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Executive Summary



OKLAHOMA STATE PENSION COMMISSION Q2 2023 EXECUTIVE SUMMARY

Economic and Capital Market Review

During Q2, investors focused on the uncertainty of the future interest rate path and timing of further actions by the US Federal Reserve (the Fed) and other global central banks. At the start of 2023, the combination of rate hikes and quantitative tightening kept expectations for near-term US recession embedded in many market forecasts. However, the continued strength of certain indicators, such as consumer spending and job growth, has altered the expected timing of a recession for some market participants. Relatedly, the Q1 estimate of US GDP growth was revised higher to a 2.0% annualized rate, with consumer spending increasing 4.1%, the sharpest uptick since 2021. Mid-quarter forecasts and market outlooks were further complicated by the US debt ceiling debate, raising concerns regarding a potential default on the national debt. Ultimately, a deal was struck that suspended the ceiling until 2025, keeping non-defense spending growth flat in 2024 and limited to 1.0% in 2025. In the June data release, the Consumer Price Index (CPI) slowed to a 3.0% year-over-year rate, its lowest since March 2021. Additionally, signs of housing and used car prices plateauing are seen as providing further downward pressure on inflation given those categories' relatively large weights in the CPI calculation. Recent job growth reports in the US provided mixed signals with the ADP National Employment Report beating expectations by a wide margin, but non-farm payroll coming in short of the average estimate. The unemployment rate did decline to 3.6%, but the jobless rate ticked up to 6.9%. The labor force participation rate remained steady at 62.6%, although still depressed compared to pre-pandemic levels. US equity markets delivered strong results in Q2, primarily driven by the largest growth-oriented companies which represent a significant portion of broad equity market indexes. Another positive equity market drive was bank earnings, which outpaced depressed expectations following the failure of multiple institutions in February. This had led to heightened volatility and skepticism regarding the health of the industry. With the exception of below investment grade debt, US fixed income markets broadly posted negative returns in Q2, as the yield curve inverted further. Key market index returns as of June 30, 2023 can be observed in Figure 1 below.

Figure 1: Key Market Index Returns
Period Ending June 30, 2023

Index	Asset Class	QTD	CYTD	1 Year	5 Year	10 Year
S&P 500 Index	US Equity	8.7	16.9	19.6	12.3	12.9
MSCI ACW Ex-US Index (Net)	International Equity	2.4	9.5	12.7	3.5	4.7
Bloomberg US Agg	US Fixed Income	-0.8	2.1	-0.9	0.8	1.5
NCREIF ODCE (AWA) (Net)	Core Real Estate	-2.9	-6.2	-10.7	5.6	7.8
HFRX Absolute Return Index	Hedge Funds	0.5	0.3	2.1	1.7	1.9
Bloomberg Commodity Index	Commodities	-2.6	-7.8	-9.6	4.7	-1.0

Some major global central banks, such as the European Central Bank (ECB) and the Bank of England (BoE) continued to increase policy rates to tame persistent inflation. With the Fed holding rates steady in June, the US Dollar weakened against most developed currencies near the end of the quarter. However, the Japanese Yen weakened against the US Dollar as policy rates were maintained at levels significantly lower than other developed countries. Broad commodity prices experienced another negative quarter, albeit

less negative than Q1, with declining energy prices being a key reason. The economic outlook in China, and its impact on global growth continued to be a significant topic for investors. While China has released plans to provide stimulus and support for its economy, the rebound following the end of its zero-Covid policy has remained lackluster relative to expectations. As concerns about China have grown, more investors are starting to view India and other south-east Asia countries as the drivers of growth in the region. The World Bank released its 2023 Global Economic Prospects report in June, forecasting subdued global GDP growth of 2.1% in 2023 and 2.4% in 2024. Key drivers of its growth estimate included tightening financial conditions and expected declines in overall demand due to continued elevated inflation. The GDP growth for developed economies was estimated at 0.7% in 2023, with emerging economies contributing growth of 4.0%.

Performance Highlights

Total Fund Performance and Attribution

During the 2nd Quarter of 2023, the Oklahoma State Pension Funds produced positive returns, ranging between 1.9% to 5.3% net of fees. Relative to policy benchmarks, performance was mixed over the trailing 12-month period, with two 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 - Q2 2023

Asset class returns varied but have increasingly entered positive territory during the second 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 Q2, as US equity markets continued their recovery primarily driven by a handful of mega-cap growth stocks. Relative to benchmarks, returns were mixed with two out of six plans outperforming their respective benchmark. US equity returns ranged from approximately 6.0% (Teachers) to 9.6% (Wildlife). Longer term performance over 3-, 5-, 7-, and 10-year periods are mixed with respect to broad indexes of US equities.
- 2. International Equity International equity returns were positive on an absolute basis, with underlying plans generally keeping pace or slightly trailing their asset class benchmark during the second quarter. Returns for the quarter ranged from approximately 1.9% (Firefighters) to 2.6% (Judges). 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 generally negative on an absolute basis in the second quarter, but with all seven plans outperforming their respective asset class benchmarks. Returns ranged from approximately -1.0% (Judges) to 0.4% (Police). 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 and the trailing year. For the quarter, the NFI-ODCE Index (Net) delivered a return of -2.7% on a preliminary and gross of fees basis, comprised of 0.9% income and -3.6% 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 mostly positive in the second quarter. Returns ranged from a low of approximately -0.1% (Firefighters) to a high of 6.1%. (Police). 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 mostly positive 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. Two out of seven plans performed at or above median on both metrics. Performance is more favorable on an asset-weighted basis, with 60.5% 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 June 30, 2023

Plan	Percent of Assets	5-Year Return (Net)	5-Year Return (Gross)	10-Year Return (Net)	10-Year Return (Gross)	10-Year Rank vs. All Public Plans ¹	Actuarial Rate (%)	Passive Exposure (%)
Firefighters	8.6	7.3	7.7	8.5	8.8	4 th	7.5	14.9
Teachers	51.9	6.6	6.9	7.8	8.2	15 th	7.0	48.6
Public Employees	27.9	6.0	6.2	7.1	7.3	57 th	6.5	43.2
Judges	1.0	5.9	6.0	7.1	7.1	63 rd	6.5	73.3
Wildlife	0.3	6.6	6.9	7.0	7.3	55 th	7.0	10.9
Police	7.6	6.1	6.5	6.7	7.1	61 st	7.5	16.1
Law Enforcement	2.7	5.2	5.7	6.3	6.9	70 th	7.5	14.9

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 June 30, 2023

	Plan	Percent of	Sharpe	10-Year Rank vs.
_		Assets	Ratio	All Public Plans
	Firefighters	8.6	0.78	14 th
68.4% of \checkmark	Police	7.6	0.76	16 th
assets	Teachers	51.9	0.68	43 rd
(Wildlife	0.3	0.67	48 th
	Law Enforcement	2.7	0.62	72 nd
	Public Employees	27.9	0.59	80 th
	Judges	1.0	0.59	82 nd

Figure 5: Calendar Year Yields for Oklahoma Pension Plans Ranked by Yield % as of March 31, 2023

Plan	Percent Yield
Teachers	2.59
Wildlife	1.90
Public Employees	1.57
Law Enforcement	1.51
Judges	0.98
Firefighters	0.97
Police	0.71

Yield percentages were calculated as total income for Q1 2023 by plan divided by the average market value of Q1 2023 by plan. Figures have been annualized to show an estimate of the total yield percentage for the 2023 calendar year. Income and market values come directly from each plan's consultant and are reported on a quarter lag.

Figure 6: Total Portfolio Risk Levels for Oklahoma Pension Plans Ranked by 5-Year Standard Deviation as of June 30, 2023

Plan	5-Year Standard
	Deviation (%)
Wildlife	13.9
Judges	13.2
Public Employees	13.2
Teachers	11.4
Law Enforcement	10.9
Firefighters	10.9
Police	9.5

Active vs Passive Manager Allocations (Quarterly)

Overall, the seven plans all exhibit a mix of active and passive management. The charts in Figure 7 show the percentage allocated to active and passive managers by plan for the quarter.

Figure 7: Active vs Passive Manager Allocations
Period Ending June 30, 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 8 show a 5-year asset allocation "lookback" for each plan and how they have moved to today's portfolio and target.

Figure 8: Asset Allocation Changes (5 Years)
Period Ending June 30, 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 June 30, 2023, the market value of assets for OTRS was approximately **\$20.72 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OTRS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS Total Fund (Net)	2.59	6.72	8.04	8.04	9.12	6.62	8.19	7.83
OTRS Policy Index	4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98
Difference	-1.67	-2.60	-4.09	-4.09	0.11	-0.87	-0.27	-0.15
OTRS Actual Allocation Index	4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03
Difference	-1.74	-2.86	-3.32	-3.32	0.11	-0.59	-0.10	-0.20
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	72	67	59	59	17	41	20	15

Commentary

The OTRS Total Fund returned 2.59% for the quarter, trailing its policy index by -1.67%. The largest sources of underperformance over the quarter were the Private Equity and Private Debt allocations, which trailed their benchmarks by -5.53% and -4.54% respectively. Over long-term periods, the Plan has provided mostly negative returns relative to its policy index. Relative to a broad group of pension plans, the Plan has ranked in or near the top quartile over the 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, the OTRS Plan has delivered low single-digit returns for the quarter, however, longer-term performance remains mostly flat or negative against its Policy Index. Despite this, the Plan has produced strong returns relative to peers over longer-term trailing periods and has exceeded or been close to its actuarial rate of 7.0%. 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**.

Oklahoma Public Employees Retirement System (OPERS)

Detailed performance of the OPERS plan begins on **page 58** of the performance report. As of June 30, 2023, the market value of assets for OPERS was approximately **\$11.13 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPERS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPERS Total Fund (Net)	3.59	9.88	10.81	10.81	6.52	6.03	7.27	7.12
OPERS Policy Index	3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09
Difference	-0.03	0.25	0.31	0.31	0.30	0.01	0.01	0.03
OPERS Actual Allocation Index	3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37
Difference	-0.11	0.21	0.43	0.43	0.23	-0.56	-0.35	-0.25
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	23	8	13	13	74	67	62	57

Commentary

The OPERS Total Fund outperformed or remained 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, US Equity composites and International Equity composites posted mixed results against their respective benchmarks for the quarter. Fixed Income performed negatively returning generally in line with their respective benchmarks, with the BlackRock Enhanced Core (SA) fund performing best on an absolute and relative basis.

In summary, the OPERS plan has generated long-term returns exceeding or 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. Overall, almost all time periods have returned in excess of its actuarial rate of 6.5%.

Oklahoma Firefighters Pension & Retirement System (OFPRS)

Detailed performance of the OFPRS plan begins on **page 75** of the performance report. As of June 30, 2023, the market value of assets for OFPRS was approximately **\$3.43 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OFPRS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OFPRS Total Fund (Net)	3.63	8.18	8.70	8.70	8.48	7.28	8.80	8.47
OFPRS Policy Index	4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68
Difference	-0.45	-0.86	-1.45	-1.45	-0.31	-0.57	-0.02	-0.21
OFPRS Actual Allocation Index	4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38
Difference	-0.43	-0.72	-0.65	-0.65	-0.73	-0.27	-0.04	0.09
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	20	30	46	46	26	13	5	4

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 over all longer periods. Relative to peers, the Firefighters has ranked above median over all longer trailing periods shown above. Over the trailing ten years, the Plan ranked in the 4th 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 actuarial rate of 7.5% over almost all time periods. In addition, the Plan has performed well on a risk-adjusted basis, ranking in the 14th 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 98** of the performance report. As of June 30, 2023, the market value of assets for OPPRS was approximately **\$3.02 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPPRS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPPRS Total Fund (Net)	1.87	4.03	2.96	2.96	8.21	6.13	7.14	6.71
OPPRS Policy Index	4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87
Difference	-2.13	-5.62	-7.38	-7.38	0.31	-0.64	-0.35	-0.16
OPPRS Actual Allocation Index	3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57
Difference	-1.70	-3.70	-5.82	-5.82	1.01	0.08	0.09	0.14
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	90	94	96	96	32	56	55	61

Commentary

The Police Plan provided absolute returns that ranked below median and trailed the policy 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 2nd relative to other Oklahoma Plans and in the 16th 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 remained in line or outpaced the performance of peers and other Oklahoma pension plans both on and 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 112** of the performance report. As of June 30, 2023, the market value of assets for OLERS was approximately **\$1.09 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OLERS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OLERS Total Fund (Net)	2.54	6.36	6.17	6.17	6.83	5.16	6.68	6.34
OLERS Policy Index	3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28
Difference	-0.97	-1.55	-2.34	-2.34	-0.16	-1.04	-0.69	-0.94
OLERS Actual Allocation Index	3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08
Difference	-1.39	-2.62	-4.00	-4.00	-2.32	-2.88	-1.93	-1.74
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	70	71	81	81	62	80	69	70

Commentary

The Law Enforcement Plan generated a return of 2.54% for the quarter, trailing its Policy Index and Actual Allocation Index by -0.97% and -1.39%, respectively. Underperformance was driven primarily by Private Equity, which ended the quarter with a 0.52% return, trailing its benchmark (S&P 500 Index +5%) by -9.56% for the quarter. However, compared to the Cambridge US Private Equity Index, we observe less underperformance across all time periods primarily due to the fact that this benchmark is private compared to public. Additionally, the most recent valuations as of Q2 have not yet come in, and Private Equity is lagging the public market drawdowns that were experienced in 2022 which can further explain underperformance.

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. Additionally, it has struggled to deliver annualized returns in excess of its 7.5% actuarial rate. The Plan has also ranked slightly below peers on a risk-adjusted basis, as represented by a Sharpe ratio, ranking in the 72nd 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 126** of the performance report. As of June 30, 2023, the market value of assets for URSJJ was approximately **\$379.8 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

URSJJ Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
URSJJ Total Fund (Net)	3.69	9.72	10.53	10.53	6.30	5.93	7.20	7.06
URSJJ Policy Index	3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10
Difference	0.07	0.09	0.03	0.03	0.08	-0.10	-0.07	-0.04
URSJJ Actual Allocation Index	3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28
Difference	0.00	0.06	0.15	0.15	0.03	-0.62	-0.39	-0.22
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	20	9	17	17	79	72	67	63

Commentary

The Judges Plan generated a 10-year absolute return that ranked 4th 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 has exceeded or remained 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 almost all time periods but has trailed relative to a broad peer group of public plans and to other Oklahoma plans over longer time periods. 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 82nd percentile) and ranked 7th relative to Oklahoma Plans.

Oklahoma Wildlife Conservation Retirement System (OWCRS)

Detailed performance of the OWCRS plan begins on **page 138** of the performance report. As of June 30, 2023, the market value of assets for OWCRS was approximately **\$128.9 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OWCRS Annualized Net-of-Fees Returns

Period Ending June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OWCRS Total Fund (Net)	5.25	12.50	13.78	13.78	7.04	6.56	7.36	7.04
OWCRS Policy Index	4.36	10.03	11.49	11.49	5.78	5.07	5.97	5.93
Difference	0.89	2.47	2.29	2.29	1.26	1.49	1.39	1.11
OWCRS Actual Allocation Index	4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96
Difference	0.78	2.44	2.76	2.76	0.81	0.49	0.32	0.08
All Public Plans – Total Fund Median	3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38
Rank	2	1	1	1	60	41	51	55

Commentary

The Wildlife Plan generated a return of 5.25% for the quarter, outperforming its policy benchmark by 0.89%. Alternative and equity investments were the primary drivers of relative performance, outperforming their custom indexes by 1.55% and 0.78%, 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 5th when compared to other Oklahoma Pension Plans and mostly at or above median relative to a broad peer group of public plans over all longer trailing periods.

Overall, the OWCRS Plan performed at or above median relative to a broad peer group of public plans over all longer periods shown and has delivered returns in excess of its 7.0% actuarial rate for almost all time periods. On a risk-adjusted basis, the Plan also ranked above median over the past 10 years, with a Sharpe ratio ranking in the 48th 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 that 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.



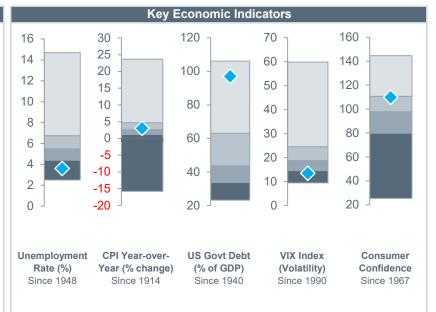


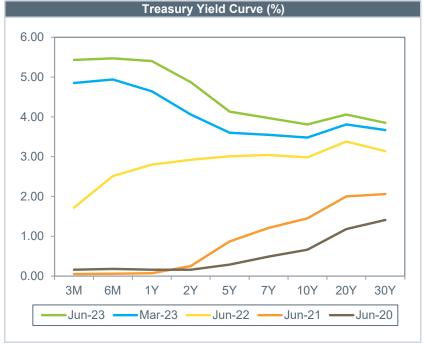
Capital Markets Review As of June 30, 2023

Second Quarter Economic Environment

During Q2, investors focused on the uncertainty of the future interest rate path and timing of further actions by the US Federal Reserve and other global central banks. At the start of 2023, the combination of rate hikes and quantitative tightening kept expectations for a near-term US recession embedded in many market forecasts. However, the continued strength of certain indicators, such as consumer spending and job growth, has altered the expected timing of a recession for some market participants. Mid-quarter forecasts and market outlooks were further complicated by the US debt ceiling debate, raising concerns regarding a potential default on the national debt. Ultimately, a deal was struck that suspended the ceiling until 2025. In the June data release, the Consumer Price Index (CPI) slowed to a 3.0% year-overyear rate, its lowest since March 2021. Recent job growth reports in the US provided mixed signals. US equity markets delivered strong results in Q2, primarily driven by the largest growth-oriented companies. US fixed income markets broadly posted negative returns in Q2, as the yield curve inverted further. The economic outlook in China, and its impact on global growth, continued to be a significant topic for investors. As concerns about China have grown, more investors are starting to view India and other south-east Asia countries as the drivers of growth in the region. The World Bank released its 2023 Global Economic Prospects report in June, forecasting subdued global GDP growth of 2.1% in 2023 and 2.4% in 2024, caused by tightening financial conditions and decreases in demand due to continued elevated inflation.

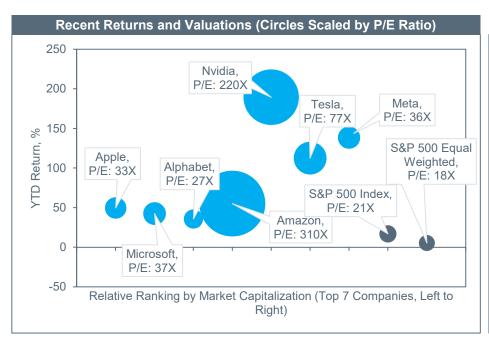
	1 00				20.17
Economic Indicators	Jun-23	Mar-23	Jun-22	Jun-20	20 Yr
Federal Funds Rate (%)	5.08	4.83	1.58	0.08	1.39
Breakeven Infl 5 Yr (%)	2.17	2.47			
Breakeven Infl 10 Yr (%)	2.21	2.33			
CPI YoY (Headline) (%)	3.0 ▼	5.0	9.1	0.6	
Unemployment Rate (%)	3.6	3.5	3.6	11.0	
Real GDP YoY (%)	N/A —	1.8	1.8	-8.4	2.0
PMI - Manufacturing	46.0 ▼	46.3	53.0	52.4	53.6
USD Total Wtd Idx	119.89	119.48	121.05	120.49	103.57
WTI Crude Oil per Barrel (\$)	70.6 ▼	75.7			
Gold Spot per Oz (\$)	1,906 ▼	1,979	1,807	1,781	1,199
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	8.74	16.89	19.59	12.31	12.86
Russell 2000	5.21	8.09	12.31	4.21	8.26
Russell 2000 MSCI EAFE (Net)	5.21 2.95		12.31 18.77		
					5.41
MSCI EAFE (Net)	2.95	11.67	18.77	4.39	5.41 6.19
MSCI EAFE (Net) MSCI EAFE SC (Net)	2.95 0.58	11.67 5.53 4.89	18.77 10.18	4.39 1.30 0.93	5.41 6.19 2.95
MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net)	2.95 0.58 0.90	11.67 5.53 4.89	18.77 10.18 1.75	4.39 1.30 0.93	5.41 6.19 2.95 1.52
MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond	2.95 0.58 0.90 -0.84	11.67 5.53 4.89 2.09	18.77 10.18 1.75 -0.94 3.59	4.39 1.30 0.93 0.77	5.41 6.19 2.95 1.52
MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond ICE BofAML 3 Mo US T-Bill	2.95 0.58 0.90 -0.84 1.17	11.67 5.53 4.89 2.09 2.25	18.77 10.18 1.75 -0.94 3.59 -9.98	4.39 1.30 0.93 0.77 1.55 6.50	5.41 6.19 2.95 1.52 0.98
MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond ICE BofAML 3 Mo US T-Bill NCREIF ODCE (Gross)	2.95 0.58 0.90 -0.84 1.17 -2.68	11.67 5.53 4.89 2.09 2.25 -5.77 5.37	18.77 10.18 1.75 -0.94 3.59 -9.98	4.39 1.30 0.93 0.77 1.55 6.50 4.55	5.41 6.19 2.95 1.52 0.98 8.74

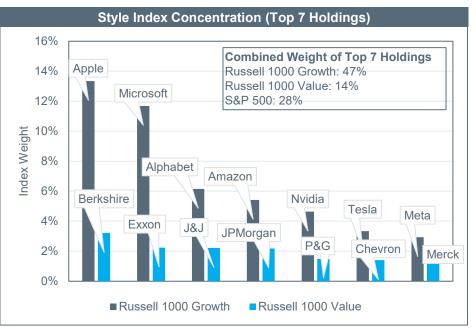


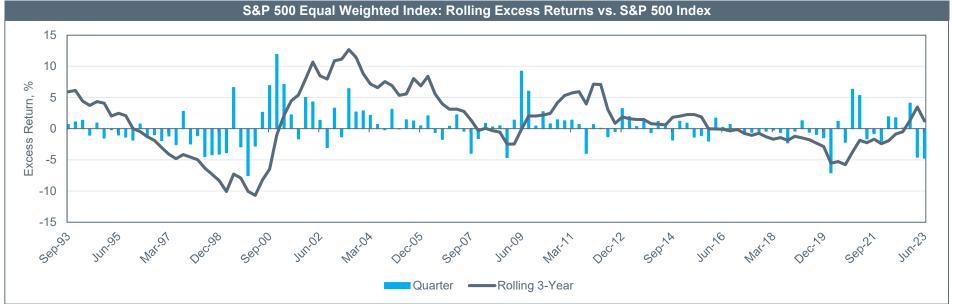




US Stock Market Concentration As of June 30, 2023





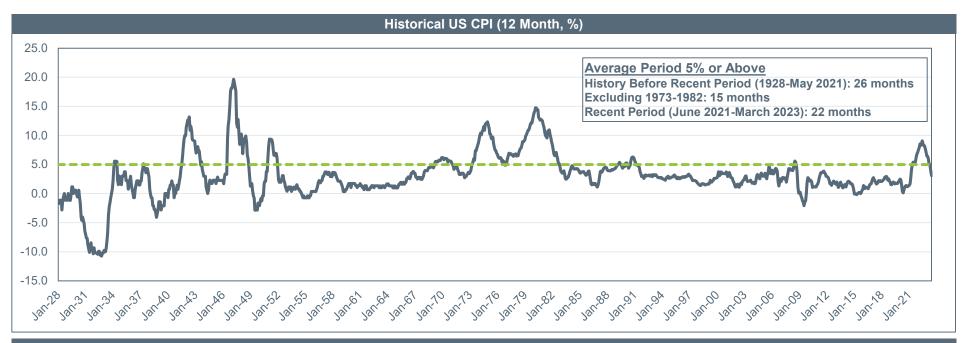


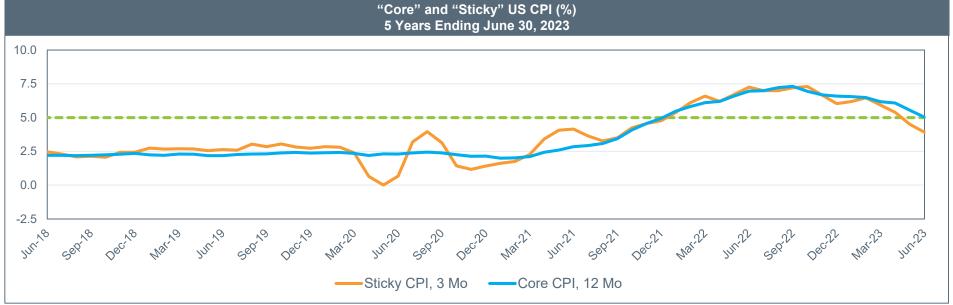
Sources: Morningstar, Bloomberg, FTSE Russell, and Standard & Poors.



Current Inflation in Context

As of June 30, 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.



US Equity Review
As of June 30, 2023

Second Quarter Review

Broad Market

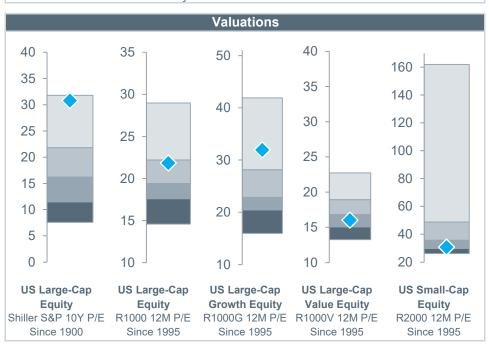
US equity markets continued their recovery in Q2 primarily driven by a handful of mega-cap growth stocks. While all sectors, excluding energy and utilities, in the Russell 1000 Index were positive, roughly half of its returns came from the information technology sector driven by optimism around advancements in artificial intelligence (AI) and related technology. Further, roughly two-thirds of the Russell 1000 Q2 returns can be attributed to the 10 largest companies in the index.

Market Cap

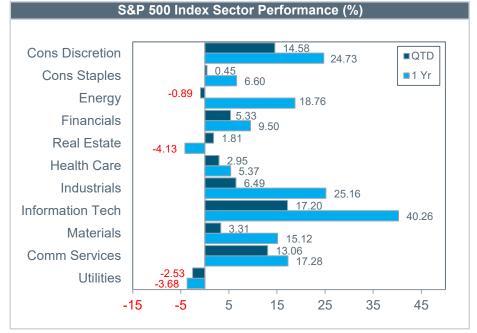
Active large-cap managers continued to struggle to generate excess returns as index concentration rises. Mid-cap managers generally performed well in Q2 while a majority of active small-cap managers failed to outpace their respective benchmarks.

Style and Sector

Growth outperformed value by a significant margin across market caps for the second consecutive quarter. The return spread of the Russell 1000 and Russell 2000 Growth and Value Indexes were 8.7% and 3.9%, respectively. Additionally, the MSCI USA Cyclical Index continued to outperform the MSCI USA Defensive Index by 27.6% year-to-date, indicating improving economic sentiment from investors despite continued near-term uncertainty around inflation and interest rates.











Non-US Equity Review
As of June 30, 2023

Second Quarter Review

Developed Markets

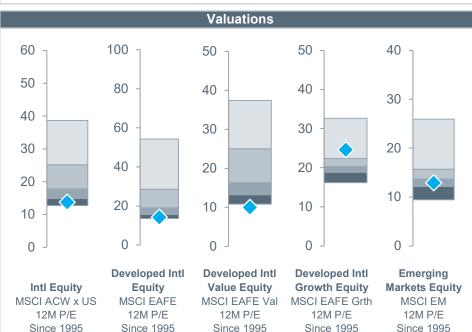
Following two consecutive quarters of outperformance, developed equity underperformed the US in Q2, with the MSCI EAFE returning 3.0%. Value stocks outperformed growth stocks, while developed large-cap stocks outperformed small-cap stocks. While most active large-cap managers outperformed the MSCI EAFE Index, small-cap managers broadly underperformed the MSCI EAFE Small Cap Index.

Emerging Markets

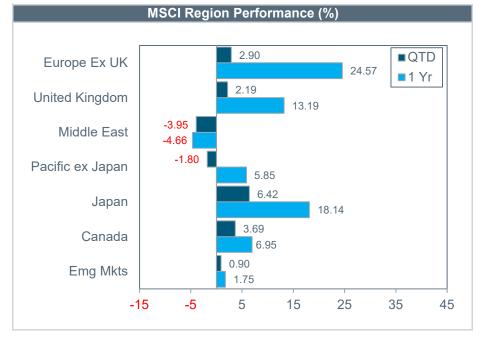
Emerging markets lagged developed markets in Q2, with the MSCI Emerging Market Index returning 0.9% as value outperformed growth and small-cap stocks outperformed large-cap stocks. The majority of active emerging market managers outperformed in Q2.

Market Cap & Style

While inflation in the US began to show signs of abatement, inflation continued to climb in Europe. Persistent above-target headline inflation combined with a tight labor market led the ECB to raise interest rates to 3.5%, its highest level in over 20 years.









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.



Fixed Income Review

As of June 30, 2023

Second Quarter Review

Broad Market

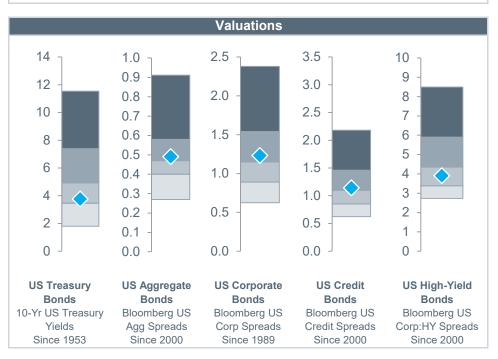
In Q2, the Fed maintained its interest rate range, breaking the streak of consecutive rate hikes. However, Fed Chair Powell noted that future rate hikes could still occur based on economic conditions. Treasury yields rose across maturities, with the 10-year yield reaching 3.85%. The yield curve inversion between the 2-year and 10-year yields deepened in Q2, nearing the peak observed in March prior to the bank failures. Against this backdrop, the Bloomberg US Aggregate Bond Index posted a return of -0.84%.

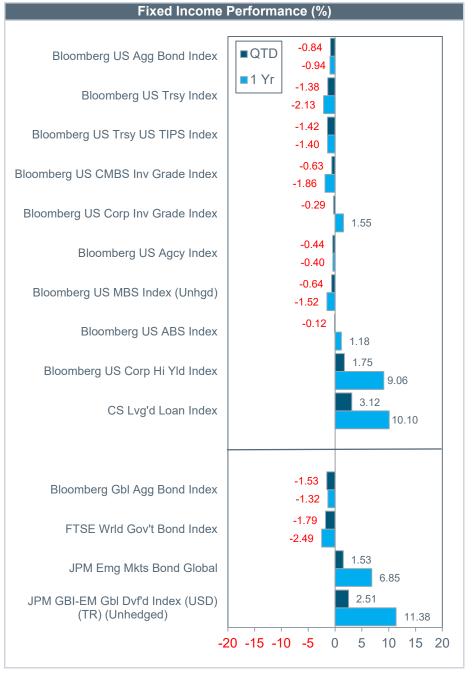
Credit Market

One trend observed in Q1 persisted, with lower-rated bonds delivering better performance. The Bloomberg US Corporate Investment Grade Index returned -0.29% in Q2, lagging the Bloomberg US Corporate High Yield Index return of 1.75%

Emerging Market Debt

Emerging markets debt provided positive returns in Q2, with the JPMorgan EMBI Global Diversified Index returning 2.19%. Yields on emerging market sovereign and corporate bonds decreased, while high-yield issuers outperformed investment-grade issuers due to a risk-on environment. Local emerging markets outperformed hard currency, with the JPMorgan GBIEM Global Diversified Index returning 2.51%.







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



Alternatives Review As of June 30, 2023

Second Quarter Review - Absolute Return

General Market - Hedge Funds

In Q2, hedge funds delivered a second straight quarter of positive results. The HFRI Fund-Weighted Composite Index reported a net return of 2.2%, highlighted by mixed results from commodity and macro-oriented managers amidst the Fed's slowing interest rate trajectory and cooling inflation data. While the dispersion of return among strategies has been wide in Q2, market-neutral strategies focusing on relative value, dispersion, and volatility trading have been able to benefit from turbulence caused by the regional banking crisis fallout. However, most have struggled to generate short alpha in technology-oriented indsutries that have been broadly rallying in recent months.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generally posted positive returns during Q2 with moderate dispersion. However, a US-centric blend of 60% equity and 40% fixed income outperformed most diversified active managers due to larger allocations to mega-cap equity holdings.

HFRI Hedge Fund Performance (%) 1.43 HFRI FOF ■ QTD 3.58 1.29 Conv Arbitrage ■1 Yr 7.10 2.87 Equity Hedge 7.39 1.10 Mkt Neutral Eq 3.39 1.25 Distressed 1.90 Macro -0.17 1.21 Relative Value 4.08 1.28 **Event Driven** 5.49 -1.05 Merger Arb 1.85 1.55 Credit Arb 7.79 5 -5 0 10

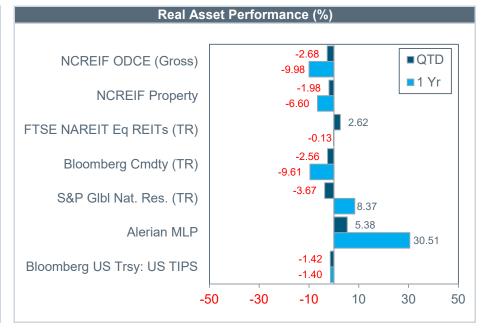
Second Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategy (DIS) managers tracked closely by RVK broadly underperformed a US-centric blend of 60% equity and 40% fixed income during the quarter. Managers with larger exposures to commodities and TIPS lagged peers most significantly while those with larger REIT and Global Listed Infrastructure allocations tended to outperform peers.

General Market - Real Estate

Core private real estate generated a -2.7% in Q2 (on a preliminary and gross-of-fee basis), as reported by the NFI-ODCE Index, with the total return comprising 0.9% from income and -3.6% from price appreciation. Income returns continue to trend at the lower end of historical levels while price appreciation continues to remain negative. Investors of publicly traded real estate significantly outperformed their private market counterparts by a meaningful margin, with publicly traded real estate delivering a Q2 total return of 1.6%, as measured by FTSE NAREIT All REIT Index. In Q2, private real estate markets continued to experience similar trends as the prior three quarters. Significant headwinds persisted as a direct result of disruptions in the capital markets from 2022.





Annual Asset Class Performance As of June 30, 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	16.89
†	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	11.67
	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	8.09
	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	5.53
	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	5.38
	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	5.37
	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	4.89
	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	4.39
	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	2.25
	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	2.18
	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	2.09
	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	1.87
	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	-5.77
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	-7.79
S&P 500 US Larg Cap	ge US Sr	mall (Net)		(Net) - (N	MSCI EM Net) - Int'l img Mkts	Bloombrg US Agg Bond - Fl	Bloombrg US Corp H Yield - Fl	Bloombrg i US Trsy U TIPS - FI	S Credit I	ov OD ng (Gro	CE NAR	EIT Eq (EITs In	RI FOF Comp ndex - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv



Oklahoma State Pension Commission



Oklahoma State Pension Commission All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation	n						Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	39,893,876,575	100.00												
OTRS (Teachers) Total Fund	20,718,449,640	51.93	2.59	6.72	8.04	8.04	9.12	6.62	8.19	7.83	-13.25	18.20	13.22	19.48
OTRS Policy Index			4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	-14.07	15.60	15.24	21.72
Difference			-1.67	-2.60	-4.09	-4.09	0.11	-0.87	-0.27	-0.15	0.82	2.60	-2.02	-2.24
OTRS Actual Allocation Index			4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	-15.02	16.21	16.98	18.94
Difference			-1.74	-2.86	-3.32	-3.32	0.11	-0.59	-0.10	-0.20	1.77	1.99	-3.76	0.54
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			0.88	3.28	1.04	1.04	2.12	-0.38	1.19	0.83	-20.25	11.20	6.22	12.48
OPERS (Public Employees) Total Fund	11,127,273,143	27.89	3.59	9.88	10.81	10.81	6.52	6.03	7.27	7.12	-16.74	12.29	15.18	21.23
OPERS Policy Index			3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	-16.62	11.54	15.19	21.46
Difference			-0.03	0.25	0.31	0.31	0.30	0.01	0.01	0.03	-0.12	0.75	-0.01	-0.23
OPERS Actual Allocation Index			3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	-16.87	12.14	18.93	20.87
Difference			-0.11	0.21	0.43	0.43	0.23	-0.56	-0.35	-0.25	0.13	0.15	-3.75	0.36
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			2.00	6.68	4.31	4.31	0.02	-0.47	0.77	0.62	-23.24	5.79	8.68	14.73
OFPRS (Firefighters) Total Fund	3,425,809,174	8.59	3.63	8.18	8.70	8.70	8.48	7.28	8.80	8.47	-13.34	13.46	17.97	19.77
OFPRS Policy Index			4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	-13.50	16.12	15.02	21.76
Difference			-0.45	-0.86	-1.45	-1.45	-0.31	-0.57	-0.02	-0.21	0.16	-2.66	2.95	-1.99
OFPRS Actual Allocation Index			4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	-12.83	16.99	14.72	20.30
Difference			-0.43	-0.72	-0.65	-0.65	-0.73	-0.27	-0.04	0.09	-0.51	-3.53	3.25	-0.53
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			1.81	4.50	1.20	1.20	0.98	-0.22	1.30	0.97	-20.84	5.96	10.47	12.27
OPPRS (Police) Total Fund	3,018,786,009	7.57	1.87	4.03	2.96	2.96	8.21	6.13	7.14	6.71	-10.39	17.28	12.17	15.22
OPPRS Policy Index			4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	-13.27	14.76	12.66	19.13
Difference			-2.13	-5.62	-7.38	-7.38	0.31	-0.64	-0.35	-0.16	2.88	2.52	-0.49	-3.91
OPPRS Actual Allocation Index			3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	-12.42	13.63	14.47	15.02
Difference			-1.70	-3.70	-5.82	-5.82	1.01	0.08	0.09	0.14	2.03	3.65	-2.30	0.20
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.05	0.35	-4.54	-4.54	0.71	-1.37	-0.36	-0.79	-17.89	9.78	4.67	7.72



Oklahoma State Pension Commission All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation							Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OLERS (Law Enforcement) Total Fund	1,094,871,781	2.74	2.54	6.36	6.17	6.17	6.83	5.16	6.68	6.34		14.56	12.26	17.44
OLERS Policy Index			3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	-13.75	14.02	12.84	19.12
Difference			-0.97	-1.55	-2.34	-2.34	-0.16	-1.04	-0.69	-0.94	-0.49	0.54	-0.58	-1.68
OLERS Actual Allocation Index			3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	-13.91	14.75	21.88	17.33
Difference			-1.39	-2.62	-4.00	-4.00	-2.32	-2.88	-1.93	-1.74	-0.33	-0.19	-9.62	0.11
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.72	2.68	-1.33	-1.33	-0.67	-2.34	-0.82	-1.16	-21.74	7.06	4.76	9.94
URSJJ (Judges) Total Fund	379,774,059	0.95	3.69	9.72	10.53	10.53	6.30	5.93	7.20	7.06	-16.95	12.08	15.06	21.36
URSJJ Policy Index			3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	-16.62	11.54	15.19	21.51
Difference			0.07	0.09	0.03	0.03	0.08	-0.10	-0.07	-0.04	-0.33	0.54	-0.13	-0.15
URSJJ Actual Allocation Index			3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	-16.86	12.10	18.70	21.01
Difference			0.00	0.06	0.15	0.15	0.03	-0.62	-0.39	-0.22	-0.09	-0.02	-3.64	0.35
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			2.10	6.52	4.03	4.03	-0.20	-0.57	0.70	0.56	-23.45	5.58	8.56	14.86
OWCRS (Wildlife) Total Fund	128,912,769	0.32	5.25	12.50	13.78	13.78	7.04	6.56	7.36	7.04	-14.41	11.58	13.00	19.21
OWCRS Policy Index			4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	-15.39	10.17	12.67	17.53
Difference			0.89	2.47	2.30	2.30	1.26	1.49	1.39	1.11	0.98	1.41	0.33	1.68
OWCRS Actual Allocation Index			4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	-15.18	10.28	13.21	20.53
Difference			0.78	2.44	2.76	2.76	0.81	0.49	0.32	0.08	0.77	1.30	-0.21	-1.32
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			3.54	9.06	6.78	6.78	0.04	-0.44	0.36	0.04	-21.41	4.58	6.00	12.21



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

	Allocation	า						Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	39,893,876,575	100.00												
All Public Plans-Total Fund Median			3.05	7.45	8.82	8.82	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57
OTRS (Teachers) Total Fund	20,718,449,640	51.93	2.62	6.80	8.21	8.21	9.32	6.85	8.47	8.18	-13.08	18.42	13.45	19.83
OTRS Policy Index			4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	-14.07	15.60	15.24	21.72
Difference			-1.64	-2.52	-3.92	-3.92	0.31	-0.64	0.01	0.20	0.99	2.82	-1.79	-1.89
OTRS Actual Allocation Index			4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	-15.02	16.21	16.98	18.94
Difference			-1.71	-2.78	-3.15	-3.15	0.31	-0.36	0.18	0.15	1.94	2.21	-3.53	0.89
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			0.91	3.36	1.21	1.21	2.32	-0.15	1.47	1.18	-20.08	11.42	6.45	12.83
Rank			72	67	59	59	17	41	20	15	55	9	38	32
OPERS (Public Employees) Total Fund	11,127,273,143	27.89	3.62	9.93	10.95	10.95	6.66	6.16	7.40	7.25	-16.64	12.46	15.34	21.38
OPERS Policy Index			3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	-16.62	11.54	15.19	21.46
Difference			0.00	0.30	0.45	0.45	0.44	0.14	0.14	0.16	-0.02	0.92	0.15	-0.08
OPERS Actual Allocation Index			3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	-16.87	12.14	18.93	20.87
Difference			-0.08	0.26	0.57	0.57	0.37	-0.43	-0.22	-0.12	0.23	0.32	-3.59	0.51
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			2.03	6.73	4.45	4.45	0.16	-0.34	0.90	0.75	-23.14	5.96	8.84	14.88
Rank			23	8	13	13	74	67	62	57	95	72	19	12
OFPRS (Firefighters) Total Fund	3,425,809,174	8.59	3.70	8.33	9.04	9.04	8.86	7.65	9.17	8.83	-13.03	13.87	18.44	20.15
OFPRS Policy Index			4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	-13.50	16.12	15.02	21.76
Difference			-0.38	-0.71	-1.11	-1.11	0.07	-0.20	0.35	0.15	0.47	-2.25	3.42	-1.61
OFPRS Actual Allocation Index			4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	-12.83	16.99	14.72	20.30
Difference			-0.36	-0.57	-0.31	-0.31	-0.35	0.10	0.33	0.45	-0.20	-3.12	3.72	-0.15
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			1.88	4.65	1.54	1.54	1.36	0.15	1.67	1.33	-20.53	6.37	10.94	12.65
Rank			20	30	46	46	26	13	5	4	54	54	5	27



