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Meeting Materials

Oklahoma State Pension Commission



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Executive Summary



OKLAHOMA STATE PENSION COMMISSION

Q4 2021 EXECUTIVE SUMMARY

Economic and Capital Market Review

“There is a prudent maxim of the economic forecaster’s trade that is too often ignored: Pick a number or pick a date, but never both.”¹

- Paul Volcker, ex-Chairman of the Federal Reserve Board

Capital markets produced strong returns in the fourth quarter of 2021, completing what proved to be an exceptional year for investors. The primary drivers were strong, double-digit returns from public equities, private equity, and real assets. Fixed income returns were largely flat. Key market index returns as of year-end 2021 can be observed in **Figure 1** below.

Figure 1: Key Market Index Returns
Period Ending December 31, 2021

Index	Asset Class	QTD	CYTD	1 Year	5 Year	10 Year
S&P 500 Index	US Equity	11.03	28.71	28.71	18.47	16.55
MSCI ACW Ex-US Index (Net)	International Equity	1.82	7.82	7.82	9.61	7.28
NCREIF ODCE (AWA) (Net)	Core Real Estate	7.69	21.06	21.06	7.75	9.44
Bloomberg US Agg	US Fixed Income	0.01	-1.55	-1.55	3.57	2.90
Cambridge Private Equity ¹	Private Equity	5.75	31.80	47.16	20.02	16.55
HFRX Absolute Return Index	Hedge Funds	0.27	2.10	2.10	2.40	2.04
Bloomberg Commodity Index	Commodities	-1.56	27.11	27.11	3.66	-2.85

¹ Private equity returns are as of September 30, 2021, as returns for December 31, 2021 are not yet available.

At the root of the exceptional equity returns in 2021 was a draw down in the substantial excess savings rate that Americans and businesses maintained during first 18 months of the pandemic. Combined with low interest rates, the abundance of cash increased investor tolerance for higher equity valuations, which contributed to higher stock prices. Unfortunately, spending of excess savings also created inflationary pressures. These pressures were especially pronounced in the durable and non-durable goods sectors, as businesses suffered from supply shortages due to pandemic-related disruptions in production and logistics.

Persistent inflation has caused understandable anxiety among investors. Fortunately, while it is impossible to predict when the current inflationary spike will subside, history suggests that it may not last as long as investors fear. After all, similar inflationary events occurred immediately after the conclusion of World War I and World War II, and these periods lasted approximately two years.² However, an even more compelling reason that inflation will likely be temporary is the shifting perspective at the Federal Reserve. As evidenced by increasingly hawkish statements, leaders at the Fed now view the risk of inflation as a far more significant threat to the nation than marginal increases in unemployment. This is not surprising because the Fed leaders know that allowing high inflation to persist for too long could allow inflation

¹ Volcker, Paul and Gyohten, Toyoo (1992). *Changing Fortunes*. New York: Random House. pp. 165

² Higgins, Mark, Investors Can Temper Their Inflation Fears: Post-COVID Inflation is Unlikely to Resemble the Great Inflation of 1968 to 1982 (August 15, 2021).

expectations to shift upward. If this occurs, it becomes much more difficult to extinguish. This is the fear that is almost certainly at the forefront of the minds of policymakers at the Fed, which makes it much more likely that they will err on the side of being overly hawkish rather than overly dovish. This supports the thesis that investors should brace for Federal Reserve policies that may be more aggressive and persistent than in the past.³

In summary, as the Fed begins contracting the money supply over the next year or two, investors may experience volatility and price declines that go beyond what they have become accustomed to over the past several decades. This may tempt investors to adjust long-term target allocations to “time the market.” For those experiencing this temptation, it may be helpful to recall the cautionary advice of Paul Volcker. While it is true that we can predict with reasonable confidence that the rate of inflation will ultimately settle at the Federal Reserve’s target of 2%, we do not know the date when this will occur. ***In other words, we can pick the number, but we cannot pick the date; and it is for this reason that we advise investors to remain committed to their long-term strategy and resist the temptation to time the current inflationary wave despite having increasing confidence that it is likely to be temporary.***

Performance Highlights

Total Fund Performance and Attribution

During the 4th Quarter of 2021, the Oklahoma State Pension Funds produced solid single-digit returns, ranging between 3.9% to 4.9% net of fees. Over the trailing year, absolute returns across the seven plans were exceptionally strong, ranging from 11.6% to 18.2%. Relative to policy benchmarks, performance was similarly strong, as five out of six plans outperformed their respective policy benchmarks net of fees.⁴ Detailed comparative performance of the seven plans can be found on **pages 11-14** of the performance report.

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

1. **High Allocation to Equities** – Overall, the Pension Plans have a high allocation to public equity. This is a sensible approach given the Plans’ extended time horizons, healthy funded statuses, and relatively strong psychological and technical tolerance for risk. The plans benefitted significantly from these decisions over the last year, capturing a substantial portion of the bull market in equities.
2. **Bias Toward US Equities** – In general, the Pension Plans are invested more heavily in US equities, which have substantially outperformed international equities for more than 10 years. Relative to peers, this strategic tilt drove higher absolute returns and relative performance.
3. **Strong Performance of Private Equity** – Several of the plans maintain allocations to private equity. The returns generated by these allocations were exceptional over both the trailing quarter and all periods extending back to 10 years. These returns were especially impressive for the Teachers and Public Employees Plans, which are also the largest plans.

³ Higgins, M. *The Federal Reserve’s Dovish Days are Suspended: Investors Should Brace Hard for the Hawk.* (February 5, 2022).

⁴ All returns shown for the Firefighters plan are gross of fees. RVK is in the process of incorporating both gross and net-of-fees returns into the performance report, and we anticipate providing both for the next quarterly report.

4. **Avoidance of Dilutive Asset Classes** – Institutional investors are constantly bombarded with marketing pitches on new investment strategies. Many of these strategies add portfolio complexity and higher costs without providing commensurate benefits. 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.
5. **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.

Overall performance of the Oklahoma State Pension Plans is strong because of thoughtful, high-level strategic decisions, coupled with skillful execution. While there will undoubtedly be future periods of time in which these strategies suffer periods of underperformance, over the long term, they appear well-positioned for success in a manner that aligns with the Plans' objectives, risk tolerance, constraints, and unique competitive advantages.

Asset Class Performance – Q4 2021

Asset class returns varied during the fourth quarter, with strong US equity markets driving the majority of performance. Performance highlights for specific asset classes are provided below, and detailed performance numbers can be found on **pages 15-26** of the performance report.

1. **US Equity** – Absolute US equity returns were strong for the quarter. Relative to benchmarks, returns varied depending on a combination of style tilts (i.e., small/mid cap and value) and the relative performance of active managers. US equity returns ranged from approximately 6.0% (Firefighters)⁵ to 9.4% (Wildlife). Longer term performance over 3-, 5-, 7-, and 10-year periods has mostly lagged broad indexes of US equities.
2. **International Equity** – International equity returns were positive but lagged their US counterparts during the fourth quarter. Fourth quarter returns ranged from approximately 0.6% (Law Enforcement) to 1.9% (Judges). The use of active management in this asset class yields mixed results over long time periods. Three 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 outperformed over most trailing periods.
3. **Fixed Income** – Fixed income returns were roughly flat for the fourth quarter, as shorter-dated yields increased slightly. Returns ranged from approximately -0.3% (Firefighters)⁵ to 0.7% (Teachers). Relative performance was mixed for the quarter, with four out of seven plans outperforming the Bloomberg US Aggregate Bond Index. Over longer periods of time, as measured by 7- and 10-year periods, most plans are exceeding or roughly flat against the index.

⁵ All returns shown for the Firefighters plan are gross of fees. RVK is in the process of incorporating both gross and net-of-fees returns into the performance report, and we anticipate providing both for the next quarterly report.

4. **Real Estate** – Real estate returns were generally positive for the quarter and over the trailing year, as prices continued to recover from post-pandemic lows. As reported by the NFI-ODCE Index, income returns of 0.8% continue to trend in line with historical levels, while price appreciation accounts for 6.9% of return.
5. **Hedge Funds** – Hedge funds returns varied considerably by Plan. Returns ranged from a low of approximately -16.7% (Firefighters)⁵ to a high of -1.9%. (Police). On a relative basis, plans investing in Hedge Funds suffered over the quarter, with relative performance ranging from approximately -17.3% (Firefighters)⁵ to -8.5% (Law Enforcement).
6. **Private Equity** – Private equity produced 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 indices and peers. Four out of seven plans performed at or above median on both metrics. Performance is more favorable on an asset-weighted basis, with 89.4% 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 December 31, 2021

Plan	Percent of Assets	5-Year Return Net of Fees	10-Year Return Net of Fees	10-Year Rank vs. All Public Plans ⁶
Firefighters (Gross of Fees) ⁷	8.5%	13.40	11.61	3 rd
Teachers	51.2%	11.89	11.08	3 rd
Public Employees	28.7%	11.38	9.92	41 st
Judges	1.0%	11.34	9.85	47 th
Law Enforcement	2.7%	10.49	9.33	60 th
Police	7.6%	10.70	9.27	55 th
Wildlife	0.3%	10.49	8.96	71 st

89.4% of assets

⁶ 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.

⁷ The Firefighters Pension Plan only reports gross of fees returns.

**Figure 4: 10-Year Risk-Adjusted Returns for Oklahoma Pension Plans
Ranked by Sharpe Ratio as of December 31, 2021**

Plan	Percent of Assets	Sharpe Ratio	10-Year Rank vs. All Public Plans
Police	7.6%	1.17	16 th
Firefighters	8.5%	1.14	19 th
Teachers	51.2%	1.05	42 nd
Wildlife	0.3%	1.03	50 th
Law Enforcement	2.7%	0.99	60 th
Public Employees	28.7%	0.97	70 th
Judges	1.0%	0.96	71 st

67.6% of assets

Individual Plan Performance Highlights

Oklahoma Teachers' Retirement System (OTRS)

Detailed performance of the OTRS plan begins on **page 72** of the performance report. As of December 31, 2021, the market value of assets for OTRS was approximately **\$22.81 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OTRS Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS Total Fund (Net)	4.88	5.56	18.20	18.20	16.93	11.89	9.46	11.08
OTRS Policy Index	5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80
<i>Difference</i>	-0.28	0.56	2.60	2.60	-0.55	-0.32	-0.33	0.28
OTRS Actual Allocation Index	5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95
<i>Difference</i>	-0.36	0.69	1.99	1.99	-0.44	-0.11	-0.28	0.13
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	27	20	8	8	12	17	17	3

Commentary

The OTRS Total Fund returned 4.88% for the quarter, underperforming the policy index by 28 basis points. Over long-term periods, the Plan provided mixed returns relative to its policy index; however, the Plan outperformed its policy index by 28 basis points over the 10-year period. Relative to a broad group of pension plans, the Plan has ranked in or near the top quartile over all trailing periods up to 10 years. Favorable peer rankings were driven by the higher allocation to public equities (and US equity in particular) relative to other public plans. Returns relative to the policy and actual allocation index have been strong over the last year, boosted by strong management in International Equity and Private Equity. The largest source of underperformance over the quarter were the US Equity and Real Estate allocations, which lagged their benchmarks by 120 and 83 basis points, respectively. International equity returns continue to improve over the past year, outperforming the MSCI ACW Ex-US IM Index by 225 basis points.

In summary, while the OTRS Plan performance trailed its policy index by 55 basis points over the past three years, performance has improved over the last year and remains strong over the 10-year period. The Plan has continued to produce exceptionally strong returns relative to peers over all trailing periods. On a risk-adjusted basis, the Plan has ranked above median relative to other public plans, as well as other Oklahoma plans, as illustrated in **Figure 4** on the previous page.

Oklahoma Public Employees Retirement System (OPERS)

Detailed performance of the OPERS plan begins on **page 92** of the performance report. As of December 31, 2021, the market value of assets for OPERS was approximately **\$12.76 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPERS Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPERS Total Fund (Net)	4.24	3.35	12.29	12.29	16.17	11.38	9.00	9.92
OPERS Policy Index	4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80
<i>Difference</i>	0.04	0.08	0.75	0.75	0.18	0.02	-0.06	0.12
OPERS Actual Allocation Index	4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11
<i>Difference</i>	-0.05	0.04	0.15	0.15	-1.08	-0.54	-0.44	-0.19
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	49	78	70	70	28	37	44	41

Commentary

The OPERS Total Fund continues to provide returns in line with its policy index over all periods and ranked above median over all periods greater than 1-year relative to a broad peer group of public plans. In aggregate, active management added value on a net of fees basis over the last year. The source of active manager value added varied by asset class. In general, US equity managers contributed to relative performance, while international equity managers detracted. In aggregate, fixed income managers suffered relative to their respective indices over the last year; however, long-term performance remains strong relative to the benchmark.

In summary, the OPERS plan has generated long-term returns in line with its policy index and strong relative to peers over the 10-year period. On a risk-adjusted basis, the Plan has ranked below median relative to other public plans and 6th among the group of seven Oklahoma plans.

Oklahoma Firefighters Pension & Retirement System (OFPRS)

Detailed performance of the OFPRS plan begins on **page 109** of the performance report. As noted earlier, net of fees returns for the Firefighters plan are not currently available, however Staff is working with RVK to implement net of fees returns for the first quarter of 2022. The project was ongoing as of the time this report was prepared. As of December 31, 2021, the market value of assets for OFPRS was approximately **\$3.79 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OFPRS Annualized Gross-of-Fees Returns Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OFPRS Total Fund (Gross)	4.07	3.89	13.87	13.87	17.46	13.40	10.86	11.61
OFPRS Policy Index	5.53	6.33	17.52	17.52	17.67	12.78	10.53	11.44
<i>Difference</i>	<i>-1.46</i>	<i>-2.44</i>	<i>-3.65</i>	<i>-3.65</i>	<i>-0.21</i>	0.62	0.33	0.17
OFPRS Actual Allocation Index	5.35	5.66	15.80	15.80	17.95	12.76	10.46	11.25
<i>Difference</i>	<i>-1.46</i>	<i>-1.77</i>	<i>-1.93</i>	<i>-1.93</i>	<i>-0.49</i>	0.64	0.40	0.36
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	58	66	50	50	10	2	2	3

Commentary

The Firefighter's plan generated the strongest long-term return among the seven Oklahoma pension plans on an absolute basis, and second strongest on a risk-adjusted basis. In terms of absolute returns, the Plan exceeded its policy and actual allocation index over all trailing periods greater than 3 years and ranked in the top decile relative to a broad peer group of public plans over all trailing periods greater than 1-year. Over the trailing ten years, on a risk-adjusted basis, the Plan ranked in the 19th percentile relative to a broad peer group of public pension plans and 2nd among the group of seven Oklahoma pension plans.

Although the most significant drivers of performance relative to the Oklahoma plans were the asset allocation decisions, the plan also benefitted from active management value-added over all trailing periods greater than 3 years, although is to some extent overstated given the absence of net of fees reporting. In the US equity portfolio, active manager performance was generally negative relative to their respective benchmarks over the last year, with most active managers struggling to keep pace with their benchmarks. Over the past year, the portfolio's higher weighting to small cap equity relative to a broad US equity index also hurt relative performance, with large cap stocks outperforming small cap stocks by roughly 1,200 basis points. International developed equity outperformance was accretive, with the composite outperforming the index by 380 basis points over the past year. The fixed income portfolio detracted from performance over the past year, trailing its benchmark by 115 basis points. Overall, the Firefighter's plan continues to perform exceptionally well relative to peers, benchmarks, and other Oklahoma plans.

Oklahoma Police Pension & Retirement System (OPPRS)

Detailed performance of the OPPRS plan begins on **page 126** of the performance report. As of December 31, 2021, the market value of assets for OPPRS was approximately **\$3.38 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPPRS Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPPRS Total Fund (Net)	4.23	6.19	17.28	17.28	14.87	10.70	8.68	9.27
OPPRS Policy Index	5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30
<i>Difference</i>	<i>-1.34</i>	0.19	2.09	2.09	<i>-0.76</i>	<i>-0.36</i>	0.15	<i>-0.03</i>
OPPRS Actual Allocation Index	5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15
<i>Difference</i>	<i>-1.23</i>	0.55	2.92	2.92	0.19	0.13	0.30	0.12
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	49	11	11	11	48	47	44	55

Commentary

The Police Plan provided absolute returns that ranked above median and generally exceeded both the policy index and actual allocation index over all trailing periods. It should be noted, however, that performance is heavily influenced by the intentional decision to reduce downside risk in the portfolio to protect the funded status of the plan. The risk-adjusted returns of the portfolio are more favorable and are consistent with this objective. As illustrated in **Figure 4** on page 5, the OPPRS 10-year Sharpe ratio is ranked 1st relative to other Oklahoma Plans and in the 16th percentile relative to a broad peer group of public plans. Thus, on a risk-adjusted based, the OPPRS plan has performed well over the long term and in a manner that is consistent with the stated objectives. In terms of return drivers relative to benchmarks, performance has varied, but the plan has performed roughly consistent with benchmarks overall.

In summary, the OPPRS plan has generally lagged the performance of peers and other Oklahoma pension plans in terms of absolute returns but still exceeded its required return of 7.5% over all trailing periods. On the other hand, the Plan has ranked relatively well on a risk-adjusted basis, which is consistent with its stated intention of managing a portfolio with less sensitivity to downside risk.

Oklahoma Law Enforcement Retirement System (OLERS)

The detailed performance of the OLERS plan begins on **page 140** of the performance report. As of December 31, 2021, the market value of assets for OLERS was approximately **\$1.21 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OLERS Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OLERS Total Fund (Net)	3.91	4.45	14.89	14.89	14.71	10.49	8.37	9.33
OLERS Policy Index	5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07
<i>Difference</i>	<i>-1.68</i>	<i>-1.34</i>	<i>-0.68</i>	<i>-0.68</i>	<i>-1.08</i>	<i>-0.65</i>	<i>-0.90</i>	<i>-0.74</i>
OLERS Actual Allocation Index	5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84
<i>Difference</i>	<i>-1.58</i>	<i>-0.59</i>	<i>-0.08</i>	<i>-0.08</i>	<i>-0.96</i>	<i>-0.87</i>	<i>-0.90</i>	<i>-0.51</i>
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	<i>64</i>	<i>47</i>	<i>31</i>	<i>31</i>	<i>57</i>	<i>66</i>	<i>65</i>	<i>60</i>

Commentary

The Law Enforcement Plan generated a 10-year absolute return that ranked 5th relative to other Oklahoma Pension Plans and near or slightly below median relative to a broad peer group of public plans over all trailing periods greater than 1-year. Active management has been a drag on performance over most time periods, but has improved substantially over the last year. Recent underperformance was driven primarily by US equity, which ended the year with a 25.93% return, underperforming the S&P 500 Index by 278 basis points. The long/short equity allocation, which consists of two hedge funds-of-funds, also detracted from performance, underperforming its benchmark by 1,711 basis points. Private equity provided strong performance, outperforming the S&P 500 Index + 5% by 820 basis points over the last year.

In summary, the OLERS Plan has been mixed relative to peers and lagged other Oklahoma plans in terms of absolute returns over various trailing periods, although relative returns have continued to improve over the last year. The Plan has also ranked in line with peers on a risk-adjusted basis, as represented by a Sharpe ratio that ranks in the 60th percentile relative to peers.

Uniform Retirement System for Justices & Judges (URSJJ)

Detailed performance of the URSJJ plan begins on **page 156** of the performance report. As of December 31, 2021, the market value of assets for URSJJ was approximately **\$441.1 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

URSJJ Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
URSJJ Total Fund (Net)	4.24	3.27	12.08	12.08	16.10	11.34	9.00	9.85
URSJJ Policy Index	4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81
<i>Difference</i>	0.04	0.00	0.54	0.54	0.09	-0.03	-0.07	0.04
URSJJ Actual Allocation Index	4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00
<i>Difference</i>	-0.03	-0.01	-0.02	-0.02	-1.11	-0.57	-0.37	-0.15
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	52	81	76	76	31	40	47	47

Commentary

The Judges Plan generated a 10-year absolute return that ranked 4th relative to other Oklahoma Pension Plans, and in the 43rd percentile relative to a broad peer group of public plans over the trailing 10 years. Strong returns relative to peers was aided by a modest tilt toward US equity relative to international equity, as well as a dedicated small cap US equity allocation. The Plan continues to benefit from strong relative performance in its fixed income portfolio over the long term, a large portion of which stemmed from its allocation to Hoisington US Long Duration Fixed Income. This strategy is interesting in that it rotates the portfolio between long duration fixed income securities and cash depending upon expectations of interest rate movements. The fund continues to benefit from the substantial decline in yields over the past 10 years, although it has detracted from returns over the past year due to the recent increase in interest rates.

Overall, the URSJJ Plan performed well over the past 10 years relative to a broad peer group of public plans and roughly average relative to other Oklahoma plans. On a risk-adjusted basis, the Plan performed below median over the past 10 years relative to peers (with a Sharpe ratio ranking in the 71st percentile) and ranked 7th relative to Oklahoma Plans.

Oklahoma Wildlife Conservation Retirement System (OWCRS)

Detailed performance of the OWCRS plan begins on **page 168** of the performance report. As of December 31, 2021, the market value of assets for OWCRS was approximately **\$144.3 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OWCRS Annualized Net-of-Fees Returns

Period Ending December 31, 2021

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OWCRS Total Fund (Net)	4.06	3.71	11.58	11.58	14.55	10.49	8.29	8.96
OWCRS Policy Index	3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32
<i>Difference</i>	1.04	1.34	1.97	1.97	1.33	1.21	0.86	0.64
OWCRS Actual Allocation Index	3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23
<i>Difference</i>	0.82	1.22	1.16	1.16	-0.09	-0.17	-0.36	-0.27
All Public Plans – Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
<i>Rank</i>	56	66	78	78	57	63	67	71

Commentary

The Wildlife Plan provided 10-year absolute returns that ranked 7th relative to other Oklahoma Pension Plans and near or below median relative to a broad peer group of public plans over all trailing periods. Strong returns were aided by a heavy allocation to public equity over the long term, and over the past year, active equity managers' performance has improved relative to their respective indices. The fixed income portfolio has generated strong relative returns over the last year, outperforming its benchmark by 114 basis points.

Overall, the OWCRS Plan performed slightly below median relative to a broad peer group of public plans over all periods greater than 3 years. On a risk-adjusted basis, the Plan also performed in line with peers over the past 10 years (with a Sharpe ratio ranking in the 50th percentile) and ranking 4th relative to the group of seven Oklahoma Plans.

Overview of Fundamental Investment Performance Drivers

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

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

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

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

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

February 22, 2022

Public Pension Plan Challenges

Oklahoma State Pension Commission



Presented by Mark Higgins, CFA, CFP®

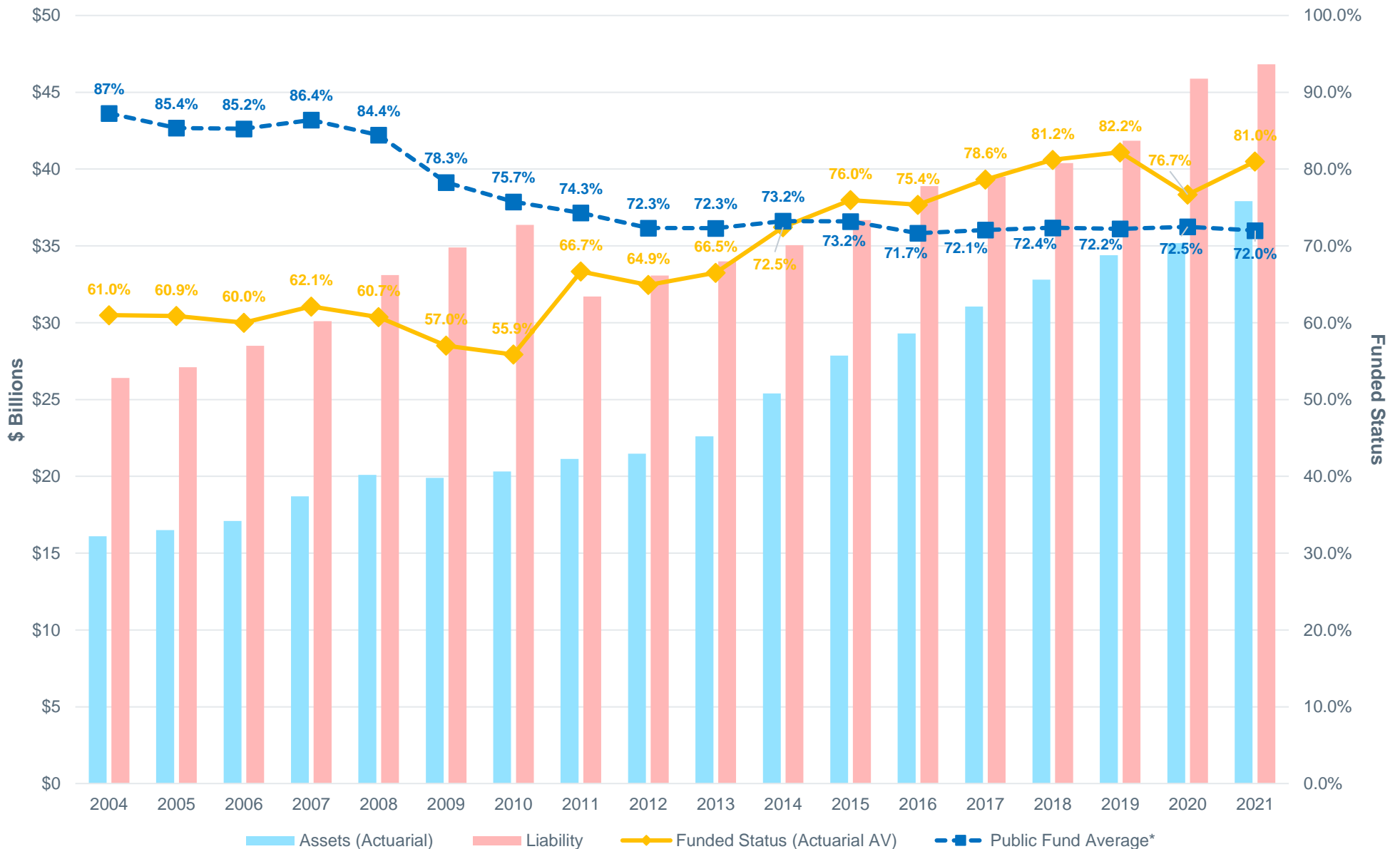


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Funded Status of Public Pensions Has Improved

Aggregate Funded Status (Actuarial Values)

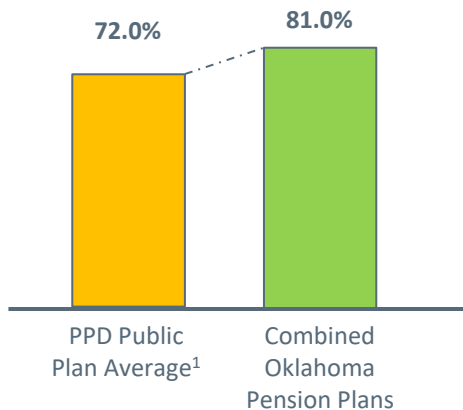


Data as of June 30, 2021.

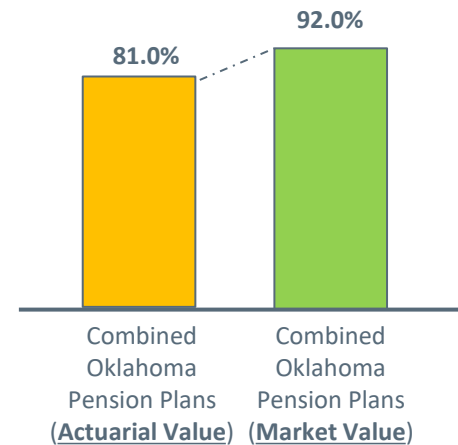
*Source: Public Plans Data (2021). 2021 data is as of March 31, 2021, as June 30, 2021 data is currently unavailable.

Oklahoma Plans Have Outperformed Peers

Funded Status (Actuarial Value of Assets)
vs. Public Plan Median



Funded Status
(Market Value vs. Actuarial Value)



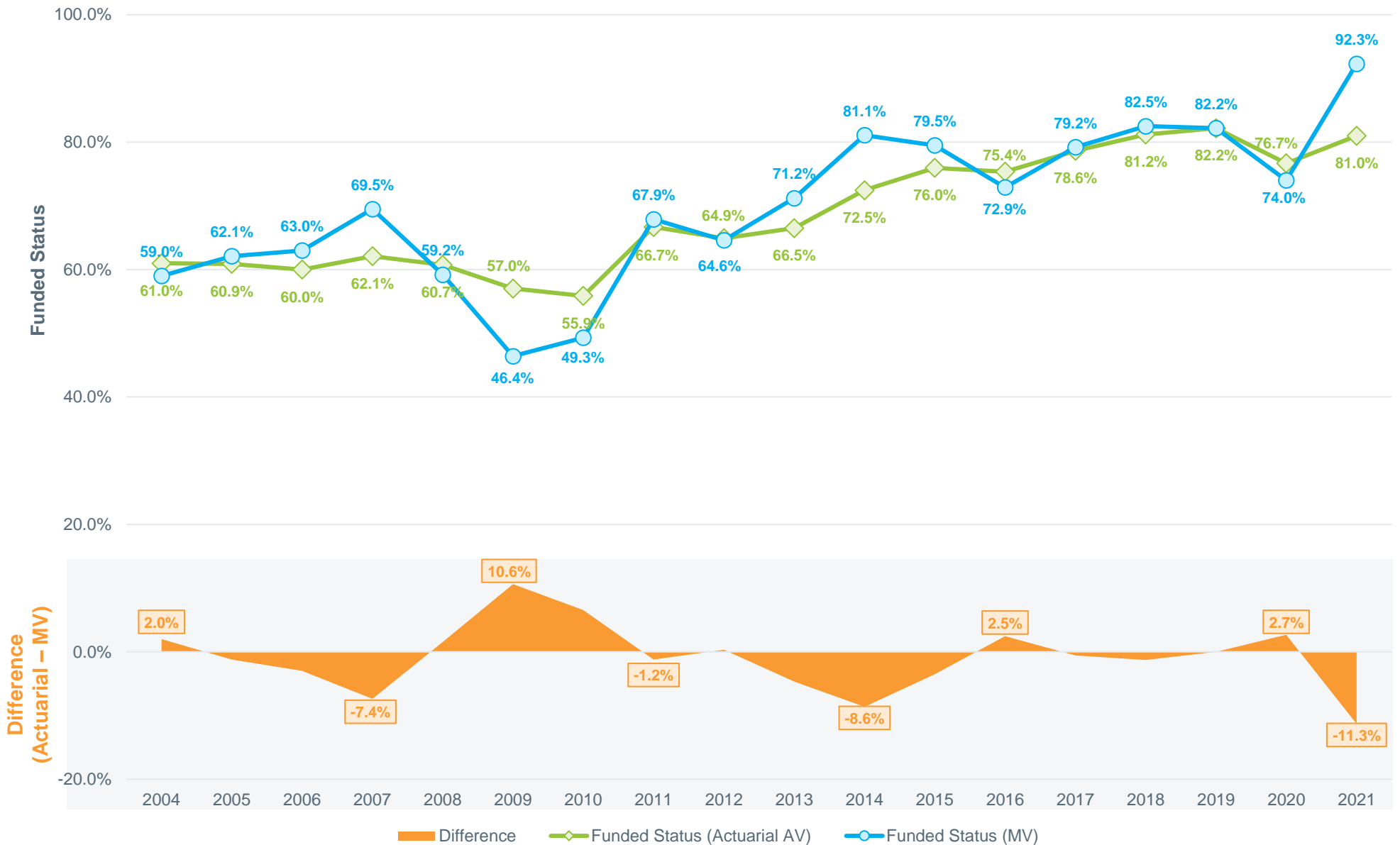
Highlights

- 1. Funded Status is Greater than the Public Plan Average** – After accounting for the increase in the actuarial value of assets, the combined funded status of the Oklahoma Pension Plans is roughly 9.0% higher than the average funded status reported for a broad sample of public plans. The aggregate funded status of the Oklahoma Pension Plans was 81.0% versus 72.0% for the public fund average.¹
- 2. Positive Impact of Excess Contributions** – Over the past 10 years, pension plan contributions exceeded the actuarially required contributions. This benefitted the funded status in two ways. First, the excess portion of the contribution directly reduced the unfunded liability. Second, the strong investment returns over the past 10 years compounded the impact of these excess contributions.

¹ The public fund average for 2021 is as of March 31, 2021, as June 30, 2021 data is not yet available.

OKSPC Funded Status

Aggregate Funded Status (Actuarial Assets vs Market Values)

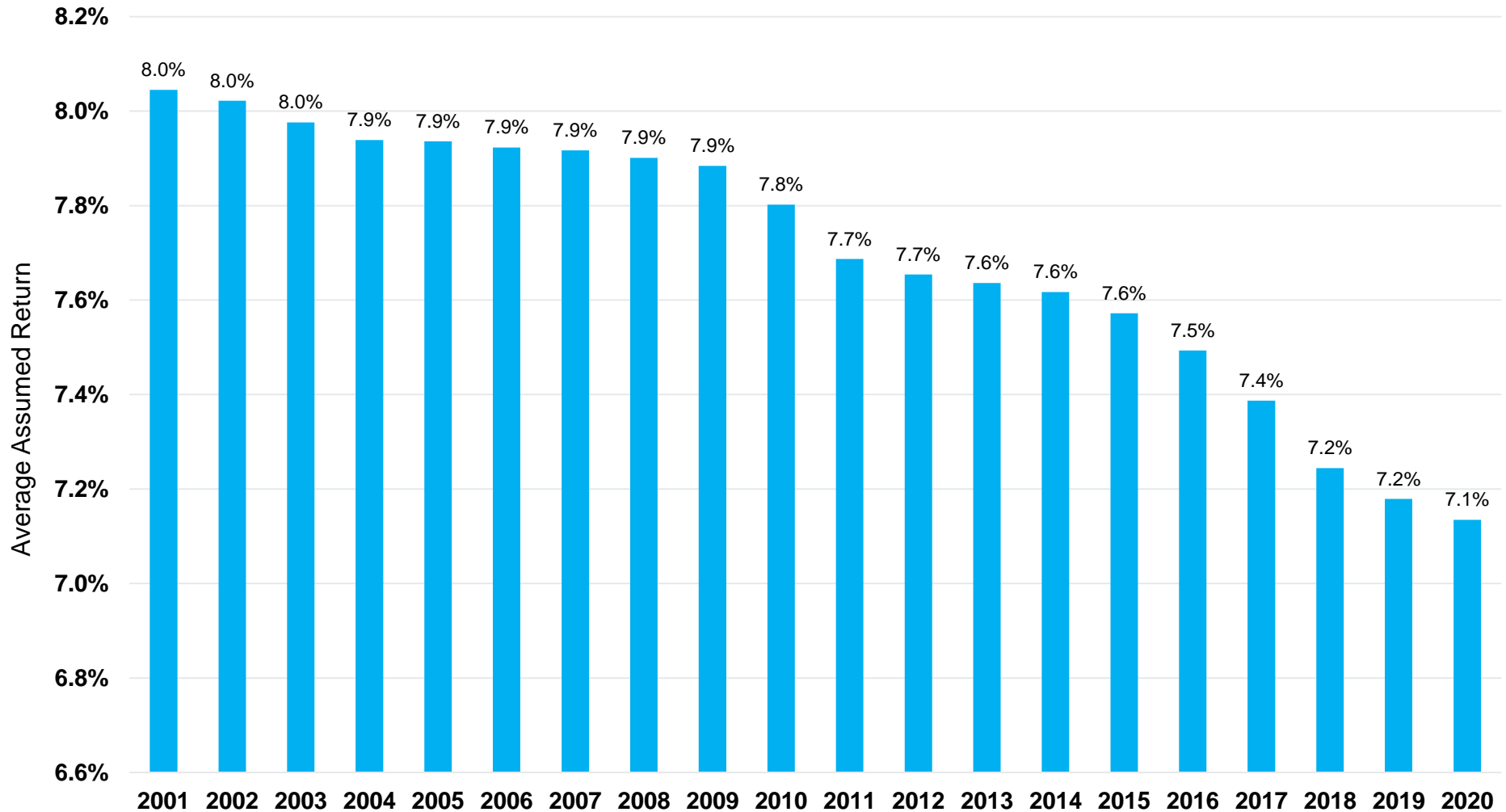


Public Pension Plan Challenges



Future Return Expectations Have Declined

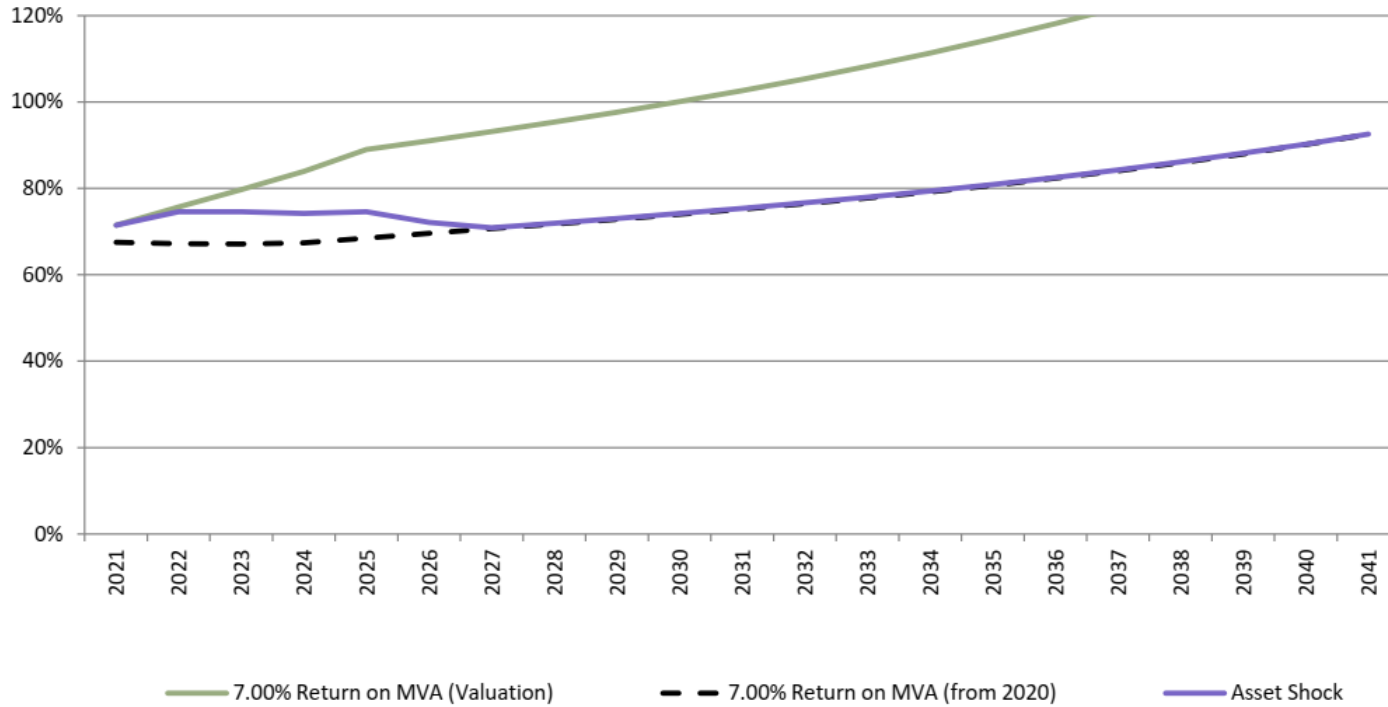
Average Public Pension Plan Expected Return by Fiscal Year
(June 30, 2001 – June 30, 2020)



Source: Public Plans Data. (2021).

Potential Impact of Return Shocks: Teacher's Retirement System

Impact of Investment Return Shock on Projected Funded Status
(June 30, 2021 – June 30, 2041)

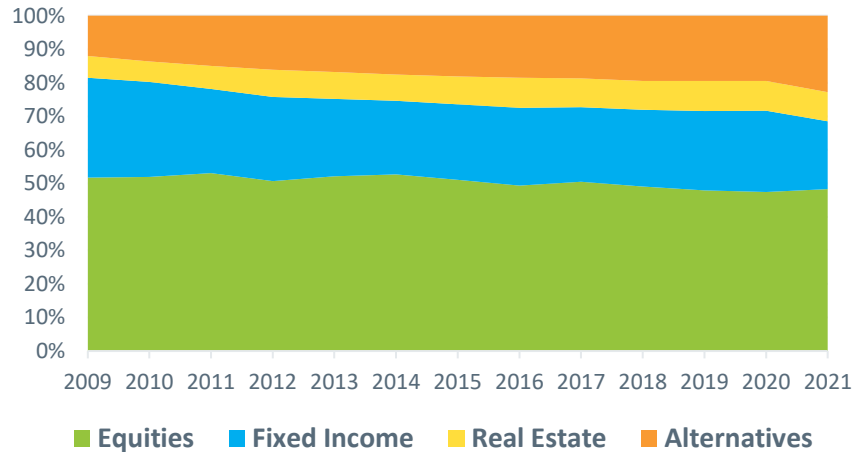


Assumptions

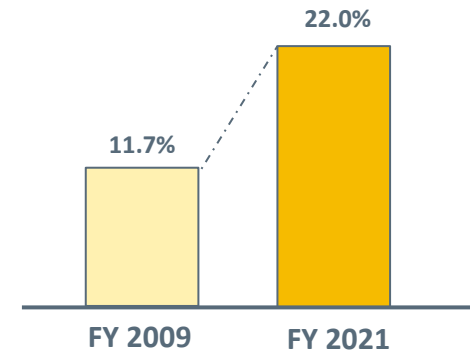
Time Period	Return Assumption
FY 2022	0%
FY 2023	-10%
FY 2024 - 2041	7%

Lower Expected Returns and Inflationary Pressures are Pressuring Plans to Seek Return in Less Familiar Terrain

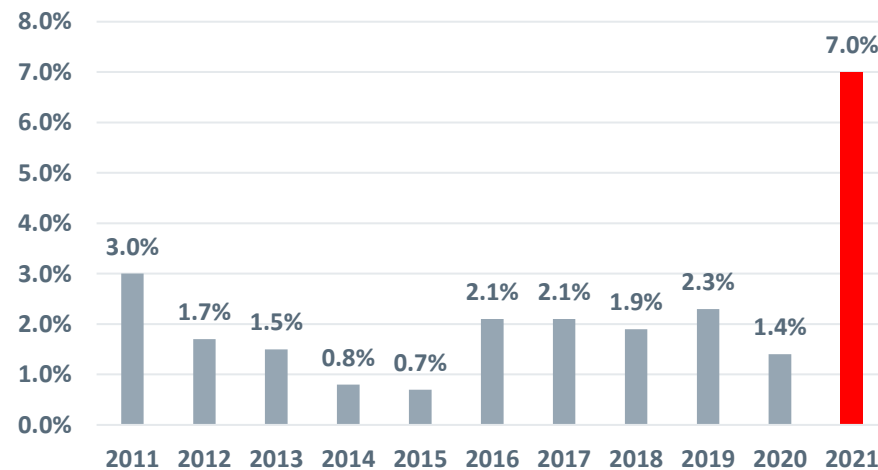
Average Public Plan Allocation by Fiscal Year
(2009 to 2021)



Average Allocation to
Alternative Asset Classes



12-Month Trailing Inflation (CPI-U)
(January 1, 2011 – December 31, 2021)



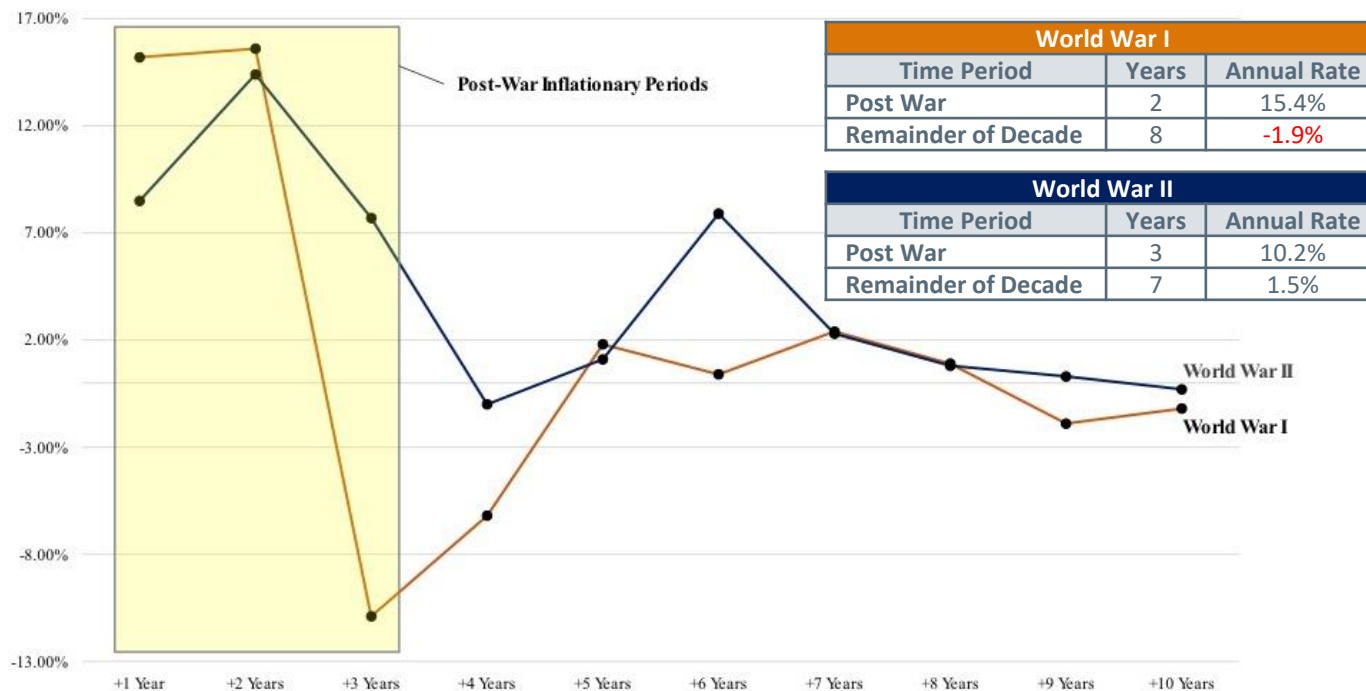
Sources: Public Plans Data. (2021). Department of Labor Statistics (2021).

...But History and Current Messaging from the Federal Reserve Still Favors the Case for Temporary Inflation.

“It is timely for us to normalize. Unemployment is low by historic standards, and the labor market is quite tight. Inflation is very high...I think it’s timely to get started and steadily move back toward pre-pandemic levels.”

- James Bullard, President of the Federal Reserve Bank of St. Louis

Annual Rate of Inflation in the United States for the 10 Years Following World War I and World War II



Sources: Robb, Greg. “Fed’s Bullard Says His Call for Front-Loaded Rate Hikes is not a ‘Threat’ to Economy, Stock Market.” MarketWatch. (February 14, 2022). Federal Reserve Bank of Minneapolis (August 2021); Higgins, M., Investors Can Temper Their Inflation Fears: Post-COVID Inflation is Unlikely to Resemble the Great Inflation of 1968 to 1982 (August 15, 2021). Available at SSRN: <https://ssrn.com/abstract=3907668>

Case Study: A Cautionary Tale from America's First Funded Pension Plan

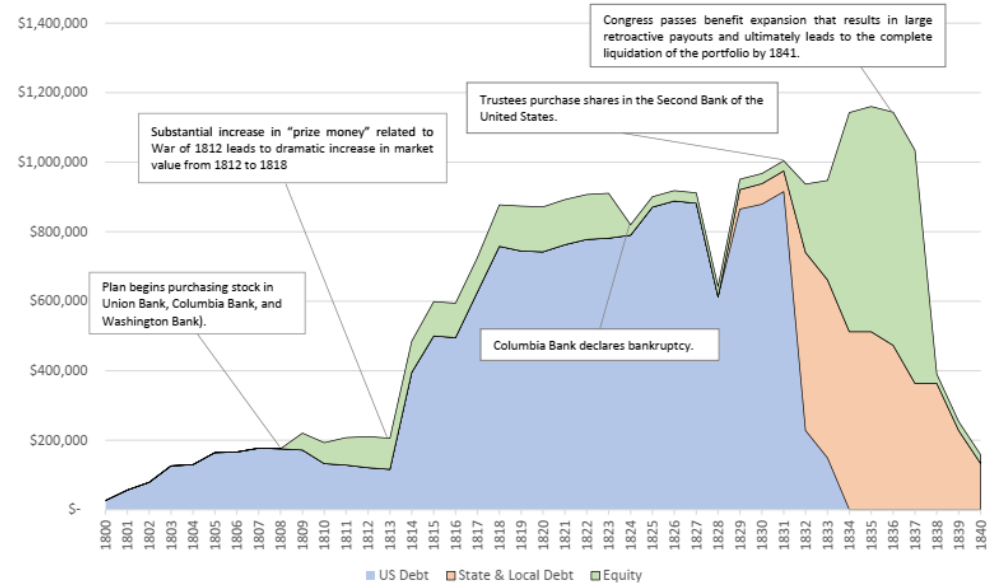


Origins of the Nation's First Funded Pension Plan

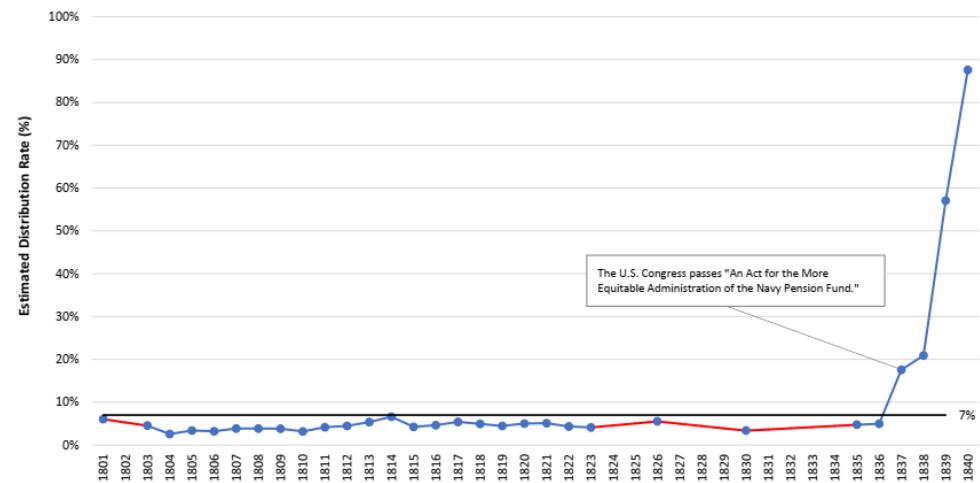
Brief History of the U.S. Navy Pension Plan

- ❑ **Objective:** The plan provided disability income for Navy seamen suffering injuries in the line of duty.
- ❑ **Funding Source:** Initially funded in 1800 with excess prize money seized from enemy ships.
- ❑ **Allowable Investments:** Initially permitted to invest only in U.S. government securities, but later expanded to bank stocks to generate higher returns.
- ❑ **Liability Policy:** Beginning in 1813, the U.S. Congress began authorizing a series of benefit expansions, which steadily increased demand for annual distributions.
- ❑ **Sinking of the Plan** – During the Panic of 1837 the U.S. Navy Pension Plan suffered substantial losses in the investment portfolio due to a wave of bank failures, while a substantial benefit expansion placed an unsustainable rise in distribution requirements.
- ❑ **Conversion to Pay-as-You-Go** – The combination of higher benefit payments and large portfolio losses forced the plan to liquidate its portfolio by 1841 and convert to a pay-as-you-go model.

