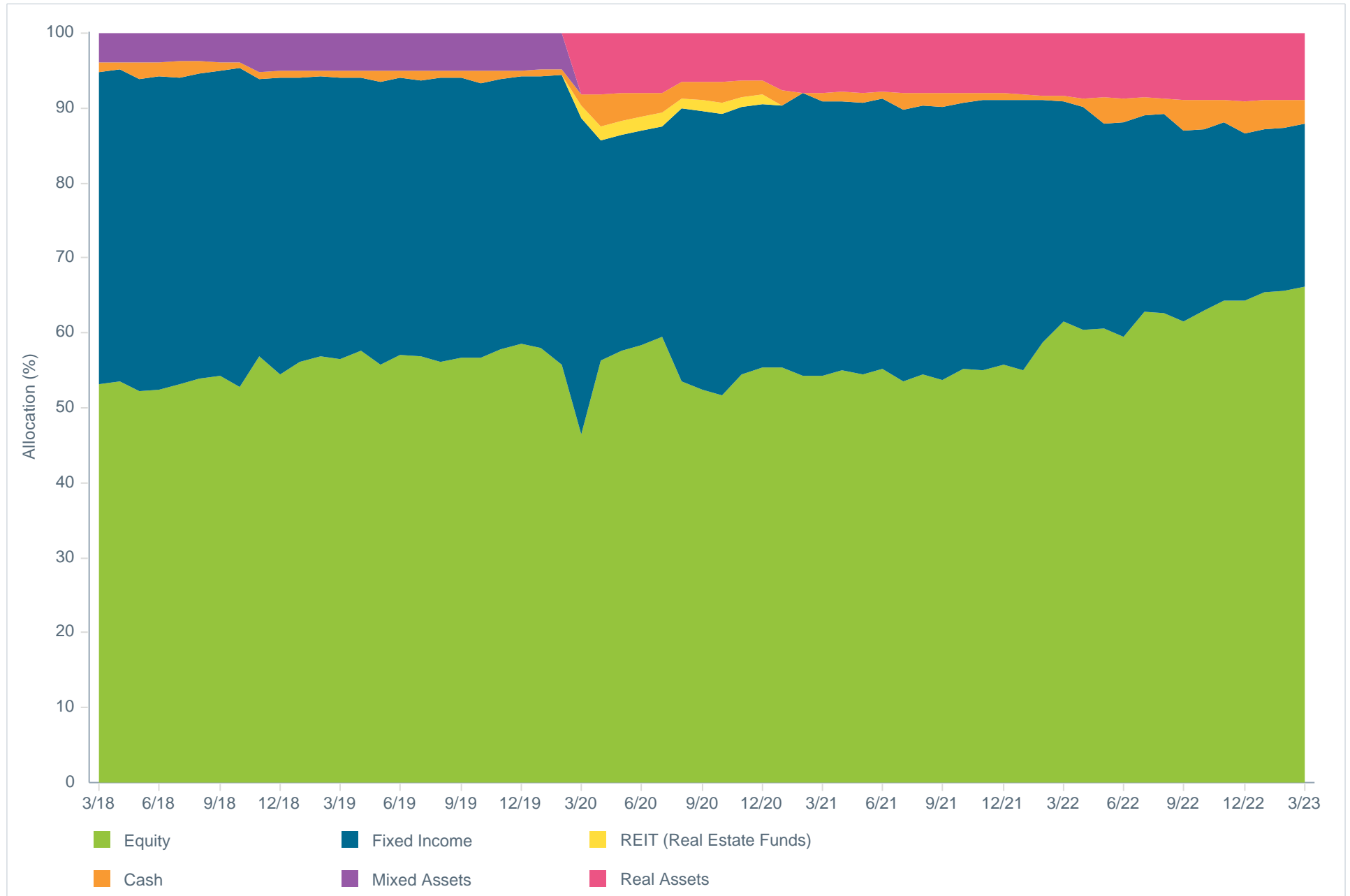
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.





Addendum & Glossary



Performance Comments:

- Fiscal year begins on 07/01.
- RVK began monitoring the assets of Oklahoma State Pension Commission as of 07/01/2020. Prior historical data on market values and performance was provided by the prior investment consultant and/or custodian bank.
- Manager inception dates shown reflect the first full month of performance following initial funding.
- Mutual fund performance prior to 07/01/2020 or client inception is product specific.
- Manager inception dates shown represent the first full month following initial funding.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Net of fees performance show N/A for since inception returns when the fund contains more gross of fees performance history.
- During 03/2023, Blackstone Real Estate Partners X (OTRS) was funded.