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

	Allocation							Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OPPRS (Police) Total Fund	3,018,786,009	7.57	1.87	4.08	3.19	3.19	8.58	6.51	7.55	7.13	-9.99	17.71	12.54	15.68
OPPRS Policy Index			4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	-13.27	14.76	12.66	19.13
Difference			-2.13	-5.57	-7.15	-7.15	0.68	-0.26	0.06	0.26	3.28	2.95	-0.12	-3.45
OPPRS Actual Allocation Index			3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	-12.42	13.63	14.47	15.02
Difference			-1.70	-3.65	-5.59	-5.59	1.38	0.46	0.50	0.56	2.43	4.08	-1.93	0.66
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.05	0.40	-4.31	-4.31	1.08	-0.99	0.05	-0.37	-17.49	10.21	5.04	8.18
Rank			90	94	96	96	32	56	55	61	20	13	50	85
OLERS (Law Enforcement) Total Fund	1,094,871,781	2.74	2.65	6.60	6.64	6.64	7.30	5.66	7.22	6.90	-13.87	15.04	12.80	18.07
OLERS Policy Index			3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	-13.75	14.02	12.84	19.12
Difference			-0.86	-1.31	-1.87	-1.87	0.31	-0.54	-0.15	-0.38	-0.12	1.02	-0.04	-1.05
OLERS Actual Allocation Index			3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	-13.91	14.75	21.88	17.33
Difference			-1.28	-2.38	-3.53	-3.53	-1.85	-2.38	-1.39	-1.18	0.04	0.29	-9.08	0.74
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			0.83	2.92	-0.86	-0.86	-0.20	-1.84	-0.28	-0.60	-21.37	7.54	5.30	10.57
Rank			70	71	81	81	62	80	69	70	64	36	47	57
URSJJ (Judges) Total Fund	379,774,059	0.95	3.70	9.75	10.57	10.57	6.33	5.97	7.24	7.10	-16.93	12.12	15.10	21.40
URSJJ Policy Index			3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	-16.62	11.54	15.19	21.51
Difference			0.08	0.12	0.07	0.07	0.11	-0.06	-0.03	0.00	-0.31	0.58	-0.09	-0.11
URSJJ Actual Allocation Index			3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	-16.86	12.10	18.70	21.01
Difference			0.01	0.09	0.19	0.19	0.06	-0.58	-0.35	-0.18	-0.07	0.02	-3.60	0.39
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			2.11	6.55	4.07	4.07	-0.17	-0.53	0.74	0.60	-23.43	5.62	8.60	14.90
Rank			20	9	17	17	79	72	67	63	96	77	22	11
OWCRS (Wildlife) Total Fund	128,912,769	0.32	5.34	12.68	14.15	14.15	7.39	6.86	7.63	7.29	-14.14	11.95	13.34	19.46
OWCRS Policy Index			4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	-15.39	10.17	12.67	17.53
Difference			0.98	2.65	2.67	2.67	1.61	1.79	1.66	1.36	1.25	1.78	0.67	1.93
OWCRS Actual Allocation Index			4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	-15.18	10.28	13.21	20.53
Difference			0.87	2.62	3.13	3.13	1.16	0.79	0.59	0.33	1.04	1.67	0.13	-1.07
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			3.63	9.24	7.15	7.15	0.39	-0.14	0.63	0.29	-21.14	4.95	6.34	12.46
Rank			2	1	1	1	60	41	51	55	68	79	39	37



Oklahoma State Pension Commission All Plans Summary

Asset Class Performance - Net of Fees

						Perform	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
US Equity												
OTRS US Equity	6.00	11.73	15.41	15.41	13.87	8.51	11.25	10.68	-16.72	24.40	15.40	27.64
Russell 3000 Index	8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	-19.21	25.66	20.89	31.02
Difference	-2.39	-4.44	-3.54	-3.54	-0.02	-2.88	-1.61	-1.66	2.49	-1.26	-5.49	-3.38
OPERS US Equity	7.83	15.13	18.77	18.77	14.54	10.93	12.76	12.07	-17.77	25.96	20.37	29.26
OPERS US Equity Custom Index	8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	-19.29	24.73	20.97	30.56
Difference	-0.25	-0.28	0.41	0.41	0.86	0.12	0.22	0.02	1.52	1.23	-0.60	-1.30
OFPRS US Equity	7.02	14.50	17.76	17.76	11.68	10.04	12.30	11.69	-20.77	19.50	25.45	31.05
Wilshire 5000 Index	8.43	16.34	19.06	19.06	14.24	11.67	13.05	12.51	-19.04	26.70	20.82	31.02
Difference	-1.41	-1.84	-1.30	-1.30	-2.56	-1.63	-0.75	-0.82	-1.73	-7.20	4.63	0.03
OLERS US Equity	7.26	13.69	17.12	17.12	13.49	9.17	11.97	11.02	-20.76	25.49	19.46	32.12
S&P 500 Index (Cap Wtd)	8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	-18.11	28.71	18.40	31.49
Difference	-1.48	-3.20	-2.47	-2.47	-1.11	-3.14	-1.41	-1.84	-2.65	-3.22	1.06	0.63
URSJJ US Equity	8.09	15.38	18.36	18.36	13.68	10.75	12.50	12.02	-19.30	24.69	21.02	30.49
URSJJ US Equity Custom Index	8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	-19.29	24.73	20.97	30.56
Difference	0.01	-0.03	0.00	0.00	0.00	-0.06	-0.04	-0.03	-0.01	-0.04	0.05	-0.07
OWCRS US Equity	9.56	19.80	22.78	22.78	15.06	11.78	13.42	12.64	-17.26	26.38	18.87	28.92
Russell 3000 Index	8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	-19.21	25.66	20.89	31.02
Difference	1.17	3.63	3.83	3.83	1.17	0.39	0.56	0.30	1.95	0.72	-2.02	-2.10



Oklahoma State Pension Commission All Plans Summary

Asset Class Performance - Net of Fees

QTD CYTD FYTD 1 year 3 years 5 years 7 years 10 years 202 International Equity QTRS International Equity 2.28 9.64 11.23 11.23 7.15 2.50 5.99 4.94 -20 MSCI ACW Ex US IM Index (USD) (Gross) 2.61 9.48 13.08 13.08 7.85 3.87 6.78 5.36 -16. Difference -0.33 0.16 -1.85 -1.85 -0.70 -1.37 -0.79 -0.42 -4. OPERS International Equity 2.56 10.63 13.33 13.33 6.98 3.81 6.32 5.10 -17. MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15. Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1. OFPRS International Equity 1.93 10.11 12.57	22 2021	2020	
OTRS International Equity 2.28 9.64 11.23 11.23 7.15 2.50 5.99 4.94 -20. MSCI ACW Ex US IM Index (USD) (Gross) 2.61 9.48 13.08 13.08 7.85 3.87 6.78 5.36 -16. Difference -0.33 0.16 -1.85 -1.85 -0.70 -1.37 -0.79 -0.42 -4. OPERS International Equity 2.56 10.63 13.33 13.33 6.98 3.81 6.32 5.10 -17. MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15. Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1. OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 201 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.5			2019
MSCI ACW Ex US IM Index (USD) (Gross) 2.61 9.48 13.08 13.08 7.85 3.87 6.78 5.36 -16. Difference -0.33 0.16 -1.85 -1.85 -0.70 -1.37 -0.79 -0.42 -4. OPERS International Equity 2.56 10.63 13.33 13.33 6.98 3.81 6.32 5.10 -17. MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15.8 Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1.8 OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 2.11 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30			
MSCI ACW Ex US IM Index (USD) (Gross) 2.61 9.48 13.08 13.08 7.85 3.87 6.78 5.36 -16. Difference -0.33 0.16 -1.85 -1.85 -0.70 -1.37 -0.79 -0.42 -4. OPERS International Equity 2.56 10.63 13.33 13.33 6.98 3.81 6.32 5.10 -17. MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15. Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1.8 OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 4.75 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30	25 11.24	12.13	21.38
OPERS International Equity 2.56 10.63 13.33 13.33 6.98 3.81 6.32 5.10 -17.8 MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15.8 Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1.8 OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 41.9 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30 2.17 -5.	15 8.99	11.59	22.24
MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15.8 Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1.8 OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 41.8 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30 2.17 -5.	10 2.25	0.54	-0.86
Difference -0.11 0.77 0.00 0.00 -0.77 -0.20 -0.51 -0.14 -1.6 OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 21. MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30 2.17 -5.	40 6.98	12.30	23.21
OFPRS International Equity 1.93 10.11 12.57 12.57 6.62 6.04 8.62 6.92 211 MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.52 6.32 4.75 -16.0 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30 2.17 -5.	57 8.29	11.13	22.13
MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.52 6.32 4.75 -16.1 Difference -0.51 0.64 -0.15 -0.15 -0.60 2.52 2.30 2.17 -5.	83 -1.31	1.17	1.08
Difference -0.51 0.64 -0.15 -0.60 2.52 2.30 2.17 -5.	14 7.00	31.77	26.48
	7.82	10.65	21.51
OLERS International Equity 2.56 10.43 11.42 11.42 6.16 <u>3.50 6.05 4.61 -19.</u>	14 -0.82	21.12	4.97
	15 7.51	12.49	23.70
MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15.4	57 8.29	11.13	22.13
Difference -0.11 0.57 -1.91 -1.59 -0.51 -0.78 -0.63 -3.9	58 -0.78	1.36	1.57
URSJJ International Equity 2.60 9.75 13.07 13.07 7.51 3.79 6.60 5.01 -15.	73 8.06	10.86	21.83
MSCI ACW Ex US Index (USD) (Gross) 2.67 9.86 13.33 13.33 7.75 4.01 6.83 5.24 -15.4	57 8.29	11.13	22.13
Difference -0.07 -0.11 -0.26 -0.26 -0.24 -0.22 -0.23 -0.23 -0.	16 -0.23	-0.27	-0.30
OWCRS International Equity 2.20 9.88 13.99 13.99 6.89 3.11 6.33 4.91 -15.	79 5.57	10.17	23.05
MSCI ACW Ex US Index (USD) (Net) 2.44 9.47 12.72 12.72 7.22 3.52 6.32 4.75 -16.		10.65	21.51
Difference -0.24 0.41 1.27 1.27 -0.33 -0.41 0.01 0.16 0.3	21 -2.25	-0.48	1.54
Total Equity			
OPPRS Total Equity 3.83 7.59 6.89 6.89 12.03 8.56 9.99 9.10 -15.	22 23.58	18.46	21.98
MSCI ACW Index (USD) (Gross) 6.35 14.26 17.13 17.13 11.51 8.64 10.50 9.31 -17.13	96 19.04	16.82	27.30
Difference -2.52 -6.67 -10.24 -10.24 0.52 -0.08 -0.51 -0.21 2.7	74 4.54	1.64	-5.32



Asset Class Performance - Net of Fees

		Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Fixed Income													
OTRS Fixed Income	-0.46	3.31	0.88	0.88	-3.31	1.63	1.80	2.77	-16.24	0.05	11.91	11.84	
Bloomberg US Unv Bond Index	-0.59	2.32	-0.04	-0.04	-3.43	0.98	0.79	1.80	-12.99	-1.10	7.58	9.29	
Difference	0.13	0.99	0.92	0.92	0.12	0.65	1.01	0.97	-3.25	1.15	4.33	2.55	
OPERS Fixed Income	-0.97	2.58	-1.07	-1.07	-4.17	1.26	0.82	2.00	-15.02	-0.82	10.54	10.12	
OPERS Fixed Income Custom Index	-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	-15.08	-1.01	9.08	9.43	
Difference	0.10	0.21	0.72	0.72	0.33	0.47	0.43	0.35	0.06	0.19	1.46	0.69	
OFPRS Fixed Income	-0.76	2.90	0.17	0.17	-3.06	-0.28	0.07	1.09	-14.23	-2.93	8.25	6.97	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.08	0.81	1.11	1.11	0.91	-1.05	-0.37	-0.43	-1.22	-1.38	0.74	-1.75	
OPPRS Fixed Income	0.35	2.54	1.84	1.84	-0.21	1.51	1.88	2.13	-8.90	1.28	6.63	7.24	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	1.19	0.45	2.78	2.78	3.76	0.74	1.44	0.61	4.11	2.83	-0.88	-1.48	
OLERS Fixed Income	-0.79	2.46	-0.29	-0.29	-3.93	-0.20	0.24	1.08	-13.40	-1.91	5.47	6.01	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.05	0.37	0.65	0.65	0.04	-0.97	-0.20	-0.44	-0.39	-0.36	-2.04	-2.71	
URSJJ Fixed Income	-0.98	2.59	-1.12	-1.12	-4.24	1.23	0.77	1.96	-15.07	-0.92	10.58	10.06	
URSJJ Fixed Income Custom Index	-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	-15.08	-1.01	9.08	9.43	
Difference	0.09	0.22	0.67	0.67	0.26	0.44	0.38	0.31	0.01	0.09	1.50	0.63	
OWCRS Fixed Income	-0.15	3.07	0.79	0.79	-2.48	1.35	0.78	1.50	-12.29	-0.41	8.29	7.94	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.69	0.98	1.73	1.73	1.49	0.58	0.34	-0.02	0.72	1.14	0.78	-0.78	



Asset Class Performance - Net of Fees

	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Real Estate												
OTRS Real Estate	-4.84	-7.98	-4.35	-4.35	6.40	5.37	5.82	N/A	18.29	11.65	-2.48	5.59
NCREIF Property Index	-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	5.52	17.70	1.60	6.42
Difference	-2.86	-4.22	2.25	2.25	-0.39	-0.53	-0.42	N/A	12.77	-6.05	-4.08	-0.83
NCREIF ODCE Index (AWA) (Net)	-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.55	21.02	0.34	4.39
Difference	-1.96	-1.82	6.38	6.38	-0.64	-0.19	-0.20	N/A	11.74	-9.37	-2.82	1.20
OPERS Real Estate	1.37	2.98	7.59	7.59	0.81	-1.37	-0.62	N/A	6.35	-8.15	-8.51	2.90
NCREIF ODCE Index (AWA) (Net)	-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.55	21.02	0.34	4.39
Difference	4.25	9.14	18.32	18.32	-6.23	-6.93	-6.64	N/A	-0.20	-29.17	-8.85	-1.49
OFPRS Real Estate	-0.84	-3.08	-6.32	-6.32	5.89	5.20	6.00	7.68	6.39	16.14	-0.50	3.99
NCREIF ODCE Index (AWA) (Net)	-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.55	21.02	0.34	4.39
Difference	2.04	3.08	4.41	4.41	-1.15	-0.36	-0.02	-0.09	-0.16	-4.88	-0.84	-0.40
Real Assets												
OPPRS Real Assets	-3.85	-7.50	-9.58	-9.58	6.97	4.38	4.97	5.11	11.32	17.79	-1.07	3.52
OPPRS Real Assets Blended Benchmark	-2.88	-6.16	-10.73	-10.73	7.04	4.53	4.63	3.61	6.55	21.02	0.34	4.43
Difference	-0.97	-1.34	1.15	1.15	-0.07	-0.15	0.34	1.50	4.77	-3.23	-1.41	-0.91
OLERS Real Assets	-3.21	-6.50	-10.87	-10.87	5.55	3.68	4.26	4.93	4.82	18.80	0.06	2.74
OLERS Real Assets Blended Benchmark	-2.88	-6.16	-10.73	-10.73	7.04	4.63	4.76	4.83	6.55	21.02	0.34	4.46
Difference	-0.33	-0.34	-0.14	-0.14	-1.49	-0.95	-0.50	0.10	-1.73	-2.22	-0.28	-1.72



Asset Class Performance - Net of Fees

		Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Hedge Funds													
OFPRS Hedge Fund	-0.08	14.75	44.76	44.76	-3.41	-4.19	-1.06	-0.68	0.36	-26.04	-4.62	3.52	
HFRI FOF Cnsvt Index	1.02	1.95	3.64	3.64	6.07	3.92	4.13	3.47	0.08	7.62	6.47	6.30	
Difference	-1.10	12.80	41.12	41.12	-9.48	-8.11	-5.19	-4.15	0.28	-33.66	-11.09	-2.78	
OPPRS Long/Short Equity	6.11	9.33	12.96	12.96	3.00	3.55	5.26	4.89	-17.32	0.11	22.33	16.34	
MSCI ACW Index (USD) (Gross)	6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	-17.96	19.04	16.82	27.30	
Difference	-0.24	-4.93	-4.17	-4.17	-8.51	-5.09	-5.24	-4.42	0.64	-18.93	5.51	-10.96	
HFRI FOF Strat Index	1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	-11.71	6.26	14.62	10.52	
Difference	4.19	6.13	8.85	8.85	-1.32	0.89	1.22	1.54	-5.61	-6.15	7.71	5.82	
OLERS Long/Short Equity	5.78	8.26	11.96	11.96	0.81	0.39	3.20	3.30	-17.54	-1.52	13.12	12.40	
MSCI ACW Index (USD) (Gross)	6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	-17.96	19.04	16.82	27.30	
Difference	-0.57	-6.00	-5.17	-5.17	-10.70	-8.25	-7.30	-6.01	0.42	-20.56	-3.70	-14.90	
HFRI FOF Strat Index	1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	-11.71	6.26	14.62	10.52	
Difference	3.86	5.06	7.85	7.85	-3.51	-2.27	-0.84	-0.05	-5.83	-7.78	-1.50	1.88	



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

		Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Private Equity													
OTRS Private Equity	0.71	0.70	-3.21	-3.21	22.45	19.50	19.14	17.74	-0.26	57.72	17.27	17.73	
R 2000 Index+4%	6.24	10.23	16.80	16.80	15.26	8.38	13.11	12.59	-17.25	19.41	24.76	30.55	
Difference	-5.53	-9.53	-20.01	-20.01	7.19	11.12	6.03	5.15	16.99	38.31	-7.49	-12.82	
OFPRS Private Equity	4.81	7.81	6.75	6.75	24.96	17.08	16.90	N/A	10.18	49.68	7.49	6.45	
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86	
Difference	4.81	5.32	2.95	2.95	4.13	2.11	1.01	N/A	12.09	9.12	-14.98	-7.41	
OPPRS Private Equity	-0.07	-2.83	-11.51	-11.51	24.39	17.52	14.93	14.12	-1.91	67.32	15.87	10.51	
MSCI ACW Index (USD) (Gross)	6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	-17.96	19.04	16.82	27.30	
Difference	-6.42	-17.09	-28.64	-28.64	12.88	8.88	4.43	4.81	16.05	48.28	-0.95	-16.79	
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86	
Difference	-0.07	-5.32	-15.31	-15.31	3.56	2.55	-0.96	-0.41	0.00	26.76	-6.60	-3.35	
OLERS Private Equity	0.52	1.30	-0.99	-0.99	19.85	14.21	13.13	12.04	-0.26	41.10	20.25	14.02	
S&P 500 Index+5%	10.08	19.78	25.57	25.57	20.33	17.92	19.05	18.51	-14.02	35.14	24.32	38.06	
Difference	-9.56	-18.48	-26.56	-26.56	-0.48	-3.71	-5.92	-6.47	13.76	5.96	-4.07	-24.04	
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86	
Difference	0.52	-1.19	-4.79	-4.79	-0.98	-0.76	-2.76	-2.49	1.65	0.54	-2.22	0.16	
Other Alternatives													
OWCRS Alternative Investments	3.04	7.67	10.19	10.19	6.67	4.04	4.74	3.54	-6.41	8.64	2.14	15.31	
OWCRS Alternatives Custom Index	1.49	2.25	3.65	3.65	5.03	3.31	3.67	N/A	-5.31	6.17	10.88	8.38	
Difference	1.55	5.42	6.54	6.54	1.64	0.73	1.07	N/A	-1.10	2.47	-8.74	6.93	



		Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
US Equity													
OTRS US Equity	6.02	11.77	15.51	15.51	14.03	8.73	11.54	10.93	-16.60	24.61	15.62	28.03	
Russell 3000 Index	8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	-19.21	25.66	20.89	31.02	
Difference	-2.37	-4.40	-3.44	-3.44	0.14	-2.66	-1.32	-1.41	2.61	-1.05	-5.27	-2.99	
OPERS US Equity	7.84	15.17	18.97	18.97	14.71	11.08	12.90	12.20	-17.63	26.13	20.53	29.50	
OPERS US Equity Custom Index	8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	-19.29	24.73	20.97	30.56	
Difference	-0.24	-0.24	0.61	0.61	1.03	0.27	0.36	0.15	1.66	1.40	-0.44	-1.06	
OFPRS US Equity	7.09	14.65	18.12	18.12	12.02	10.38	12.62	12.01	-20.49	19.85	25.89	31.43	
Russell 3000 Index	8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	-19.21	25.66	20.89	31.02	
Difference	-1.30	-1.52	-0.83	-0.83	-1.87	-1.01	-0.24	-0.33	-1.28	-5.81	5.00	0.41	
OLERS US Equity	7.41	14.00	17.75	17.75	14.06	9.74	12.54	11.61	-20.32	26.08	20.00	32.83	
S&P 500 Index (Cap Wtd)	8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	-18.11	28.71	18.40	31.49	
Difference	-1.33	-2.89	-1.84	-1.84	-0.54	-2.57	-0.84	-1.25	-2.21	-2.63	1.60	1.34	
URSJJ US Equity	8.09	15.39	18.37	18.37	13.69	10.76	12.51	12.03	-19.30	24.70	21.03	30.51	
URSJJ US Equity Custom Index	8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	-19.29	24.73	20.97	30.56	
Difference	0.01	-0.02	0.01	0.01	0.01	-0.05	-0.03	-0.02	-0.01	-0.03	0.06	-0.05	
OWCRS US Equity	9.60	19.88	22.95	22.95	15.24	11.99	13.65	12.86	-17.14	26.59	19.18	29.17	
Russell 3000 Index	8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	-19.21	25.66	20.89	31.02	
Difference	1.21	3.71	4.00	4.00	1.35	0.60	0.79	0.52	2.07	0.93	-1.71	-1.85	



	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
International Equity												
OTRS International Equity	2.31	9.76	11.57	11.57	7.56	2.93	6.47	5.39	-19.91	11.72	12.61	21.95
MSCI ACW Ex US IM Index (USD) (Gross)	2.61	9.48	13.08	13.08	7.85	3.87	6.78	5.36	-16.15	8.99	11.59	22.24
Difference	-0.30	0.28	-1.51	-1.51	-0.29	-0.94	-0.31	0.03	-3.76	2.73	1.02	-0.29
OPERS International Equity	2.59	10.71	13.46	13.46	7.17	3.97	6.50	5.27	-17.30	7.22	12.53	23.34
MSCI ACW Ex US Index (USD) (Gross)	2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	-15.57	8.29	11.13	22.13
Difference	-0.08	0.85	0.13	0.13	-0.58	-0.04	-0.33	0.03	-1.73	-1.07	1.40	1.21
OFPRS International Equity	1.99	10.29	13.10	13.10	7.20	6.64	9.29	7.56	-20.65	7.66	32.50	27.22
MSCI ACW Ex US Index (USD) (Net)	2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	-16.00	7.82	10.65	21.51
Difference	-0.45	0.82	0.38	0.38	-0.02	3.12	2.97	2.81	-4.65	-0.16	21.85	5.71
OLERS International Equity	2.72	10.76	12.10	12.10	6.76	4.08	6.67	5.18	-18.42	7.69	13.02	24.39
MSCI ACW Ex US Index (USD) (Gross)	2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	-15.57	8.29	11.13	22.13
Difference	0.05	0.90	-1.23	-1.23	-0.99	0.07	-0.16	-0.06	-2.85	-0.60	1.89	2.26
URSJJ International Equity	2.61	9.78	13.10	13.10	7.54	3.81	6.64	5.05	-15.72	8.09	10.87	21.86
MSCI ACW Ex US Index (USD) (Gross)	2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	-15.57	8.29	11.13	22.13
Difference	-0.06	-0.08	-0.23	-0.23	-0.21	-0.20	-0.19	-0.19	-0.15	-0.20	-0.26	-0.27
OWCRS International Equity	2.34	10.17	14.60	14.60	7.47	3.73	7.03	5.51	-15.34	6.16	10.82	23.86
MSCI ACW Ex US Index (USD) (Net)	2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	-16.00	7.82	10.65	21.51
Difference	-0.10	0.70	1.88	1.88	0.25	0.21	0.71	0.76	0.66	-1.66	0.17	2.35
Total Equity												
OPPRS Total Equity	3.89	7.70	7.12	7.12	12.31	8.86	10.32	9.44	-15.04	23.90	18.81	22.38
MSCI ACW Index (USD) (Gross)	6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	-17.96	19.04	16.82	27.30
Difference	-2.46	-6.56	-10.01	-10.01	0.80	0.22	-0.18	0.13	2.92	4.86	1.99	-4.92



		Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Fixed Income													
OTRS Fixed Income	-0.42	3.41	1.08	1.08	-3.14	1.82	2.01	2.98	-16.10	0.23	12.11	12.05	
Bloomberg US Unv Bond Index	-0.59	2.32	-0.04	-0.04	-3.43	0.98	0.79	1.80	-12.99	-1.10	7.58	9.29	
Difference	0.17	1.09	1.12	1.12	0.29	0.84	1.22	1.18	-3.11	1.33	4.53	2.76	
OPERS Fixed Income	-0.96	2.63	-1.01	-1.01	-4.09	1.35	0.90	2.09	-14.97	-0.72	10.65	10.19	
OPERS Fixed Income Custom Index	-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	-15.08	-1.01	9.08	9.43	
Difference	0.11	0.26	0.78	0.78	0.41	0.56	0.51	0.44	0.11	0.29	1.57	0.76	
OFPRS Fixed Income	-0.65	3.09	0.53	0.53	-2.78	-0.01	0.33	1.35	-13.89	-2.70	8.41	7.22	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.19	1.00	1.47	1.47	1.19	-0.78	-0.11	-0.17	-0.88	-1.15	0.90	-1.50	
OPPRS Fixed Income	0.43	2.78	2.24	2.24	0.13	1.90	2.29	2.58	-8.60	1.60	6.98	7.74	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	1.27	0.69	3.18	3.18	4.10	1.13	1.85	1.06	4.41	3.15	-0.53	-0.98	
OLERS Fixed Income	-0.73	2.59	-0.04	-0.04	-3.72	0.04	0.49	1.35	-13.22	-1.71	5.74	6.29	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.11	0.50	0.90	0.90	0.25	-0.73	0.05	-0.17	-0.21	-0.16	-1.77	-2.43	
URSJJ Fixed Income	-0.96	2.63	-1.05	-1.05	-4.16	1.31	0.86	2.05	-15.02	-0.82	10.70	10.14	
URSJJ Fixed Income Custom Index	-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	-15.08	-1.01	9.08	9.43	
Difference	0.11	0.26	0.74	0.74	0.34	0.52	0.47	0.40	0.06	0.19	1.62	0.71	
OWCRS Fixed Income	-0.08	3.22	1.10	1.10	-2.18	1.56	0.93	1.60	-12.01	-0.10	8.56	7.94	
Bloomberg US Agg Bond Index	-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	
Difference	0.76	1.13	2.04	2.04	1.79	0.79	0.49	0.08	1.00	1.45	1.05	-0.78	



	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Real Estate												
OTRS Real Estate	-4.78	-7.86	-4.10	-4.10	6.67	5.59	6.03	N/A	18.60	11.92	-2.27	5.77
NCREIF Property Index	-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	5.52	17.70	1.60	6.42
Difference	-2.80	-4.10	2.50	2.50	-0.12	-0.31	-0.21	N/A	13.08	-5.78	-3.87	-0.65
NCREIF ODCE Index (AWA) (Gross)	-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34
Difference	-2.10	-2.10	5.87	5.87	-1.32	-0.91	-0.94	N/A	11.13	-10.25	-3.46	0.43
OPERS Real Estate	1.37	2.98	7.59	7.59	0.81	-1.37	-0.62	N/A	6.35	-8.15	-8.51	2.90
NCREIF ODCE Index (AWA) (Gross)	-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34
Difference	4.05	8.74	17.56	17.56	-7.18	-7.87	-7.59	N/A	-1.12	-30.32	-9.70	-2.44
OFPRS Real Estate	-0.70	-2.80	-5.78	-5.78	6.53	5.86	6.69	8.34	7.01	16.84	0.18	4.69
NCREIF Property Index	-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	5.52	17.70	1.60	6.42
Difference	1.28	0.96	0.82	0.82	-0.26	-0.04	0.45	0.52	1.49	-0.86	-1.42	-1.73
NCREIF ODCE Index (AWA) (Gross)	-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34
Difference	1.98	2.96	4.19	4.19	-1.46	-0.64	-0.28	-0.40	-0.46	-5.33	-1.01	-0.65
Real Assets												
		=										
OPPRS Real Assets	-4.22	-7.89	-9.56	-9.56	7.90	5.19	5.79	5.87	13.11	19.08	-0.51	4.21
OPPRS Real Assets Blended Benchmark	-2.88	-6.16	-10.73	-10.73	7.04	4.53	4.63	3.61	6.55	21.02	0.34	4.43
Difference	-1.34	-1.73	1.17	1.17	0.86	0.66	1.16	2.26	6.56	-1.94	-0.85	-0.22
OLERS Real Assets	-3.02	-6.13	-10.19	-10.19	6.42	4.55	5.16	5.85	5.60	19.82	0.94	3.67
OLERS Real Assets Blended Benchmark	-2.88	-6.16	-10.73	-10.73	7.04	4.63	4.76	4.83	6.55	21.02	0.34	4.46
Difference	-0.14	0.03	0.54	0.54	-0.62	-0.08	0.40	1.02	-0.95	-1.20	0.60	-0.79



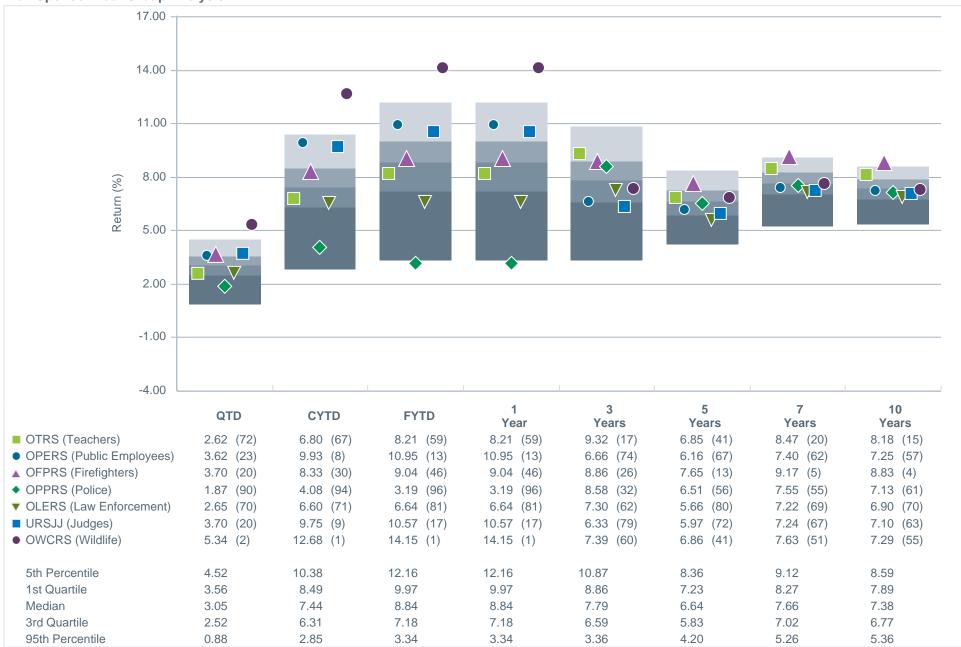
					Perform	ance (%)					
QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
-0.08	14.75	44.76	44.76	-3.41	-4.19	-1.06	-0.68	0.36	-26.04	-4.62	3.52
1.02	1.95	3.64	3.64	6.07	3.92	4.13	3.47	0.08	7.62	6.47	6.30
-1.10	12.80	41.12	41.12	-9.48	-8.11	-5.19	-4.15	0.28	-33.66	-11.09	-2.78
6.11	9.33	12.96	12.96	3.05	3.75	5.54	5.24	-17.31	0.14	22.68	16.85
1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	-11.71	6.26	14.62	10.52
4.19	6.13	8.85	8.85	-1.27	1.09	1.50	1.89	-5.60	-6.12	8.06	6.33
5.79	8.26	11.98	11.98	0.91	0.80	3.77	4.01	-17.53	-1.46	13.93	13.34
1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	-11.71	6.26	14.62	10.52
3.87	5.06	7.87	7.87	-3.41	-1.86	-0.27	0.66	-5.82	-7.72	-0.69	2.82
	-0.08 1.02 -1.10 6.11 1.92 4.19 5.79 1.92	0.08 14.75 1.02 1.95 -1.10 12.80 6.11 9.33 1.92 3.20 4.19 6.13 5.79 8.26 1.92 3.20	40.08 14.75 44.76 1.02 1.95 3.64 -1.10 12.80 41.12 6.11 9.33 12.96 1.92 3.20 4.11 4.19 6.13 8.85 5.79 8.26 11.98 1.92 3.20 4.11	40.08 14.75 44.76 44.76 1.02 1.95 3.64 3.64 -1.10 12.80 41.12 41.12 6.11 9.33 12.96 12.96 1.92 3.20 4.11 4.11 4.19 6.13 8.85 8.85 5.79 8.26 11.98 11.98 1.92 3.20 4.11 4.11	O.08 14.75 44.76 44.76 3.41 1.02 1.95 3.64 3.64 6.07 -1.10 12.80 41.12 41.12 -9.48 6.11 9.33 12.96 12.96 3.05 1.92 3.20 4.11 4.11 4.32 4.19 6.13 8.85 8.85 -1.27 5.79 8.26 11.98 11.98 0.91 1.92 3.20 4.11 4.11 4.32	QTD CYTD FYTD 1 Year 3 Years 5 Years 40.08 14.75 44.76 44.76 -9.41 4.49 1.02 1.95 3.64 3.64 6.07 3.92 -1.10 12.80 41.12 41.12 -9.48 -8.11 6.11 9.33 12.96 12.96 3.05 3.75 1.92 3.20 4.11 4.11 4.32 2.66 4.19 6.13 8.85 8.85 -1.27 1.09 5.79 8.26 11.98 11.98 0.91 0.80 1.92 3.20 4.11 4.11 4.32 2.66	QTD CYTD FYTD Year Years Years Years Years Years 0.08 14.75 44.76 44.76 3.41 4.19 4.06 1.02 1.95 3.64 3.64 6.07 3.92 4.13 -1.10 12.80 41.12 41.12 -9.48 -8.11 -5.19 6.11 9.33 12.96 12.96 3.05 3.75 5.54 1.92 3.20 4.11 4.11 4.32 2.66 4.04 4.19 6.13 8.85 8.85 -1.27 1.09 1.50 5.79 8.26 11.98 11.98 0.91 0.80 3.77 1.92 3.20 4.11 4.11 4.32 2.66 4.04	QTD CYTD FYTD 1 Year 3 Years 5 Years 7 Years 10 Years 40.08 14.75 44.76 44.76 3.41 44.19 4.06 40.68 1.02 1.95 3.64 3.64 6.07 3.92 4.13 3.47 -1.10 12.80 41.12 41.12 -9.48 -8.11 -5.19 -4.15 6.11 9.33 12.96 12.96 3.05 3.75 5.54 5.24 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 4.19 6.13 8.85 8.85 -1.27 1.09 1.50 1.89 5.79 8.26 11.98 11.98 0.91 0.80 3.77 4.01 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35	QTD CYTD FYTD 1 Year 3 Years 5 Years 7 Years 10 Years 2022 9.08 14.75 44.76 44.76 -8.41 41.49 41.06 40.68 0.36 1.02 1.95 3.64 3.64 6.07 3.92 4.13 3.47 0.08 -1.10 12.80 41.12 41.12 -9.48 -8.11 -5.19 -4.15 0.28 6.11 9.33 12.96 12.96 3.05 3.75 5.54 5.24 -17.31 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 -11.71 4.19 6.13 8.85 8.85 -1.27 1.09 1.50 1.89 -5.60 5.79 8.26 11.98 11.98 0.91 0.80 3.77 4.01 -17.53 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 -11.71	QTD CYTD FYTD 1 year 3 years 5 years 7 years 10 years 2022 2021 40.08 14.75 44.76 44.76 -3.41 -4.19 -4.06 0.68 0.36 -26.04 1.02 1.95 3.64 3.64 6.07 3.92 4.13 3.47 0.08 7.62 -1.10 12.80 41.12 41.12 -9.48 -8.11 -5.19 -4.15 0.28 -33.66 6.11 9.33 12.96 12.96 3.05 3.75 5.54 5.24 -17.31 0.14 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 -11.71 6.26 5.79 8.26 11.98 11.98 0.91 0.80 3.77 4.01 -17.53 -1.46 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 -11.71 6.26	QTD CYTD FYTD 1 year 3 years 5 years 7 years 10 years 2022 2021 2020 0.08 14.75 44.76 44.76 -3.41 -4.19 -4.08 -0.68 0.36 -26.04 -4.62 1.02 1.95 3.64 3.64 6.07 3.92 4.13 3.47 0.08 7.62 6.47 -1.10 12.80 41.12 41.12 -9.48 -8.11 -5.19 -4.15 0.28 -33.66 -11.09 6.11 9.33 12.96 3.05 3.75 5.54 5.24 -47.31 0.14 22.68 1.92 3.20 4.11 4.11 4.32 2.66 4.04 3.35 -11.71 6.26 14.62 4.19 6.13 8.85 8.85 -1.27 1.09 1.50 1.89 -5.60 -6.12 8.06 5.79 8.26 11.98 11.98 0.91 0.80 3.77 4.01



	Performance (%)											
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Private Equity												
OTRS Private Equity	0.71	0.70	-3.21	-3.21	22.45	19.50	19.14	17.74	-0.26	57.72	17.27	17.73
R 2000 Index+4%	6.24	10.23	16.80	16.80	15.26	8.38	13.11	12.59	-17.25	19.41	24.76	30.55
Difference	-5.53	-9.53	-20.01	-20.01	7.19	11.12	6.03	5.15	16.99	38.31	-7.49	-12.82
OFPRS Private Equity	4.81	7.81	6.75	6.75	24.96	17.08	16.90	N/A	10.18	49.68	7.49	6.45
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86
Difference	4.81	5.32	2.95	2.95	4.13	2.11	1.01	N/A	12.09	9.12	-14.98	-7.41
OPPRS Private Equity	-0.07	-2.83	-11.51	-11.51	24.39	17.52	14.93	14.12	-1.91	67.32	15.87	10.51
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86
Difference	-0.07	-5.32	-15.31	-15.31	3.56	2.55	-0.96	-0.41	0.00	26.76	-6.60	-3.35
OLERS Private Equity	0.52	1.30	-0.99	-0.99	19.85	14.21	13.13	12.04	-0.26	41.10	20.25	14.02
Cambridge US Prvt Eq Index	0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	-1.91	40.56	22.47	13.86
Difference	0.52	-1.19	-4.79	-4.79	-0.98	-0.76	-2.76	-2.49	1.65	0.54	-2.22	0.16
Other Alternatives												
OWCRS Alternative Investments	3.33	8.27	11.36	11.36	7.66	4.66	5.18	3.85	-5.53	9.60	2.74	15.31
OWCRS Alternatives Custom Index	1.49	2.25	3.65	3.65	5.03	3.31	3.67	N/A	-5.31	6.17	10.88	8.38
Difference	1.84	6.02	7.71	7.71	2.63	1.35	1.51	N/A	-0.22	3.43	-8.14	6.93



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



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



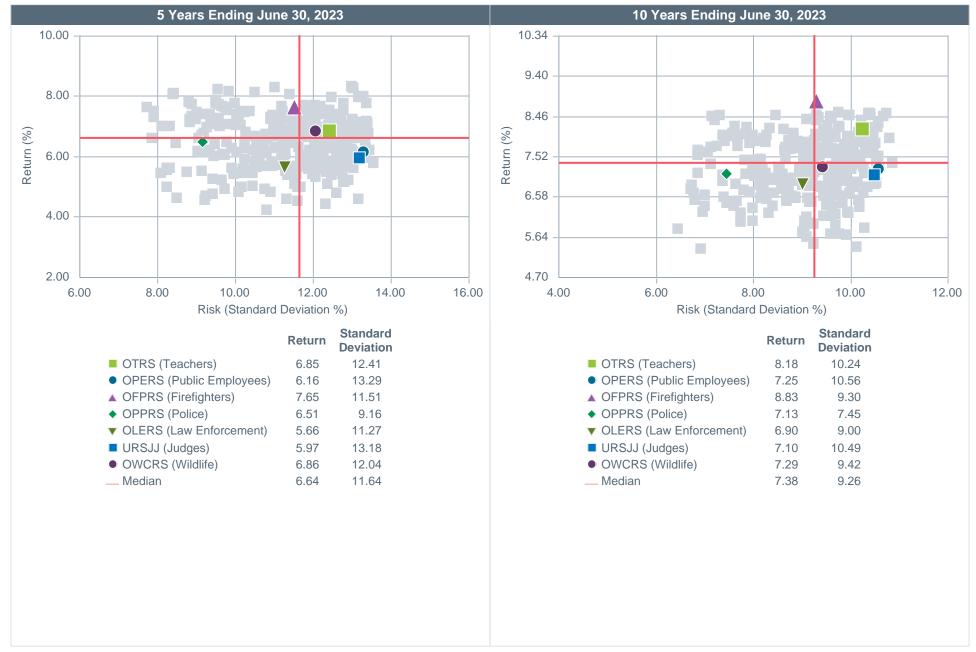
Oklahoma State Pension Commission All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



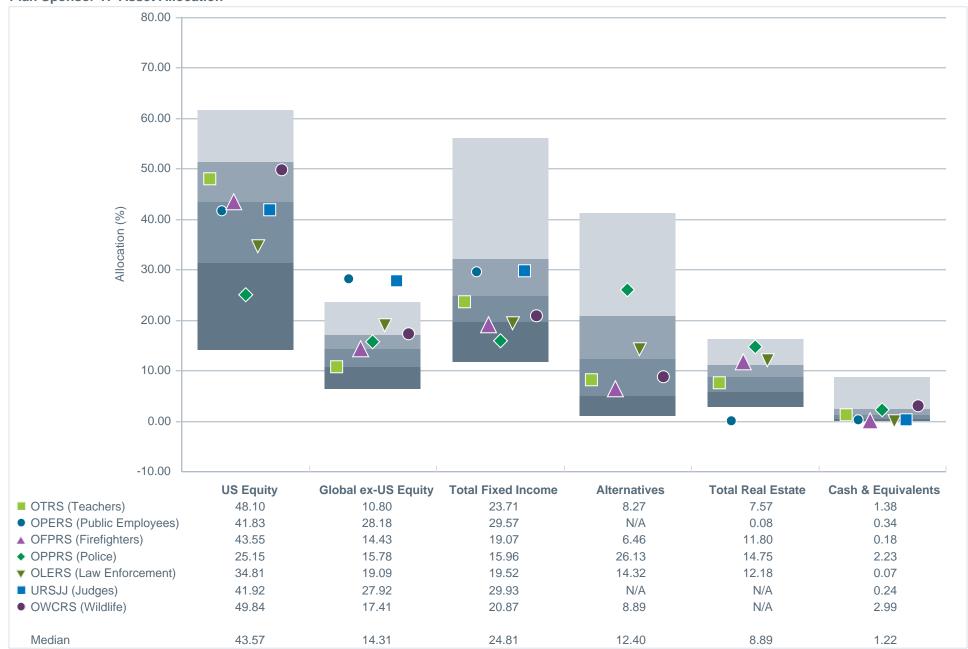
Total Fund Risk & Return vs. All Public Plans-Total Fund





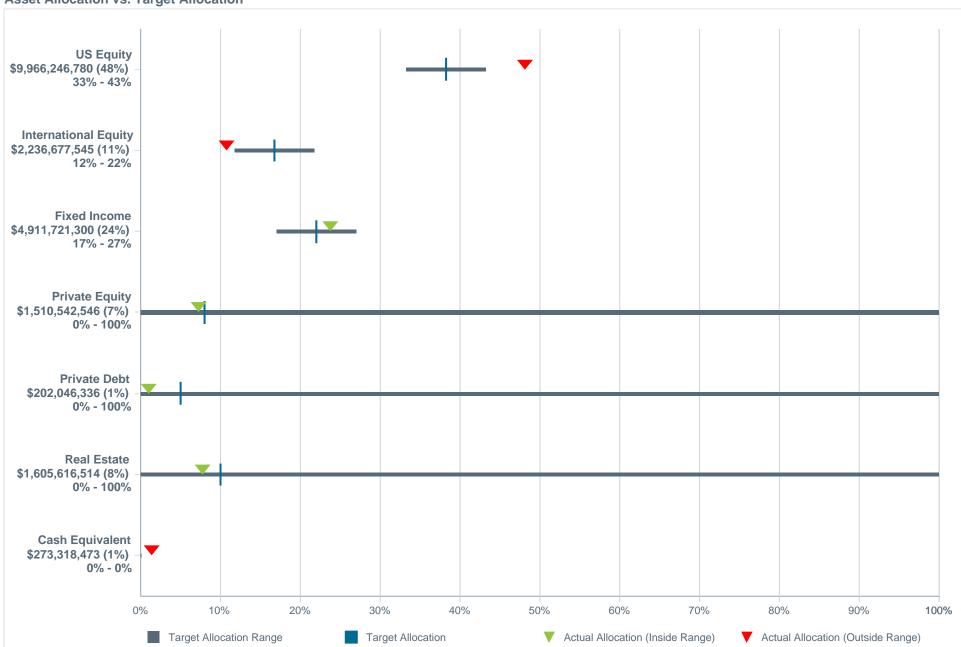


Oklahoma State Pension Commission All Plans Total Fund vs. All Public Plans-Total Fund Plan Sponsor TF Asset Allocation



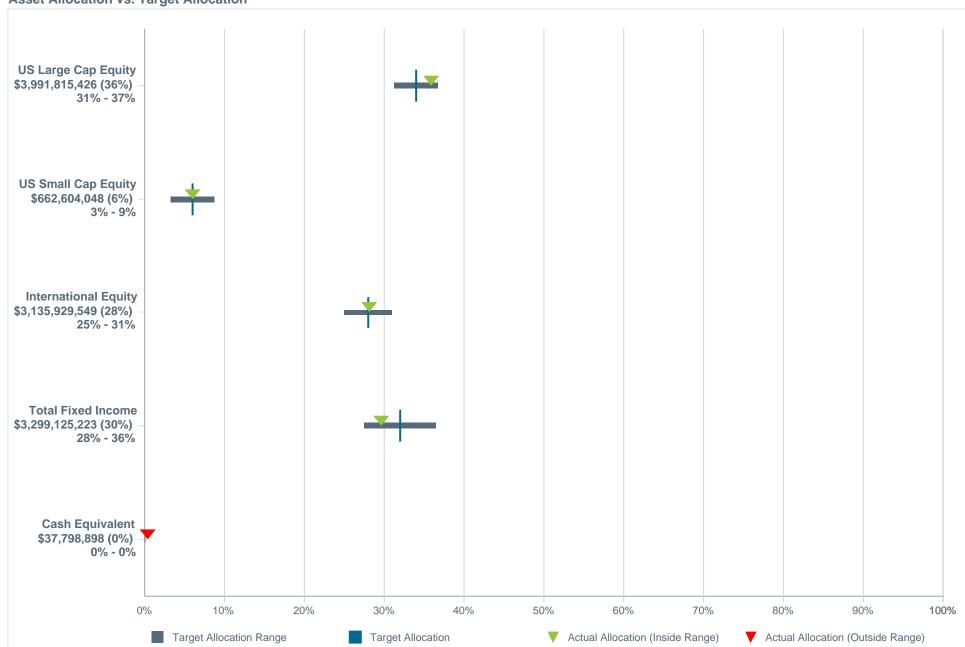
Parentheses contain percentile ranks.