U.S. Navy Pension Plan Investment Portfolio



U.S. Navy Pension Estimated Distribution Rate

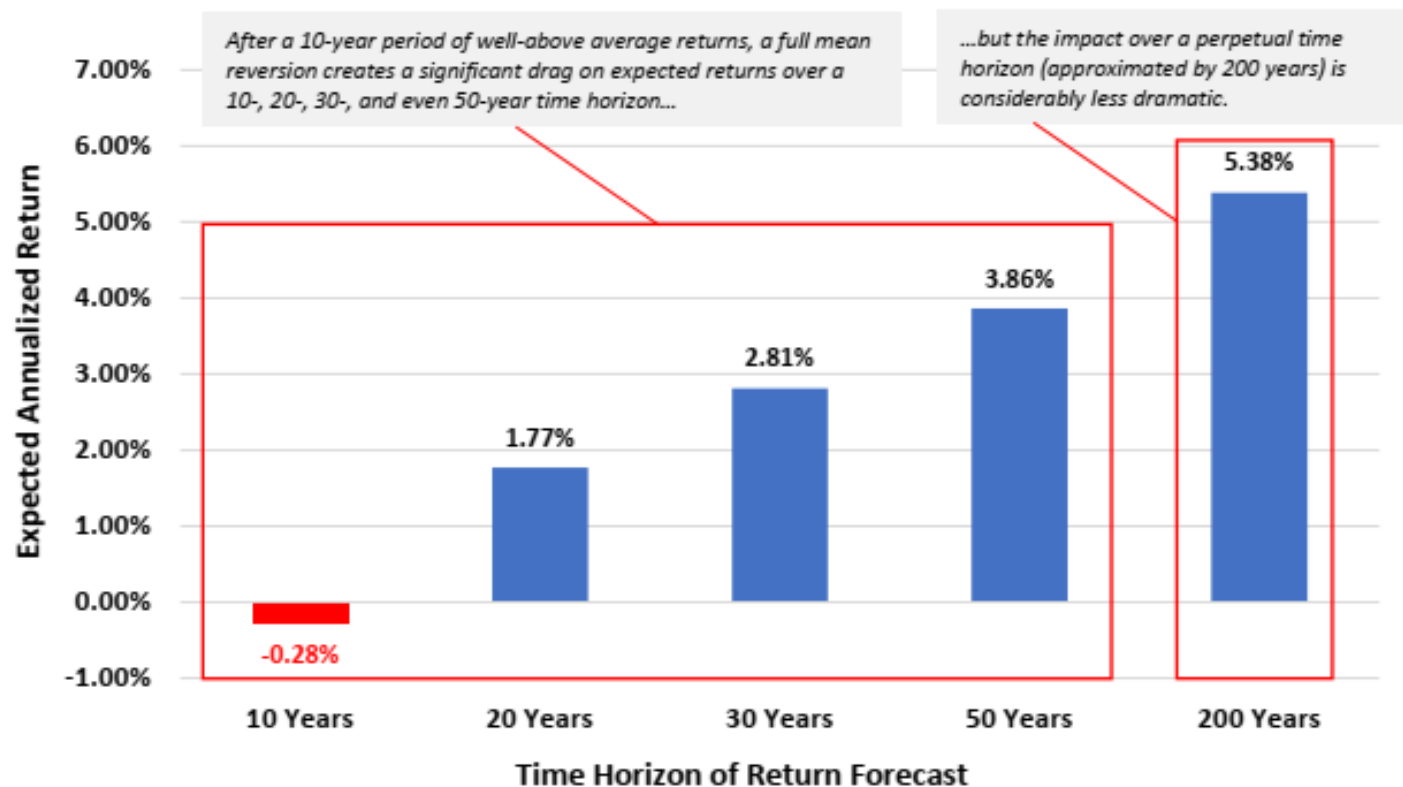


Sources: Clark, R. L. et. al. (2003). *A History of Public Sector Pensions in the United States*. Philadelphia: University of Pennsylvania Press; Higgins, M., *A Pirate Looks at Forty-One: Lessons from the Rise and Fall of America's First Funded Pension Plan* (December 15, 2021).

Available at SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3986573

Consideration #1: Remember the Definition of Long Term

Expected Asset Class Return Following 10-Year Period of Elevated Returns (Calculated by Time Horizon of Mean Reversion)



Methodology

The figure above shows the impact of mean reversion of returns in a hypothetical scenario. The scenario assumes that an asset class will generate a 6% real return in perpetuity. However, immediately following the point in time in which the estimation of a 6% real return was made, the asset class experiences an elevated real return of 13% for 10 years. In order to generate a real return over the entire time horizon (including the initial 10-year period), the asset class must produce a return lower than 6% during the remaining years.

Consideration #2: Exercise Discipline in Unfamiliar Markets

“Periods of speculative frenzy always draw both scoundrels and suckers to Wall Street like a three-alarm fire attracts curious onlookers and pickpockets.”

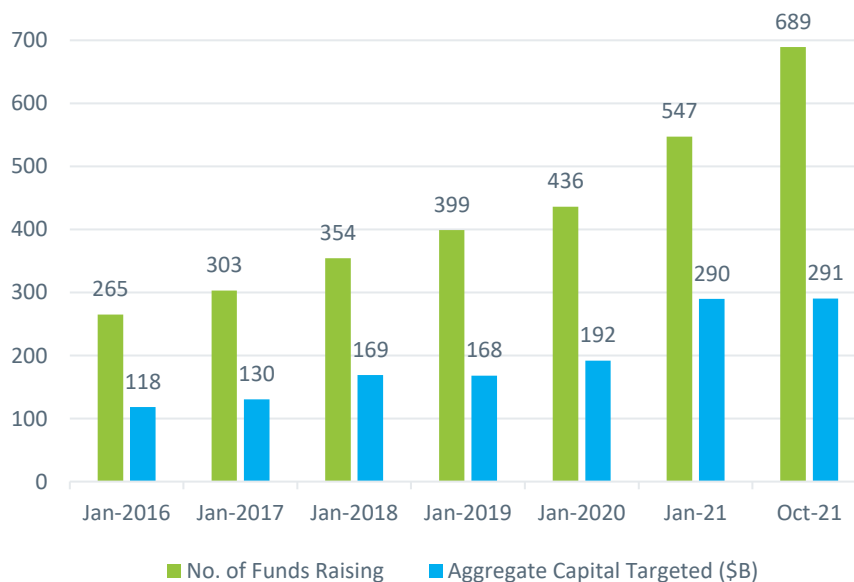
- Robert Sobel,
Financial Historian

“As a general rule of thumb, the more complexity that exists in a Wall Street creation, the faster and further investors should run.”

- David Swensen,
Late CIO of the Yale University Endowment

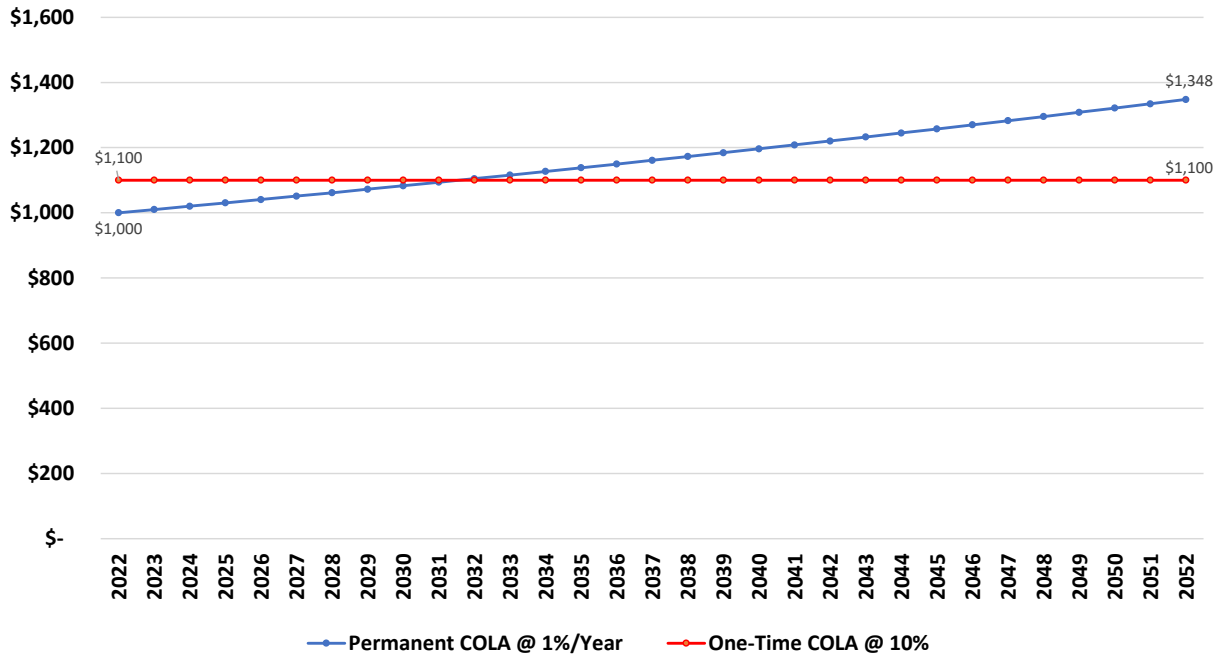
Example: Acceleration of Fund Raising in Private Credit...

Private Debt Capital Raising Activity
(January 1, 2016 – October 31, 2021)

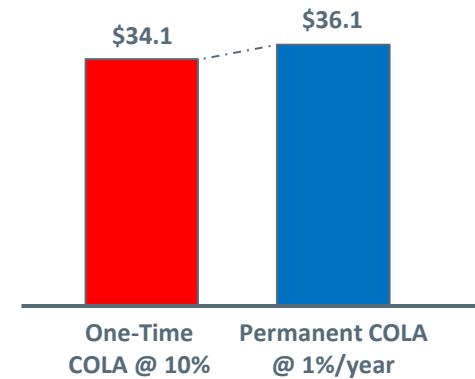


Consideration #3: Be Mindful of the Long-Term Consequences of Benefit Expansions

Hypothetical Comparison of One-Time vs. Permanent COLA on \$1 Billion Liability



Total Nominal Distribution Payments over 30 Years (Billions)



Closing Thoughts

“When things are so good they can’t get better – yet everyone believes they will get better – tops of markets are being made.”

- Ray Dalio
Principles for Navigating Big Debt Crises

- 1. Oklahoma Pension Plan Improvements** – A combination of strong investment performance and prudent liability management has substantially improved the financial health of the Oklahoma State Pension Plans.
- 2. Future Challenges Call for Caution** – The exceptional returns of the past 10 years are unlikely to be repeated. Simultaneously, there is pressure on retiree cost of living due to inflationary pressures. Addressing both with a cautious approach will help ensure continued improvement in the financial health of the Oklahoma System.



Quarterly Investment Performance Analysis

Oklahoma State Pension Commission

Period Ended: December 31, 2021



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- Oklahoma Teachers' Retirement System
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- Oklahoma Firefighters Pension and Retirement System
- Oklahoma Police Pension and Retirement System
- Oklahoma Law Enforcement Retirement System
- Uniform Retirement System for Justices and Judges
- Oklahoma Wildlife Conservation Retirement System
- Addendum & Glossary

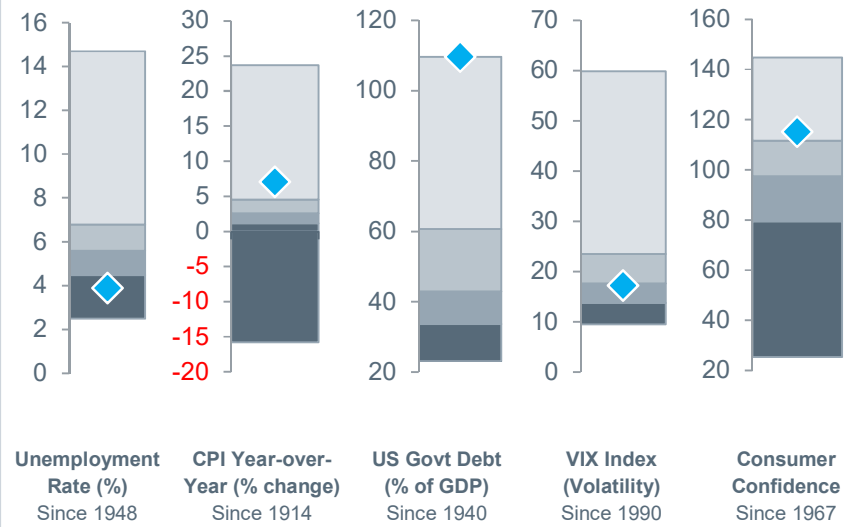
Capital Markets Metrics



Fourth Quarter Economic Environment

Inflation remained a top concern among investors as the year-over-year change in the CPI reached 7.0% according to the December reading, the highest level in 30 years. Nevertheless, consumer demand and the ability of companies to pass along increasing costs have buoyed corporate profits. Employment data has indicated mixed progress and has been complicated by releases missing expectations, only to be revised higher in subsequent reports. However, strong wage growth and a declining unemployment rate reflect incremental improvement in labor conditions. Headlines were dominated by the emergence of the omicron variant which early studies suggest spreads more quickly, but causes fewer hospitalizations. Continued vaccination efforts and the development of new treatments countered concerns regarding the increased spread of the virus. GDP growth estimates for 2022 were impacted with forecasts trending lower, but most continue to reflect healthy growth expected next year. For instance, the IMF released a 2022 GDP growth forecast of 4.9% in October representing a decline of 0.1% from its July estimate. In response to the current environment, the Federal Reserve has started to reduce measures taken during the pandemic. The tapering of bond purchases began in November and accelerated in December, a trend expected to continue in 2022. In response to these conditions, Treasury yields have trended upwards and credit spreads widened in the quarter.

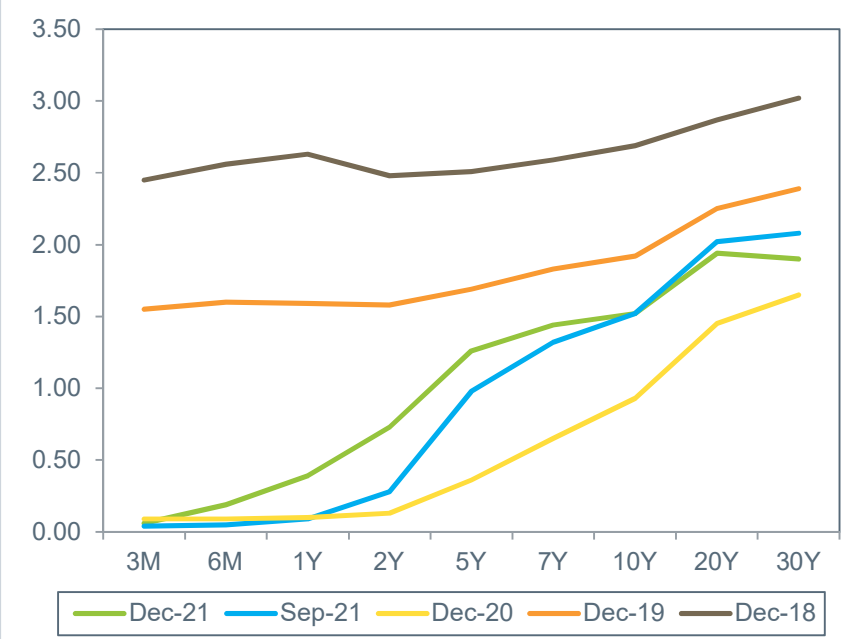
Key Economic Indicators



Economic Indicators	Dec-21	Sep-21	Dec-20	Dec-18	20 Yr
Federal Funds Rate (%)	0.07 ▲	0.06	0.09	2.40	1.30
Breakeven Infl. - 5 Yr (%)	2.91 ▲	2.53	1.97	1.49	1.86
Breakeven Infl. - 10 Yr (%)	2.59 ▲	2.38	1.99	1.71	2.04
CPI YoY (Headline) (%)	7.0 ▲	5.4	1.4	1.9	2.2
Unemployment Rate (%)	3.9 ▼	4.7	6.7	3.9	6.1
Real GDP YoY (%)	5.5 ▲	4.9	-2.3	2.3	1.9
PMI - Manufacturing	58.8 ▼	60.5	60.5	54.9	53.5
USD Total Wtd Idx	115.32 ▲	114.67	111.33	115.57	103.10
WTI Crude Oil per Barrel (\$)	75.2 ▲	75.0	48.5	45.4	64.4
Gold Spot per Oz (\$)	1,829 ▲	1,757	1,898	1,282	1,086

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	11.03	28.71	28.71	18.47	16.55
Russell 2000	2.14	14.82	14.82	12.02	13.23
MSCI EAFE (Net)	2.69	11.26	11.26	9.55	8.03
MSCI EAFE SC (Net)	0.07	10.10	10.10	11.04	10.80
MSCI Emg Mkts (Net)	-1.31	-2.54	-2.54	9.87	5.49
Bloomberg US Agg Bond	0.01	-1.55	-1.55	3.57	2.90
ICE BofAML 3 Mo US T-Bill	0.01	0.05	0.05	1.14	0.63
NCREIF ODCE (Gross)	7.97	22.17	22.17	8.71	10.45
FTSE NAREIT Eq REIT (TR)	16.31	43.24	43.24	10.75	11.38
HFRI FOF Comp	0.29	6.03	6.03	5.68	4.54
Bloomberg Cmdty (TR)	-1.56	27.11	27.11	3.66	-2.85

Treasury Yield Curve (%)



Fourth Quarter Review

Broad Market

US equity markets finished the year with a strong Q4, providing low double digit returns despite heightened volatility due to the spread of the Omicron variant, inflation fears, and global growth concerns. Volatility expectations, as measured by the CBOE Volatility Index, jumped above 30 in early December. However, investor uncertainty subsided shortly thereafter. The S&P 500 return of 28.7% in 2021 was its third highest calendar year return since 2000.

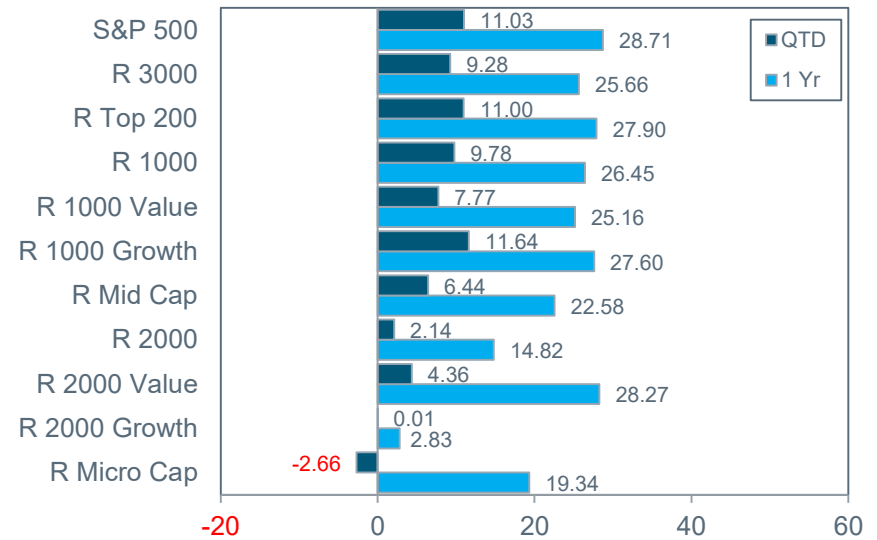
Market Cap

Large-cap stocks significantly outperformed their smaller-cap counterparts. The Russell 2000 Index returned 2.1% compared to 11.0% for the S&P 500.

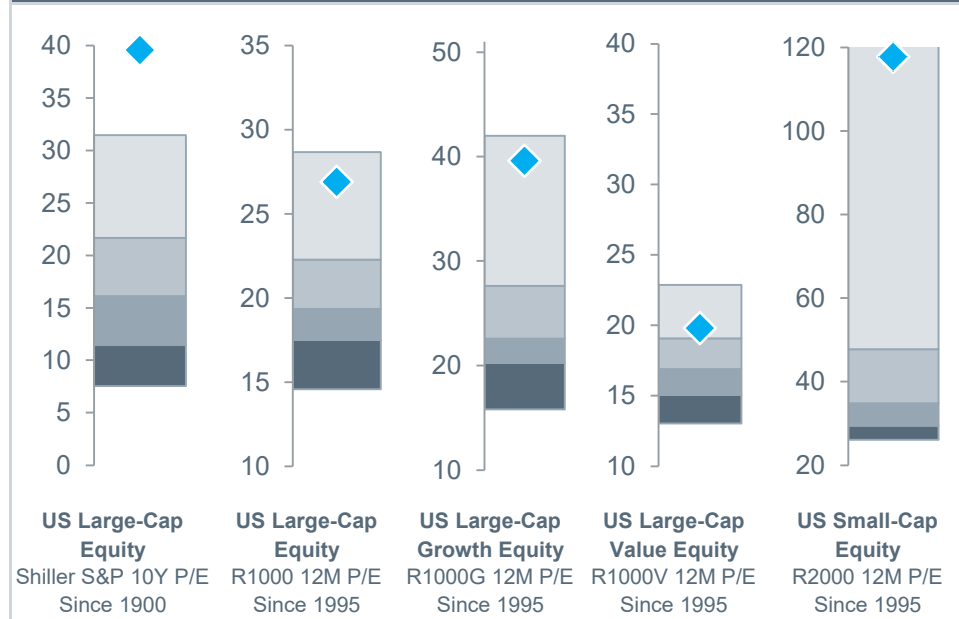
Style and Sector

At the beginning of Q4, growth stocks outperformed value stocks across all market capitalizations before a rotation into value stocks occurred later in the period. Active management performed well in Q4, except for large-cap growth managers, who struggled to keep up with their respective benchmarks.

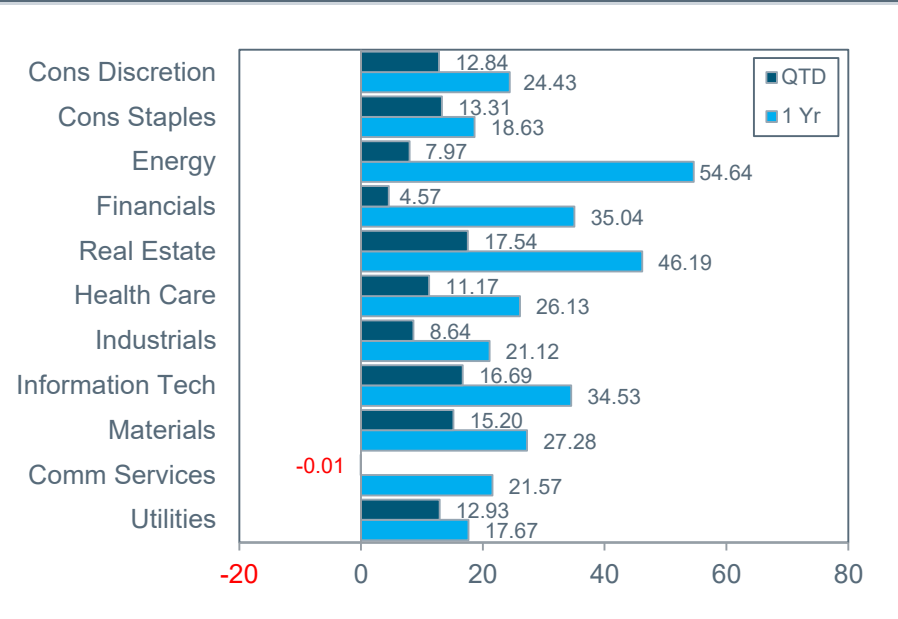
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



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



Fourth Quarter Review

Developed Markets

While international markets lagged behind the US equity market in Q4, developed international equities continued to participate in the recovery despite the COVID-19 surge led by the new Omicron variant. The MSCI EAFE Index saw a positive return of 2.7% for the quarter as growth stocks continued to outperform value from the prior quarter resulting in both growth and value performing in line for the calendar year. Large-cap stocks outperformed small-cap stocks.

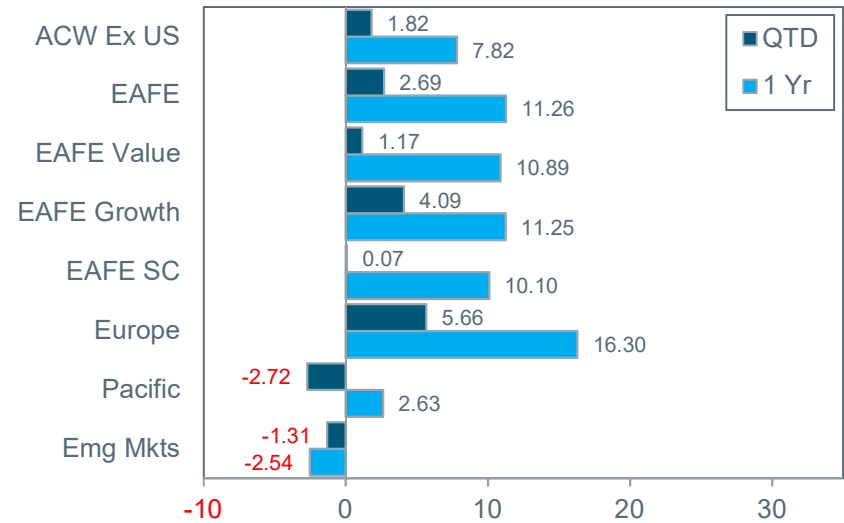
Emerging Markets

Emerging markets experienced moderately negative returns in Q4 with the MSCI EM Index returning -1.3% for the period. Value stocks continued their outperformance over growth while small-cap stocks outperformed large.

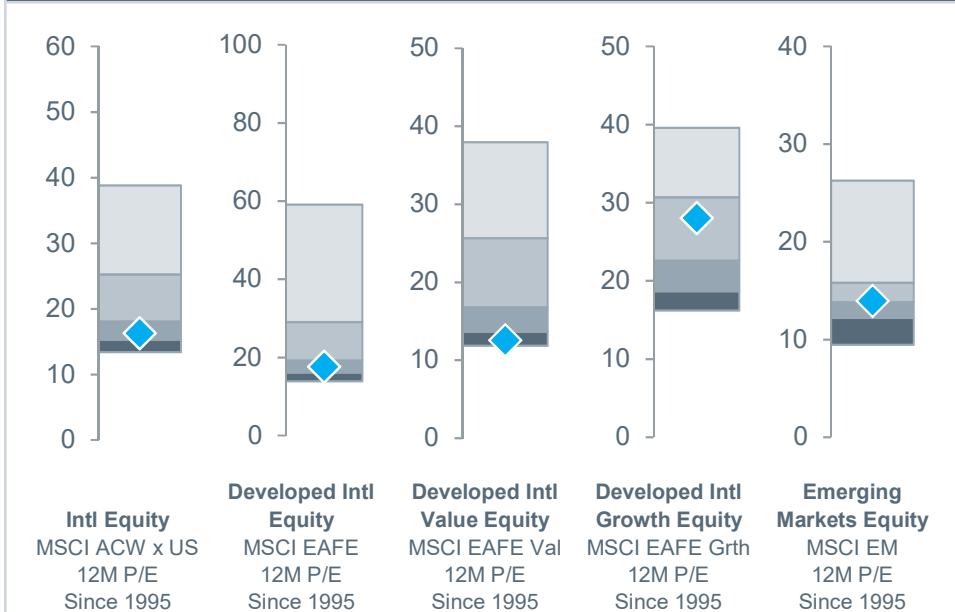
Market Cap & Style

In international markets, growth stocks outperformed value, while large-cap stocks outperformed small-cap. In emerging markets, value stocks outperformed growth, while small-cap stocks outperformed large-cap.

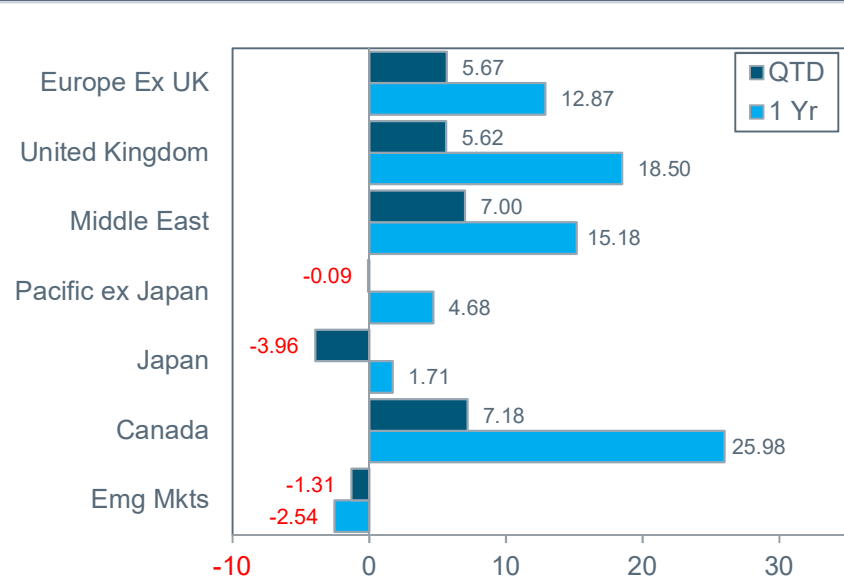
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.



Fourth Quarter Review

Broad Market

The Bloomberg US Aggregate Index ended the quarter flat, capping off the third most negative calendar year on record for the index with an overall annual return of -1.5%. An abrupt rise in interest rates at the start of the year due to inflation concerns and an uncertain outlook, followed by interest rate volatility and an ongoing uncertain outlook drove returns and yields.

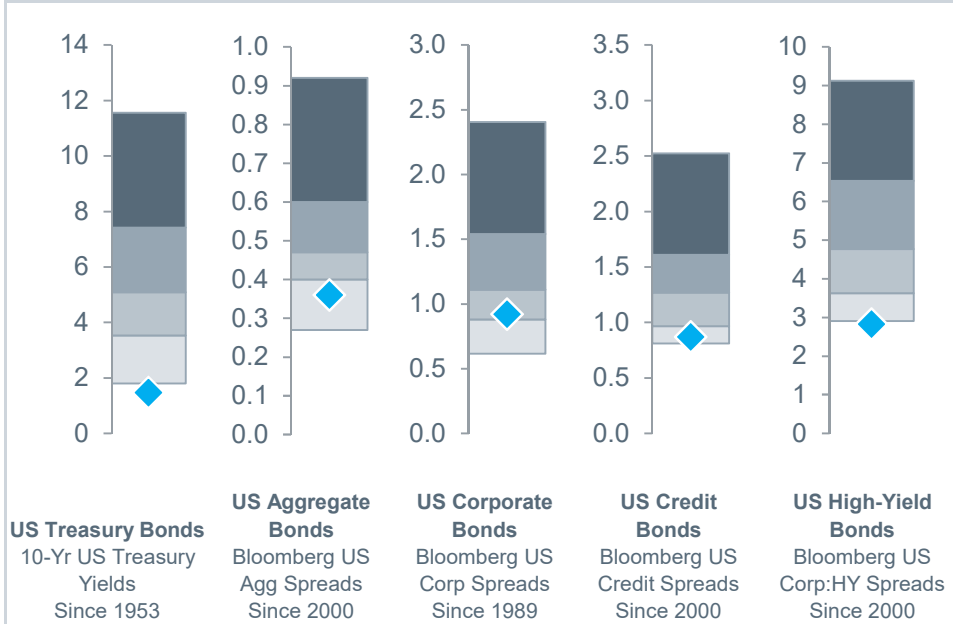
Credit Market

US investment grade credit detracted -1.1% YTD, while US High Yield returned 5.3%, as measured by the Bloomberg US Credit Index and Bloomberg US High Yield Index, respectively. The divergence in returns demonstrates low quality outperformance as investors sought yield in a low interest rate environment.

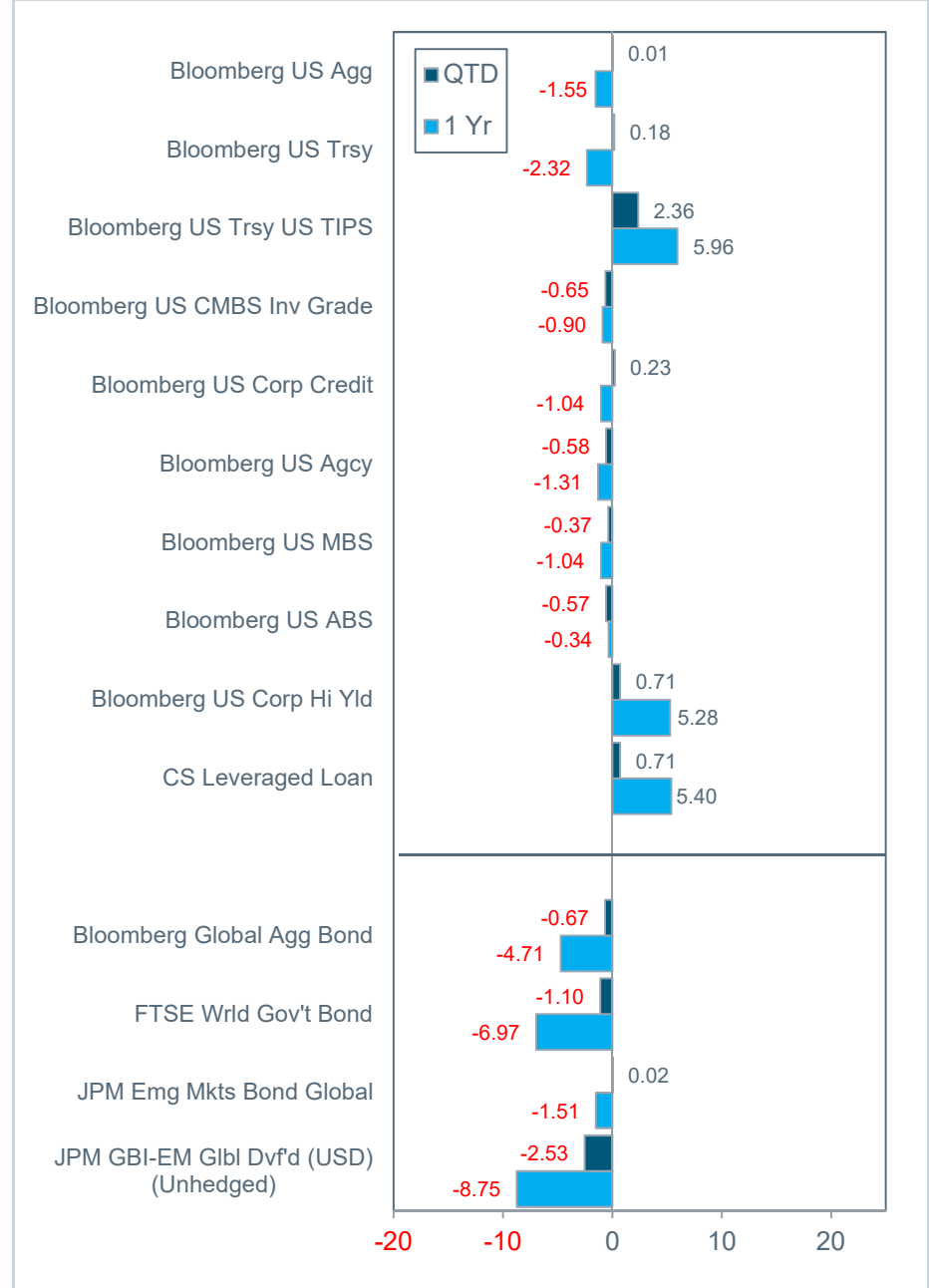
Emerging Market Debt

Despite a positive Q4, emerging market debt largely contracted over 2021, as each of the primary emerging market debt indices declined during the full year period.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Fourth Quarter Review - Absolute Return

General Market - Hedge Funds

Hedge fund results were mixed in Q4. Many high-profile macro and relative value trading firms struggled as the yield curve flattened in October and November, while equity long/short (“ELS”) funds faced headwinds from underperforming crowded trades on the long side of their portfolios amid significant factor rotations. The industry still returned 0.4% during Q4 according to the HFRI Fund Weighted Index, bringing YTD returns to 10.2%, the industry’s third straight year of double-digit returns.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation strategies that RVK follows closely generated disparate performance in Q4. The top performing long-biased GTAA strategies either exclusively held US equity exposure or tended to hold larger proportion of US equities. In contrast, those who underperformed peers tended to hold larger foreign allocations, particularly within Japanese equity and emerging markets equity. Multi-asset managers who target lower correlations, volatility, and market sensitivity also produced disparate absolute returns, though generally with a narrower relative range compared to long-biased peers.

Fourth Quarter Review - Real Assets

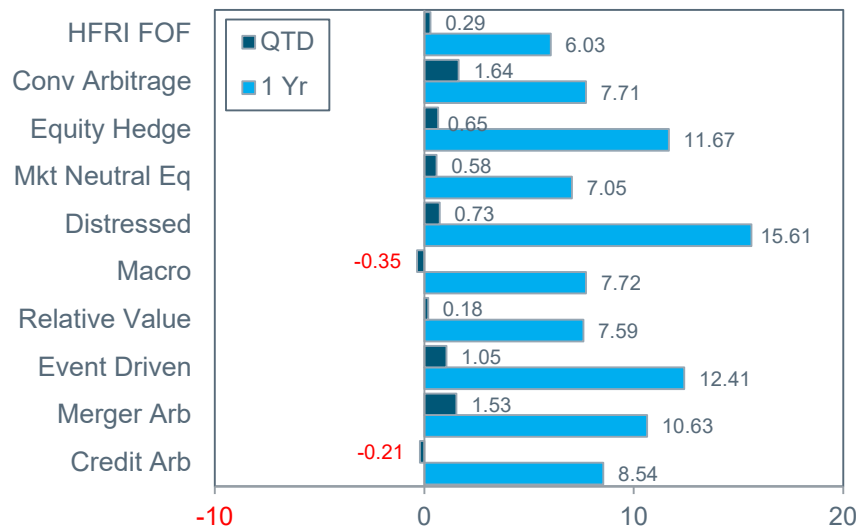
General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategies that RVK follows closely responded to increased inflationary measures with strong positive absolute performance. Managers with larger global listed infrastructure, natural resource equities and REIT exposures posted the strongest positive absolute returns. Whereas on a relative basis, those with larger commodities and TIPS allocations underperformed a strong peer group for the quarter. Inflation, as measured by the year-over-year change in Headline CPI, was reported as 7.0% for December.

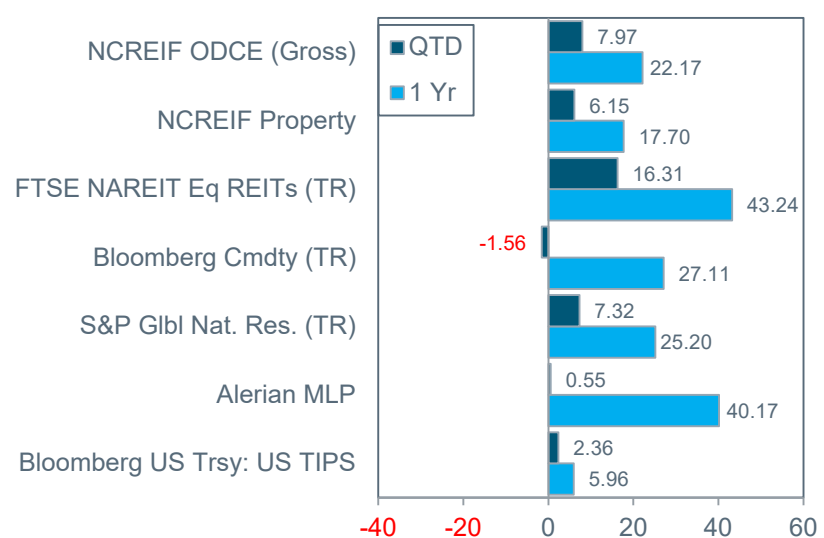
General Market - Real Estate

Core private real estate generated a positive 8.0% return in Q4 (on a preliminary and gross of fee basis), as reported by the NFI-ODCE Index, with the total return comprising of 1.0% income and 7.0% price appreciation. While the income return continues to trend in line with historical levels, price appreciation remains elevated. Investors of publicly traded real estate outperformed their private market counterparts by a meaningful margin.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of December 31, 2021

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	CYTD
Best	39.38	8.44	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
	16.23	5.24	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
	15.97	2.06	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
	11.63	-2.35	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
	11.17	-10.01	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
	10.25	-21.37	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
	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.44	10.88	10.10
	6.60	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.03
	5.49	-35.65	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
	5.00	-37.00	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
	1.87	-37.74	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
	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.30	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55
	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-3.12	-2.52
Worst	-15.70	-53.33	-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
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

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



Oklahoma State Pension Commission



All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Oklahoma State Pension Commission	40,736,607,776	100.00												
OTRS (Teachers) Total Fund	22,811,348,353	56.00	4.88	5.56	18.20	18.20	16.93	11.89	9.46	11.08	13.22	19.48	-5.29	15.83
OTRS Policy Index			5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	15.24	21.72	-4.75	15.16
Difference			-0.28	0.56	2.60	2.60	-0.55	-0.32	-0.33	0.28	-2.02	-2.24	-0.54	0.67
OTRS Actual Allocation Index			5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	16.98	18.94	-4.70	14.35
Difference			-0.36	0.69	1.99	1.99	-0.44	-0.11	-0.28	0.13	-3.76	0.54	-0.59	1.48
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			3.17	2.12	11.20	11.20	9.93	4.89	2.46	4.08	6.22	12.48	-12.29	8.83
OPERS (Public Employees) Total Fund	12,757,052,704	31.32	4.24	3.35	12.29	12.29	16.17	11.38	9.00	9.92	15.18	21.23	-6.57	17.01
OPERS Policy Index			4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	15.19	21.46	-6.09	16.86
Difference			0.04	0.08	0.75	0.75	0.18	0.02	-0.06	0.12	-0.01	-0.23	-0.48	0.15
OPERS Actual Allocation Index			4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	18.93	20.87	-6.49	16.51
Difference			-0.05	0.04	0.15	0.15	-1.08	-0.54	-0.44	-0.19	-3.75	0.36	-0.08	0.50
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			2.65	0.15	5.79	5.79	9.67	4.88	2.50	3.42	8.68	14.73	-13.07	10.51
OPPRS (Police) Total Fund	3,376,101,640	8.29	4.23	6.19	17.28	17.28	14.87	10.70	8.68	9.27	12.17	15.22	-2.85	12.91
OPPRS Policy Index			5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	12.66	19.13	-5.34	15.45
Difference			-1.34	0.19	2.09	2.09	-0.76	-0.36	0.15	-0.03	-0.49	-3.91	2.49	-2.54
OPPRS Actual Allocation Index			5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	14.67	15.02	-3.70	13.78
Difference			-1.23	0.55	2.92	2.92	0.19	0.13	0.30	0.12	-2.50	0.20	0.85	-0.87
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			2.41	2.51	9.78	9.78	7.37	3.20	1.18	1.77	4.67	7.72	-10.35	5.41
OLERS (Law Enforcement) Total Fund	1,206,733,368	2.96	3.91	4.45	14.89	14.89	14.71	10.49	8.37	9.33	11.83	17.49	-4.75	14.53
OLERS Policy Index			5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	12.77	19.12	-3.67	13.36
Difference			-1.68	-1.34	-0.68	-0.68	-1.08	-0.65	-0.90	-0.74	-0.94	-1.63	-1.08	1.17
OLERS Actual Allocation Index			5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	14.73	17.33	-3.47	14.63
Difference			-1.58	-0.59	-0.08	-0.08	-0.96	-0.87	-0.90	-0.51	-2.90	0.16	-1.28	-0.10
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			2.09	0.77	7.39	7.39	7.21	2.99	0.87	1.83	4.33	9.99	-12.25	7.03

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Net of fees returns for the Firefighters plan are not available.



All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
URSJJ (Judges) Total Fund	441,051,921	1.08	4.24	3.27	12.08	12.08	16.10	11.34	9.00	9.85	15.06	21.36	-6.43	16.85
URSJJ Policy Index			4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	15.19	21.51	-6.09	16.86
Difference			0.04	0.00	0.54	0.54	0.09	-0.03	-0.07	0.04	-0.13	-0.15	-0.34	-0.01
URSJJ Actual Allocation Index			4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	18.70	21.01	-6.52	16.63
Difference			-0.03	-0.01	-0.02	-0.02	-1.11	-0.57	-0.37	-0.15	-3.64	0.35	0.09	0.22
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			2.65	0.07	5.58	5.58	9.60	4.84	2.50	3.35	8.56	14.86	-12.93	10.35
OWCRS (Wildlife) Total Fund	144,319,790	0.35	4.06	3.71	11.58	11.58	14.55	10.49	8.29	8.96	13.00	19.21	-3.85	13.93
OWCRS Policy Index			3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	12.67	17.53	-4.95	12.96
Difference			1.04	1.34	1.97	1.97	1.33	1.21	0.86	0.64	0.33	1.68	1.10	0.97
OWCRS Actual Allocation Index			3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	13.21	20.53	-3.71	14.38
Difference			0.82	1.22	1.16	1.16	-0.09	-0.17	-0.36	-0.27	-0.21	-1.32	-0.14	-0.45
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			2.35	0.27	4.58	4.58	7.55	3.49	1.29	1.96	6.00	12.21	-10.85	6.93

Performance shown is net of fees. Performance is annualized for periods greater than one year. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Net of fees returns for the Firefighters plan are not available.



All Plans Summary

Asset Allocation & Performance - Gross of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Oklahoma State Pension Commission	44,526,554,954	100.00												
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09
OTRS (Teachers) Total Fund	22,811,348,353	51.23	4.92	5.66	18.42	18.42	17.20	12.19	9.81	11.48	13.45	19.83	-4.98	16.20
OTRS Policy Index			5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	15.24	21.72	-4.75	15.16
Difference			-0.24	0.66	2.82	2.82	-0.28	-0.02	0.02	0.68	-1.79	-1.89	-0.23	1.04
OTRS Actual Allocation Index			5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	16.98	18.94	-4.70	14.35
Difference			-0.32	0.79	2.21	2.21	-0.17	0.19	0.07	0.53	-3.53	0.89	-0.28	1.85
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			3.21	2.22	11.42	11.42	10.20	5.19	2.81	4.48	6.45	12.83	-11.98	9.20
Rank			27	20	8	8	12	17	17	3	39	30	72	29
OPERS (Public Employees) Total Fund	12,757,052,704	28.65	4.34	3.46	12.46	12.46	16.34	11.52	9.13	10.05	15.34	21.38	-6.48	17.13
OPERS Policy Index			4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	15.19	21.46	-6.09	16.86
Difference			0.14	0.19	0.92	0.92	0.35	0.16	0.07	0.25	0.15	-0.08	-0.39	0.27
OPERS Actual Allocation Index			4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	18.93	20.87	-6.49	16.51
Difference			0.05	0.15	0.32	0.32	-0.91	-0.40	-0.31	-0.06	-3.59	0.51	0.01	0.62
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			2.75	0.26	5.96	5.96	9.84	5.02	2.63	3.55	8.84	14.88	-12.98	10.63
Rank			49	78	70	70	28	37	44	41	20	11	93	14
OFPRS (Firefighters) Total Fund	3,789,947,179	8.51	4.07	3.89	13.87	13.87	17.46	13.40	10.86	11.61	18.44	20.15	-2.46	18.67
OFPRS Policy Index			5.53	6.33	17.52	17.52	17.67	12.78	10.53	11.44	13.85	21.76	-3.80	16.41
Difference			-1.46	-2.44	-3.65	-3.65	-0.21	0.62	0.33	0.17	4.59	-1.61	1.34	2.26
OFPRS Actual Allocation Index			5.35	5.66	15.80	15.80	17.95	12.76	10.46	11.25	17.79	20.30	-3.93	15.64
Difference			-1.28	-1.77	-1.93	-1.93	-0.49	0.64	0.40	0.36	0.65	-0.15	1.47	3.03
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			2.25	0.21	6.37	6.37	9.96	5.90	3.36	4.11	10.94	12.65	-9.96	11.17
Rank			58	66	50	50	10	2	2	3	6	26	19	5

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



All Plans Summary

Asset Allocation & Performance - Gross of Fees

	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
OPPRS (Police) Total Fund	3,376,101,640	7.58	4.34	6.39	17.71	17.71	15.29	11.13	9.11	9.70	12.54	15.68	-2.46	13.40
OPPRS Policy Index			5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	12.66	19.13	-5.34	15.45
Difference			-1.23	0.39	2.52	2.52	-0.34	0.07	0.58	0.40	-0.12	-3.45	2.88	-2.05
OPPRS Actual Allocation Index			5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	14.67	15.02	-3.70	13.78
Difference			-1.12	0.75	3.35	3.35	0.61	0.56	0.73	0.55	-2.13	0.66	1.24	-0.38
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			2.52	2.71	10.21	10.21	7.79	3.63	1.61	2.20	5.04	8.18	-9.96	5.90
Rank			49	11	11	11	48	47	44	55	51	84	19	82
OLERS (Law Enforcement) Total Fund	1,206,733,368	2.71	3.95	4.53	15.08	15.08	14.91	10.69	8.56	9.49	12.03	17.70	-4.55	14.71
OLERS Policy Index			5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	12.77	19.12	-3.67	13.36
Difference			-1.64	-1.26	-0.49	-0.49	-0.88	-0.45	-0.71	-0.58	-0.74	-1.42	-0.88	1.35
OLERS Actual Allocation Index			5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	14.73	17.33	-3.47	14.63
Difference			-1.54	-0.51	0.11	0.11	-0.76	-0.67	-0.71	-0.35	-2.70	0.37	-1.08	0.08
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			2.13	0.85	7.58	7.58	7.41	3.19	1.06	1.99	4.53	10.20	-12.05	7.21
Rank			64	47	31	31	57	66	65	60	58	60	61	59
URSJJ (Judges) Total Fund	441,051,921	0.99	4.26	3.30	12.12	12.12	16.14	11.38	9.05	9.90	15.10	21.40	-6.38	16.89
URSJJ Policy Index			4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	15.19	21.51	-6.09	16.86
Difference			0.06	0.03	0.58	0.58	0.13	0.01	-0.02	0.09	-0.09	-0.11	-0.29	0.03
URSJJ Actual Allocation Index			4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	18.70	21.01	-6.52	16.63
Difference			-0.01	0.02	0.02	0.02	-1.07	-0.53	-0.32	-0.10	-3.60	0.39	0.14	0.26
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			2.67	0.10	5.62	5.62	9.64	4.88	2.55	3.40	8.60	14.90	-12.88	10.39
Rank			52	81	76	76	31	40	47	47	22	10	92	18
OWCRS (Wildlife) Total Fund	144,319,790	0.32	4.14	3.88	11.95	11.95	14.87	10.75	8.53	9.19	13.34	19.46	-3.68	14.13
OWCRS Policy Index			3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	12.67	17.53	-4.95	12.96
Difference			1.12	1.51	2.34	2.34	1.65	1.47	1.10	0.87	0.67	1.93	1.27	1.17
OWCRS Actual Allocation Index			3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	13.21	20.53	-3.71	14.38
Difference			0.90	1.39	1.53	1.53	0.23	0.09	-0.12	-0.04	0.13	-1.07	0.03	-0.25
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			2.43	0.44	4.95	4.95	7.87	3.75	1.53	2.19	6.34	12.46	-10.68	7.13
Rank			56	66	78	78	57	63	67	71	40	35	44	70

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
US Equity												
OTRS US Equity	8.08	6.78	24.40	24.40	22.37	15.20	12.28	15.06	15.40	27.64	-8.27	20.72
Russell 3000 Index	9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	20.89	31.02	-5.24	21.13
Difference	-1.20	-2.39	-1.26	-1.26	-3.42	-2.77	-2.27	-1.24	-5.49	-3.38	-3.03	-0.41
OPERS US Equity	8.91	8.87	25.96	25.96	25.14	17.33	14.00	16.06	20.37	29.26	-6.45	21.27
OPERS US Equity Custom Index	8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	20.97	30.56	-5.70	20.71
Difference	0.30	0.77	1.23	1.23	-0.22	-0.20	-0.28	-0.06	-0.60	-1.30	-0.75	0.56
OLERS US Equity	6.89	6.87	25.93	25.93	26.01	17.30	13.92	15.80	19.60	32.84	-8.58	21.40
S&P 500 Index (Cap Wtd)	11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	18.40	31.49	-4.38	21.83
Difference	-4.14	-4.80	-2.78	-2.78	-0.06	-1.17	-1.01	-0.75	1.20	1.35	-4.20	-0.43
URSJJ US Equity	8.63	8.11	24.69	24.69	25.34	17.46	14.26	16.07	21.02	30.49	-5.83	20.57
URSJJ US Equity Custom Index	8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	20.97	30.56	-5.70	20.71
Difference	0.02	0.01	-0.04	-0.04	-0.02	-0.07	-0.02	-0.05	0.05	-0.07	-0.13	-0.14
OWCRS US Equity	9.40	9.69	26.38	26.38	24.65	17.43	13.91	15.81	18.87	28.92	-5.64	22.16
Russell 3000 Index	9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	20.89	31.02	-5.24	21.13
Difference	0.12	0.52	0.72	0.72	-1.14	-0.54	-0.64	-0.49	-2.02	-2.10	-0.40	1.03