Custom Index Comments:

- The active **Actual Allocation Index** of each plan is calculated monthly based on beginning of period investment weights applied to the corresponding primary benchmark return.
- **OTRS Policy Index:** OTRS's passive, policy index is calculated monthly and currently consists of 42.5% Russell 3000 Index, 18.5% MSCI ACW ex US IMI (USD) (Gross), 22% OTRS Fixed Income Custom Index, 9% OTRS Real Estate Custom Index, and 8% Russell 2000 Index +4%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OTRS Fixed Income Custom Index** is calculated monthly and currently consists of 70% Bloomberg US Agg Bond Index and 30% ICE BofAML US High Yield Master II Constrained Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OTRS Real Estate Custom Index** is calculated monthly and currently consists of 50% NCREIF ODCE (AWA) (Net) (Monthly) and 50% NCREIF ODCE (AWA) (Net) (Monthly) +1%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPERS Policy Index:** OPERS's passive, policy index is calculated monthly and currently consists of 40% OPERS US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (Gross), and 32% OPERS Fixed Income Custom Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPERS US Equity Custom Index** is calculated monthly and currently consists of 85% Russell 1000 Index and 15% Russell 2000 Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPERS Fixed Income Custom Index** is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index - 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPPRS Policy Index:** OPPRS's passive, policy index is calculated monthly and currently consists of 47% Russell 3000 Index, 15% MSCI ACW ex US Index (USD) (Net), 13% Bloomberg US Agg Bond Index, 7% Bloomberg Global Agg ex US Index (USD) (Unhedged), 10% NCREIF ODCE Index (EWA) (Net), 4% Cambridge Associates Private Equity Index, and 4% Bloomberg U.S. Treasury Bellwethers 1 Yr +3%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPPRS Policy Index:** OPPRS's passive, policy index is calculated monthly and currently consists of 65% MSCI ACW Index (USD) (Gross), 20% Bloomberg US Universal Bond Index, and 15% NCREIF ODCE Index (AWA) (Net). From 07/01/2020 through 01/31/2021, it consisted of 60% MSCI ACW Index (USD) (Net), 25% Bloomberg US Universal Bond Index, and 15% NCREIF ODCE Index (AWA) (Net). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OPPRS Real Assets Blended Index:** is calculated monthly and current consists of 100% NCREIF ODCE Index (AWA) (Net) (Monthly). From 01/01/2016 through 08/31/2019, it consisted of 67% NCREIF ODCE Index (AWA) (Net) (Monthly) and 33% Bloomberg Commodity Index (TR). From 08/01/2014 through 12/31/2015, it consisted of 50% NCREIF ODCE Index (AWA) (Net) (Monthly) and 50% Bloomberg Commodity Index (TR). Prior to 08/01/2014, the index consisted of 100% NCREIF ODCE Index (AWA) (Net) (Monthly).
- **Oaktree Global Credit Custom Index** is calculated monthly and current consists of 50% ICE BofAML Global High Yield Index and 50% Credit Suisse Leveraged Loan Index.
- **OLERS Policy Index:** OLERS's passive, policy index is calculated monthly and currently consists of 35% S&P 500 Index (Cap Weighted), 10% Russell 2000 Index, 15% MSCI ACW ex US Index (USD) (Gross), 30% Bloomberg US Agg Bond Index, and 10% NCREIF ODCE Index (AWA) (Net) (Monthly). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OLERS Real Assets Blended Index:** is calculated monthly and current consists of 100% NCREIF ODCE Index (AWA) (Net) (Monthly).
- **URSJJ Policy Index:** URSJJ's passive, policy index is calculated monthly and currently consists of 40% URSJJ US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (Gross), and 32% URSJJ Fixed Income Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **URSJJ US Equity Custom Index** is calculated monthly and current consists of 85% Russell 1000 Index and 15% Russell 2000 Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.

Addendum

- **URSJJ Fixed Income Custom Index** is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index - 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OWCRS Policy Index:** OWCRS's passive, policy index is calculated monthly and currently consists of 65% OWCRS Equity Custom Index, 25% OWCRS Fixed Income Custom Index, and 10% HFRI FoF Composite Index. From 07/01/2020 through 12/01/2021, it consisted of 50% OWCRS Equity Custom Index, 40% Bloomberg US Agg Bond Index, and 10% HFRI FoF Composite Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OWCRS Equity Custom Index** is calculated monthly and currently consists of 73% Russell 3000 Index and 27% MSCI ACW Ex US Index (USD) (Net). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OWCRS Fixed Income Custom Index** is calculated monthly and currently consists of 92% Bloomberg US Agg Bond Index and 8% Bloomberg Gbl Agg ex USD Index (Hedged). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OWCRS Alternatives Custom Index** is calculated monthly and currently consists of 100% HFRI FoF Composite Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **Vanguard Spl Sm Cap Val Index** consists of S&P Sm Cap 600 Val Index through 05/16/03; MSCI US Sm Cap Val Index through 04/16/13; and CRSP US Sm Cap Val Index thereafter.

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. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

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

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

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

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.



Glossary

- Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.
- Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.
- Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.
- Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.
- Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.
- US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.
- VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."
- Cash Flow Effect** – The composite's active return minus the sum of each managers' active return minus the benchmark effect.
- Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.
- Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.
- Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.
- Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.
- Current Yield** - The annual income of a security divided by the security's current price.
- Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.
- Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.
- Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.
- Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.
- Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.
- Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.
- Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.
- Expense Ratios** - Morningstar is the source for mutual fund expense ratios.
- Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.
- Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.
- Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.
- 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

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multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

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

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

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

Peer Groups -

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

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

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

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 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 valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

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

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

Return - Compounded rate of return for the period.

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

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



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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	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<u>Not Liquid Investments</u>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity	5
US SMid Cap Equity	85	Private Credit	5
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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