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.

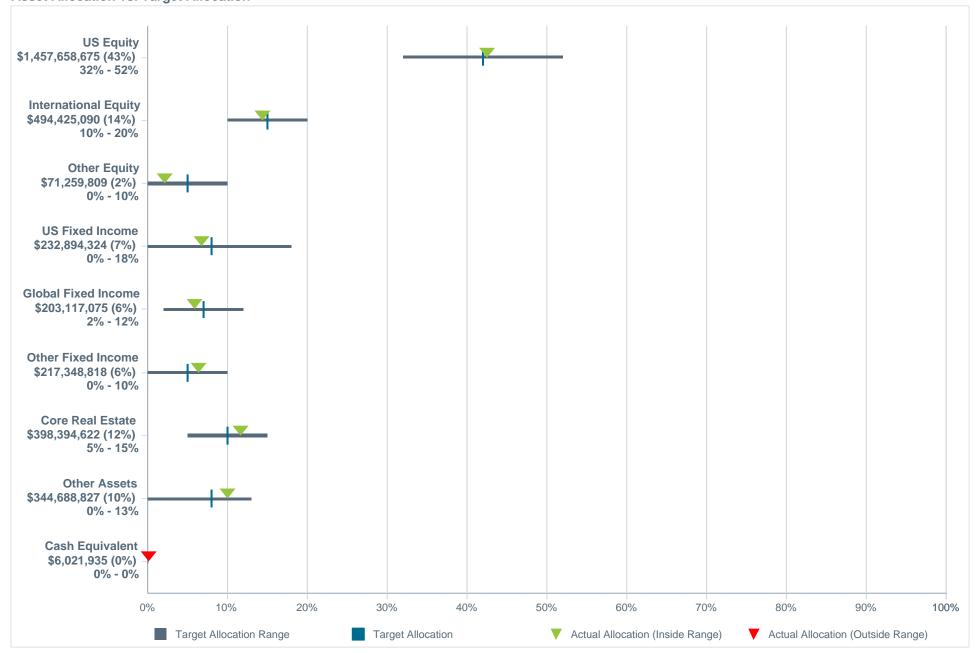




Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.



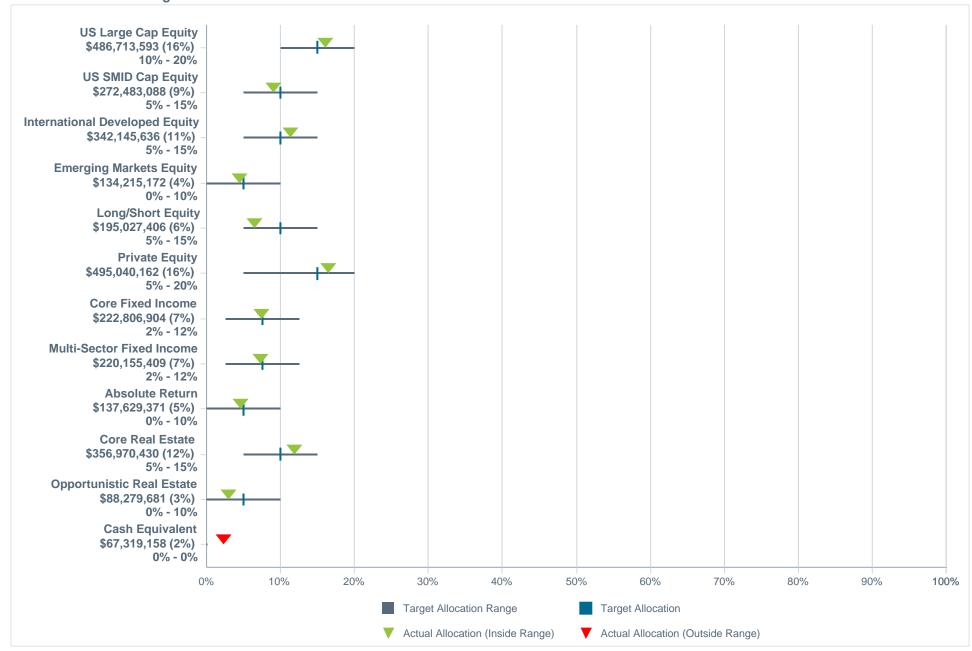
Asset Allocation vs. Target Allocation



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

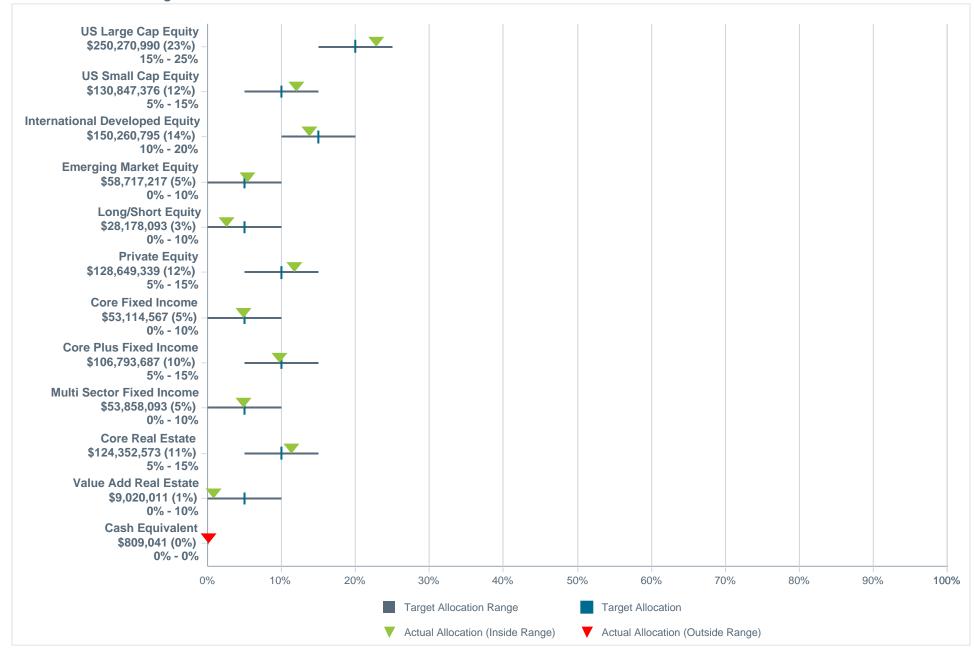


As of June 30, 2023



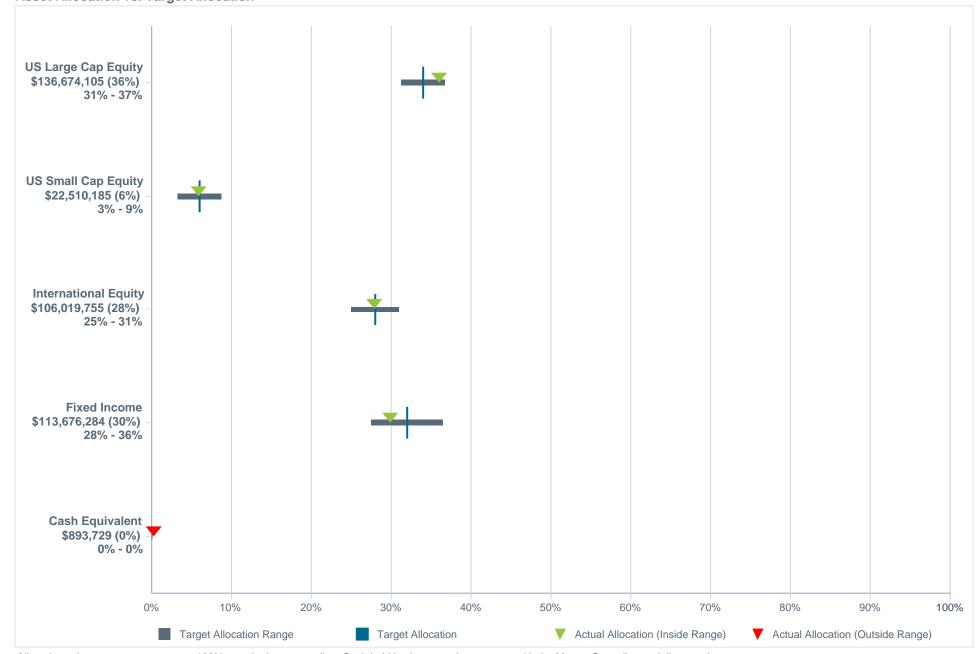






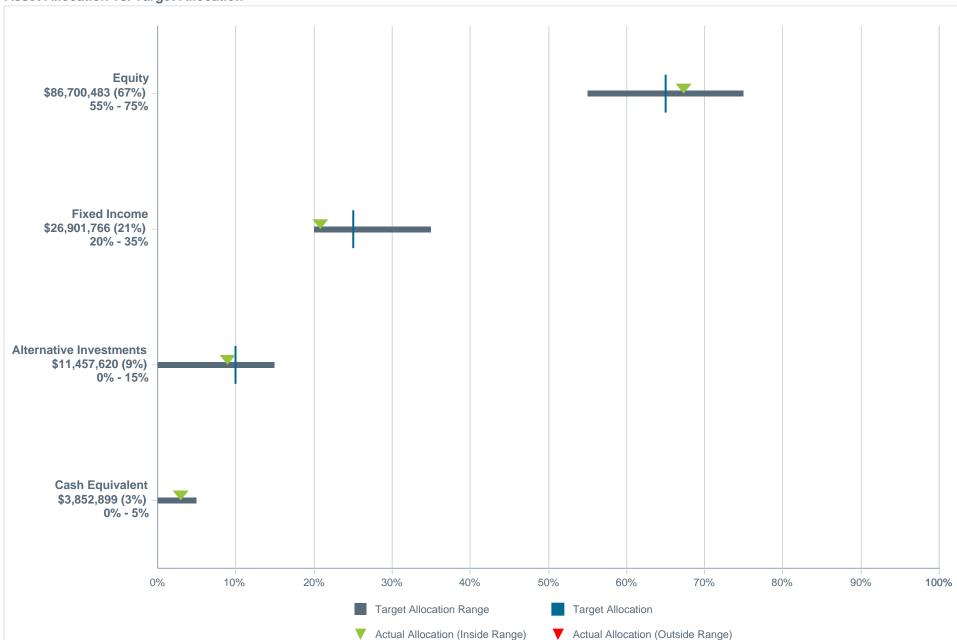






Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.









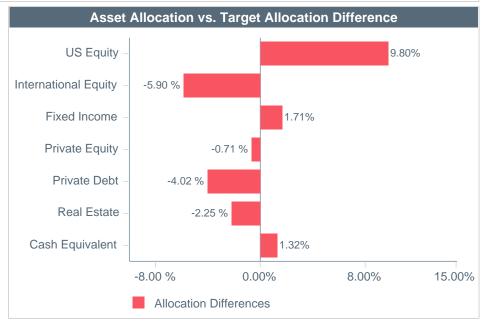
Oklahoma Teachers' Retirement System (OTRS)



Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Total Fund Summary

				Pei	rformanc	e (%)							
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OTRS Total Fund (Net)	2.59	6.72	8.04	8.04	9.12	6.62	8.19	7.83	-13.25	18.20	13.22	19.48	-5.29
OTRS Policy Index	4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	-14.07	15.60	15.24	21.72	-4.75
Difference	-1.67	-2.60	-4.09	-4.09	0.11	-0.87	-0.27	-0.15	0.82	2.60	-2.02	-2.24	-0.54
OTRS Actual Allocation Index	4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	-15.02	16.21	16.98	18.94	-4.70
Difference	-1.74	-2.86	-3.32	-3.32	0.11	-0.59	-0.10	-0.20	1.77	1.99	-3.76	0.54	-0.59
Actuarial Discount Rate (7.0%)	1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	0.88	3.28	1.04	1.04	2.12	-0.38	1.19	0.83	-20.25	11.20	6.22	12.48	-12.29
OTRS Total Fund (Gross)	2.62	6.80	8.21	8.21	9.32	6.85	8.47	8.18	-13.08	18.42	13.45	19.83	-4.98
OTRS Policy Index	4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	-14.07	15.60	15.24	21.72	-4.75
Difference	-1.64	-2.52	-3.92	-3.92	0.31	-0.64	0.01	0.20	0.99	2.82	-1.79	-1.89	-0.23
OTRS Actual Allocation Index	4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	-15.02	16.21	16.98	18.94	-4.70
Difference	-1.71	-2.78	-3.15	-3.15	0.31	-0.36	0.18	0.15	1.94	2.21	-3.53	0.89	-0.28
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02
Rank	72	67	59	59	17	41	20	15	55	9	38	32	73

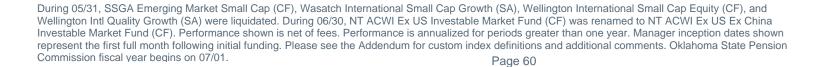
Asset Allocation vs. Target Allocation											
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)								
OTRS (Teachers)	20,718,449,640	100.00	100.00								
US Equity	9,966,246,780	48.10	38.30								
International Equity	2,236,677,545	10.80	16.70								
Fixed Income	4,911,721,300	23.71	22.00								
Private Equity	1,510,542,546	7.29	8.00								
Private Debt	202,046,336	0.98	5.00								
Real Estate	1,605,616,514	7.75	10.00								
Cash Equivalent	273,318,473	1.32	0.00								



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Opportunistic Fixed Income accounts for 0.98% 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.



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,718,449,640	100.00	2.59	6.72	8.04	8.04	9.12	6.62	8.19	7.83	8.71	12/01/1991
OTRS Policy Index			4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	8.82	
Difference			-1.67	-2.60	-4.09	-4.09	0.11	-0.87	-0.27	-0.15	-0.11	
OTRS Actual Allocation Index			4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	N/A	
Difference			-1.74	-2.86	-3.32	-3.32	0.11	-0.59	-0.10	-0.20	N/A	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			0.88	3.28	1.04	1.04	2.12	-0.38	1.19	0.83	1.71	
US Equity	9,966,246,780	48.10	6.00	11.73	15.41	15.41	13.87	8.51	11.25	10.68	10.57	04/01/1990
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	10.28	
Difference			-2.39	-4.44	-3.54	-3.54	-0.02	-2.88	-1.61	-1.66	0.29	
US Active Equity	886,387,563	4.28	6.30	12.69	16.89	16.89	15.78	8.44	11.37	10.66	8.64	12/01/1998
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	7.79	
Difference			-2.09	-3.48	-2.06	-2.06	1.89	-2.95	-1.49	-1.68	0.85	
Frontier Small Cap Value Equity (SA)	450,592,863	2.17	6.84	10.78	21.53	21.53	23.64	7.45	10.25	9.92	9.67	06/01/2013
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	7.19	
Difference			3.66	8.28	15.52	15.52	8.21	3.91	2.55	2.63	2.48	
Geneva US Small Cap Growth Equity (SA)	435,794,700	2.10	5.72	14.65	15.16	15.16	7.35	8.15	11.98	11.79	11.82	06/01/2013
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.69	
Difference			-1.33	1.10	-3.37	-3.37	1.25	3.93	2.67	2.96	3.13	
US Passive Equity (Cap Wgt)	4,990,352,855	24.09	8.38	16.15	18.82	18.82	12.05	10.14	11.61	11.57	11.89	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,990,352,855	24.09	8.38	16.15	18.82	18.82	N/A	N/A	N/A	N/A	18.82	07/01/2022
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	18.95	
Difference			-0.01	-0.02	-0.13	-0.13	N/A	N/A	N/A	N/A	-0.13	
US Passive Equity (Non-Cap Wgt)	3,169,876,848	15.30	3.11	5.91	11.59	11.59	11.69	8.48	10.59	10.80	11.59	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			3.07	5.84	11.58	11.58	11.73	8.52	N/A	N/A	N/A	
Difference			0.04	0.07	0.01	0.01	-0.04	-0.04	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	3,169,876,848	15.30	3.11	5.91	11.59	11.59	11.69	8.48	N/A	N/A	7.87	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			3.07	5.84	11.58	11.58	11.73	8.52	N/A	N/A	7.90	
Difference			0.04	0.07	0.01	0.01	-0.04	-0.04	N/A	N/A	-0.03	





	Allocation						Perfor	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	2,236,677,545	10.80	2.28	9.64	11.23	11.23	7.15	2.50	5.99	4.94	7.10	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			2.61	9.48	13.08	13.08	7.85	3.87	6.78	5.36	5.28	
Difference			-0.33	0.16	-1.85	-1.85	-0.70	-1.37	-0.79	-0.42	1.82	
Causeway Intl Opportunities (SA)	335,993,159	1.62	4.14	16.62	22.71	22.71	12.45	4.78	7.68	5.56	7.87	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			3.28	8.79	13.03	13.03	11.16	3.31	6.36	4.32	7.36	
Difference			0.86	7.83	9.68	9.68	1.29	1.47	1.32	1.24	0.51	
NT ACWI Ex US Ex China Investable Market Fund (CF)	1,900,681,320	9.17	2.44	9.68	N/A	N/A	N/A	N/A	N/A	N/A	13.13	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	13.15	
Difference			-0.23	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	4,911,721,300	23.71	-0.46	3.31	0.88	0.88	-3.31	1.63	1.80	2.77	6.06	04/01/1990
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	N/A	
Difference			-0.36	0.22	-1.07	-1.07	-1.48	0.08	0.13	0.37	N/A	
Loomis Sayles Multisector Full Discretion (SA)	1,425,043,599	6.88	-0.37	2.29	2.42	2.42	-0.69	2.55	2.46	3.04	5.28	07/01/1999
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	4.65	
Difference			-0.27	-0.80	0.47	0.47	1.14	1.00	0.79	0.64	0.63	
Mackay Shields Core+ Extended Discretion (SA)	1,401,450,085	6.76	0.06	3.86	3.30	3.30	-0.64	2.39	2.01	2.36	4.15	11/01/2004
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	3.99	
Difference			0.16	0.77	1.35	1.35	1.19	0.84	0.34	-0.04	0.16	
Lord Abbett Core Plus Full Discretion (SA)	1,371,143,560	6.62	0.00	3.42	1.60	1.60	-1.10	1.72	1.44	2.34	4.04	11/01/2004
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	3.99	
Difference			0.10	0.33	-0.35	-0.35	0.73	0.17	-0.23	-0.06	0.05	
Hoisington Active Duration Long Bonds (SA)	714,084,055	3.45	-2.48	4.05	-7.42	-7.42	-13.49	-1.08	-1.97	2.08	4.69	11/01/2004
Bloomberg US Trsy Index			-1.38	1.59	-2.13	-2.13	-4.80	0.44	-0.12	0.96	2.59	
Difference			-1.10	2.46	-5.29	-5.29	-8.69	-1.52	-1.85	1.12	2.10	
Private Equity	1,510,542,546	7.29	0.71	0.70	-3.21	-3.21	22.45	19.50	19.14	17.74	17.39	07/01/2015
R 2000 Index+4%			6.24	10.23	16.80	16.80	15.26	8.38	13.11	12.59	10.96	
Difference			-5.53	-9.53	-20.01	-20.01	7.19	11.12	6.03	5.15	6.43	
Franklin Park Private Equity LP	1,504,210,612	7.26	0.69	0.68	-3.21	-3.21	22.55	19.67	19.36	17.77	17.48	07/01/2015
Private Debt	202,046,336	0.98	-1.19	0.63	-1.88	-1.88	13.77	7.33	8.70	N/A	7.91	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			3.35	6.39	11.82	11.82	5.43	4.00	4.35	3.70	3.89	
Difference			-4.54	-5.76	-13.70	-13.70	8.34	3.33	4.35	N/A	4.02	
PIMCO Bravo III LP	152,461,312	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO Corporate Opportunities II LP	42,522,489	0.21	-0.95	16.09	22.82	22.82	25.24	14.23	N/A	N/A	14.21	10/01/2016
Bloomberg US Unv Bond Index			-0.59	2.32	-0.04	-0.04	-3.43	0.98	0.79	1.80	0.68	
Difference			-0.36	13.77	22.86	22.86	28.67	13.25	N/A	N/A	13.53	





	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate	1,605,616,514	7.75	-4.84	-7.98	-4.35	-4.35	6.40	5.37	5.82	N/A	6.77	07/01/2015
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	6.78	
Difference			-2.86	-4.22	2.25	2.25	-0.39	-0.53	-0.42	N/A	-0.01	
AEW Core Property Trust (CF)	420,731,444	2.03	-3.00	-7.96	-3.16	-3.16	8.65	7.33	7.09	8.01	7.82	07/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	8.34	
Difference			-0.12	-1.80	7.57	7.57	1.61	1.77	1.07	0.24	-0.52	
Heitman America Real Estate (CF)	424,567,523	2.05	-3.71	-7.84	-2.47	-2.47	9.84	6.46	7.05	8.54	8.51	05/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	8.60	
Difference			-0.83	-1.68	8.26	8.26	2.80	0.90	1.03	0.77	-0.09	
American Strategic Value Realty (CF)	127,400,424	0.61	-2.41	-5.78	-1.94	-1.94	7.47	7.63	8.00	N/A	8.56	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.34	
Difference			0.47	0.38	8.79	8.79	0.43	2.07	1.98	N/A	1.22	
AG Realty Value X LP	43,968,359	0.21	-0.12	-0.24	7.28	7.28	20.37	N/A	N/A	N/A	7.94	07/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.59	
Difference			2.76	5.92	18.01	18.01	13.33	N/A	N/A	N/A	2.35	
AGXI Non-Core Real Estate	9,307,849	0.04	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)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-11.01	
Difference			2.88	6.16	N/A	N/A	N/A	N/A	N/A	N/A	11.01	
Artemis Real Estate III LP	29,191,690	0.14	2.90	0.81	10.13	10.13	30.50	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.51	
Difference			5.78	6.97	20.86	20.86	23.46	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	3,173,964	0.02	-7.68	-29.91	-65.34	-65.34	N/A	N/A	N/A	N/A	-65.34	07/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-10.73	
Difference			-4.80	-23.75	-54.61	-54.61	N/A	N/A	N/A	N/A	-54.61	
Blackstone Real Estate Partners X	3,370,237	0.02	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)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-2.88	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	18,729,214	0.09	0.11	-2.37	-2.06	-2.06	-2.46	0.52	3.46	N/A	4.16	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.27	
Difference			2.99	3.79	8.67	8.67	-9.50	-5.04	-2.56	N/A	-3.11	

During 05/31, SSGA Emerging Market Small Cap (CF), Wasatch International Small Cap Growth (SA), Wellington International Small Cap Equity (CF), and Wellington Intl Quality Growth (SA) were liquidated. During 06/30, NT ACWI Ex US Investable Market Fund (CF) was renamed to NT ACWI Ex US Ex China Investable Market Fund (CF). 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.



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dune Real Estate IV LP	47,512,650	0.23	1.53	4.74	16.65	16.65	4.88	N/A	N/A	N/A	-3.41	09/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.83	
Difference			4.41	10.90	27.38	27.38	-2.16	N/A	N/A	N/A	-9.24	
FCP Realty IV LP	41,986,698	0.20	0.20	0.60	4.29	4.29	16.38	N/A	N/A	N/A	0.32	12/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.65	
Difference			3.08	6.76	15.02	15.02	9.34	N/A	N/A	N/A	-5.33	
FCP Realty V LP	70,701,288	0.34	0.37	2.74	1.99	1.99	N/A	N/A	N/A	N/A	-14.50	10/01/2021
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	4.29	
Difference			3.25	8.90	12.72	12.72	N/A	N/A	N/A	N/A	-18.79	
GreenOak US II LP	19,242,483	0.09	0.07	-13.59	-19.50	-19.50	-20.75	-14.49	-9.24	N/A	-7.78	10/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.19	
Difference			2.95	-7.43	-8.77	-8.77	-27.79	-20.05	-15.26	N/A	-14.97	
GreenOak US III LP	41,921,261	0.20	-0.33	-1.70	-1.27	-1.27	1.85	-7.66	N/A	N/A	-7.54	06/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.84	
Difference			2.55	4.46	9.46	9.46	-5.19	-13.22	N/A	N/A	-13.38	
Harbert European Real Estate V LP	36,381,890	0.18	0.97	1.00	0.17	0.17	7.80	N/A	N/A	N/A	0.05	12/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.65	
Difference			3.85	7.16	10.90	10.90	0.76	N/A	N/A	N/A	-5.60	
Invesco VI Global Real Estate Fund	45,203,532	0.22	-3.33	-4.20	N/A	N/A	N/A	N/A	N/A	N/A	-0.60	10/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-11.01	
Difference			-0.45	1.96	N/A	N/A	N/A	N/A	N/A	N/A	10.41	
Invesco Strategic Opportunity (CF)	17,138,462	0.08	19.90	19.90	37.64	37.64	28.14	N/A	N/A	N/A	47.00	10/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.67	
Difference			22.78	26.06	48.37	48.37	21.10	N/A	N/A	N/A	41.33	
L&B Golden Driller (SA)	36,028,062	0.17	-53.16	-53.16	-54.54	-54.54	-23.78	-9.49	-6.19	N/A	N/A	07/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.34	
Difference			-50.28	-47.00	-43.81	-43.81	-30.82	-15.05	-12.21	N/A	N/A	
Landmark Real Estate VII LP	5,210,870	0.03	-4.69	-4.69	-9.03	-9.03	-2.71	-2.00	0.49	N/A	6.19	12/01/2014
NCREIF ODCE Index (AWA) (Net)	,		-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.34	
Difference			-1.81	1.47	1.70	1.70	-9.75	-7.56	-5.53	N/A	-1.15	

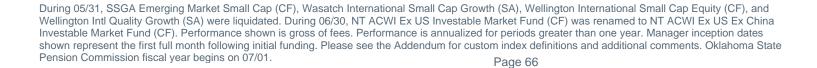
During 05/31, SSGA Emerging Market Small Cap (CF), Wasatch International Small Cap Growth (SA), Wellington International Small Cap Equity (CF), and Wellington Intl Quality Growth (SA) were liquidated. During 06/30, NT ACWI Ex US Investable Market Fund (CF) was renamed to NT ACWI Ex US Ex China Investable Market Fund (CF). 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.



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Lyrical-OTRS Realty Partner IV LP	57,554,859	0.28	-2.43	-2.43	-0.62	-0.62	8.56	15.22	8.46	N/A	5.10	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.27	
Difference			0.45	3.73	10.11	10.11	1.52	9.66	2.44	N/A	-2.17	
Starwood Opportunity X LP	10,989,486	0.05	-4.09	-6.75	-3.10	-3.10	17.21	12.81	13.87	N/A	12.97	07/01/2015
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.61	
Difference			-1.21	-0.59	7.63	7.63	10.17	7.25	7.85	N/A	6.36	
Starwood Opportunity XI LP	47,595,369	0.23	-7.25	-7.25	-7.35	-7.35	7.61	N/A	N/A	N/A	15.77	08/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.66	
Difference			-4.37	-1.09	3.38	3.38	0.57	N/A	N/A	N/A	10.11	
Starwood Opportunity XII LP	33,696,716	0.16	-2.75	-1.95	2.55	2.55	N/A	N/A	N/A	N/A	10.93	01/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-0.01	
Difference			0.13	4.21	13.28	13.28	N/A	N/A	N/A	N/A	10.94	
TPG Real Estate IV LP	4,022,528	0.02	-10.69	-10.69	N/A	N/A	N/A	N/A	N/A	N/A	-10.69	01/01/2023
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-6.16	
Difference			-7.81	-4.53	N/A	N/A	N/A	N/A	N/A	N/A	-4.53	
Property ACQ Fund	9,800,000	0.05	-5.77	-5.77	-5.77	-5.77	10.30	-5.39	N/A	N/A	-9.23	08/01/2017

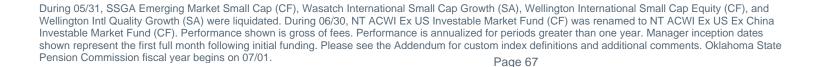


	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,718,449,640	100.00	2.62	6.80	8.21	8.21	9.32	6.85	8.47	8.18	9.04	12/01/1991
OTRS Policy Index			4.26	9.32	12.13	12.13	9.01	7.49	8.46	7.98	8.82	
Difference			-1.64	-2.52	-3.92	-3.92	0.31	-0.64	0.01	0.20	0.22	
OTRS Actual Allocation Index			4.33	9.58	11.36	11.36	9.01	7.21	8.29	8.03	N/A	
Difference			-1.71	-2.78	-3.15	-3.15	0.31	-0.36	0.18	0.15	N/A	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			0.91	3.36	1.21	1.21	2.32	-0.15	1.47	1.18	2.04	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	7.94	
Rank			72	67	59	59	17	41	20	15	3	
US Equity	9,966,246,780	48.10	6.02	11.77	15.51	15.51	14.03	8.73	11.54	10.93	10.64	04/01/1990
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	10.28	
Difference			-2.37	-4.40	-3.44	-3.44	0.14	-2.66	-1.32	-1.41	0.36	
IM U.S. Equity (SA+CF) Median			5.71	10.69	16.52	16.52	14.33	9.48	11.81	11.17	11.21	
Rank			46	47	56	56	54	59	54	54	69	
US Active Equity	886,387,563	4.28	6.41	12.93	17.64	17.64	16.44	9.01	11.92	11.15	9.12	12/01/1998
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	7.79	
Difference			-1.98	-3.24	-1.31	-1.31	2.55	-2.38	-0.94	-1.19	1.33	
IM U.S. Equity (SA+CF) Median			5.71	10.69	16.52	16.52	14.33	9.48	11.81	11.17	9.58	
Rank			42	42	45	45	29	55	49	51	58	
Frontier Small Cap Value Equity (SA)	450,592,863	2.17	6.97	11.04	22.03	22.03	24.35	8.17	11.07	10.80	10.55	06/01/2013
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	7.19	
Difference			3.79	8.54	16.02	16.02	8.92	4.63	3.37	3.51	3.36	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	9.22	
Rank			15	20	7	7	10	24	30	23	23	
Geneva US Small Cap Growth Equity (SA)	435,794,700	2.10	5.83	14.87	15.57	15.57	7.99	8.83	12.71	12.38	12.41	06/01/2013
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.69	
Difference			-1.22	1.32	-2.96	-2.96	1.89	4.61	3.40	3.55	3.72	
IM U.S. Small Cap Growth Equity (SA+CF) Median			5.83	13.39	17.35	17.35	8.90	8.77	13.20	11.54	11.65	
Rank			51	31	62	62	56	47	57	32	33	





	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Cap Wgt)	4,990,352,855	24.09	8.38	16.16	18.83	18.83	12.06	10.14	11.62	11.58	11.90	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,990,352,855	24.09	8.38	16.16	18.83	18.83	N/A	N/A	N/A	N/A	18.83	07/01/2022
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	18.95	
Difference			-0.01	-0.01	-0.12	-0.12	N/A	N/A	N/A	N/A	-0.12	
IM U.S. Large Cap Equity (SA+CF) Median			7.87	15.04	18.54	18.54	14.12	11.53	13.05	12.55	18.54	
Rank			46	45	49	49	N/A	N/A	N/A	N/A	49	
US Passive Equity (Non-Cap Wgt)	3,169,876,848	15.30	3.13	5.95	11.65	11.65	11.76	8.55	10.64	10.85	11.63	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			3.07	5.84	11.58	11.58	11.73	8.52	N/A	N/A	N/A	
Difference			0.06	0.11	0.07	0.07	0.03	0.03	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	3,169,876,848	15.30	3.13	5.95	11.65	11.65	11.76	8.55	N/A	N/A	7.93	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			3.07	5.84	11.58	11.58	11.73	8.52	N/A	N/A	7.90	
Difference			0.06	0.11	0.07	0.07	0.03	0.03	N/A	N/A	0.03	
IM U.S. Large Cap Index Equity (SA+CF) Median			8.58	16.69	19.38	19.38	14.23	11.96	13.18	12.68	11.42	
Rank			99	88	89	89	97	82	N/A	N/A	82	
International Equity	2,236,677,545	10.80	2.31	9.76	11.57	11.57	7.56	2.93	6.47	5.39	7.54	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			2.61	9.48	13.08	13.08	7.85	3.87	6.78	5.36	5.28	
Difference			-0.30	0.28	-1.51	-1.51	-0.29	-0.94	-0.31	0.03	2.26	
IM International Equity (SA+CF) Median			2.89	11.18	16.48	16.48	8.66	4.59	7.39	6.35	7.01	
Rank			64	64	80	80	63	79	73	80	40	
Causeway Intl Opportunities (SA)	335,993,159	1.62	4.22	16.79	23.09	23.09	12.80	5.12	8.04	5.84	8.01	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			3.28	8.79	13.03	13.03	11.16	3.31	6.36	4.32	7.36	
Difference			0.94	8.00	10.06	10.06	1.64	1.81	1.68	1.52	0.65	
IM ACWI Ex US Value (SA+CF) Median			2.93	12.63	17.44	17.44	10.46	4.64	7.50	6.08	8.22	
Rank			19	7	25	25	32	36	37	53	61	
NT ACWI Ex US Ex China Investable Market Fund (CF)	1,900,681,320	9.17	2.45	9.68	N/A	N/A	N/A	N/A	N/A	N/A	13.14	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	13.15	
Difference			-0.22	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	
IM ACWI Ex US Core (SA+CF) Median			3.10	11.47	15.47	15.47	7.87	4.79	7.23	5.65	15.49	
Rank			78	78	N/A	N/A	N/A	N/A	N/A	N/A	88	





	Allocation	1					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	4,911,721,300	23.71	-0.42	3.41	1.08	1.08	-3.14	1.82	2.01	2.98	6.24	04/01/1990
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	N/A	
Difference			-0.32	0.32	-0.87	-0.87	-1.31	0.27	0.34	0.58	N/A	
IM U.S. Fixed Income (SA+CF) Median			-0.27	2.55	1.29	1.29	-1.00	1.80	1.58	2.23	5.39	
Rank			59	33	55	55	78	49	36	34	22	
Loomis Sayles Multisector Full Discretion (SA)	1,425,043,599	6.88	-0.32	2.41	2.71	2.71	-0.47	2.79	2.67	3.23	5.47	07/01/1999
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	4.65	
Difference			-0.22	-0.68	0.76	0.76	1.36	1.24	1.00	0.83	0.82	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	4.83	
Rank			36	78	14	14	17	14	16	16	17	
Mackay Shields Core+ Extended Discretion (SA)	1,401,450,085	6.76	0.11	4.02	3.51	3.51	-0.44	2.60	2.23	2.58	4.39	11/01/2004
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	3.99	
Difference			0.21	0.93	1.56	1.56	1.39	1.05	0.56	0.18	0.40	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	3.94	
Rank			17	4	11	11	17	17	22	38	28	
Lord Abbett Core Plus Full Discretion (SA)	1,371,143,560	6.62	0.03	3.50	1.76	1.76	-0.94	1.89	1.61	2.51	4.22	11/01/2004
OTRS Fixed Income Blended Benchmark			-0.10	3.09	1.95	1.95	-1.83	1.55	1.67	2.40	3.99	
Difference			0.13	0.41	-0.19	-0.19	0.89	0.34	-0.06	0.11	0.23	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	3.94	
Rank			20	11	21	21	20	37	47	46	35	
Hoisington Active Duration Long Bonds (SA)	714,084,055	3.45	-2.45	4.10	-7.33	-7.33	-13.42	-0.99	-1.87	2.20	4.83	11/01/2004
Bloomberg US Trsy Index			-1.38	1.59	-2.13	-2.13	-4.80	0.44	-0.12	0.96	2.59	
Difference			-1.07	2.51	-5.20	-5.20	-8.62	-1.43	-1.75	1.24	2.24	
IM U.S. Long Duration (SA+CF) Median			-1.03	4.67	-1.35	-1.35	-7.68	1.49	1.00	3.43	5.29	
Rank			100	84	100	100	100	100	100	100	96	



	Allocation	١					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	1,510,542,546	7.29	0.71	0.70	-3.21	-3.21	22.45	19.50	19.14	17.74	17.39	07/01/2015
R 2000 Index+4%			6.24	10.23	16.80	16.80	15.26	8.38	13.11	12.59	10.96	
Difference			-5.53	-9.53	-20.01	-20.01	7.19	11.12	6.03	5.15	6.43	
Franklin Park Private Equity LP	1,504,210,612	7.26	0.69	0.68	-3.21	-3.21	22.55	19.67	19.41	17.89	17.63	07/01/2015
Private Debt	202,046,336	0.98	-1.19	0.63	-1.88	-1.88	13.77	7.33	8.70	N/A	7.91	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			3.35	6.39	11.82	11.82	5.43	4.00	4.35	3.70	3.89	
Difference			-4.54	-5.76	-13.70	-13.70	8.34	3.33	4.35	N/A	4.02	
PIMCO Bravo III LP	152,461,312	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO Corporate Opportunities II LP	42,522,489	0.21	-0.95	16.09	22.82	22.82	25.24	14.23	N/A	N/A	14.21	10/01/2016
Bloomberg US Unv Bond Index			-0.59	2.32	-0.04	-0.04	-3.43	0.98	0.79	1.80	0.68	
Difference			-0.36	13.77	22.86	22.86	28.67	13.25	N/A	N/A	13.53	
Real Estate	1,605,616,514	7.75	-4.78	-7.86	-4.10	-4.10	6.67	5.59	6.03	N/A	6.97	07/01/2015
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	6.78	
Difference			-2.80	-4.10	2.50	2.50	-0.12	-0.31	-0.21	N/A	0.19	
AEW Core Property Trust (CF)	420,731,444	2.03	-3.00	-7.96	-3.16	-3.16	8.65	7.33	7.13	8.53	8.39	07/01/2011
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	9.33	
Difference			-0.32	-2.20	6.81	6.81	0.66	0.83	0.16	-0.21	-0.94	
Heitman America Real Estate (CF)	424,567,523	2.05	-3.54	-7.51	-1.77	-1.77	10.63	7.18	7.80	9.32	9.30	05/01/2011
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	9.60	
Difference			-0.86	-1.75	8.20	8.20	2.64	0.68	0.83	0.58	-0.30	
American Strategic Value Realty (CF)	127,400,424	0.61	-2.16	-5.30	-0.90	-0.90	8.67	8.85	9.19	N/A	9.84	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.32	
Difference			0.52	0.46	9.07	9.07	0.68	2.35	2.22	N/A	1.52	
AG Realty Value X LP	43,968,359	0.21	-0.12	-0.24	7.28	7.28	20.37	N/A	N/A	N/A	7.94	07/01/2019
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.52	
Difference			2.56	5.52	17.25	17.25	12.38	N/A	N/A	N/A	1.42	
AGXI Non-Core Real Estate	9,307,849	0.04	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)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-10.44	
Difference			2.68	5.76	N/A	N/A	N/A	N/A	N/A	N/A	10.44	

During 05/31, SSGA Emerging Market Small Cap (CF), Wasatch International Small Cap Growth (SA), Wellington International Small Cap Equity (CF), and Wellington Intl Quality Growth (SA) were liquidated. During 06/30, NT ACWI Ex US Investable Market Fund (CF) was renamed to NT ACWI Ex US Ex China Investable Market Fund (CF). 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.