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
International Equity												
OTRS International Equity	1.43	0.18	11.24	11.24	14.83	10.74	7.64	8.76	12.13	21.38	-16.32	31.43
MSCI ACW Ex US IM Index (USD) (Net)	1.64	-0.96	8.53	8.53	13.62	9.83	6.87	7.57	11.12	21.63	-14.76	27.81
Difference	-0.21	1.14	2.71	2.71	1.21	0.91	0.77	1.19	1.01	-0.25	-1.56	3.62
OPERS International Equity	1.45	-1.97	6.98	6.98	13.97	10.19	7.13	7.68	12.30	23.21	-13.81	27.32
MSCI ACW Ex US Index (USD) (Gross)	1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	11.13	22.13	-13.78	27.77
Difference	-0.43	-0.92	-1.31	-1.31	0.27	0.07	0.08	-0.10	1.17	1.08	-0.03	-0.45
OLERS International Equity	0.59	-1.65	7.35	7.35	14.42	10.83	7.37	6.82	12.57	23.97	-14.43	30.46
MSCI ACW Ex US Index (USD) (Net)	1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	10.65	21.51	-14.20	27.19
Difference	-1.23	-0.43	-0.47	-0.47	1.24	1.22	0.81	-0.46	1.92	2.46	-0.23	3.27
URSJJ International Equity	1.86	-1.16	8.06	8.06	13.43	9.87	6.82	7.53	10.86	21.83	-13.97	27.54
MSCI ACW Ex US Index (USD) (Gross)	1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	11.13	22.13	-13.78	27.77
Difference	-0.02	-0.11	-0.23	-0.23	-0.27	-0.25	-0.23	-0.25	-0.27	-0.30	-0.19	-0.23
OWCRS International Equity	0.58	-2.71	5.56	5.56	12.69	9.74	6.65	7.52	10.17	23.05	-13.82	29.05
MSCI ACW Ex US Index (USD) (Net)	1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	10.65	21.51	-14.20	27.19
Difference	-1.24	-1.49	-2.26	-2.26	-0.49	0.13	0.09	0.24	-0.48	1.54	0.38	1.86
Total Equity												
OPPRS Total Equity	5.12	7.14	23.58	23.58	21.32	14.89	11.84	12.40	18.46	21.98	-5.24	18.31
MSCI ACW Index (USD) (Gross)	6.77	5.75	19.04	19.04	20.97	14.97	11.48	12.44	16.82	27.30	-8.93	24.62
Difference	-1.65	1.39	4.54	4.54	0.35	-0.08	0.36	-0.04	1.64	-5.32	3.69	-6.31

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Fixed Income												
OTRS Fixed Income	0.72	1.08	0.05	0.05	7.79	5.61	4.73	5.06	11.91	11.84	-1.44	6.44
Bloomberg US Unv Bond Index	-0.03	0.05	-1.10	-1.10	5.15	3.84	3.35	3.31	7.58	9.29	-0.25	4.09
Difference	0.75	1.03	1.15	1.15	2.64	1.77	1.38	1.75	4.33	2.55	-1.19	2.35
OPERS Fixed Income	0.58	0.94	-0.82	-0.82	6.48	4.67	3.77	3.66	10.54	10.12	-0.33	4.42
OPERS Fixed Income Custom Index	0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	9.08	9.43	-0.33	4.08
Difference	-0.11	0.00	0.19	0.19	0.76	0.52	0.39	0.51	1.46	0.69	0.00	0.34
OPPRS Fixed Income	-0.14	0.05	1.28	1.28	5.01	4.02	3.09	N/A	6.63	7.24	-0.21	5.37
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	-0.15	-0.01	2.83	2.83	0.22	0.45	0.09	N/A	-0.88	-1.48	-0.22	1.83
OLERS Fixed Income	0.06	-0.63	-1.81	-1.81	3.25	2.87	2.61	3.15	5.62	6.12	0.30	4.37
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	0.05	-0.69	-0.26	-0.26	-1.54	-0.70	-0.39	0.25	-1.89	-2.60	0.29	0.83
URSJJ Fixed Income	0.59	0.94	-0.92	-0.92	6.44	4.64	3.73	3.60	10.58	10.06	-0.32	4.37
URSJJ Fixed Income Custom Index	0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	9.08	9.43	-0.33	4.08
Difference	-0.10	0.00	0.09	0.09	0.72	0.49	0.35	0.45	1.50	0.63	0.01	0.29
OWCRS Fixed Income	-0.14	-0.03	-0.41	-0.41	5.20	3.86	3.00	2.84	8.29	7.94	0.76	3.02
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	-0.15	-0.09	1.14	1.14	0.41	0.29	0.00	-0.06	0.78	-0.78	0.75	-0.52

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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Real Estate												
OTRS Real Estate	5.32	9.39	11.65	11.65	4.76	5.63	N/A	N/A	-2.40	5.59	7.43	6.47
NCREIF Property Index	6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	1.60	6.42	6.72	6.96
Difference	-0.83	-2.31	-6.05	-6.05	-3.61	-2.12	N/A	N/A	-4.08	-0.83	0.71	-0.49
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	-2.37	-5.20	-9.41	-9.41	-3.48	-2.12	N/A	N/A	-2.82	1.20	0.07	-0.19
OPERS Real Estate	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	-0.65	N/A	-8.51	2.90	1.12	-2.11
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	-7.44	-15.59	-29.21	-29.21	-12.97	-10.81	-9.27	N/A	-8.85	-1.49	-6.24	-8.77
OLERS Real Estate	8.12	13.77	18.40	18.40	6.71	5.77	5.67	6.48	-0.12	2.76	3.23	5.55
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	0.43	-0.82	-2.66	-2.66	-1.53	-1.98	-2.95	-2.96	-0.46	-1.63	-4.13	-1.11
Real Assets												
OPPRS Real Assets	7.28	12.42	17.79	17.79	6.45	5.72	5.67	6.33	-1.07	3.52	3.55	5.71
OPPRS Real Assets Blended Benchmark	7.69	14.59	21.06	21.06	8.25	6.12	4.59	5.22	0.34	4.43	0.98	5.05
Difference	-0.41	-2.17	-3.27	-3.27	-1.80	-0.40	1.08	1.11	-1.41	-0.91	2.57	0.66

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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Hedge Funds												
OPPRS Long/Short Equity	-1.86	-4.26	0.11	0.11	12.53	8.61	6.50	7.53	22.33	16.34	-4.94	11.59
MSCI ACW Index (USD) (Net)	6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	16.25	26.60	-9.42	23.97
Difference	-8.54	-9.81	-18.43	-18.43	-7.85	-5.79	-4.40	-4.32	6.08	-10.26	4.48	-12.38
HFRI FOF: Strategic Index	0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.62	10.52	-6.67	11.22
Difference	-2.21	-4.75	-5.99	-5.99	2.17	1.72	1.72	2.26	7.71	5.82	1.73	0.37
OLERS Long/Short Equity	-5.30	-4.58	1.43	1.43	7.19	5.38	4.12	5.81	8.08	12.36	-5.53	11.66
MSCI ACW Index (USD) (Net)	6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	16.25	26.60	-9.42	23.97
Difference	-11.98	-10.13	-17.11	-17.11	-13.19	-9.02	-6.78	-6.04	-8.17	-14.24	3.89	-12.31
HFRI FOF: Strategic Index	0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.62	10.52	-6.67	11.22
Difference	-5.65	-5.07	-4.67	-4.67	-3.17	-1.51	-0.66	0.54	-6.54	1.84	1.14	0.44

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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Private Equity												
OTRS Private Equity	4.73	20.22	57.72	57.72	29.61	24.99	21.46	20.85	17.27	17.73	23.03	13.89
R 2000 Index+4%	3.15	-0.38	19.41	19.41	24.82	16.50	15.19	17.76	24.76	30.55	-7.45	19.23
Difference	1.58	20.60	38.31	38.31	4.79	8.49	6.27	3.09	-7.49	-12.82	30.48	-5.34
OPPRS Private Equity	8.33	27.41	67.32	67.32	28.92	22.04	18.45	16.50	15.87	10.51	15.22	9.65
MSCI ACW Index (USD) (Net)	6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	16.25	26.60	-9.42	23.97
Difference	1.65	21.86	48.78	48.78	8.54	7.64	7.55	4.65	-0.38	-16.09	24.64	-14.32
Cambridge US Prvt Eq Index	0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	21.73	13.96	10.37	18.03
Difference	8.33	21.66	35.52	35.52	6.64	3.08	2.27	0.56	-5.86	-3.45	4.85	-8.38
OLERS Private Equity	6.05	15.82	43.34	43.34	18.60	15.68	12.28	12.73	8.91	6.84	15.45	7.59
S&P 500 Index+5%	12.39	14.43	35.14	35.14	32.37	24.40	20.68	22.38	24.32	38.06	0.40	27.92
Difference	-6.34	1.39	8.20	8.20	-13.77	-8.72	-8.40	-9.65	-15.41	-31.22	15.05	-20.33
Cambridge US Prvt Eq Index	0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	21.73	13.96	10.37	18.03
Difference	6.05	10.07	11.54	11.54	-3.68	-3.28	-3.90	-3.21	-12.82	-7.12	5.08	-10.44
Other Alternatives												
OWCRS Alternative Investments	2.70	2.04	8.65	8.65	8.57	5.62	4.52	3.95	2.14	15.31	-6.07	9.36
OWCRS Alternatives Custom Index	0.29	1.02	6.03	6.03	8.41	5.54	3.75	N/A	10.88	8.38	-4.02	7.06
Difference	2.41	1.02	2.62	2.62	0.16	0.08	0.77	N/A	-8.74	6.93	-2.05	2.30

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
US Equity												
OTRS US Equity	8.13	6.87	24.61	24.61	22.64	15.52	12.62	15.29	15.62	28.03	-7.94	21.17
Russell 3000 Index	9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	20.89	31.02	-5.24	21.13
Difference	-1.15	-2.30	-1.05	-1.05	-3.15	-2.45	-1.93	-1.01	-5.27	-2.99	-2.70	0.04
OPERS US Equity	9.00	8.99	26.13	26.13	25.33	17.47	14.14	16.19	20.53	29.50	-6.38	21.39
OPERS US Equity Custom Index	8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	20.97	30.56	-5.70	20.71
Difference	0.39	0.89	1.40	1.40	-0.03	-0.06	-0.14	0.07	-0.44	-1.06	-0.68	0.68
OPPRS US Equity	6.01	4.59	19.85	19.85	25.63	18.30	14.59	16.13	25.89	31.43	-4.96	22.96
Russell 3000 Index	9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	20.89	31.02	-5.24	21.13
Difference	-3.27	-4.58	-5.81	-5.81	-0.16	0.33	0.04	-0.17	5.00	0.41	0.28	1.83
OLERS US Equity	6.89	6.87	25.94	25.94	26.01	17.31	13.93	15.80	19.61	32.84	-8.56	21.40
S&P 500 Index (Cap Wtd)	11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	18.40	31.49	-4.38	21.83
Difference	-4.14	-4.80	-2.77	-2.77	-0.06	-1.16	-1.00	-0.75	1.21	1.35	-4.18	-0.43
URSJJ US Equity	8.63	8.11	24.70	24.70	25.35	17.47	14.28	16.08	21.03	30.51	-5.81	20.58
URSJJ US Equity Custom Index	8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	20.97	30.56	-5.70	20.71
Difference	0.02	0.01	-0.03	-0.03	-0.01	-0.06	0.00	-0.04	0.06	-0.05	-0.11	-0.13
OWCRS US Equity	9.44	9.77	26.59	26.59	24.91	17.69	14.17	16.03	19.18	29.17	-5.38	22.45
Russell 3000 Index	9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	20.89	31.02	-5.24	21.13
Difference	0.16	0.60	0.93	0.93	-0.88	-0.28	-0.38	-0.27	-1.71	-1.85	-0.14	1.32

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
International Equity												
OTRS International Equity	1.56	0.42	11.72	11.72	15.33	11.24	8.13	9.27	12.61	21.95	-15.88	32.00
MSCI ACW Ex US IM Index (USD) (Net)	1.64	-0.96	8.53	8.53	13.62	9.83	6.87	7.57	11.12	21.63	-14.76	27.81
Difference	-0.08	1.38	3.19	3.19	1.71	1.41	1.26	1.70	1.49	0.32	-1.12	4.19
OPERS International Equity	1.59	-1.81	7.22	7.22	14.17	10.38	7.32	7.86	12.53	23.34	-13.69	27.54
MSCI ACW Ex US Index (USD) (Gross)	1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	11.13	22.13	-13.78	27.77
Difference	-0.29	-0.76	-1.07	-1.07	0.47	0.26	0.27	0.08	1.40	1.21	0.09	-0.23
OFPRS International Equity	1.59	-0.18	7.66	7.66	21.97	16.45	11.70	10.61	32.50	27.22	-13.23	36.00
MSCI ACW Ex US Index (USD) (Net)	1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	10.65	21.51	-14.20	27.19
Difference	-0.23	1.04	-0.16	-0.16	8.79	6.84	5.14	3.33	21.85	5.71	0.97	8.81
OLERS International Equity	0.67	-1.49	7.69	7.69	14.82	11.27	7.83	7.49	13.02	24.39	-14.03	31.05
MSCI ACW Ex US Index (USD) (Net)	1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	10.65	21.51	-14.20	27.19
Difference	-1.15	-0.27	-0.13	-0.13	1.64	1.66	1.27	0.21	2.37	2.88	0.17	3.86
URSJJ International Equity	1.87	-1.15	8.09	8.09	13.45	9.91	6.85	7.57	10.87	21.86	-13.93	27.58
MSCI ACW Ex US Index (USD) (Gross)	1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	11.13	22.13	-13.78	27.77
Difference	-0.01	-0.10	-0.20	-0.20	-0.25	-0.21	-0.20	-0.21	-0.26	-0.27	-0.15	-0.19
OWCRS International Equity	0.71	-2.44	6.15	6.15	13.37	10.49	7.38	8.05	10.82	23.86	-13.14	30.11
MSCI ACW Ex US Index (USD) (Net)	1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	10.65	21.51	-14.20	27.19
Difference	-1.11	-1.22	-1.67	-1.67	0.19	0.88	0.82	0.77	0.17	2.35	1.06	2.92
Total Equity												
OPPRS Total Equity	5.18	7.27	23.90	23.90	21.68	15.25	12.20	12.77	18.81	22.38	-4.91	18.72
MSCI ACW Index (USD) (Gross)	6.77	5.75	19.04	19.04	20.97	14.97	11.48	12.44	16.82	27.30	-8.93	24.62
Difference	-1.59	1.52	4.86	4.86	0.71	0.28	0.72	0.33	1.99	-4.92	4.02	-5.90

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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Fixed Income												
OTRS Fixed Income	0.77	1.18	0.23	0.23	7.98	5.82	4.95	5.29	12.11	12.05	-1.23	6.68
Bloomberg US Unv Bond Index	-0.03	0.05	-1.10	-1.10	5.15	3.84	3.35	3.31	7.58	9.29	-0.25	4.09
Difference	0.80	1.13	1.33	1.33	2.83	1.98	1.60	1.98	4.53	2.76	-0.98	2.59
OPERS Fixed Income	0.64	1.01	-0.72	-0.72	6.58	4.76	3.86	3.75	10.65	10.19	-0.24	4.49
Fixed Income Custom Index	0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	9.08	9.43	-0.33	4.08
Difference	-0.05	0.07	0.29	0.29	0.86	0.61	0.48	0.60	1.57	0.76	0.09	0.41
OFPRS Fixed Income	-0.30	-1.42	-2.70	-2.70	4.19	3.40	2.74	3.17	8.41	7.22	-2.41	7.10
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	-0.31	-1.48	-1.15	-1.15	-0.60	-0.17	-0.26	0.27	0.90	-1.50	-2.42	3.56
OPPRS Fixed Income	-0.06	0.21	1.60	1.60	5.40	4.44	3.54	4.18	6.98	7.74	0.24	5.84
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	-0.07	0.15	3.15	3.15	0.61	0.87	0.54	1.28	-0.53	-0.98	0.23	2.30
OLERS Fixed Income	0.06	-0.59	-1.72	-1.72	3.36	2.97	2.68	3.20	5.73	6.27	0.44	4.38
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	0.05	-0.65	-0.17	-0.17	-1.43	-0.60	-0.32	0.30	-1.78	-2.45	0.43	0.84
URSJJ Fixed Income	0.65	1.01	-0.82	-0.82	6.54	4.73	3.81	3.70	10.70	10.14	-0.23	4.45
Fixed Income Custom Index	0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	9.08	9.43	-0.33	4.08
Difference	-0.04	0.07	0.19	0.19	0.82	0.58	0.43	0.55	1.62	0.71	0.10	0.37
OWCRS Fixed Income	-0.07	0.12	-0.10	-0.10	5.40	3.98	3.08	2.90	8.56	7.94	0.76	3.02
Bloomberg US Agg Bond Index	0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	7.51	8.72	0.01	3.54
Difference	-0.08	0.06	1.45	1.45	0.61	0.41	0.08	0.00	1.05	-0.78	0.75	-0.52

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Real Estate												
OTRS Real Estate	5.39	9.53	11.92	11.92	4.98	5.83	N/A	N/A	-2.27	5.77	7.60	6.65
NCREIF Property Index	6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	1.60	6.42	6.72	6.96
Difference	-0.76	-2.17	-5.78	-5.78	-3.39	-1.92	N/A	N/A	-3.87	-0.65	0.88	-0.31
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	-2.30	-5.06	-9.14	-9.14	-3.26	-1.92	N/A	N/A	-2.61	1.38	0.24	-0.01
OPERS Real Estate	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	-0.65	N/A	-8.51	2.90	1.12	-2.11
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	-7.44	-15.59	-29.21	-29.21	-12.97	-10.81	-9.27	N/A	-8.85	-1.49	-6.24	-8.77
OFPRS Real Estate	7.53	13.09	16.84	16.84	7.01	7.68	8.94	9.31	0.18	4.69	9.39	8.02
NCREIF Property Index	6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	1.60	6.42	6.72	6.96
Difference	1.38	1.39	-0.86	-0.86	-1.36	-0.07	0.38	-0.01	-1.42	-1.73	2.67	1.06
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	-0.16	-1.50	-4.22	-4.22	-1.23	-0.07	0.32	-0.13	-0.16	0.30	2.03	1.36
OLERS Real Estate	8.36	14.23	19.41	19.41	7.61	6.64	6.51	7.43	0.76	3.58	4.02	6.38
NCREIF ODCE Index (AWA) (Net)	7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	0.34	4.39	7.36	6.66
Difference	0.67	-0.36	-1.65	-1.65	-0.63	-1.11	-2.11	-2.01	0.42	-0.81	-3.34	-0.28
Real Assets												
OPPRS Real Assets	7.68	13.20	19.08	19.08	7.28	6.56	6.44	7.14	-0.51	4.21	4.30	6.68
OPPRS Real Assets Blended Benchmark	7.69	14.59	21.06	21.06	8.25	6.12	4.59	5.22	0.34	4.43	0.98	5.05
Difference	-0.01	-1.39	-1.98	-1.98	-0.97	0.44	1.85	1.92	-0.85	-0.22	3.32	1.63

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



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

As of December 31, 2021

	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Hedge Funds												
OFPRS Hedge Fund	-16.68	-27.98	-26.04	-26.04	-9.95	-4.81	-3.65	-0.91	-4.62	3.52	-2.86	10.18
HFRI FOF: Cnsvt Index	0.57	1.55	7.49	7.49	6.75	4.66	3.64	4.04	6.47	6.30	-0.87	4.12
Difference	-17.25	-29.53	-33.53	-33.53	-16.70	-9.47	-7.29	-4.95	-11.09	-2.78	-1.99	6.06
OPPRS Long/Short Equity	-1.86	-4.26	0.14	0.14	12.81	8.97	6.89	7.98	22.68	16.85	-4.52	12.10
HFRI FOF: Strategic Index	0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.62	10.52	-6.67	11.22
Difference	-2.21	-4.75	-5.96	-5.96	2.45	2.08	2.11	2.71	8.06	6.33	2.15	0.88
OLERS Long/Short Equity	-5.30	-4.58	1.43	1.43	7.19	5.38	4.12	5.81	8.08	12.36	-5.53	11.66
HFRI FOF: Strategic Index	0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.62	10.52	-6.67	11.22
Difference	-5.65	-5.07	-4.67	-4.67	-3.17	-1.51	-0.66	0.54	-6.54	1.84	1.14	0.44

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



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

As of December 31, 2021

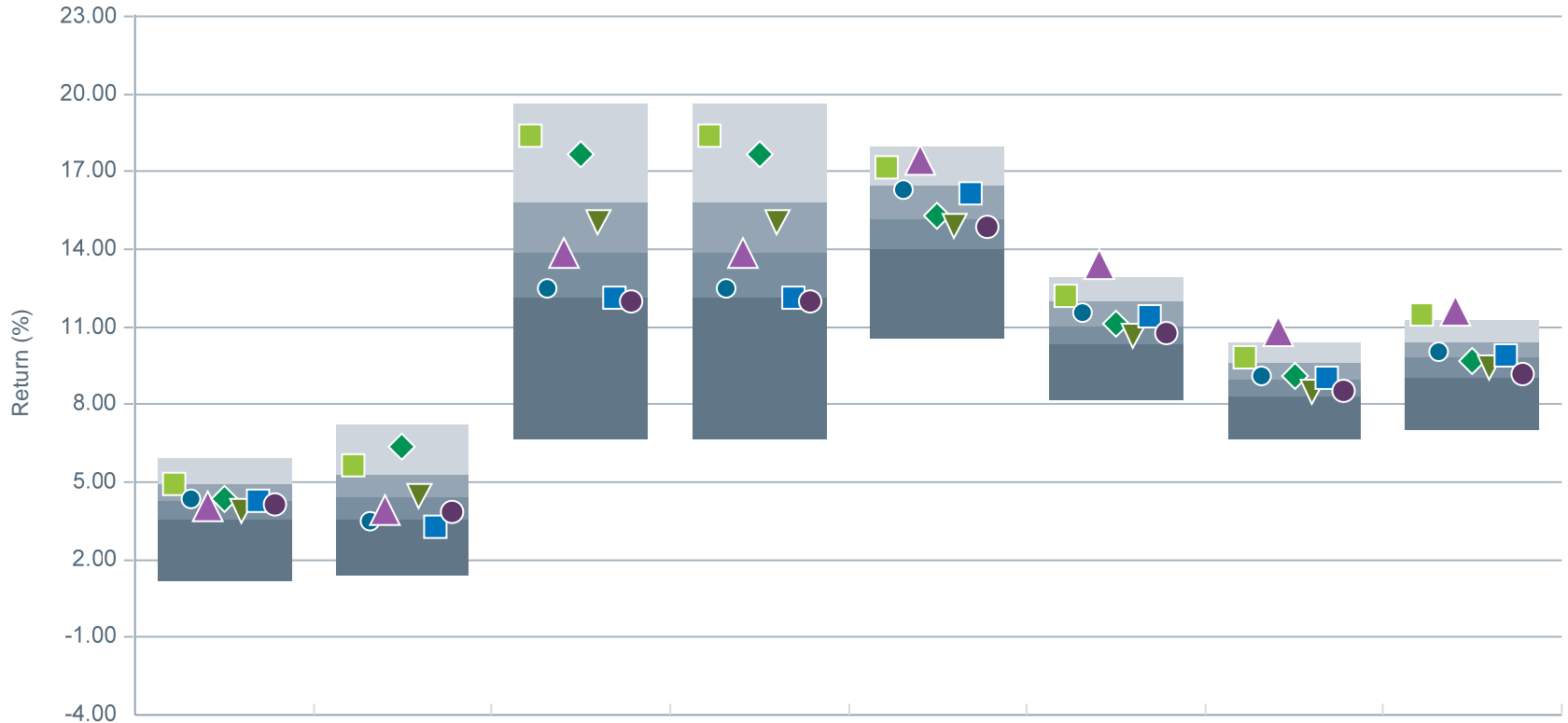
	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017
Private Equity												
OTRS Private Equity	4.73	20.22	57.72	57.72	29.61	24.99	21.46	20.85	17.27	17.73	23.03	13.89
R 2000 Index+4%	3.15	-0.38	19.41	19.41	24.82	16.50	15.19	17.76	24.76	30.55	-7.45	19.23
Difference	1.58	20.60	38.31	38.31	4.79	8.49	6.27	3.09	-7.49	-12.82	30.48	-5.34
OFPRS Private Equity	5.14	15.82	49.68	49.68	19.64	19.37	16.03	N/A	7.49	6.45	18.91	19.03
Cambridge US Prvt Eq Index	0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	21.73	13.96	10.37	18.03
Difference	5.14	10.07	17.88	17.88	-2.64	0.41	-0.15	N/A	-14.24	-7.51	8.54	1.00
OPPRS Private Equity	8.33	27.41	67.32	67.32	28.92	22.04	18.45	16.50	15.87	10.51	15.22	9.65
Cambridge US Prvt Eq Index	0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	21.73	13.96	10.37	18.03
Difference	8.33	21.66	35.52	35.52	6.64	3.08	2.27	0.56	-5.86	-3.45	4.85	-8.38
OLERS Private Equity	6.05	15.82	43.33	43.33	18.59	15.68	12.28	12.73	8.91	6.84	15.45	7.59
Cambridge US Prvt Eq Index	0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	21.73	13.96	10.37	18.03
Difference	6.05	10.07	11.53	11.53	-3.69	-3.28	-3.90	-3.21	-12.82	-7.12	5.08	-10.44
Other Alternatives												
OWCRS Alternative Investments	2.94	2.50	9.62	9.62	9.10	5.93	4.74	4.11	2.74	15.31	-6.07	9.36
OWCRS Alternatives Custom Index	0.29	1.02	6.03	6.03	8.41	5.54	3.75	N/A	10.88	8.38	-4.02	7.06
Difference	2.65	1.48	3.59	3.59	0.69	0.39	0.99	N/A	-8.14	6.93	-2.05	2.30

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



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

As of December 31, 2021



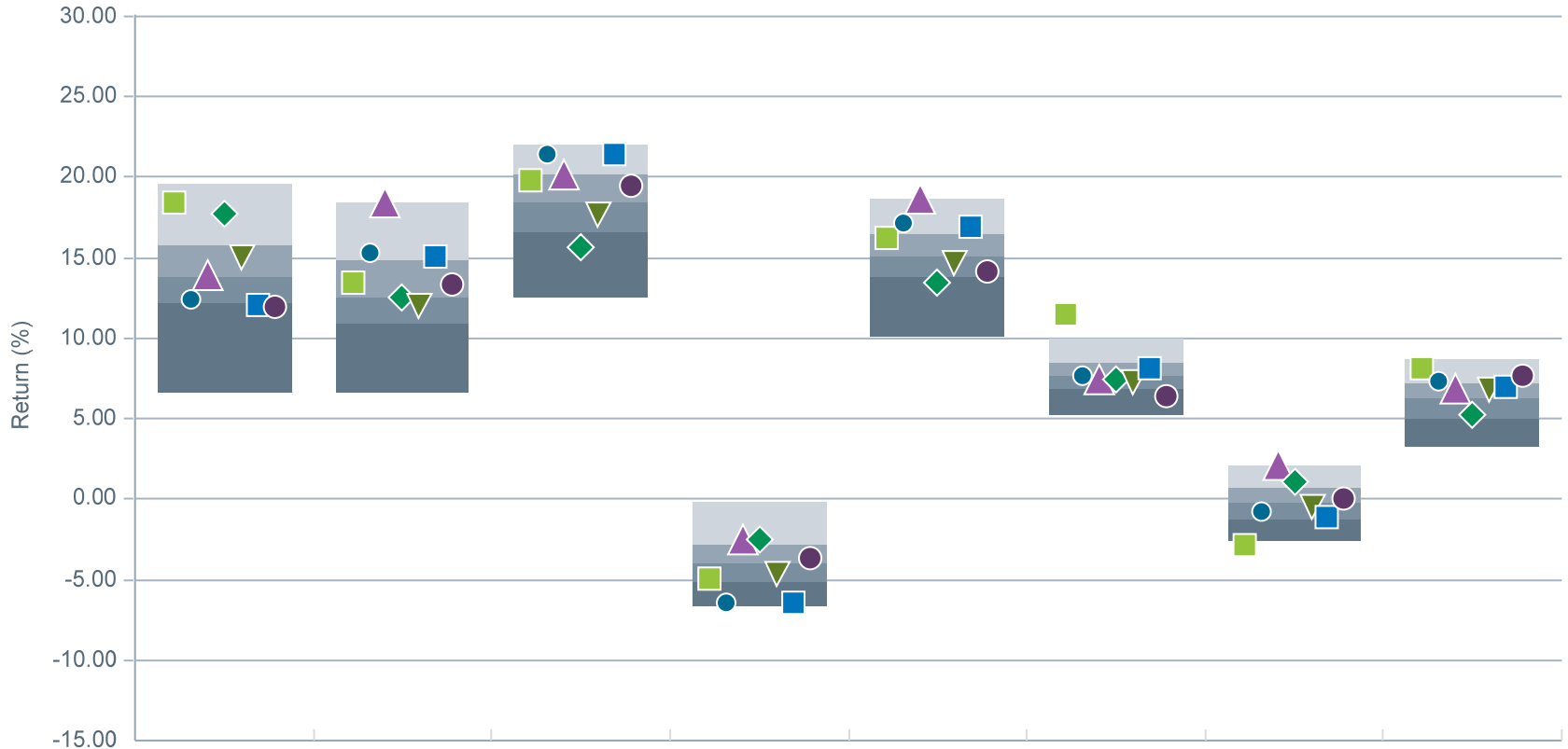
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS (Teachers)	4.92 (27)	5.66 (20)	18.42 (8)	18.42 (8)	17.20 (12)	12.19 (17)	9.81 (17)	11.48 (3)
OPERS (Public Employees)	4.34 (49)	3.46 (78)	12.46 (70)	12.46 (70)	16.34 (28)	11.52 (37)	9.13 (44)	10.05 (41)
OFPRS (Firefighters)	4.07 (58)	3.89 (66)	13.87 (50)	13.87 (50)	17.46 (10)	13.40 (2)	10.86 (2)	11.61 (3)
OPPRS (Police)	4.34 (49)	6.39 (11)	17.71 (11)	17.71 (11)	15.29 (48)	11.13 (47)	9.11 (44)	9.70 (55)
OLERS (Law Enforcement)	3.95 (64)	4.53 (47)	15.08 (31)	15.08 (31)	14.91 (57)	10.69 (66)	8.56 (65)	9.49 (60)
URSJJ (Judges)	4.26 (52)	3.30 (81)	12.12 (76)	12.12 (76)	16.14 (31)	11.38 (40)	9.05 (47)	9.90 (47)
OWCRS (Wildlife)	4.14 (56)	3.88 (66)	11.95 (78)	11.95 (78)	14.87 (57)	10.75 (63)	8.53 (67)	9.19 (71)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

As of December 31, 2021



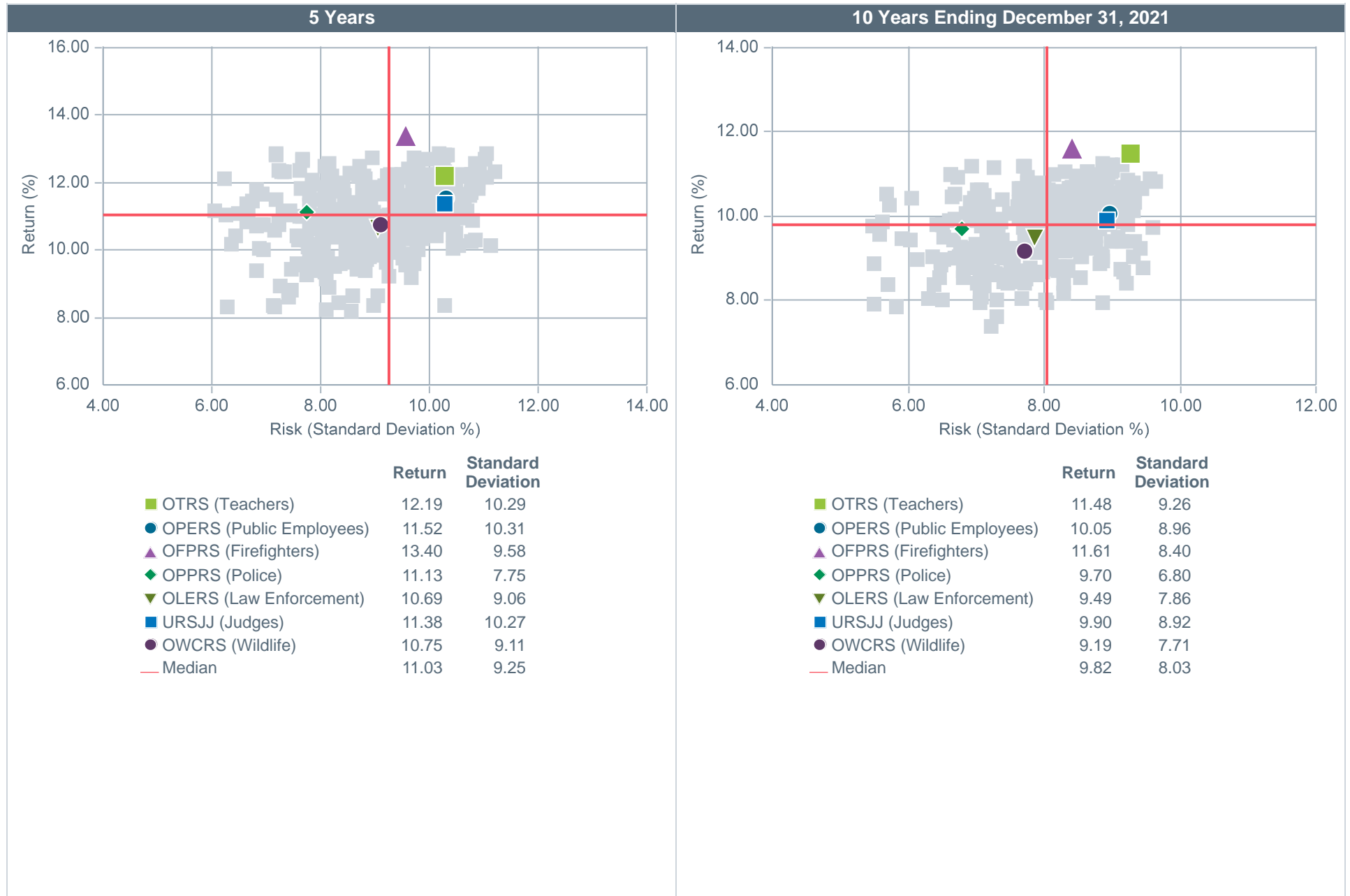
	CYTD	2020	2019	2018	2017	2016	2015	2014
OTRS (Teachers)	18.42 (8)	13.45 (39)	19.83 (30)	-4.98 (72)	16.20 (29)	11.54 (1)	-2.90 (97)	8.16 (9)
OPERS (Public Employees)	12.46 (70)	15.34 (20)	21.38 (11)	-6.48 (93)	17.13 (14)	7.69 (50)	-0.77 (66)	7.37 (23)
OFPRS (Firefighters)	13.87 (50)	18.44 (6)	20.15 (26)	-2.46 (19)	18.67 (5)	7.42 (58)	2.12 (5)	6.91 (35)
OPPRS (Police)	17.71 (11)	12.54 (51)	15.68 (84)	-2.46 (19)	13.40 (82)	7.47 (56)	1.05 (16)	5.20 (74)
OLERS (Law Enforcement)	15.08 (31)	12.03 (58)	17.70 (60)	-4.55 (61)	14.71 (59)	7.32 (63)	-0.37 (57)	6.83 (38)
URSJJ (Judges)	12.12 (76)	15.10 (22)	21.40 (10)	-6.38 (92)	16.89 (18)	8.09 (38)	-1.07 (73)	7.00 (32)
OWCERS (Wildlife)	11.95 (78)	13.34 (40)	19.46 (35)	-3.68 (44)	14.13 (70)	6.39 (85)	0.05 (45)	7.71 (17)
5th Percentile	19.60	18.44	22.05	-0.14	18.63	9.95	2.08	8.66
1st Quartile	15.80	14.80	20.16	-2.90	16.43	8.49	0.71	7.25
Median	13.86	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33
3rd Quartile	12.15	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07
95th Percentile	6.64	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24

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



All Plans

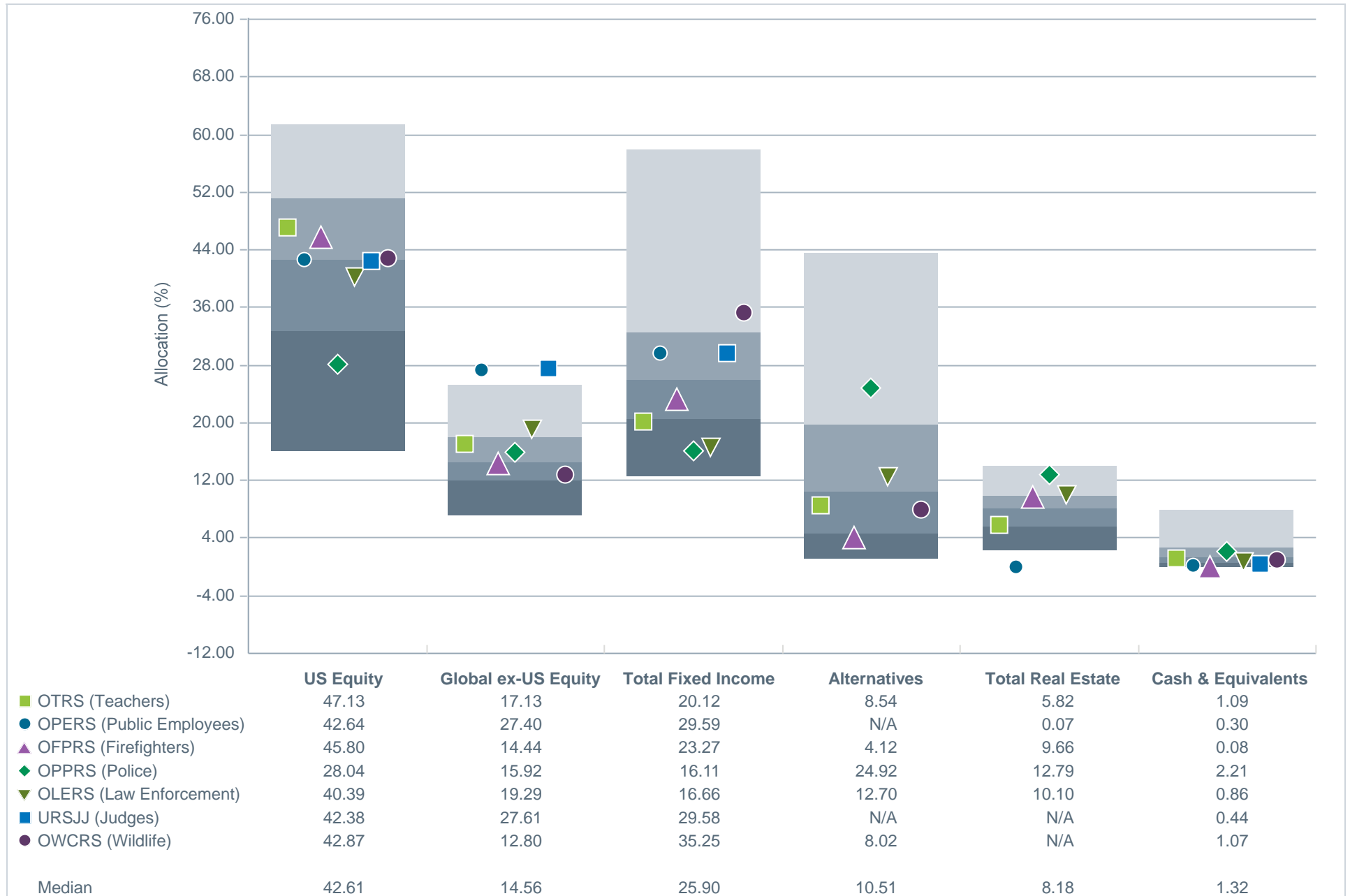
Total Fund Risk & Return vs. All Public Plans-Total Fund



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

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

As of December 31, 2021

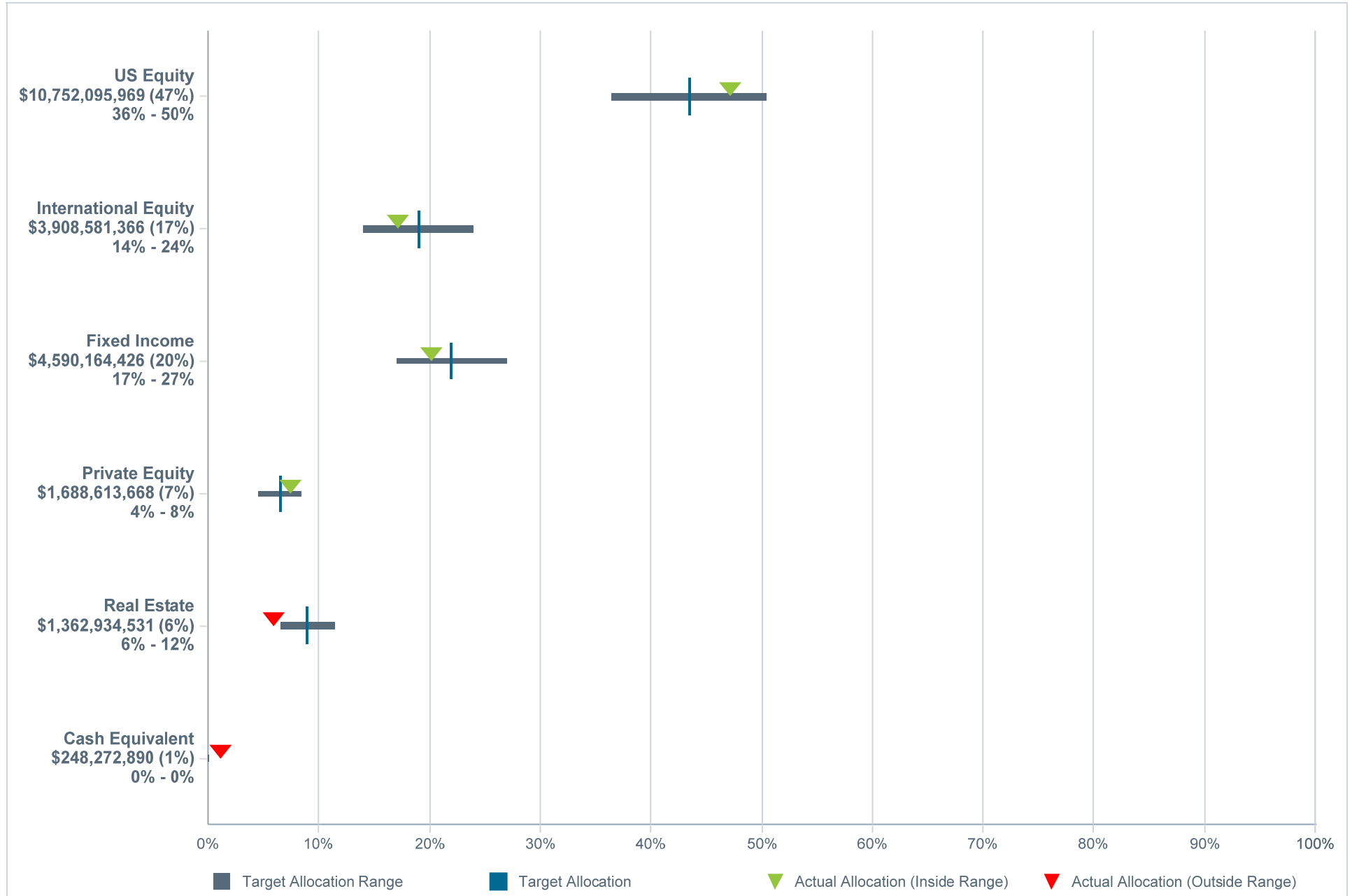


Parentheses contain percentile ranks.



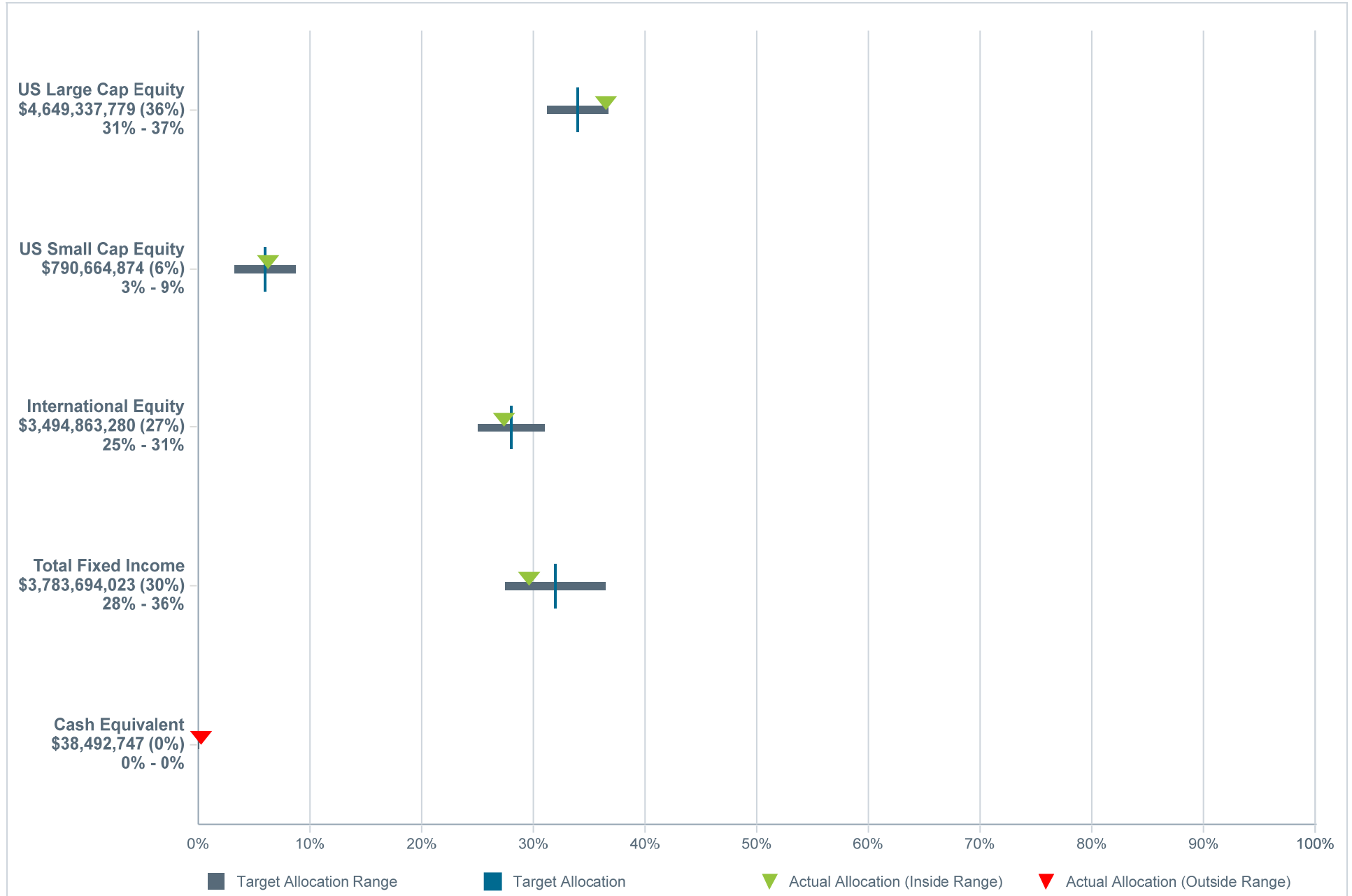
Oklahoma State Pension Commission
 Oklahoma Teachers' Retirement System
 Asset Allocation vs. Target Allocation

As of December 31, 2021



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.



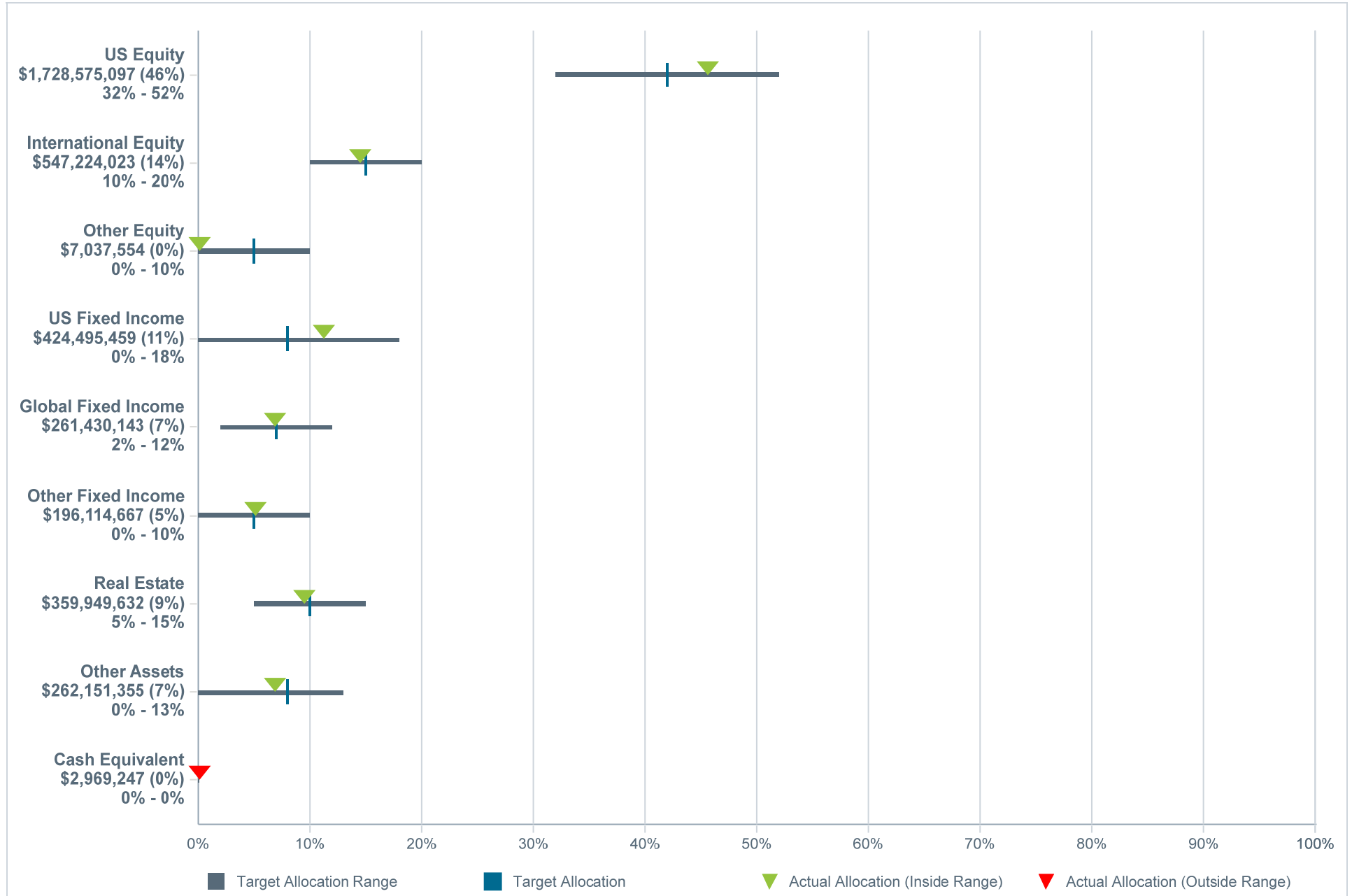


Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.



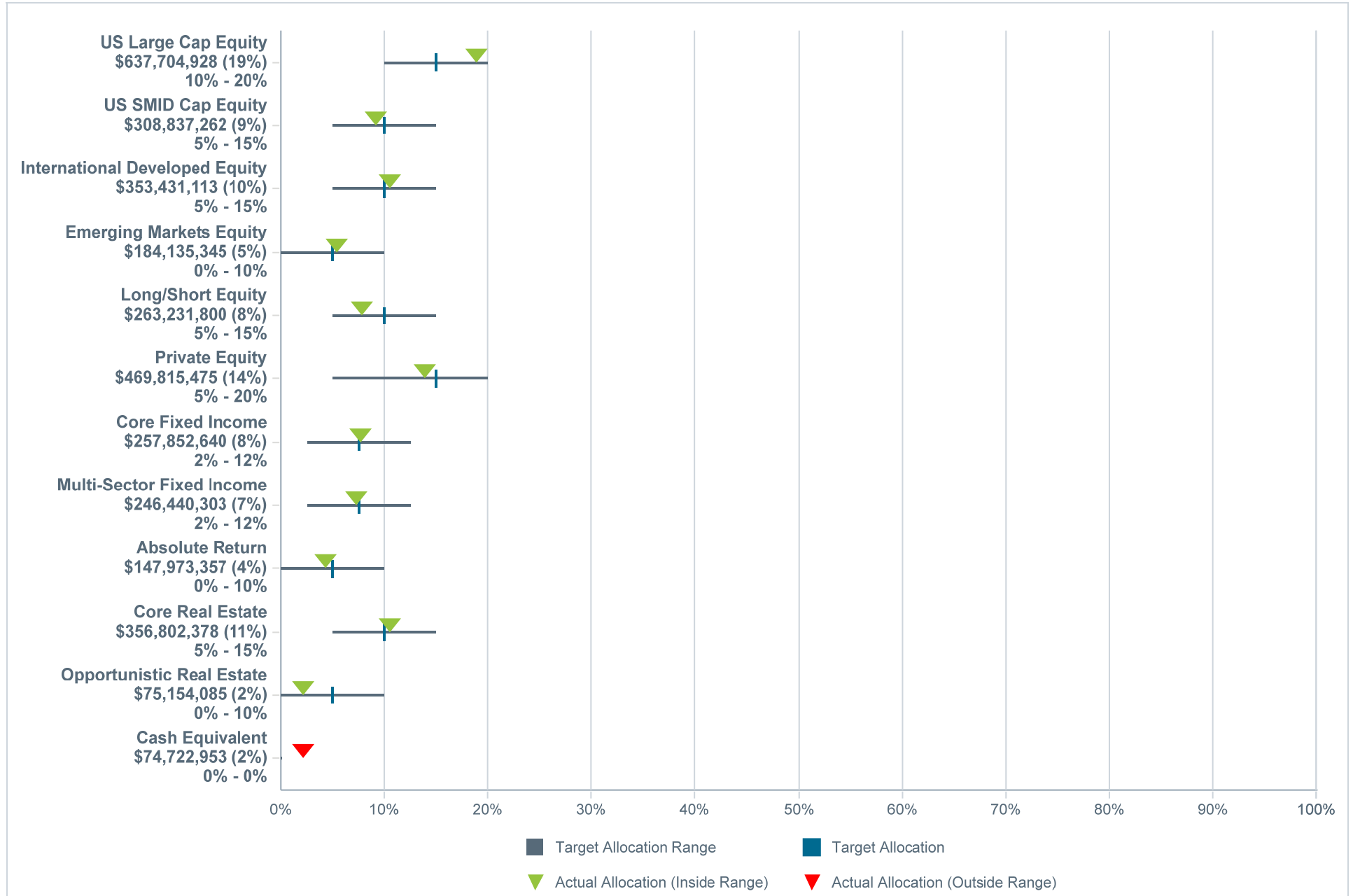
Oklahoma State Pension Commission
 Oklahoma Firefighters Pension & Retirement System
 Asset Allocation vs. Target Allocation

As of December 31, 2021



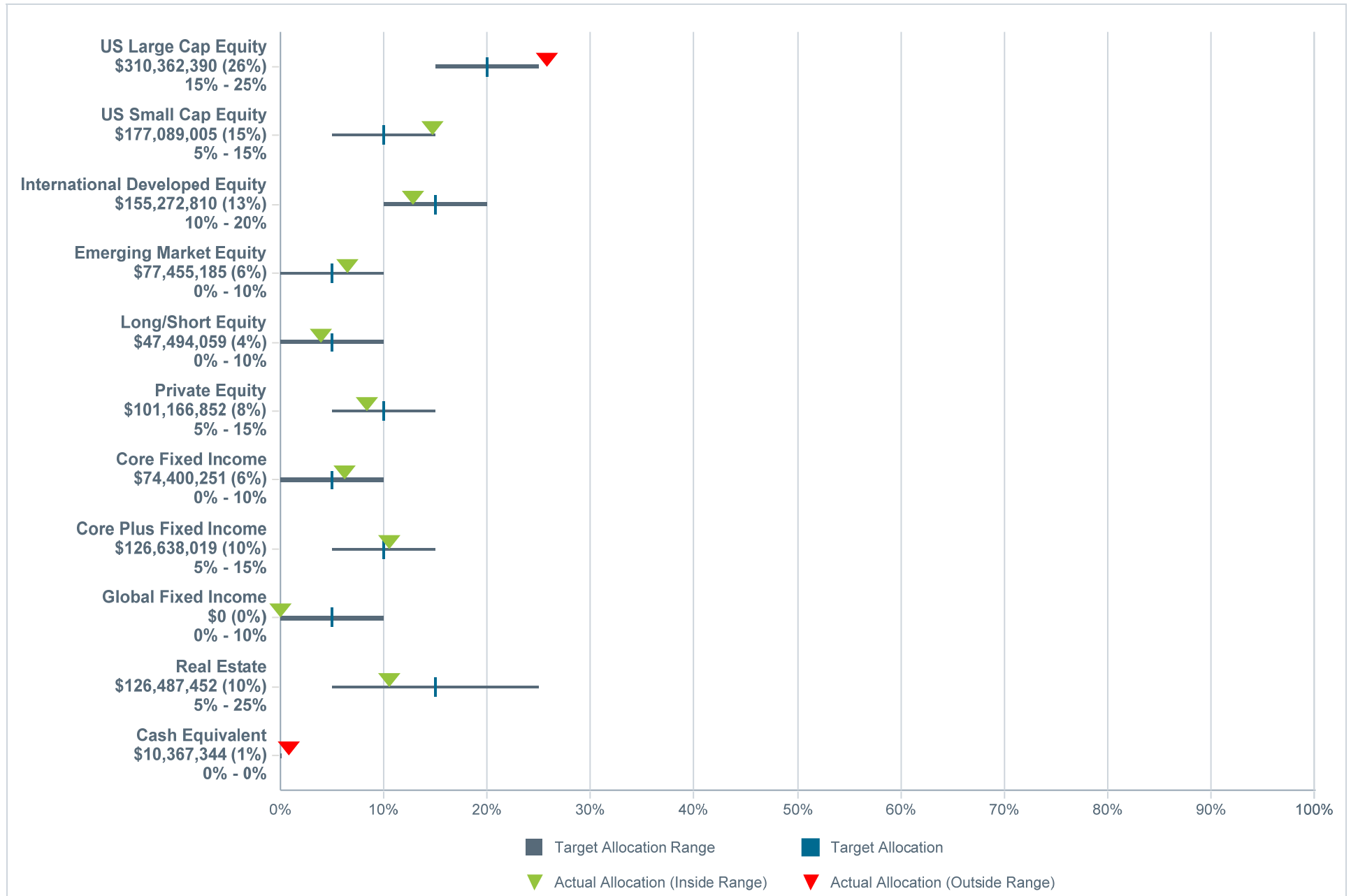
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include Hedge Funds and Private Equity.





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



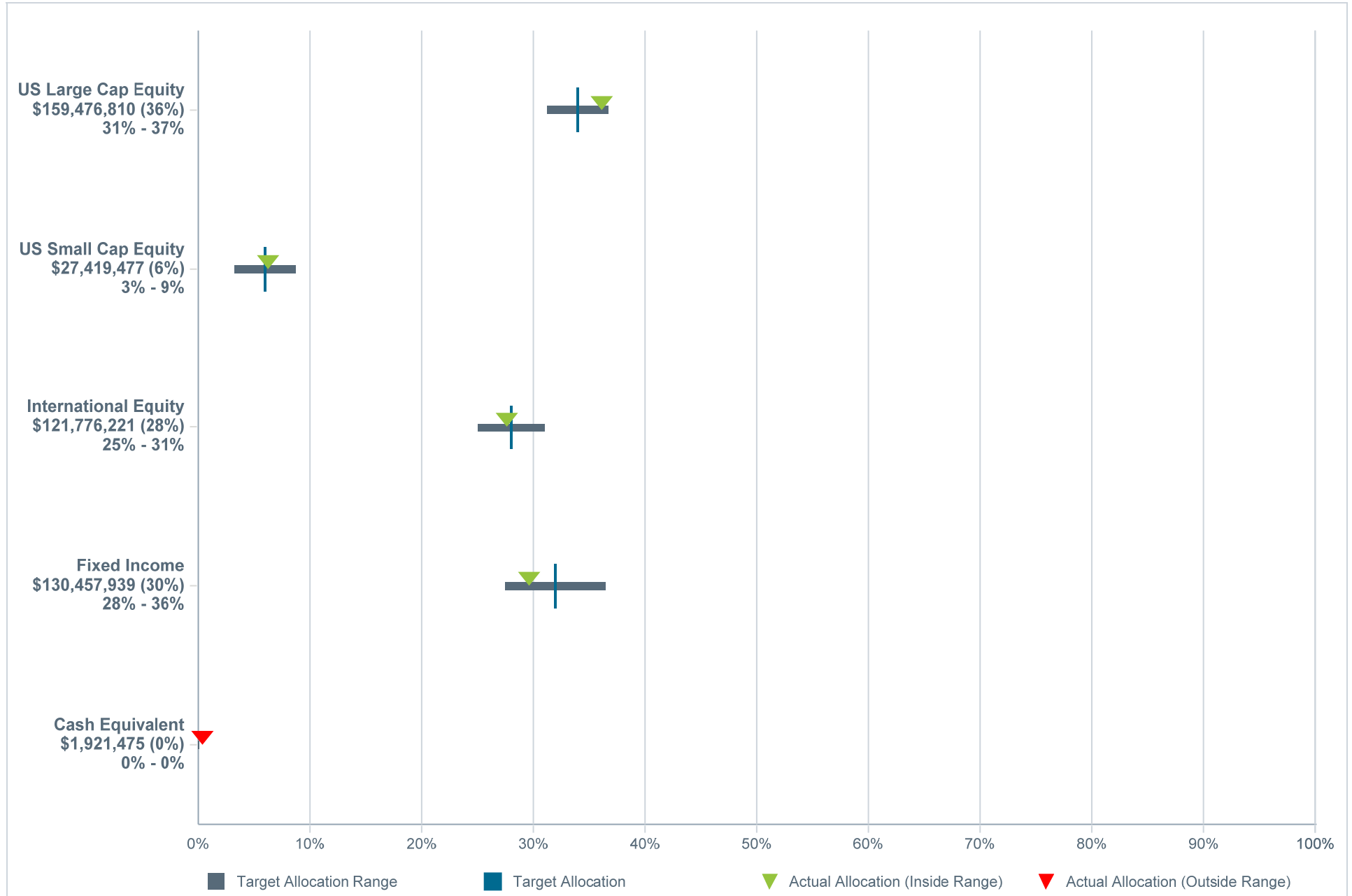


Allocations shown may not sum up to 100% exactly due to rounding. Short term cash reserves shall be considered as fixed income for rebalancing purposes.



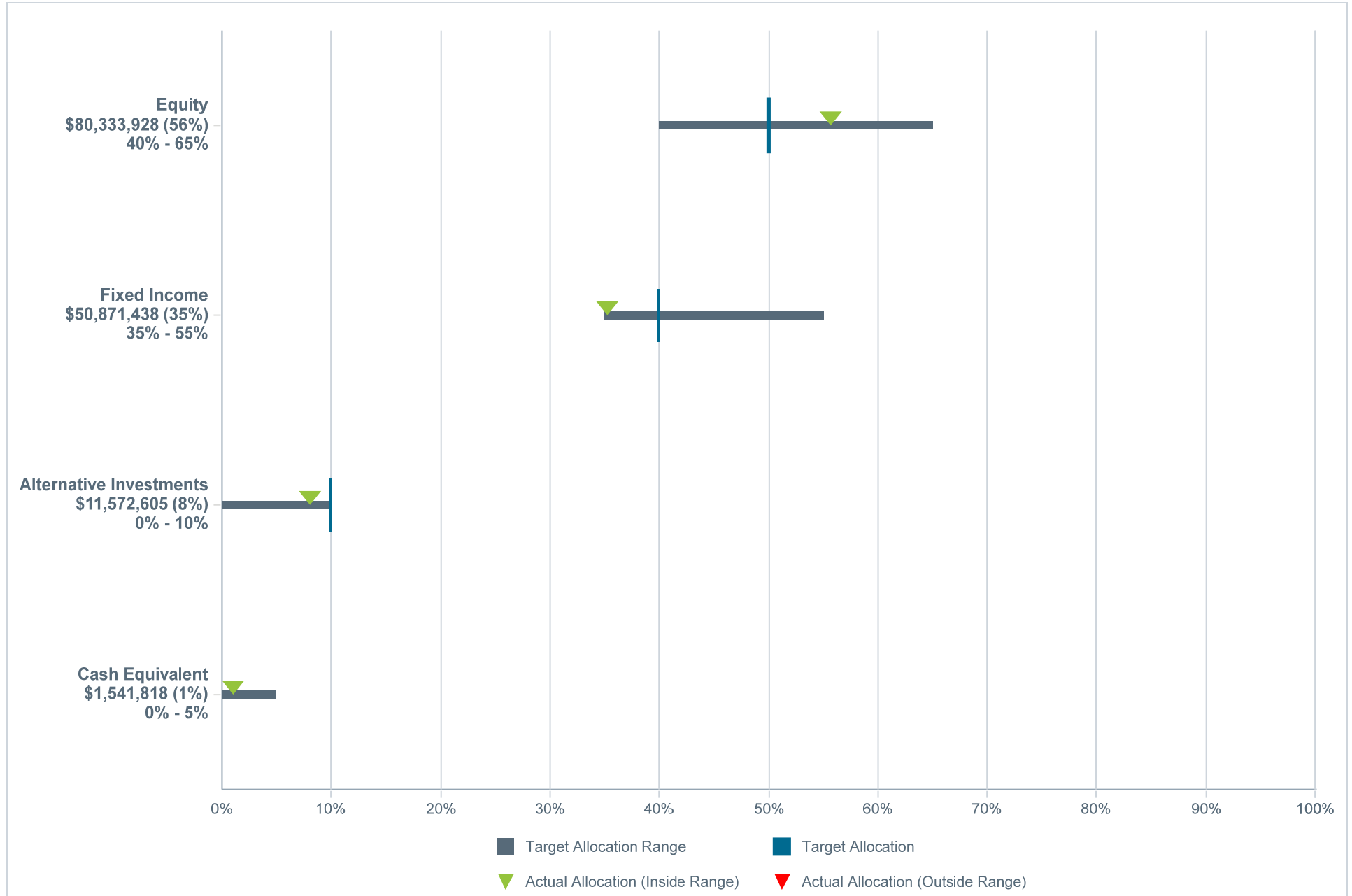
Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges
 Asset Allocation vs. Target Allocation

As of December 31, 2021



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.





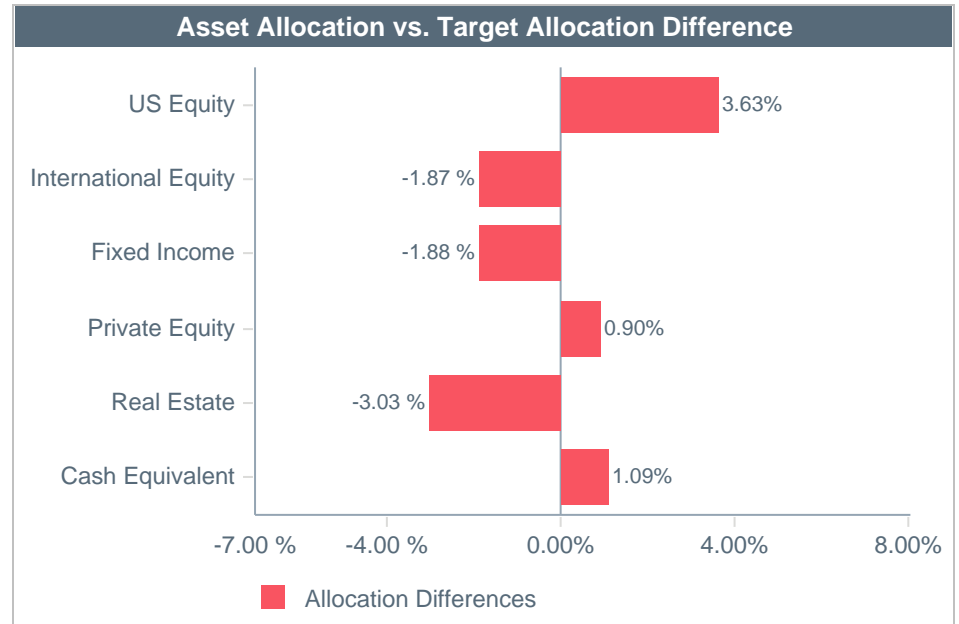
Allocations shown may not sum up to 100% exactly due to rounding.

Oklahoma Teachers' Retirement System (OTRS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OTRS Total Fund (Net)	4.88	5.56	18.20	18.20	16.93	11.89	9.46	11.08	13.22	19.48	-5.29	15.83	11.02
OTRS Policy Index	5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	15.24	21.72	-4.75	15.16	10.65
Difference	-0.28	0.56	2.60	2.60	-0.55	-0.32	-0.33	0.28	-2.02	-2.24	-0.54	0.67	0.37
OTRS Actual Allocation Index	5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	16.98	18.94	-4.70	14.35	10.93
Difference	-0.36	0.69	1.99	1.99	-0.44	-0.11	-0.28	0.13	-3.76	0.54	-0.59	1.48	0.09
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	3.17	2.12	11.20	11.20	9.93	4.89	2.46	4.08	6.22	12.48	-12.29	8.83	4.02
OTRS Total Fund (Gross)	4.92	5.66	18.42	18.42	17.20	12.19	9.81	11.48	13.45	19.83	-4.98	16.20	11.54
OTRS Policy Index	5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	15.24	21.72	-4.75	15.16	10.65
Difference	-0.24	0.66	2.82	2.82	-0.28	-0.02	0.02	0.68	-1.79	-1.89	-0.23	1.04	0.89
OTRS Actual Allocation Index	5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	16.98	18.94	-4.70	14.35	10.93
Difference	-0.32	0.79	2.21	2.21	-0.17	0.19	0.07	0.53	-3.53	0.89	-0.28	1.85	0.61
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	27	20	8	8	12	17	17	3	39	30	72	29	1

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OTRS (Teachers)	22,811,348,353	100.00	100.00
US Equity	10,752,095,969	47.13	43.50
International Equity	3,908,581,366	17.13	19.00
Fixed Income	4,590,164,426	20.12	22.00
Private Equity	1,688,613,668	7.40	6.50
Real Estate	1,362,934,531	5.97	9.00
Cash Equivalent	248,272,890	1.09	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Opportunistic Fixed Income accounts for 1.24% of the Total Fund. Please refer to the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	22,811,348,353	100.00	4.88	5.56	18.20	18.20	16.93	11.89	9.46	11.08	9.44	12/01/1991
OTRS Policy Index			5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	9.50	
Difference			-0.28	0.56	2.60	2.60	-0.55	-0.32	-0.33	0.28	-0.06	
OTRS Actual Allocation Index			5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	N/A	
Difference			-0.36	0.69	1.99	1.99	-0.44	-0.11	-0.28	0.13	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			3.17	2.12	11.20	11.20	9.93	4.89	2.46	4.08	2.44	
US Equity	10,752,095,969	47.13	8.08	6.78	24.40	24.40	22.37	15.20	12.28	15.06	11.35	04/01/1990
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	11.01	
Difference			-1.20	-2.39	-1.26	-1.26	-3.42	-2.77	-2.27	-1.24	0.34	
US Active Equity	3,569,541,741	15.65	6.19	3.64	23.23	23.23	23.30	15.46	12.51	15.06	9.61	12/01/1998
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	8.62	
Difference			-3.09	-5.53	-2.43	-2.43	-2.49	-2.51	-2.04	-1.24	0.99	
Hotchkis & Wiley Mid Cap Value Equity (SA)	553,002,534	2.42	9.16	6.60	40.25	40.25	16.87	7.18	6.15	12.44	11.18	08/01/2002
Russell Mid Cap Val Index			8.54	7.44	28.34	28.34	19.62	11.22	9.96	13.44	11.28	
Difference			0.62	-0.84	11.91	11.91	-2.75	-4.04	-3.81	-1.00	-0.10	
Wellington Mid Cap Growth (SA)	607,214,757	2.66	2.06	1.83	12.69	12.69	27.35	22.16	15.08	15.93	11.67	09/01/1998
Russell Mid Cap Grth Index			2.85	2.07	12.73	12.73	27.46	19.83	14.92	16.63	10.95	
Difference			-0.79	-0.24	-0.04	-0.04	-0.11	2.33	0.16	-0.70	0.72	
Frontier Small Cap Value Equity (SA)	307,392,821	1.35	6.20	4.10	32.23	32.23	19.86	9.29	10.44	N/A	11.05	06/01/2013
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	10.17	
Difference			1.84	2.86	3.96	3.96	1.87	0.22	0.99	N/A	0.88	
Neumeier Poma Small Cap Equity (SA)	363,849,521	1.60	8.63	7.49	23.53	23.53	19.28	13.32	13.16	N/A	13.93	06/01/2013
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	11.56	
Difference			6.49	9.80	8.71	8.71	-0.74	1.30	2.40	N/A	2.37	
Shapiro Enhanced Small Cap Equity (SA)	1,057,935,043	4.64	6.60	0.88	26.37	26.37	20.98	12.47	10.95	14.22	10.24	02/01/1998
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	8.57	
Difference			4.46	3.19	11.55	11.55	0.96	0.45	0.19	0.99	1.67	
Geneva US Small Cap Growth Equity (SA)	336,070,890	1.47	6.11	4.04	12.58	12.58	24.48	18.78	16.53	N/A	16.01	06/01/2013
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	12.61	
Difference			6.10	9.68	9.75	9.75	3.31	4.25	4.87	N/A	3.40	

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Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System
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As of December 31, 2021

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Wasatch Small Cap Core Growth (SA)	344,076,175	1.51	5.50	5.63	21.34	21.34	31.83	23.01	18.43	N/A	17.25	06/01/2013
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	12.61	
Difference			5.49	11.27	18.51	18.51	10.66	8.48	6.77	N/A	4.64	
US Passive Equity (Cap Wgt)	3,778,912,212	16.57	8.51	8.32	25.06	25.06	25.13	17.50	14.23	N/A	15.17	04/01/2012
Northern Trust Russell 1000 Index (SA)	2,358,057,021	10.34	9.77	10.08	26.67	26.67	26.18	N/A	N/A	N/A	17.54	12/01/2017
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	17.55	
Difference			-0.01	0.07	0.22	0.22	-0.03	N/A	N/A	N/A	-0.01	
Northern Trust Russell Mid Cap Index (CF)	1,420,855,191	6.23	6.46	5.46	22.62	22.62	N/A	N/A	N/A	N/A	28.60	03/01/2020
Russell Mid Cap Index			6.44	5.45	22.58	22.58	23.29	15.10	12.23	14.91	28.55	
Difference			0.02	0.01	0.04	0.04	N/A	N/A	N/A	N/A	0.05	
US Passive Equity (Non-Cap Wgt)	3,403,642,000	14.92	9.67	8.55	24.69	24.69	20.05	14.89	12.20	N/A	14.31	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			9.67	8.56	24.74	24.74	20.08	N/A	N/A	N/A	N/A	
Difference			0.00	-0.01	-0.05	-0.05	-0.03	N/A	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	3,403,642,000	14.92	9.67	8.55	24.69	24.69	20.05	N/A	N/A	N/A	12.86	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			9.67	8.56	24.74	24.74	20.08	N/A	N/A	N/A	12.89	
Difference			0.00	-0.01	-0.05	-0.05	-0.03	N/A	N/A	N/A	-0.03	

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

As of December 31, 2021

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	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,908,581,366	17.13	1.43	0.18	11.24	11.24	14.83	10.74	7.64	8.76	8.09	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			1.71	-0.79	8.99	8.99	14.13	10.33	7.35	8.05	5.94	
Difference			-0.28	0.97	2.25	2.25	0.70	0.41	0.29	0.71	2.15	
Causeway Intl Opportunities (SA)	630,638,690	2.76	0.06	-1.78	7.54	7.54	11.95	8.61	5.56	7.91	8.32	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			1.34	-0.83	11.13	11.13	8.90	6.64	4.56	5.90	7.97	
Difference			-1.28	-0.95	-3.59	-3.59	3.05	1.97	1.00	2.01	0.35	
Allianz Best Styles AC Intl Equity (SA)	1,319,994,164	5.79	2.93	-0.47	10.43	10.43	11.30	8.76	N/A	N/A	9.47	07/01/2016
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	10.27	
Difference			1.05	0.58	2.14	2.14	-2.40	-1.36	N/A	N/A	-0.80	
Wellington Intl Quality Growth (SA)	757,319,482	3.32	2.33	0.30	10.74	10.74	20.59	16.46	N/A	N/A	14.10	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	12.17	
Difference			-0.07	1.57	5.37	5.37	2.40	3.02	N/A	N/A	1.93	
Wasatch International Small Cap Growth (SA)	469,201,225	2.06	-1.16	4.37	11.62	11.62	22.44	15.82	12.12	13.39	13.16	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			0.70	0.79	13.36	13.36	16.91	11.63	9.28	9.86	9.58	
Difference			-1.86	3.58	-1.74	-1.74	5.53	4.19	2.84	3.53	3.58	
Wellington International Small Cap Equity (CF)	341,166,587	1.50	-0.85	-0.36	10.66	10.66	14.54	8.54	6.62	9.35	9.27	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			0.13	1.09	10.48	10.48	16.05	11.45	9.92	11.19	10.88	
Difference			-0.98	-1.45	0.18	0.18	-1.51	-2.91	-3.30	-1.84	-1.61	
SSGA Emerging Market Small Cap (CF)	390,261,218	1.71	2.27	1.17	22.28	22.28	15.66	11.73	N/A	N/A	9.76	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			1.48	-0.55	19.29	19.29	16.92	11.88	7.69	7.78	10.05	
Difference			0.79	1.72	2.99	2.99	-1.26	-0.15	N/A	N/A	-0.29	
Fixed Income	4,590,164,426	20.12	0.72	1.08	0.05	0.05	7.79	5.61	4.73	5.06	6.84	04/01/1990
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	N/A	
Difference			0.52	0.56	-0.44	-0.44	1.80	1.23	0.77	0.98	N/A	
Loomis Sayles Multisector Full Discretion (SA)	1,221,058,380	5.35	-0.69	-0.53	0.60	0.60	8.18	5.62	4.59	5.00	6.13	07/01/1999
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	5.45	
Difference			-0.89	-1.05	0.11	0.11	2.19	1.24	0.63	0.92	0.68	
Mackay Shields Core+ Extended Discretion (SA)	1,192,131,882	5.23	0.10	0.70	2.14	2.14	7.80	5.08	3.92	4.26	5.15	11/01/2004
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	4.97	
Difference			-0.10	0.18	1.65	1.65	1.81	0.70	-0.04	0.18	0.18	
Lord Abbett Core Plus Full Discretion (SA)	1,162,274,201	5.10	0.41	0.67	1.60	1.60	6.41	4.40	3.77	4.05	5.04	11/01/2004
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	4.97	
Difference			0.21	0.15	1.11	1.11	0.42	0.02	-0.19	-0.03	0.07	

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Hoisington Active Duration Long Bonds (SA)	1,014,699,963	4.45	3.60	4.05	-5.36	-5.36	10.36	7.64	5.03	4.93	7.29	11/01/2004
Bloomberg US Trsy Index			0.18	0.26	-2.32	-2.32	4.07	3.07	2.46	2.13	3.52	
Difference			3.42	3.79	-3.04	-3.04	6.29	4.57	2.57	2.80	3.77	
Private Equity	1,688,613,668	7.40	4.73	20.22	57.72	57.72	29.61	24.99	21.46	20.85	21.73	07/01/2015
R 2000 Index+4%			3.15	-0.38	19.41	19.41	24.82	16.50	15.19	17.76	15.28	
Difference			1.58	20.60	38.31	38.31	4.79	8.49	6.27	3.09	6.45	
Franklin Park Private Equity LP	1,678,578,986	7.36	4.73	20.33	57.92	57.92	29.86	25.35	21.77	14.78	21.85	07/01/2015
Legacy Private Equity LP	10,034,682	0.04	4.97	6.05	33.66	33.66	7.58	4.66	5.21	8.24	4.43	10/01/2008
Special Opportunities	259,424,753	1.14	8.56	12.95	24.62	24.62	7.88	8.93	N/A	N/A	8.62	07/01/2015
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.25	
Difference			8.55	12.89	26.17	26.17	3.09	5.36	N/A	N/A	5.37	
PIMCO Bravo LP	80,685	0.00	-0.46	-2.66	-28.56	-28.56	-47.50	-24.23	-131.92	-148.38	-151.38	03/01/2011
PIMCO Bravo II LP	37,389,784	0.16	4.43	10.07	34.73	34.73	4.04	5.88	6.57	N/A	8.55	03/01/2013
PIMCO Bravo III LP	179,835,410	0.79	10.18	13.78	22.85	22.85	9.87	N/A	N/A	N/A	11.59	04/01/2017
PIMCO COF II LP	42,118,874	0.18	5.63	11.64	22.65	22.65	9.02	10.27	N/A	N/A	11.31	10/01/2016
Bloomberg US Unv Bond Index			-0.03	0.05	-1.10	-1.10	5.15	3.84	3.35	3.31	3.13	
Difference			5.66	11.59	23.75	23.75	3.87	6.43	N/A	N/A	8.18	
Real Estate	1,362,934,531	5.97	5.32	9.39	11.65	11.65	4.76	5.63	N/A	N/A	6.99	07/01/2015
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	8.15	
Difference			-0.83	-2.31	-6.05	-6.05	-3.61	-2.12	N/A	N/A	-1.16	
AEW Core Property Trust (CF)	371,469,714	1.63	5.74	9.20	13.18	13.18	6.32	6.61	7.43	7.78	7.70	07/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.59	
Difference			-1.95	-5.39	-7.88	-7.88	-1.92	-1.14	-1.19	-1.66	-1.89	
Heitman America Real Estate (CF)	365,637,634	1.60	6.85	11.07	14.86	14.86	4.52	5.66	7.27	8.41	8.24	05/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.87	
Difference			-0.84	-3.52	-6.20	-6.20	-3.72	-2.09	-1.35	-1.03	-1.63	
L&B Core Income Partners LP	48,966,838	0.21	8.09	8.20	4.29	4.29	-3.92	0.77	3.88	5.22	4.85	04/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.79	
Difference			0.40	-6.39	-16.77	-16.77	-12.16	-6.98	-4.74	-4.22	-4.94	

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American Strategic Value Realty (CF)	92,930,343	0.41	5.78	10.11	13.62	13.62	8.31	8.67	9.25	N/A	9.13	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-1.91	-4.48	-7.44	-7.44	0.07	0.92	0.63	N/A	0.16	
Angelo Gordon Value X LP	43,422,329	0.19	3.94	14.25	25.09	25.09	N/A	N/A	N/A	N/A	3.22	07/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.11	
Difference			-3.75	-0.34	4.03	4.03	N/A	N/A	N/A	N/A	-5.89	
Artemis Real Estate III LP	28,091,204	0.12	14.11	34.11	39.92	39.92	N/A	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.48	
Difference			6.42	19.52	18.86	18.86	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	36,622,834	0.16	3.76	9.60	11.42	11.42	-3.02	3.67	5.55	N/A	4.86	11/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.86	
Difference			-3.93	-4.99	-9.64	-9.64	-11.26	-4.08	-3.07	N/A	-4.00	
Dune Real Estate IV LP	19,508,065	0.09	8.12	29.07	-1.98	-1.98	N/A	N/A	N/A	N/A	-16.04	09/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.79	
Difference			0.43	14.48	-23.04	-23.04	N/A	N/A	N/A	N/A	-25.83	
FCP Realty IV LP	32,931,764	0.14	6.23	10.66	21.97	21.97	-7.20	N/A	N/A	N/A	-7.02	12/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.54	
Difference			-1.46	-3.93	0.91	0.91	-15.44	N/A	N/A	N/A	-15.56	
FCP Realty V LP	7,927,830	0.03	-20.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-20.60	10/01/2021
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	7.69	
Difference			-28.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-28.29	
GreenOak US II LP	23,179,608	0.10	-0.57	-7.49	-31.75	-31.75	-17.41	-7.69	-5.52	N/A	-5.66	10/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.75	
Difference			-8.26	-22.08	-52.81	-52.81	-25.65	-15.44	-14.14	N/A	-14.41	
GreenOak US III LP	37,342,118	0.16	0.66	14.63	0.93	0.93	-3.54	N/A	N/A	N/A	-12.20	06/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.40	
Difference			-7.03	0.04	-20.13	-20.13	-11.78	N/A	N/A	N/A	-20.60	
Harbert European Real Estate V LP	34,560,939	0.15	5.58	10.76	14.81	14.81	-1.92	N/A	N/A	N/A	-2.10	12/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.54	
Difference			-2.11	-3.83	-6.25	-6.25	-10.16	N/A	N/A	N/A	-10.64	
Invesco Strategic Opportunity (CF)	16,455,243	0.07	-2.24	14.79	25.64	25.64	N/A	N/A	N/A	N/A	53.60	10/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.64	
Difference			-9.93	0.20	4.58	4.58	N/A	N/A	N/A	N/A	43.96	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
L&B Gloden Driller (SA)	76,211,128	0.33	1.58	-0.01	-2.56	-2.56	10.15	7.13	N/A	N/A	N/A	07/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.88	
Difference			-6.11	-14.60	-23.62	-23.62	1.91	-0.62	N/A	N/A	N/A	
Landmark Real Estate VII LP	8,470,123	0.04	2.35	3.33	2.35	2.35	-2.08	1.46	8.53	N/A	8.43	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-5.34	-11.26	-18.71	-18.71	-10.32	-6.29	-0.09	N/A	-0.54	
Lyrical-OTRS Realty Partner IV LP	56,838,144	0.25	0.00	-0.32	3.04	3.04	22.10	9.07	5.46	N/A	4.13	11/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.86	
Difference			-7.69	-14.91	-18.02	-18.02	13.86	1.32	-3.16	N/A	-4.73	
Starwood Opportunity X LP	12,297,784	0.05	5.33	21.08	37.99	37.99	10.11	12.66	N/A	N/A	12.52	07/01/2015
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.20	
Difference			-2.36	6.49	16.93	16.93	1.87	4.91	N/A	N/A	4.32	
Starwood Opportunity XI LP	39,990,889	0.18	9.15	15.13	35.40	35.40	18.78	N/A	N/A	N/A	23.89	08/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.26	
Difference			1.46	0.54	14.34	14.34	10.54	N/A	N/A	N/A	15.63	
Property ACQ Fund	10,080,000	0.04	0.00	-0.02	38.05	38.05	-7.93	N/A	N/A	N/A	-11.61	08/01/2017

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	22,811,348,353	100.00	4.92	5.66	18.42	18.42	17.20	12.19	9.81	11.48	9.78	12/01/1991
OTRS Policy Index			5.16	5.00	15.60	15.60	17.48	12.21	9.79	10.80	9.50	
Difference			-0.24	0.66	2.82	2.82	-0.28	-0.02	0.02	0.68	0.28	
OTRS Actual Allocation Index			5.24	4.87	16.21	16.21	17.37	12.00	9.74	10.95	N/A	
Difference			-0.32	0.79	2.21	2.21	-0.17	0.19	0.07	0.53	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			3.21	2.22	11.42	11.42	10.20	5.19	2.81	4.48	2.78	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	8.38	
Rank			27	20	8	8	12	17	17	3	1	
US Equity	10,752,095,969	47.13	8.13	6.87	24.61	24.61	22.64	15.52	12.62	15.29	11.42	04/01/1990
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	11.01	
Difference			-1.15	-2.30	-1.05	-1.05	-3.15	-2.45	-1.93	-1.01	0.41	
IM U.S. Equity (SA+CF) Median			7.67	7.05	26.18	26.18	23.76	15.72	13.13	15.46	11.83	
Rank			44	52	60	60	57	51	55	52	67	
US Active Equity	3,569,541,741	15.65	6.31	3.87	23.75	23.75	23.86	15.99	12.94	15.52	10.08	12/01/1998
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	8.62	
Difference			-2.97	-5.30	-1.91	-1.91	-1.93	-1.98	-1.61	-0.78	1.46	
IM U.S. Equity (SA+CF) Median			7.67	7.05	26.18	26.18	23.76	15.72	13.13	15.46	10.57	
Rank			65	74	64	64	50	50	52	50	58	
Hotchkis & Wiley Mid Cap Value Equity (SA)	553,002,534	2.42	9.20	6.70	40.49	40.49	17.15	7.56	6.58	12.93	11.70	08/01/2002
Russell Mid Cap Val Index			8.54	7.44	28.34	28.34	19.62	11.22	9.96	13.44	11.28	
Difference			0.66	-0.74	12.15	12.15	-2.47	-3.66	-3.38	-0.51	0.42	
IM U.S. Mid Cap Value Equity (SA+CF) Median			8.46	7.15	29.05	29.05	20.86	11.96	10.88	14.21	12.40	
Rank			27	57	4	4	91	99	100	81	69	
Wellington Mid Cap Growth (SA)	607,214,757	2.66	2.12	1.97	12.99	12.99	27.67	22.45	15.39	16.30	12.11	09/01/1998
Russell Mid Cap Grth Index			2.85	2.07	12.73	12.73	27.46	19.83	14.92	16.63	10.95	
Difference			-0.73	-0.10	0.26	0.26	0.21	2.62	0.47	-0.33	1.16	
IM U.S. Mid Cap Growth Equity (SA+CF) Median			3.89	4.26	14.87	14.87	29.15	21.59	16.33	17.39	12.49	
Rank			70	77	65	65	68	42	62	64	64	
Frontier Small Cap Value Equity (SA)	307,392,821	1.35	6.37	4.42	33.00	33.00	20.72	10.15	11.35	N/A	11.99	06/01/2013
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	10.17	
Difference			2.01	3.18	4.73	4.73	2.73	1.08	1.90	N/A	1.82	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	11.52	
Rank			63	64	36	36	37	59	33	N/A	38	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Neumeier Poma Small Cap Equity (SA)	363,849,521	1.60	8.79	7.80	24.22	24.22	19.98	14.00	13.86	N/A	14.64	06/01/2013
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	11.56	
Difference			6.65	10.11	9.40	9.40	-0.04	1.98	3.10	N/A	3.08	
IM U.S. Small Cap Equity (SA+CF) Median			5.62	3.93	24.02	24.02	22.13	13.47	12.10	14.71	13.03	
Rank			13	16	49	49	73	48	33	N/A	30	
Shapiro Enhanced Small Cap Equity (SA)	1,057,935,043	4.64	6.71	1.08	26.85	26.85	21.60	13.09	11.66	15.01	11.13	02/01/1998
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	8.57	
Difference			4.57	3.39	12.03	12.03	1.58	1.07	0.90	1.78	2.56	
IM U.S. Small Cap Equity (SA+CF) Median			5.62	3.93	24.02	24.02	22.13	13.47	12.10	14.71	11.18	
Rank			36	71	37	37	56	55	58	47	52	
Geneva US Small Cap Growth Equity (SA)	336,070,890	1.47	6.28	4.38	13.30	13.30	25.29	19.58	17.27	N/A	16.61	06/01/2013
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	12.61	
Difference			6.27	10.02	10.47	10.47	4.12	5.05	5.61	N/A	4.00	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	16.36	
Rank			15	26	51	51	66	58	32	N/A	44	
Wasatch Small Cap Core Growth (SA)	344,076,175	1.51	5.73	6.06	22.24	22.24	32.82	23.99	19.41	N/A	18.24	06/01/2013
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	12.61	
Difference			5.72	11.70	19.41	19.41	11.65	9.46	7.75	N/A	5.63	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	16.36	
Rank			22	18	17	17	23	26	17	N/A	18	
US Passive Equity (Cap Wgt)	3,778,912,212	16.57	8.51	8.32	25.07	25.07	25.14	17.51	14.24	N/A	15.18	04/01/2012
Northern Trust Russell 1000 Index (SA)	2,358,057,021	10.34	9.77	10.08	26.67	26.67	26.19	N/A	N/A	N/A	17.55	12/01/2017
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	17.55	
Difference			-0.01	0.07	0.22	0.22	-0.02	N/A	N/A	N/A	0.00	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	17.54	
Rank			59	46	51	51	31	N/A	N/A	N/A	43	
Northern Trust Russell Mid Cap Index (CF)	1,420,855,191	6.23	6.46	5.47	22.63	22.63	N/A	N/A	N/A	N/A	28.61	03/01/2020
Russell Mid Cap Index			6.44	5.45	22.58	22.58	23.29	15.10	12.23	14.91	28.55	
Difference			0.02	0.02	0.05	0.05	N/A	N/A	N/A	N/A	0.06	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Non-Cap Wgt)	3,403,642,000	14.92	9.68	8.58	24.77	24.77	20.12	14.95	12.24	N/A	14.36	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			9.67	8.56	24.74	24.74	20.08	N/A	N/A	N/A	N/A	
Difference			0.01	0.02	0.03	0.03	0.04	N/A	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	3,403,642,000	14.92	9.68	8.58	24.77	24.77	20.12	N/A	N/A	N/A	12.93	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			9.67	8.56	24.74	24.74	20.08	N/A	N/A	N/A	12.89	
Difference			0.01	0.02	0.03	0.03	0.04	N/A	N/A	N/A	0.04	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	17.54	
Rank			63	80	93	93	86	N/A	N/A	N/A	85	
International Equity	3,908,581,366	17.13	1.56	0.42	11.72	11.72	15.33	11.24	8.13	9.27	8.53	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			1.71	-0.79	8.99	8.99	14.13	10.33	7.35	8.05	5.94	
Difference			-0.15	1.21	2.73	2.73	1.20	0.91	0.78	1.22	2.59	
IM International Equity (SA+CF) Median			1.03	-0.41	10.08	10.08	14.94	11.07	8.03	9.24	8.09	
Rank			45	43	42	42	48	48	49	50	31	
Causeway Intl Opportunities (SA)	630,638,690	2.76	0.15	-1.62	7.87	7.87	12.31	8.97	5.89	8.15	8.44	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			1.34	-0.83	11.13	11.13	8.90	6.64	4.56	5.90	7.97	
Difference			-1.19	-0.79	-3.26	-3.26	3.41	2.33	1.33	2.25	0.47	
IM ACWI Ex US Value (SA+CF) Median			1.66	-1.44	10.87	10.87	12.36	9.19	7.08	8.31	8.68	
Rank			79	56	66	66	52	52	72	56	59	
Allianz Best Styles AC Intl Equity (SA)	1,319,994,164	5.79	3.00	-0.34	10.70	10.70	11.59	9.04	N/A	N/A	9.76	07/01/2016
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	10.27	
Difference			1.12	0.71	2.41	2.41	-2.11	-1.08	N/A	N/A	-0.51	
IM ACWI Ex US Core (SA+CF) Median			2.46	0.34	9.92	9.92	16.29	11.24	8.24	8.86	11.30	
Rank			46	63	42	42	82	77	N/A	N/A	68	
Wellington Intl Quality Growth (SA)	757,319,482	3.32	2.48	0.58	11.33	11.33	21.24	17.10	N/A	N/A	14.74	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	12.17	
Difference			0.08	1.85	5.96	5.96	3.05	3.66	N/A	N/A	2.57	
IM ACWI Ex US Growth (SA+CF) Median			1.94	1.01	8.80	8.80	19.45	14.10	10.44	11.01	13.48	
Rank			42	57	29	29	39	22	N/A	N/A	31	
Wasatch International Small Cap Growth (SA)	469,201,225	2.06	-0.97	4.74	12.41	12.41	23.30	16.68	12.99	14.33	14.09	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			0.70	0.79	13.36	13.36	16.91	11.63	9.28	9.86	9.58	
Difference			-1.67	3.95	-0.95	-0.95	6.39	5.05	3.71	4.47	4.51	
IM International Small Cap Equity (SA+CF) Median			0.59	0.69	13.53	13.53	16.80	12.07	10.14	11.84	11.59	
Rank			82	17	58	58	15	16	18	15	12	

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

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Wellington International Small Cap Equity (CF)	341,166,587	1.50	-0.73	-0.15	11.10	11.10	15.09	9.13	7.27	10.08	9.99	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			0.13	1.09	10.48	10.48	16.05	11.45	9.92	11.19	10.88	
Difference			-0.86	-1.24	0.62	0.62	-0.96	-2.32	-2.65	-1.11	-0.89	
IM EAFE Core (SA+CF) Median			3.20	2.27	12.14	12.14	14.57	10.45	7.56	9.34	9.13	
Rank			93	76	58	58	45	68	58	27	19	
SSGA Emerging Market Small Cap (CF)	390,261,218	1.71	2.46	1.52	23.06	23.06	16.51	12.46	N/A	N/A	10.44	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			1.48	-0.55	19.29	19.29	16.92	11.88	7.69	7.78	10.05	
Difference			0.98	2.07	3.77	3.77	-0.41	0.58	N/A	N/A	0.39	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	9.52	
Rank			9	7	6	6	25	33	N/A	N/A	37	
Fixed Income	4,590,164,426	20.12	0.77	1.18	0.23	0.23	7.98	5.82	4.95	5.29	7.03	04/01/1990
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	N/A	
Difference			0.57	0.66	-0.26	-0.26	1.99	1.44	0.99	1.21	N/A	
IM U.S. Fixed Income (SA+CF) Median			0.07	0.23	-0.03	-0.03	5.44	4.17	3.68	3.72	6.07	
Rank			21	28	43	43	24	24	27	28	21	
Loomis Sayles Multisector Full Discretion (SA)	1,221,058,380	5.35	-0.63	-0.41	0.82	0.82	8.43	5.83	4.79	5.18	6.32	07/01/1999
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	5.45	
Difference			-0.83	-0.93	0.33	0.33	2.44	1.45	0.83	1.10	0.87	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	5.68	
Rank			98	99	21	21	4	8	15	15	15	
Mackay Shields Core+ Extended Discretion (SA)	1,192,131,882	5.23	0.15	0.80	2.34	2.34	8.03	5.30	4.14	4.48	5.39	11/01/2004
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	4.97	
Difference			-0.05	0.28	1.85	1.85	2.04	0.92	0.18	0.40	0.42	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	5.01	
Rank			34	7	9	9	8	20	41	33	27	
Lord Abbett Core Plus Full Discretion (SA)	1,162,274,201	5.10	0.45	0.75	1.76	1.76	6.60	4.58	3.94	4.22	5.21	11/01/2004
OTRS Fixed Income Blended Benchmark			0.20	0.52	0.49	0.49	5.99	4.38	3.96	4.08	4.97	
Difference			0.25	0.23	1.27	1.27	0.61	0.20	-0.02	0.14	0.24	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	5.01	
Rank			8	10	14	14	42	58	55	52	34	
Hoisington Active Duration Long Bonds (SA)	1,014,699,963	4.45	3.62	4.09	-5.28	-5.28	10.45	7.74	5.14	5.06	7.43	11/01/2004
Bloomberg US Trsy Index			0.18	0.26	-2.32	-2.32	4.07	3.07	2.46	2.13	3.52	
Difference			3.44	3.83	-2.96	-2.96	6.38	4.67	2.68	2.93	3.91	
IM U.S. Long Duration (SA+CF) Median			1.80	1.81	-1.72	-1.72	11.59	8.01	6.36	6.54	7.40	
Rank			1	1	100	100	81	74	96	98	49	

During 12/2021, FCP Realty V LP was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	1,688,613,668	7.40	4.73	20.22	57.72	57.72	29.61	24.99	21.46	20.85	21.73	07/01/2015
R 2000 Index+4%			3.15	-0.38	19.41	19.41	24.82	16.50	15.19	17.76	15.28	
Difference			1.58	20.60	38.31	38.31	4.79	8.49	6.27	3.09	6.45	
Franklin Park Private Equity LP	1,678,578,986	7.36	4.73	20.33	57.92	57.92	29.86	25.35	21.95	14.89	22.04	07/01/2015
Legacy Private Equity LP	10,034,682	0.04	4.97	6.05	33.66	33.66	7.58	4.66	5.27	8.28	4.45	10/01/2008
Special Opportunities	259,424,753	1.14	8.56	12.95	24.62	24.62	7.88	8.93	N/A	N/A	8.62	07/01/2015
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.25	
Difference			8.55	12.89	26.17	26.17	3.09	5.36	N/A	N/A	5.37	
PIMCO Bravo LP	80,685	0.00	-0.46	-2.66	-28.56	-28.56	-47.50	-24.23	-16.51	-4.79	-3.91	03/01/2011
PIMCO Bravo II LP	37,389,784	0.16	4.43	10.07	34.73	34.73	4.04	5.88	6.96	N/A	9.19	03/01/2013
PIMCO Bravo III LP	179,835,410	0.79	10.18	13.78	22.85	22.85	9.87	N/A	N/A	N/A	11.59	04/01/2017
PIMCO COF II LP	42,118,874	0.18	5.63	11.64	22.65	22.65	9.02	10.27	N/A	N/A	11.31	10/01/2016
Bloomberg US Unv Bond Index			-0.03	0.05	-1.10	-1.10	5.15	3.84	3.35	3.31	3.13	
Difference			5.66	11.59	23.75	23.75	3.87	6.43	N/A	N/A	8.18	
Real Estate	1,362,934,531	5.97	5.39	9.53	11.92	11.92	4.98	5.83	N/A	N/A	7.17	07/01/2015
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	8.15	
Difference			-0.76	-2.17	-5.78	-5.78	-3.39	-1.92	N/A	N/A	-0.98	
AEW Core Property Trust (CF)	371,469,714	1.63	5.74	9.20	13.18	13.18	6.32	6.61	7.97	8.42	8.36	07/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.59	
Difference			-1.95	-5.39	-7.88	-7.88	-1.92	-1.14	-0.65	-1.02	-1.23	
Heitman America Real Estate (CF)	365,637,634	1.60	7.04	11.47	15.69	15.69	5.27	6.42	8.03	9.19	9.03	05/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.87	
Difference			-0.65	-3.12	-5.37	-5.37	-2.97	-1.33	-0.59	-0.25	-0.84	
L&B Core Income Partners LP	48,966,838	0.21	7.97	7.99	3.92	3.92	-4.31	0.42	3.69	5.19	4.85	04/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.79	
Difference			0.28	-6.60	-17.14	-17.14	-12.55	-7.33	-4.93	-4.25	-4.94	
American Strategic Value Realty (CF)	92,930,343	0.41	6.09	10.75	14.94	14.94	9.56	9.93	10.58	N/A	10.45	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-1.60	-3.84	-6.12	-6.12	1.32	2.18	1.96	N/A	1.48	

During 12/2021, FCP Realty V LP was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Angelo Gordon Value X LP	43,422,329	0.19	3.94	14.25	25.09	25.09	N/A	N/A	N/A	N/A	3.22	07/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.11	
Difference			-3.75	-0.34	4.03	4.03	N/A	N/A	N/A	N/A	-5.89	
Artemis Real Estate III LP	28,091,204	0.12	14.11	34.11	39.92	39.92	N/A	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.48	
Difference			6.42	19.52	18.86	18.86	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	36,622,834	0.16	3.76	9.60	11.42	11.42	-3.02	3.67	6.11	N/A	5.96	11/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.86	
Difference			-3.93	-4.99	-9.64	-9.64	-11.26	-4.08	-2.51	N/A	-2.90	
Dune Real Estate IV LP	19,508,065	0.09	8.12	29.07	-1.98	-1.98	N/A	N/A	N/A	N/A	-16.04	09/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.79	
Difference			0.43	14.48	-23.04	-23.04	N/A	N/A	N/A	N/A	-25.83	
FCP Realty IV LP	32,931,764	0.14	6.23	10.66	21.97	21.97	-7.20	N/A	N/A	N/A	-7.02	12/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.54	
Difference			-1.46	-3.93	0.91	0.91	-15.44	N/A	N/A	N/A	-15.56	
FCP Realty V LP	7,927,830	0.03	-20.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-20.60	10/01/2021
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	7.69	
Difference			-28.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-28.29	
GreenOak US II LP	23,179,608	0.10	-0.57	-7.49	-31.75	-31.75	-17.41	-7.69	-4.84	N/A	-4.68	10/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.75	
Difference			-8.26	-22.08	-52.81	-52.81	-25.65	-15.44	-13.46	N/A	-13.43	
GreenOak US III LP	37,342,118	0.16	0.66	14.63	0.93	0.93	-3.54	N/A	N/A	N/A	-12.20	06/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.40	
Difference			-7.03	0.04	-20.13	-20.13	-11.78	N/A	N/A	N/A	-20.60	
Harbert European Real Estate V LP	34,560,939	0.15	5.58	10.76	14.81	14.81	-1.92	N/A	N/A	N/A	-2.10	12/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.54	
Difference			-2.11	-3.83	-6.25	-6.25	-10.16	N/A	N/A	N/A	-10.64	
Invesco Strategic Opportunity (CF)	16,455,243	0.07	-2.24	14.79	25.64	25.64	N/A	N/A	N/A	N/A	53.60	10/01/2019
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.64	
Difference			-9.93	0.20	4.58	4.58	N/A	N/A	N/A	N/A	43.96	
L&B Gloden Driller (SA)	76,211,128	0.33	1.58	-0.01	-2.56	-2.56	10.15	7.13	4.97	N/A	4.41	07/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.88	
Difference			-6.11	-14.60	-23.62	-23.62	1.91	-0.62	-3.65	N/A	-4.47	