	Allocation	١					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Artemis Real Estate III LP	29,191,690	0.14	2.90	0.81	10.13	10.13	30.50	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.46	
Difference			5.58	6.57	20.10	20.10	22.51	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	3,173,964	0.02	-7.68	-29.91	-65.34	-65.34	N/A	N/A	N/A	N/A	-65.34	07/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-9.97	
Difference			-5.00	-24.15	-55.37	-55.37	N/A	N/A	N/A	N/A	-55.37	
Blackstone Real Estate Partners X	3,370,237	0.02	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)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-2.88	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	18,729,214	0.09	0.11	-2.37	-2.06	-2.06	-2.46	0.52	3.52	N/A	5.06	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.24	
Difference			2.79	3.39	7.91	7.91	-10.45	-5.98	-3.45	N/A	-3.18	
Dune Real Estate IV LP	47,512,650	0.23	1.53	4.74	16.65	16.65	4.88	N/A	N/A	N/A	-3.41	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.81	
Difference			4.21	10.50	26.62	26.62	-3.11	N/A	N/A	N/A	-10.22	
FCP Realty IV LP	41,986,698	0.20	0.20	0.60	4.29	4.29	16.38	N/A	N/A	N/A	0.32	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.63	
Difference			2.88	6.36	14.26	14.26	8.39	N/A	N/A	N/A	-6.31	
FCP Realty V LP	70,701,288	0.34	0.37	2.74	1.99	1.99	N/A	N/A	N/A	N/A	-14.50	10/01/2021
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	5.24	
Difference			3.05	8.50	11.96	11.96	N/A	N/A	N/A	N/A	-19.74	
GreenOak US II LP	19,242,483	0.09	0.07	-13.59	-19.50	-19.50	-20.75	-14.49	-9.18	N/A	-6.98	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.16	
Difference			2.75	-7.83	-9.53	-9.53	-28.74	-20.99	-16.15	N/A	-15.14	
GreenOak US III LP	41,921,261	0.20	-0.33	-1.70	-1.27	-1.27	1.85	-7.66	N/A	N/A	-7.54	06/01/2018
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.81	
Difference			2.35	4.06	8.70	8.70	-6.14	-14.16	N/A	N/A	-14.35	
Harbert European Real Estate V LP	36,381,890	0.18	0.97	1.00	0.17	0.17	7.80	N/A	N/A	N/A	0.05	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.63	
Difference			3.65	6.76	10.14	10.14	-0.19	N/A	N/A	N/A	-6.58	

During 05/31, SSGA Emerging Market Small Cap (CF), Wasatch International Small Cap Growth (SA), Wellington International Small Cap Equity (CF), and Wellington Intl Quality Growth (SA) were liquidated. During 06/30, NT ACWI Ex US Investable Market Fund (CF) was renamed to NT ACWI Ex US Ex China Investable Market Fund (CF). 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.

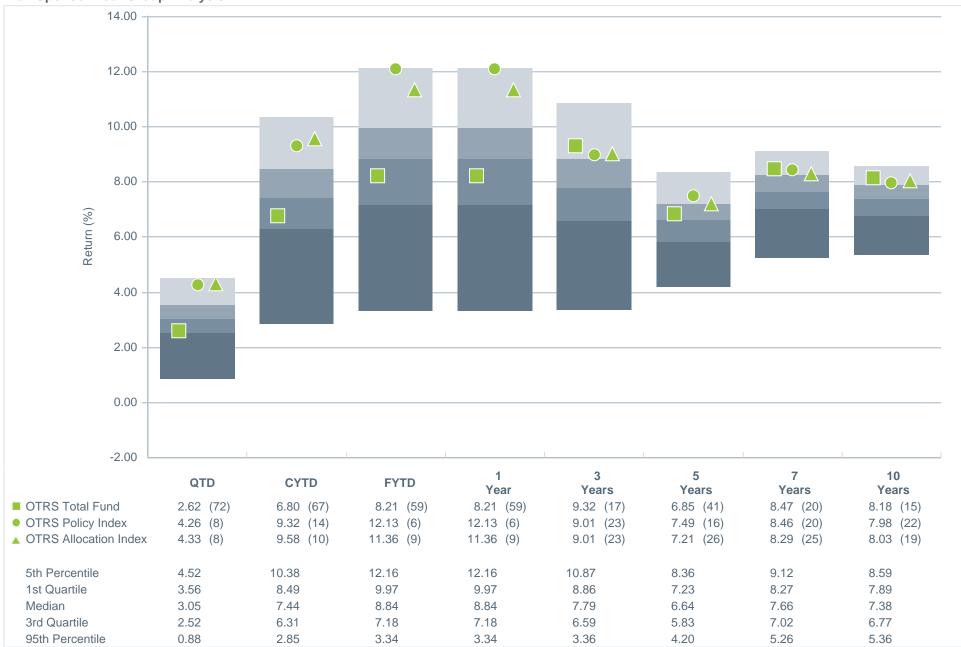


	Allocation						Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco VI Global Real Estate Fund	45,203,532	0.22	-3.33	-4.20	N/A	N/A	N/A	N/A	N/A	N/A	-0.60	10/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-10.44	
Difference			-0.65	1.56	N/A	N/A	N/A	N/A	N/A	N/A	9.84	
Invesco Strategic Opportunity (CF)	17,138,462	0.08	19.90	19.90	37.64	37.64	28.14	N/A	N/A	N/A	47.00	10/01/2019
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.60	
Difference			22.58	25.66	47.61	47.61	20.15	N/A	N/A	N/A	40.40	
L&B Golden Driller (SA)	36,028,062	0.17	-53.16	-53.16	-54.54	-54.54	-23.78	-9.49	-6.15	N/A	-5.04	07/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.31	
Difference			-50.48	-47.40	-44.57	-44.57	-31.77	-15.99	-13.12	N/A	-13.35	
Landmark Real Estate VII LP	5,210,870	0.03	-4.69	-4.69	-9.03	-9.03	-2.71	-2.00	0.58	N/A	7.83	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.32	
Difference			-2.01	1.07	0.94	0.94	-10.70	-8.50	-6.39	N/A	-0.49	
Lyrical-OTRS Realty Partner IV LP	57,554,859	0.28	-2.43	-2.43	-0.62	-0.62	8.56	15.22	8.56	N/A	6.86	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.24	
Difference			0.25	3.33	9.35	9.35	0.57	8.72	1.59	N/A	-1.38	
Starwood Opportunity X LP	10,989,486	0.05	-4.09	-6.75	-3.10	-3.10	17.21	12.81	13.98	N/A	13.71	07/01/2015
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.56	
Difference			-1.41	-0.99	6.87	6.87	9.22	6.31	7.01	N/A	6.15	
Starwood Opportunity XI LP	47,595,369	0.23	-7.25	-7.25	-7.35	-7.35	7.61	N/A	N/A	N/A	15.77	08/01/2018
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.61	
Difference			-4.57	-1.49	2.62	2.62	-0.38	N/A	N/A	N/A	9.16	
Starwood Opportunity XII LP	33,696,716	0.16	-2.75	-1.95	2.55	2.55	N/A	N/A	N/A	N/A	10.93	01/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	0.85	
Difference			-0.07	3.81	12.52	12.52	N/A	N/A	N/A	N/A	10.08	
TPG Real Estate IV LP	4,022,528	0.02	-10.69	-10.69	N/A	N/A	N/A	N/A	N/A	N/A	-10.69	01/01/2023
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-5.76	
Difference			-8.01	-4.93	N/A	N/A	N/A	N/A	N/A	N/A	-4.93	
Property ACQ Fund	9,800,000	0.05	-5.77	-5.77	-5.77	-5.77	10.31	-5.36	N/A	N/A	-4.33	08/01/2017





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



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.



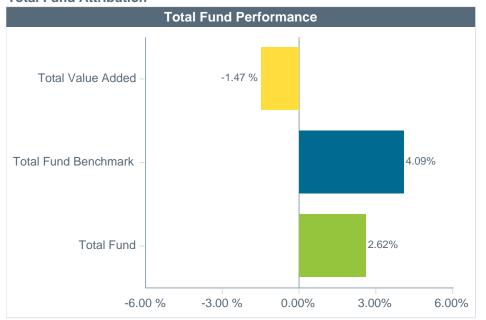
Oklahoma State Pension Commission Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

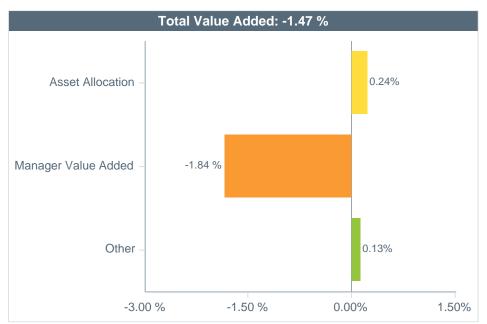


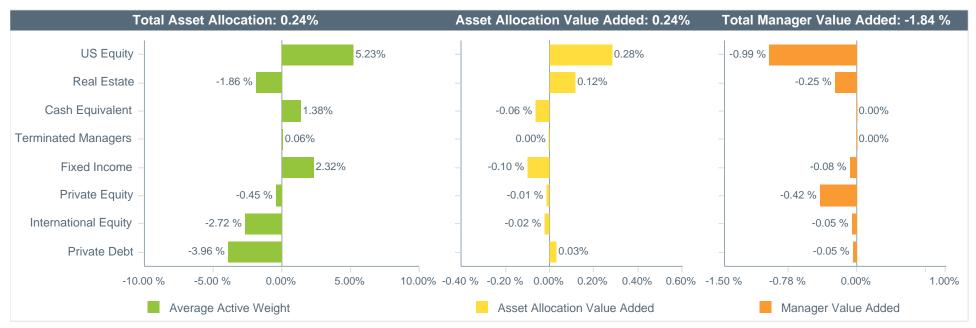
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Total Fund Attribution





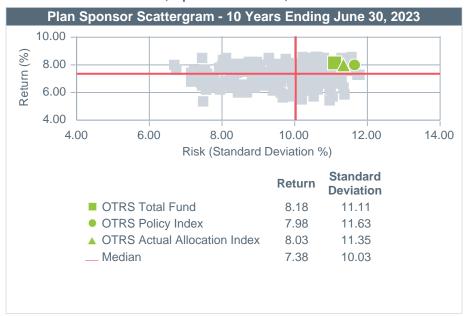


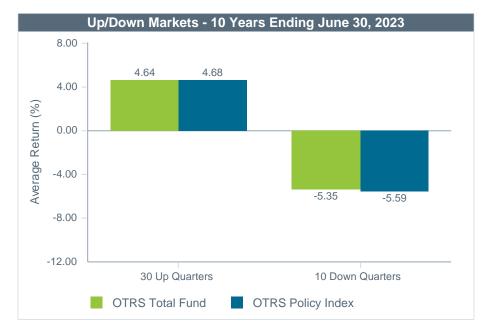
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Private Equity includes Private Credit.

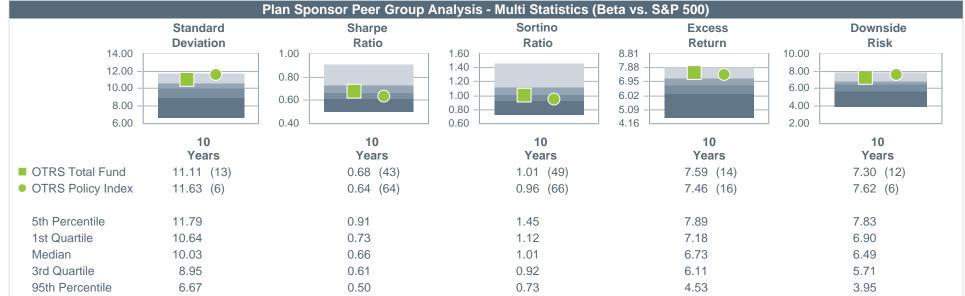


Oklahoma State Pension Commission Oklahoma Teachers' Retirement System

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

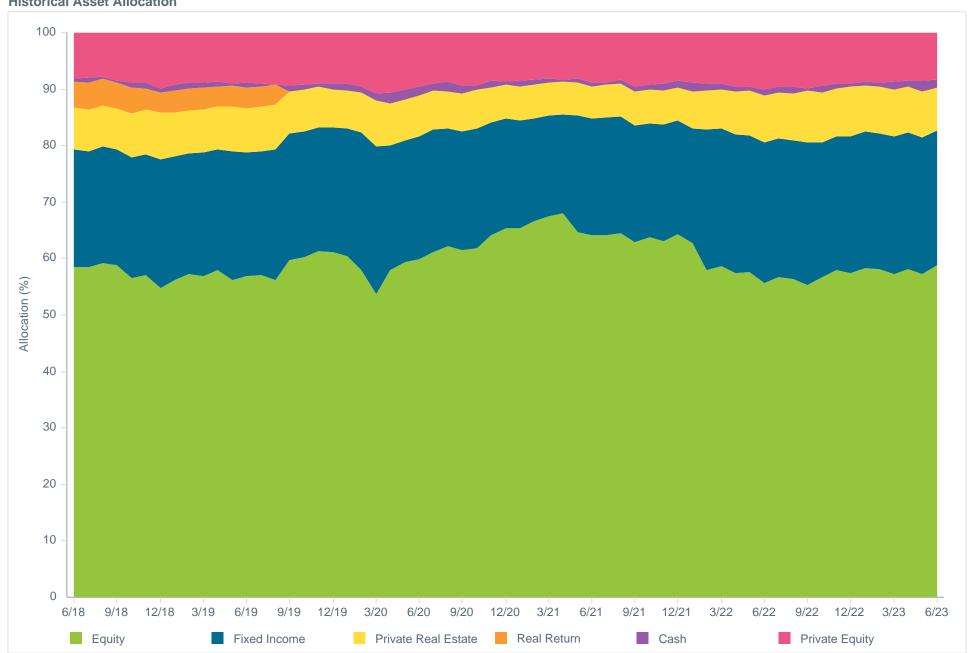






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







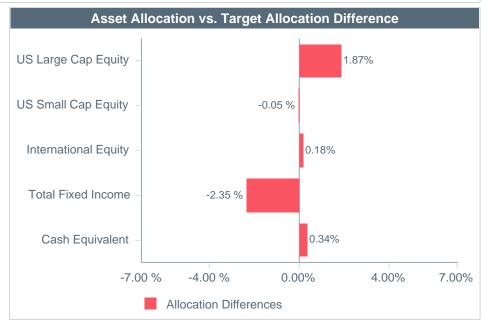
Oklahoma Public Employees Retirement System (OPERS)



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

Performance (%)														
			Trailir	ng						Calenda	r Year			
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	
OPERS Total Fund (Net)	3.59	9.88	10.81	10.81	6.52	6.03	7.27	7.12	-16.74	12.29	15.18	21.23	-6.57	
OPERS Policy Index	3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	-16.62	11.54	15.19	21.46	-6.09	
Difference	-0.03	0.25	0.31	0.31	0.30	0.01	0.01	0.03	-0.12	0.75	-0.01	-0.23	-0.48	
OPERS Actual Allocation Index	3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	-16.87	12.14	18.93	20.87	-6.49	
Difference	-0.11	0.21	0.43	0.43	0.23	-0.56	-0.35	-0.25	0.13	0.15	-3.75	0.36	-0.08	
Actuarial Discount Rate (6.5%)	1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference	2.00	6.68	4.31	4.31	0.02	-0.47	0.77	0.62	-23.24	5.79	8.68	14.73	-13.07	
OPERS Total Fund (Gross)	3.62	9.93	10.95	10.95	6.66	6.16	7.40	7.25	-16.64	12.46	15.34	21.38	-6.48	
OPERS Policy Index	3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	-16.62	11.54	15.19	21.46	-6.09	
Difference	0.00	0.30	0.45	0.45	0.44	0.14	0.14	0.16	-0.02	0.92	0.15	-0.08	-0.39	
OPERS Actual Allocation Index	3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	-16.87	12.14	18.93	20.87	-6.49	
Difference	-0.08	0.26	0.57	0.57	0.37	-0.43	-0.22	-0.12	0.23	0.32	-3.59	0.51	0.01	
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02	
Rank	23	8	13	13	74	67	62	57	95	72	19	12	94	

Asset Allocation vs. Target Allocation													
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)										
OPERS (Public Employees)	11,127,273,143	100.00	100.00										
US Large Cap Equity	3,991,815,426	35.87	34.00										
US Small Cap Equity	662,604,048	5.95	6.00										
International Equity	3,135,929,549	28.18	28.00										
Total Fixed Income	3,299,125,223	29.65	32.00										
Cash Equivalent	37,798,898	0.34	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.



	Allocation						Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	11,127,273,143	100.00	3.59	9.88	10.81	10.81	6.52	6.03	7.27	7.12	N/A	03/01/1987
OPERS Policy Index			3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	7.95	
Difference			-0.03	0.25	0.31	0.31	0.30	0.01	0.01	0.03	N/A	
OPERS Actual Allocation Index			3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	8.01	
Difference			-0.11	0.21	0.43	0.43	0.23	-0.56	-0.35	-0.25	N/A	
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			2.00	6.68	4.31	4.31	0.02	-0.47	0.77	0.62	N/A	
US Equity	4,654,419,474	41.83	7.83	15.13	18.77	18.77	14.54	10.93	12.76	12.07	N/A	09/01/1988
OPERS US Equity Custom Index			8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	N/A	
Difference			-0.25	-0.28	0.41	0.41	0.86	0.12	0.22	0.02	N/A	
US Active Large Cap Equity	387,787,855	3.49	11.84	27.57	26.79	26.79	11.28	8.92	12.05	10.70	N/A	08/01/2003
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	10.06	
Difference			3.26	10.89	7.43	7.43	-2.81	-3.00	-1.10	-1.94	N/A	
Westfield Large Cap Growth Equity (SA)	387,787,855	3.49	11.84	27.57	26.79	26.79	12.08	13.72	N/A	N/A	15.98	02/01/2017
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	16.97	
Difference			-0.97	-1.45	-0.32	-0.32	-1.65	-1.42	N/A	N/A	-0.99	
US Large Cap Enhanced Index Equity	1,324,714,378	11.91	7.83	16.14	19.10	19.10	14.62	11.11	12.55	12.13	N/A	03/01/2000
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	7.25	
Difference			-0.75	-0.54	-0.26	-0.26	0.53	-0.81	-0.60	-0.51	N/A	
State Street Large Cap Enhanced Index (SA)	663,490,639	5.96	7.41	15.35	19.19	19.19	14.92	11.96	13.08	12.76	9.61	09/01/2004
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	9.93	
Difference			-1.17	-1.33	-0.17	-0.17	0.83	0.04	-0.07	0.12	-0.32	
Mellon EB DV Large Cap Stock Index (SA)	661,223,739	5.94	8.22	16.90	18.96	18.96	14.32	10.24	12.01	11.49	9.03	06/01/2004
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	9.72	
Difference			-0.36	0.22	-0.40	-0.40	0.23	-1.68	-1.14	-1.15	-0.69	



	Allocation					Perfor	mance (%	(a)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Passive Equity	2,279,313,193	20.48	7.91	14.86	18.09	18.09	14.15	11.97	13.18	12.72	N/A	01/01/2003
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	10.50	
Difference			-0.67	-1.82	-1.27	-1.27	0.06	0.05	0.03	0.08	N/A	
BlackRock Russell 1000 Value (CF)	323,733,713	2.91	4.08	5.14	11.35	11.35	N/A	N/A	N/A	N/A	8.04	01/01/2021
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	8.16	
Difference			0.01	0.02	-0.19	-0.19	N/A	N/A	N/A	N/A	-0.12	
Blackrock Russell 1000 Index (CF)	1,955,579,480	17.57	8.56	16.60	19.28	19.28	14.10	11.95	13.17	12.67	14.03	09/01/2010
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.00	
Difference			-0.02	-0.08	-0.08	-0.08	0.01	0.03	0.02	0.03	0.03	
US Active Small Cap Equity	662,604,048	5.95	5.32	7.92	16.14	16.14	16.95	8.94	12.59	10.64	N/A	08/01/2003
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	8.60	
Difference			0.11	-0.17	3.83	3.83	6.13	4.73	3.83	2.38	N/A	
BHMS Small Cap Value Equity (SA)	235,359,000	2.12	8.88	12.16	24.51	24.51	21.99	9.04	12.54	10.86	10.66	12/01/2004
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	6.61	
Difference			5.70	9.66	18.50	18.50	6.56	5.50	4.84	3.57	4.05	
UBS US Small Cap Growth Equity (SA)	198,942,354	1.79	6.08	9.91	15.23	15.23	7.35	7.88	12.79	10.84	N/A	06/01/2003
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	9.29	
Difference			-0.97	-3.64	-3.30	-3.30	1.25	3.66	3.48	2.01	N/A	
DePrince Race & Zollo Small Cap Value (SA)	228,302,694	2.05	1.26	2.32	9.24	9.24	20.33	8.26	11.12	9.28	9.67	03/01/2011
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	7.55	
Difference			-1.92	-0.18	3.23	3.23	4.90	4.72	3.42	1.99	2.12	



	Allocation					Perfori	mance (%	5)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,135,929,549	28.18	2.56	10.63	13.33	13.33	6.98	3.81	6.32	5.10	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.42	
Difference			-0.11	0.77	0.00	0.00	-0.77	-0.20	-0.51	-0.14	N/A	
International Core Active Equity	702,196,920	6.31	3.60	12.48	12.59	12.59	9.65	3.37	5.05	4.32	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	7.04	
Difference			0.93	2.62	-0.74	-0.74	1.90	-0.64	-1.78	-0.92	N/A	
Mondrian ACWI ex US Equity (SA)	702,196,920	6.31	3.60	12.48	12.59	12.59	9.65	3.37	5.05	4.32	N/A	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			3.28	8.79	13.03	13.03	11.16	3.31	6.36	4.32	5.80	
Difference			0.32	3.69	-0.44	-0.44	-1.51	0.06	-1.31	0.00	N/A	
International Core Passive Equity	1,776,263,018	15.96	2.59	9.75	13.07	13.07	7.53	3.80	6.61	5.01	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	7.04	
Difference			-0.08	-0.11	-0.26	-0.26	-0.22	-0.21	-0.22	-0.23	N/A	
Blackrock ACWI Ex US Index (CF)	1,776,263,018	15.96	2.59	9.75	13.07	13.07	7.53	3.79	6.61	5.01	4.95	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.18	
Difference			-0.08	-0.11	-0.26	-0.26	-0.22	-0.22	-0.22	-0.23	-0.23	
International Growth Equity	657,469,611	5.91	1.38	11.17	14.83	14.83	3.02	3.72	6.58	5.64	5.78	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	5.99	
Difference			-0.70	0.22	1.18	1.18	-1.25	-0.67	-0.47	-0.32	-0.21	
Baille Gifford Intl Growth Equity (SA)	306,468,007	2.75	0.21	11.16	16.11	16.11	0.51	3.00	6.25	N/A	4.86	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	5.20	
Difference			-1.87	0.21	2.46	2.46	-3.76	-1.39	-0.80	N/A	-0.34	
Blackrock ACWI Ex US Growth (CF)	351,001,604	3.15	2.43	11.17	13.74	13.74	5.67	4.38	6.85	5.62	5.70	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	6.01	
Difference			0.35	0.22	0.09	0.09	1.40	-0.01	-0.20	-0.34	-0.31	



	Allocation						Perfori	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,290,475,223	29.57	-0.97	2.58	-1.07	-1.07	-4.17	1.26	0.82	2.00	N/A	04/01/1989
OPERS Fixed Income Custom Index			-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	N/A	
Difference			0.10	0.21	0.72	0.72	0.33	0.47	0.43	0.35	N/A	
Active Fixed Income	1,269,564,557	11.41	-1.20	2.93	-2.05	-2.05	-5.98	0.92	0.44	2.10	N/A	08/01/2003
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.20	
Difference			-0.36	0.84	-1.11	-1.11	-2.01	0.15	0.00	0.58	N/A	
MetWest Core Plus Fixed Income (SA)	985,599,624	8.86	-0.84	2.65	-0.41	-0.41	-3.38	1.40	1.13	1.98	N/A	09/01/2001
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.45	
Difference			0.00	0.56	0.53	0.53	0.59	0.63	0.69	0.46	N/A	
Hoisington Long Duration Fixed Income (SA)	283,964,933	2.55	-2.45	3.94	-7.34	-7.34	-13.35	-1.10	-1.99	2.17	N/A	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-2.30	3.72	-6.82	-6.82	-12.09	-0.88	-1.70	1.80	6.07	
Difference			-0.15	0.22	-0.52	-0.52	-1.26	-0.22	-0.29	0.37	N/A	
Enhanced Fixed Income	1,621,860,913	14.58	-0.69	2.43	-0.24	-0.24	-3.63	1.16	0.79	1.83	N/A	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.15	0.34	0.70	0.70	0.34	0.39	0.35	0.31	N/A	
Blackrock Enhanced Core (SA)	1,621,860,913	14.58	-0.69	2.43	-0.24	-0.24	-3.63	1.16	0.79	1.83	N/A	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.15	0.34	0.70	0.70	0.34	0.39	0.35	0.31	N/A	
Passive Fixed Income	399,049,752	3.59	-1.40	2.09	-1.34	-1.34	-0.07	2.58	2.11	2.20	2.94	03/01/2010
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.18	
Difference			-0.56	0.00	-0.40	-0.40	3.90	1.81	1.67	0.68	0.76	
Blackrock TIPS (CF)	399,049,752	3.59	-1.40	2.09	-1.34	-1.34	-0.07	2.58	2.11	2.20	2.94	03/01/2010
Bloomberg US Trsy US TIPS Index			-1.42	1.87	-1.40	-1.40	-0.12	2.49	1.99	2.08	2.90	
Difference			0.02	0.22	0.06	0.06	0.05	0.09	0.12	0.12	0.04	



	Allocation						Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	11,127,273,143	100.00	3.62	9.93	10.95	10.95	6.66	6.16	7.40	7.25	8.11	03/01/1987
OPERS Policy Index			3.62	9.63	10.50	10.50	6.22	6.02	7.26	7.09	7.95	
Difference			0.00	0.30	0.45	0.45	0.44	0.14	0.14	0.16	0.16	
OPERS Actual Allocation Index			3.70	9.67	10.38	10.38	6.29	6.59	7.62	7.37	8.01	
Difference			-0.08	0.26	0.57	0.57	0.37	-0.43	-0.22	-0.12	0.10	
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			2.03	6.73	4.45	4.45	0.16	-0.34	0.90	0.75	1.61	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	8.19	
Rank			23	8	13	13	74	67	62	57	63	
US Equity	4,654,419,474	41.83	7.84	15.17	18.97	18.97	14.71	11.08	12.90	12.20	10.39	09/01/1988
OPERS US Equity Custom Index			8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	N/A	
Difference			-0.24	-0.24	0.61	0.61	1.03	0.27	0.36	0.15	N/A	
IM U.S. Equity (SA+CF) Median			5.71	10.69	16.52	16.52	14.33	9.48	11.81	11.17	11.50	
Rank			31	32	36	36	45	34	38	38	91	
US Active Large Cap Equity	387,787,855	3.49	11.86	27.62	26.92	26.92	11.38	9.00	12.15	10.85	8.99	08/01/2003
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	10.06	
Difference			3.28	10.94	7.56	7.56	-2.71	-2.92	-1.00	-1.79	-1.07	
IM U.S. Large Cap Equity (SA+CF) Median			7.87	15.04	18.54	18.54	14.12	11.53	13.05	12.55	10.23	
Rank			15	13	11	11	81	80	62	71	90	
Westfield Large Cap Growth Equity (SA)	387,787,855	3.49	11.86	27.62	26.92	26.92	12.19	13.83	N/A	N/A	16.16	02/01/2017
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	16.97	
Difference			-0.95	-1.40	-0.19	-0.19	-1.54	-1.31	N/A	N/A	-0.81	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.73	26.20	25.32	25.32	11.74	13.23	15.39	14.69	15.42	
Rank			49	39	33	33	45	36	N/A	N/A	35	



	Allocation				Perfor	mance (%)					
	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	1,324,714,378	11.91	7.83	16.16	19.13	19.13	14.65	11.13	12.58	12.16	6.35	03/01/2000
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	7.25	
Difference			-0.75	-0.52	-0.23	-0.23	0.56	-0.79	-0.57	-0.48	-0.90	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			8.19	16.45	18.74	18.74	14.43	11.53	13.27	12.80	7.84	
Rank			61	56	38	38	43	60	58	75	100	
State Street Large Cap Enhanced Index (SA)	663,490,639	5.96	7.42	15.36	19.23	19.23	14.95	12.00	13.11	12.80	9.66	09/01/2004
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	9.93	
Difference			-1.16	-1.32	-0.13	-0.13	0.86	0.08	-0.04	0.16	-0.27	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			8.19	16.45	18.74	18.74	14.43	11.53	13.27	12.80	10.06	
Rank			66	67	37	37	38	39	53	51	87	
Mellon EB DV Large Cap Stock Index (SA)	661,223,739	5.94	8.23	16.91	18.99	18.99	14.33	10.26	12.04	11.51	9.08	06/01/2004
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	9.72	
Difference			-0.35	0.23	-0.37	-0.37	0.24	-1.66	-1.11	-1.13	-0.64	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			8.19	16.45	18.74	18.74	14.43	11.53	13.27	12.80	9.85	
Rank			49	29	40	40	66	75	75	79	90	
US Large Cap Passive Equity	2,279,313,193	20.48	7.91	14.87	18.09	18.09	14.15	11.98	13.19	12.73	10.66	01/01/2003
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	10.50	
Difference			-0.67	-1.81	-1.27	-1.27	0.06	0.06	0.04	0.09	0.16	
BlackRock Russell 1000 Value (CF)	323,733,713	2.91	4.08	5.15	11.36	11.36	N/A	N/A	N/A	N/A	8.05	01/01/2021
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	8.16	
Difference			0.01	0.03	-0.18	-0.18	N/A	N/A	N/A	N/A	-0.11	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.30	5.57	12.65	12.65	15.73	9.43	10.78	10.28	9.90	
Rank			55	54	64	64	N/A	N/A	N/A	N/A	81	
Blackrock Russell 1000 Index (CF)	1,955,579,480	17.57	8.56	16.61	19.29	19.29	14.11	11.95	13.18	12.68	14.04	09/01/2010
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.00	
Difference			-0.02	-0.07	-0.07	-0.07	0.02	0.03	0.03	0.04	0.04	
IM U.S. Large Cap Index Equity (SA+CF) Median			8.58	16.69	19.38	19.38	14.23	11.96	13.18	12.68	14.04	
Rank			59	59	60	60	60	51	50	51	50	



	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Active Small Cap Equity	662,604,048	5.95	5.42	8.11	17.31	17.31	17.95	9.82	13.34	11.35	11.66	08/01/2003
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	8.60	
Difference			0.21	0.02	5.00	5.00	7.13	5.61	4.58	3.09	3.06	
IM U.S. Small Cap Equity (SA+CF) Median			4.93	9.09	15.13	15.13	14.78	7.08	10.75	10.24	10.54	
Rank			38	60	35	35	27	16	19	26	22	
BHMS Small Cap Value Equity (SA)	235,359,000	2.12	9.03	12.46	24.98	24.98	22.54	9.57	13.09	11.42	11.28	12/01/2004
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	6.61	
Difference			5.85	9.96	18.97	18.97	7.11	6.03	5.39	4.13	4.67	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	8.85	
Rank			3	16	5	5	19	11	8	9	6	
UBS US Small Cap Growth Equity (SA)	198,942,354	1.79	6.16	9.99	15.64	15.64	8.48	8.88	13.58	11.60	10.88	06/01/2003
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	9.29	
Difference			-0.89	-3.56	-2.89	-2.89	2.38	4.66	4.27	2.77	1.59	
IM U.S. Small Cap Growth Equity (SA+CF) Median			5.83	13.39	17.35	17.35	8.90	8.77	13.20	11.54	11.73	
Rank			46	77	62	62	54	46	46	49	86	
DePrince Race & Zollo Small Cap Value (SA)	228,302,694	2.05	1.36	2.49	11.54	11.54	21.45	9.26	11.96	10.06	10.41	03/01/2011
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	7.55	
Difference			-1.82	-0.01	5.53	5.53	6.02	5.72	4.26	2.77	2.86	
IM U.S. Micro Cap Equity (SA+CF) Median			4.88	7.74	14.31	14.31	17.56	6.33	11.86	11.17	11.51	
Rank			86	87	72	72	30	29	48	64	67	
International Equity	3,135,929,549	28.18	2.59	10.71	13.46	13.46	7.17	3.97	6.50	5.27	5.66	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.42	
Difference			-0.08	0.85	0.13	0.13	-0.58	-0.04	-0.33	0.03	0.24	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	7.00	
Rank			67	72	78	78	68	70	75	80	100	
International Core Active Equity	702,196,920	6.31	3.69	12.68	12.99	12.99	10.03	3.74	5.42	4.69	6.75	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	7.04	
Difference			1.02	2.82	-0.34	-0.34	2.28	-0.27	-1.41	-0.55	-0.29	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	7.80	
Rank			32	41	83	83	26	75	92	91	93	
Mondrian ACWI ex US Equity (SA)	702,196,920	6.31	3.69	12.68	12.99	12.99	10.03	3.74	5.42	4.69	6.62	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			3.28	8.79	13.03	13.03	11.16	3.31	6.36	4.32	5.80	
Difference			0.41	3.89	-0.04	-0.04	-1.13	0.43	-0.94	0.37	0.82	
IM ACWI Ex US Core (SA+CF) Median			3.10	11.47	15.47	15.47	7.87	4.79	7.23	5.65	6.72	
Rank			36	35	87	87	10	78	92	92	71	

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.



	Allocation						Perfori	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,776,263,018	15.96	2.59	9.77	13.10	13.10	7.55	3.81	6.64	5.05	6.33	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	7.04	
Difference			-0.08	-0.09	-0.23	-0.23	-0.20	-0.20	-0.19	-0.19	-0.71	
Blackrock ACWI Ex US Index (CF)	1,776,263,018	15.96	2.59	9.77	13.10	13.10	7.55	3.81	6.64	5.05	4.99	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.18	
Difference			-0.08	-0.09	-0.23	-0.23	-0.20	-0.20	-0.19	-0.19	-0.19	
International Growth Equity	657,469,611	5.91	1.41	11.24	14.96	14.96	3.39	4.00	6.87	5.88	5.95	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	5.99	
Difference			-0.67	0.29	1.31	1.31	-0.88	-0.39	-0.18	-0.08	-0.04	
IM ACWI Ex US Growth (SA+CF) Median			3.06	12.49	17.96	17.96	6.50	5.66	8.30	6.93	7.06	
Rank			76	72	84	84	87	79	86	94	98	
Baille Gifford Intl Growth Equity (SA)	306,468,007	2.75	0.26	11.26	16.33	16.33	1.17	3.49	6.75	N/A	5.29	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	5.20	
Difference			-1.82	0.31	2.68	2.68	-3.10	-0.90	-0.30	N/A	0.09	
IM ACWI Ex US Growth (SA+CF) Median			3.06	12.49	17.96	17.96	6.50	5.66	8.30	6.93	6.21	
Rank			98	72	77	77	96	87	87	N/A	86	
Blackrock ACWI Ex US Growth (CF)	351,001,604	3.15	2.44	11.22	13.80	13.80	5.73	4.43	6.90	5.67	5.76	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			2.08	10.95	13.65	13.65	4.27	4.39	7.05	5.96	6.01	
Difference			0.36	0.27	0.15	0.15	1.46	0.04	-0.15	-0.29	-0.25	
IM ACWI Ex US Growth (SA+CF) Median			3.06	12.49	17.96	17.96	6.50	5.66	8.30	6.93	7.60	
Rank			62	72	91	91	61	78	85	99	99	



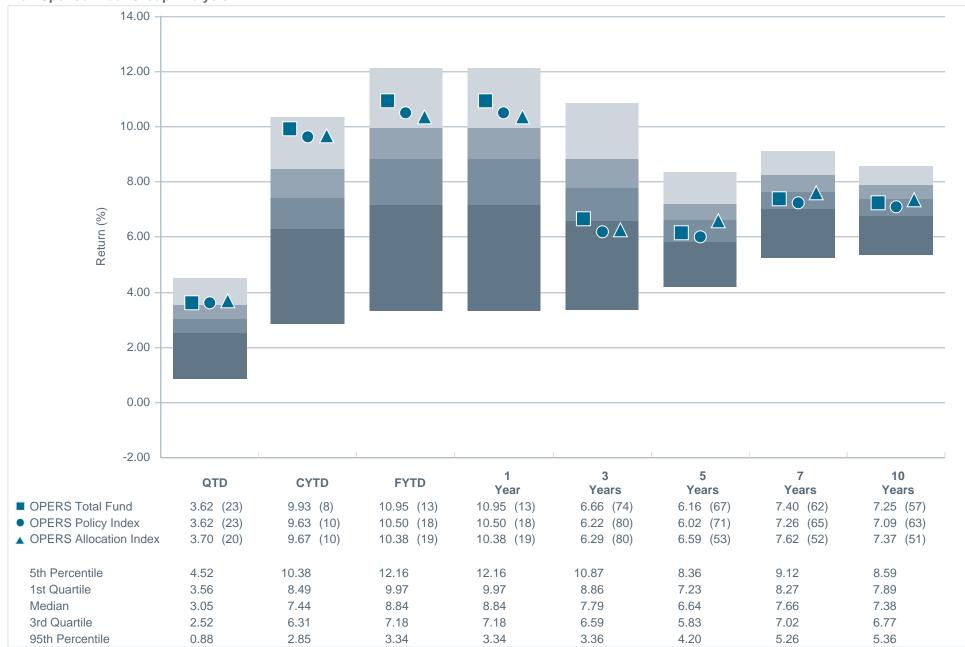
	Allocation				Perfor	mance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,290,475,223	29.57	-0.96	2.63	-1.01	-1.01	-4.09	1.35	0.90	2.09	6.04	04/01/1989
OPERS Fixed Income Custom Index			-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	N/A	
Difference			0.11	0.26	0.78	0.78	0.41	0.56	0.51	0.44	N/A	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-0.58	2.57	-0.15	-0.15	-3.04	1.37	1.17	2.15	5.75	
Rank			91	45	90	90	98	53	72	56	18	
Active Fixed Income	1,269,564,557	11.41	-1.19	2.97	-1.97	-1.97	-5.86	1.05	0.55	2.22	4.92	08/01/2003
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.20	
Difference			-0.35	0.88	-1.03	-1.03	-1.89	0.28	0.11	0.70	1.72	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-0.58	2.57	-0.15	-0.15	-3.04	1.37	1.17	2.15	3.89	
Rank			97	22	99	99	100	82	90	45	12	
MetWest Core Plus Fixed Income (SA)	985,599,624	8.86	-0.83	2.67	-0.36	-0.36	-3.25	1.52	1.22	2.09	4.52	09/01/2001
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.45	
Difference			0.01	0.58	0.58	0.58	0.72	0.75	0.78	0.57	1.07	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	4.41	
Rank			89	56	78	78	80	63	72	77	41	
Hoisington Long Duration Fixed Income (SA)	283,964,933	2.55	-2.41	4.02	-7.20	-7.20	-13.23	-0.97	-1.86	2.31	6.77	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-2.30	3.72	-6.82	-6.82	-12.09	-0.88	-1.70	1.80	6.07	
Difference			-0.11	0.30	-0.38	-0.38	-1.14	-0.09	-0.16	0.51	0.70	
IM U.S. Long Duration (SA+CF) Median			-1.03	4.67	-1.35	-1.35	-7.68	1.49	1.00	3.43	N/A	
Rank			100	85	100	100	100	100	100	100	N/A	
Enhanced Fixed Income	1,621,860,913	14.58	-0.67	2.49	-0.16	-0.16	-3.56	1.24	0.87	1.91	4.21	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.17	0.40	0.78	0.78	0.41	0.47	0.43	0.39	0.23	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	4.36	
Rank			47	44	28	28	60	48	58	57	71	
Blackrock Enhanced Core (SA)	1,621,860,913	14.58	-0.67	2.49	-0.16	-0.16	-3.56	1.24	0.87	1.91	4.21	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.17	0.40	0.78	0.78	0.41	0.47	0.43	0.39	0.23	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	4.36	
Rank			47	44	28	28	60	48	58	57	72	



	Allocation	Allocation					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Passive Fixed Income	399,049,752	3.59	-1.39	2.09	-1.33	-1.33	-0.06	2.58	2.11	2.21	2.95	03/01/2010
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.18	
Difference			-0.55	0.00	-0.39	-0.39	3.91	1.81	1.67	0.69	0.77	
Blackrock TIPS (CF)	399,049,752	3.59	-1.39	2.09	-1.33	-1.33	-0.06	2.58	2.11	2.21	2.95	03/01/2010
Bloomberg US Trsy US TIPS Index			-1.42	1.87	-1.40	-1.40	-0.12	2.49	1.99	2.08	2.90	
Difference			0.03	0.22	0.07	0.07	0.06	0.09	0.12	0.13	0.05	
IM U.S. TIPS (SA+CF) Median			-1.40	1.89	-1.15	-1.15	0.01	2.57	2.12	2.18	2.96	
Rank			43	11	61	61	58	45	52	39	52	



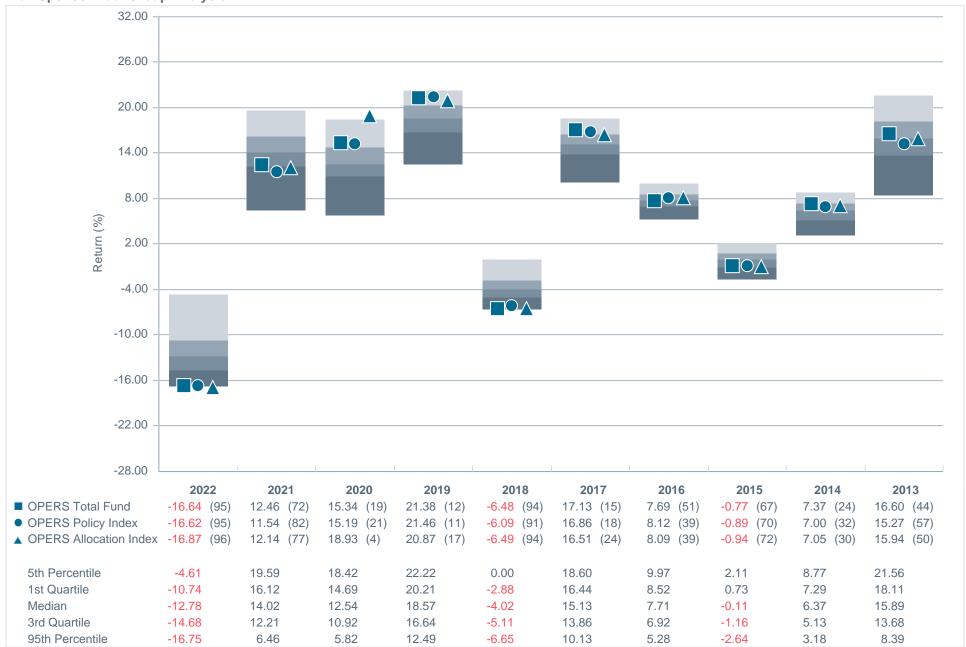
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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.