During 12/2021, FCP Realty V LP was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

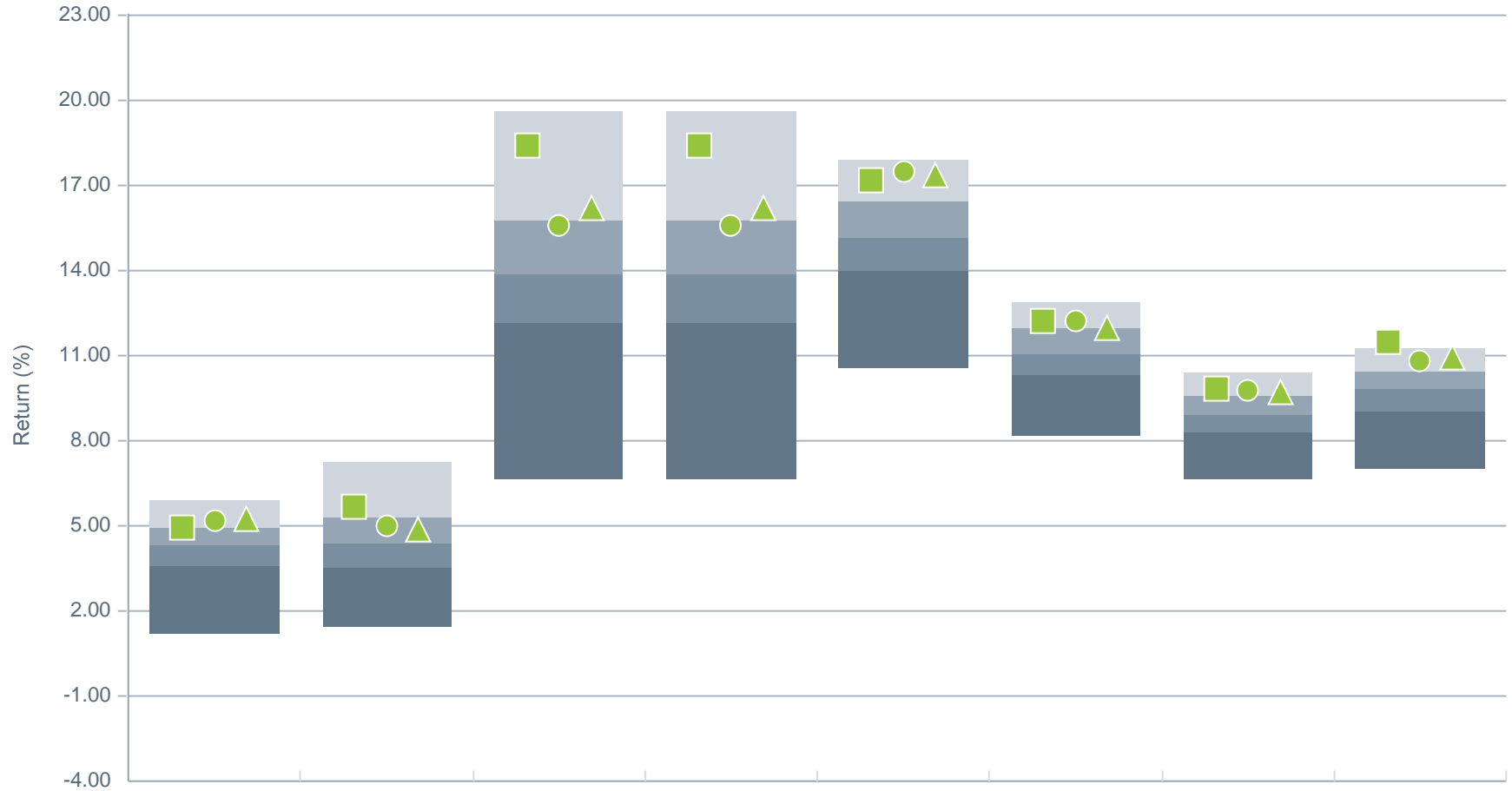
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Landmark Real Estate VII LP	8,470,123	0.04	2.35	3.33	2.35	2.35	-2.08	1.46	10.59	N/A	10.46	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-5.34	-11.26	-18.71	-18.71	-10.32	-6.29	1.97	N/A	1.49	
Lyrical-OTRS Realty Partner IV LP	56,838,144	0.25	0.00	-0.32	3.04	3.04	22.10	9.07	6.39	N/A	6.24	11/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.86	
Difference			-7.69	-14.91	-18.02	-18.02	13.86	1.32	-2.23	N/A	-2.62	
Starwood Opportunity X LP	12,297,784	0.05	5.33	21.08	37.99	37.99	10.11	12.66	N/A	N/A	13.42	07/01/2015
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.20	
Difference			-2.36	6.49	16.93	16.93	1.87	4.91	N/A	N/A	5.22	
Starwood Opportunity XI LP	39,990,889	0.18	9.15	15.13	35.40	35.40	18.78	N/A	N/A	N/A	23.89	08/01/2018
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.26	
Difference			1.46	0.54	14.34	14.34	10.54	N/A	N/A	N/A	15.63	
Property ACQ Fund	10,080,000	0.04	0.00	0.00	38.08	38.08	-7.91	N/A	N/A	N/A	-5.16	08/01/2017

During 12/2021, FCP Realty V LP was funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021



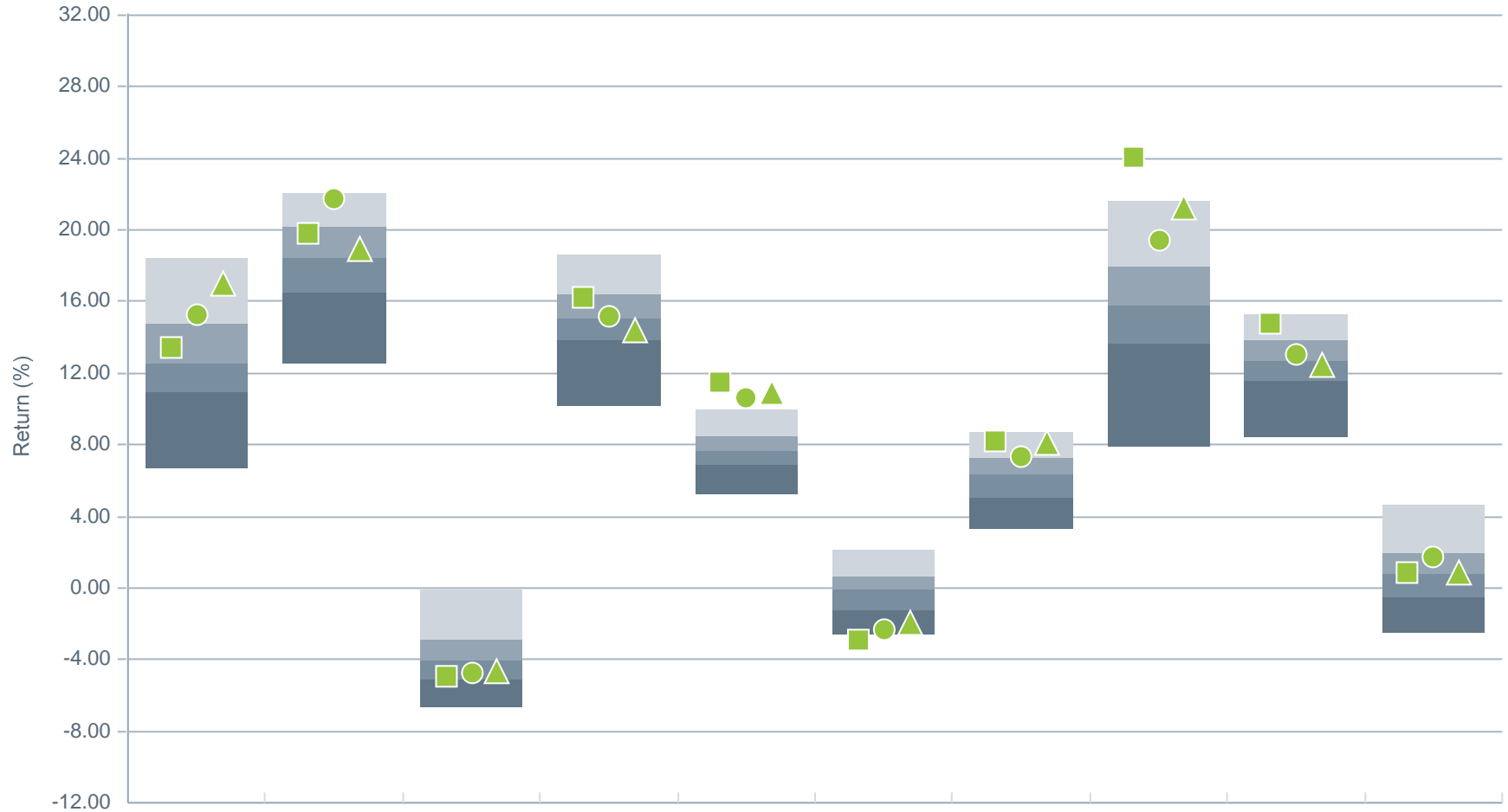
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OTRS Total Fund	4.92 (27)	5.66 (20)	18.42 (8)	18.42 (8)	17.20 (12)	12.19 (17)	9.81 (17)	11.48 (3)
● OTRS Policy Index	5.16 (18)	5.00 (33)	15.60 (27)	15.60 (27)	17.48 (9)	12.21 (17)	9.79 (19)	10.80 (14)
▲ OTRS Allocation Index	5.24 (16)	4.87 (35)	16.21 (22)	16.21 (22)	17.37 (12)	12.00 (24)	9.74 (19)	10.95 (11)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

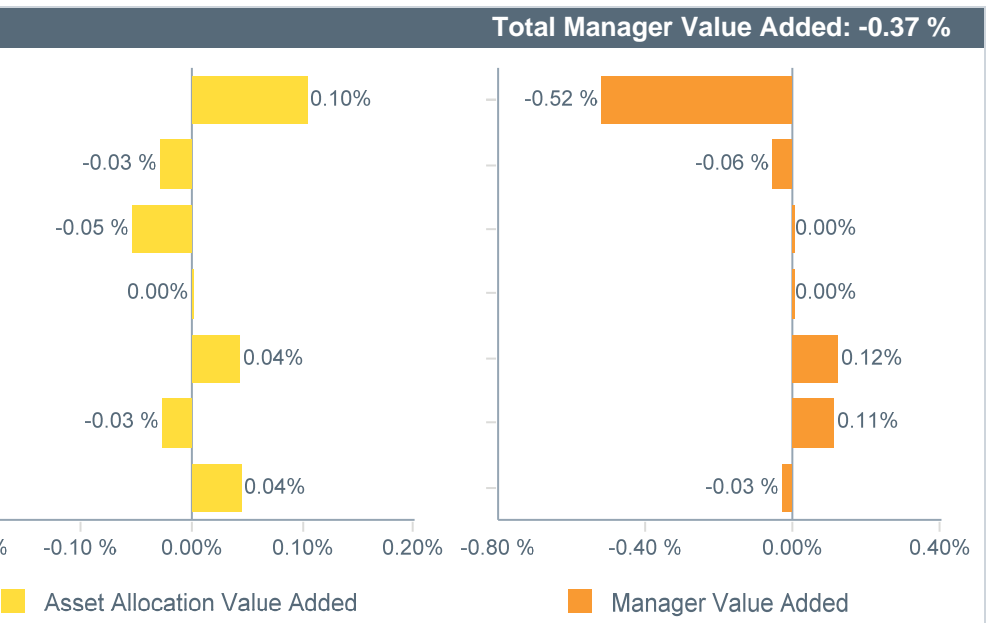
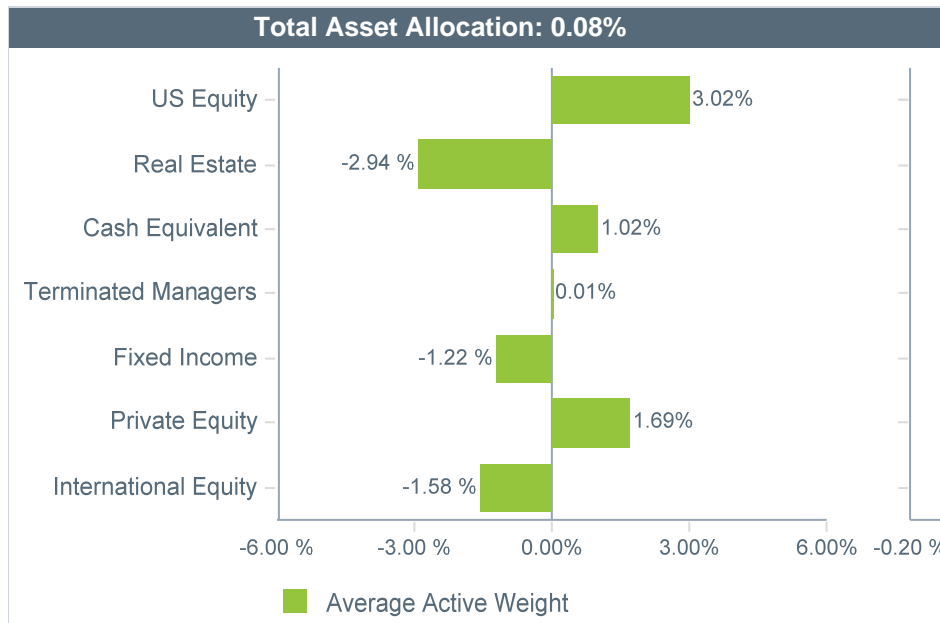
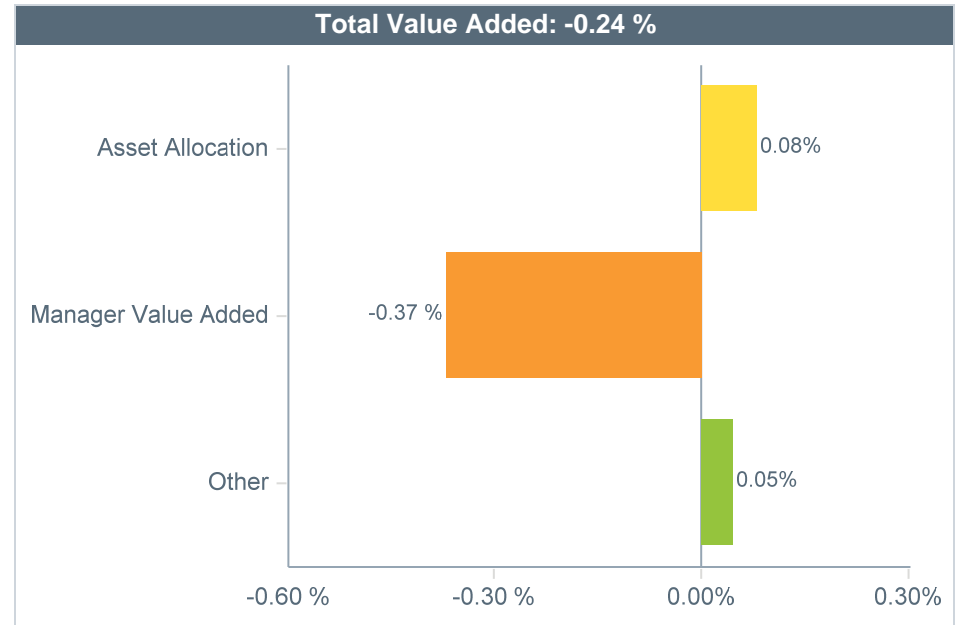
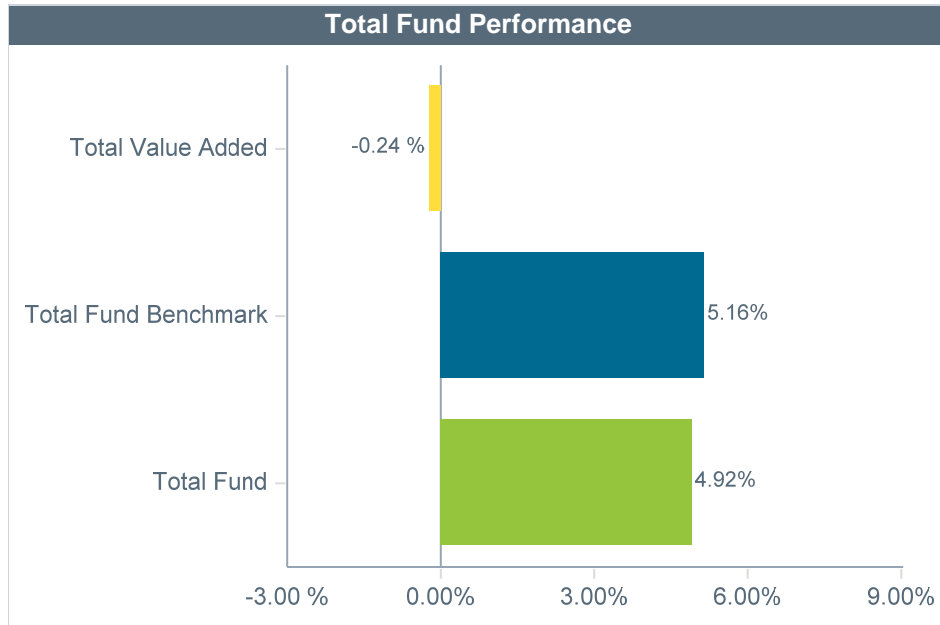
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OTRS Total Fund	13.45 (39)	19.83 (30)	-4.98 (72)	16.20 (29)	11.54 (1)	-2.90 (97)	8.16 (9)	24.03 (2)	14.76 (9)	0.87 (46)
● OTRS Policy Index	15.24 (21)	21.72 (8)	-4.75 (66)	15.16 (49)	10.65 (3)	-2.33 (93)	7.36 (23)	19.45 (14)	13.09 (39)	1.73 (30)
▲ OTRS Allocation Index	16.98 (9)	18.94 (42)	-4.70 (64)	14.35 (66)	10.93 (2)	-1.95 (87)	8.15 (9)	21.24 (6)	12.44 (59)	0.88 (45)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

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

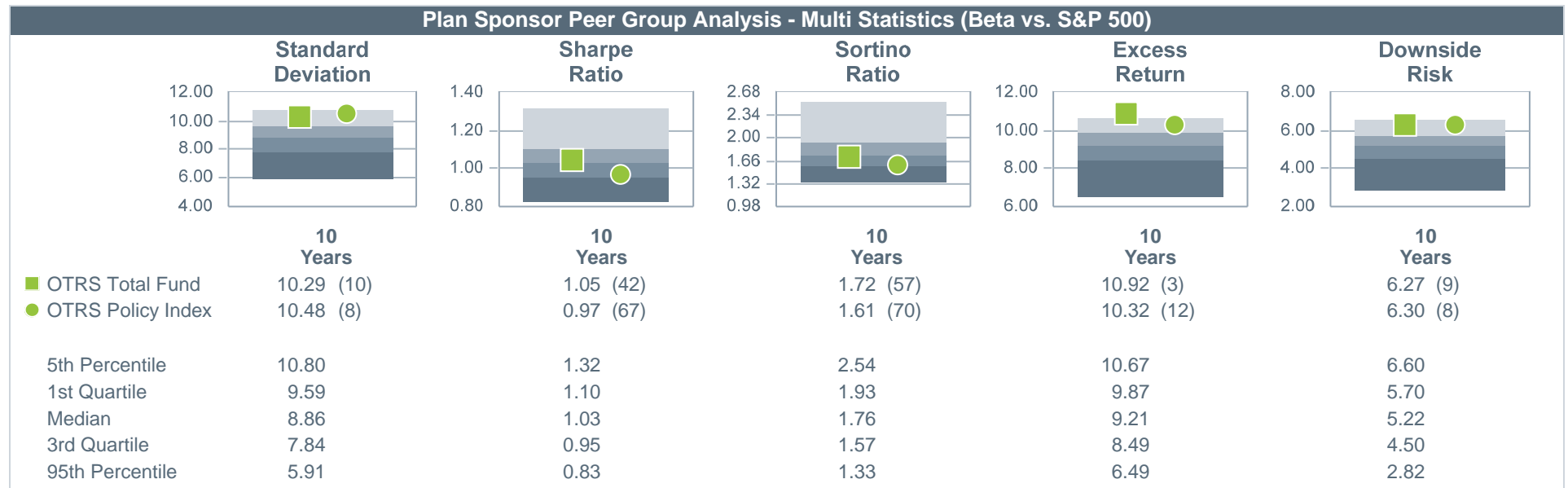
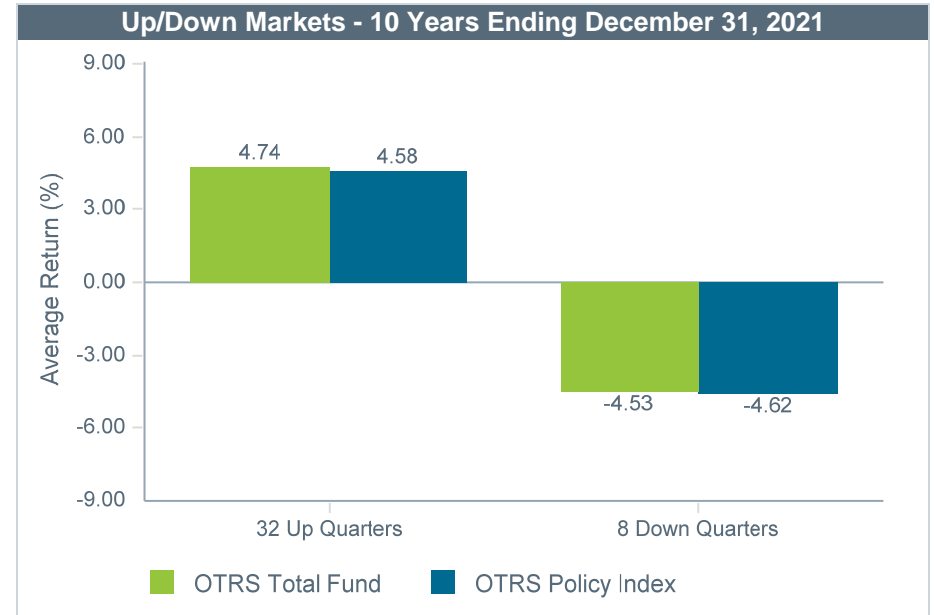
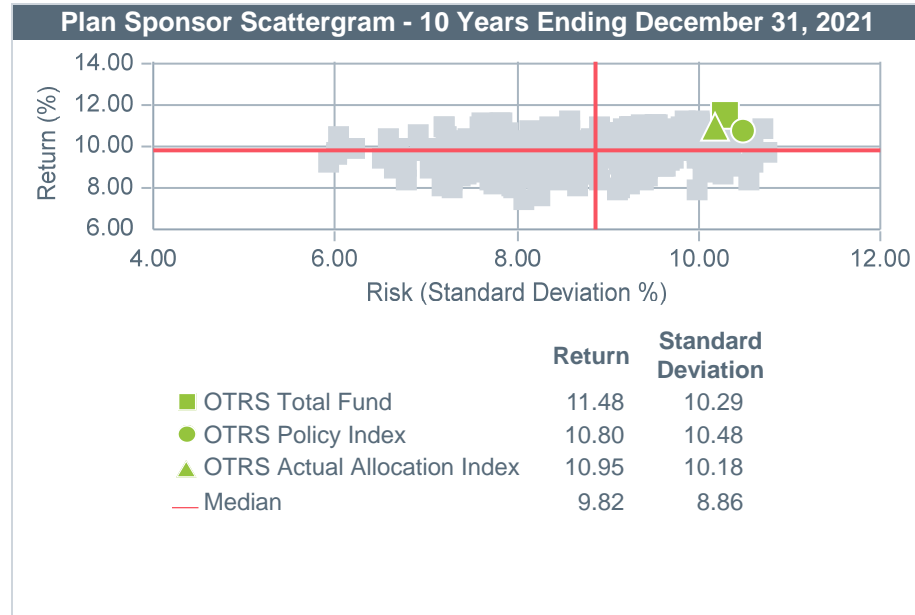




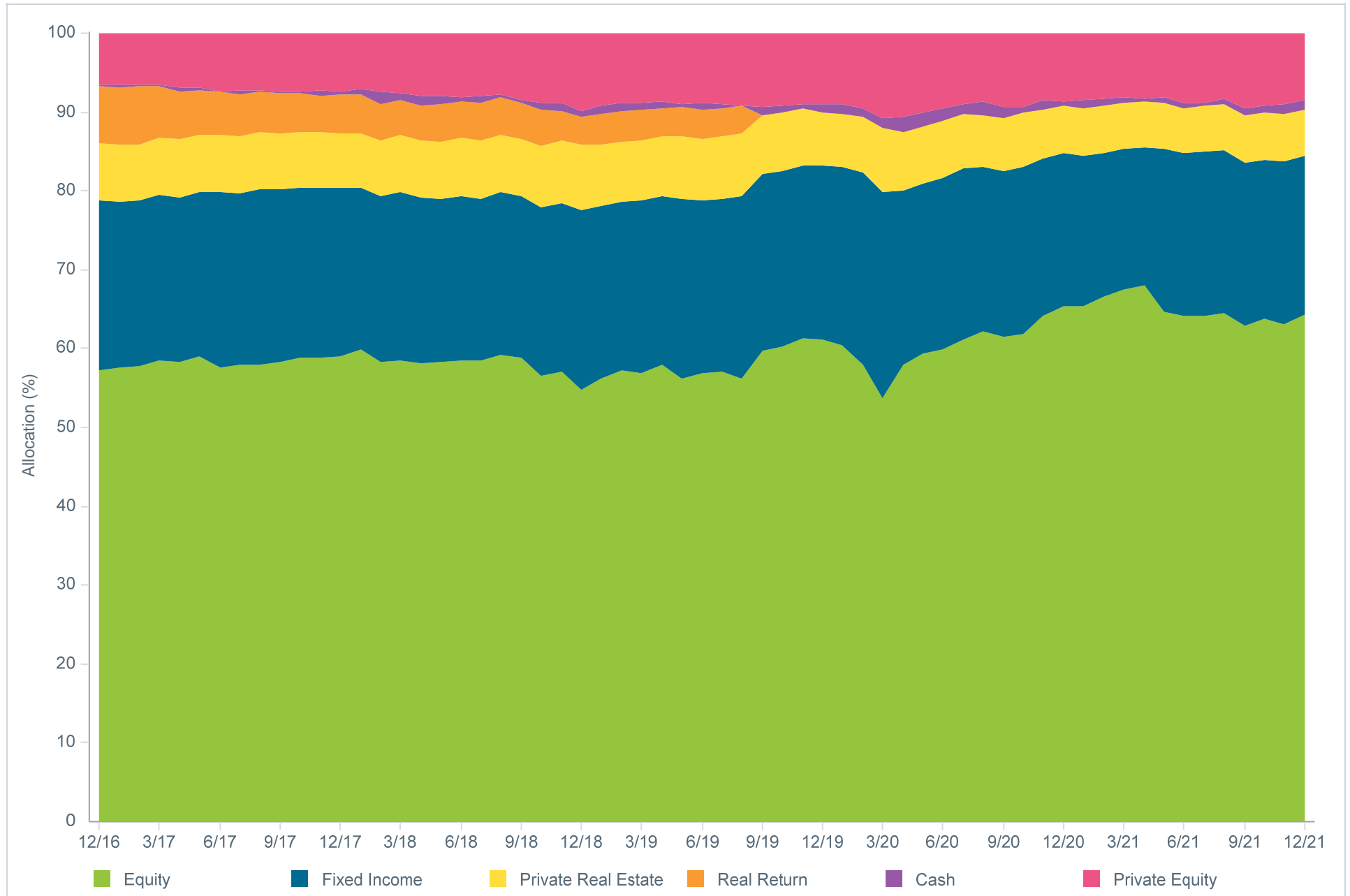
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Private Equity includes Private Credit.



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



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

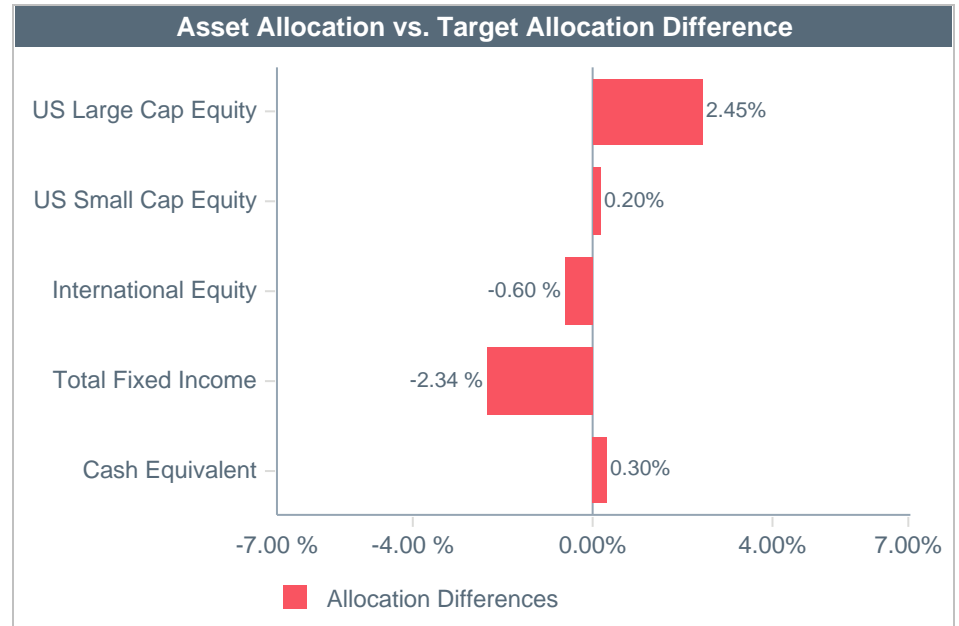


Oklahoma Public Employees Retirement System (OPERS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OPERS Total Fund (Net)	4.24	3.35	12.29	12.29	16.17	11.38	9.00	9.92	15.18	21.23	-6.57	17.01	7.59
OPERS Policy Index	4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	15.19	21.46	-6.09	16.86	8.12
Difference	0.04	0.08	0.75	0.75	0.18	0.02	-0.06	0.12	-0.01	-0.23	-0.48	0.15	-0.53
OPERS Actual Allocation Index	4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	18.93	20.87	-6.49	16.51	8.09
Difference	-0.05	0.04	0.15	0.15	-1.08	-0.54	-0.44	-0.19	-3.75	0.36	-0.08	0.50	-0.50
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	2.65	0.15	5.79	5.79	9.67	4.88	2.50	3.42	8.68	14.73	-13.07	10.51	1.09
OPERS Total Fund (Gross)	4.34	3.46	12.46	12.46	16.34	11.52	9.13	10.05	15.34	21.38	-6.48	17.13	7.69
OPERS Policy Index	4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	15.19	21.46	-6.09	16.86	8.12
Difference	0.14	0.19	0.92	0.92	0.35	0.16	0.07	0.25	0.15	-0.08	-0.39	0.27	-0.43
OPERS Actual Allocation Index	4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	18.93	20.87	-6.49	16.51	8.09
Difference	0.05	0.15	0.32	0.32	-0.91	-0.40	-0.31	-0.06	-3.59	0.51	0.01	0.62	-0.40
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	49	78	70	70	28	37	44	41	20	11	93	14	50

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPERS (Public Employees)	12,757,052,704	100.00	100.00
US Large Cap Equity	4,649,337,779	36.45	34.00
US Small Cap Equity	790,664,874	6.20	6.00
International Equity	3,494,863,280	27.40	28.00
Total Fixed Income	3,783,694,023	29.66	32.00
Cash Equivalent	38,492,747	0.30	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 P; see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	12,757,052,704	100.00	4.24	3.35	12.29	12.29	16.17	11.38	9.00	9.92	N/A	03/01/1987
OPERS Policy Index			4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	8.59	
Difference			0.04	0.08	0.75	0.75	0.18	0.02	-0.06	0.12	N/A	
OPERS Actual Allocation Index			4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	8.65	
Difference			-0.05	0.04	0.15	0.15	-1.08	-0.54	-0.44	-0.19	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			2.65	0.15	5.79	5.79	9.67	4.88	2.50	3.42	N/A	
US Equity	5,440,002,654	42.64	8.91	8.87	25.96	25.96	25.14	17.33	14.00	16.06	N/A	09/01/1988
OPERS US Equity Custom Index			8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	N/A	
Difference			0.30	0.77	1.23	1.23	-0.22	-0.20	-0.28	-0.06	N/A	
US Active Large Cap Equity	427,515,267	3.35	8.33	9.23	24.33	24.33	23.29	16.43	12.95	15.46	N/A	08/01/2003
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.28	
Difference			-1.45	-0.78	-2.12	-2.12	-2.92	-2.00	-1.89	-1.08	N/A	
Westfield Large Cap Growth Equity (SA)	427,515,267	3.35	8.33	9.23	24.33	24.33	32.20	23.58	N/A	N/A	23.78	02/01/2017
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	24.95	
Difference			-3.31	-3.70	-3.27	-3.27	-1.88	-1.74	N/A	N/A	-1.17	
US Large Cap Enhanced Index Equity	1,626,624,842	12.75	10.35	11.54	30.12	30.12	24.24	17.20	13.69	16.00	N/A	03/01/2000
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	8.05	
Difference			0.57	1.53	3.67	3.67	-1.97	-1.23	-1.15	-0.54	N/A	
State Street Large Cap Enhanced Index (SA)	814,947,085	6.39	10.56	12.03	30.72	30.72	25.57	18.06	14.71	16.57	10.78	09/01/2004
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.20	
Difference			0.78	2.02	4.27	4.27	-0.64	-0.37	-0.13	0.03	-0.42	
Mellon EB DV Large Cap Stock Index (SA)	811,677,757	6.36	10.14	11.05	29.53	29.53	22.91	16.34	12.66	15.43	10.09	06/01/2004
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	10.95	
Difference			0.36	1.04	3.08	3.08	-3.30	-2.09	-2.18	-1.11	-0.86	
US Large Cap Passive Equity	2,595,197,670	20.34	9.53	9.64	26.32	26.32	26.09	18.41	14.84	16.53	N/A	01/01/2003
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.71	
Difference			-0.25	-0.37	-0.13	-0.13	-0.12	-0.02	0.00	-0.01	N/A	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock Russell 1000 Value (CF)	397,469,324	3.12	7.77	6.92	25.18	25.18	N/A	N/A	N/A	N/A	25.18	01/01/2021
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	25.16	
Difference			0.00	-0.01	0.02	0.02	N/A	N/A	N/A	N/A	0.02	
Blackrock Russell 1000 Index (CF)	2,197,728,347	17.23	9.79	10.07	26.54	26.54	26.26	18.46	14.88	16.58	16.63	09/01/2010
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	16.59	
Difference			0.01	0.06	0.09	0.09	0.05	0.03	0.04	0.04	0.04	
US Active Small Cap Equity	790,664,874	6.20	4.39	1.28	18.44	18.44	25.16	15.07	12.63	15.29	N/A	08/01/2003
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	10.23	
Difference			2.25	3.59	3.62	3.62	5.14	3.05	1.87	2.06	N/A	
BHMS Small Cap Value Equity (SA)	259,661,317	2.04	10.32	6.25	20.94	20.94	24.48	12.98	11.80	14.97	11.57	12/01/2004
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	8.04	
Difference			5.96	5.01	-7.33	-7.33	6.49	3.91	2.35	2.94	3.53	
UBS US Small Cap Growth Equity (SA)	250,631,996	1.96	-2.56	-4.03	5.51	5.51	30.33	20.71	15.02	17.30	N/A	06/01/2003
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	11.14	
Difference			-2.57	1.61	2.68	2.68	9.16	6.18	3.36	3.16	N/A	
DePrince Race & Zollo Small Cap Value (SA)	280,371,561	2.20	5.87	1.91	31.41	31.41	19.28	10.72	10.34	12.93	11.12	03/01/2011
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	9.97	
Difference			1.51	0.67	3.14	3.14	1.29	1.65	0.89	0.90	1.15	
International Equity	3,494,863,280	27.40	1.45	-1.97	6.98	6.98	13.97	10.19	7.13	7.68	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.01	
Difference			-0.43	-0.92	-1.31	-1.31	0.27	0.07	0.08	-0.10	N/A	
International Core Active Equity	705,804,568	5.53	0.38	-3.69	7.57	7.57	8.64	6.70	4.63	5.82	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	8.07	
Difference			-1.50	-2.64	-0.72	-0.72	-5.06	-3.42	-2.42	-1.96	N/A	
Mondrian ACWI ex US Equity (SA)	705,804,568	5.53	0.38	-3.69	7.57	7.57	8.64	6.70	4.63	5.82	N/A	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			1.34	-0.83	11.13	11.13	8.90	6.64	4.56	5.90	6.23	
Difference			-0.96	-2.86	-3.56	-3.56	-0.26	0.06	0.07	-0.08	N/A	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,983,069,234	15.54	1.86	-1.16	8.10	8.10	13.45	9.88	6.82	7.54	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	8.07	
Difference			-0.02	-0.11	-0.19	-0.19	-0.25	-0.24	-0.23	-0.24	N/A	
Blackrock ACWI Ex US Index (CF)	1,983,069,234	15.54	1.86	-1.16	8.10	8.10	13.45	9.88	6.82	7.54	6.26	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.49	
Difference			-0.02	-0.11	-0.19	-0.19	-0.25	-0.24	-0.23	-0.24	-0.23	
International Growth Equity	805,989,478	6.32	1.41	-2.41	4.41	4.41	19.63	13.67	9.77	9.64	7.63	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	7.55	
Difference			-0.99	-1.14	-0.96	-0.96	1.44	0.23	0.41	0.13	0.08	
Baillie Gifford Intl Growth Equity (SA)	406,009,091	3.18	0.17	-4.61	2.53	2.53	22.56	14.96	10.93	N/A	9.43	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	8.18	
Difference			-2.23	-3.34	-2.84	-2.84	4.37	1.52	1.57	N/A	1.25	
Blackrock ACWI Ex US Growth (CF)	399,980,388	3.14	2.70	-0.08	7.60	7.60	16.76	12.40	8.63	8.81	7.58	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	8.14	
Difference			0.30	1.19	2.23	2.23	-1.43	-1.04	-0.73	-0.70	-0.56	
Fixed Income	3,774,409,023	29.59	0.58	0.94	-0.82	-0.82	6.48	4.67	3.77	3.66	N/A	04/01/1989
OPERS Fixed Income Custom Index			0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	N/A	
Difference			-0.11	0.00	0.19	0.19	0.76	0.52	0.39	0.51	N/A	
Active Fixed Income	1,510,500,121	11.84	0.85	1.07	-2.07	-2.07	7.14	5.28	4.04	4.18	N/A	08/01/2003
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.13	
Difference			0.84	1.01	-0.52	-0.52	2.35	1.71	1.04	1.28	N/A	
MetWest Core Plus Fixed Income (SA)	1,108,397,837	8.69	-0.09	0.08	-0.89	-0.89	5.85	4.34	3.58	3.82	N/A	09/01/2001
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.32	
Difference			-0.10	0.02	0.66	0.66	1.06	0.77	0.58	0.92	N/A	
Hoisington Long Duration Fixed Income (SA)	402,102,284	3.15	3.52	3.92	-5.36	-5.36	10.12	7.52	4.99	4.97	N/A	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			3.08	3.56	-4.65	-4.65	8.82	6.54	4.65	4.51	7.48	
Difference			0.44	0.36	-0.71	-0.71	1.30	0.98	0.34	0.46	N/A	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Enhanced Fixed Income	1,820,227,379	14.27	-0.05	0.09	-1.35	-1.35	5.40	3.94	3.36	3.29	N/A	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.06	0.03	0.20	0.20	0.61	0.37	0.36	0.39	N/A	
Blackrock Enhanced Core (SA)	1,820,227,379	14.27	-0.05	0.09	-1.35	-1.35	5.40	3.94	3.36	3.29	N/A	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.06	0.03	0.20	0.20	0.61	0.37	0.36	0.39	N/A	
Passive Fixed Income	443,681,523	3.48	2.31	4.11	5.94	5.94	8.53	5.46	4.39	3.20	4.25	03/01/2010
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.49	
Difference			2.30	4.05	7.49	7.49	3.74	1.89	1.39	0.30	0.76	
Blackrock TIPS (CF)	443,681,523	3.48	2.31	4.11	5.94	5.94	8.53	5.46	4.39	3.20	4.25	03/01/2010
Bloomberg US Trsy US TIPS Index			2.36	4.16	5.96	5.96	8.44	5.34	4.25	3.09	4.21	
Difference			-0.05	-0.05	-0.02	-0.02	0.09	0.12	0.14	0.11	0.04	
Real Estate	9,285,000	0.07	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	-0.65	N/A	-0.75	12/01/2015
NCREIF ODCE Index (EWA) (Net)			7.40	14.65	21.91	21.91	8.91	8.19	9.05	9.70	8.66	
Difference			-7.15	-15.65	-30.06	-30.06	-13.64	-11.25	-9.70	N/A	-9.41	
Grand Centre	9,285,000	0.07	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	N/A	N/A	-0.75	12/01/2015
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.19	
Difference			-7.44	-15.59	-29.21	-29.21	-12.97	-10.81	N/A	N/A	-8.94	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	12,757,052,704	100.00	4.34	3.46	12.46	12.46	16.34	11.52	9.13	10.05	8.74	03/01/1987
OPERS Policy Index			4.20	3.27	11.54	11.54	15.99	11.36	9.06	9.80	8.59	
Difference			0.14	0.19	0.92	0.92	0.35	0.16	0.07	0.25	0.15	
OPERS Actual Allocation Index			4.29	3.31	12.14	12.14	17.25	11.92	9.44	10.11	8.65	
Difference			0.05	0.15	0.32	0.32	-0.91	-0.40	-0.31	-0.06	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	
Difference			2.75	0.26	5.96	5.96	9.84	5.02	2.63	3.55	2.24	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	8.55	
Rank			49	78	70	70	28	37	44	41	41	
US Equity	5,440,002,654	42.64	9.00	8.99	26.13	26.13	25.33	17.47	14.14	16.19	11.05	09/01/1988
OPERS US Equity Custom Index			8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	N/A	
Difference			0.39	0.89	1.40	1.40	-0.03	-0.06	-0.14	0.07	N/A	
IM U.S. Equity (SA+CF) Median			7.67	7.05	26.18	26.18	23.76	15.72	13.13	15.46	12.18	
Rank			35	35	51	51	41	42	42	41	92	
US Active Large Cap Equity	427,515,267	3.35	8.36	9.28	24.45	24.45	23.37	16.54	13.10	15.60	10.33	08/01/2003
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.28	
Difference			-1.42	-0.73	-2.00	-2.00	-2.84	-1.89	-1.74	-0.94	-0.95	
IM U.S. Large Cap Equity (SA+CF) Median			9.39	9.32	27.42	27.42	25.57	17.99	14.50	16.32	11.42	
Rank			67	51	75	75	62	60	62	60	82	
Westfield Large Cap Growth Equity (SA)	427,515,267	3.35	8.36	9.28	24.45	24.45	32.32	23.78	N/A	N/A	23.99	02/01/2017
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	24.95	
Difference			-3.28	-3.65	-3.15	-3.15	-1.76	-1.54	N/A	N/A	-0.96	
IM U.S. Large Cap Growth Equity (SA+CF) Median			9.33	9.99	25.26	25.26	31.11	23.66	18.01	18.84	23.33	
Rank			64	57	58	58	38	50	N/A	N/A	40	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Enhanced Index Equity	1,626,624,842	12.75	10.36	11.55	30.15	30.15	24.27	17.23	13.72	16.03	7.01	03/01/2000
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	8.05	
Difference			0.58	1.54	3.70	3.70	-1.94	-1.20	-1.12	-0.51	-1.04	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			10.86	11.28	28.83	28.83	24.80	18.33	14.66	16.70	8.53	
Rank			61	47	30	30	56	63	64	70	100	
State Street Large Cap Enhanced Index (SA)	814,947,085	6.39	10.57	12.04	30.76	30.76	25.61	18.09	14.74	16.60	10.84	09/01/2004
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.20	
Difference			0.79	2.03	4.31	4.31	-0.60	-0.34	-0.10	0.06	-0.36	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			10.86	11.28	28.83	28.83	24.80	18.33	14.66	16.70	11.33	
Rank			54	21	22	22	49	54	48	53	77	
Mellon EB DV Large Cap Stock Index (SA)	811,677,757	6.36	10.14	11.05	29.54	29.54	22.93	16.36	12.68	15.46	10.14	06/01/2004
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	10.95	
Difference			0.36	1.04	3.09	3.09	-3.28	-2.07	-2.16	-1.08	-0.81	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			10.86	11.28	28.83	28.83	24.80	18.33	14.66	16.70	11.12	
Rank			68	55	33	33	68	69	76	81	90	
US Large Cap Passive Equity	2,595,197,670	20.34	9.53	9.64	26.33	26.33	26.10	18.42	14.85	16.54	11.86	01/01/2003
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.71	
Difference			-0.25	-0.37	-0.12	-0.12	-0.11	-0.01	0.01	0.00	0.15	
BlackRock Russell 1000 Value (CF)	397,469,324	3.12	7.77	6.92	25.18	25.18	N/A	N/A	N/A	N/A	25.18	01/01/2021
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	25.16	
Difference			0.00	-0.01	0.02	0.02	N/A	N/A	N/A	N/A	0.02	
IM U.S. Large Cap Value Equity (SA+CF) Median			8.25	7.79	27.78	27.78	19.87	12.94	11.08	13.95	27.78	
Rank			60	65	72	72	N/A	N/A	N/A	N/A	72	
Blackrock Russell 1000 Index (CF)	2,197,728,347	17.23	9.79	10.07	26.55	26.55	26.27	18.47	14.89	16.59	16.63	09/01/2010
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	16.59	
Difference			0.01	0.06	0.10	0.10	0.06	0.04	0.05	0.05	0.04	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	16.57	
Rank			48	46	53	53	22	29	43	20	22	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Active Small Cap Equity	790,664,874	6.20	5.00	1.97	19.40	19.40	26.27	15.84	13.35	15.99	12.98	08/01/2003
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	10.23	
Difference			2.86	4.28	4.58	4.58	6.25	3.82	2.59	2.76	2.75	
IM U.S. Small Cap Equity (SA+CF) Median			5.62	3.93	24.02	24.02	22.13	13.47	12.10	14.71	12.05	
Rank			58	66	65	65	26	34	38	32	31	
BHMS Small Cap Value Equity (SA)	259,661,317	2.04	10.45	6.53	21.54	21.54	25.11	13.56	12.37	15.56	12.20	12/01/2004
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	8.04	
Difference			6.09	5.29	-6.73	-6.73	7.12	4.49	2.92	3.53	4.16	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	10.17	
Rank			5	32	86	86	9	15	18	10	9	
UBS US Small Cap Growth Equity (SA)	250,631,996	1.96	-1.06	-2.50	7.21	7.21	32.11	21.76	15.93	18.14	13.18	06/01/2003
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	11.14	
Difference			-1.07	3.14	4.38	4.38	10.94	7.23	4.27	4.00	2.04	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	13.77	
Rank			79	68	70	70	25	43	50	38	66	
DePrince Race & Zollo Small Cap Value (SA)	280,371,561	2.20	5.97	2.10	31.82	31.82	20.14	11.34	10.97	13.59	11.74	03/01/2011
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	9.97	
Difference			1.61	0.86	3.55	3.55	2.15	2.27	1.52	1.56	1.77	
IM U.S. Micro Cap Equity (SA+CF) Median			3.89	1.88	29.73	29.73	22.57	13.65	12.88	16.96	13.95	
Rank			33	45	43	43	68	74	72	80	81	
International Equity	3,494,863,280	27.40	1.59	-1.81	7.22	7.22	14.17	10.38	7.32	7.86	6.32	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.01	
Difference			-0.29	-0.76	-1.07	-1.07	0.47	0.26	0.27	0.08	0.31	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	7.75	
Rank			60	74	69	69	67	63	66	77	100	
International Core Active Equity	705,804,568	5.53	0.47	-3.51	7.95	7.95	9.03	7.08	5.01	6.21	7.32	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	8.07	
Difference			-1.41	-2.46	-0.34	-0.34	-4.67	-3.04	-2.04	-1.57	-0.75	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	9.26	
Rank			75	89	62	62	96	93	95	96	92	
Mondrian ACWI ex US Equity (SA)	705,804,568	5.53	0.47	-3.51	7.95	7.95	9.03	7.08	5.01	6.21	7.12	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			1.34	-0.83	11.13	11.13	8.90	6.64	4.56	5.90	6.23	
Difference			-0.87	-2.68	-3.18	-3.18	0.13	0.44	0.45	0.31	0.89	
IM ACWI Ex US Core (SA+CF) Median			2.46	0.34	9.92	9.92	16.29	11.24	8.24	8.86	7.60	
Rank			79	93	73	73	100	100	100	100	94	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,983,069,234	15.54	1.87	-1.15	8.13	8.13	13.47	9.91	6.86	7.58	7.31	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	8.07	
Difference			-0.01	-0.10	-0.16	-0.16	-0.23	-0.21	-0.19	-0.20	-0.76	
Blackrock ACWI Ex US Index (CF)	1,983,069,234	15.54	1.87	-1.15	8.13	8.13	13.47	9.91	6.86	7.58	6.30	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.49	
Difference			-0.01	-0.10	-0.16	-0.16	-0.23	-0.21	-0.19	-0.20	-0.19	
International Growth Equity	805,989,478	6.32	1.89	-1.91	5.03	5.03	20.07	14.02	10.08	9.87	7.80	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	7.55	
Difference			-0.51	-0.64	-0.34	-0.34	1.88	0.58	0.72	0.36	0.25	
IM ACWI Ex US Growth (SA+CF) Median			1.94	1.01	8.80	8.80	19.45	14.10	10.44	11.01	8.84	
Rank			52	80	81	81	44	55	61	81	88	
Baillie Gifford Intl Growth Equity (SA)	406,009,091	3.18	1.10	-3.66	3.65	3.65	23.36	15.58	11.48	N/A	9.92	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	8.18	
Difference			-1.30	-2.39	-1.72	-1.72	5.17	2.14	2.12	N/A	1.74	
IM ACWI Ex US Growth (SA+CF) Median			1.94	1.01	8.80	8.80	19.45	14.10	10.44	11.01	9.34	
Rank			73	88	86	86	30	36	27	N/A	32	
Blackrock ACWI Ex US Growth (CF)	399,980,388	3.14	2.71	-0.05	7.67	7.67	16.81	12.45	8.69	8.87	7.63	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			2.40	-1.27	5.37	5.37	18.19	13.44	9.36	9.51	8.14	
Difference			0.31	1.22	2.30	2.30	-1.38	-0.99	-0.67	-0.64	-0.51	
IM ACWI Ex US Growth (SA+CF) Median			1.94	1.01	8.80	8.80	19.45	14.10	10.44	11.01	9.90	
Rank			41	63	63	63	82	79	73	95	99	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,774,409,023	29.59	0.64	1.01	-0.72	-0.72	6.58	4.76	3.86	3.75	6.77	04/01/1989
OPERS Fixed Income Custom Index			0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	N/A	
Difference			-0.05	0.07	0.29	0.29	0.86	0.61	0.48	0.60	N/A	
IM U.S. Broad Market Fixed Income (SA+CF) Median			0.00	0.15	-0.74	-0.74	5.77	4.30	3.74	3.79	6.46	
Rank			3	3	49	49	24	25	40	53	14	
Active Fixed Income	1,510,500,121	11.84	0.97	1.21	-1.90	-1.90	7.29	5.40	4.16	4.31	6.32	08/01/2003
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.13	
Difference			0.96	1.15	-0.35	-0.35	2.50	1.83	1.16	1.41	2.19	
IM U.S. Broad Market Fixed Income (SA+CF) Median			0.00	0.15	-0.74	-0.74	5.77	4.30	3.74	3.79	4.84	
Rank			1	2	96	96	12	10	23	23	5	
MetWest Core Plus Fixed Income (SA)	1,108,397,837	8.69	0.06	0.24	-0.71	-0.71	6.00	4.46	3.69	3.94	5.47	09/01/2001
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.32	
Difference			0.05	0.18	0.84	0.84	1.21	0.89	0.69	1.04	1.15	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	5.35	
Rank			54	59	73	73	65	65	74	68	38	
Hoisington Long Duration Fixed Income (SA)	402,102,284	3.15	3.55	3.99	-5.24	-5.24	10.26	7.65	5.13	5.11	8.35	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			3.08	3.56	-4.65	-4.65	8.82	6.54	4.65	4.51	7.48	
Difference			0.47	0.43	-0.59	-0.59	1.44	1.11	0.48	0.60	0.87	
IM U.S. Long Duration (SA+CF) Median			1.80	1.81	-1.72	-1.72	11.59	8.01	6.36	6.54	N/A	
Rank			1	1	100	100	82	77	96	98	N/A	
Enhanced Fixed Income	1,820,227,379	14.27	-0.03	0.11	-1.29	-1.29	5.47	4.02	3.44	3.37	5.06	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.04	0.05	0.26	0.26	0.68	0.45	0.44	0.47	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	5.25	
Rank			48	37	54	54	51	59	58	60	75	
Blackrock Enhanced Core (SA)	1,820,227,379	14.27	-0.03	0.11	-1.29	-1.29	5.47	4.02	3.44	3.37	5.06	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.04	0.05	0.26	0.26	0.68	0.45	0.44	0.47	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	5.25	
Rank			48	37	54	54	51	59	58	60	75	