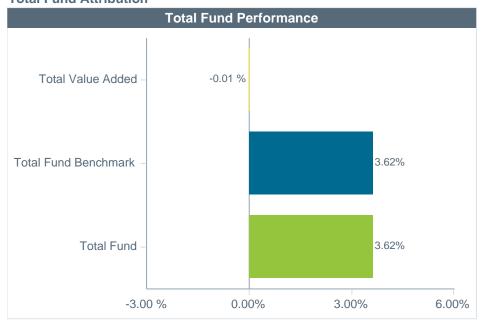
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

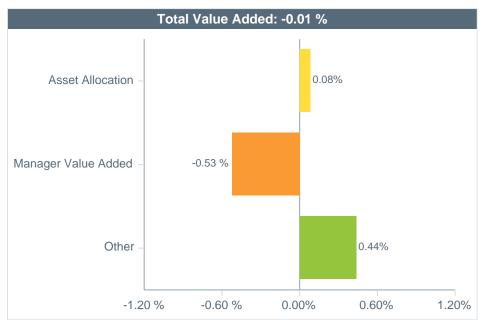


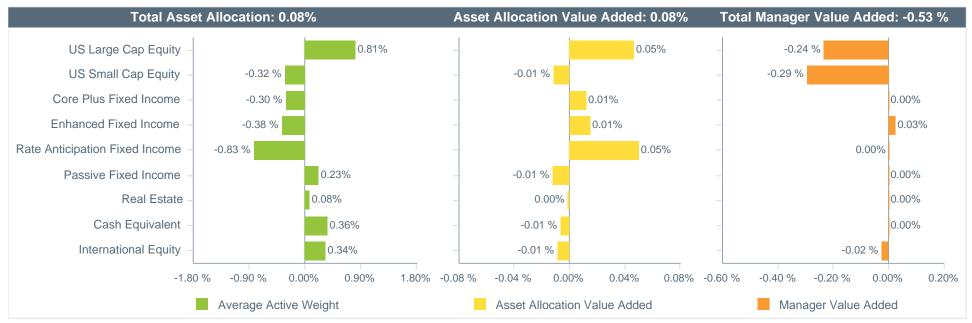
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Oklahoma State Pension Commission Oklahoma Public Employees Retirement System Total Fund Attribution





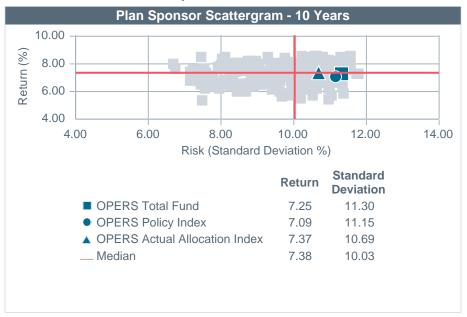


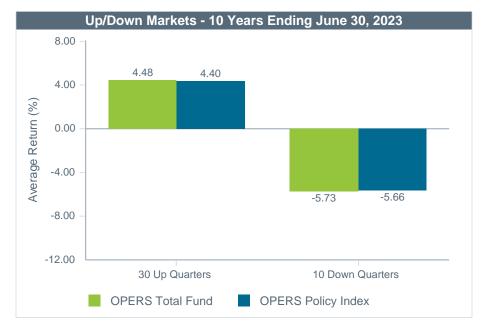
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

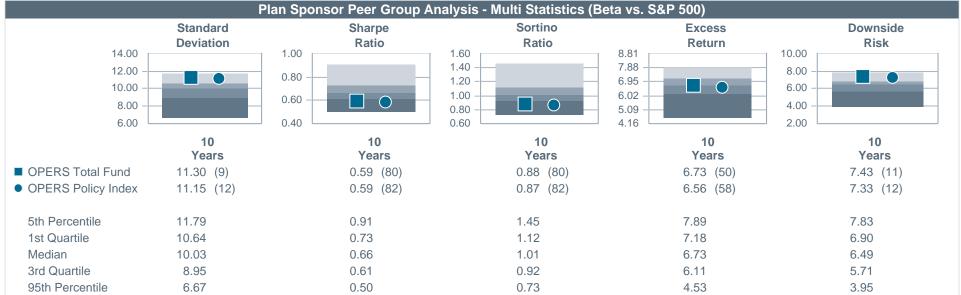


Oklahoma State Pension Commission Oklahoma Public Employees Retirement System Total Fund Biole & Return Un/Pour Markets and Multi-

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

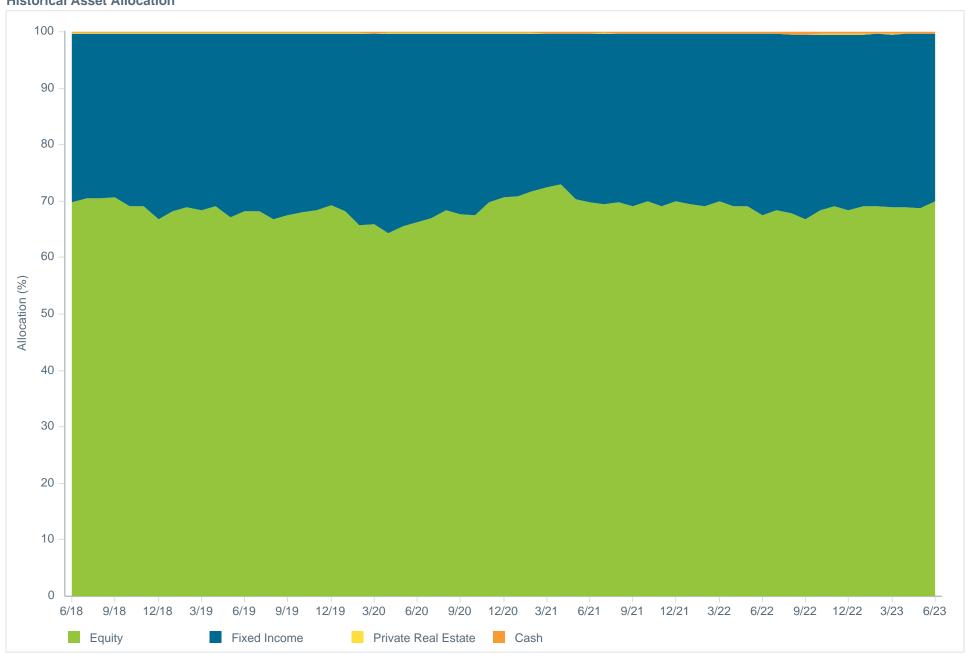






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







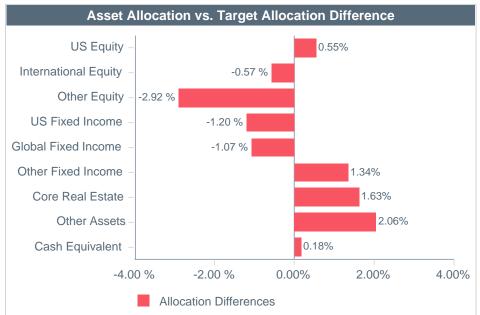
Oklahoma Firefighters Pension & Retirement System (OFPRS)



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

Performance (%)													
			Trailin	ıg						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OFPRS Total Fund (Net)	3.63	8.18	8.70	8.70	8.48	7.28	8.80	8.47	-13.34	13.46	17.97	19.77	-2.77
OFPRS Policy Index	4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	-13.50	16.12	15.02	21.76	-3.80
Difference	-0.45	-0.86	-1.45	-1.45	-0.31	-0.57	-0.02	-0.21	0.16	-2.66	2.95	-1.99	1.03
OFPRS Actual Allocation Index	4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	-12.83	16.99	14.72	20.30	-3.93
Difference	-0.43	-0.72	-0.65	-0.65	-0.73	-0.27	-0.04	0.09	-0.51	-3.53	3.25	-0.53	1.16
Actuarial Discount Rate (7.5%)	1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	1.81	4.50	1.20	1.20	0.98	-0.22	1.30	0.97	-20.84	5.96	10.47	12.27	-10.27
OFPRS Total Fund (Gross)	3.70	8.33	9.04	9.04	8.86	7.65	9.17	8.83	-13.03	13.87	18.44	20.15	-2.46
OFPRS Policy Index	4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	-13.50	16.12	15.02	21.76	-3.80
Difference	-0.38	-0.71	-1.11	-1.11	0.07	-0.20	0.35	0.15	0.47	-2.25	3.42	-1.61	1.34
OFPRS Actual Allocation Index	4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	-12.83	16.99	14.72	20.30	-3.93
Difference	-0.36	-0.57	-0.31	-0.31	-0.35	0.10	0.33	0.45	-0.20	-3.12	3.72	-0.15	1.47
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02
Rank	20	30	46	46	26	13	5	4	54	54	5	27	19

Asset	t Allocation vs. Targ	get Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OFPRS (Firefighters)	3,425,809,174	100.00	100.00
US Equity	1,457,658,675	42.55	42.00
International Equity	494,425,090	14.43	15.00
Other Equity	71,259,809	2.08	5.00
US Fixed Income	232,894,324	6.80	8.00
Global Fixed Income	203,117,075	5.93	7.00
Other Fixed Income	217,348,818	6.34	5.00
Core Real Estate	398,394,622	11.63	10.00
Other Assets	344,688,827	10.06	8.00
Cash Equivalent	6,021,935	0.18	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.



	Allocation	on					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,425,809,174	100.00	3.63	8.18	8.70	8.70	8.48	7.28	8.80	8.47	7.01	01/01/1997
OFPRS Policy Index			4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	7.50	
Difference			-0.45	-0.86	-1.45	-1.45	-0.31	-0.57	-0.02	-0.21	-0.49	
OFPRS Actual Allocation Index			4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	7.40	
Difference			-0.43	-0.72	-0.65	-0.65	-0.73	-0.27	-0.04	0.09	-0.39	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			1.81	4.50	1.20	1.20	0.98	-0.22	1.30	0.97	-0.49	
Total Equity	1,952,083,765	56.98	5.68	13.36	16.46	16.46	10.39	9.09	11.50	10.71	7.72	01/01/1997
Wilshire 5000 Index			8.43	16.34	19.06	19.06	14.24	11.67	13.05	12.51	9.04	
Difference			-2.75	-2.98	-2.60	-2.60	-3.85	-2.58	-1.55	-1.80	-1.32	
US Equity	1,457,658,675	42.55	7.02	14.50	17.76	17.76	11.68	10.04	12.30	11.69	8.25	01/01/1997
Wilshire 5000 Index			8.43	16.34	19.06	19.06	14.24	11.67	13.05	12.51	9.04	
Difference			-1.41	-1.84	-1.30	-1.30	-2.56	-1.63	-0.75	-0.82	-0.79	
US Large Cap Equity	1,020,280,428	29.78	8.44	16.89	19.60	19.60	13.02	10.90	12.48	12.10	8.43	12/01/1996
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	8.97	
Difference			-0.14	0.21	0.24	0.24	-1.07	-1.02	-0.67	-0.54	-0.54	
US Large Cap Core Equity	510,102,264	14.89	7.88	15.78	18.56	18.56	14.96	11.49	12.55	12.41	8.83	12/01/1997
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	8.19	
Difference			-0.86	-1.11	-1.03	-1.03	0.36	-0.82	-0.83	-0.45	0.64	
Liquidity Pool - SSgA Equity Index (CF)	281,673,534	8.22	8.74	16.86	19.56	19.56	N/A	N/A	N/A	N/A	N/A	03/01/2021
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	8.56	
Difference			0.00	-0.03	-0.03	-0.03	N/A	N/A	N/A	N/A	N/A	
Intech Enhanced Investment Tech (SA)	228,428,729	6.67	7.39	15.20	18.25	18.25	13.54	11.44	12.44	12.48	9.13	01/01/2002
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	8.61	
Difference			-1.35	-1.69	-1.34	-1.34	-1.06	-0.87	-0.94	-0.38	0.52	
US Large Cap Value Equity	254,239,082	7.42	4.08	7.53	15.97	15.97	13.71	8.60	10.11	9.18	7.72	12/01/1996
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	8.17	
Difference			0.01	2.41	4.43	4.43	-0.59	0.49	1.17	-0.04	-0.45	
Beutel Goodman American Equity (SA)	125,179,238	3.65	3.72	6.21	17.79	17.79	14.87	12.11	12.25	N/A	12.09	04/01/2016
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	9.30	
Difference			-0.35	1.09	6.25	6.25	0.57	4.00	3.31	N/A	2.79	



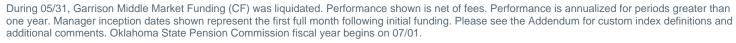


	Allocatio	Allocation Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Aristotle US Equity (SA)	129,059,844	3.77	4.42	8.46	13.64	13.64	N/A	N/A	N/A	N/A	10.12	09/01/2020
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	12.02	
Difference			0.35	3.34	2.10	2.10	N/A	N/A	N/A	N/A	-1.90	
US Large Cap Growth Equity	255,939,082	7.47	13.87	29.16	24.65	24.65	6.82	11.12	14.39	14.03	7.63	12/01/1996
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	9.24	
Difference			1.06	0.14	-2.46	-2.46	-6.91	-4.02	-2.52	-1.71	-1.61	
Fred Alger Capital Appreciation (SA)	255,939,082	7.47	13.87	29.16	24.65	24.65	7.19	11.35	14.54	14.14	14.41	07/01/2010
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	16.42	
Difference			1.06	0.14	-2.46	-2.46	-6.54	-3.79	-2.37	-1.60	-2.01	
US Small Cap Equity	437,378,246	12.77	3.08	8.17	13.17	13.17	8.32	7.92	11.68	10.71	8.54	01/01/1997
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	7.84	
Difference			-2.13	0.08	0.86	0.86	-2.50	3.71	2.92	2.45	0.70	
Liqiduity Pool - SSgA Small Cap Completeness Index (CF)	85,563,628	2.50	6.38	12.65	15.32	15.32	N/A	N/A	N/A	N/A	N/A	03/01/2021
Russell Sm Cap Compl Index			6.40	12.66	15.32	15.32	10.05	6.60	10.09	9.64	-5.32	
Difference			-0.02	-0.01	0.00	0.00	N/A	N/A	N/A	N/A	N/A	
US Small Cap Value Equity	177,089,501	5.17	4.50	7.56	14.16	14.16	14.32	7.82	10.43	9.83	8.98	12/01/1996
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	8.58	
Difference			1.32	5.06	8.15	8.15	-1.11	4.28	2.73	2.54	0.40	
Earnest Partner Small Cap Value Equity (SA)	88,961,999	2.60	4.54	6.39	15.39	15.39	16.90	9.93	12.04	11.44	8.86	08/01/2005
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	6.35	
Difference			1.36	3.89	9.38	9.38	1.47	6.39	4.34	4.15	2.51	
River Road Small Cap Value Equity (SA)	88,127,502	2.57	3.19	5.68	12.89	12.89	15.17	7.59	10.19	9.13	6.91	04/01/2007
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	5.66	
Difference			0.01	3.18	6.88	6.88	-0.26	4.05	2.49	1.84	1.25	
US Small Cap Growth Equity	174,725,117	5.10	2.29	10.22	11.74	11.74	-1.90	4.65	10.62	9.80	6.32	07/01/1995
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	7.22	
Difference			-4.76	-3.33	-6.79	-6.79	-8.00	0.43	1.31	0.97	-0.90	
Lord Abbett Small Cap Growth Equity (SA)	88,492,460	2.58	3.34	11.69	12.20	12.20	1.69	6.77	13.19	10.09	9.93	04/01/2011
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.73	
Difference			-3.71	-1.86	-6.33	-6.33	-4.41	2.55	3.88	1.26	1.20	
Delaware SMID Focus Growth Equity (SA)	86,232,657	2.52	1.22	8.74	11.27	11.27	-4.78	2.92	8.52	9.53	9.43	04/01/2011
Russell 2500 Grth Index			6.41	13.38	18.58	18.58	6.56	7.00	10.95	10.38	10.06	
Difference			-5.19	-4.64	-7.31	-7.31	-11.34	-4.08	-2.43	-0.85	-0.63	

During 05/31, Garrison Middle Market Funding (CF) was liquidated. 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.



	Allocatio	n					Perfor	mance (%)			
	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	13,493,763	0.39	4.07	11.35	8.92	8.92	N/A	N/A	N/A	N/A	8.92	07/01/2022
OFP LGT Co-Invest Fund III	20,948,322	0.61	5.35	7.44	10.38	10.38	N/A	N/A	N/A	N/A	6.35	01/01/2022
OFP Schroders P/E Global DIR III	36,817,725	1.07	7.36	7.36	-0.37	-0.37	N/A	N/A	N/A	N/A	7.00	01/01/2022
International Equity	494,425,090	14.43	1.93	10.11	12.57	12.57	6.62	6.04	8.62	6.92	5.14	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	4.90	
Difference			-0.51	0.64	-0.15	-0.15	-0.60	2.52	2.30	2.17	0.24	
International Developed Equity	323,449,303	9.44	2.08	11.12	15.07	15.07	7.87	8.18	10.30	8.76	5.89	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	4.90	
Difference			-0.36	1.65	2.35	2.35	0.65	4.66	3.98	4.01	0.99	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	62,782,609	1.83	2.55	9.71	12.93	12.93	N/A	N/A	N/A	N/A	N/A	03/01/2021
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	-1.29	
Difference			0.11	0.24	0.21	0.21	N/A	N/A	N/A	N/A	N/A	
Chautauqua Intl Growth Equity (CF)	158,268,077	4.62	0.17	8.60	12.70	12.70	9.17	7.10	9.81	8.65	8.65	08/01/2012
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	5.43	
Difference			-2.27	-0.87	-0.02	-0.02	1.95	3.58	3.49	3.90	3.22	
WCM Berkeley Street Intl Equity (SA)	165,151,982	4.82	3.76	14.74	19.07	19.07	6.68	9.17	10.79	9.83	10.20	08/01/2012
MSCI EAFE Index (USD) (Net)			2.95	11.67	18.77	18.77	8.93	4.39	6.88	5.41	6.49	
Difference			0.81	3.07	0.30	0.30	-2.25	4.78	3.91	4.42	3.71	
Emerging Markets Equity	108,193,178	3.16	1.37	6.56	4.13	4.13	2.84	-0.18	3.65	1.70	3.55	08/01/2012
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	2.78	
Difference			0.47	1.67	2.38	2.38	0.52	-1.11	-1.30	-1.25	0.77	
RBC GAM Emerging Markets Equity (CF)	57,021,450	1.66	2.60	8.87	9.34	9.34	5.06	N/A	N/A	N/A	2.96	01/01/2019
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	3.04	
Difference			1.70	3.98	7.59	7.59	2.74	N/A	N/A	N/A	-0.08	
Wellington Emerging Markets (CF)	51,171,728	1.49	0.04	4.10	-1.13	-1.13	0.58	N/A	N/A	N/A	-0.19	01/01/2019
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	3.04	
Difference			-0.86	-0.79	-2.88	-2.88	-1.74	N/A	N/A	N/A	-3.23	





	Allocation	Allocation					Perfori	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	436,011,399	12.73	-0.76	2.90	0.17	0.17	-3.06	-0.28	0.07	1.09	4.11	01/01/1997
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	4.19	
Difference			0.08	0.81	1.11	1.11	0.91	-1.05	-0.37	-0.43	-0.08	
Garcia Hamilton Core Fixed Income (SA)	87,874,915	2.57	-1.27	2.72	-0.94	-0.94	-3.36	0.71	0.70	N/A	1.59	07/01/2014
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	1.20	
Difference			-0.43	0.63	0.00	0.00	0.61	-0.06	0.26	N/A	0.39	
Orleans Core Fixed Income (SA)	62,198,189	1.82	-0.77	2.40	0.07	0.07	-3.61	0.91	0.64	N/A	1.21	07/01/2014
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	1.20	
Difference			0.07	0.31	1.01	1.01	0.36	0.14	0.20	N/A	0.01	
Liquidity Pool - SSgA Aggregate Bond (CF)	80,796,596	2.36	-0.83	2.30	-0.91	-0.91	N/A	N/A	N/A	N/A	N/A	03/01/2021
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-4.71	
Difference			0.01	0.21	0.03	0.03	N/A	N/A	N/A	N/A	N/A	
Brandywine Global Fixed Income (CF)	203,117,075	5.93	-0.63	3.27	0.87	0.87	-2.15	-0.47	0.13	0.82	2.70	08/01/2009
FTSE Wrld Govt Bond Index			-1.79	1.66	-2.49	-2.49	-6.49	-2.04	-1.79	-0.48	0.32	
Difference			1.16	1.61	3.36	3.36	4.34	1.57	1.92	1.30	2.38	



	Allocatio	n					Perfor	mance (%))			
	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	22,327,338	0.65	1.28	1.57	N/A	N/A	N/A	N/A	N/A	N/A	1.57	01/01/2023
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	5.38	
Difference			-0.47	-3.81	N/A	N/A	N/A	N/A	N/A	N/A	-3.81	
PIMCO Corporate Opportunities II LP	15,011,088	0.44	-0.98	16.20	23.10	23.10	25.02	14.22	N/A	N/A	13.90	12/01/2016
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	3.99	
Difference			-2.73	10.82	14.04	14.04	21.89	10.86	N/A	N/A	9.91	
PIMCO Bravo III LP	43,221,468	1.26	-0.95	-2.03	-3.43	-3.43	12.63	8.31	N/A	N/A	9.13	12/01/2017
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	3.09	
Difference			-2.70	-7.41	-12.49	-12.49	9.50	4.95	N/A	N/A	6.04	
PIMCO Private Income (CF)	98,517,847	2.88	2.22	1.60	0.74	0.74	10.61	N/A	N/A	N/A	7.16	05/01/2019
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	2.52	
Difference			0.47	-3.78	-8.32	-8.32	7.48	N/A	N/A	N/A	4.64	
PIMCO Bravo IV LP	38,271,077	1.12	0.23	-14.03	-17.09	-17.09	N/A	N/A	N/A	N/A	-8.92	10/01/2021
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	-3.33	
Difference			-1.52	-19.41	-26.15	-26.15	N/A	N/A	N/A	N/A	-5.59	
Core Real Estate	398,394,622	11.63	-0.84	-3.08	-6.32	-6.32	5.89	5.20	6.00	7.68	6.25	05/01/2005
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.41	
Difference			2.04	3.08	4.41	4.41	-1.15	-0.36	-0.02	-0.09	-0.16	
JP Morgan Strategic Property (CF)	112,912,927	3.30	-1.82	-5.00	-11.30	-11.30	6.09	4.78	5.40	7.34	6.86	04/01/2005
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	6.38	
Difference			1.06	1.16	-0.57	-0.57	-0.95	-0.78	-0.62	-0.43	0.48	
AG Net Lease Realty III LP	21,407,621	0.62	2.24	3.03	6.31	6.31	7.93	7.45	7.91	N/A	5.56	03/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.63	
Difference			5.12	9.19	17.04	17.04	0.89	1.89	1.89	N/A	-2.07	
AG Realty Value XI LP	4,312,200	0.13	-6.98	-15.45	N/A	N/A	N/A	N/A	N/A	N/A	-15.45	11/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-11.01	
Difference			-4.10	-9.29	N/A	N/A	N/A	N/A	N/A	N/A	-4.44	
Mesirow Real Estate Value IV LP	35,369,527	1.03	0.69	2.43	3.90	3.90	N/A	N/A	N/A	N/A	N/A	06/01/202
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	8.60	
Difference			3.57	8.59	14.63	14.63	N/A	N/A	N/A	N/A	N/A	

During 05/31, Garrison Middle Market Funding (CF) was liquidated. 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.



	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	8,859,363	0.26	1.21	-1.31	-0.99	-0.99	-2.02	0.50	4.11	N/A	5.51	05/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.51	
Difference			4.09	4.85	9.74	9.74	-9.06	-5.06	-1.91	N/A	-2.00	
Portfolio Advisors Real Estate LP	3,333,141	0.10	-1.52	-6.04	-7.11	-7.11	-6.76	-4.38	-2.05	N/A	1.78	06/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.58	
Difference			1.36	0.12	3.62	3.62	-13.80	-9.94	-8.07	N/A	-5.80	
Landmark Real Estate VII LP	3,722,052	0.11	2.11	-4.31	-8.67	-8.67	-2.86	-2.08	0.49	N/A	7.44	09/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.48	
Difference			4.99	1.85	2.06	2.06	-9.90	-7.64	-5.53	N/A	-0.04	
JP Morgan Special Situation Property (CF)	62,766,423	1.83	-3.63	-8.79	-18.58	-18.58	3.58	3.92	5.11	N/A	7.30	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.27	
Difference			-0.75	-2.63	-7.85	-7.85	-3.46	-1.64	-0.91	N/A	0.03	
Hall Capital III LP	5,436,445	0.16	0.42	-26.89	-26.73	-26.73	-6.61	-1.57	1.65	N/A	-1.22	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.27	
Difference			3.30	-20.73	-16.00	-16.00	-13.65	-7.13	-4.37	N/A	-8.49	
Dune Real Estate IV LP	39,585,354	1.16	1.51	4.84	16.71	16.71	4.71	N/A	N/A	N/A	0.59	08/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.71	
Difference			4.39	11.00	27.44	27.44	-2.33	N/A	N/A	N/A	-5.12	
Hall Capital Real Estate LP	10,390,812	0.30	0.11	-15.70	-13.79	-13.79	6.33	N/A	N/A	N/A	5.35	09/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	5.76	
Difference			2.99	-9.54	-3.06	-3.06	-0.71	N/A	N/A	N/A	-0.41	
Terracap Partners V LP	52,814,605	1.54	-1.42	4.84	5.21	5.21	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	8.26	
Difference			1.46	11.00	15.94	15.94	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	14,300,771	0.42	3.97	6.93	N/A	N/A	N/A	N/A	N/A	N/A	-8.87	08/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-10.73	
Difference			6.85	13.09	N/A	N/A	N/A	N/A	N/A	N/A	1.86	



	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	344,612,469	10.06	4.81	7.81	6.75	6.75	24.96	17.08	16.90	N/A	17.05	03/01/2014
Capital Dynamics Global Secondaries IV	23,298,711	0.68	1.00	-0.30	-8.58	-8.58	10.25	7.95	10.42	N/A	9.48	12/01/2014
Capital Dynamics Global Secondaries VI	23,527,339	0.69	43.35	152.53	N/A	N/A	N/A	N/A	N/A	N/A	152.53	01/01/2023
Ardian AESF VI LP	36,288,908	1.06	1.93	3.83	4.60	4.60	18.61	13.78	N/A	N/A	13.51	02/01/2017
Pomona Capital IX LP	25,139,055	0.73	7.62	7.62	-1.53	-1.53	27.19	18.66	N/A	N/A	29.87	02/01/2018
Pomona Capital X LP	19,732,349	0.58	7.90	7.90	-15.03	-15.03	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	24,871,134	0.73	14.13	14.14	50.97	50.97	27.17	N/A	N/A	N/A	18.18	08/01/2018
Argonaut Private Equity V LP	10,684,880	0.31	-3.17	-3.15	-1.24	-1.24	N/A	N/A	N/A	N/A	-2.06	01/01/2022
Ardian ASF VIII LP	49,153,393	1.43	0.32	2.06	-6.22	-6.22	31.10	N/A	N/A	N/A	29.25	05/01/2020
IFM Global Infrastructure Fund LP	117,617,100	3.43	2.53	5.16	9.60	9.60	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap VI LP	5,534,879	0.16	4.34	-4.11	N/A	N/A	N/A	N/A	N/A	N/A	-13.67	10/01/2022



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,425,809,174	100.00	3.70	8.33	9.04	9.04	8.86	7.65	9.17	8.83	8.26	07/01/1989
OFPRS Policy Index			4.08	9.04	10.15	10.15	8.79	7.85	8.82	8.68	N/A	
Difference			-0.38	-0.71	-1.11	-1.11	0.07	-0.20	0.35	0.15	N/A	
OFPRS Actual Allocation Index			4.06	8.90	9.35	9.35	9.21	7.55	8.84	8.38	8.12	
Difference			-0.36	-0.57	-0.31	-0.31	-0.35	0.10	0.33	0.45	0.14	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			1.88	4.65	1.54	1.54	1.36	0.15	1.67	1.33	0.76	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	8.06	
Rank			20	30	46	46	26	13	5	4	33	
Total Equity	1,952,083,765	56.98	5.75	13.53	16.87	16.87	10.80	9.49	11.85	10.96	9.25	07/01/1989
Wilshire 5000 Index			8.43	16.34	19.06	19.06	14.24	11.67	13.05	12.51	10.26	
Difference			-2.68	-2.81	-2.19	-2.19	-3.44	-2.18	-1.20	-1.55	-1.01	
US Equity	1,457,658,675	42.55	7.09	14.65	18.12	18.12	12.02	10.38	12.62	12.01	9.75	07/01/1989
Wilshire 5000 Index			8.43	16.34	19.06	19.06	14.24	11.67	13.05	12.51	10.26	
Difference			-1.34	-1.69	-0.94	-0.94	-2.22	-1.29	-0.43	-0.50	-0.51	
IM U.S. Equity (SA+CF) Median			5.71	10.69	16.52	16.52	14.33	9.48	11.81	11.17	11.18	
Rank			36	34	42	42	71	41	41	40	94	
US Large Cap Equity	1,020,280,428	29.78	8.49	17.00	19.88	19.88	13.26	11.11	12.69	12.31	10.14	07/01/1989
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	10.40	
Difference			-0.09	0.32	0.52	0.52	-0.83	-0.81	-0.46	-0.33	-0.26	
IM U.S. Large Cap Equity (SA+CF) Median			7.87	15.04	18.54	18.54	14.12	11.53	13.05	12.55	10.81	
Rank			43	34	35	35	65	57	56	56	91	
US Large Cap Core Equity	510,102,264	14.89	7.90	15.80	18.63	18.63	15.02	11.54	12.60	12.48	9.84	11/01/1996
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	9.16	
Difference			-0.84	-1.09	-0.96	-0.96	0.42	-0.77	-0.78	-0.38	0.68	
IM U.S. Large Cap Core Equity (SA+CF) Median			7.75	14.41	18.00	18.00	14.08	11.58	13.03	12.68	9.76	
Rank			48	40	42	42	30	52	62	57	46	
Liquidity Pool - SSgA Equity Index (CF)	281,673,534	8.22	8.74	16.86	19.56	19.56	N/A	N/A	N/A	N/A	6.80	04/01/2021
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	6.83	
Difference			0.00	-0.03	-0.03	-0.03	N/A	N/A	N/A	N/A	-0.03	
IM U.S. Large Cap Core Equity (SA+CF) Median			7.75	14.41	18.00	18.00	14.08	11.58	13.03	12.68	5.94	
Rank			30	27	34	34	N/A	N/A	N/A	N/A	34	



	Allocation	Allocation					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	228,428,729	6.67	7.42	15.26	18.38	18.38	13.68	11.57	12.57	12.69	9.36	02/01/2002
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	8.72	
Difference			-1.32	-1.63	-1.21	-1.21	-0.92	-0.74	-0.81	-0.17	0.64	
IM U.S. Large Cap Index Equity (SA+CF) Median			8.58	16.69	19.38	19.38	14.23	11.96	13.18	12.68	8.81	
Rank			76	76	76	76	91	65	76	49	13	
US Large Cap Value Equity	254,239,082	7.42	4.18	7.73	16.47	16.47	14.17	8.99	10.48	9.49	9.28	06/01/1990
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	9.56	
Difference			0.11	2.61	4.93	4.93	-0.13	0.88	1.54	0.27	-0.28	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.30	5.57	12.65	12.65	15.73	9.43	10.78	10.28	10.62	
Rank			53	31	24	24	75	62	57	81	96	
Beutel Goodman American Equity (SA)	125,179,238	3.65	3.82	6.43	18.31	18.31	15.34	12.59	12.73	N/A	12.88	05/01/2016
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	9.09	
Difference			-0.25	1.31	6.77	6.77	1.04	4.48	3.79	N/A	3.79	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.30	5.57	12.65	12.65	15.73	9.43	10.78	10.28	10.61	
Rank			60	44	18	18	58	11	17	N/A	15	
Aristotle US Equity (SA)	129,059,844	3.77	4.52	8.69	14.14	14.14	N/A	N/A	N/A	N/A	10.59	09/01/2020
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	12.02	
Difference			0.45	3.57	2.60	2.60	N/A	N/A	N/A	N/A	-1.43	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.30	5.57	12.65	12.65	15.73	9.43	10.78	10.28	13.47	
Rank			47	26	36	36	N/A	N/A	N/A	N/A	83	
US Large Cap Growth Equity	255,939,082	7.47	13.98	29.39	25.17	25.17	7.27	11.59	14.87	14.54	9.88	07/01/1989
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	10.79	
Difference			1.17	0.37	-1.94	-1.94	-6.46	-3.55	-2.04	-1.20	-0.91	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.73	26.20	25.32	25.32	11.74	13.23	15.39	14.69	11.80	
Rank			20	29	52	52	89	77	65	54	100	
Fred Alger Capital Appreciation (SA)	255,939,082	7.47	13.98	29.39	25.17	25.17	7.64	11.83	15.02	14.64	15.06	08/01/2010
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	15.91	
Difference			1.17	0.37	-1.94	-1.94	-6.09	-3.31	-1.89	-1.10	-0.85	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.73	26.20	25.32	25.32	11.74	13.23	15.39	14.69	14.92	
Rank			20	29	52	52	87	75	61	52	45	



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	437,378,246	12.77	3.17	8.40	13.73	13.73	8.80	8.45	12.20	11.18	9.73	07/01/1992
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	9.19	
Difference			-2.04	0.31	1.42	1.42	-2.02	4.24	3.44	2.92	0.54	
IM U.S. Small Cap Equity (SA+CF) Median			4.93	9.09	15.13	15.13	14.78	7.08	10.75	10.24	12.41	
Rank			77	56	58	58	84	31	28	28	94	
Liqiduity Pool - SSgA Small Cap Completeness Index (CF)	85,563,628	2.50	6.38	12.65	15.32	15.32	N/A	N/A	N/A	N/A	-5.47	04/01/2021
Russell Sm Cap Compl Index			6.40	12.66	15.32	15.32	10.05	6.60	10.09	9.64	-5.46	
Difference			-0.02	-0.01	0.00	0.00	N/A	N/A	N/A	N/A	-0.01	
IM U.S. Small Cap Equity (SA+CF) Median			4.93	9.09	15.13	15.13	14.78	7.08	10.75	10.24	-0.84	
Rank			27	28	49	49	N/A	N/A	N/A	N/A	79	
US Small Cap Value Equity	177,089,501	5.17	4.64	7.95	15.06	15.06	15.30	8.85	11.40	10.76	10.56	09/01/1992
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	9.93	
Difference			1.46	5.45	9.05	9.05	-0.13	5.31	3.70	3.47	0.63	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	12.76	
Rank			39	38	44	44	85	16	24	23	100	
Earnest Partner Small Cap Value Equity (SA)	88,961,999	2.60	4.71	6.86	16.75	16.75	18.16	11.08	13.07	12.43	9.60	09/01/2005
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	6.51	
Difference			1.53	4.36	10.74	10.74	2.73	7.54	5.37	5.14	3.09	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	8.62	
Rank			38	46	33	33	50	6	8	4	27	
River Road Small Cap Value Equity (SA)	88,127,502	2.57	3.31	5.98	13.66	13.66	16.00	8.57	11.16	10.04	7.70	05/01/2007
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	5.63	
Difference			0.13	3.48	7.65	7.65	0.57	5.03	3.46	2.75	2.07	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	7.97	
Rank			66	57	50	50	78	20	29	32	62	
US Small Cap Growth Equity	174,725,117	5.10	2.36	10.39	12.18	12.18	-1.50	5.07	11.02	10.18	7.70	07/01/1992
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	7.97	
Difference			-4.69	-3.16	-6.35	-6.35	-7.60	0.85	1.71	1.35	-0.27	
IM U.S. Small Cap Growth Equity (SA+CF) Median			5.83	13.39	17.35	17.35	8.90	8.77	13.20	11.54	12.74	
Rank			93	76	85	85	98	95	85	88	100	
Lord Abbett Small Cap Growth Equity (SA)	88,492,460	2.58	3.49	12.02	13.06	13.06	2.50	7.63	14.04	10.88	10.43	05/01/2011
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.48	
Difference			-3.56	-1.53	-5.47	-5.47	-3.60	3.41	4.73	2.05	1.95	
IM U.S. Small Cap Growth Equity (SA+CF) Median			5.83	13.39	17.35	17.35	8.90	8.77	13.20	11.54	11.07	
Rank			85	63	83	83	91	66	39	72	70	

During 05/31, Garrison Middle Market Funding (CF) was liquidated. 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.