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

As of December 31, 2021

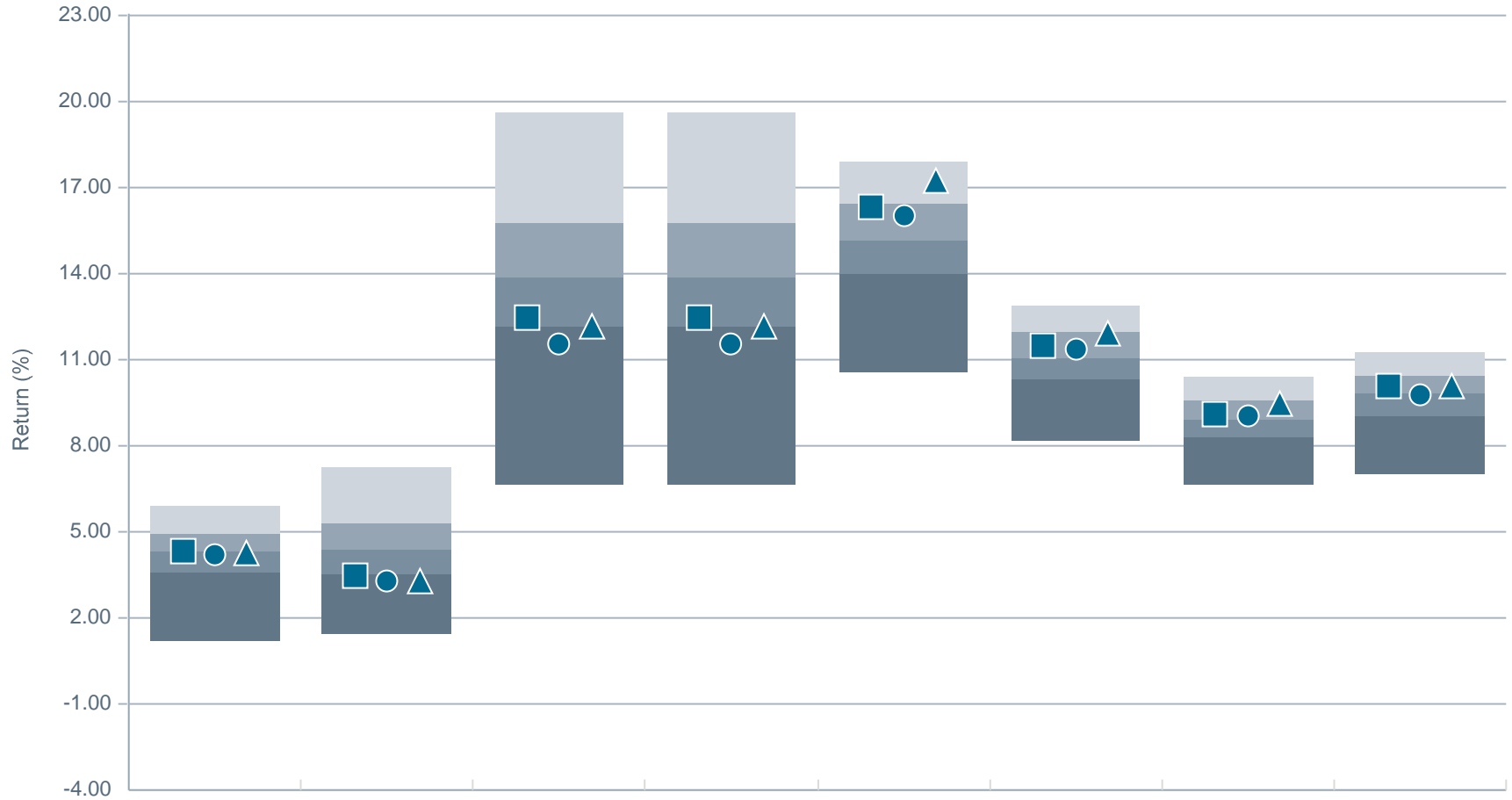
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Passive Fixed Income	443,681,523	3.48	2.32	4.12	5.95	5.95	8.54	5.47	4.40	3.21	4.26	03/01/2010
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.49	
Difference			2.31	4.06	7.50	7.50	3.75	1.90	1.40	0.31	0.77	
Blackrock TIPS (CF)	443,681,523	3.48	2.32	4.12	5.95	5.95	8.54	5.47	4.40	3.21	4.26	03/01/2010
Bloomberg US Trsy US TIPS Index			2.36	4.16	5.96	5.96	8.44	5.34	4.25	3.09	4.21	
Difference			-0.04	-0.04	-0.01	-0.01	0.10	0.13	0.15	0.12	0.05	
IM U.S. TIPS (SA+CF) Median			2.31	4.10	5.91	5.91	8.46	5.38	4.28	3.12	4.25	
Rank			47	45	44	44	43	41	32	47	46	
Real Estate	9,285,000	0.07	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	-0.65	N/A	-0.75	12/01/2015
NCREIF ODCE Index (EWA) (Net)			7.40	14.65	21.91	21.91	8.91	8.19	9.05	9.70	8.66	
Difference			-7.15	-15.65	-30.06	-30.06	-13.64	-11.25	-9.70	N/A	-9.41	
Grand Centre	9,285,000	0.07	0.25	-1.00	-8.15	-8.15	-4.73	-3.06	N/A	N/A	-0.75	12/01/2015
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.19	
Difference			-7.44	-15.59	-29.21	-29.21	-12.97	-10.81	N/A	N/A	-8.94	

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

As of December 31, 2021



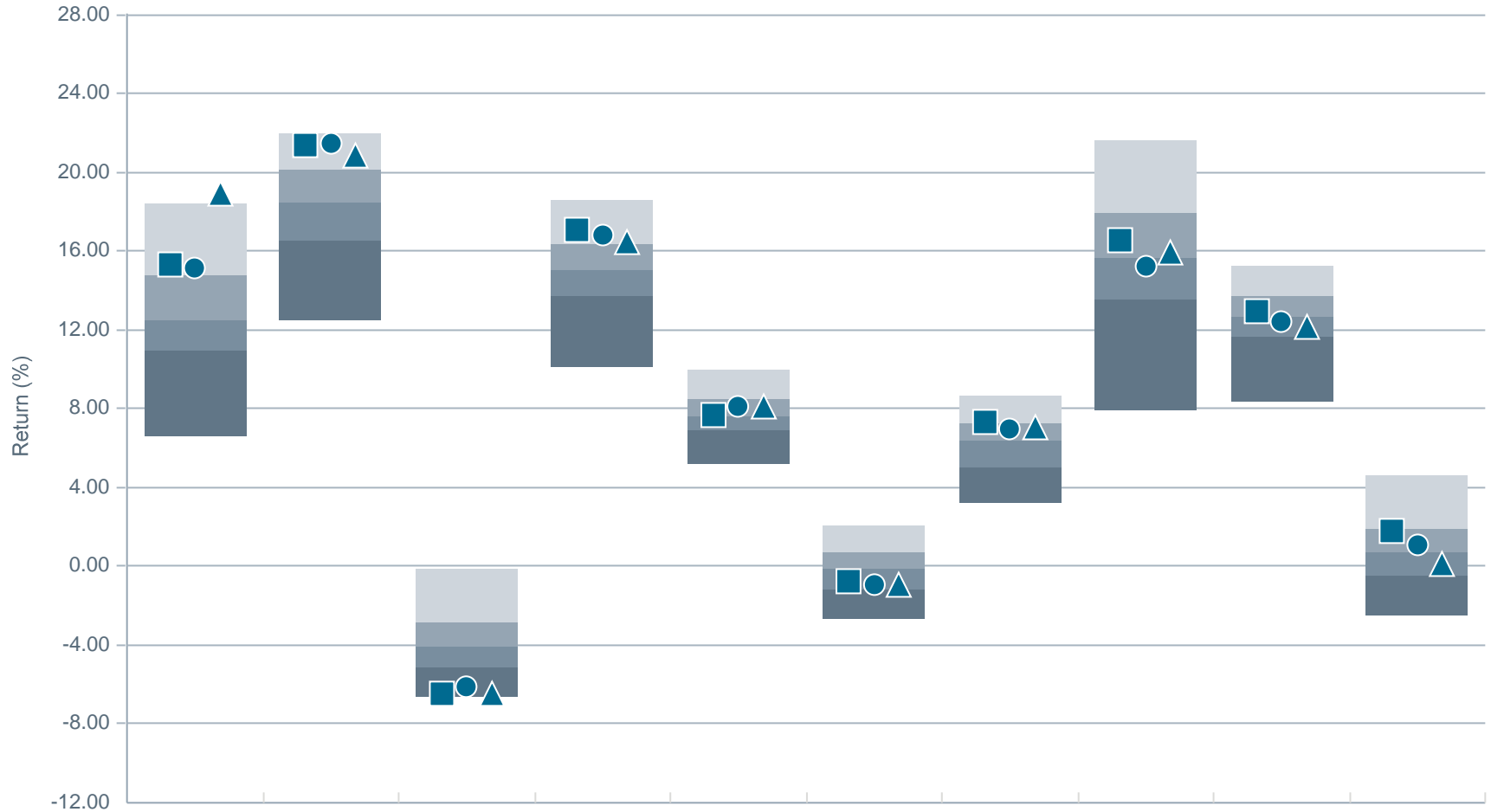
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OPERS Total Fund	4.34 (49)	3.46 (78)	12.46 (70)	12.46 (70)	16.34 (28)	11.52 (37)	9.13 (44)	10.05 (41)
● OPERS Policy Index	4.20 (54)	3.27 (81)	11.54 (81)	11.54 (81)	15.99 (34)	11.36 (42)	9.06 (46)	9.80 (52)
▲ OPERS Allocation Index	4.29 (51)	3.31 (81)	12.14 (76)	12.14 (76)	17.25 (12)	11.92 (27)	9.44 (32)	10.11 (38)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

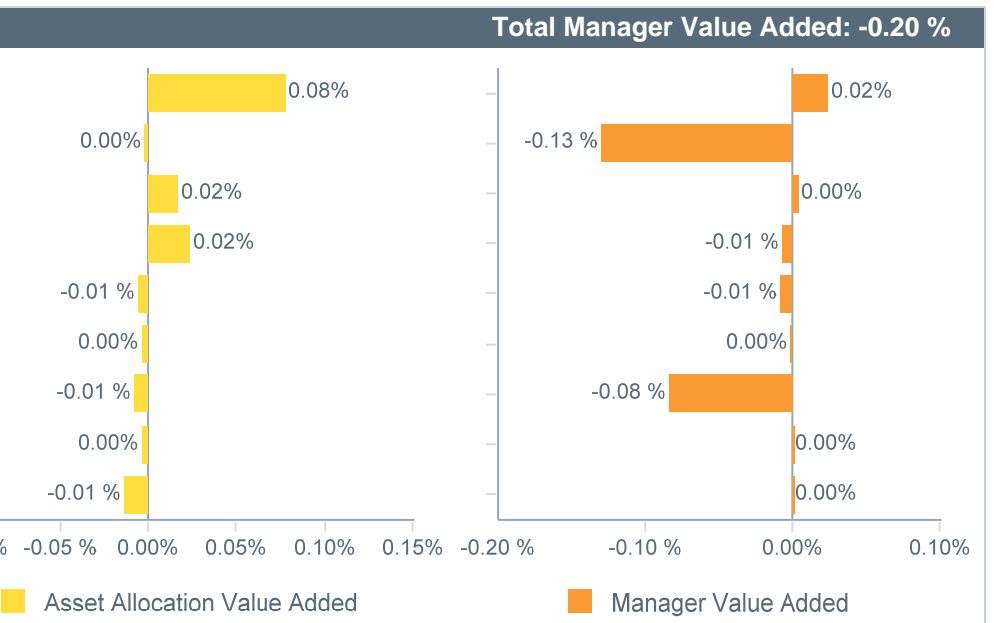
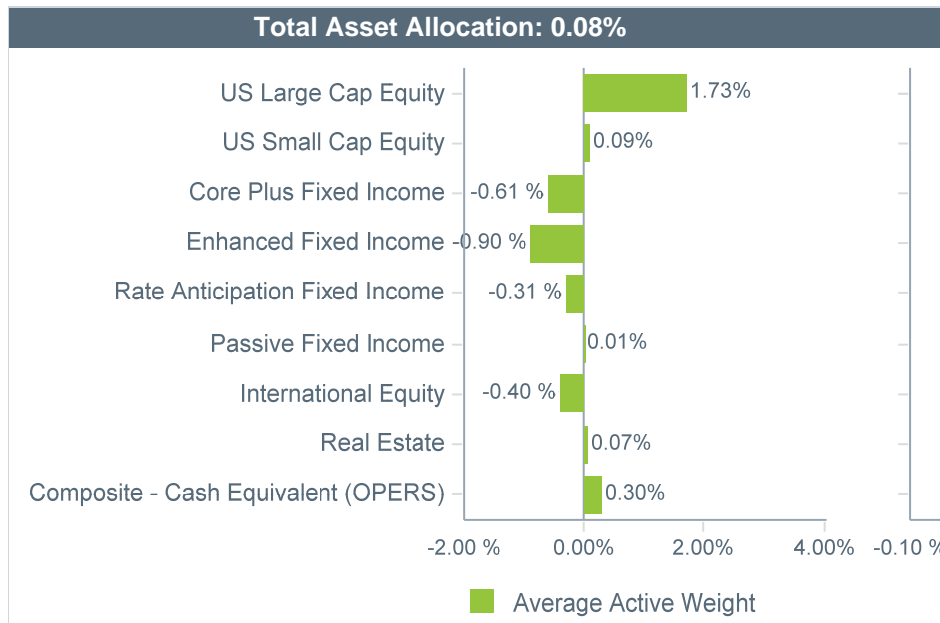
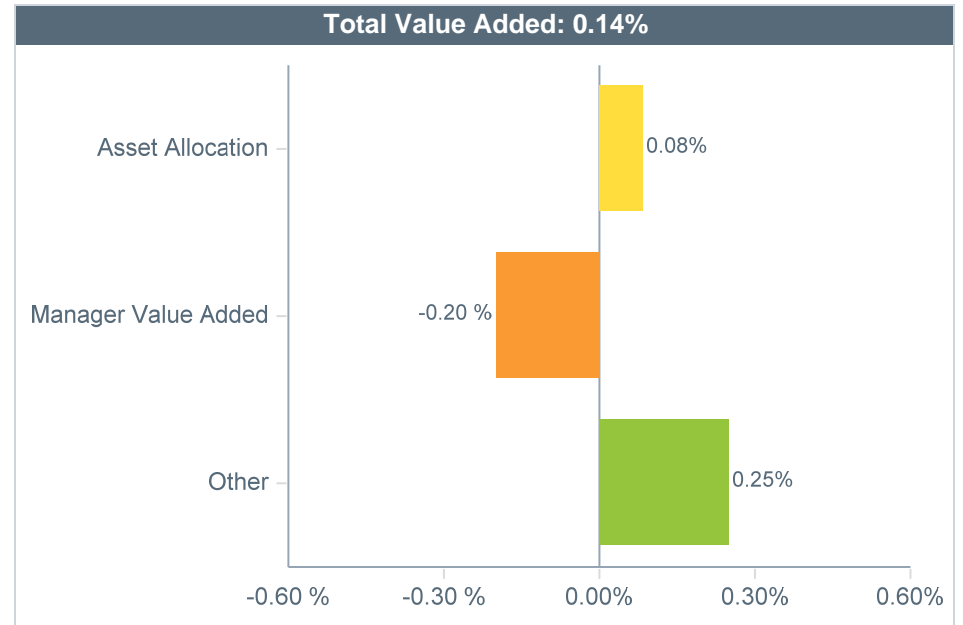
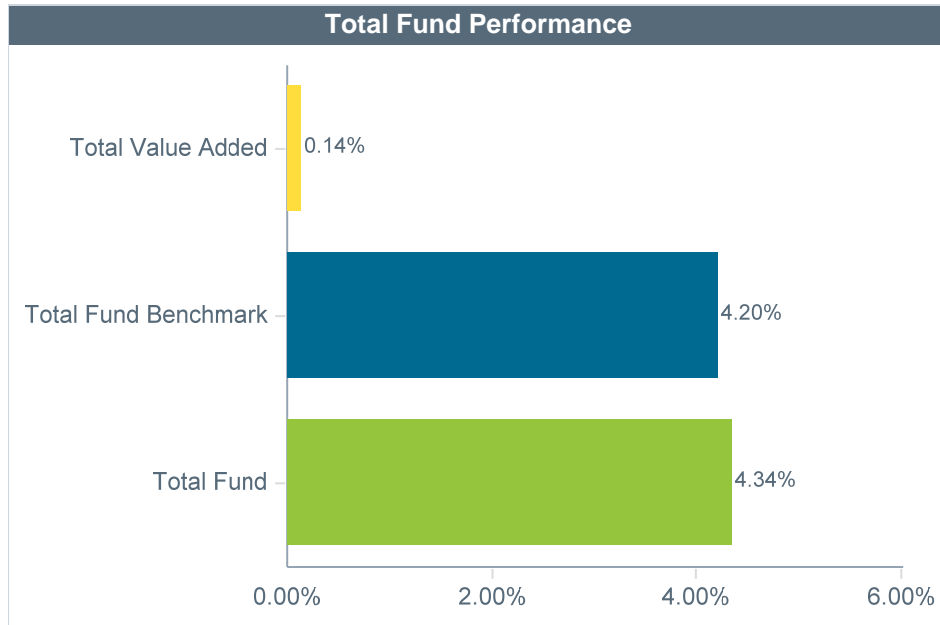
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OPERS Total Fund	15.34 (20)	21.38 (11)	-6.48 (93)	17.13 (14)	7.69 (50)	-0.77 (66)	7.37 (23)	16.60 (42)	12.94 (43)	1.81 (28)
● OPERS Policy Index	15.19 (21)	21.46 (10)	-6.09 (90)	16.86 (18)	8.12 (37)	-0.89 (70)	7.00 (31)	15.27 (56)	12.47 (58)	1.11 (40)
▲ OPERS Allocation Index	18.93 (4)	20.87 (16)	-6.49 (93)	16.51 (24)	8.09 (38)	-0.94 (71)	7.05 (30)	15.94 (48)	12.21 (63)	0.13 (63)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

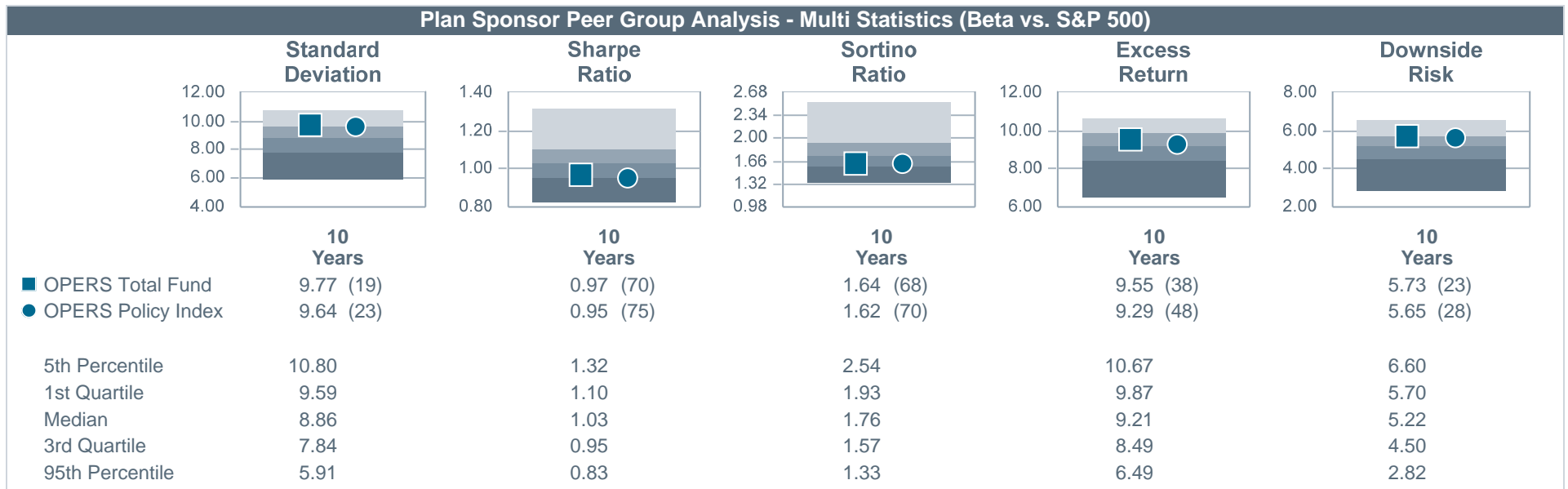
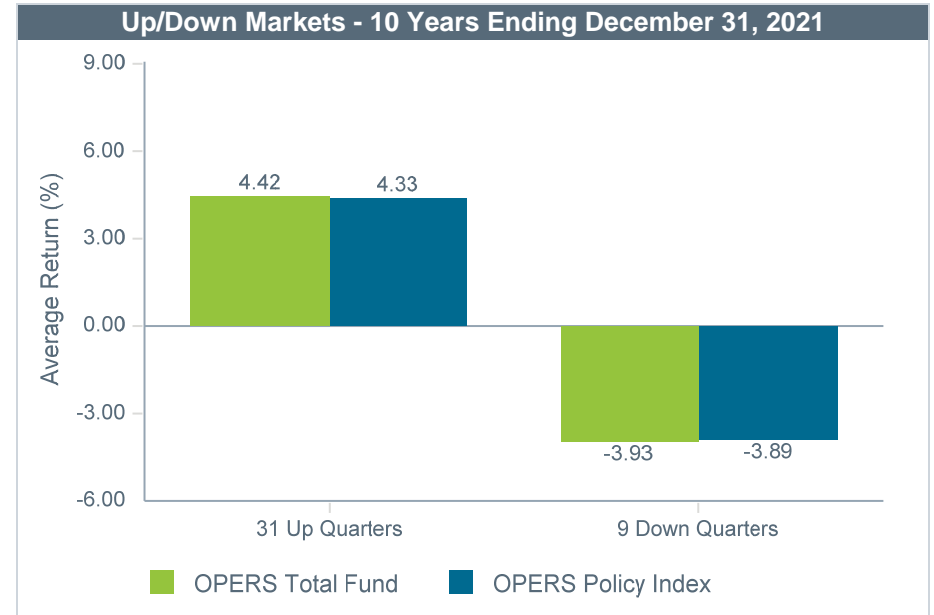
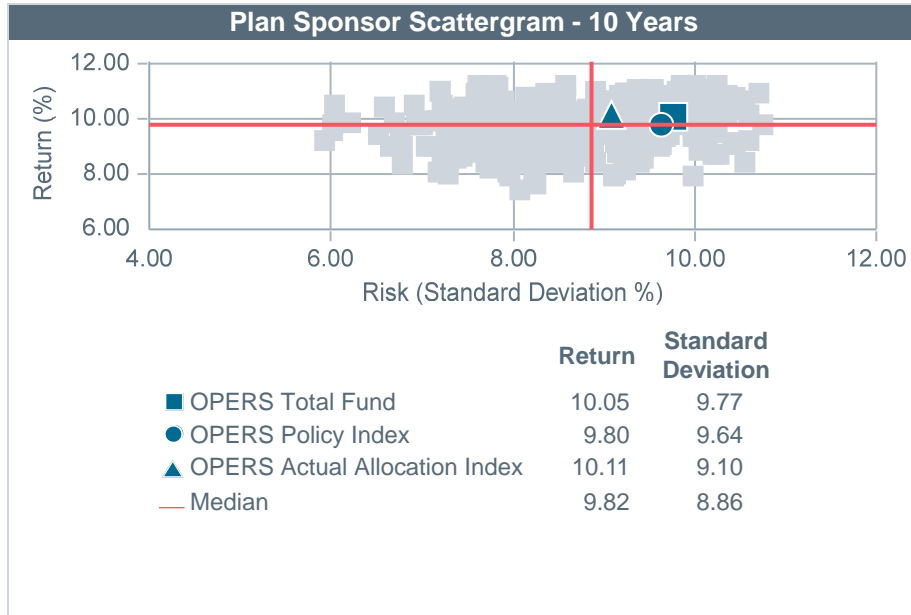
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



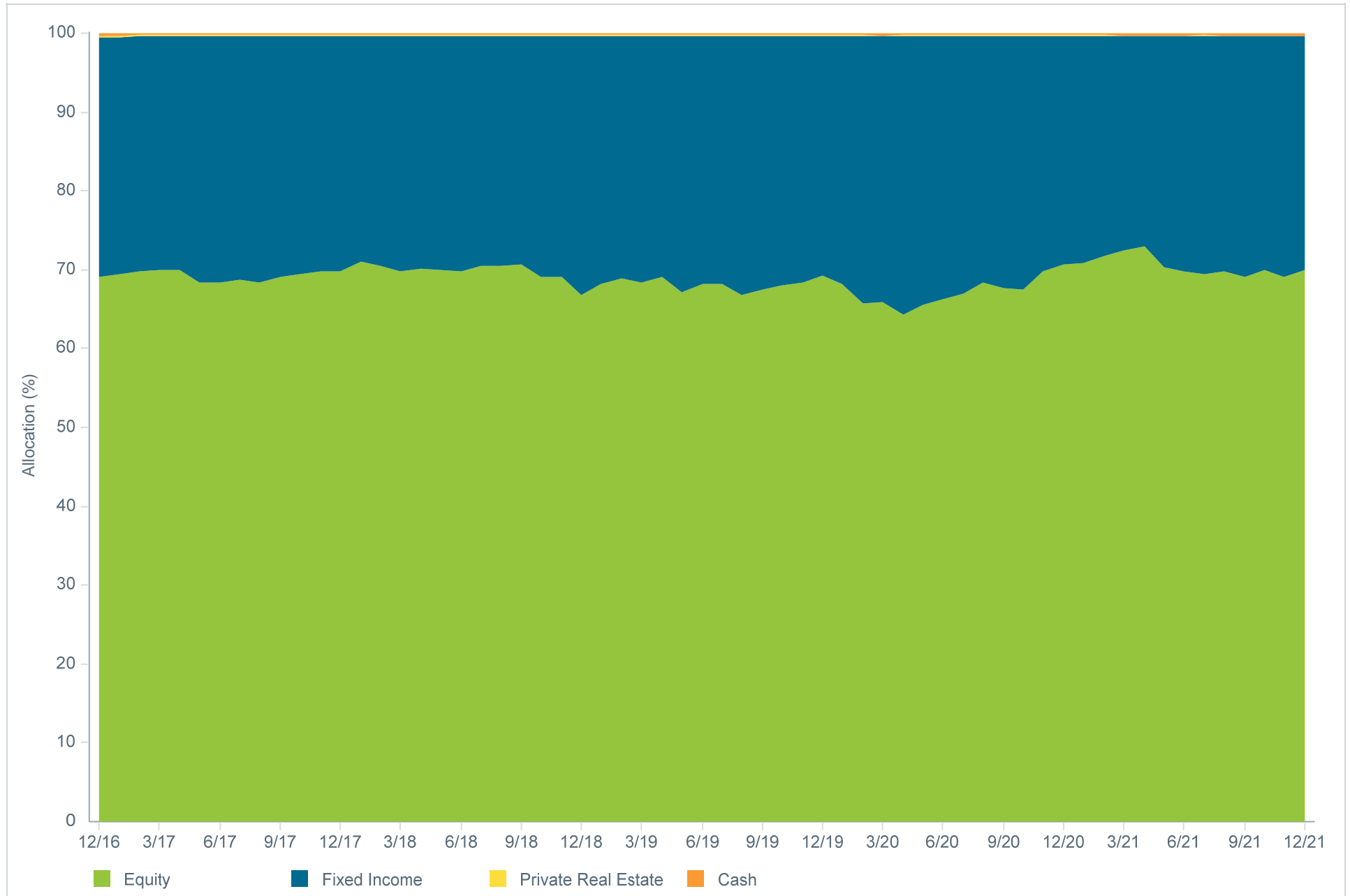


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





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

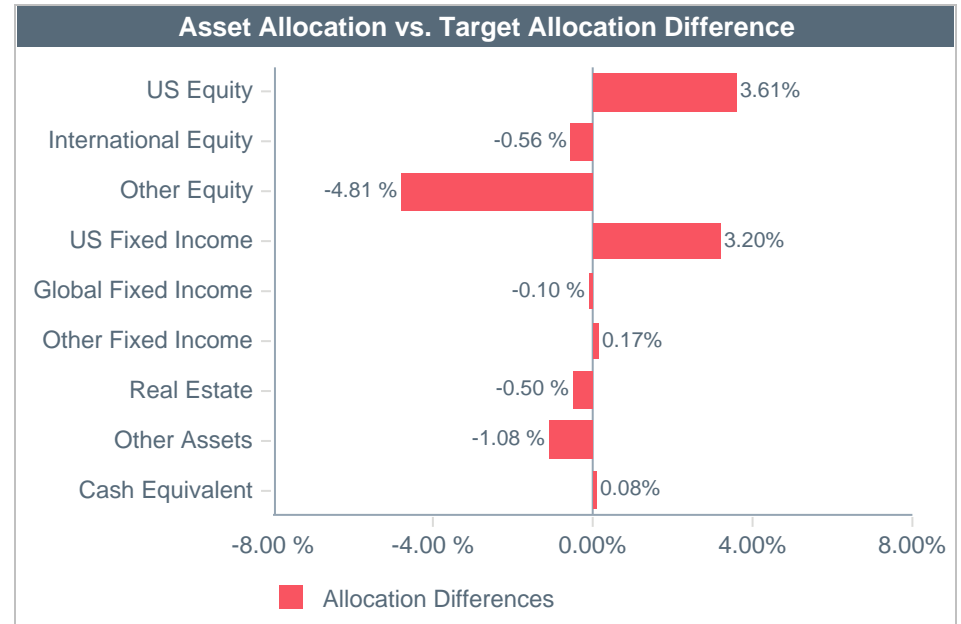


Oklahoma Firefighters Pension & Retirement System (OFPRS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OFPRS Total Fund (Gross)	4.07	3.89	13.87	13.87	17.46	13.40	10.86	11.61	18.44	20.15	-2.46	18.67	7.42
OFPRS Policy Index	5.53	6.33	17.52	17.52	17.67	12.78	10.53	11.44	13.85	21.76	-3.80	16.41	8.76
Difference	-1.46	-2.44	-3.65	-3.65	-0.21	0.62	0.33	0.17	4.59	-1.61	1.34	2.26	-1.34
OFPRS Actual Allocation Index	5.35	5.66	15.80	15.80	17.95	12.76	10.46	11.25	17.79	20.30	-3.93	15.64	9.45
Difference	-1.28	-1.77	-1.93	-1.93	-0.49	0.64	0.40	0.36	0.65	-0.15	1.47	3.03	-2.03
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	58	66	50	50	10	2	2	3	6	26	19	5	58

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OFPRS (Firefighters)	3,789,947,179	100.00	100.00
US Equity	1,728,575,097	45.61	42.00
International Equity	547,224,023	14.44	15.00
Other Equity	7,037,554	0.19	5.00
US Fixed Income	424,495,459	11.20	8.00
Global Fixed Income	261,430,143	6.90	7.00
Other Fixed Income	196,114,667	5.17	5.00
Real Estate	359,949,632	9.50	10.00
Other Assets	262,151,355	6.92	8.00
Cash Equivalent	2,969,247	0.08	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 Oklahoma State Pension Commission fiscal year begins on 07/01. Net of fees returns for the Firefighters plan are not available.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,789,947,179	100.00	4.07	3.89	13.87	13.87	17.46	13.40	10.86	11.61	8.86	07/01/1989
OFPRS Policy Index			5.53	6.33	17.52	17.52	17.67	12.78	10.53	11.44	N/A	
Difference			-1.46	-2.44	-3.65	-3.65	-0.21	0.62	0.33	0.17	N/A	
OFPRS Actual Allocation Index			5.35	5.66	15.80	15.80	17.95	12.76	10.46	11.25	8.74	
Difference			-1.28	-1.77	-1.93	-1.93	-0.49	0.64	0.40	0.36	0.12	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.25	0.21	6.37	6.37	9.96	5.90	3.36	4.11	1.36	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	8.59	
Rank			58	66	50	50	10	2	2	3	30	
Total Equity	2,282,836,675	60.23	4.95	3.45	16.66	16.66	24.71	17.80	13.96	14.89	10.05	07/01/1989
Wilshire 5000 Index			9.58	9.74	26.70	26.70	26.11	18.11	14.77	16.40	10.96	
Difference			-4.63	-6.29	-10.04	-10.04	-1.40	-0.31	-0.81	-1.51	-0.91	
US Equity	1,728,575,097	45.61	6.01	4.59	19.85	19.85	25.63	18.30	14.59	16.13	10.54	07/01/1989
Wilshire 5000 Index			9.58	9.74	26.70	26.70	26.11	18.11	14.77	16.40	10.96	
Difference			-3.57	-5.15	-6.85	-6.85	-0.48	0.19	-0.18	-0.27	-0.42	
IM U.S. Equity (SA+CF) Median			7.67	7.05	26.18	26.18	23.76	15.72	13.13	15.46	11.78	
Rank			67	70	77	77	40	36	37	42	92	
US Large Cap Equity	1,230,405,031	32.46	8.23	7.79	24.67	24.67	25.29	17.98	14.31	16.30	10.85	07/01/1989
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	11.10	
Difference			-1.55	-2.22	-1.78	-1.78	-0.92	-0.45	-0.53	-0.24	-0.25	
IM U.S. Large Cap Equity (SA+CF) Median			9.39	9.32	27.42	27.42	25.57	17.99	14.50	16.32	11.46	
Rank			69	70	73	73	51	51	52	51	86	
US Large Cap Core Equity	585,691,356	15.45	11.05	10.99	28.81	28.81	25.82	17.74	14.34	16.35	10.69	11/01/1996
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	9.92	
Difference			0.02	-0.68	0.10	0.10	-0.25	-0.73	-0.59	-0.20	0.77	
IM U.S. Large Cap Core Equity (SA+CF) Median			10.24	10.38	27.83	27.83	25.23	18.03	14.45	16.33	10.63	
Rank			32	43	37	37	42	55	53	49	44	
Liquidity Pool - SSgA Equity Index (CF)	249,770,355	6.59	11.01	11.63	N/A	N/A	N/A	N/A	N/A	N/A	21.16	04/01/2021
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	21.22	
Difference			-0.02	-0.04	N/A	N/A	N/A	N/A	N/A	N/A	-0.06	
IM U.S. Large Cap Core Equity (SA+CF) Median			10.24	10.38	27.83	27.83	25.23	18.03	14.45	16.33	19.21	
Rank			35	30	N/A	N/A	N/A	N/A	N/A	N/A	24	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	335,921,001	8.86	10.32	9.44	24.51	24.51	26.42	18.35	14.50	16.37	10.41	02/01/2002
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	9.65	
Difference			-0.71	-2.23	-4.20	-4.20	0.35	-0.12	-0.43	-0.18	0.76	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	9.76	
Rank			46	61	94	94	19	56	76	61	15	
US Large Cap Value Equity	320,265,166	8.45	4.67	2.75	19.99	19.99	17.60	11.98	10.01	12.66	9.69	06/01/1990
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	10.14	
Difference			-3.10	-4.18	-5.17	-5.17	-0.04	0.82	0.28	-0.31	-0.45	
IM U.S. Large Cap Value Equity (SA+CF) Median			8.25	7.79	27.78	27.78	19.87	12.94	11.08	13.95	11.27	
Rank			94	94	95	95	78	68	70	81	97	
Beutel Goodman American Equity (SA)	157,013,476	4.14	2.44	-0.82	15.50	15.50	19.45	14.03	N/A	N/A	14.76	05/01/2016
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	12.20	
Difference			-5.33	-7.75	-9.66	-9.66	1.81	2.87	N/A	N/A	2.56	
IM U.S. Large Cap Value Equity (SA+CF) Median			8.25	7.79	27.78	27.78	19.87	12.94	11.08	13.95	13.70	
Rank			99	98	100	100	55	33	N/A	N/A	34	
Aristotle US Equity (SA)	163,251,690	4.31	7.71	7.40	25.82	25.82	N/A	N/A	N/A	N/A	30.52	09/01/2020
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	30.03	
Difference			-0.06	0.47	0.66	0.66	N/A	N/A	N/A	N/A	0.49	
IM U.S. Large Cap Value Equity (SA+CF) Median			8.25	7.79	27.78	27.78	19.87	12.94	11.08	13.95	31.86	
Rank			60	59	68	68	N/A	N/A	N/A	N/A	61	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Growth Equity	324,448,510	8.56	5.88	5.77	19.32	19.32	31.77	24.94	18.65	19.95	11.00	07/01/1989
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	11.62	
Difference			-5.76	-7.16	-8.28	-8.28	-2.31	-0.38	-0.93	0.16	-0.62	
IM U.S. Large Cap Growth Equity (SA+CF) Median			9.33	9.99	25.26	25.26	31.11	23.66	18.01	18.84	12.64	
Rank			78	83	82	82	42	33	36	25	100	
Fred Alger Capital Appreciation (SA)	324,448,510	8.56	6.35	6.24	19.85	19.85	31.97	25.05	18.70	19.99	19.08	08/01/2010
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	19.11	
Difference			-5.29	-6.69	-7.75	-7.75	-2.11	-0.27	-0.88	0.20	-0.03	
IM U.S. Large Cap Growth Equity (SA+CF) Median			9.33	9.99	25.26	25.26	31.11	23.66	18.01	18.84	18.20	
Rank			76	81	80	80	42	32	35	24	23	
US Small Cap Equity	498,170,066	13.14	0.94	-2.97	8.08	8.08	26.24	18.67	15.03	16.20	10.85	07/01/1992
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	10.24	
Difference			-1.20	-0.66	-6.74	-6.74	6.22	6.65	4.27	2.97	0.61	
IM U.S. Small Cap Equity (SA+CF) Median			5.62	3.93	24.02	24.02	22.13	13.47	12.10	14.71	13.20	
Rank			86	91	90	90	26	21	23	30	93	
Liquidity Pool - SSgA Small Cap Completeness Index (CF)	61,178,969	1.61	1.33	-1.74	N/A	N/A	N/A	N/A	N/A	N/A	5.02	04/01/2021
Russell Sm Cap Compl Index			1.32	-1.81	12.64	12.64	24.21	15.53	12.76	15.07	5.00	
Difference			0.01	0.07	N/A	N/A	N/A	N/A	N/A	N/A	0.02	
IM U.S. Small Cap Equity (SA+CF) Median			5.62	3.93	24.02	24.02	22.13	13.47	12.10	14.71	8.68	
Rank			84	84	N/A	N/A	N/A	N/A	N/A	N/A	77	
US Small Cap Value Equity	233,978,318	6.17	6.16	3.74	23.16	23.16	22.04	14.17	13.12	14.48	11.32	09/01/1992
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	10.96	
Difference			1.80	2.50	-5.11	-5.11	4.05	5.10	3.67	2.45	0.36	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	13.28	
Rank			67	71	83	83	26	13	13	29	92	
Earnest Partner Small Cap Value Equity (SA)	117,408,253	3.10	7.95	5.42	26.16	26.16	26.08	16.50	14.00	15.80	10.71	09/01/2005
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	8.00	
Difference			3.59	4.18	-2.11	-2.11	8.09	7.43	4.55	3.77	2.71	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	9.94	
Rank			28	46	71	71	7	7	8	7	33	
River Road Small Cap Value Equity (SA)	116,570,065	3.08	7.66	5.31	22.93	22.93	18.66	12.21	12.48	13.30	8.51	05/01/2007
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	7.18	
Difference			3.30	4.07	-5.34	-5.34	0.67	3.14	3.03	1.27	1.33	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	9.38	
Rank			35	48	84	84	71	28	18	54	78	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Growth Equity	203,012,779	5.36	-6.04	-11.29	-6.16	-6.16	28.31	22.96	16.63	17.70	9.46	07/01/1992
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	9.05	
Difference			-6.05	-5.65	-8.99	-8.99	7.14	8.43	4.97	3.56	0.41	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	13.46	
Rank			93	98	98	98	49	36	43	46	99	
Lord Abbett Small Cap Growth Equity (SA)	104,833,357	2.77	-3.19	-6.46	-0.86	-0.86	32.21	26.39	16.54	18.35	15.34	05/01/2011
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	11.58	
Difference			-3.20	-0.82	-3.69	-3.69	11.04	11.86	4.88	4.21	3.76	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	14.59	
Rank			87	86	91	91	24	16	44	31	40	
Delaware SMID Focus Growth Equity (SA)	98,179,423	2.59	-8.93	-16.05	-11.34	-11.34	24.51	19.82	16.52	16.87	14.87	05/01/2011
Russell 2500 Grth Index			0.20	-3.34	5.04	5.04	25.09	17.65	13.78	15.75	13.16	
Difference			-9.13	-12.71	-16.38	-16.38	-0.58	2.17	2.74	1.12	1.71	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			4.64	3.50	17.19	17.19	29.43	21.51	16.16	17.46	14.85	
Rank			99	99	100	100	82	64	40	58	46	
Other Equity												
OFP LGT Co-Invest Fund III	7,037,554	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2022
International Equity	547,224,023	14.44	1.59	-0.18	7.66	7.66	21.97	16.45	11.70	10.61	N/A	07/01/1989
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	N/A	
Difference			-0.23	1.04	-0.16	-0.16	8.79	6.84	5.14	3.33	N/A	
IM International Equity (SA+CF) Median			1.03	-0.41	10.08	10.08	14.94	11.07	8.03	9.24	8.85	
Rank			44	49	61	61	13	11	15	30	N/A	
International Developed Equity	359,965,793	9.50	2.15	2.73	11.62	11.62	26.41	19.30	14.46	12.87	7.49	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	5.75	
Difference			0.33	3.95	3.80	3.80	13.23	9.69	7.90	5.59	1.74	
IM International Equity Developed Markets (SA+CF) Median			1.88	0.74	11.60	11.60	15.78	11.21	8.49	9.83	7.81	
Rank			47	29	50	50	4	4	5	12	62	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	61,982,782	1.64	1.85	-1.22	N/A	N/A	N/A	N/A	N/A	N/A	4.28	04/01/2021
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	4.18	
Difference			0.03	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.10	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	5.34	
Rank			50	66	N/A	N/A	N/A	N/A	N/A	N/A	61	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Chautauqua Intl Growth Equity (CF)	173,373,724	4.57	-1.02	0.21	6.75	6.75	23.36	16.45	12.23	N/A	11.60	09/01/2012
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	7.11	
Difference			-2.84	1.43	-1.07	-1.07	10.18	6.84	5.67	N/A	4.49	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	9.06	
Rank			94	46	77	77	11	13	12	N/A	14	
WCM Berkeley Street Intl Equity (SA)	186,559,281	4.92	5.70	6.40	18.87	18.87	30.13	22.46	16.92	N/A	16.01	09/01/2012
MSCI EAFE Index (USD) (Net)			2.69	2.24	11.26	11.26	13.54	9.55	6.76	8.03	7.85	
Difference			3.01	4.16	7.61	7.61	16.59	12.91	10.16	N/A	8.16	
IM EAFE Core (SA+CF) Median			3.20	2.27	12.14	12.14	14.57	10.45	7.56	9.34	9.01	
Rank			7	6	4	4	1	1	1	N/A	1	
Emerging Markets Equity	125,275,448	3.31	-0.25	-8.69	-2.91	-2.91	9.76	8.39	3.92	N/A	4.19	09/01/2012
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	5.27	
Difference			1.06	0.61	-0.37	-0.37	-1.18	-1.48	-2.19	N/A	-1.08	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	6.95	
Rank			43	60	69	69	85	87	97	N/A	97	
RBC GAM Emerging Markets Equity (CF)	60,895,950	1.61	0.59	-7.60	-4.36	-4.36	6.79	N/A	N/A	N/A	6.99	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	8.11	
Difference			1.90	1.70	-1.82	-1.82	-4.15	N/A	N/A	N/A	-1.12	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	10.19	
Rank			24	54	77	77	97	N/A	N/A	N/A	85	
Wellington Emerging Markets (CF)	64,379,498	1.70	-1.02	-9.71	-1.51	-1.51	8.80	N/A	N/A	N/A	9.06	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	8.11	
Difference			0.29	-0.41	1.03	1.03	-2.14	N/A	N/A	N/A	0.95	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	10.19	
Rank			57	70	63	63	90	N/A	N/A	N/A	65	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	685,925,603	18.10	-0.30	-1.42	-2.70	-2.70	4.19	3.40	2.74	3.17	5.75	07/01/1989
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	5.78	
Difference			-0.31	-1.48	-1.15	-1.15	-0.60	-0.17	-0.26	0.27	-0.03	
IM Global Fixed Income (SA+CF) Median			-0.19	-0.27	0.17	0.17	6.15	4.83	3.83	3.87	N/A	
Rank			55	65	67	67	80	87	71	60	N/A	
Garcia Hamilton Core Fixed Income (SA)	200,173,764	5.28	-0.15	-0.24	-2.31	-2.31	4.17	3.50	3.13	N/A	3.35	08/01/2014
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.13	
Difference			-0.16	-0.30	-0.76	-0.76	-0.62	-0.07	0.13	N/A	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	3.62	
Rank			77	89	100	100	99	96	79	N/A	73	
Orleans Core Fixed Income (SA)	156,172,223	4.12	-0.42	-0.51	-1.78	-1.78	5.03	3.69	3.25	N/A	3.22	08/01/2014
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.13	
Difference			-0.43	-0.57	-0.23	-0.23	0.24	0.12	0.25	N/A	0.09	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	3.62	
Rank			96	100	92	92	74	79	74	N/A	82	
Liquidity Pool - SSgA Aggregate Bond (CF)	62,848,002	1.66	-0.03	0.03	N/A	N/A	N/A	N/A	N/A	N/A	1.87	04/01/2021
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	1.89	
Difference			-0.04	-0.03	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	2.02	
Rank			47	49	N/A	N/A	N/A	N/A	N/A	N/A	74	
Garrison Middle Market Funding (CF)	1,580,291	0.04	8.44	11.44	40.69	40.69	9.02	6.24	5.70	N/A	5.95	08/01/2013
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.23	
Difference			8.43	11.38	42.24	42.24	4.23	2.67	2.70	N/A	2.72	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	4.23	
Rank			1	1	1	1	2	6	3	N/A	2	
Medley Opportunity II (CF)	3,721,179	0.10	-3.48	-3.35	9.08	9.08	-9.58	-7.89	-4.06	N/A	-3.09	08/01/2013
CS Lvg'd Loan Index			0.71	1.85	5.40	5.40	5.43	4.32	4.41	4.83	4.17	
Difference			-4.19	-5.20	3.68	3.68	-15.01	-12.21	-8.47	N/A	-7.26	
Brandywine Global Fixed Income (CF)	261,430,143	6.90	-0.40	-3.62	-4.84	-4.84	5.18	4.74	2.93	3.80	4.90	10/01/2009
FTSE Wrld Gov't Bond Index			-1.10	-2.33	-6.97	-6.97	2.75	2.94	1.80	0.96	1.55	
Difference			0.70	-1.29	2.13	2.13	2.43	1.80	1.13	2.84	3.35	
IM Global Fixed Income (SA+CF) Median			-0.19	-0.27	0.17	0.17	6.15	4.83	3.83	3.87	3.93	
Rank			59	96	83	83	64	53	70	52	38	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
PIMCO Corporate Opp II (CF)	14,865,197	0.39	5.44	11.45	21.12	21.12	8.58	10.92	N/A	N/A	10.92	01/01/2017
Bloomberg US Corp Hi Yld Index			0.71	1.60	5.28	5.28	8.83	6.30	6.15	6.83	6.30	
Difference			4.73	9.85	15.84	15.84	-0.25	4.62	N/A	N/A	4.62	
PIMCO Bravo III (CF)	51,145,001	1.35	9.96	13.07	22.57	22.57	9.39	N/A	N/A	N/A	11.22	12/01/2017
Bloomberg US Corp Hi Yld Index			0.71	1.60	5.28	5.28	8.83	6.30	6.15	6.83	5.95	
Difference			9.25	11.47	17.29	17.29	0.56	N/A	N/A	N/A	5.27	
PIMCO Private Income (CF)	95,299,125	2.51	2.23	6.26	16.08	16.08	N/A	N/A	N/A	N/A	10.04	05/01/2019
Bloomberg US Corp Hi Yld Index			0.71	1.60	5.28	5.28	8.83	6.30	6.15	6.83	6.57	
Difference			1.52	4.66	10.80	10.80	N/A	N/A	N/A	N/A	3.47	
PIMCO Bravo IV (CF)	34,805,344	0.92	-1.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.47	10/01/2021
Bloomberg US Corp Hi Yld Index			0.71	1.60	5.28	5.28	8.83	6.30	6.15	6.83	0.71	
Difference			-2.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.18	
Hedge Fund												
HFRI FOF: Cnsvt Index	338,666	0.01	-16.68	-27.98	-26.04	-26.04	-9.95	-4.81	-3.65	-0.91	-3.81	06/01/2015
HFRI FOF: Cnsvt Index			0.57	1.55	7.49	7.49	6.75	4.66	3.64	4.04	3.44	
Difference			-17.25	-29.53	-33.53	-33.53	-16.70	-9.47	-7.29	-4.95	-7.25	
Glouston Capital Partners Permal (CF)	338,666	0.01	-16.68	-27.98	-26.04	-26.04	-10.93	-5.04	N/A	N/A	-4.10	06/01/2015
HFRI FOF: Cnsvt Index			0.57	1.55	7.49	7.49	6.75	4.66	3.64	4.04	3.44	
Difference			-17.25	-29.53	-33.53	-33.53	-17.68	-9.70	N/A	N/A	-7.54	
Real Estate												
NCREIF ODCE Index (Appreciation) (AWA) (Net)	359,949,632	9.50	7.53	13.09	16.84	16.84	7.01	7.68	8.94	9.31	7.09	05/01/2005
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	2.83	
Difference			0.64	0.20	-0.67	-0.67	2.01	3.26	3.80	3.63	4.26	
JP Morgan Strategic Property (CF)	116,326,781	3.07	8.13	15.39	20.80	20.80	8.54	8.17	9.18	10.32	8.28	05/01/2005
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	2.83	
Difference			1.24	2.50	3.29	3.29	3.54	3.75	4.04	4.64	5.45	
Portfolio Advisors Real Estate III LP	1,976,994	0.05	0.24	1.76	-5.18	-5.18	-10.06	-5.96	0.51	2.72	-2.21	08/01/2008
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	1.31	
Difference			-6.65	-11.13	-22.69	-22.69	-15.06	-10.38	-4.63	-2.96	-3.52	
Portfolio Advisors Real Estate IV LP	1,111,685	0.03	4.06	4.59	9.04	9.04	-1.38	4.30	7.34	9.06	6.63	08/01/2011
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.83	
Difference			-2.83	-8.30	-8.47	-8.47	-6.38	-0.12	2.20	3.38	0.80	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Angelo Gordon Net Lease III LP	22,654,148	0.60	1.94	3.95	8.40	8.40	7.08	7.52	6.69	N/A	5.12	04/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.40	
Difference			-4.95	-8.94	-9.11	-9.11	2.08	3.10	1.55	N/A	-0.28	
Mesirow Real Estate (CF)	11,756,791	0.31	110.04	113.23	129.40	129.40	42.90	28.78	22.33	N/A	19.51	05/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.46	
Difference			103.15	100.34	111.89	111.89	37.90	24.36	17.19	N/A	14.05	
Mesirow Real Estate Value IV LP (OFPRS)	10,323,701	0.27	25.56	23.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	16.20	
Difference			18.67	10.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	17,033,865	0.45	3.76	9.60	11.42	11.42	-2.94	4.07	6.75	N/A	6.36	06/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.52	
Difference			-3.13	-3.29	-6.09	-6.09	-7.94	-0.35	1.61	N/A	0.84	
Portfolio Advisors Real Estate LP	4,116,550	0.11	0.48	0.78	-3.96	-3.96	-8.12	-3.77	-0.75	N/A	2.36	07/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.35	
Difference			-6.41	-12.11	-21.47	-21.47	-13.12	-8.19	-5.89	N/A	-2.99	
Landmark Real Estate VII LP	6,050,098	0.16	2.35	3.27	2.20	2.20	-2.07	1.42	10.45	N/A	10.07	10/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.25	
Difference			-4.54	-9.62	-15.31	-15.31	-7.07	-3.00	5.31	N/A	4.82	
JP Morgan Special Situation Property (CF)	71,447,282	1.89	7.58	16.65	24.30	24.30	11.18	10.90	12.21	N/A	12.56	12/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.38	
Difference			0.69	3.76	6.79	6.79	6.18	6.48	7.07	N/A	7.18	
Hall Capital III LP	7,415,720	0.20	0.10	-0.90	11.28	11.28	7.24	8.38	2.96	N/A	2.93	12/01/2014
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	5.38	
Difference			-6.79	-13.79	-6.23	-6.23	2.24	3.96	-2.18	N/A	-2.45	
Portfolio Advisors Real Estate VI LP	17,476,976	0.46	6.54	10.40	17.88	17.88	7.23	9.57	N/A	N/A	9.74	02/01/2017
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	4.50	
Difference			-0.35	-2.49	0.37	0.37	2.23	5.15	N/A	N/A	5.24	
Dune Real Estate IV LP	16,123,409	0.43	8.12	29.20	-2.24	-2.24	N/A	N/A	N/A	N/A	-10.25	09/01/2019
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	6.29	
Difference			1.23	16.31	-19.75	-19.75	N/A	N/A	N/A	N/A	-16.54	
Hall Capital Real Estate LP	5,983,561	0.16	1.07	2.34	18.51	18.51	9.41	N/A	N/A	N/A	8.68	10/01/2018
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	4.84	
Difference			-5.82	-10.55	1.00	1.00	4.41	N/A	N/A	N/A	3.84	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Terracap Partners V LP (OFPRS)	50,152,071	1.32	0.33	-0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (Appreciation) (AWA) (Net)			6.89	12.89	17.51	17.51	5.00	4.42	5.14	5.68	16.20	
Difference			-6.56	-12.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