	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)	86,232,657	2.52	1.22	8.74	11.27	11.27	-4.78	2.92	8.52	9.53	9.28	05/01/2011
Russell 2500 Grth Index			6.41	13.38	18.58	18.58	6.56	7.00	10.95	10.38	9.82	
Difference			-5.19	-4.64	-7.31	-7.31	-11.34	-4.08	-2.43	-0.85	-0.54	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			5.36	13.46	18.02	18.02	8.26	9.57	13.00	11.57	11.04	
Rank			95	84	89	89	99	99	99	91	90	
Other Equity												
OFP Adams Street Co-Invest Fund V	13,493,763	0.39	4.07	11.35	8.92	8.92	N/A	N/A	N/A	N/A	8.92	07/01/2022
OFP LGT Co-Invest Fund III	20,948,322	0.61	5.35	7.44	10.38	10.38	N/A	N/A	N/A	N/A	6.35	01/01/2022
OFP Schroders P/E Global DIR III	36,817,725	1.07	7.36	7.36	-0.37	-0.37	N/A	N/A	N/A	N/A	7.00	01/01/2022
International Equity	494,425,090	14.43	1.99	10.29	13.10	13.10	7.20	6.64	9.29	7.56	N/A	07/01/1989
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	N/A	
Difference			-0.45	0.82	0.38	0.38	-0.02	3.12	2.97	2.81	N/A	
IM International Equity (SA+CF) Median			2.89	11.18	16.48	16.48	8.66	4.59	7.39	6.35	7.79	
Rank			69	59	70	70	68	19	20	25	N/A	
International Developed Equity	323,449,303	9.44	2.15	11.34	15.77	15.77	8.60	8.94	11.16	9.59	6.62	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	5.14	
Difference			-0.29	1.87	3.05	3.05	1.38	5.42	4.84	4.84	1.48	
IM International Equity Developed Markets (SA+CF) Median			2.90	11.35	16.77	16.77	8.65	4.57	7.38	6.38	7.22	
Rank			69	51	57	57	51	5	5	6	75	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	62,782,609	1.83	2.55	9.71	12.93	12.93	N/A	N/A	N/A	N/A	-1.63	04/01/2021
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	-1.89	
Difference			0.11	0.24	0.21	0.21	N/A	N/A	N/A	N/A	0.26	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	-0.95	
Rank			67	80	83	83	N/A	N/A	N/A	N/A	61	
Chautauqua Intl Growth Equity (CF)	158,268,077	4.62	0.17	8.60	12.70	12.70	9.17	7.10	9.97	8.92	9.00	09/01/2012
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	5.28	
Difference			-2.27	-0.87	-0.02	-0.02	1.95	3.58	3.65	4.17	3.72	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	7.08	
Rank			98	87	86	86	35	12	11	8	9	



	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)	165,151,982	4.82	3.89	15.19	20.68	20.68	8.19	10.61	12.22	11.21	11.71	09/01/2012
MSCI EAFE Index (USD) (Net)			2.95	11.67	18.77	18.77	8.93	4.39	6.88	5.41	6.28	
Difference			0.94	3.52	1.91	1.91	-0.74	6.22	5.34	5.80	5.43	
IM EAFE Core (SA+CF) Median			3.45	12.04	18.69	18.69	9.46	4.81	7.30	6.35	7.17	
Rank			26	4	23	23	75	1	1	1	1	
Emerging Markets Equity	108,193,178	3.16	1.45	6.73	4.52	4.52	3.22	0.14	3.89	1.90	2.21	09/01/2012
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	2.84	
Difference			0.55	1.84	2.77	2.77	0.90	-0.79	-1.06	-1.05	-0.63	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	4.45	
Rank			64	57	61	61	59	91	95	99	100	
RBC GAM Emerging Markets Equity (CF)	57,021,450	1.66	2.60	8.87	9.34	9.34	5.06	N/A	N/A	N/A	3.02	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	1.16	
Difference			1.70	3.98	7.59	7.59	2.74	N/A	N/A	N/A	1.86	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	3.46	
Rank			49	37	39	39	45	N/A	N/A	N/A	59	
Wellington Emerging Markets (CF)	51,171,728	1.49	0.20	4.44	-0.38	-0.38	1.31	N/A	N/A	N/A	0.53	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	1.16	
Difference			-0.70	-0.45	-2.13	-2.13	-1.01	N/A	N/A	N/A	-0.63	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	3.46	
Rank			79	81	87	87	77	N/A	N/A	N/A	93	



	Allocation Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	436,011,399	12.73	-0.65	3.09	0.53	0.53	-2.78	-0.01	0.33	1.35	5.12	07/01/1989
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	5.15	
Difference			0.19	1.00	1.47	1.47	1.19	-0.78	-0.11	-0.17	-0.03	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	3.70	3.70	-0.28	2.11	2.34	2.50	N/A	
Rank			68	53	70	70	72	75	77	65	N/A	
Garcia Hamilton Core Fixed Income (SA)	87,874,915	2.57	-1.23	2.81	-0.76	-0.76	-3.20	0.88	0.88	N/A	1.75	08/01/2014
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	1.24	
Difference			-0.39	0.72	0.18	0.18	0.77	0.11	0.44	N/A	0.51	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	1.66	
Rank			99	18	66	66	34	79	55	N/A	40	
Orleans Core Fixed Income (SA)	62,198,189	1.82	-0.73	2.47	0.22	0.22	-3.47	1.05	0.78	N/A	1.43	08/01/2014
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	1.24	
Difference			0.11	0.38	1.16	1.16	0.50	0.28	0.34	N/A	0.19	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	1.66	
Rank			52	46	16	16	55	68	69	N/A	76	
Liquidity Pool - SSgA Aggregate Bond (CF)	80,796,596	2.36	-0.83	2.30	-0.91	-0.91	N/A	N/A	N/A	N/A	-4.35	04/01/2021
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-4.34	
Difference			0.01	0.21	0.03	0.03	N/A	N/A	N/A	N/A	-0.01	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	-4.06	
Rank			73	66	78	78	N/A	N/A	N/A	N/A	83	
Brandywine Global Fixed Income (CF)	203,117,075	5.93	-0.43	3.61	1.53	1.53	-1.65	-0.01	0.60	1.34	3.32	10/01/2009
FTSE Wrld Govt Bond Index			-1.79	1.66	-2.49	-2.49	-6.49	-2.04	-1.79	-0.48	0.02	
Difference			1.36	1.95	4.02	4.02	4.84	2.03	2.39	1.82	3.30	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	3.70	3.70	-0.28	2.11	2.34	2.50	2.73	
Rank			65	42	65	65	61	75	75	65	47	



	Allocatio	n					Perfor	mance (%)			
	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	22,327,338	0.65	1.28	1.57	N/A	N/A	N/A	N/A	N/A	N/A	1.57	01/01/2023
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	5.38	
Difference			-0.47	-3.81	N/A	N/A	N/A	N/A	N/A	N/A	-3.81	
PIMCO Corporate Opportunities II LP	15,011,088	0.44	-0.98	16.20	23.10	23.10	25.02	14.22	N/A	N/A	14.09	01/01/2017
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	3.75	
Difference			-2.73	10.82	14.04	14.04	21.89	10.86	N/A	N/A	10.34	
PIMCO Bravo III LP	43,221,468	1.26	-0.95	-2.03	-3.43	-3.43	12.63	8.31	N/A	N/A	9.13	12/01/2017
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	3.09	
Difference			-2.70	-7.41	-12.49	-12.49	9.50	4.95	N/A	N/A	6.04	
PIMCO Private Income (CF)	98,517,847	2.88	2.22	1.60	0.74	0.74	10.61	N/A	N/A	N/A	7.16	05/01/2019
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	2.52	
Difference			0.47	-3.78	-8.32	-8.32	7.48	N/A	N/A	N/A	4.64	
PIMCO Bravo IV LP	38,271,077	1.12	0.23	-14.03	-17.09	-17.09	N/A	N/A	N/A	N/A	-8.92	10/01/2021
Bloomberg US Corp Hi Yld Index			1.75	5.38	9.06	9.06	3.13	3.36	4.53	4.43	-3.33	
Difference			-1.52	-19.41	-26.15	-26.15	N/A	N/A	N/A	N/A	-5.59	
Core Real Estate	398,394,622	11.63	-0.70	-2.80	-5.78	-5.78	6.53	5.86	6.69	8.34	6.72	05/01/2005
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.40	
Difference			1.98	2.96	4.19	4.19	-1.46	-0.64	-0.28	-0.40	-0.68	
JP Morgan Strategic Property (CF)	112,912,927	3.30	-1.56	-4.50	-10.40	-10.40	7.15	5.79	6.39	8.29	7.57	05/01/2005
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	7.40	
Difference			1.12	1.26	-0.43	-0.43	-0.84	-0.71	-0.58	-0.45	0.17	
AG Net Lease Realty III LP	21,407,621	0.62	2.24	3.03	6.31	6.31	7.93	7.45	7.91	N/A	5.61	04/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.41	
Difference			4.92	8.79	16.28	16.28	-0.06	0.95	0.94	N/A	-2.80	
AG Realty Value XI LP	4,312,200	0.13	-6.98	-15.45	N/A	N/A	N/A	N/A	N/A	N/A	-15.45	11/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-10.44	
Difference			-4.30	-9.69	N/A	N/A	N/A	N/A	N/A	N/A	-5.01	
Mesirow Real Estate Value IV LP	35,369,527	1.03	0.69	2.43	3.90	3.90	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	9.66	
Difference			3.37	8.19	13.87	13.87	N/A	N/A	N/A	N/A	N/A	

During 05/31, Garrison Middle Market Funding (CF) was liquidated. 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.



	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	8,859,363	0.26	1.21	-1.31	-0.99	-0.99	-2.02	0.50	4.11	N/A	5.56	06/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.57	
Difference			3.89	4.45	8.98	8.98	-10.01	-6.00	-2.86	N/A	-3.01	
Landmark Real Estate VII LP	3,722,052	0.11	2.11	-4.31	-8.67	-8.67	-2.86	-2.08	0.49	N/A	7.51	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.16	
Difference			4.79	1.45	1.30	1.30	-10.85	-8.58	-6.48	N/A	-0.65	
JP Morgan Special Situation Property (CF)	62,766,423	1.83	-3.21	-8.02	-17.28	-17.28	5.38	5.70	6.88	N/A	9.10	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.32	
Difference			-0.53	-2.26	-7.31	-7.31	-2.61	-0.80	-0.09	N/A	0.78	
Hall Capital III LP	5,436,445	0.16	0.42	-26.89	-26.73	-26.73	-6.61	-1.57	1.65	N/A	-1.23	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.32	
Difference			3.10	-21.13	-16.76	-16.76	-14.60	-8.07	-5.32	N/A	-9.55	
Dune Real Estate IV LP	39,585,354	1.16	1.51	4.84	16.71	16.71	4.71	N/A	N/A	N/A	0.60	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.81	
Difference			4.19	10.60	26.68	26.68	-3.28	N/A	N/A	N/A	-6.21	
Hall Capital Real Estate LP	10,390,812	0.30	0.11	-15.70	-13.79	-13.79	6.33	N/A	N/A	N/A	5.44	10/01/2018
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	6.39	
Difference			2.79	-9.94	-3.82	-3.82	-1.66	N/A	N/A	N/A	-0.95	
Terracap Partners V LP	52,814,605	1.54	-1.42	4.84	5.21	5.21	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	9.27	
Difference			1.26	10.60	15.18	15.18	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	14,300,771	0.42	3.97	6.93	N/A	N/A	N/A	N/A	N/A	N/A	-8.87	08/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	-9.97	
Difference			6.65	12.69	N/A	N/A	N/A	N/A	N/A	N/A	1.10	



	Allocation			Perfor	mance (%)						
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	344,612,469	10.06	4.81	7.81	6.75	6.75	24.96	17.08	16.90	N/A	17.21	04/01/2014
Capital Dynamics Global Secondaries IV	23,298,711	0.68	1.00	-0.30	-8.58	-8.58	10.25	7.95	10.42	N/A	9.57	01/01/2015
Capital Dynamics Global Secondaries VI	23,527,339	0.69	43.35	152.53	N/A	N/A	N/A	N/A	N/A	N/A	152.53	01/01/2023
Ardian AESF VI LP	36,288,908	1.06	1.93	3.83	4.60	4.60	18.61	13.78	N/A	N/A	13.89	04/01/2017
Pomona Capital IX LP	25,139,055	0.73	7.62	7.62	-1.53	-1.53	27.19	18.66	N/A	N/A	30.40	03/01/2018
Pomona Capital X LP	19,732,349	0.58	7.90	7.90	-15.03	-15.03	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	24,871,134	0.73	14.13	14.14	50.97	50.97	27.17	N/A	N/A	N/A	18.52	09/01/2018
Argonaut Private Equity V LP	10,684,880	0.31	-3.17	-3.15	-1.24	-1.24	N/A	N/A	N/A	N/A	-2.06	01/01/2022
Ardian ASF VIII LP	49,153,393	1.43	0.32	2.06	-6.22	-6.22	31.10	N/A	N/A	N/A	29.25	05/01/2020
IFM Global Infrastructure Fund LP	117,617,100	3.43	2.53	5.16	9.60	9.60	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap VI LP	5,534,879	0.16	4.34	-4.11	N/A	N/A	N/A	N/A	N/A	N/A	-13.67	10/01/2022



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



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.



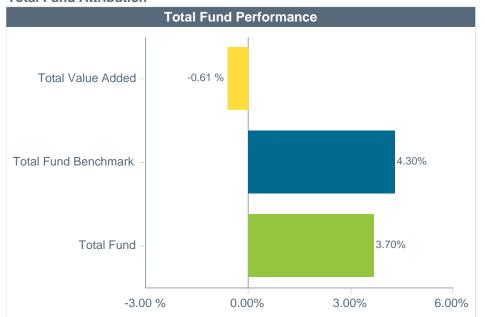
Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



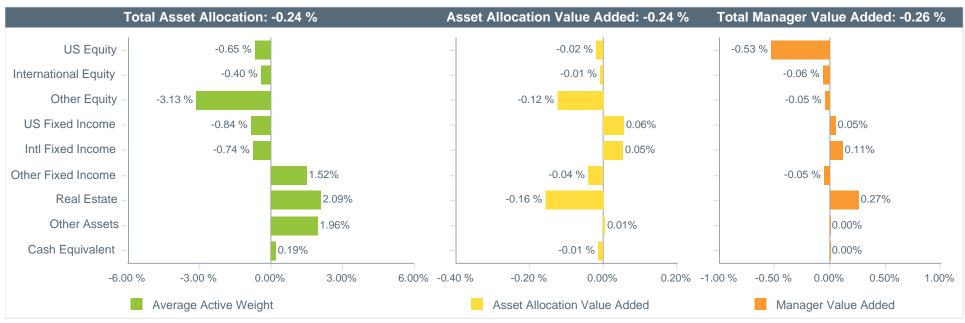
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Attribution



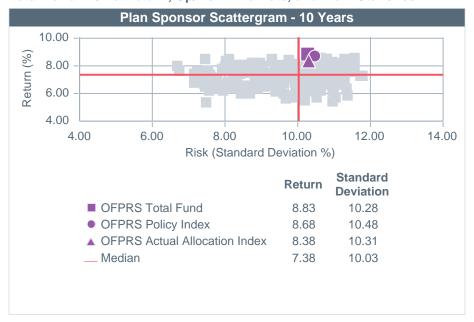


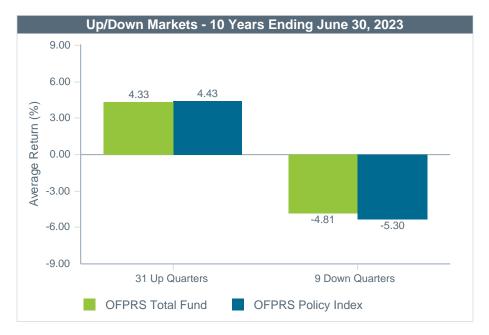


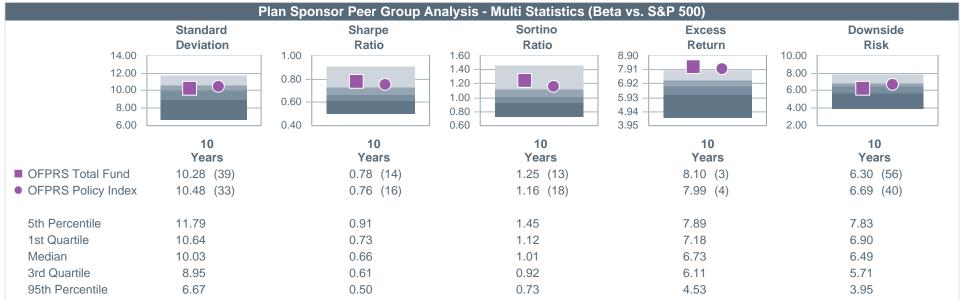
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include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



Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

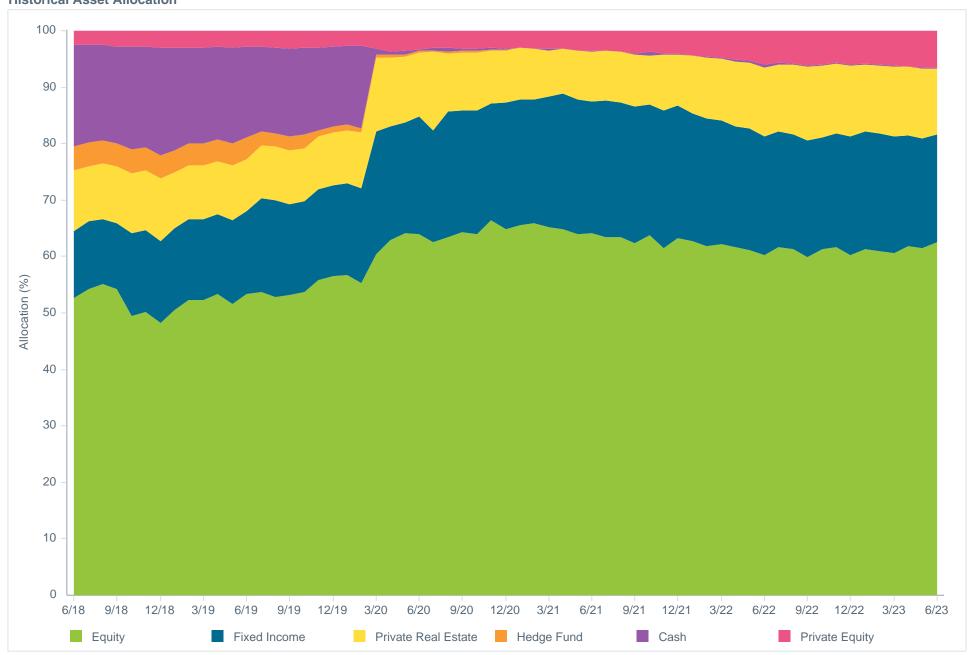






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







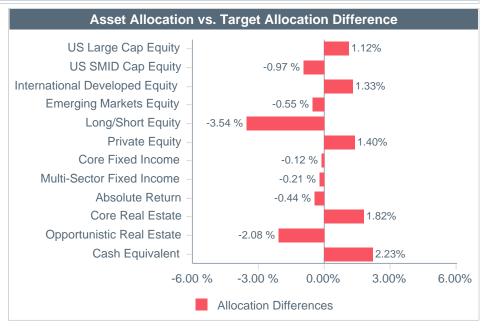
Oklahoma Police Pension & Retirement System (OPPRS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OPPRS Total Fund (Net)	1.87	4.03	2.96	2.96	8.21	6.13	7.14	6.71		17.28	12.17	15.22	-2.85
OPPRS Policy Index	4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	-13.27	14.76	12.66	19.13	-5.34
Difference	-2.13	-5.62	-7.38	-7.38	0.31	-0.64	-0.35	-0.16	2.88	2.52	-0.49	-3.91	2.49
OPPRS Actual Allocation Index	3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	-12.42	13.63	14.47	15.02	-3.70
Difference	-1.70	-3.70	-5.82	-5.82	1.01	0.08	0.09	0.14	2.03	3.65	-2.30	0.20	0.85
Actuarial Discount Rate (7.5%)	1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	0.05	0.35	-4.54	-4.54	0.71	-1.37	-0.36	-0.79	-17.89	9.78	4.67	7.72	-10.35
OPPRS Total Fund (Gross)	1.87	4.08	3.19	3.19	8.58	6.51	7.55	7.13	-9.99	17.71	12.54	15.68	-2.46
OPPRS Policy Index	4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	-13.27	14.76	12.66	19.13	-5.34
Difference	-2.13	-5.57	-7.15	-7.15	0.68	-0.26	0.06	0.26	3.28	2.95	-0.12	-3.45	2.88
OPPRS Actual Allocation Index	3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	-12.42	13.63	14.47	15.02	-3.70
Difference	-1.70	-3.65	-5.59	-5.59	1.38	0.46	0.50	0.56	2.43	4.08	-1.93	0.66	1.24
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02
Rank	90	94	96	96	32	56	55	61	20	13	50	85	19

Asset Allocation vs. Target Allocation												
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)									
OPPRS (Police)	3,018,786,009	100.00	100.00									
US Large Cap Equity	486,713,593	16.12	15.00									
US SMID Cap Equity	272,483,088	9.03	10.00									
International Developed Equity	342,145,636	11.33	10.00									
Emerging Markets Equity	134,215,172	4.45	5.00									
Long/Short Equity	195,027,406	6.46	10.00									
Private Equity	495,040,162	16.40	15.00									
Core Fixed Income	222,806,904	7.38	7.50									
Multi-Sector Fixed Income	220,155,409	7.29	7.50									
Absolute Return	137,629,371	4.56	5.00									
Core Real Estate	356,970,430	11.82	10.00									
Opportunistic Real Estate	88,279,681	2.92	5.00									
Cash Equivalent	67,319,158	2.23	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.



	Allocatio	n					Perfor	mance (%	(o)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	3,018,786,009	100.00	1.87	4.03	2.96	2.96	8.21	6.13	7.14	6.71	6.31	07/01/2005
OPPRS Policy Index			4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	6.24	
Difference			-2.13	-5.62	-7.38	-7.38	0.31	-0.64	-0.35	-0.16	0.07	
OPPRS Actual Allocation Index			3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	6.25	
Difference			-1.70	-3.70	-5.82	-5.82	1.01	0.08	0.09	0.14	0.06	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			0.05	0.35	-4.54	-4.54	0.71	-1.37	-0.36	-0.79	-1.19	
Total Equity	1,925,625,057	63.79	3.83	7.59	6.89	6.89	12.03	8.56	9.99	9.10	7.57	07/01/2005
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	7.73	
Difference			-2.52	-6.67	-10.24	-10.24	0.52	-0.08	-0.51	-0.21	-0.16	
US Equity												
Northern Trust Russell 1000 Index (SA)	486,713,593	16.12	8.57	16.68	19.35	19.35	14.09	11.92	13.14	12.64	N/A	07/01/1998
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	7.75	
Difference			-0.01	0.00	-0.01	-0.01	0.00	0.00	-0.01	0.00	N/A	
Boston Partners SMID Value Equity (SA)	145,925,729	4.83	3.47	6.17	9.45	9.45	18.87	6.00	8.94	8.54	N/A	06/01/1997
Russell 2500 Val Index			4.37	5.83	10.37	10.37	16.07	5.32	7.97	8.02	9.00	
Difference			-0.90	0.34	-0.92	-0.92	2.80	0.68	0.97	0.52	N/A	
Silvercrest Small Cap Growth Equity (SA)	126,557,359	4.19	4.86	8.78	19.01	19.01	12.05	8.88	14.30	N/A	7.72	01/01/2014
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	7.05	
Difference			-2.19	-4.77	0.48	0.48	5.95	4.66	4.99	N/A	0.67	
International Equity												
Mondrian International Value Equity (SA)	166,213,463	5.51	3.06	12.91	12.99	12.99	10.33	3.30	5.22	4.66	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			3.54	9.89	18.25	18.25	12.08	3.59	6.68	4.76	5.05	
Difference			-0.48	3.02	-5.26	-5.26	-1.75	-0.29	-1.46	-0.10	N/A	
Barings Focused EAFE Plus Equity (SA)	175,932,173	5.83	2.67	10.88	16.66	16.66	5.76	3.05	6.22	5.09	4.55	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.47	
Difference			0.00	1.02	3.33	3.33	-1.99	-0.96	-0.61	-0.15	-0.92	



	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Axiom Emerging Markets Equity (SA)	83,940,500	2.78	-1.24	2.68	N/A	N/A	N/A	N/A	N/A	N/A	-3.53	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)			1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	2.38	
Difference			-2.28	-2.42	N/A	N/A	N/A	N/A	N/A	N/A	-5.91	
Wasatch EM Small Cap (SA)	50,274,672	1.67	4.47	11.90	10.76	10.76	6.01	6.57	7.60	4.57	5.03	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			6.53	10.73	13.93	13.93	14.28	5.40	7.11	5.02	5.53	
Difference			-2.06	1.17	-3.17	-3.17	-8.27	1.17	0.49	-0.45	-0.50	
Fixed Income	580,591,684	19.23	0.35	2.54	1.84	1.84	-0.21	1.51	1.88	2.13	N/A	07/01/2005
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.95	
Difference			1.19	0.45	2.78	2.78	3.76	0.74	1.44	0.61	N/A	
Agincourt Core Fixed Income (SA)	222,806,904	7.38	-0.54	2.37	-0.36	-0.36	-3.78	1.17	0.84	1.84	N/A	07/01/1998
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.90	
Difference			0.30	0.28	0.58	0.58	0.19	0.40	0.40	0.32	N/A	
Loomis Sayles Global World Bond (SA)	64,335,644	2.13	-1.53	1.32	-1.79	-1.79	-5.63	-1.37	-0.85	0.09	1.49	05/01/2008
FTSE Wrld Govt Bond Index			-1.79	1.66	-2.49	-2.49	-6.49	-2.04	-1.79	-0.48	0.60	
Difference			0.26	-0.34	0.70	0.70	0.86	0.67	0.94	0.57	0.89	
Oaktree Global Credit (SA)	132,828,907	4.40	2.28	5.09	8.21	8.21	4.65	2.57	3.69	3.69	5.21	01/01/1998
Oaktree Global Credit Custom Index			2.37	5.81	9.96	9.96	3.85	2.78	1.88	2.53	4.38	
Difference			-0.09	-0.72	-1.75	-1.75	0.80	-0.21	1.81	1.16	0.83	
Absolute Return	137,629,371	4.56	-0.07	0.69	2.08	2.08	1.78	1.17	2.03	1.75	2.35	12/01/2010
Wellington Global Total Return (CF)	72,887,508	2.41	-0.31	-0.71	1.12	1.12	2.08	2.60	N/A	N/A	2.81	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.17	4.28	7.74	7.74	5.32	5.61	5.43	5.02	5.49	
Difference			-2.48	-4.99	-6.62	-6.62	-3.24	-3.01	N/A	N/A	-2.68	
TCW MetWest Unconstrained (SA)	61,976,000	2.05	0.21	2.52	3.28	3.28	N/A	N/A	N/A	N/A	-1.09	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			1.92	3.78	6.70	6.70	4.31	4.60	4.41	4.01	4.55	
Difference			-1.71	-1.26	-3.42	-3.42	N/A	N/A	N/A	N/A	-5.64	
Private Credit	22,990,858	0.76	6.76	5.58	1.01	1.01	9.55	8.15	N/A	N/A	8.47	10/01/2016



	Allocation	n					Perfor	mance (%	o)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Assets	445,250,111	14.75	-3.85	-7.50	-9.58	-9.58	6.97	4.38	4.97	5.11	N/A	01/01/1998
OPPRS Real Assets Blended Benchmark			-2.88	-6.16	-10.73	-10.73	7.04	4.53	4.63	3.61	5.81	
Difference			-0.97	-1.34	1.15	1.15	-0.07	-0.15	0.34	1.50	N/A	
JP Morgan Strategic Property (CF)	176,785,755	5.86	-1.78	-4.92	-11.15	-11.15	6.32	4.93	5.51	7.36	4.95	11/01/2007
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	4.74	
Difference			1.10	1.24	-0.42	-0.42	-0.72	-0.63	-0.51	-0.41	0.21	
Blackstone Property Partners (CF)	180,184,675	5.97	-5.91	-11.94	-10.64	-10.64	6.05	5.44	6.29	N/A	7.96	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.34	
Difference			-3.03	-5.78	0.09	0.09	-0.99	-0.12	0.27	N/A	0.62	
Private Real Estate	88,279,681	2.92	-3.94	-3.22	-4.26	-4.26	11.11	9.71	9.61	10.65	9.28	08/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	8.40	
Difference			-1.06	2.94	6.47	6.47	4.07	4.15	3.59	2.88	0.88	
Columbus Square (SA)	4,157,140	0.14	3.10	5.68	9.46	9.46	0.47	2.51	3.68	5.03	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.78	
Difference			5.98	11.84	20.19	20.19	-6.57	-3.05	-2.34	-2.74	N/A	
Long/Short Equity	195,027,406	6.46	6.11	9.33	12.96	12.96	3.00	3.55	5.26	4.89	5.19	05/01/2012
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	9.42	
Difference			-0.24	-4.93	-4.17	-4.17	-8.51	-5.09	-5.24	-4.42	-4.23	
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.48	
Difference			4.19	6.13	8.85	8.85	-1.32	0.89	1.22	1.54	1.71	
K2 Ascent (CF)	194,549,634	6.44	6.11	9.41	13.11	13.11	2.76	N/A	N/A	N/A	3.07	06/01/2020
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	5.11	
Difference			4.19	6.21	9.00	9.00	-1.56	N/A	N/A	N/A	-2.04	
Private Equity	495,040,162	16.40	-0.07	-2.83	-11.51	-11.51	24.39	17.52	14.93	14.12	13.16	07/01/2003
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	8.73	
Difference			-6.42	-17.09	-28.64	-28.64	12.88	8.88	4.43	4.81	4.43	
Cambridge US Prvt Eq Index			0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	14.90	
Difference			-0.07	-5.32	-15.31	-15.31	3.56	2.55	-0.96	-0.41	-1.74	



Allocatio					Pertor	mance (%))				
Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
3,018,786,009	100.00	1.87	4.08	3.19	3.19	8.58	6.51	7.55	7.13	6.65	07/01/2005
		4.00	9.65	10.34	10.34	7.90	6.77	7.49	6.87	6.24	
		-2.13	-5.57	-7.15	-7.15	0.68	-0.26	0.06	0.26	0.41	
		3.57	7.73	8.78	8.78	7.20	6.05	7.05	6.57	6.25	
		-1.70	-3.65	-5.59	-5.59	1.38	0.46	0.50	0.56	0.40	
		1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
		0.05	0.40	-4.31	-4.31	1.08	-0.99	0.05	-0.37	-0.85	
		3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	6.70	
		90	94	96	96	32	56	55	61	56	
1,925,625,057	63.79	3.89	7.70	7.12	7.12	12.31	8.86	10.32	9.44	7.86	07/01/2005
		6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	7.73	
		-2.46	-6.56	-10.01	-10.01	0.80	0.22	-0.18	0.13	0.13	
		4.90	12.29	16.58	16.58	11.29	8.21	10.32	9.36	8.08	
		64	77	88	88	39	41	50	48	57	
486.713.593	16.12	8.58	16.68	19.36	19.36	14.10	11.93	13.15	12.65	7.87	07/01/1998
100,110,000											0170171000
			16.69			14.23		13.18	12.68		
		55	52	56	56	62	57	55	54	14	
145.925.729	4.83	3.78	6.64	10.24	10.24	19.65	6.62	9.61	9.21	9.59	06/01/1997
-,,			5.83	10.37	10.37	16.07		7.97			
		-0.59	0.81	-0.13	-0.13	3.58	1.30	1.64	1.19	0.59	
		4.50	7.22	14.25	14.25	17.68	7.82	10.39	9.88	N/A	
		68	68	78	78	24	73	62	71	N/A	
126.557.359	4.19	5.04	9.15	19.90	19.90	12.97	9,79	15.27	N/A	8,66	01/01/2014
,,		7.05								7.05	
										1.61	
		68	85	33	33	19	31	22	N/A	79	
	Market Value (\$) 3,018,786,009	Market % 3,018,786,009 100.00 1,925,625,057 63.79 486,713,593 16.12	Market Value (\$) % QTD 3,018,786,009 100.00 1.87 4.00 -2.13 3.57 -1.70 1.82 0.05 3.05 90 1,925,625,057 63.79 3.89 6.35 -2.46 4.90 64 486,713,593 16.12 8.58 8.58 0.00 8.58 55 145,925,729 4.83 3.78 4.37 -0.59 4.50 68	Market Value (\$) % QTD CYTD 3,018,786,009 100.00 1.87 4.08 4.00 9.65 -2.13 -5.57 3.57 7.73 -1.70 -3.65 1.82 3.68 0.05 0.40 3.05 7.44 90 94 1,925,625,057 63.79 3.89 7.70 6.35 14.26 -2.46 -6.56 4.90 12.29 64 77 486,713,593 16.12 8.58 16.68 0.00 0.00 0.00 0.00 8.58 16.69 55 52 145,925,729 4.83 3.78 6.64 4.37 5.83 -0.59 0.81 4.50 7.22 68 68 126,557,359 4.19 5.04 9.15 7.05 13.55 -2.01 -4.40	Market Value (\$) % QTD CYTD FYTD 3,018,786,009 100.00 1.87 4.08 3.19 4.00 9.65 10.34 -2.13 -5.57 -7.15 3.57 7.73 8.78 -1.70 -3.65 -5.59 1.82 3.68 7.50 0.05 0.40 -4.31 3.05 7.44 8.84 90 94 96 1,925,625,057 63.79 3.89 7.70 7.12 6.35 14.26 17.13 -2.46 -6.56 -10.01 4.90 12.29 16.58 64 77 88 486,713,593 16.12 8.58 16.68 19.36 8.58 16.68 19.36 19.36 19.36 8.58 16.69 19.38 55 52 56 145,925,729 4.83 3.78 6.64 10.24 4.37 5.83 10.37	Market Value (\$) % QTD CYTD FYTD 1 Year 3,018,786,009 100.00 1.87 4.08 3.19 3.19 4.00 9.65 10.34 10.34 10.34 -2.13 -5.57 -7.15 -7.15 3.715 -7.15 3.57 7.73 8.78 8.78 8.78 -1.70 -3.65 -5.59 -5.59 -5.59 -1.82 3.68 7.50 7.50 -7.50 0.05 0.40 -4.31 -4.31 -4.31 -4.31 -3.51 -7.44 8.84 8.84 90 94 96	Market Value (\$) % QTD CYTD FYTD 1 year Years 3,018,786,009 100.00 1.87 4.08 3.19 3.19 8.58 4.00 9.65 10.34 10.34 7.90 -2.13 -5.57 -7.15 -7.15 0.68 3.57 7.73 8.78 8.720 -1.70 -3.65 -5.59 -5.59 1.38 1.82 3.68 7.50 7.50 7.50 7.50 7.50 0.05 0.40 -4.31 -4.31 1.08 3.05 7.44 8.84 8.84 7.79 90 94 96 96 32 9.20 94 96 96 32 1,925,625,057 63.79 3.89 7.70 7.12 7.12 12.31 15.51 -2.46 -6.56 -10.01 -10.01 0.80 4.90 12.29 16.58 16.58 11.29 486,713,593 16.12 8.58 16.68 19.36	Market Value (\$) % QTD CYTD FYTD 1 Year 3 Years 5 Years 3,018,786,009 100.00 1.87 4.08 3.19 3.19 8.58 6.51 4.00 9.65 10.34 10.34 7.90 6.77 -2.13 -5.57 -7.15 -7.15 0.68 -0.26 3.57 7.73 8.78 8.78 7.20 6.05 -1.70 -3.65 -5.59 -5.59 1.38 0.46 1.82 3.68 7.50 7.50 7.50 7.50 7.50 0.05 0.40 -4.31 -4.31 1.08 -0.99 9 96 96 32 56 1,925,625,057 63.79 3.89 7.70 7.12 7.12 7.12 12.31 8.86 6.35 14.26 17.13 17.13 11.51 8.64 -2.46 -6.56 -10.01 -0.01 0.00 0.02 -2.01 -6.56 -10.01	Market Value (\$) % QTD CYTD FYTD 1 year Vears Vears 5 years Vears 7 years Vears 3,018,786,009 100.00 1.87 4.08 3.19 3.19 8.58 6.51 7.55 4.00 9.65 10.34 10.34 7.90 6.77 7.49 -2.13 -5.57 -7.15 -7.15 0.68 -0.26 0.06 3.57 7.73 8.78 8.78 7.20 6.05 7.05 -1.70 -3.65 -5.59 -5.59 1.38 0.46 0.50 1.82 3.68 7.50 7.50 7.50 7.50 7.50 7.50 0.05 0.40 -4.31 -4.31 1.08 -0.99 0.05 3.05 7.44 8.84 8.84 7.79 6.64 7.66 90 94 96 96 32 56 55 1,925,625,057 63.79 3.89 7.70 7.12 7.12 12.31	Market Value (s) % QTD CYTD FYTD 1 value (s) 7 vears ve	Market Value (s) % QTD CYTD FYTD 1 Year Years Vears Vears Vears Vears Vears Vears Incep. 7.13 Since Incep. 3,018,786,009 100.00 1.87 4.08 3.19 3.19 8.58 6.51 7.55 7.13 6.65 4.00 9.65 10.34 10.34 7.90 6.77 7.49 6.87 6.24 -2.13 -5.57 7.73 8.78 8.78 7.20 6.05 7.05 6.57 6.24 -1.70 -3.66 -5.59 -5.59 -6.59 1.38 0.46 0.50 0.56 0.40 1.82 3.68 7.50



	Allocation	n					Perfor	mance (%))			
	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)	166,213,463	5.51	3.17	13.14	13.46	13.46	10.79	3.74	5.66	5.10	5.74	04/01/2004
MSCI EAFE Val Index (USD) (Gross)	100,213,403	3.31	3.54	9.89	18.25	18.25	12.08	3.59	6.68	4.76	5.05	04/01/2004
Difference			-0.37	3.25	-4.79	-4.79	-1.29	0.15	-1.02	0.34	0.69	
IM International Value Equity (SA+CF) Median			3.13	11.95	17.66	17.66	11.63	4.54	7.27	5.97	6.81	
			49	33	81	81	59	68	83	79	85	
Rank			49	33	01	01	59	00	03	79	00	
Barings Focused EAFE Plus Equity (SA)	175,932,173	5.83	2.77	11.10	17.13	17.13	6.31	3.48	6.80	5.70	5.08	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.47	
Difference			0.10	1.24	3.80	3.80	-1.44	-0.53	-0.03	0.46	-0.39	
IM International Equity (SA+CF) Median			2.89	11.18	16.48	16.48	8.66	4.59	7.39	6.35	7.20	
Rank			53	51	47	47	75	71	64	73	94	
Axiom Emerging Markets Equity (SA)	83.940.500	2.78	-1.24	2.68	N/A	N/A	N/A	N/A	N/A	N/A	-3.53	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)	00,010,000		1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	2.38	00/01/2022
Difference			-2.28	-2.42	N/A	N/A	N/A	N/A	N/A	N/A	-5.91	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	6.04	
Rank			88	88	N/A	N/A	N/A	N/A	N/A	N/A	93	
Wasatch EM Small Cap (SA)	50,274,672	1.67	4.76	12.52	11.99	11.99	7.28	7.84	8.94	5.81	6.22	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			6.53	10.73	13.93	13.93	14.28	5.40	7.11	5.02	5.53	
Difference			-1.77	1.79	-1.94	-1.94	-7.00	2.44	1.83	0.79	0.69	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	4.50	
Rank			24	16	24	24	38	7	14	22	20	
Fixed Income	580,591,684	19.23	0.43	2.78	2.24	2.24	0.13	1.90	2.29	2.58	4.12	07/01/2005
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.95	
Difference			1.27	0.69	3.18	3.18	4.10	1.13	1.85	1.06	1.17	
IM U.S. Fixed Income (SA+CF) Median			-0.27	2.55	1.29	1.29	-1.00	1.80	1.58	2.23	3.47	
Rank			32	44	37	37	36	46	28	41	30	
Agincourt Core Fixed Income (SA)	222,806,904	7.38	-0.51	2.45	-0.21	-0.21	-3.64	1.32	1.00	2.01	4.33	07/01/1998
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.90	
Difference			0.33	0.36	0.73	0.73	0.33	0.55	0.56	0.49	0.43	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	4.28	
Rank			24	49	33	33	64	35	44	41	48	



	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inceptior Date
Loomis Sayles Global World Bond (SA)	64,335,644	2.13	-1.44	1.49	-1.44	-1.44	-5.31	-1.03	-0.52	0.42	1.81	05/01/200
FTSE Wrld Govt Bond Index			-1.79	1.66	-2.49	-2.49	-6.49	-2.04	-1.79	-0.48	0.60	
Difference			0.35	-0.17	1.05	1.05	1.18	1.01	1.27	0.90	1.21	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	3.70	3.70	-0.28	2.11	2.34	2.50	2.55	
Rank			77	78	84	84	93	87	88	81	69	
Oaktree Global Credit (SA)	132,828,907	4.40	2.43	5.40	8.87	8.87	5.30	3.20	4.33	4.32	5.70	01/01/199
Oaktree Global Credit Custom Index			2.37	5.81	9.96	9.96	3.85	2.78	1.88	2.53	4.38	
Difference			0.06	-0.41	-1.09	-1.09	1.45	0.42	2.45	1.79	1.32	
Absolute Return	137,629,371	4.56	0.02	1.19	2.77	2.77	2.29	1.73	2.64	2.37	2.85	12/01/2010
Wellington Global Total Return (CF)	72,887,508	2.41	-0.25	-0.01	1.96	1.96	2.53	3.13	N/A	N/A	3.26	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.17	4.28	7.74	7.74	5.32	5.61	5.43	5.02	5.49	
Difference			-2.42	-4.29	-5.78	-5.78	-2.79	-2.48	N/A	N/A	-2.23	
TCW MetWest Unconstrained (SA)	61,976,000	2.05	0.32	2.75	3.75	3.75	N/A	N/A	N/A	N/A	-0.62	01/01/202
ICE BofAML 3 Mo US T-Bill Index+3%			1.92	3.78	6.70	6.70	4.31	4.60	4.41	4.01	4.55	
Difference			-1.60	-1.03	-2.95	-2.95	N/A	N/A	N/A	N/A	-5.17	
Private Credit	22,990,858	0.76	6.76	5.58	1.01	1.01	9.55	8.15	N/A	N/A	8.47	10/01/2016
Real Assets	445,250,111	14.75	-4.22	-7.89	-9.56	-9.56	7.90	5.19	5.79	5.87	5.71	01/01/1998
OPPRS Real Assets Blended Benchmark			-2.88	-6.16	-10.73	-10.73	7.04	4.53	4.63	3.61	5.81	
Difference			-1.34	-1.73	1.17	1.17	0.86	0.66	1.16	2.26	-0.10	
JP Morgan Strategic Property (CF)	176,785,755	5.86	-1.57	-4.51	-10.41	-10.41	7.20	5.82	6.41	8.31	5.86	11/01/200
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	5.70	
Difference			1.11	1.25	-0.44	-0.44	-0.79	-0.68	-0.56	-0.43	0.16	
Blackstone Property Partners (CF)	180,184,675	5.97	-7.00	-13.21	-11.32	-11.32	7.52	6.64	7.83	N/A	9.35	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.32	
Difference			-4.32	-7.45	-1.35	-1.35	-0.47	0.14	0.86	N/A	1.03	
Private Real Estate	88,279,681	2.92	-3.94	-3.22	-4.26	-4.26	11.11	9.71	9.61	10.65	9.28	08/01/201
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	9.40	
Difference			-1.26	2.54	5.71	5.71	3.12	3.21	2.64	1.91	-0.12	
Columbus Square (SA)	4,157,140	0.14	3.10	5.68	9.46	9.46	0.47	2.51	3.68	5.20	11.91	03/01/199
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.80	
Difference			5.78	11.44	19.43	19.43	-7.52	-3.99	-3.29	-3.54	3.11	

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.



	Allocation	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Long/Short Equity	195,027,406	6.46	6.11	9.33	12.96	12.96	3.05	3.75	5.54	5.24	5.57	05/01/2012
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	9.42	
Difference			-0.24	-4.93	-4.17	-4.17	-8.46	-4.89	-4.96	-4.07	-3.85	
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.48	
Difference			4.19	6.13	8.85	8.85	-1.27	1.09	1.50	1.89	2.09	
K2 Ascent (CF)	194,549,634	6.44	6.11	9.41	13.11	13.11	2.76	N/A	N/A	N/A	3.07	06/01/2020
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	5.11	
Difference			4.19	6.21	9.00	9.00	-1.56	N/A	N/A	N/A	-2.04	
Private Equity	495,040,162	16.40	-0.07	-2.83	-11.51	-11.51	24.39	17.52	14.93	14.12	13.16	07/01/2003
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	8.73	
Difference			-6.42	-17.09	-28.64	-28.64	12.88	8.88	4.43	4.81	4.43	
Cambridge US Prvt Eq Index			0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	14.90	
Difference			-0.07	-5.32	-15.31	-15.31	3.56	2.55	-0.96	-0.41	-1.74	

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



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.