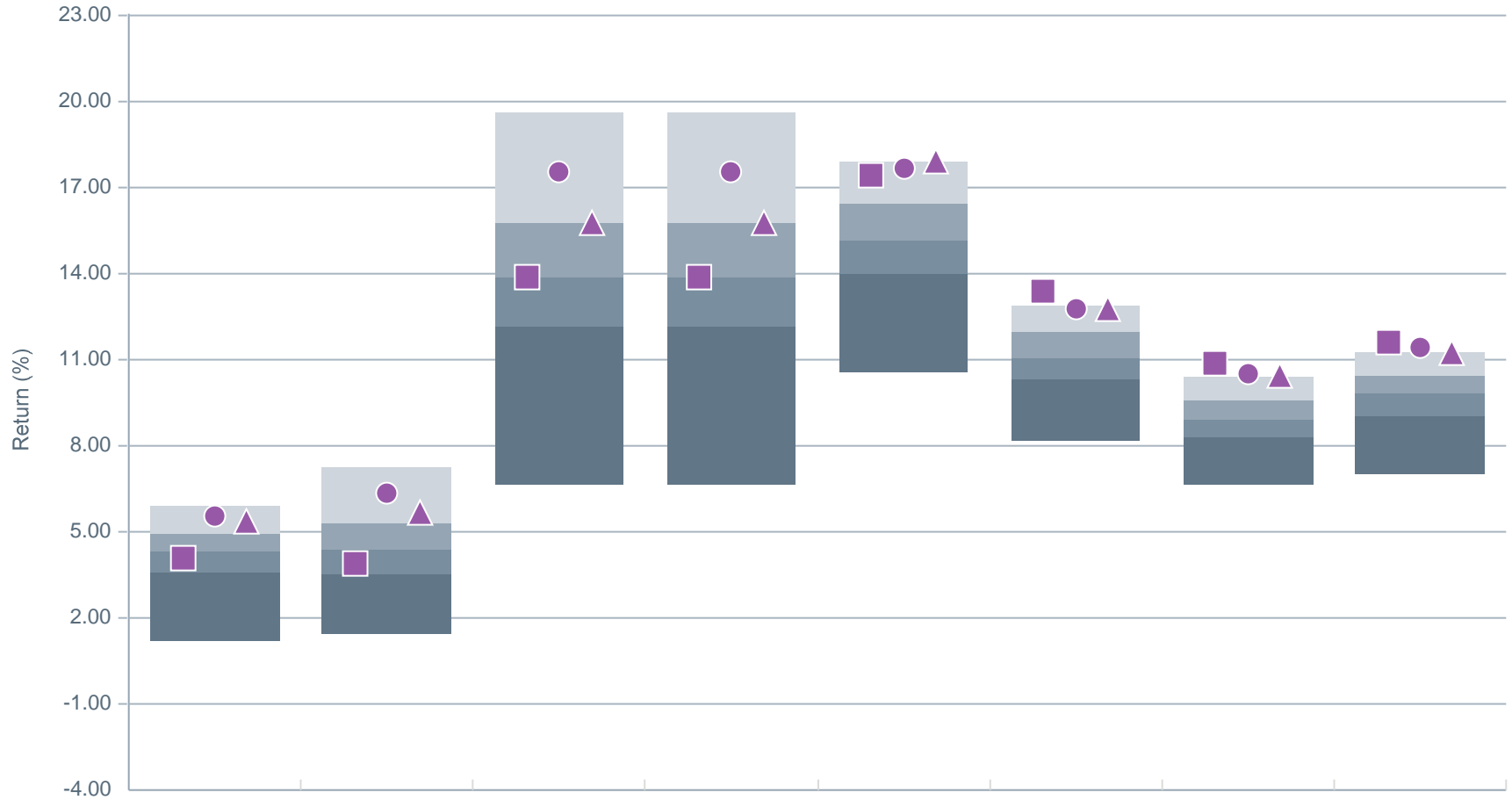
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	261,812,689	6.91	5.14	15.82	49.68	49.68	19.64	19.37	16.03	N/A	18.22	04/01/2014
Pomona Captial VIII LP	4,264,557	0.11	2.59	15.53	63.92	63.92	22.70	22.15	19.02	N/A	21.24	04/01/2014
Capital Dynamics Global Secondaries IV	26,954,621	0.71	1.88	1.97	24.30	24.30	10.26	16.62	11.91	N/A	11.91	01/01/2015
Ardian AESF VI LP	34,702,395	0.92	4.50	17.93	48.36	48.36	18.35	N/A	N/A	N/A	15.45	04/01/2017
Pomona Capital IX LP	30,299,656	0.80	7.16	18.79	64.43	64.43	31.21	N/A	N/A	N/A	43.57	03/01/2018
Argonaut Private Equity IV LP	13,774,733	0.36	-0.36	10.18	24.18	24.18	6.88	N/A	N/A	N/A	5.67	09/01/2018
Ardian ASF VIII LP	45,632,152	1.20	12.40	30.92	80.22	80.22	N/A	N/A	N/A	N/A	58.66	05/01/2020
Ardian Real Estate (CF)	6,184,574	0.16	5.57	25.60	67.32	67.32	19.65	18.25	15.62	N/A	16.63	05/01/2014
IFM Global Infrastructure Fund LP	100,000,000	2.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12/01/2021

As of 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated. Additionally, during 12/2021, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were funded. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021



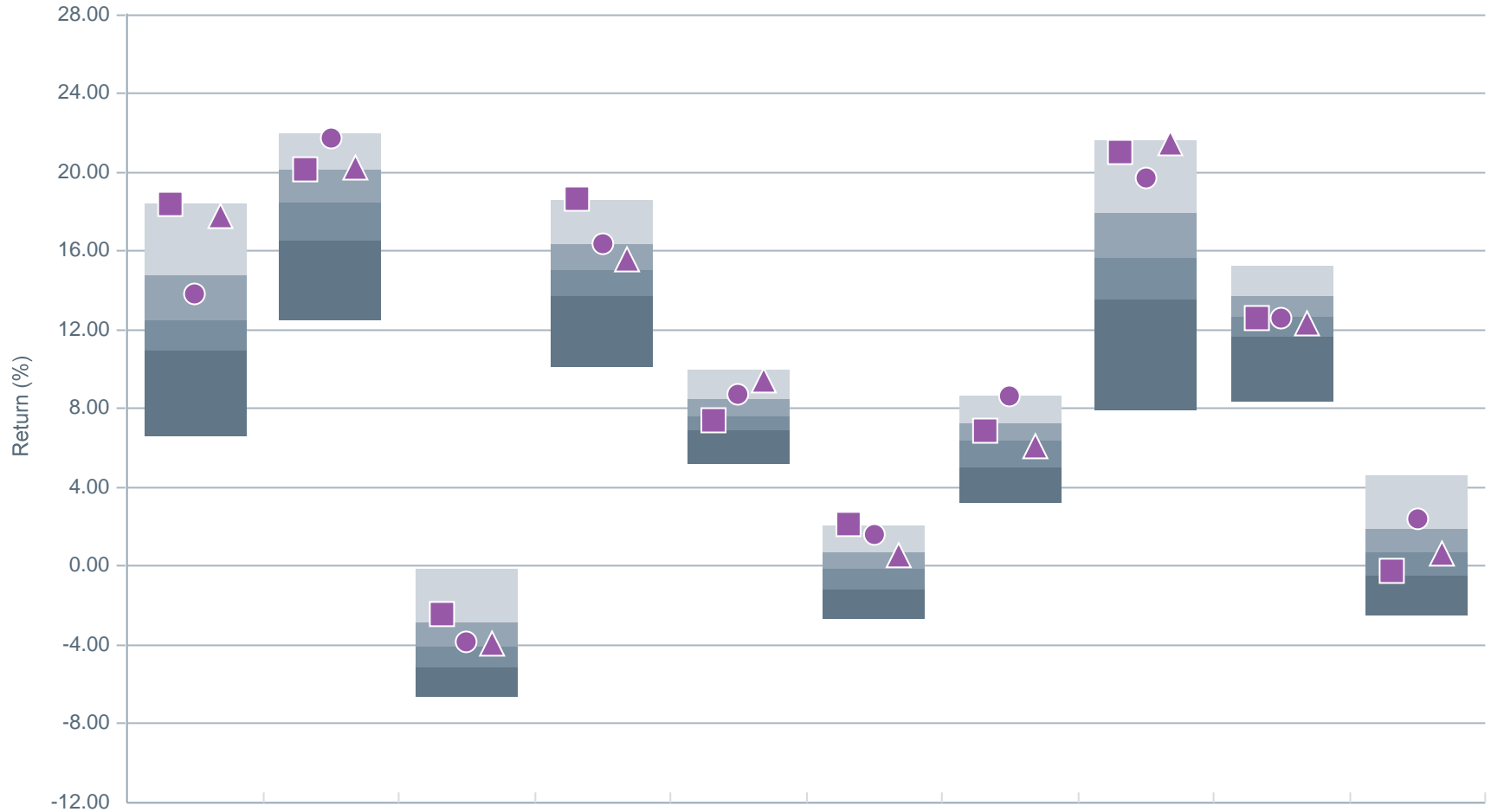
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OFPRS Total Fund	4.07 (58)	3.89 (66)	13.87 (50)	13.87 (50)	17.46 (10)	13.40 (2)	10.86 (2)	11.61 (3)
● OFPRS Policy Index	5.53 (10)	6.33 (12)	17.52 (11)	17.52 (11)	17.67 (8)	12.78 (7)	10.53 (4)	11.44 (4)
▲ OFPRS Allocation Index	5.35 (13)	5.66 (20)	15.80 (26)	15.80 (26)	17.95 (5)	12.76 (8)	10.46 (5)	11.25 (5)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

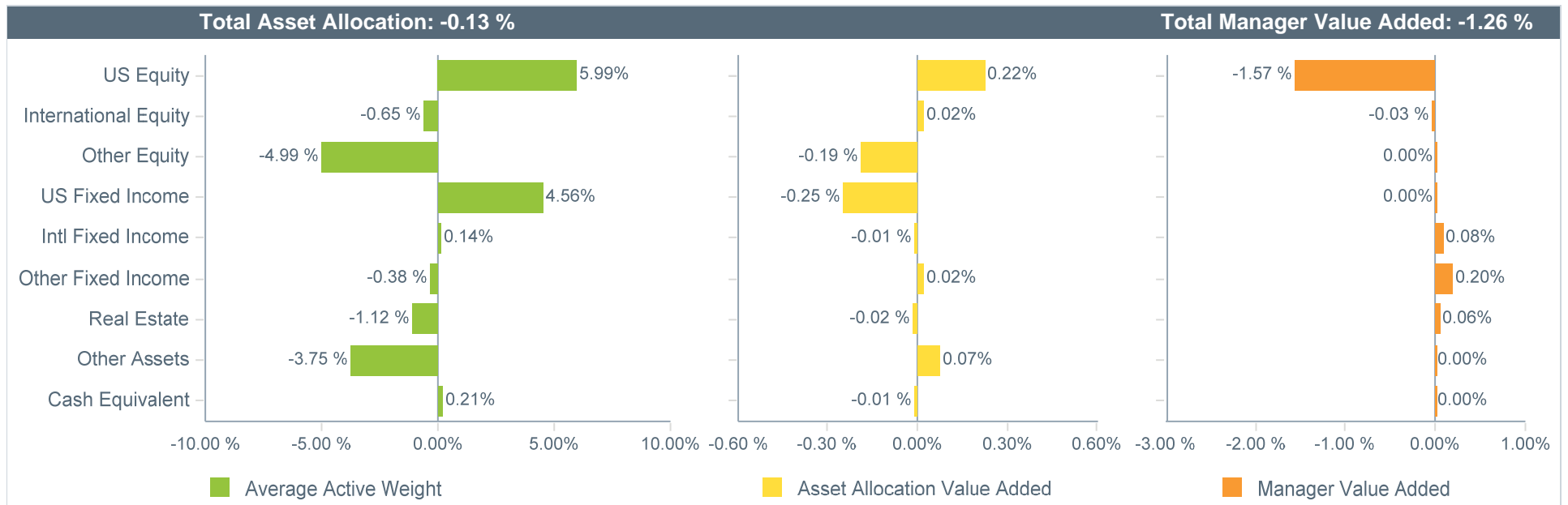
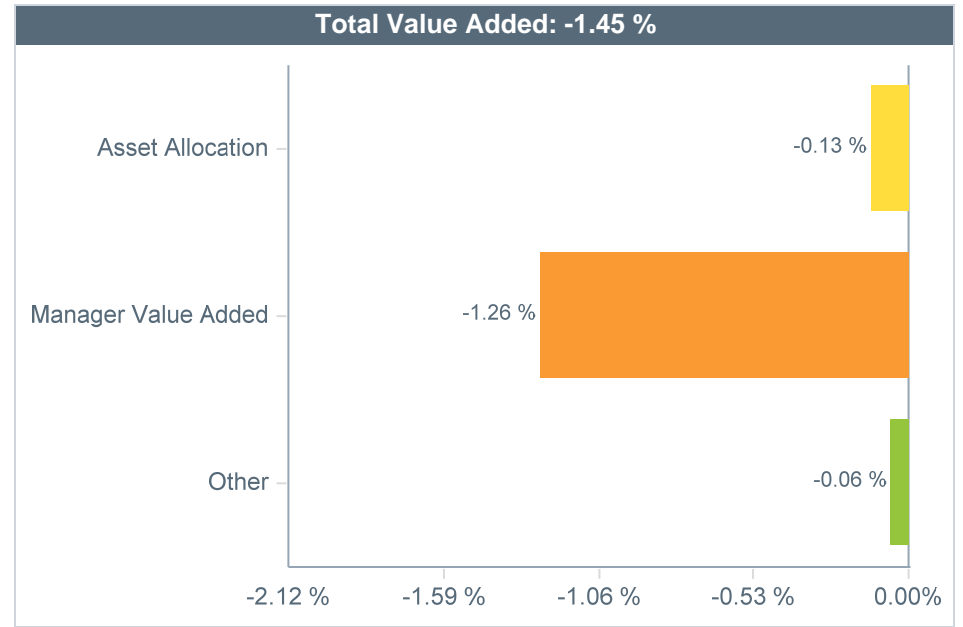
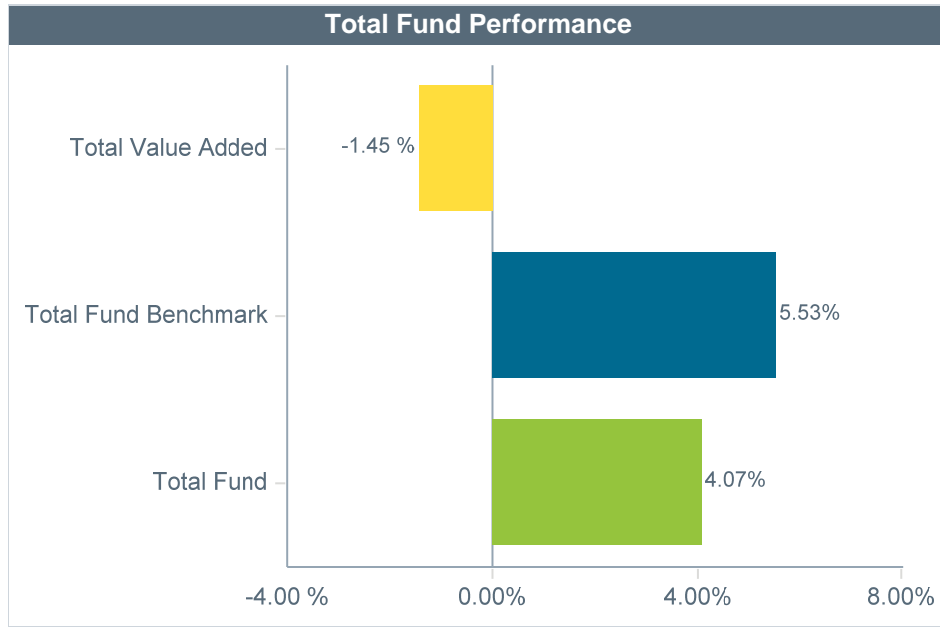
As of December 31, 2021



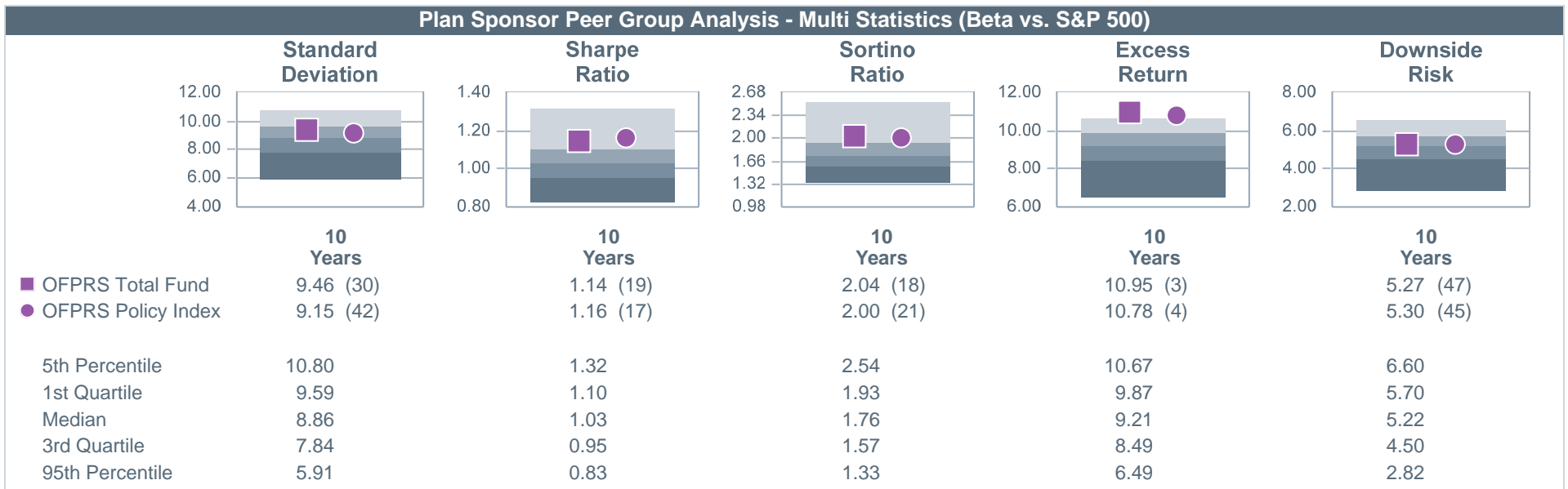
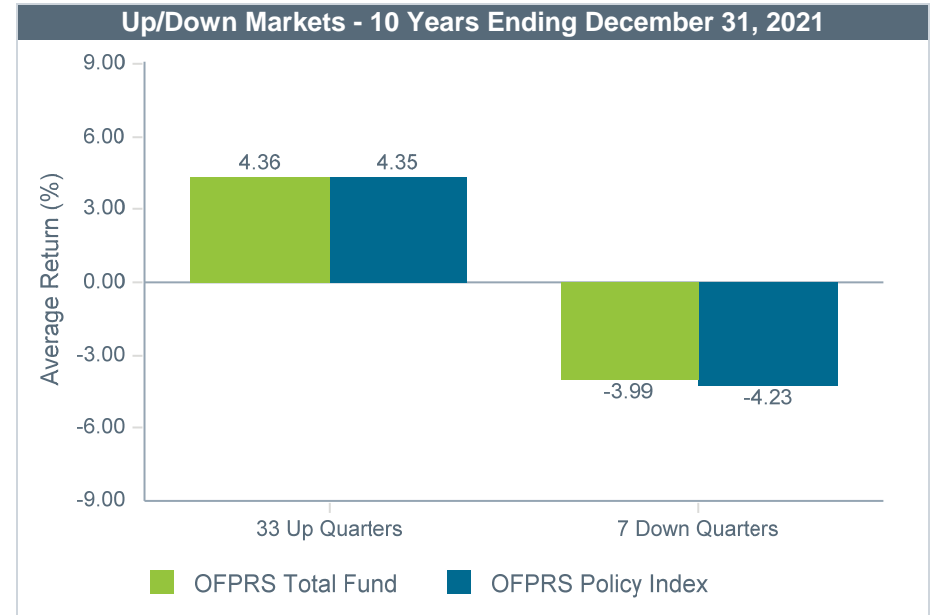
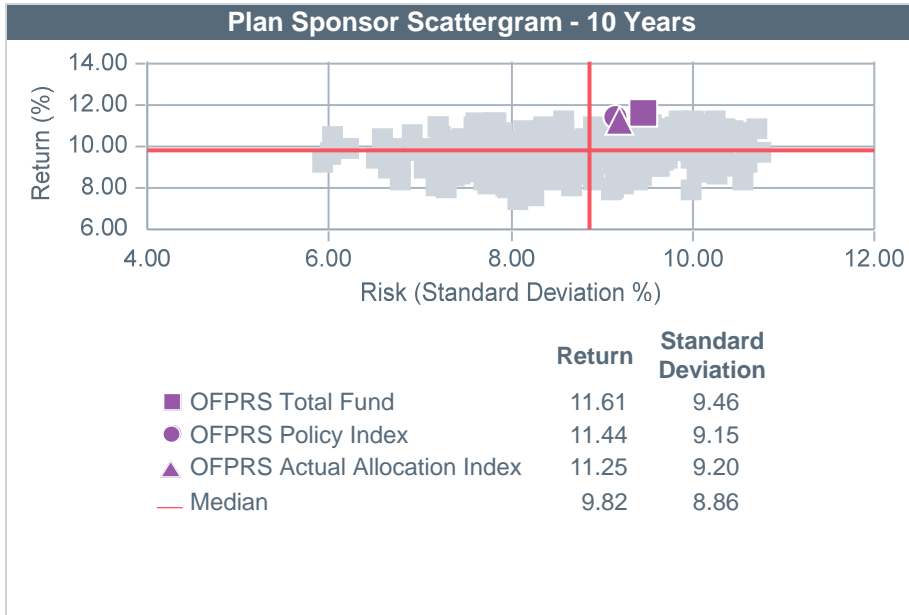
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OFPRS Total Fund	18.44 (6)	20.15 (26)	-2.46 (19)	18.67 (5)	7.42 (58)	2.12 (5)	6.91 (35)	21.10 (6)	12.57 (54)	-0.19 (69)
● OFPRS Policy Index	13.85 (35)	21.76 (8)	-3.80 (46)	16.41 (26)	8.76 (18)	1.60 (9)	8.64 (6)	19.76 (13)	12.63 (53)	2.41 (19)
▲ OFPRS Allocation Index	17.79 (7)	20.30 (23)	-3.93 (48)	15.64 (39)	9.45 (10)	0.56 (30)	6.12 (56)	21.48 (6)	12.32 (62)	0.67 (51)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

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

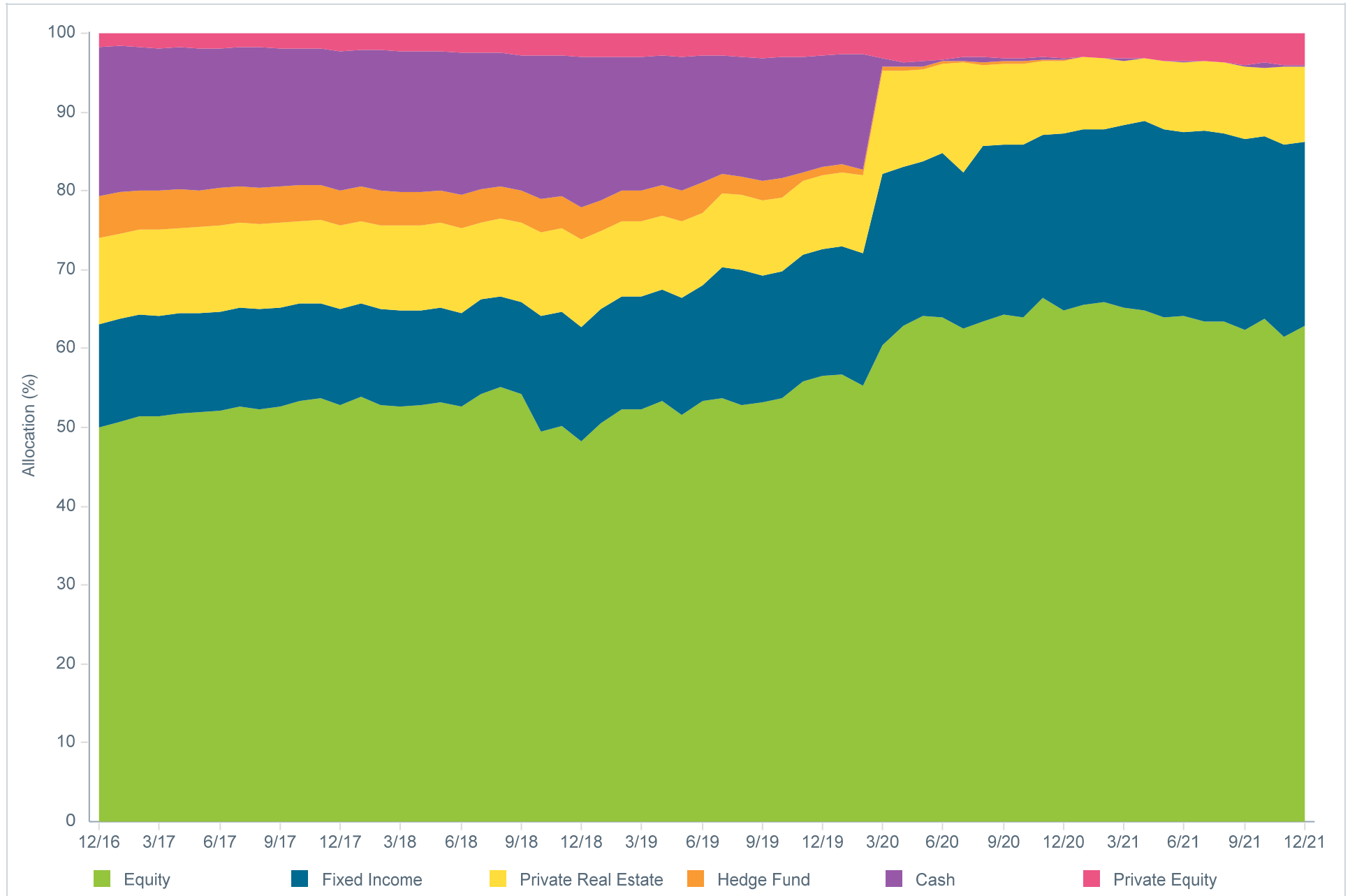




Performance shown is gross of fees. Calculation is based on quarterly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include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



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

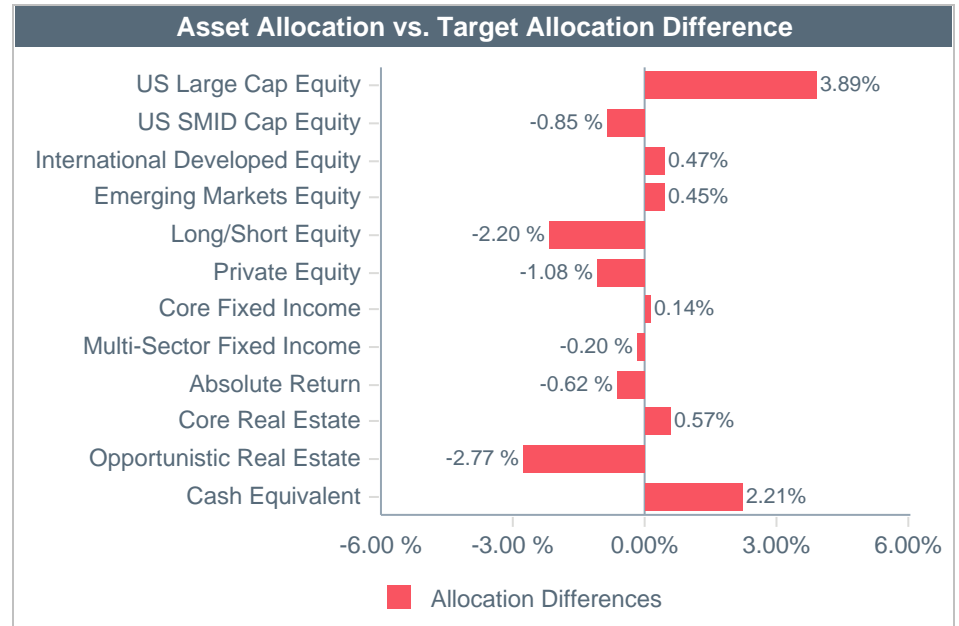


Oklahoma Police Pension & Retirement System (OPPRS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OPPRS Total Fund (Net)	4.23	6.19	17.28	17.28	14.87	10.70	8.68	9.27	12.17	15.22	-2.85	12.91	7.04
OPPRS Policy Index	5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	12.66	19.13	-5.34	15.45	7.07
Difference	-1.34	0.19	2.09	2.09	-0.76	-0.36	0.15	-0.03	-0.49	-3.91	2.49	-2.54	-0.03
OPPRS Actual Allocation Index	5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	14.67	15.02	-3.70	13.78	6.66
Difference	-1.23	0.55	2.92	2.92	0.19	0.13	0.30	0.12	-2.50	0.20	0.85	-0.87	0.38
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	2.41	2.51	9.78	9.78	7.37	3.20	1.18	1.77	4.67	7.72	-10.35	5.41	-0.46
OPPRS Total Fund (Gross)	4.34	6.39	17.71	17.71	15.29	11.13	9.11	9.70	12.54	15.68	-2.46	13.40	7.47
OPPRS Policy Index	5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	12.66	19.13	-5.34	15.45	7.07
Difference	-1.23	0.39	2.52	2.52	-0.34	0.07	0.58	0.40	-0.12	-3.45	2.88	-2.05	0.40
OPPRS Actual Allocation Index	5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	14.67	15.02	-3.70	13.78	6.66
Difference	-1.12	0.75	3.35	3.35	0.61	0.56	0.73	0.55	-2.13	0.66	1.24	-0.38	0.81
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	49	11	11	11	48	47	44	55	51	84	19	82	56

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPPRS (Police)	3,376,101,640	100.00	100.00
US Large Cap Equity	637,704,928	18.89	15.00
US SMID Cap Equity	308,837,262	9.15	10.00
International Developed Equity	353,431,113	10.47	10.00
Emerging Markets Equity	184,135,345	5.45	5.00
Long/Short Equity	263,231,800	7.80	10.00
Private Equity	469,815,475	13.92	15.00
Core Fixed Income	257,852,640	7.64	7.50
Multi-Sector Fixed Income	246,440,303	7.30	7.50
Absolute Return	147,973,357	4.38	5.00
Core Real Estate	356,802,378	10.57	10.00
Opportunistic Real Estate	75,154,085	2.23	5.00
Cash Equivalent	74,722,953	2.21	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 Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	3,376,101,640	100.00	4.23	6.19	17.28	17.28	14.87	10.70	8.68	9.27	7.36	07/01/2005
OPPRS Policy Index			5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	7.18	
Difference			-1.34	0.19	2.09	2.09	-0.76	-0.36	0.15	-0.03	0.18	
OPPRS Actual Allocation Index			5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	7.27	
Difference			-1.23	0.55	2.92	2.92	0.19	0.13	0.30	0.12	0.09	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.41	2.51	9.78	9.78	7.37	3.20	1.18	1.77	-0.14	
Total Equity	2,217,155,923	65.67	5.12	7.14	23.58	23.58	21.32	14.89	11.84	12.40	8.89	07/01/2005
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	8.32	
Difference			-1.56	1.59	5.04	5.04	0.94	0.49	0.94	0.55	0.57	
US Equity												
Northern Trust Russell 1000 Index (SA)	637,704,928	18.89	9.77	10.00	26.46	26.46	26.19	18.41	14.83	16.52	N/A	07/01/1998
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	8.54	
Difference			-0.01	-0.01	0.01	0.01	-0.02	-0.02	-0.01	-0.02	N/A	
Boston Partners SMID Value Equity (SA)	152,342,647	4.51	4.61	2.41	26.82	26.82	19.98	9.58	9.59	12.63	N/A	06/01/1997
Russell 2500 Val Index			6.36	4.16	27.78	27.78	18.31	9.88	9.56	12.43	9.95	
Difference			-1.75	-1.75	-0.96	-0.96	1.67	-0.30	0.03	0.20	N/A	
Silvercrest Small Cap Growth Equity (SA)	156,494,615	4.64	-0.33	-2.29	19.42	19.42	30.34	21.49	17.27	N/A	12.17	01/01/2014
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	10.88	
Difference			-0.34	3.35	16.59	16.59	9.17	6.96	5.61	N/A	1.29	
International Equity												
Mondrian International Value Equity (SA)	164,175,897	4.86	0.64	-0.53	11.98	11.98	8.34	6.48	4.62	6.06	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			1.25	0.43	11.58	11.58	8.47	5.97	4.25	6.42	5.23	
Difference			-0.61	-0.96	0.40	0.40	-0.13	0.51	0.37	-0.36	N/A	
Barings Focused EAFE Plus Equity (SA)	189,255,216	5.61	2.15	0.70	6.53	6.53	13.13	9.69	7.70	N/A	6.03	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	7.13	
Difference			0.27	1.75	-1.76	-1.76	-0.57	-0.43	0.65	N/A	-1.10	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
AB EM Strategic Core Equity (CF)	109,829,626	3.25	3.99	-6.82	-1.92	-1.92	9.80	7.92	N/A	N/A	6.38	10/01/2016
MSCI Emg Mkts Index (USD) (Gross)			-1.24	-9.12	-2.22	-2.22	11.33	10.26	6.50	5.87	8.88	
Difference			5.23	2.30	0.30	0.30	-1.53	-2.34	N/A	N/A	-2.50	
Wasatch EM Small Cap (SA)	74,305,719	2.20	5.68	11.84	32.64	32.64	32.73	21.32	12.58	N/A	10.33	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			1.48	-0.55	19.29	19.29	16.92	11.88	7.69	7.78	7.47	
Difference			4.20	12.39	13.35	13.35	15.81	9.44	4.89	N/A	2.86	
Fixed Income	652,266,301	19.32	-0.14	0.05	1.28	1.28	5.01	4.02	3.09	N/A	N/A	07/01/2005
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.97	
Difference			-0.15	-0.01	2.83	2.83	0.22	0.45	0.09	N/A	N/A	
Agincourt Core Fixed Income (SA)	257,852,640	7.64	-0.02	0.00	-1.76	-1.76	5.29	3.93	3.34	3.35	N/A	07/01/1998
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.68	
Difference			-0.03	-0.06	-0.21	-0.21	0.50	0.36	0.34	0.45	N/A	
Loomis Sayles Global World Bond (SA)	87,183,428	2.58	-1.23	-2.77	-6.85	-6.85	4.39	4.10	2.74	2.18	3.11	05/01/2008
FTSE Wrld Gov't Bond Index			-1.10	-2.33	-6.97	-6.97	2.75	2.94	1.80	0.96	2.04	
Difference			-0.13	-0.44	0.12	0.12	1.64	1.16	0.94	1.22	1.07	
Oaktree Global Credit (SA)	134,712,747	3.99	0.34	1.29	5.54	5.54	5.74	4.12	4.36	5.45	5.60	01/01/1998
Oaktree Global Credit Custom Index			-0.02	0.37	3.37	3.37	6.52	3.54	2.98	2.88	N/A	
Difference			0.36	0.92	2.17	2.17	-0.78	0.58	1.38	2.57	N/A	
Absolute Return												
PAAMCO (CF)	5,359,602	0.16	5.16	5.81	11.78	11.78	5.53	3.62	2.22	3.82	N/A	10/01/2002
HFRI FOF: Cnsvt Index			0.57	1.55	7.49	7.49	6.75	4.66	3.64	4.04	3.47	
Difference			4.59	4.26	4.29	4.29	-1.22	-1.04	-1.42	-0.22	N/A	
Wellington Global Total Return (CF)	78,415,255	2.32	-1.21	-1.30	0.90	0.90	1.43	2.64	N/A	N/A	2.55	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			1.00	2.01	4.05	4.05	5.03	5.19	4.90	4.65	5.18	
Difference			-2.21	-3.31	-3.15	-3.15	-3.60	-2.55	N/A	N/A	-2.63	
TCW MetWest Unconstrained (SA)	64,198,500	1.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			0.75	1.51	3.05	3.05	4.02	4.18	3.89	3.65	3.05	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Private Credit	24,544,128	0.73	2.36	5.77	24.91	24.91	13.49	11.90	N/A	N/A	11.09	10/01/2016

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Assets	431,956,463	12.79	7.28	12.42	17.79	17.79	6.45	5.72	5.67	6.33	N/A	01/01/1998
OPPRS Real Assets Blended Benchmark			7.69	14.59	21.06	21.06	8.25	6.12	4.59	5.22	6.19	
Difference			-0.41	-2.17	-3.27	-3.27	-1.80	-0.40	1.08	1.11	N/A	
JP Morgan Strategic Property (CF)	183,572,948	5.44	7.92	14.94	19.97	19.97	7.68	7.27	8.24	9.35	5.59	11/01/2007
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	5.26	
Difference			0.23	0.35	-1.09	-1.09	-0.56	-0.48	-0.38	-0.09	0.33	
Blackstone Property Partners (CF)	173,229,430	5.13	5.99	9.89	14.22	14.22	6.20	6.82	9.23	N/A	9.12	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-1.70	-4.70	-6.84	-6.84	-2.04	-0.93	0.61	N/A	0.15	
Private Real Estate	75,154,085	2.23	9.26	14.17	23.11	23.11	10.62	10.86	11.54	10.45	9.62	08/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.67	
Difference			1.57	-0.42	2.05	2.05	2.38	3.11	2.92	1.01	-0.05	
Columbus Square (SA)	4,445,504	0.13	0.77	-2.75	-2.56	-2.56	-1.43	2.40	4.17	5.27	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.24	
Difference			-6.92	-17.34	-23.62	-23.62	-9.67	-5.35	-4.45	-4.17	N/A	
Long/Short Equity	263,231,800	7.80	-1.86	-4.26	0.11	0.11	12.53	8.61	6.50	7.53	7.14	05/01/2012
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	11.12	
Difference			-8.54	-9.81	-18.43	-18.43	-7.85	-5.79	-4.40	-4.32	-3.98	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	5.02	
Difference			-2.21	-4.75	-5.99	-5.99	2.17	1.72	1.72	2.26	2.12	
Grosvenor Long/Short Equity (CF)	2,762,127	0.08	4.87	-0.55	7.38	7.38	15.27	10.19	7.60	8.29	N/A	09/01/2003
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	4.49	
Difference			4.52	-1.04	1.28	1.28	4.91	3.30	2.82	3.02	N/A	
K2 Mauna Kea (CF)	260,469,673	7.72	-1.93	-4.30	0.33	0.33	N/A	N/A	N/A	N/A	13.05	06/01/2020
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	16.76	
Difference			-2.28	-4.79	-5.77	-5.77	N/A	N/A	N/A	N/A	-3.71	
Private Equity	469,815,475	13.92	8.33	27.41	67.32	67.32	28.92	22.04	18.45	16.50	14.60	07/01/2003
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	9.29	
Difference			1.65	21.86	48.78	48.78	8.54	7.64	7.55	4.65	5.31	
Cambridge US Prvt Eq Index			0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	15.69	
Difference			8.33	21.66	35.52	35.52	6.64	3.08	2.27	0.56	-1.09	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	3,376,101,640	100.00	4.34	6.39	17.71	17.71	15.29	11.13	9.11	9.70	7.70	07/01/2005
OPPRS Policy Index			5.57	6.00	15.19	15.19	15.63	11.06	8.53	9.30	7.18	
Difference			-1.23	0.39	2.52	2.52	-0.34	0.07	0.58	0.40	0.52	
OPPRS Actual Allocation Index			5.46	5.64	14.36	14.36	14.68	10.57	8.38	9.15	7.27	
Difference			-1.12	0.75	3.35	3.35	0.61	0.56	0.73	0.55	0.43	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.52	2.71	10.21	10.21	7.79	3.63	1.61	2.20	0.20	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	7.69	
Rank			49	11	11	11	48	47	44	55	49	
Total Equity	2,217,155,923	65.67	5.18	7.27	23.90	23.90	21.68	15.25	12.20	12.77	9.19	07/01/2005
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	8.32	
Difference			-1.50	1.72	5.36	5.36	1.30	0.85	1.30	0.92	0.87	
IM Global Equity (SA+CF) Median			6.14	5.40	19.12	19.12	20.65	14.72	11.30	12.89	9.26	
Rank			60	29	18	18	45	45	38	53	52	
US Equity												
Northern Trust Russell 1000 Index (SA)	637,704,928	18.89	9.77	10.01	26.47	26.47	N/A	N/A	N/A	N/A	N/A	07/01/1998
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	8.54	
Difference			-0.01	0.00	0.02	0.02	N/A	N/A	N/A	N/A	N/A	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	8.39	
Rank			58	52	58	58	N/A	N/A	N/A	N/A	N/A	
Boston Partners SMID Value Equity (SA)	152,342,647	4.51	4.77	2.71	27.66	27.66	N/A	N/A	N/A	N/A	N/A	06/01/1997
Russell 2500 Val Index			6.36	4.16	27.78	27.78	18.31	9.88	9.56	12.43	9.95	
Difference			-1.59	-1.45	-0.12	-0.12	N/A	N/A	N/A	N/A	N/A	
IM U.S. SMID Cap Value Equity (SA+CF) Median			7.36	5.53	28.46	28.46	21.06	12.28	10.99	13.92	11.81	
Rank			87	82	55	55	N/A	N/A	N/A	N/A	N/A	
Silvercrest Small Cap Growth Equity (SA)	156,494,615	4.64	-0.13	-1.88	20.40	20.40	N/A	N/A	N/A	N/A	N/A	01/01/2014
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	10.88	
Difference			-0.14	3.76	17.57	17.57	N/A	N/A	N/A	N/A	N/A	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	14.57	
Rank			71	66	24	24	N/A	N/A	N/A	N/A	N/A	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Mondrian International Value Equity (SA)	164,175,897	4.86	0.74	-0.32	12.45	12.45	N/A	N/A	N/A	N/A	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			1.25	0.43	11.58	11.58	8.47	5.97	4.25	6.42	5.23	
Difference			-0.51	-0.75	0.87	0.87	N/A	N/A	N/A	N/A	N/A	
IM International Value Equity (SA+CF) Median			1.13	-0.30	11.91	11.91	12.15	8.56	6.83	8.61	7.22	
Rank			55	51	45	45	N/A	N/A	N/A	N/A	N/A	
Barings Focused EAFE Plus Equity (SA)	189,255,216	5.61	2.25	0.90	7.05	7.05	N/A	N/A	N/A	N/A	N/A	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	7.13	
Difference			0.37	1.95	-1.24	-1.24	N/A	N/A	N/A	N/A	N/A	
IM International Equity (SA+CF) Median			1.03	-0.41	10.08	10.08	14.94	11.07	8.03	9.24	8.60	
Rank			35	38	64	64	N/A	N/A	N/A	N/A	N/A	
AB EM Strategic Core Equity (CF)	109,829,626	3.25	4.14	-6.56	-1.33	-1.33	N/A	N/A	N/A	N/A	N/A	10/01/2016
MSCI Emg Mkts Index (USD) (Gross)			-1.24	-9.12	-2.22	-2.22	11.33	10.26	6.50	5.87	8.88	
Difference			5.38	2.56	0.89	0.89	N/A	N/A	N/A	N/A	N/A	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	9.35	
Rank			4	49	63	63	N/A	N/A	N/A	N/A	N/A	
Wasatch EM Small Cap (SA)	74,305,719	2.20	5.97	12.46	34.27	34.27	N/A	N/A	N/A	N/A	N/A	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			1.48	-0.55	19.29	19.29	16.92	11.88	7.69	7.78	7.47	
Difference			4.49	13.01	14.98	14.98	N/A	N/A	N/A	N/A	N/A	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	6.92	
Rank			2	1	2	2	N/A	N/A	N/A	N/A	N/A	
Fixed Income												
Bloomberg US Agg Bond Index	652,266,301	19.32	-0.06	0.21	1.60	1.60	5.40	4.44	3.54	4.18	4.90	07/01/2005
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.97	
Difference			-0.07	0.15	3.15	3.15	0.61	0.87	0.54	1.28	0.93	
IM U.S. Fixed Income (SA+CF) Median			0.07	0.23	-0.03	-0.03	5.44	4.17	3.68	3.72	4.41	
Rank			64	52	30	30	51	44	54	42	36	
Agincourt Core Fixed Income (SA)	257,852,640	7.64	0.01	0.07	-1.62	-1.62	N/A	N/A	N/A	N/A	N/A	07/01/1998
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.68	
Difference			0.00	0.01	-0.07	-0.07	N/A	N/A	N/A	N/A	N/A	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	5.07	
Rank			34	42	82	82	N/A	N/A	N/A	N/A	N/A	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Loomis Sayles Global World Bond (SA)	87,183,428	2.58	-1.14	-2.61	-6.54	-6.54	N/A	N/A	N/A	N/A	N/A	05/01/2008
FTSE Wrld Gov't Bond Index			-1.10	-2.33	-6.97	-6.97	2.75	2.94	1.80	0.96	2.04	
Difference			-0.04	-0.28	0.43	0.43	N/A	N/A	N/A	N/A	N/A	
IM Global Fixed Income (SA+CF) Median			-0.19	-0.27	0.17	0.17	6.15	4.83	3.83	3.87	4.13	
Rank			82	82	91	91	N/A	N/A	N/A	N/A	N/A	
Oaktree Global Credit (SA)	134,712,747	3.99	0.51	1.61	6.18	6.18	6.39	4.77	4.99	6.01	6.08	01/01/1998
Oaktree Global Credit Custom Index			-0.02	0.37	3.37	3.37	6.52	3.54	2.98	2.88	N/A	
Difference			0.53	1.24	2.81	2.81	-0.13	1.23	2.01	3.13	N/A	
Absolute Return												
PAAMCO (CF)	5,359,602	0.16	5.40	6.30	12.81	12.81	N/A	N/A	N/A	N/A	N/A	10/01/2002
HFRI FOF: Cnsvt Index			0.57	1.55	7.49	7.49	6.75	4.66	3.64	4.04	3.47	
Difference			4.83	4.75	5.32	5.32	N/A	N/A	N/A	N/A	N/A	
Wellington Global Total Return (CF)	78,415,255	2.32	-1.15	-1.18	1.15	1.15	N/A	N/A	N/A	N/A	N/A	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			1.00	2.01	4.05	4.05	5.03	5.19	4.90	4.65	5.18	
Difference			-2.15	-3.19	-2.90	-2.90	N/A	N/A	N/A	N/A	N/A	
TCW MetWest Unconstrained (SA)	64,198,500	1.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			0.75	1.51	3.05	3.05	4.02	4.18	3.89	3.65	3.05	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Private Credit	24,544,128	0.73	2.36	5.77	24.91	24.91	13.49	11.90	N/A	N/A	11.09	10/01/2016
Real Assets	431,956,463	12.79	7.68	13.20	19.08	19.08	7.28	6.56	6.44	7.14	5.89	01/01/1998
OPPRS Real Assets Blended Benchmark			7.69	14.59	21.06	21.06	8.25	6.12	4.59	5.22	6.19	
Difference			-0.01	-1.39	-1.98	-1.98	-0.97	0.44	1.85	1.92	-0.30	
JP Morgan Strategic Property (CF)	183,572,948	5.44	8.13	15.39	20.96	20.96	N/A	N/A	N/A	N/A	N/A	11/01/2007
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	5.26	
Difference			0.44	0.80	-0.10	-0.10	N/A	N/A	N/A	N/A	N/A	
Blackstone Property Partners (CF)	173,229,430	5.13	6.74	11.41	16.50	16.50	N/A	N/A	N/A	N/A	N/A	12/01/2014
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.97	
Difference			-0.95	-3.18	-4.56	-4.56	N/A	N/A	N/A	N/A	N/A	
Private Real Estate	75,154,085	2.23	9.26	14.17	23.11	23.11	10.62	10.86	11.54	10.45	9.62	08/01/2011
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	9.67	
Difference			1.57	-0.42	2.05	2.05	2.38	3.11	2.92	1.01	-0.05	