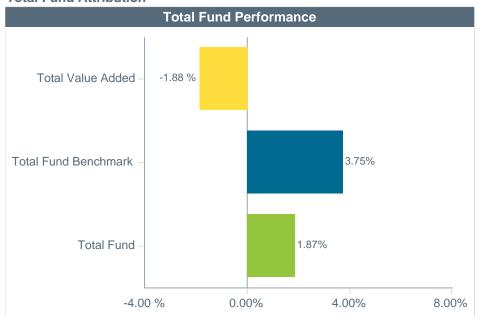
Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

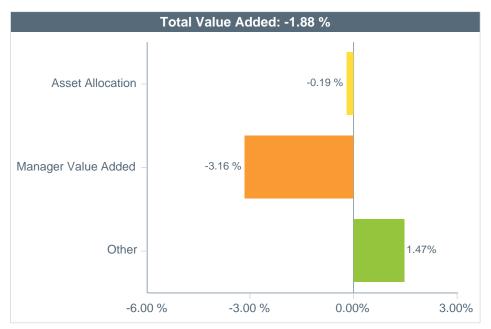


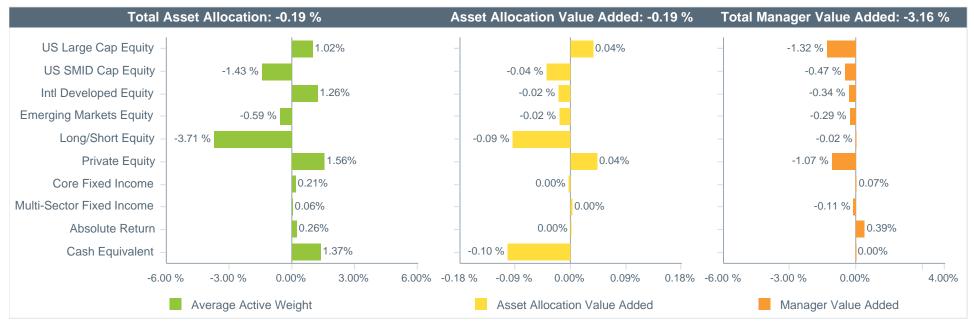
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement Fund Total Fund Attribution





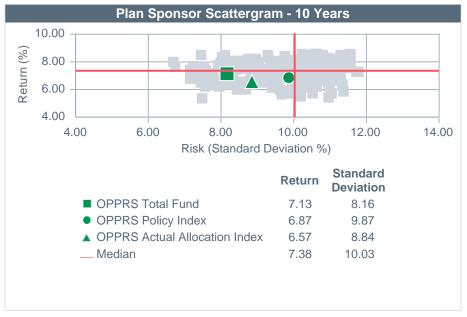


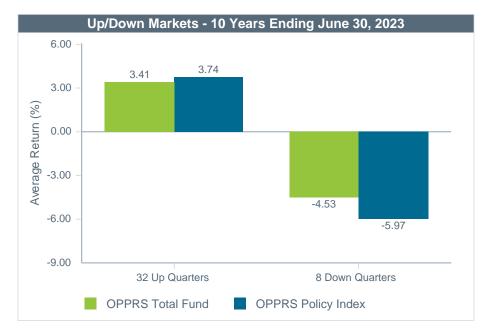
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Multi-Sector Fixed Income includes Private Credit.

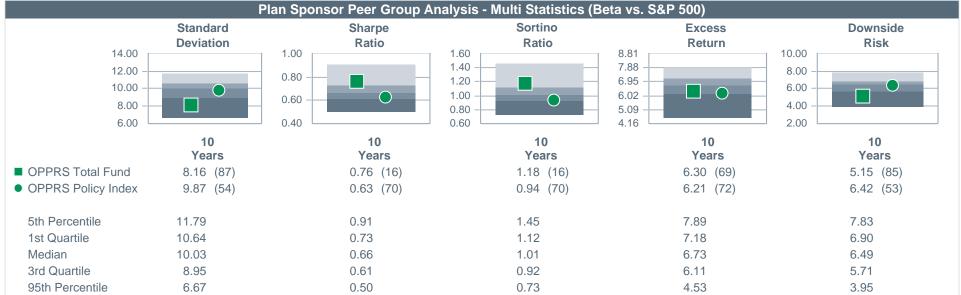


Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System

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



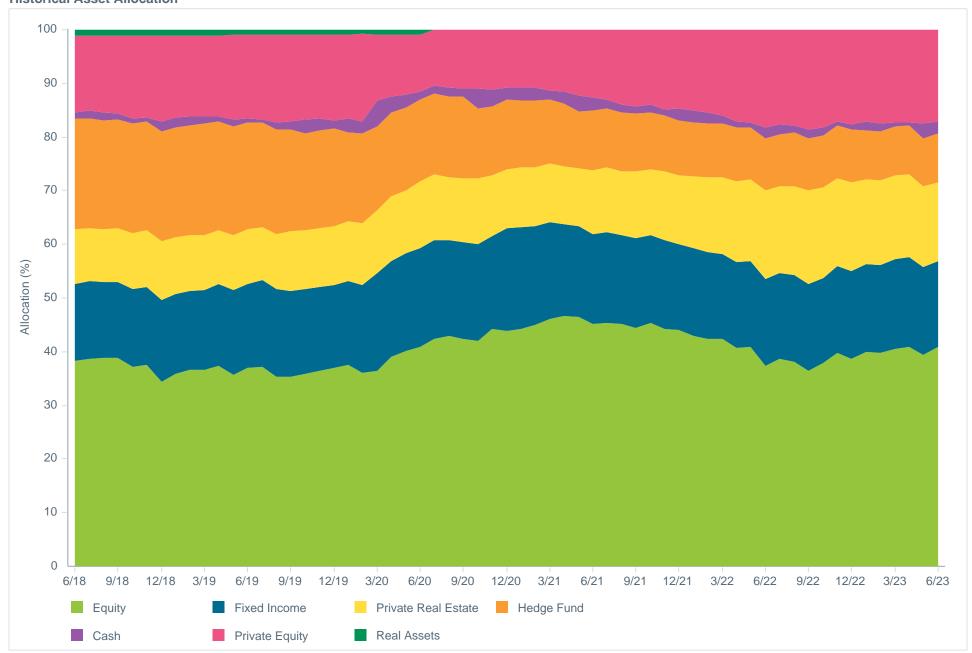




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement Fund Historical Asset Allocation



Allocation to Fixed Income includes Private Credit.



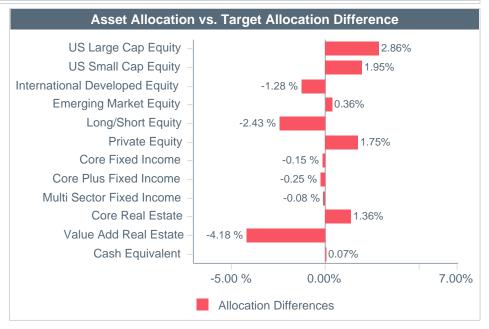
Oklahoma Law Enforcement Retirement System (OLERS)



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

				Per	formance	⊖ (%)									
			Trailir	ng				Calendar Year							
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018		
OLERS Total Fund (Net)	2.54	6.36	6.17	6.17	6.83	5.16	6.68	6.34		14.56	12.26	17.44	-5.30		
OLERS Policy Index	3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	-13.75	14.02	12.84	19.12	-3.67		
Difference	-0.97	-1.55	-2.34	-2.34	-0.16	-1.04	-0.69	-0.94	-0.49	0.54	-0.58	-1.68	-1.63		
OLERS Actual Allocation Index	3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	-13.91	14.75	21.88	17.33	-3.47		
Difference	-1.39	-2.62	-4.00	-4.00	-2.32	-2.88	-1.93	-1.74	-0.33	-0.19	-9.62	0.11	-1.83		
Actuarial Discount Rate (7.5%)	1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50		
Difference	0.72	2.68	-1.33	-1.33	-0.67	-2.34	-0.82	-1.16	-21.74	7.06	4.76	9.94	-12.80		
OLERS Total Fund (Gross)	2.65	6.60	6.64	6.64	7.30	5.66	7.22	6.90	-13.87	15.04	12.80	18.07	-4.76		
OLERS Policy Index	3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	-13.75	14.02	12.84	19.12	-3.67		
Difference	-0.86	-1.31	-1.87	-1.87	0.31	-0.54	-0.15	-0.38	-0.12	1.02	-0.04	-1.05	-1.09		
OLERS Actual Allocation Index	3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	-13.91	14.75	21.88	17.33	-3.47		
Difference	-1.28	-2.38	-3.53	-3.53	-1.85	-2.38	-1.39	-1.18	0.04	0.29	-9.08	0.74	-1.29		
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02		
Rank	70	71	81	81	62	80	69	70	64	36	47	57	67		

Asset Alloc	ation vs. Target A	Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OLERS (Law Enforcement)	1,094,871,781	100.00	100.00
US Large Cap Equity	250,270,990	22.86	20.00
US Small Cap Equity	130,847,376	11.95	10.00
International Developed Equity	150,260,795	13.72	15.00
Emerging Market Equity	58,717,217	5.36	5.00
Long/Short Equity	28,178,093	2.57	5.00
Private Equity	128,649,339	11.75	10.00
Core Fixed Income	53,114,567	4.85	5.00
Core Plus Fixed Income	106,793,687	9.75	10.00
Multi Sector Fixed Income	53,858,093	4.92	5.00
Core Real Estate	124,352,573	11.36	10.00
Value Add Real Estate	9,020,011	0.82	5.00
Cash Equivalent	809,041	0.07	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.



	Allocatio	n					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,094,871,781	100.00	2.54	6.36	6.17	6.17	6.83	5.16	6.68	6.34	30.16	10/01/1990
OLERS Policy Index			3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	8.41	
Difference			-0.97	-1.55	-2.34	-2.34	-0.16	-1.04	-0.69	-0.94	21.75	
OLERS Actual Allocation Index			3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	8.41	
Difference			-1.39	-2.62	-4.00	-4.00	-2.32	-2.88	-1.93	-1.74	21.75	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			0.72	2.68	-1.33	-1.33	-0.67	-2.34	-0.82	-1.16	22.66	
US Large Cap Equity	250,270,990	22.86	7.65	16.19	18.37	18.37	13.78	11.07	13.34	12.52	12.49	04/01/2010
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	12.81	
Difference			-1.09	-0.70	-1.22	-1.22	-0.82	-1.24	-0.04	-0.34	-0.32	
Hotchkis Wiley Large Cap Value Equity (SA)	67,560,587	6.17	3.10	6.32	15.44	15.44	20.12	8.26	11.08	10.11	11.64	11/01/1990
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	10.32	
Difference			-0.97	1.20	3.90	3.90	5.82	0.15	2.14	0.89	1.32	
NTGI S&P 500 Index (CF)	109,732,721	10.02	8.74	16.88	19.58	19.58	14.62	12.30	13.36	12.84	11.01	08/01/2008
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	11.00	
Difference			0.00	-0.01	-0.01	-0.01	0.02	-0.01	-0.02	-0.02	0.01	
Polen Focus Growth (CF)	72,977,682	6.67	10.51	26.15	19.13	19.13	5.60	N/A	N/A	N/A	13.97	01/01/2019
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	19.19	
Difference			-2.30	-2.87	-7.98	-7.98	-8.13	N/A	N/A	N/A	-5.22	
US Small Cap Equity	130,847,376	11.95	6.48	8.94	14.58	14.58	12.52	5.52	9.29	8.15	N/A	11/01/2009
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	10.75	
Difference			1.27	0.85	2.27	2.27	1.70	1.31	0.53	-0.11	N/A	
Kennedy Capital Small Cap Value Equity (SA)	63,286,020	5.78	4.73	4.82	12.88	12.88	19.68	6.35	9.35	8.92	20.65	02/01/1996
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	8.92	
Difference			1.55	2.32	6.87	6.87	4.25	2.81	1.65	1.63	11.73	
Wellington Small Cap Growth (CF)	67,561,356	6.17	8.16	13.10	16.49	16.49	5.34	4.18	N/A	N/A	8.14	08/01/2016
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.43	
Difference			1.11	-0.45	-2.04	-2.04	-0.76	-0.04	N/A	N/A	-0.29	



	Allocation	n					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	208,978,012	19.09	2.56	10.43	11.42	11.42	6.16	3.50	6.05	4.61	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.52	
Difference			-0.11	0.57	-1.91	-1.91	-1.59	-0.51	-0.78	-0.63	N/A	
Mondrian International Equity (SA)	79,226,717	7.24	3.03	12.85	12.89	12.89	10.24	3.18	5.08	4.51	4.50	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.25	
Difference			0.36	2.99	-0.44	-0.44	2.49	-0.83	-1.75	-0.73	-0.75	
Barings Focused Intl Equity (SA)	71,034,078	6.49	2.67	10.88	16.66	16.66	5.79	3.07	6.23	5.05	4.88	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.47	
Difference			0.00	1.02	3.33	3.33	-1.96	-0.94	-0.60	-0.19	-0.59	
William Blair Emerging Markets Leaders (CF)	41,477,967	3.79	0.75	4.83	1.32	1.32	-0.84	1.33	N/A	N/A	4.25	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	4.33	
Difference			-0.29	-0.27	-0.90	-0.90	-3.56	0.01	N/A	N/A	-0.08	
Wasatch EM Small Cap CI A (CF)	17,239,250	1.57	4.47	11.90	10.76	10.76	6.02	6.57	7.60	4.56	5.08	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	3.32	
Difference			3.43	6.80	8.54	8.54	3.30	5.25	2.26	1.23	1.76	
Long/Short Equity	28,178,093	2.57	5.78	8.26	11.96	11.96	0.81	0.39	3.20	3.30	3.73	04/01/2010
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	8.89	
Difference			-0.57	-6.00	-5.17	-5.17	-10.70	-8.25	-7.30	-6.01	-5.16	
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.02	
Difference			3.86	5.06	7.85	7.85	-3.51	-2.27	-0.84	-0.05	0.71	
Mauna Kea (CF)	27,824,056	2.54	5.66	8.17	11.97	11.97	N/A	N/A	N/A	N/A	0.98	08/01/2020
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	9.88	
Difference			-0.69	-6.09	-5.16	-5.16	N/A	N/A	N/A	N/A	-8.90	
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.37	
Difference			3.74	4.97	7.86	7.86	N/A	N/A	N/A	N/A	-2.39	
Private Equity	128,649,339	11.75	0.52	1.30	-0.99	-0.99	19.85	14.21	13.13	12.04	9.49	12/01/2001
S&P 500 Index+5%			10.08	19.78	25.57	25.57	20.33	17.92	19.05	18.51	14.05	
Difference			-9.56	-18.48	-26.56	-26.56	-0.48	-3.71	-5.92	-6.47	-4.56	
Cambridge US Prvt Eq Index			0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	13.68	
Difference			0.52	-1.19	-4.79	-4.79	-0.98	-0.76	-2.76	-2.49	-4.19	



	Allocatio	n					Perfori	mance (%	o)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	213,766,347	19.52	-0.79	2.46	-0.29	-0.29	-3.93	-0.20	0.24	1.08	N/A	10/01/1990
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	5.09	
Difference			0.05	0.37	0.65	0.65	0.04	-0.97	-0.20	-0.44	N/A	
NTGI Aggregate Index (SA)	53,114,567	4.85	-0.82	2.08	-0.88	-0.88	-3.95	0.79	0.44	1.53	3.02	04/01/2004
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.98	
Difference			0.02	-0.01	0.06	0.06	0.02	0.02	0.00	0.01	0.04	
TCW Core Plus Fixed Income (SA)	106,793,687	9.75	-0.86	2.58	-0.91	-0.91	-3.44	1.23	1.12	2.10	4.76	12/01/1993
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	4.38	
Difference			-0.02	0.49	0.03	0.03	0.53	0.46	0.68	0.58	0.38	
Loomis Sayles	53,858,093	4.92	-0.62	2.61	1.62	1.62	N/A	N/A	N/A	N/A	-6.05	09/01/2021
Bloomberg US Govt Crdt Bond Index			-0.93	2.21	-0.70	-0.70	-4.11	1.03	0.59	1.66	-7.00	
Difference			0.31	0.40	2.32	2.32	N/A	N/A	N/A	N/A	0.95	
Real Assets	133,372,584	12.18	-3.21	-6.50	-10.87	-10.87	5.55	3.68	4.26	4.93	N/A	06/01/1999
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	7.16	
Difference			-0.33	-0.34	-0.14	-0.14	-1.49	-1.88	-1.76	-2.84	N/A	
Core Real Estate												
JPMCB Strategic Property (CF)	103,506,951	9.45	-1.79	-4.95	-11.20	-11.20	6.22	4.84	5.42	7.28	7.90	04/01/2012
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	8.15	
Difference			0.19	-1.19	-4.60	-4.60	-0.57	-1.06	-0.82	-0.54	-0.25	
UBS Trumbull Property (SA)	16,045,621	1.47	-10.30	-15.12	-15.24	-15.24	0.74	-0.12	1.47	3.95	4.21	01/01/2013
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	7.98	
Difference			-8.32	-11.36	-8.64	-8.64	-6.05	-6.02	-4.77	-3.87	-3.77	
Colcord Center (CF)	4,800,000	0.44	-1.39	-4.44	1.44	1.44	3.73	5.42	4.42	5.51	4.85	05/01/2008
Value Add Real Estate	9,020,011	0.82	-6.64	-8.05	-0.60	-0.60	N/A	N/A	N/A	N/A	7.65	03/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-10.73	-10.73	7.04	5.56	6.02	7.77	-0.01	
Difference			-3.76	-1.89	10.13	10.13	N/A	N/A	N/A	N/A	7.66	



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,094,871,781	100.00	2.65	6.60	6.64	6.64	7.30	5.66	7.22	6.90	7.87	10/01/1990
OLERS Policy Index			3.51	7.91	8.51	8.51	6.99	6.20	7.37	7.28	8.41	
Difference			-0.86	-1.31	-1.87	-1.87	0.31	-0.54	-0.15	-0.38	-0.54	
OLERS Actual Allocation Index			3.93	8.98	10.17	10.17	9.15	8.04	8.61	8.08	8.41	
Difference			-1.28	-2.38	-3.53	-3.53	-1.85	-2.38	-1.39	-1.18	-0.54	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			0.83	2.92	-0.86	-0.86	-0.20	-1.84	-0.28	-0.60	0.37	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	8.22	
Rank			70	71	81	81	62	80	69	70	78	
US Large Cap Equity	250,270,990	22.86	7.76	16.41	18.78	18.78	14.12	11.43	13.70	12.93	12.80	04/01/2010
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	12.81	
Difference			-0.98	-0.48	-0.81	-0.81	-0.48	-0.88	0.32	0.07	-0.01	
Hotchkis Wiley Large Cap Value Equity (SA)	67,560,587	6.17	3.36	6.77	16.23	16.23	20.67	8.82	11.62	10.73	11.65	11/01/1990
Russell 1000 Val Index			4.07	5.12	11.54	11.54	14.30	8.11	8.94	9.22	10.32	
Difference			-0.71	1.65	4.69	4.69	6.37	0.71	2.68	1.51	1.33	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.30	5.57	12.65	12.65	15.73	9.43	10.78	10.28	11.33	
Rank			71	40	24	24	9	66	31	35	35	
NTGI S&P 500 Index (CF)	109,732,721	10.02	8.74	16.89	19.59	19.59	14.63	12.32	13.38	12.86	11.02	08/01/2008
S&P 500 Index (Cap Wtd)			8.74	16.89	19.59	19.59	14.60	12.31	13.38	12.86	11.00	
Difference			0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			8.58	16.69	19.38	19.38	14.23	11.96	13.18	12.68	10.99	
Rank			35	29	29	29	8	21	30	29	40	
Polen Focus Growth (CF)	72,977,682	6.67	10.65	26.47	19.71	19.71	6.12	N/A	N/A	N/A	14.54	01/01/2019
Russell 1000 Grth Index			12.81	29.02	27.11	27.11	13.73	15.14	16.91	15.74	19.19	
Difference			-2.16	-2.55	-7.40	-7.40	-7.61	N/A	N/A	N/A	-4.65	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.73	26.20	25.32	25.32	11.74	13.23	15.39	14.69	16.80	
Rank			63	48	79	79	94	N/A	N/A	N/A	83	



	Allocatio	n										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	130,847,376	11.95	6.70	9.41	15.59	15.59	13.49	6.43	10.22	9.03	N/A	11/01/2009
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	10.75	
Difference			1.49	1.32	3.28	3.28	2.67	2.22	1.46	0.77	N/A	
Kennedy Capital Small Cap Value Equity (SA)	63,286,020	5.78	4.98	5.31	13.92	13.92	20.74	7.31	10.35	9.92	12.43	02/01/1996
Russell 2000 Val Index			3.18	2.50	6.01	6.01	15.43	3.54	7.70	7.29	8.92	
Difference			1.80	2.81	7.91	7.91	5.31	3.77	2.65	2.63	3.51	
IM U.S. Small Cap Value Equity (SA+CF) Median			4.08	6.63	13.57	13.57	18.15	6.64	9.72	9.34	11.51	
Rank			35	64	48	48	30	33	39	34	9	
Wellington Small Cap Growth (CF)	67,561,356	6.17	8.37	13.55	17.44	17.44	6.20	5.02	N/A	N/A	8.97	08/01/2016
Russell 2000 Grth Index			7.05	13.55	18.53	18.53	6.10	4.22	9.31	8.83	8.43	
Difference			1.32	0.00	-1.09	-1.09	0.10	0.80	N/A	N/A	0.54	
IM U.S. Small Cap Growth Equity (SA+CF) Median			5.83	13.39	17.35	17.35	8.90	8.77	13.20	11.54	12.46	
Rank			20	48	50	50	70	95	N/A	N/A	96	
International Equity	208,978,012	19.09	2.72	10.76	12.10	12.10	6.76	4.08	6.67	5.18	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.52	
Difference			0.05	0.90	-1.23	-1.23	-0.99	0.07	-0.16	-0.06	N/A	
IM International Equity (SA+CF) Median			2.89	11.18	16.48	16.48	8.66	4.59	7.39	6.35	7.26	
Rank			55	56	78	78	72	60	67	84	N/A	
Mondrian International Equity (SA)	79,226,717	7.24	3.17	13.14	13.46	13.46	10.79	3.74	5.66	5.10	5.00	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.25	
Difference			0.50	3.28	0.13	0.13	3.04	-0.27	-1.17	-0.14	-0.25	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	6.21	
Rank			43	30	78	78	19	75	88	86	92	
Barings Focused Intl Equity (SA)	71,034,078	6.49	2.77	11.10	17.13	17.13	6.32	3.67	6.96	5.80	5.61	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.47	
Difference			0.10	1.24	3.80	3.80	-1.43	-0.34	0.13	0.56	0.14	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	6.96	
Rank			62	64	49	49	75	76	68	68	87	
William Blair Emerging Markets Leaders (CF)	41,477,967	3.79	0.95	5.25	2.15	2.15	-0.07	2.14	N/A	N/A	5.05	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	4.33	
Difference			-0.09	0.15	-0.07	-0.07	-2.79	0.82	N/A	N/A	0.72	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	5.31	
Rank			71	73	77	77	84	62	N/A	N/A	57	



	Allocation	า					Perfor	mance (%))			
	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)	17,239,250	1.57	4.82	12.66	12.27	12.27	7.46	8.07	9.14	6.09	6.60	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			1.04	5.10	2.22	2.22	2.72	1.32	5.34	3.33	3.32	
Difference			3.78	7.56	10.05	10.05	4.74	6.75	3.80	2.76	3.28	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	6.81	6.81	4.15	2.91	6.12	4.39	4.64	
Rank			24	15	23	23	37	7	12	20	15	
Long/Short Equity	28,178,093	2.57	5.79	8.26	11.98	11.98	0.91	0.80	3.77	4.01	4.31	04/01/2010
MSCI ACW Index (USD) (Gross)			6.35	14.26	17.13	17.13	11.51	8.64	10.50	9.31	8.89	
Difference			-0.56	-6.00	-5.15	-5.15	-10.60	-7.84	-6.73	-5.30	-4.58	
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.02	
Difference			3.87	5.06	7.87	7.87	-3.41	-1.86	-0.27	0.66	1.29	
Mauna Kea (CF)	27,824,056	2.54	5.66	8.17	11.97	11.97	N/A	N/A	N/A	N/A	0.98	08/01/2020
HFRI FOF Strat Index			1.92	3.20	4.11	4.11	4.32	2.66	4.04	3.35	3.37	
Difference			3.74	4.97	7.86	7.86	N/A	N/A	N/A	N/A	-2.39	
Private Equity	128,649,339	11.75	0.52	1.30	-0.99	-0.99	19.85	14.21	13.13	12.04	N/A	10/01/1990
S&P 500 Index+5%			10.08	19.78	25.57	25.57	20.33	17.92	19.05	18.51	16.29	
Difference			-9.56	-18.48	-26.56	-26.56	-0.48	-3.71	-5.92	-6.47	N/A	
Cambridge US Prvt Eq Index			0.00	2.49	3.80	3.80	20.83	14.97	15.89	14.53	14.72	
Difference			0.52	-1.19	-4.79	-4.79	-0.98	-0.76	-2.76	-2.49	N/A	

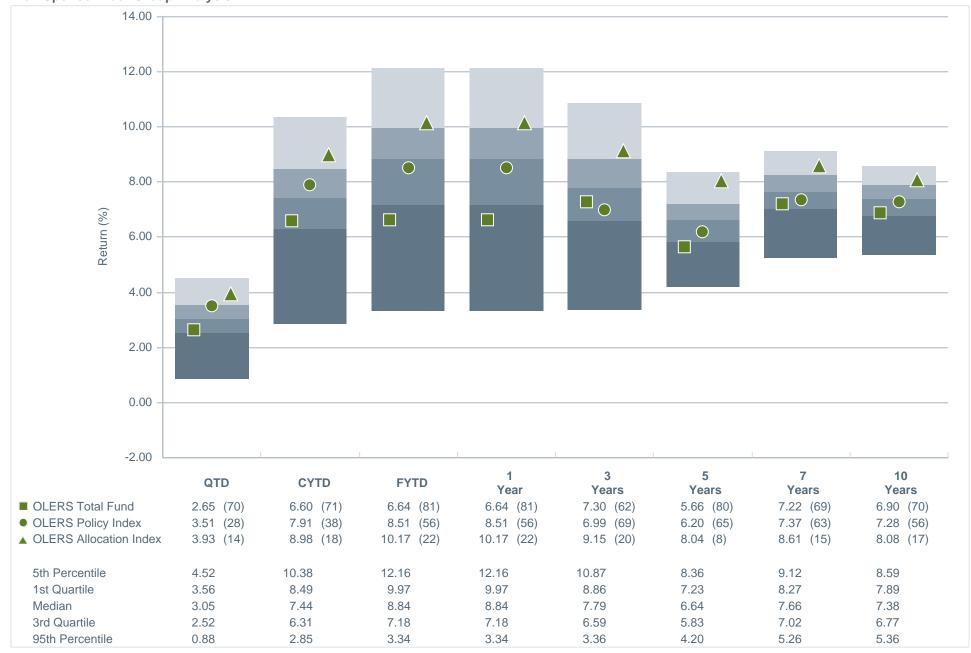


	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	213,766,347	19.52	-0.73	2.59	-0.04	-0.04	-3.72	0.04	0.49	1.35	5.89	10/01/1990
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	5.09	
Difference			0.11	0.50	0.90	0.90	0.25	-0.73	0.05	-0.17	0.80	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	3.70	3.70	-0.28	2.11	2.34	2.50	N/A	
Rank			69	62	74	74	78	74	75	65	N/A	
NTGI Aggregate Index (SA)	53,114,567	4.85	-0.82	2.09	-0.85	-0.85	-3.93	0.81	0.47	1.56	2.98	04/01/2004
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	2.98	
Difference			0.02	0.00	0.09	0.09	0.04	0.04	0.03	0.04	0.00	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	-0.41	-0.41	-3.43	1.20	0.94	1.96	3.40	
Rank			66	85	69	69	82	89	87	84	92	
TCW Core Plus Fixed Income (SA)	106,793,687	9.75	-0.79	2.74	-0.59	-0.59	-3.13	1.55	1.44	2.43	5.13	12/01/1993
Bloomberg US Agg Bond Index	, ,		-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	4.38	
Difference			0.05	0.65	0.35	0.35	0.84	0.78	1.00	0.91	0.75	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	5.22	
Rank			85	52	86	86	76	61	59	53	57	
Loomis Sayles	53,858,093	4.92	-0.53	2.79	1.97	1.97	N/A	N/A	N/A	N/A	-5.87	09/01/2021
Bloomberg US Govt Crdt Bond Index			-0.93	2.21	-0.70	-0.70	-4.11	1.03	0.59	1.66	-7.00	
Difference			0.40	0.58	2.67	2.67	N/A	N/A	N/A	N/A	1.13	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-0.47	2.76	0.44	0.44	-2.54	1.70	1.54	2.46	-6.30	
Rank			60	46	19	19	N/A	N/A	N/A	N/A	36	
Real Assets	133,372,584	12.18	-3.02	-6.13	-10.19	-10.19	6.42	4.55	5.16	5.85	6.76	06/01/1999
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	8.16	
Difference			-0.34	-0.37	-0.22	-0.22	-1.57	-1.95	-1.81	-2.89	-1.40	
Core Real Estate												
JPMCB Strategic Property (CF)	103,506,951	9.45	-1.57	-4.52	-10.42	-10.42	7.19	5.82	6.42	8.30	8.87	04/01/2012
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	8.15	
Difference			0.41	-0.76	-3.82	-3.82	0.40	-0.08	0.18	0.48	0.72	
UBS Trumbull Property (SA)	16,045,621	1.47	-10.13	-14.81	-14.79	-14.79	1.36	0.61	2.29	4.91	5.16	01/01/2013
NCREIF Property Index			-1.98	-3.76	-6.60	-6.60	6.79	5.90	6.24	7.82	7.98	
Difference			-8.15	-11.05	-8.19	-8.19	-5.43	-5.29	-3.95	-2.91	-2.82	
Colcord Center (CF)	4,800,000	0.44	-1.39	-4.44	1.44	1.44	3.73	5.42	4.42	5.51	4.85	05/01/2008
Value Add Real Estate	9,020,011	0.82	-6.64	-8.05	-0.60	-0.60	N/A	N/A	N/A	N/A	7.65	03/01/2022
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-9.97	-9.97	7.99	6.50	6.97	8.74	0.95	
Difference			-3.96	-2.29	9.37	9.37	N/A	N/A	N/A	N/A	6.70	

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



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.



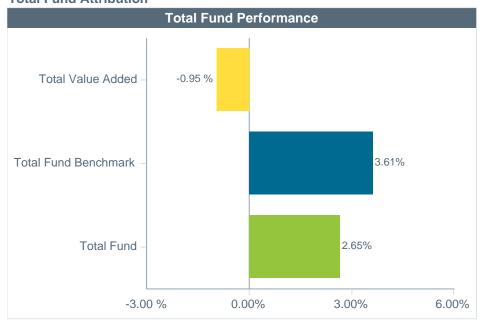
Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

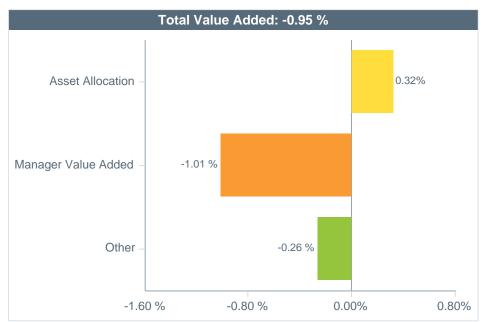


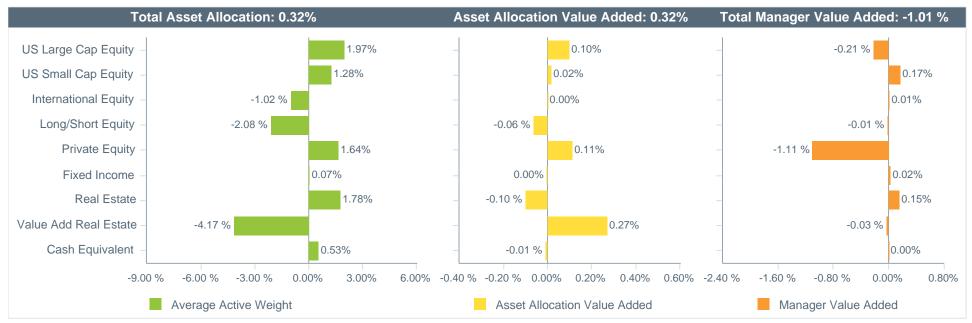
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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







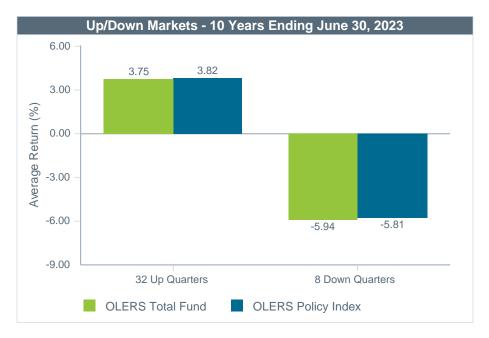
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

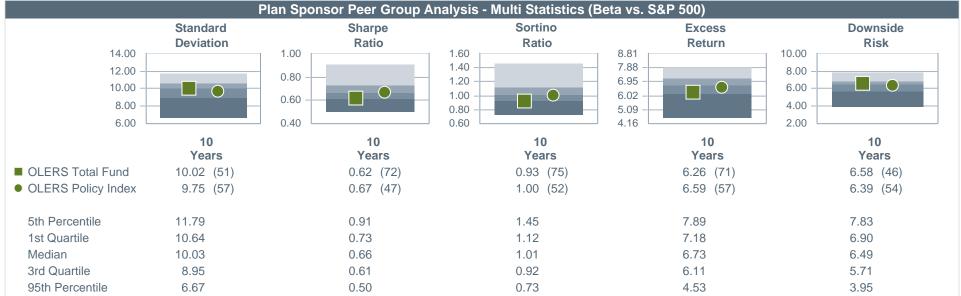


Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System

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

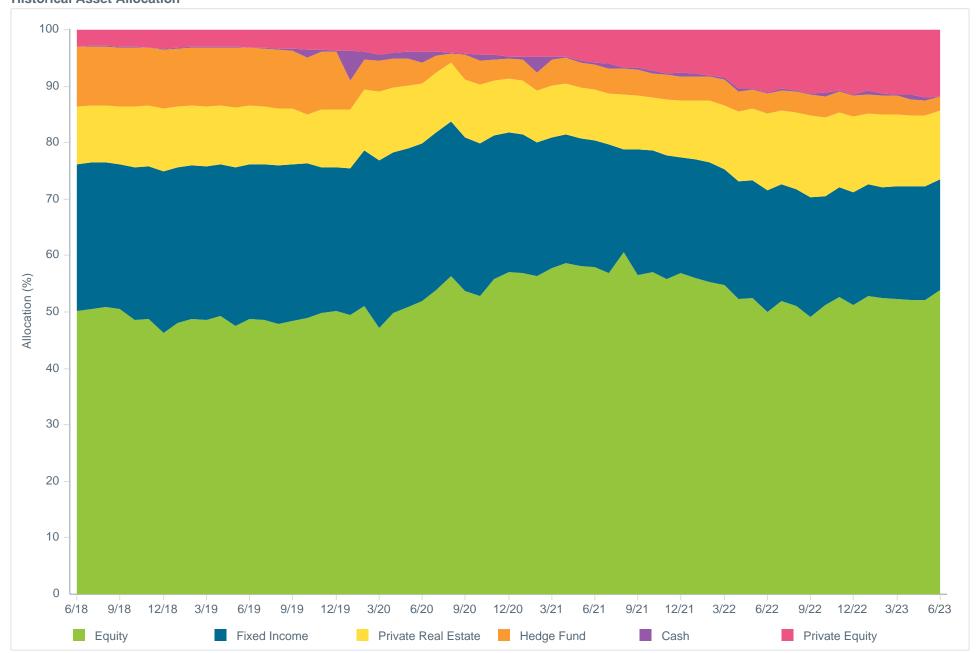






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







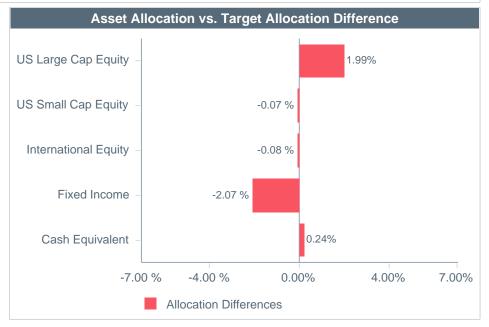
Uniform Retirement System for Justices & Judges (URSJJ)



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

				Per	formance	e (%)							
			Trailin	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
URSJJ Total Fund (Net)	3.69	9.72	10.53	10.53	6.30	5.93	7.20	7.06	-16.95	12.08	15.06	21.36	-6.43
URSJJ Policy Index	3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	-16.62	11.54	15.19	21.51	-6.09
Difference	0.07	0.09	0.03	0.03	0.08	-0.10	-0.07	-0.04	-0.33	0.54	-0.13	-0.15	-0.34
URSJJ Actual Allocation Index	3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	-16.86	12.10	18.70	21.01	-6.52
Difference	0.00	0.06	0.15	0.15	0.03	-0.62	-0.39	-0.22	-0.09	-0.02	-3.64	0.35	0.09
Actuarial Discount Rate (6.5%)	1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference	2.10	6.52	4.03	4.03	-0.20	-0.57	0.70	0.56	-23.45	5.58	8.56	14.86	-12.93
URSJJ Total Fund (Gross)	3.70	9.75	10.57	10.57	6.33	5.97	7.24	7.10	-16.93	12.12	15.10	21.40	-6.38
URSJJ Policy Index	3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	-16.62	11.54	15.19	21.51	-6.09
Difference	0.08	0.12	0.07	0.07	0.11	-0.06	-0.03	0.00	-0.31	0.58	-0.09	-0.11	-0.29
URSJJ Actual Allocation Index	3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	-16.86	12.10	18.70	21.01	-6.52
Difference	0.01	0.09	0.19	0.19	0.06	-0.58	-0.35	-0.18	-0.07	0.02	-3.60	0.39	0.14
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02
Rank	20	9	17	17	79	72	67	63	96	77	22	11	93

Asse	t Allocation vs. Ta	rget Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
URSJJ (Judges)	379,774,059	100.00	100.00
US Large Cap Equity	136,674,105	35.99	34.00
US Small Cap Equity	22,510,185	5.93	6.00
International Equity	106,019,755	27.92	28.00
Fixed Income	113,676,284	29.93	32.00
Cash Equivalent	893,729	0.24	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

	Allocati		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	379,774,059	100.00	3.69	9.72	10.53	10.53	6.30	5.93	7.20	7.06	N/A	06/01/1986
URSJJ Policy Index			3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	8.48	
Difference			0.07	0.09	0.03	0.03	0.08	-0.10	-0.07	-0.04	N/A	
URSJJ Actual Allocation Index			3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	8.06	
Difference			0.00	0.06	0.15	0.15	0.03	-0.62	-0.39	-0.22	N/A	
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			2.10	6.52	4.03	4.03	-0.20	-0.57	0.70	0.56	N/A	
US Equity	159,184,290	41.92	8.09	15.38	18.36	18.36	13.68	10.75	12.50	12.02	N/A	10/01/1989
URSJJ US Equity Custom Index			8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	N/A	
Difference			0.01	-0.03	0.00	0.00	0.00	-0.06	-0.04	-0.03	N/A	
BlackRock Russell 1000 Index (CF)	136,674,105	35.99	8.57	16.64	19.38	19.38	14.10	11.93	13.16	12.66	13.52	07/01/2009
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.09	
Difference			-0.01	-0.04	0.02	0.02	0.01	0.01	0.01	0.02	-0.57	
BlackRock Russell 2000 Index (CF)	22,510,185	5.93	5.22	8.20	12.48	12.48	10.97	4.33	8.92	8.44	11.48	07/01/2009
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	11.32	
Difference			0.01	0.11	0.17	0.17	0.15	0.12	0.16	0.18	0.16	
International Equity	106,019,755	27.92	2.60	9.75	13.07	13.07	7.51	3.79	6.60	5.01	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.42	
Difference			-0.07	-0.11	-0.26	-0.26	-0.24	-0.22	-0.23	-0.23	N/A	
BlackRock MSCI ACWI Ex US (CF)	106,019,755	27.92	2.60	9.75	13.07	13.07	7.51	3.79	6.60	5.01	4.92	10/01/2009
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.05	
Difference			-0.07	-0.11	-0.26	-0.26	-0.24	-0.22	-0.23	-0.23	-0.13	



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

	Allocation	on					Perfor	mance (%	(a)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	113,676,284	29.93	-0.98	2.59	-1.12	-1.12	-4.24	1.23	0.77	1.96	N/A	10/01/1989
URSJJ Fixed Income Custom Index			-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	N/A	
Difference			0.09	0.22	0.67	0.67	0.26	0.44	0.38	0.31	N/A	
BlackRock US Fixed Income (SA)	56,338,943	14.83	-0.66	2.44	-0.24	-0.24	-3.65	1.13	0.75	1.80	N/A	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.18	0.35	0.70	0.70	0.32	0.36	0.31	0.28	N/A	
MetWest US Fixed Income (SA)	34,058,786	8.97	-0.90	2.61	-0.49	-0.49	-3.37	1.39	1.10	1.94	N/A	09/01/2001
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.45	
Difference			-0.06	0.52	0.45	0.45	0.60	0.62	0.66	0.42	N/A	
Hoisington US Long Duration Fixed Income (SA)	9,998,223	2.63	-2.49	4.01	-7.44	-7.44	-13.42	-1.11	-1.99	2.04	N/A	10/01/1991
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	4.76	
Difference			-1.65	1.92	-6.50	-6.50	-9.45	-1.88	-2.43	0.52	N/A	
BlackRock TIPS (CF)	13,280,332	3.50	-1.40	2.09	-1.34	-1.34	-0.07	2.58	2.11	2.20	2.94	03/01/2010
Bloomberg US Trsy US TIPS Index			-1.42	1.87	-1.40	-1.40	-0.12	2.49	1.99	2.08	2.90	
Difference			0.02	0.22	0.06	0.06	0.05	0.09	0.12	0.12	0.04	



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

	Allocatio	n					Perfori	mance (%	6)			
	Market	%	QTD	CYTD	FYTD	1	3	5	7	10	Since	Inception
	Value (\$)					Year	Years	Years	Years	Years	Incep.	Date
URSJJ Total Fund	379,774,059	100.00	3.70	9.75	10.57	10.57	6.33	5.97	7.24	7.10	8.20	06/01/1986
URSJJ Policy Index			3.62	9.63	10.50	10.50	6.22	6.03	7.27	7.10	8.48	
Difference			0.08	0.12	0.07	0.07	0.11	-0.06	-0.03	0.00	-0.28	
URSJJ Actual Allocation Index			3.69	9.66	10.38	10.38	6.27	6.55	7.59	7.28	8.06	
Difference			0.01	0.09	0.19	0.19	0.06	-0.58	-0.35	-0.18	0.14	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			1.99	6.31	3.57	3.57	-0.67	-1.03	0.24	0.10	1.20	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	8.26	
Rank			20	9	17	17	79	72	67	63	54	
US Equity	159,184,290	41.92	8.09	15.39	18.37	18.37	13.69	10.76	12.51	12.03	9.67	10/01/1989
URSJJ US Equity Custom Index			8.08	15.41	18.36	18.36	13.68	10.81	12.54	12.05	N/A	
Difference			0.01	-0.02	0.01	0.01	0.01	-0.05	-0.03	-0.02	N/A	
All Public Plans-US Equity Segment Median			6.91	14.04	17.34	17.34	13.41	10.04	11.94	11.41	N/A	
Rank			22	34	32	32	44	34	26	31	N/A	
BlackRock Russell 1000 Index (CF)	136,674,105	35.99	8.57	16.64	19.39	19.39	14.11	11.94	13.17	12.67	13.53	07/01/2009
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.09	
Difference			-0.01	-0.04	0.03	0.03	0.02	0.02	0.02	0.03	-0.56	
IM U.S. Large Cap Core Equity (SA+CF) Median			7.75	14.41	18.00	18.00	14.08	11.58	13.03	12.68	14.00	
Rank			34	31	35	35	49	44	46	51	73	
BlackRock Russell 2000 Index (CF)	22,510,185	5.93	5.22	8.21	12.49	12.49	10.98	4.34	8.94	8.47	11.51	07/01/2009
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	11.32	
Difference			0.01	0.12	0.18	0.18	0.16	0.13	0.18	0.21	0.19	
IM U.S. Small Cap Core Equity (SA+CF) Median			4.64	8.81	14.13	14.13	14.45	7.21	10.90	10.51	13.50	
Rank			36	55	62	62	92	93	88	91	98	



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

	Allocatio	on					Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	106,019,755	27.92	2.61	9.78	13.10	13.10	7.54	3.81	6.64	5.05	5.42	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.42	
Difference			-0.06	-0.08	-0.23	-0.23	-0.21	-0.20	-0.19	-0.19	0.00	
All Public Plans-Intl. Equity Segment Median			3.16	10.75	15.03	15.03	8.41	4.78	7.61	6.08	N/A	
Rank			66	79	70	70	66	81	84	95	N/A	
BlackRock MSCI ACWI Ex US (CF)	106,019,755	27.92	2.61	9.78	13.10	13.10	7.54	3.81	6.64	5.05	4.99	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			2.67	9.86	13.33	13.33	7.75	4.01	6.83	5.24	5.18	
Difference			-0.06	-0.08	-0.23	-0.23	-0.21	-0.20	-0.19	-0.19	-0.19	
IM All ACWI Ex US (SA+CF) Median			3.06	12.10	17.02	17.02	7.97	4.90	7.58	6.35	6.68	
Rank			67	79	81	81	61	73	72	87	92	
Fixed Income	113,676,284	29.93	-0.96	2.63	-1.05	-1.05	-4.16	1.31	0.86	2.05	5.82	10/01/1989
URSJJ Fixed Income Custom Index			-1.07	2.37	-1.79	-1.79	-4.50	0.79	0.39	1.65	N/A	
Difference			0.11	0.26	0.74	0.74	0.34	0.52	0.47	0.40	N/A	
BlackRock US Fixed Income (SA)	56,338,943	14.83	-0.64	2.51	-0.16	-0.16	-3.58	1.21	0.83	1.88	4.26	06/01/2000
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.98	
Difference			0.20	0.42	0.78	0.78	0.39	0.44	0.39	0.36	0.28	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-0.58	2.57	-0.15	-0.15	-3.04	1.37	1.17	2.15	4.63	
Rank			56	55	51	51	76	67	79	75	78	
MetWest US Fixed Income (SA)	34,058,786	8.97	-0.89	2.63	-0.44	-0.44	-3.25	1.50	1.19	2.06	4.39	09/01/2001
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.45	
Difference			-0.05	0.54	0.50	0.50	0.72	0.73	0.75	0.54	0.94	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-0.58	2.57	-0.15	-0.15	-3.04	1.37	1.17	2.15	4.11	
Rank			86	44	67	67	59	44	48	60	28	
Hoisington US Long Duration Fixed Income (SA)	9,998,223	2.63	-2.45	4.09	-7.30	-7.30	-13.30	-0.98	-1.85	2.19	6.72	10/01/1991
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	4.76	
Difference			-1.61	2.00	-6.36	-6.36	-9.33	-1.75	-2.29	0.67	1.96	
IM U.S. Long Duration (SA+CF) Median			-1.03	4.67	-1.35	-1.35	-7.68	1.49	1.00	3.43	N/A	
Rank			100	84	100	100	100	100	100	100	N/A	

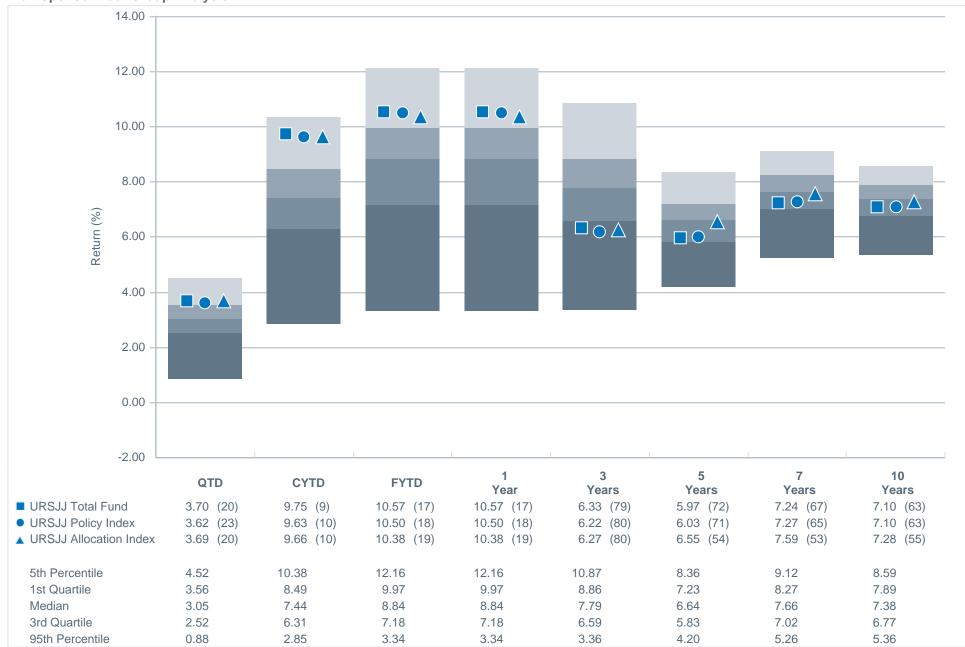


Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Gross of Fees

	Allocation	n	Performance (%)										
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date	
BlackRock TIPS (CF)	13,280,332	3.50	-1.39	2.09	-1.33	-1.33	-0.06	2.58	2.11	2.21	2.95	03/01/2010	
Bloomberg US Trsy US TIPS Index			-1.42	1.87	-1.40	-1.40	-0.12	2.49	1.99	2.08	2.90		
Difference			0.03	0.22	0.07	0.07	0.06	0.09	0.12	0.13	0.05		
IM U.S. TIPS (SA+CF) Median			-1.40	1.89	-1.15	-1.15	0.01	2.57	2.12	2.18	2.96		
Rank			43	11	61	61	58	45	52	39	52		



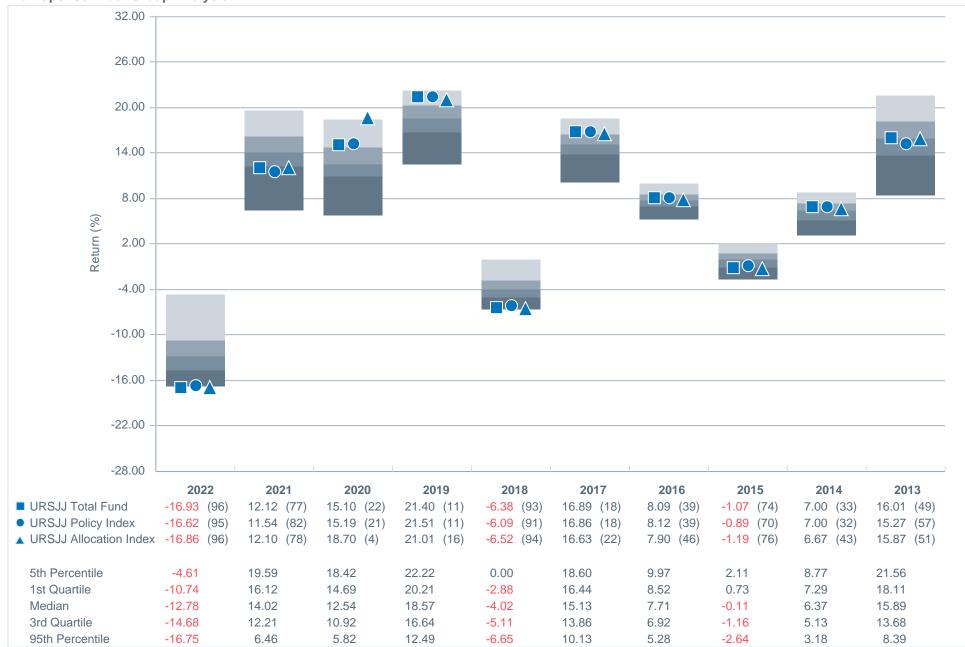
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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.



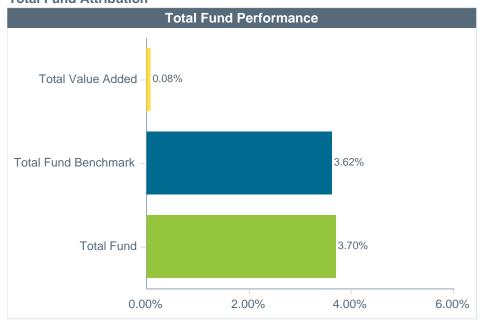
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

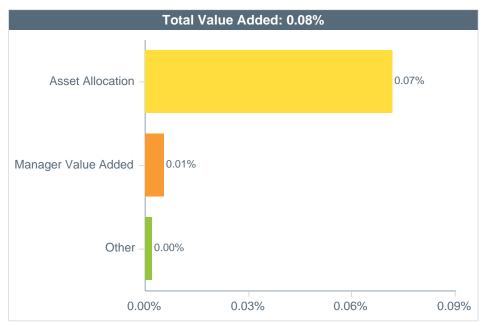


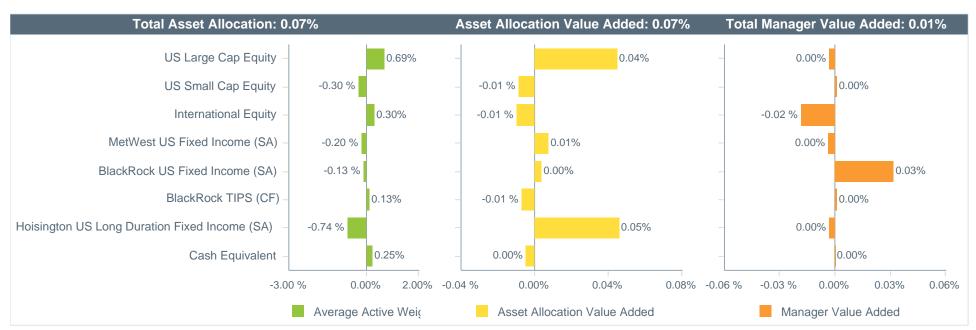
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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



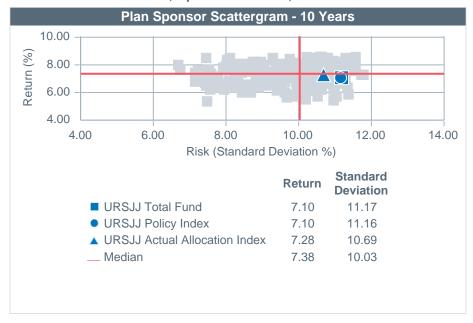


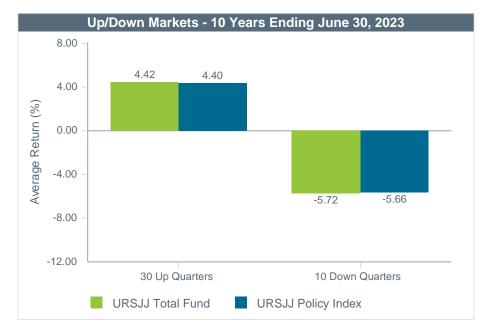


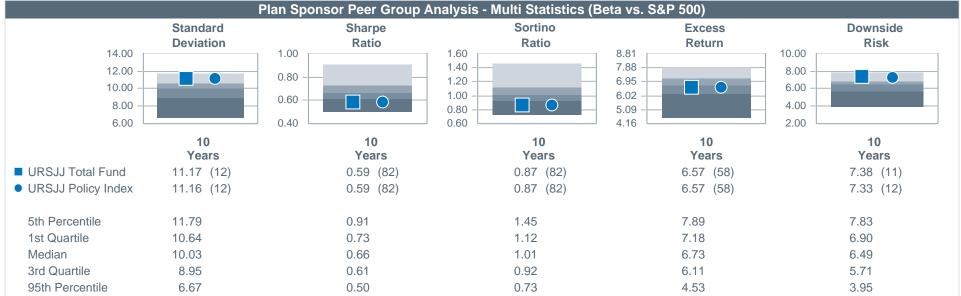
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Total Fund Risk & Return, Up/Down Markets, and Multi Statistics



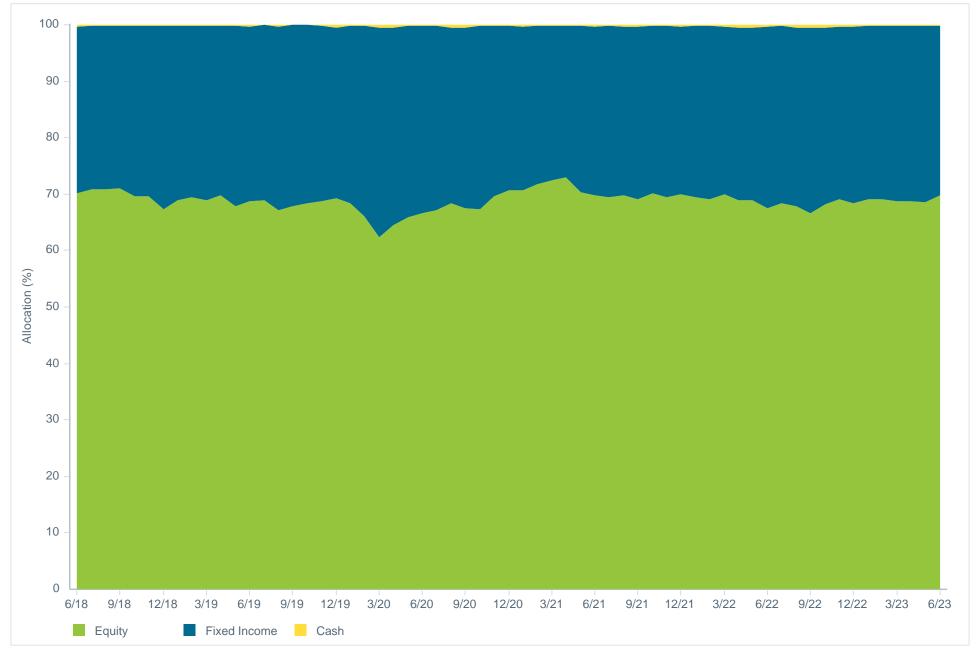




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.









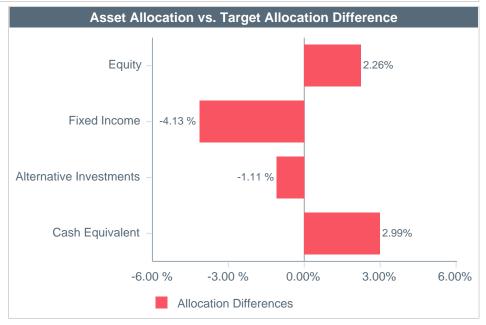
Oklahoma Wildlife Conservation Retirement System (OWCRS)



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

				Pei	rformance	e (%)							
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OWCRS Total Fund (Net)	5.25	12.50	13.78	13.78	7.04	6.56	7.36	7.04	-14.41	11.58	13.00	19.21	-3.85
OWCRS Policy Index	4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	-15.39	10.17	12.67	17.53	-4.95
Difference	0.89	2.47	2.30	2.30	1.26	1.49	1.39	1.11	0.98	1.41	0.33	1.68	1.10
OWCRS Actual Allocation Index	4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	-15.18	10.28	13.21	20.53	-3.71
Difference	0.78	2.44	2.76	2.76	0.81	0.49	0.32	0.08	0.77	1.30	-0.21	-1.32	-0.14
Actuarial Discount Rate (7.0%)	1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	3.54	9.06	6.78	6.78	0.04	-0.44	0.36	0.04	-21.41	4.58	6.00	12.21	-10.85
OWCRS Total Fund (Gross)	5.34	12.68	14.15	14.15	7.39	6.86	7.63	7.29	-14.14	11.95	13.34	19.46	-3.68
OWCRS Policy Index	4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	-15.39	10.17	12.67	17.53	-4.95
Difference	0.98	2.65	2.67	2.67	1.61	1.79	1.66	1.36	1.25	1.78	0.67	1.93	1.27
OWCRS Actual Allocation Index	4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	-15.18	10.28	13.21	20.53	-3.71
Difference	0.87	2.62	3.13	3.13	1.16	0.79	0.59	0.33	1.04	1.67	0.13	-1.07	0.03
All Public Plans-Total Fund Median	3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	-12.78	14.02	12.54	18.57	-4.02
Rank	2	1	1	1	60	41	51	55	68	79	39	37	44

Asset Allocation vs. Target Allocation Asset Asset Allocation Allocation (\$) (%) Target Allocation Allocation (%) OWCRS (Wildlife) 128,912,769 100.00 100.00 Equity 86,700,483 67.26 65.00											
	Allocation	Allocation	Allocation								
OWCRS (Wildlife)	128,912,769	100.00	100.00								
Equity	86,700,483	67.26	65.00								
Fixed Income	26,901,766	20.87	25.00								
Alternative Investments	11,457,620	8.89	10.00								
Cash Equivalent	3,852,899	2.99	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

	Allocati	on					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	128,912,769	100.00	5.25	12.50	13.78	13.78	7.04	6.56	7.36	7.04	5.92	01/01/2006
OWCRS Policy Index			4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	5.87	
Difference			0.89	2.47	2.30	2.30	1.26	1.49	1.39	1.11	0.05	
OWCRS Actual Allocation Index			4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	6.21	
Difference			0.78	2.44	2.76	2.76	0.81	0.49	0.32	0.08	-0.29	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			3.54	9.06	6.78	6.78	0.04	-0.44	0.36	0.04	-1.08	
Equity	86,700,483	67.26	7.55	17.04	20.17	20.17	12.90	9.26	11.62	11.06	8.55	01/01/2006
OWCRS Equity Custom Index			6.77	14.35	17.41	17.41	12.67	7.34	9.76	N/A	N/A	
Difference			0.78	2.69	2.76	2.76	0.23	1.92	1.86	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	6,707,396	5.20	8.56	16.62	19.26	19.26	13.50	11.52	12.81	12.37	13.94	03/01/2020
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.49	
Difference			-0.02	-0.06	-0.10	-0.10	-0.59	-0.40	-0.34	-0.27	-0.55	
Vanguard S-C Id;Inst (VSCIX)	4,747,794	3.68	5.34	9.27	14.92	14.92	12.35	6.49	9.61	9.41	8.65	12/01/2005
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	7.45	
Difference			0.13	1.18	2.61	2.61	1.53	2.28	0.85	1.15	1.20	
Bank of Oklahoma Managed Equity (SA)	52,800,753	40.96	10.08	21.01	23.74	23.74	15.11	N/A	N/A	N/A	20.36	04/01/2020
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	19.88	
Difference			1.69	4.84	4.79	4.79	1.22	N/A	N/A	N/A	0.48	
Vanguard Dev Mkt;Adm (VTMGX)	7,372,997	5.72	3.14	11.11	16.53	16.53	9.01	4.39	6.94	5.67	4.27	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			3.03	11.29	17.41	17.41	9.30	4.58	6.94	5.40	4.26	
Difference			0.11	-0.18	-0.88	-0.88	-0.29	-0.19	0.00	0.27	0.01	
Dodge & Cox Intnl Stck;I (DODFX)	5,545,624	4.30	4.30	10.72	14.70	14.70	12.76	4.87	7.52	5.32	3.52	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	3.47	
Difference			1.86	1.25	1.98	1.98	5.54	1.35	1.20	0.57	0.05	
MFS Intl New Discv;R6 (MIDLX)	5,379,554	4.17	0.71	6.76	11.59	11.59	3.97	1.94	5.69	5.39	4.24	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			1.94	10.70	13.26	13.26	3.96	4.06	6.69	5.61	4.52	
Difference			-1.23	-3.94	-1.67	-1.67	0.01	-2.12	-1.00	-0.22	-0.28	



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

	Allocation	on					Perfori	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Dev Mkt;R6 (ODVIX)	4,146,365	3.22	-0.21	11.11	11.71	11.71	-0.02	0.27	4.94	3.11	2.60	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	2.26	
Difference			-1.11	6.22	9.96	9.96	-2.34	-0.66	-0.01	0.16	0.34	
Fixed Income	26,901,766	20.87	-0.15	3.07	0.79	0.79	-2.48	1.35	0.78	1.50	2.58	01/01/2006
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.04	
Difference			0.69	0.98	1.73	1.73	1.49	0.58	0.34	-0.02	-0.46	
Bank of Oklahoma Managed Fixed Income (SA)	14,099,222	10.94	-0.76	2.86	-0.63	-0.63	-3.47	0.70	0.25	1.03	2.34	12/01/2005
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.08	
Difference			0.08	0.77	0.31	0.31	0.50	-0.07	-0.19	-0.49	-0.74	
PIMCO:Income;Inst (PIMIX)	5,614,811	4.36	1.24	3.80	5.35	5.35	1.85	2.61	3.57	4.24	2.51	08/01/2017
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	0.51	
Difference			2.08	1.71	6.29	6.29	5.82	1.84	3.13	2.72	2.00	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,241,644	2.51	0.70	3.55	1.97	1.97	-1.44	1.05	1.65	3.13	-1.30	03/01/2020
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-2.92	
Difference			1.54	1.46	2.91	2.91	2.53	0.28	1.21	1.61	1.62	
Alternative Investments	11,457,620	8.89	3.04	7.67	10.19	10.19	6.67	4.04	4.74	3.54	3.31	12/01/2010
OWCRS Alternatives Custom Index			1.49	2.25	3.65	3.65	5.03	3.31	3.67	N/A	N/A	
Difference			1.55	5.42	6.54	6.54	1.64	0.73	1.07	N/A	N/A	
First Eagle:Global;I (SGIIX)	4,082,910	3.17	3.14	9.33	14.05	14.05	10.64	6.97	7.27	7.10	6.50	08/01/2017
MSCI Wrld Index (USD) (Net)			6.83	15.09	18.51	18.51	12.18	9.07	10.62	9.50	9.11	
Difference			-3.69	-5.76	-4.46	-4.46	-1.54	-2.10	-3.35	-2.40	-2.61	
Calamos:Mkt Neut Inc;I (CMNIX)	3,681,633	2.86	2.76	5.98	9.08	9.08	3.53	3.56	3.98	3.79	3.65	08/01/2017
Bloomberg US Govt/Credit Bond Index			-0.93	2.21	-0.70	-0.70	-4.11	1.03	0.59	1.66	0.70	
Difference			3.69	3.77	9.78	9.78	7.64	2.53	3.39	2.13	2.95	
Neub Berman L/S;Inst (NLSIX)	3,693,078	2.86	3.20	7.57	8.35	8.35	6.75	6.49	6.78	5.58	10.75	10/01/2022
HFRX EH Index			2.14	2.96	4.62	4.62	7.66	3.18	4.31	3.11	4.70	
Difference			1.06	4.61	3.73	3.73	-0.91	3.31	2.47	2.47	6.05	



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

	Allocation	on			Performance (%)							
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	128,912,769	100.00	5.34	12.68	14.15	14.15	7.39	6.86	7.63	7.29	6.15	01/01/2006
OWCRS Policy Index			4.36	10.03	11.48	11.48	5.78	5.07	5.97	5.93	5.87	
Difference			0.98	2.65	2.67	2.67	1.61	1.79	1.66	1.36	0.28	
OWCRS Actual Allocation Index			4.47	10.06	11.02	11.02	6.23	6.07	7.04	6.96	6.21	
Difference			0.87	2.62	3.13	3.13	1.16	0.79	0.59	0.33	-0.06	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			3.63	9.24	7.15	7.15	0.39	-0.14	0.63	0.29	-0.85	
All Public Plans-Total Fund Median			3.05	7.44	8.84	8.84	7.79	6.64	7.66	7.38	6.58	
Rank			2	1	1	1	60	41	51	55	75	
Equity	86,700,483	67.26	7.62	17.18	20.45	20.45	13.18	9.43	11.74	11.14	8.59	01/01/2006
OWCRS Equity Custom Index			6.77	14.35	17.41	17.41	12.67	7.34	9.76	N/A	N/A	
Difference			0.85	2.83	3.04	3.04	0.51	2.09	1.98	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	6,707,396	5.20	8.58	16.66	19.37	19.37	13.65	11.67	12.97	12.53	14.10	03/01/2020
Russell 1000 Index			8.58	16.68	19.36	19.36	14.09	11.92	13.15	12.64	14.49	
Difference			0.00	-0.02	0.01	0.01	-0.44	-0.25	-0.18	-0.11	-0.39	
IM U.S. Large Cap Equity (MF) Median			8.58	16.61	19.53	19.53	12.60	11.15	12.85	12.02	13.27	
Rank			51	50	52	52	34	40	48	41	36	
Vanguard S-C Id;Inst (VSCIX)	4,747,794	3.68	5.35	9.30	14.97	14.97	12.39	6.53	9.65	9.45	8.69	12/01/2005
Russell 2000 Index			5.21	8.09	12.31	12.31	10.82	4.21	8.76	8.26	7.45	
Difference			0.14	1.21	2.66	2.66	1.57	2.32	0.89	1.19	1.24	
IM U.S. Small Cap Core Equity (MF) Median			3.95	6.98	12.22	12.22	14.77	5.04	8.56	8.19	7.45	
Rank			23	23	25	25	75	21	23	16	10	
Bank of Oklahoma Managed Equity (SA)	52,800,753	40.96	10.13	21.11	23.93	23.93	15.30	N/A	N/A	N/A	20.54	04/01/2020
Russell 3000 Index			8.39	16.17	18.95	18.95	13.89	11.39	12.86	12.34	19.88	
Difference			1.74	4.94	4.98	4.98	1.41	N/A	N/A	N/A	0.66	
Vanguard Dev Mkt;Adm (VTMGX)	7,372,997	5.72	3.16	11.14	16.61	16.61	9.08	4.47	7.02	5.74	4.34	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			3.03	11.29	17.41	17.41	9.30	4.58	6.94	5.40	4.26	
Difference			0.13	-0.15	-0.80	-0.80	-0.22	-0.11	0.08	0.34	0.08	
IM All ACWI Ex US (MF) Median			2.43	10.11	14.36	14.36	6.64	3.65	6.30	5.06	4.83	
Rank			23	42	25	25	19	29	30	25	62	



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

	Allocation			Performance (%)								
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dodge & Cox Intnl Stck;I (DODFX)	5,545,624	4.30	4.46	11.05	15.41	15.41	13.47	5.53	8.20	5.99	4.18	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			2.44	9.47	12.72	12.72	7.22	3.52	6.32	4.75	3.47	
Difference			2.02	1.58	2.69	2.69	6.25	2.01	1.88	1.24	0.71	
IM ACWI Ex US Core (MF) Median			2.54	9.80	14.26	14.26	7.48	3.73	6.29	4.96	3.55	
Rank			6	29	28	28	1	13	8	10	18	
MFS Intl New Discv;R6 (MIDLX)	5,379,554	4.17	0.94	7.23	12.59	12.59	4.92	2.88	6.66	6.36	5.21	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			1.94	10.70	13.26	13.26	3.96	4.06	6.69	5.61	4.52	
Difference			-1.00	-3.47	-0.67	-0.67	0.96	-1.18	-0.03	0.75	0.69	
IM ACWI Ex US Growth (MF) Median			2.12	11.63	14.85	14.85	4.18	4.06	6.74	5.62	4.19	
Rank			85	91	70	70	37	77	53	30	31	
Invesco Dev Mkt;R6 (ODVIX)	4,146,365	3.22	0.00	11.56	12.62	12.62	0.80	1.09	5.81	3.97	3.45	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	1.75	1.75	2.32	0.93	4.95	2.95	2.26	
Difference			-0.90	6.67	10.87	10.87	-1.52	0.16	0.86	1.02	1.19	
IM Emerging Markets Equity (MF) Median			1.81	7.09	4.63	4.63	2.08	1.13	4.64	2.84	2.08	
Rank			83	12	12	12	65	51	25	25	21	



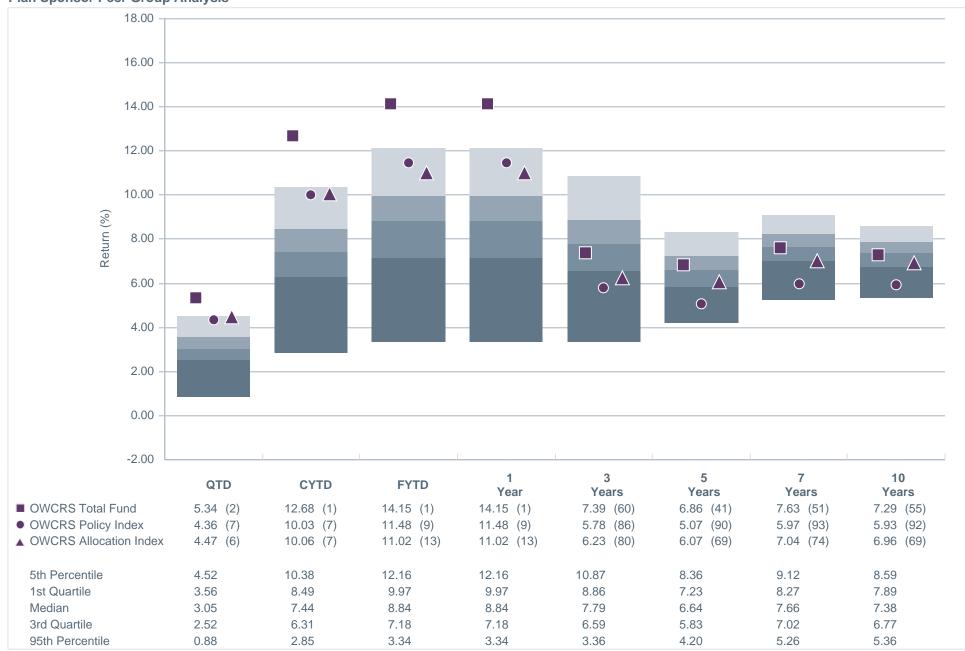
Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Gross of Fees

	Allocation	on					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	26,901,766	20.87	-0.08	3.22	1.10	1.10	-2.18	1.56	0.93	1.60	2.64	01/01/2006
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.04	
Difference			0.76	1.13	2.04	2.04	1.79	0.79	0.49	0.08	-0.40	
Bank of Oklahoma Managed Fixed Income (SA)	14,099,222	10.94	-0.72	2.94	-0.47	-0.47	-3.31	0.87	0.46	1.24	2.54	12/01/2005
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	3.08	
Difference			0.12	0.85	0.47	0.47	0.66	0.10	0.02	-0.28	-0.54	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-0.58	2.57	-0.15	-0.15	-3.04	1.37	1.17	2.15	3.78	
Rank			65	24	68	68	62	91	97	100	100	
PIMCO:Income;Inst (PIMIX)	5,614,811	4.36	1.36	4.06	5.87	5.87	2.37	3.36	4.43	5.17	3.32	08/01/2017
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	0.51	
Difference			2.20	1.97	6.81	6.81	6.34	2.59	3.99	3.65	2.81	
IM Multi-Sector General Bond (MF) Median			0.31	3.01	2.49	2.49	0.12	1.60	2.19	2.60	1.36	
Rank			10	14	11	11	8	4	2	1	3	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,241,644	2.51	0.84	3.83	2.50	2.50	-0.90	1.60	2.20	3.69	-0.77	03/01/2020
Bloomberg US Agg Bond Index			-0.84	2.09	-0.94	-0.94	-3.97	0.77	0.44	1.52	-2.92	
Difference			1.68	1.74	3.44	3.44	3.07	0.83	1.76	2.17	2.15	
IM International Fixed Income (MF) Median			-0.95	1.24	0.27	0.27	-4.30	-2.28	-1.30	-0.72	-4.30	
Rank			18	14	22	22	5	2	1	1	5	
Alternative Investments	11,457,620	8.89	3.33	8.27	11.36	11.36	7.66	4.66	5.18	3.85	3.56	12/01/2010
OWCRS Alternatives Custom Index			1.49	2.25	3.65	3.65	5.03	3.31	3.67	N/A	N/A	
Difference			1.84	6.02	7.71	7.71	2.63	1.35	1.51	N/A	N/A	
First Eagle:Global;I (SGIIX)	4,082,910	3.17	3.36	9.80	15.02	15.02	11.59	7.89	8.18	8.01	7.41	08/01/2017
MSCI Wrld Index (USD) (Net)			6.83	15.09	18.51	18.51	12.18	9.07	10.62	9.50	9.11	
Difference			-3.47	-5.29	-3.49	-3.49	-0.59	-1.18	-2.44	-1.49	-1.70	
Calamos:Mkt Neut Inc;I (CMNIX)	3,681,633	2.86	3.00	6.46	10.11	10.11	4.51	4.56	5.00	4.81	4.66	08/01/2017
Bloomberg US Govt/Credit Bond Index			-0.93	2.21	-0.70	-0.70	-4.11	1.03	0.59	1.66	0.70	
Difference			3.93	4.25	10.81	10.81	8.62	3.53	4.41	3.15	3.96	
Neub Berman L/S;Inst (NLSIX)	3,693,078	2.86	3.63	8.46	10.11	10.11	8.47	8.20	8.50	7.28	12.11	10/01/2022
HFRX EH Index			2.14	2.96	4.62	4.62	7.66	3.18	4.31	3.11	4.70	
Difference			1.49	5.50	5.49	5.49	0.81	5.02	4.19	4.17	7.41	

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



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.



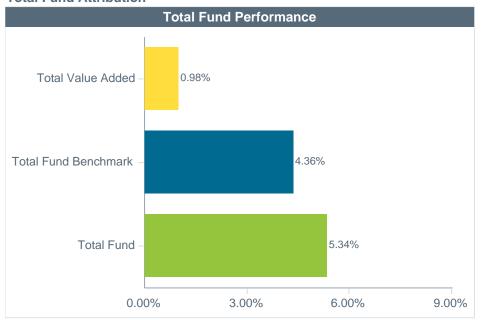
Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

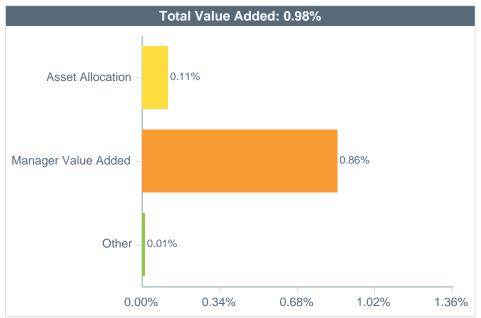


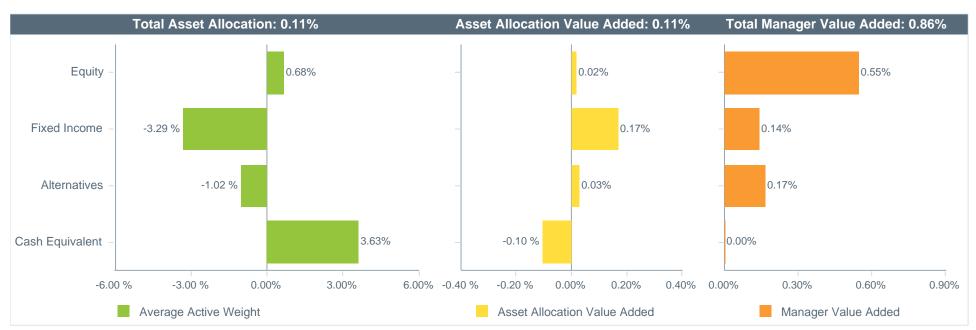
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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





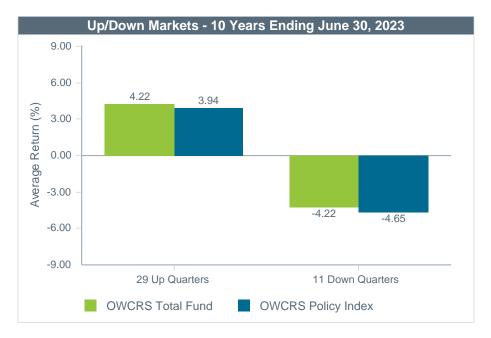


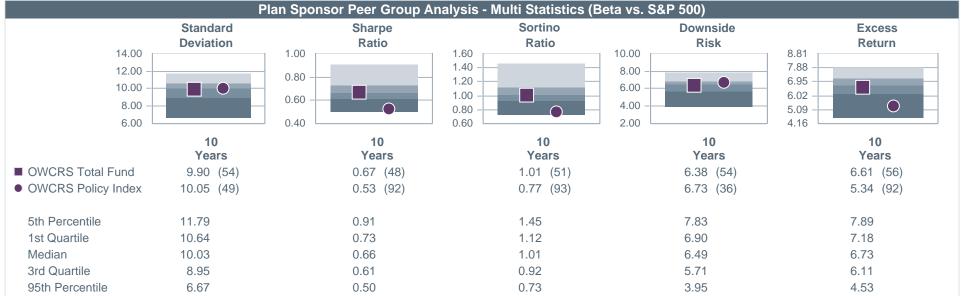
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

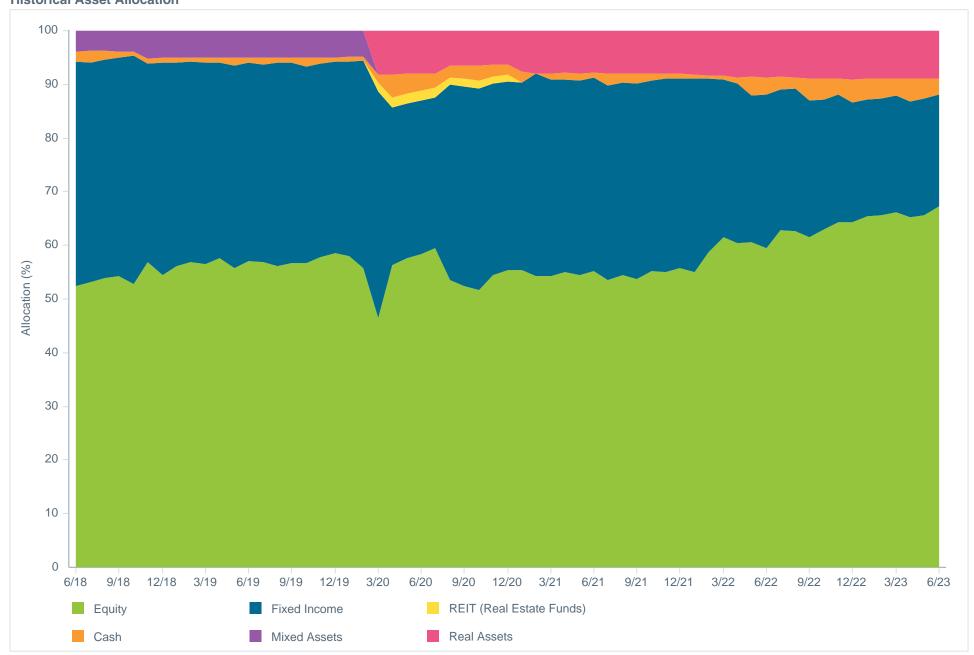






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.









Oklahoma State Pension Commission
As of June 30, 2023
Addendum

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 42.8% Russell 3000 Index, 18.7% MSCI ACW ex US IMI (USD) (Gross), 22% OTRS Fixed Income Custom Index, 8.5% 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.
- OFPRS Policy Index: OFPRS'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.



Oklahoma State Pension Commission
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• 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 Glbl 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.



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:

S&P	Moody's	<u>Explanation</u>	S&P	Moody's	Explanation
Higher Cr	edit Quality – I	nvestment Grade	Lower Cr	edit Quality – E	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	В	B2	
Α	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
			С	Ca	
			D	С	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 "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

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

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



Capital Markets Review -

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

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

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

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

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 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 ≥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

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).

interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

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.



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.

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
<u>Liquid Investments</u>		Less Liquid Investments	
T-Bills and Treasurys	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	Not Liquid Investments	
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>	Capital Appreciation	Capital Preservation	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

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

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

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

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

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

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

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

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

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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