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

As of December 31, 2021

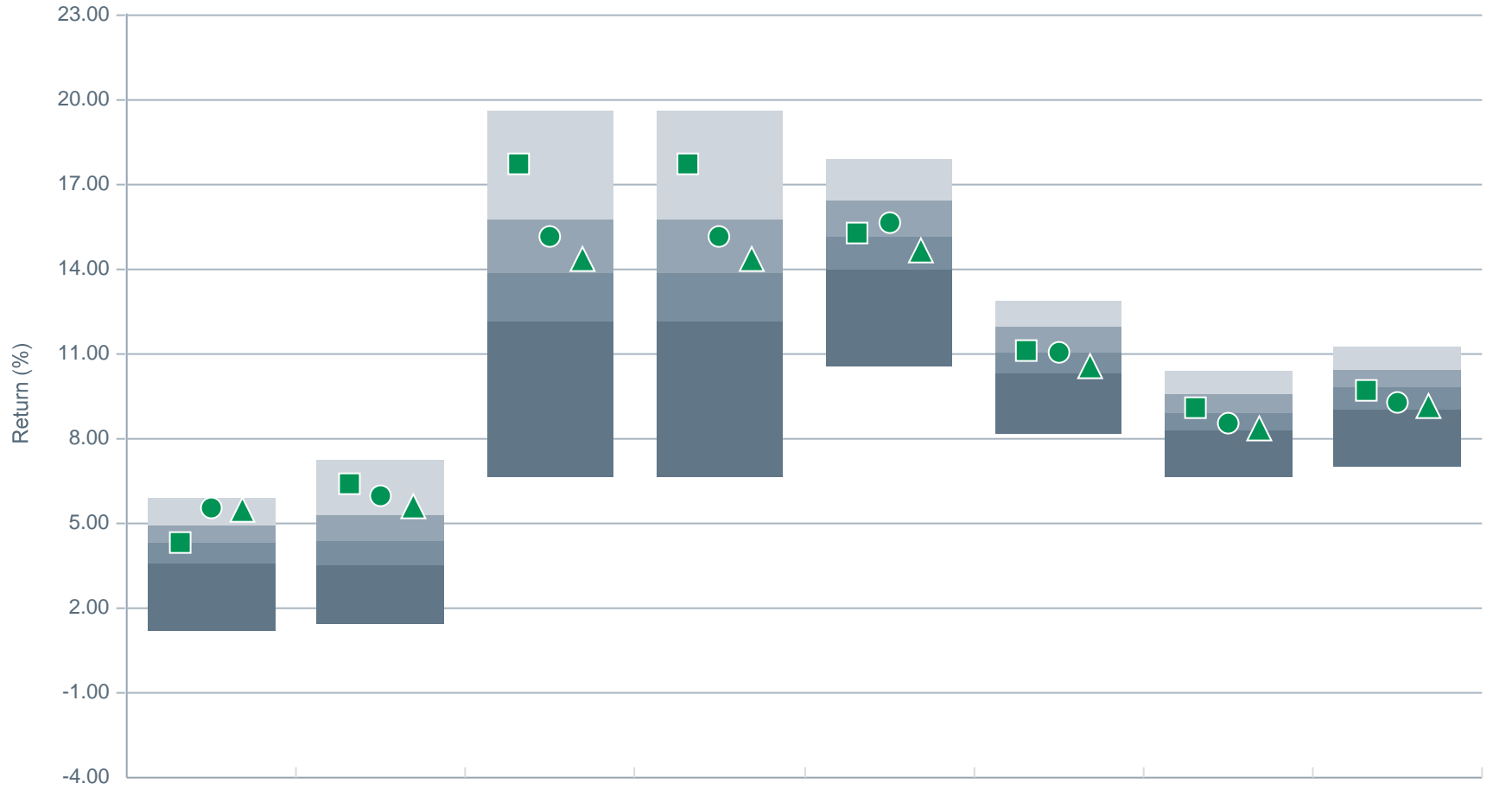
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Columbus Square (SA)	4,445,504	0.13	0.77	-2.75	-2.56	-2.56	N/A	N/A	N/A	N/A	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			7.69	14.59	21.06	21.06	8.24	7.75	8.62	9.44	8.24	
Difference			-6.92	-17.34	-23.62	-23.62	N/A	N/A	N/A	N/A	N/A	
Long/Short Equity	263,231,800	7.80	-1.86	-4.26	0.14	0.14	12.81	8.97	6.89	7.98	7.58	05/01/2012
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	11.12	
Difference			-8.54	-9.81	-18.40	-18.40	-7.57	-5.43	-4.01	-3.87	-3.54	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	5.02	
Difference			-2.21	-4.75	-5.96	-5.96	2.45	2.08	2.11	2.71	2.56	
Grosvenor Long/Short Equity (CF)	2,762,127	0.08	5.10	-0.12	8.30	8.30	N/A	N/A	N/A	N/A	N/A	09/01/2003
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	4.49	
Difference			4.75	-0.61	2.20	2.20	N/A	N/A	N/A	N/A	N/A	
K2 Mauna Kea (CF)	260,469,673	7.72	-1.93	-4.30	0.33	0.33	N/A	N/A	N/A	N/A	13.05	06/01/2020
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	16.76	
Difference			-2.28	-4.79	-5.77	-5.77	N/A	N/A	N/A	N/A	-3.71	
Private Equity	469,815,475	13.92	8.33	27.41	67.32	67.32	28.92	22.04	18.45	16.50	14.60	07/01/2003
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	9.29	
Difference			1.65	21.86	48.78	48.78	8.54	7.64	7.55	4.65	5.31	
Cambridge US Prvt Eq Index			0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	15.69	
Difference			8.33	21.66	35.52	35.52	6.64	3.08	2.27	0.56	-1.09	

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

As of December 31, 2021



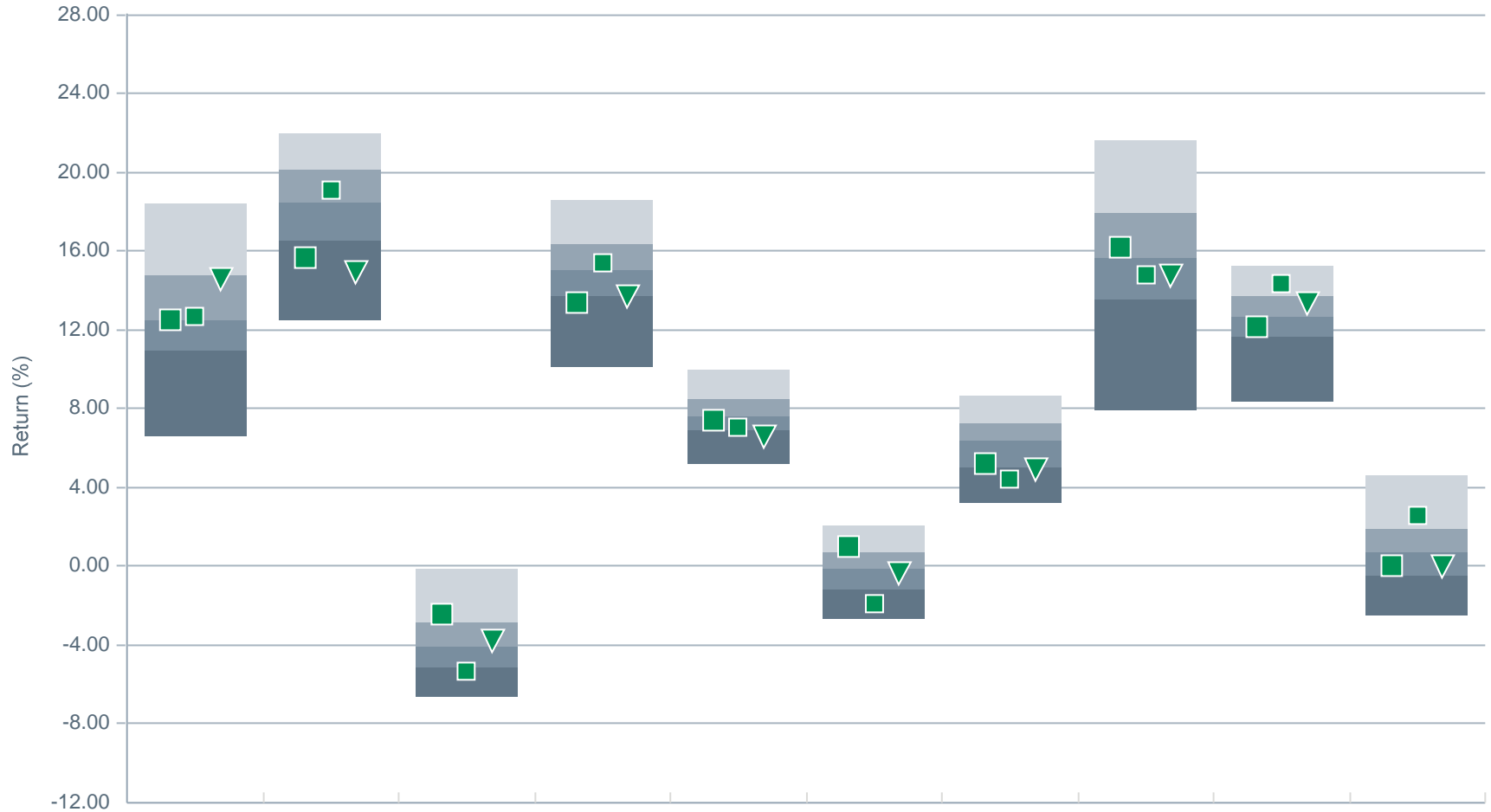
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OPPRS Total Fund	4.34 (49)	6.39 (11)	17.71 (11)	17.71 (11)	15.29 (48)	11.13 (47)	9.11 (44)	9.70 (55)
● OPPRS Policy Index	5.57 (8)	6.00 (16)	15.19 (31)	15.19 (31)	15.63 (43)	11.06 (49)	8.53 (66)	9.30 (67)
▲ OPPRS Allocation Index	5.46 (11)	5.64 (21)	14.36 (42)	14.36 (42)	14.68 (62)	10.57 (69)	8.38 (73)	9.15 (73)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

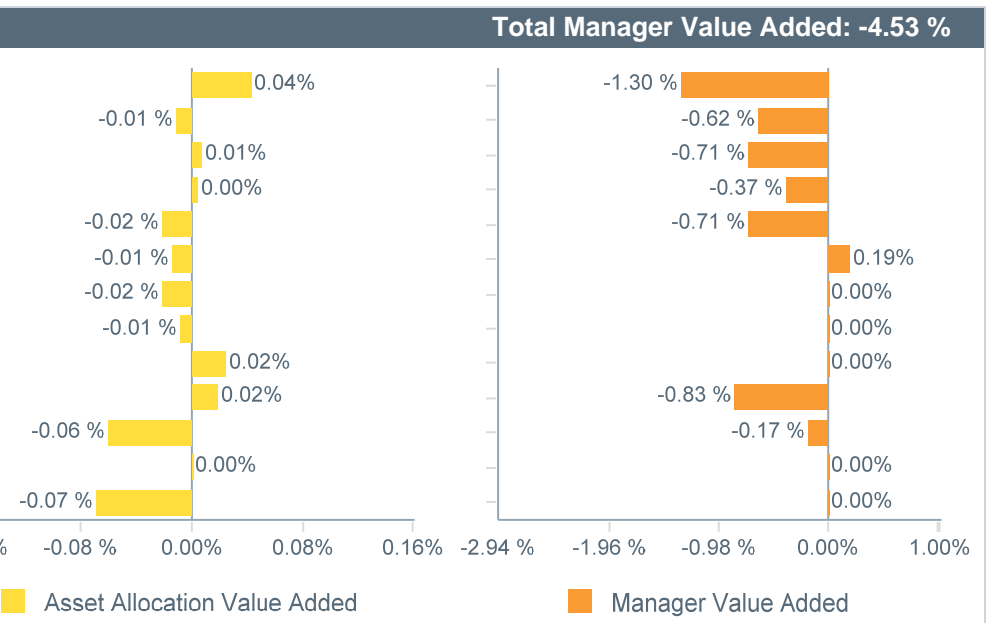
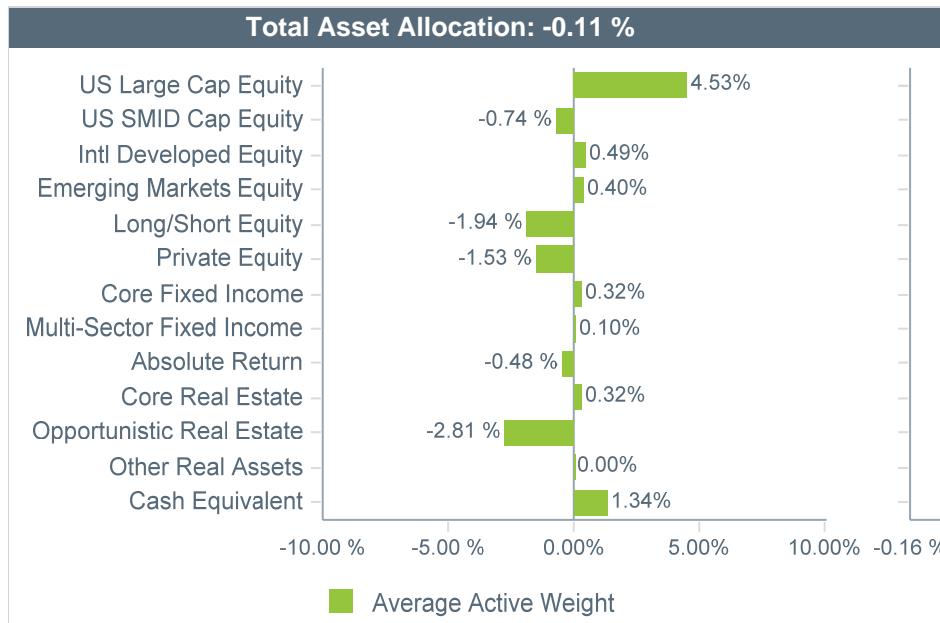
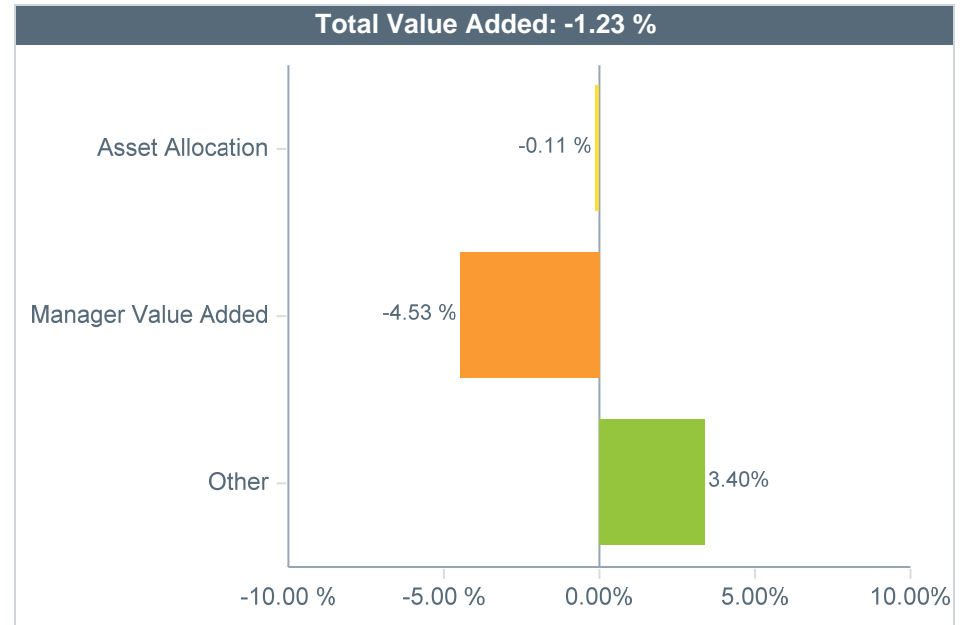
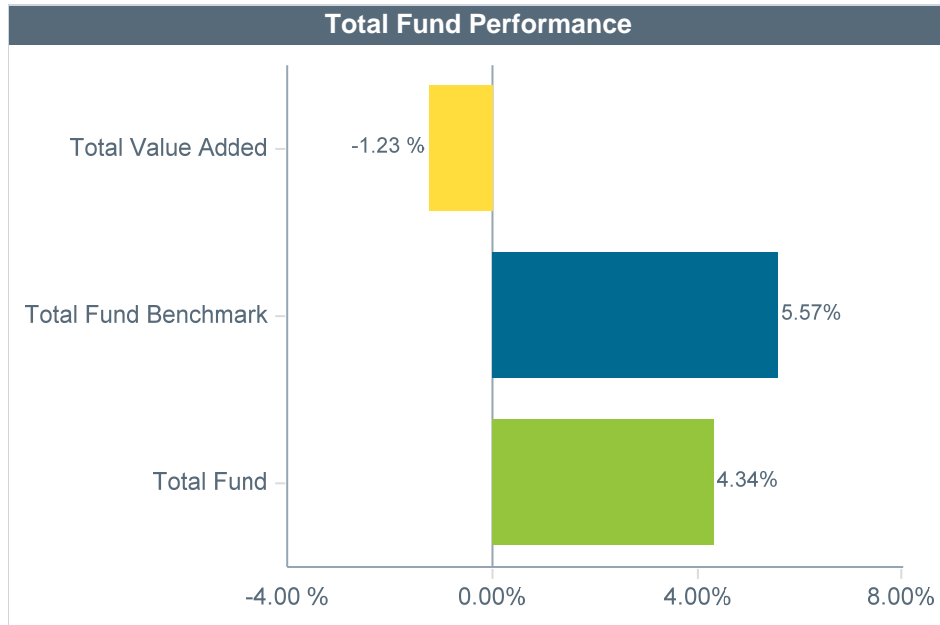
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OPPRS Total Fund	12.54 (51)	15.68 (84)	-2.46 (19)	13.40 (82)	7.47 (56)	1.05 (16)	5.20 (74)	16.18 (45)	12.20 (64)	0.02 (65)
■ OPPRS Policy Index	12.66 (49)	19.13 (40)	-5.34 (79)	15.45 (43)	7.07 (70)	-1.93 (87)	4.47 (87)	14.82 (61)	14.35 (16)	2.56 (16)
▼ OPPRS Allocation Index	14.67 (27)	15.02 (88)	-3.70 (44)	13.78 (76)	6.66 (81)	-0.35 (56)	4.97 (79)	14.77 (61)	13.44 (31)	0.09 (64)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

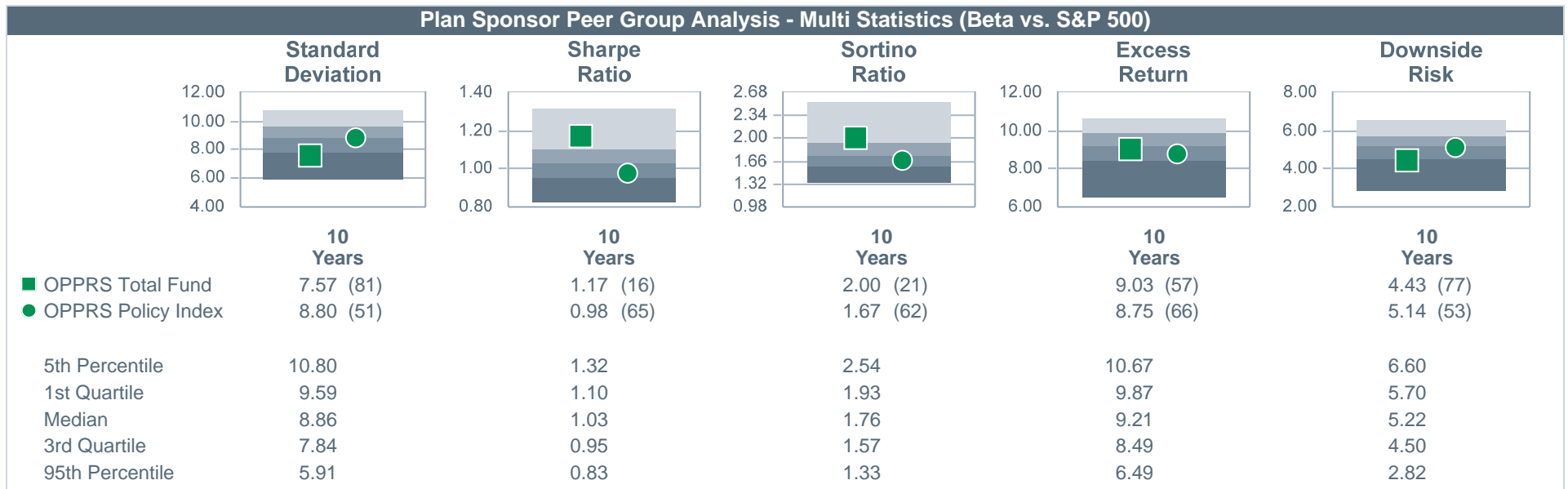
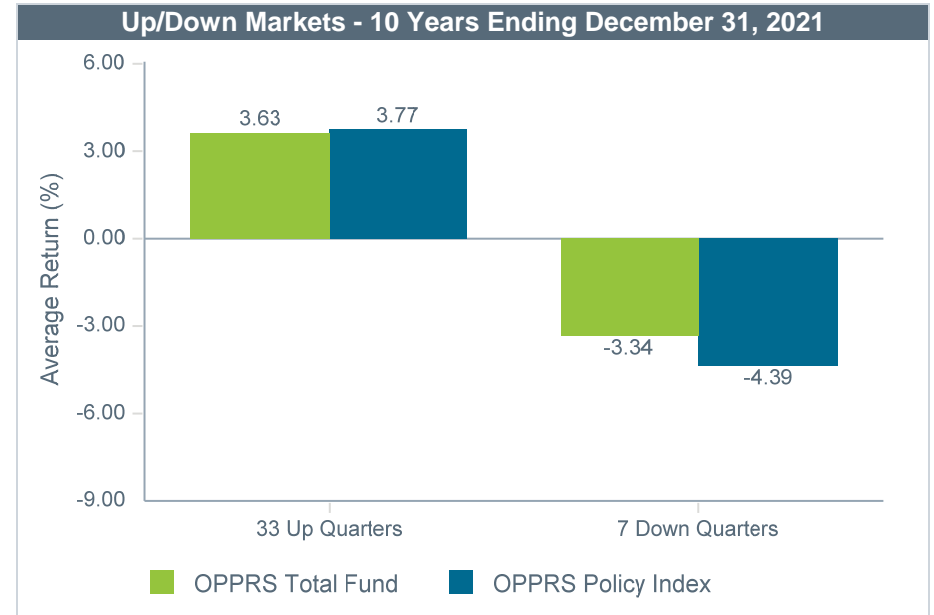
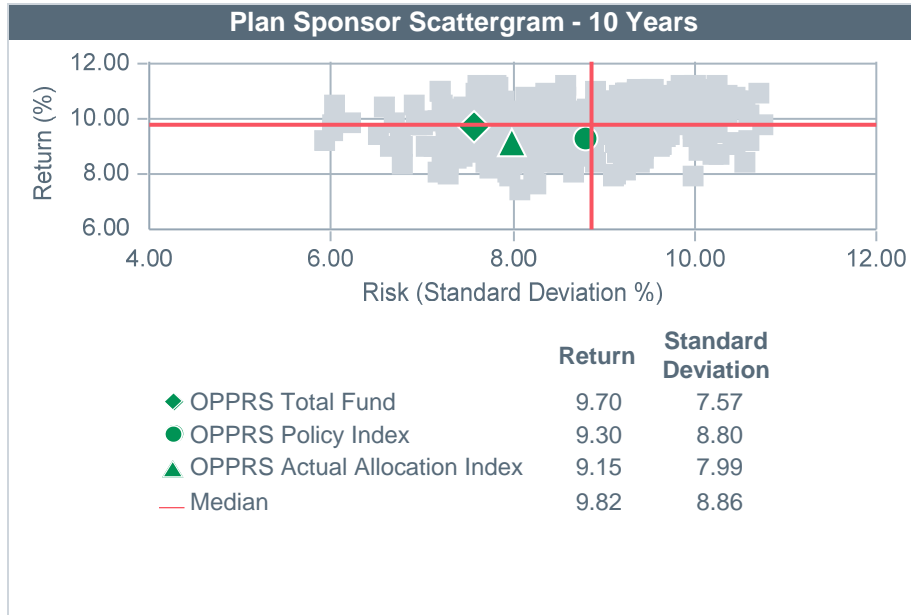
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



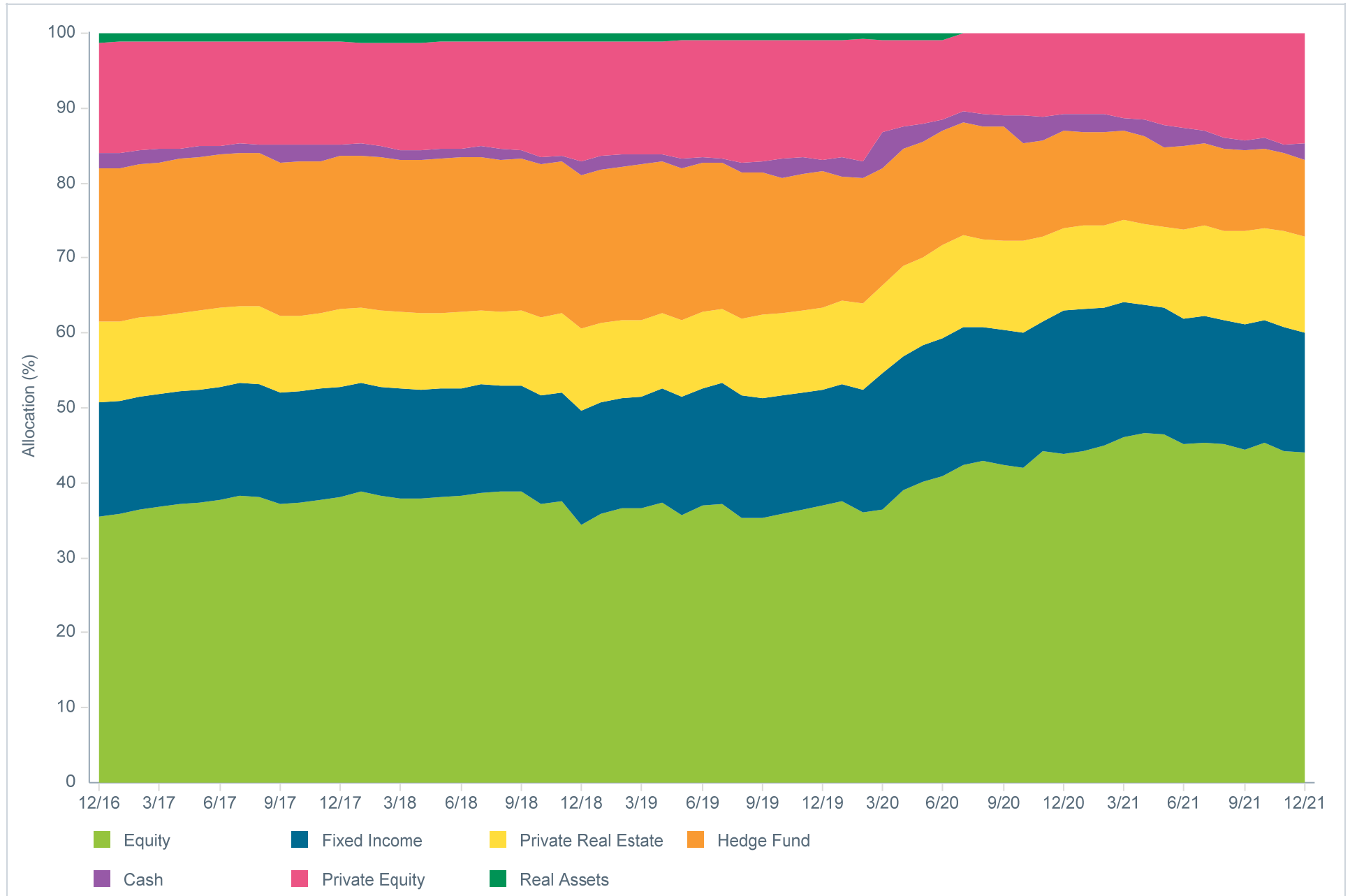


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Multi-Sector Fixed Income includes Private Credit.





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



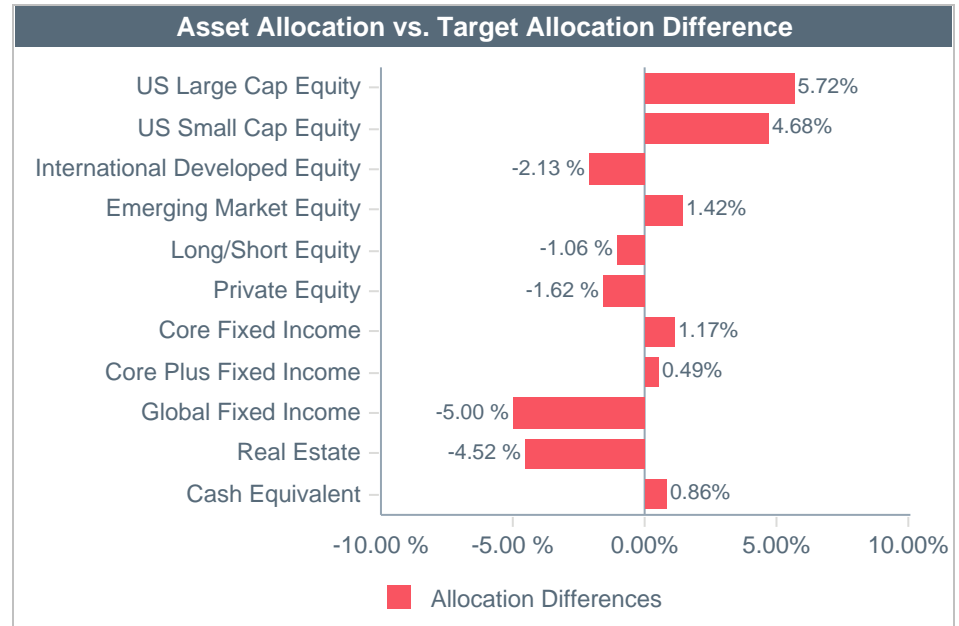
Allocation to Fixed Income includes Private Credit.

Oklahoma Law Enforcement Retirement System (OLERS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OLERS Total Fund (Net)	3.91	4.45	14.89	14.89	14.71	10.49	8.37	9.33	11.83	17.49	-4.75	14.53	7.16
OLERS Policy Index	5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	12.77	19.12	-3.67	13.36	8.64
Difference	-1.68	-1.34	-0.68	-0.68	-1.08	-0.65	-0.90	-0.74	-0.94	-1.63	-1.08	1.17	-1.48
OLERS Actual Allocation Index	5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	14.73	17.33	-3.47	14.63	8.27
Difference	-1.58	-0.59	-0.08	-0.08	-0.96	-0.87	-0.90	-0.51	-2.90	0.16	-1.28	-0.10	-1.11
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	7.50
Difference	2.09	0.77	7.39	7.39	7.21	2.99	0.87	1.83	4.33	9.99	-12.25	7.03	-0.34
OLERS Total Fund (Gross)	3.95	4.53	15.08	15.08	14.91	10.69	8.56	9.49	12.03	17.70	-4.55	14.71	7.32
OLERS Policy Index	5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	12.77	19.12	-3.67	13.36	8.64
Difference	-1.64	-1.26	-0.49	-0.49	-0.88	-0.45	-0.71	-0.58	-0.74	-1.42	-0.88	1.35	-1.32
OLERS Actual Allocation Index	5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	14.73	17.33	-3.47	14.63	8.27
Difference	-1.54	-0.51	0.11	0.11	-0.76	-0.67	-0.71	-0.35	-2.70	0.37	-1.08	0.08	-0.95
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	64	47	31	31	57	66	65	60	58	60	61	59	63

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OLERS (Law Enforcement)	1,206,733,368	100.00	100.00
US Large Cap Equity	310,362,390	25.72	20.00
US Small Cap Equity	177,089,005	14.68	10.00
International Developed Equity	155,272,810	12.87	15.00
Emerging Market Equity	77,455,185	6.42	5.00
Long/Short Equity	47,494,059	3.94	5.00
Private Equity	101,166,852	8.38	10.00
Core Fixed Income	74,400,251	6.17	5.00
Core Plus Fixed Income	126,638,019	10.49	10.00
Global Fixed Income	-	0.00	5.00
Real Estate	126,487,452	10.48	15.00
Cash Equivalent	10,367,344	0.86	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 Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,206,733,368	100.00	3.91	4.45	14.89	14.89	14.71	10.49	8.37	9.33	12.05	10/01/1990
OLERS Policy Index			5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	N/A	
Difference			-1.68	-1.34	-0.68	-0.68	-1.08	-0.65	-0.90	-0.74	N/A	
OLERS Actual Allocation Index			5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	8.85	
Difference			-1.58	-0.59	-0.08	-0.08	-0.96	-0.87	-0.90	-0.51	3.20	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.09	0.77	7.39	7.39	7.21	2.99	0.87	1.83	4.55	
US Equity	487,451,396	40.39	6.89	6.87	25.93	25.93	26.01	17.30	13.92	15.80	N/A	10/01/1990
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	11.45	
Difference			-4.14	-4.80	-2.78	-2.78	-0.06	-1.17	-1.01	-0.75	N/A	
Hotchkis Wiley Large Cap Value Equity (SA)	97,756,034	8.10	5.76	4.15	30.13	30.13	20.04	12.36	10.56	14.58	12.35	11/01/1990
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	10.95	
Difference			-2.01	-2.78	4.97	4.97	2.40	1.20	0.83	1.61	1.40	
Kennedy Capital Small Cap Value Equity (SA)	91,822,585	7.61	11.37	10.28	41.80	41.80	23.69	11.65	11.92	13.98	22.78	02/01/1996
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	10.02	
Difference			7.01	9.04	13.53	13.53	5.70	2.58	2.47	1.95	12.76	
NTGI S&P 500 Index (CF)	114,646,218	9.50	11.00	11.75	28.79	28.79	26.08	18.47	14.94	16.54	12.28	08/01/2008
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	12.67	
Difference			-0.03	0.08	0.08	0.08	0.01	0.00	0.01	-0.01	-0.39	
Polen Focus Growth (CF)	97,960,138	8.12	5.27	8.20	24.69	24.69	32.29	N/A	N/A	N/A	32.29	01/01/2019
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	34.08	
Difference			-6.37	-4.73	-2.91	-2.91	-1.79	N/A	N/A	N/A	-1.79	
Wellington Small Cap Growth (CF)	85,266,420	7.07	0.57	-0.77	5.38	5.38	24.38	16.05	N/A	N/A	15.99	08/01/2016
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	14.61	
Difference			0.56	4.87	2.55	2.55	3.21	1.52	N/A	N/A	1.38	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	232,727,995	19.29	0.59	-1.65	7.35	7.35	14.42	10.83	7.37	6.82	N/A	10/01/1990
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	N/A	
Difference			-1.23	-0.43	-0.47	-0.47	1.24	1.22	0.81	-0.46	N/A	
International Developed Equity	155,272,810	12.87	1.36	0.04	9.12	9.12	10.58	7.94	5.70	5.72	N/A	11/01/1995
MSCI EAFE Index (USD) (Net)			2.69	2.24	11.26	11.26	13.54	9.55	6.76	8.03	5.49	
Difference			-1.33	-2.20	-2.14	-2.14	-2.96	-1.61	-1.06	-2.31	N/A	
Barings Focused Intl Equity (SA)	76,413,351	6.33	2.15	0.70	6.64	6.64	13.16	9.71	7.70	N/A	6.42	02/01/2012
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	6.64	
Difference			0.33	1.92	-1.18	-1.18	-0.02	0.10	1.14	N/A	-0.22	
Mondrian International Equity (SA)	78,859,460	6.53	0.61	-0.58	11.83	11.83	8.19	6.33	4.45	5.89	4.82	01/01/2005
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	5.71	
Difference			-1.21	0.64	4.01	4.01	-4.99	-3.28	-2.11	-1.39	-0.89	
Emerging Market Equity	77,455,185	6.42	-0.91	-4.86	3.49	3.49	20.61	15.66	9.16	N/A	7.87	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	5.36	
Difference			0.40	4.44	6.03	6.03	9.67	5.79	3.05	N/A	2.51	
Wasatch EM Small Cap CI A (CF)	24,773,518	2.05	1.73	8.74	28.96	28.96	31.49	20.63	12.12	N/A	10.02	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	5.36	
Difference			3.04	18.04	31.50	31.50	20.55	10.76	6.01	N/A	4.66	
William Blair Emerging Markets Leaders (CF)	52,681,667	4.37	-2.11	-10.15	-5.31	-5.31	16.59	13.71	N/A	N/A	11.40	09/01/2016
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	8.62	
Difference			-0.80	-0.85	-2.77	-2.77	5.65	3.84	N/A	N/A	2.78	
Fixed Income	201,038,270	16.66	0.06	-0.63	-1.81	-1.81	3.25	2.87	2.61	3.15	N/A	10/01/1990
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	5.74	
Difference			0.05	-0.69	-0.26	-0.26	-1.54	-0.70	-0.39	0.25	N/A	
NTGI Aggregate Index (SA)	74,400,251	6.17	-0.06	0.01	-1.64	-1.64	4.79	3.57	3.00	2.91	3.97	04/01/2004
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.93	
Difference			-0.07	-0.05	-0.09	-0.09	0.00	0.00	0.00	0.01	0.04	
TCW Core Plus Fixed Income (SA)	126,638,019	10.49	0.14	0.39	-0.27	-0.27	6.32	4.86	4.07	4.85	6.19	03/01/1996
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.97	
Difference			0.13	0.33	1.28	1.28	1.53	1.29	1.07	1.95	1.22	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Long/Short Equity	47,494,059	3.94	-5.30	-4.58	1.43	1.43	7.19	5.38	4.12	5.81	N/A	01/01/2008
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	6.73	
Difference			-11.98	-10.13	-17.11	-17.11	-13.19	-9.02	-6.78	-6.04	N/A	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	2.41	
Difference			-5.65	-5.07	-4.67	-4.67	-3.17	-1.51	-0.66	0.54	N/A	
Grosvenor (CF)	473,388	0.04	0.22	-0.83	-2.35	-2.35	5.78	4.54	3.52	5.39	3.85	01/01/2008
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	6.73	
Difference			-6.46	-6.38	-20.89	-20.89	-14.60	-9.86	-7.38	-6.46	-2.88	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	2.41	
Difference			-0.13	-1.32	-8.45	-8.45	-4.58	-2.35	-1.26	0.12	1.44	
Mauna Kea (CF)	47,020,671	3.90	-5.35	-4.61	2.64	2.64	N/A	N/A	N/A	N/A	9.16	08/01/2020
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	26.56	
Difference			-12.03	-10.16	-15.90	-15.90	N/A	N/A	N/A	N/A	-17.40	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.21	
Difference			-5.70	-5.10	-3.46	-3.46	N/A	N/A	N/A	N/A	-5.05	
Real Estate	126,487,452	10.48	8.12	13.77	18.40	18.40	6.71	5.77	5.67	6.48	N/A	04/01/1999
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	8.88	
Difference			1.97	2.07	0.70	0.70	-1.66	-1.98	-2.89	-2.84	N/A	
JPMCB Strategic Property (CF)	104,954,104	8.70	7.89	14.89	19.85	19.85	7.66	7.22	8.19	N/A	9.36	04/01/2012
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	9.29	
Difference			1.74	3.19	2.15	2.15	-0.71	-0.53	-0.37	N/A	0.07	
UBS Trumbull Property (SA)	16,973,348	1.41	12.04	11.21	15.47	15.47	2.21	3.56	5.03	N/A	6.06	01/01/2013
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	9.19	
Difference			5.89	-0.49	-2.23	-2.23	-6.16	-4.19	-3.53	N/A	-3.13	
Colcord Center (CF)	4,560,000	0.38	0.00	0.00	0.00	0.00	4.19	3.53	3.79	2.99	3.23	05/01/2008

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	101,166,852	8.38	6.05	15.82	43.34	43.34	18.60	15.68	12.28	12.73	N/A	10/01/1990
S&P 500 Index+5%			12.39	14.43	35.14	35.14	32.37	24.40	20.68	22.38	17.02	
Difference			-6.34	1.39	8.20	8.20	-13.77	-8.72	-8.40	-9.65	N/A	
Cambridge US Prvt Eq Index			0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	15.18	
Difference			6.05	10.07	11.54	11.54	-3.68	-3.28	-3.90	-3.21	N/A	
American Private Equity II LP	184,678	0.02	5.37	7.54	22.04	22.04	-3.71	-1.77	-2.00	2.14	3.28	02/01/2006
Apollo IX LP	4,886,195	0.40	6.11	11.43	57.87	57.87	N/A	N/A	N/A	N/A	8.05	03/01/2019
Apollo VIII LP	5,676,900	0.47	0.48	9.89	37.50	37.50	12.53	13.87	7.49	N/A	6.13	02/01/2014
Carval CR Value (CF)	3,279,809	0.27	0.82	3.36	12.24	12.24	N/A	N/A	N/A	N/A	8.49	08/01/2020
FirstMark Capital Opportunity III LP	4,951,307	0.41	6.20	18.03	61.90	61.90	N/A	N/A	N/A	N/A	37.69	06/01/2020
FirstMark V LP	3,242,070	0.27	55.76	52.87	46.99	46.99	N/A	N/A	N/A	N/A	16.58	07/01/2020
Francisco PTRS-AGI-SL (CF)	1,971,765	0.16	8.03	20.07	21.79	21.79	N/A	N/A	N/A	N/A	6.24	10/01/2020
Francisco Partners SL (CF)	5,247,865	0.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	02/01/2021
Knightsbridge VI LP	2,175,829	0.18	2.60	7.32	101.14	101.14	40.18	27.54	19.38	18.47	11.35	12/01/2004
Knightsbridge VII LP	10,601,975	0.88	7.42	25.93	81.03	81.03	42.24	29.05	23.46	20.54	13.19	09/01/2008
Oaktree Opp XI LP	5,256,355	0.44	5.98	21.47	46.64	46.64	N/A	N/A	N/A	N/A	29.82	08/01/2020
Warburg Pincus Global Growth LP	39,801,870	3.30	5.63	11.60	25.15	25.15	N/A	N/A	N/A	N/A	-7.65	03/01/2019
Warburg Pincus XII LP	13,890,234	1.15	5.78	24.55	56.19	56.19	26.88	20.75	N/A	N/A	7.86	12/01/2015

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,206,733,368	100.00	3.95	4.53	15.08	15.08	14.91	10.69	8.56	9.49	11.57	10/01/1990
OLERS Policy Index			5.59	5.79	15.57	15.57	15.79	11.14	9.27	10.07	N/A	
Difference			-1.64	-1.26	-0.49	-0.49	-0.88	-0.45	-0.71	-0.58	N/A	
OLERS Actual Allocation Index			5.49	5.04	14.97	14.97	15.67	11.36	9.27	9.84	8.85	
Difference			-1.54	-0.51	0.11	0.11	-0.76	-0.67	-0.71	-0.35	2.72	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			2.13	0.85	7.58	7.58	7.41	3.19	1.06	1.99	4.07	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	8.75	
Rank			64	47	31	31	57	66	65	60	1	
US Equity	487,451,396	40.39	6.89	6.87	25.94	25.94	26.01	17.31	13.93	15.80	N/A	10/01/1990
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	11.45	
Difference			-4.14	-4.80	-2.77	-2.77	-0.06	-1.16	-1.00	-0.75	N/A	
IM U.S. Equity (SA+CF) Median			7.67	7.05	26.18	26.18	23.76	15.72	13.13	15.46	12.56	
Rank			59	52	52	52	37	43	44	46	N/A	
Hotchkis Wiley Large Cap Value Equity (SA)	97,756,034	8.10	5.76	4.15	30.13	30.13	20.04	12.36	10.56	14.58	11.94	11/01/1990
Russell 1000 Val Index			7.77	6.93	25.16	25.16	17.64	11.16	9.73	12.97	10.95	
Difference			-2.01	-2.78	4.97	4.97	2.40	1.20	0.83	1.61	0.99	
IM U.S. Large Cap Value Equity (SA+CF) Median			8.25	7.79	27.78	27.78	19.87	12.94	11.08	13.95	11.90	
Rank			88	92	27	27	47	63	60	31	49	
Kennedy Capital Small Cap Value Equity (SA)	91,822,585	7.61	11.37	10.28	41.80	41.80	23.69	11.65	11.92	13.98	22.78	02/01/1996
Russell 2000 Val Index			4.36	1.24	28.27	28.27	17.99	9.07	9.45	12.03	10.02	
Difference			7.01	9.04	13.53	13.53	5.70	2.58	2.47	1.95	12.76	
IM U.S. Small Cap Value Equity (SA+CF) Median			6.86	5.18	29.43	29.43	20.14	10.85	10.73	13.42	12.48	
Rank			3	6	7	7	15	35	24	38	1	
NTGI S&P 500 Index (CF)	114,646,218	9.50	11.00	11.76	28.80	28.80	26.10	18.50	14.96	16.56	12.69	08/01/2008
S&P 500 Index (Cap Wtd)			11.03	11.67	28.71	28.71	26.07	18.47	14.93	16.55	12.67	
Difference			-0.03	0.09	0.09	0.09	0.03	0.03	0.03	0.01	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			9.78	10.01	26.73	26.73	26.04	18.42	14.84	16.51	12.68	
Rank			40	15	8	8	38	24	23	29	49	
Polen Focus Growth (CF)	97,960,138	8.12	5.27	8.20	24.69	24.69	32.29	N/A	N/A	N/A	32.29	01/01/2019
Russell 1000 Grth Index			11.64	12.93	27.60	27.60	34.08	25.32	19.58	19.79	34.08	
Difference			-6.37	-4.73	-2.91	-2.91	-1.79	N/A	N/A	N/A	-1.79	
IM U.S. Large Cap Growth Equity (SA+CF) Median			9.33	9.99	25.26	25.26	31.11	23.66	18.01	18.84	31.11	
Rank			82	69	56	56	39	N/A	N/A	N/A	39	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wellington Small Cap Growth (CF)	85,266,420	7.07	0.57	-0.77	5.38	5.38	24.38	16.05	N/A	N/A	15.99	08/01/2016
Russell 2000 Grth Index			0.01	-5.64	2.83	2.83	21.17	14.53	11.66	14.14	14.61	
Difference			0.56	4.87	2.55	2.55	3.21	1.52	N/A	N/A	1.38	
IM U.S. Small Cap Growth Equity (SA+CF) Median			2.59	0.65	13.56	13.56	28.17	20.43	15.80	17.36	19.76	
Rank			63	61	79	79	70	80	N/A	N/A	82	
International Equity	232,727,995	19.29	0.67	-1.49	7.69	7.69	14.82	11.27	7.83	7.49	N/A	10/01/1990
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	N/A	
Difference			-1.15	-0.27	-0.13	-0.13	1.64	1.66	1.27	0.21	N/A	
IM International Equity (SA+CF) Median			1.03	-0.41	10.08	10.08	14.94	11.07	8.03	9.24	8.83	
Rank			54	60	61	61	51	47	53	76	N/A	
International Developed Equity	155,272,810	12.87	1.48	0.27	9.63	9.63	11.19	8.62	6.37	6.56	N/A	11/01/1995
MSCI EAFE Index (USD) (Net)			2.69	2.24	11.26	11.26	13.54	9.55	6.76	8.03	5.49	
Difference			-1.21	-1.97	-1.63	-1.63	-2.35	-0.93	-0.39	-1.47	N/A	
IM International Equity Developed Markets (SA+CF) Median			1.88	0.74	11.60	11.60	15.78	11.21	8.49	9.83	8.19	
Rank			58	59	64	64	83	76	82	98	N/A	
Barings Focused Intl Equity (SA)	76,413,351	6.33	2.25	0.90	7.05	7.05	13.75	10.45	8.52	N/A	7.20	02/01/2012
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	6.64	
Difference			0.43	2.12	-0.77	-0.77	0.57	0.84	1.96	N/A	0.56	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	8.78	
Rank			43	36	71	71	68	62	42	N/A	80	
Mondrian International Equity (SA)	78,859,460	6.53	0.74	-0.32	12.45	12.45	8.81	6.94	5.06	6.52	5.37	01/01/2005
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	5.71	
Difference			-1.08	0.90	4.63	4.63	-4.37	-2.67	-1.50	-0.76	-0.34	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	7.43	
Rank			71	53	29	29	98	93	95	95	88	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Emerging Market Equity	77,455,185	6.42	-0.91	-4.86	3.49	3.49	20.61	15.66	9.17	N/A	7.87	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	5.36	
Difference			0.40	4.44	6.03	6.03	9.67	5.79	3.06	N/A	2.51	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	6.99	
Rank			55	36	41	41	10	10	22	N/A	32	
Wasatch EM Small Cap CI A (CF)	24,773,518	2.05	1.73	8.74	28.96	28.96	31.49	20.63	12.12	N/A	10.02	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	5.36	
Difference			3.04	18.04	31.50	31.50	20.55	10.76	6.01	N/A	4.66	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	6.99	
Rank			14	3	4	4	2	3	3	N/A	14	
William Blair Emerging Markets Leaders (CF)	52,681,667	4.37	-2.11	-10.15	-5.31	-5.31	16.59	13.71	N/A	N/A	11.40	09/01/2016
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	8.62	
Difference			-0.80	-0.85	-2.77	-2.77	5.65	3.84	N/A	N/A	2.78	
IM Emerging Markets Equity (SA+CF) Median			-0.67	-6.74	1.20	1.20	13.14	10.82	7.25	7.10	9.52	
Rank			71	74	82	82	24	21	N/A	N/A	26	
Fixed Income	201,038,270	16.66	0.06	-0.59	-1.72	-1.72	3.36	2.97	2.68	3.20	N/A	10/01/1990
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	5.74	
Difference			0.05	-0.65	-0.17	-0.17	-1.43	-0.60	-0.32	0.30	N/A	
IM Global Fixed Income (SA+CF) Median			-0.19	-0.27	0.17	0.17	6.15	4.83	3.83	3.87	N/A	
Rank			34	54	64	64	90	93	75	60	N/A	
NTGI Aggregate Index (SA)	74,400,251	6.17	-0.06	0.02	-1.61	-1.61	4.81	3.60	3.02	2.93	3.98	04/01/2004
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.93	
Difference			-0.07	-0.04	-0.06	-0.06	0.02	0.03	0.02	0.03	0.05	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.04	0.03	-1.23	-1.23	5.47	4.10	3.51	3.51	4.40	
Rank			58	56	78	78	90	86	91	88	90	
TCW Core Plus Fixed Income (SA)	126,638,019	10.49	0.14	0.39	-0.27	-0.27	6.32	4.86	4.07	4.85	6.19	03/01/1996
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.97	
Difference			0.13	0.33	1.28	1.28	1.53	1.29	1.07	1.95	1.22	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			0.08	0.32	-0.13	-0.13	6.37	4.68	4.01	4.24	5.80	
Rank			37	40	55	55	51	40	47	23	31	
Long/Short Equity	47,494,059	3.94	-5.30	-4.58	1.43	1.43	7.19	5.38	4.12	5.81	N/A	01/01/2008
MSCI ACW Index (USD) (Net)			6.68	5.55	18.54	18.54	20.38	14.40	10.90	11.85	6.73	
Difference			-11.98	-10.13	-17.11	-17.11	-13.19	-9.02	-6.78	-6.04	N/A	
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	2.41	
Difference			-5.65	-5.07	-4.67	-4.67	-3.17	-1.51	-0.66	0.54	N/A	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Grosvenor (CF)	473,388	0.04	0.22	-0.83	-2.35	-2.35	5.78	4.54	3.52	5.39	3.32	01/01/2008
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	2.41	
Difference			-0.13	-1.32	-8.45	-8.45	-4.58	-2.35	-1.26	0.12	0.91	
Mauna Kea (CF)	47,020,671	3.90	-5.35	-4.61	2.64	2.64	N/A	N/A	N/A	N/A	9.16	08/01/2020
HFRI FOF: Strategic Index			0.35	0.49	6.10	6.10	10.36	6.89	4.78	5.27	14.21	
Difference			-5.70	-5.10	-3.46	-3.46	N/A	N/A	N/A	N/A	-5.05	
Real Estate	126,487,452	10.48	8.36	14.23	19.41	19.41	7.61	6.64	6.51	7.43	6.38	04/01/1999
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	8.88	
Difference			2.21	2.53	1.71	1.71	-0.76	-1.11	-2.05	-1.89	-2.50	
JPMCB Strategic Property (CF)	104,954,104	8.70	8.12	15.39	20.96	20.96	8.69	8.25	9.24	N/A	10.35	04/01/2012
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	9.29	
Difference			1.97	3.69	3.26	3.26	0.32	0.50	0.68	N/A	1.06	
UBS Trumbull Property (SA)	16,973,348	1.41	12.42	11.59	16.26	16.26	3.00	4.46	6.02	N/A	7.09	01/01/2013
NCREIF Property Index			6.15	11.70	17.70	17.70	8.37	7.75	8.56	9.32	9.19	
Difference			6.27	-0.11	-1.44	-1.44	-5.37	-3.29	-2.54	N/A	-2.10	
Colcord Center (CF)	4,560,000	0.38	0.00	0.00	0.00	0.00	4.19	3.53	3.79	2.99	3.23	05/01/2008
Private Equity	101,166,852	8.38	6.05	15.82	43.33	43.33	18.59	15.68	12.28	12.73	N/A	10/01/1990
S&P 500 Index+5%			12.39	14.43	35.14	35.14	32.37	24.40	20.68	22.38	17.02	
Difference			-6.34	1.39	8.19	8.19	-13.78	-8.72	-8.40	-9.65	N/A	
Cambridge US Prvt Eq Index			0.00	5.75	31.80	31.80	22.28	18.96	16.18	15.94	15.18	
Difference			6.05	10.07	11.53	11.53	-3.69	-3.28	-3.90	-3.21	N/A	
American Private Equity II LP	184,678	0.02	5.37	7.54	22.04	22.04	-3.71	-1.77	-2.00	2.14	3.28	02/01/2006
Apollo IX LP	4,886,195	0.40	6.11	11.43	57.87	57.87	N/A	N/A	N/A	N/A	8.05	03/01/2019
Apollo VIII LP	5,676,900	0.47	0.48	9.89	37.39	37.39	12.50	13.85	7.48	N/A	6.12	02/01/2014
Carval CR Value (CF)	3,279,809	0.27	0.82	3.36	12.24	12.24	N/A	N/A	N/A	N/A	8.49	08/01/2020
FirstMark Capital Opportunity III LP	4,951,307	0.41	6.20	18.03	61.90	61.90	N/A	N/A	N/A	N/A	37.69	06/01/2020
FirstMark V LP	3,242,070	0.27	55.76	52.87	46.99	46.99	N/A	N/A	N/A	N/A	16.58	07/01/2020
Francisco Partners SL (CF)	5,247,865	0.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	02/01/2021
Francisco PTRS-AGI-SL (CF)	1,971,765	0.16	8.03	20.07	21.79	21.79	N/A	N/A	N/A	N/A	6.24	10/01/2020
Knightsbridge VI LP	2,175,829	0.18	2.60	7.32	101.14	101.14	40.18	27.54	19.38	18.47	11.35	12/01/2004

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

As of December 31, 2021

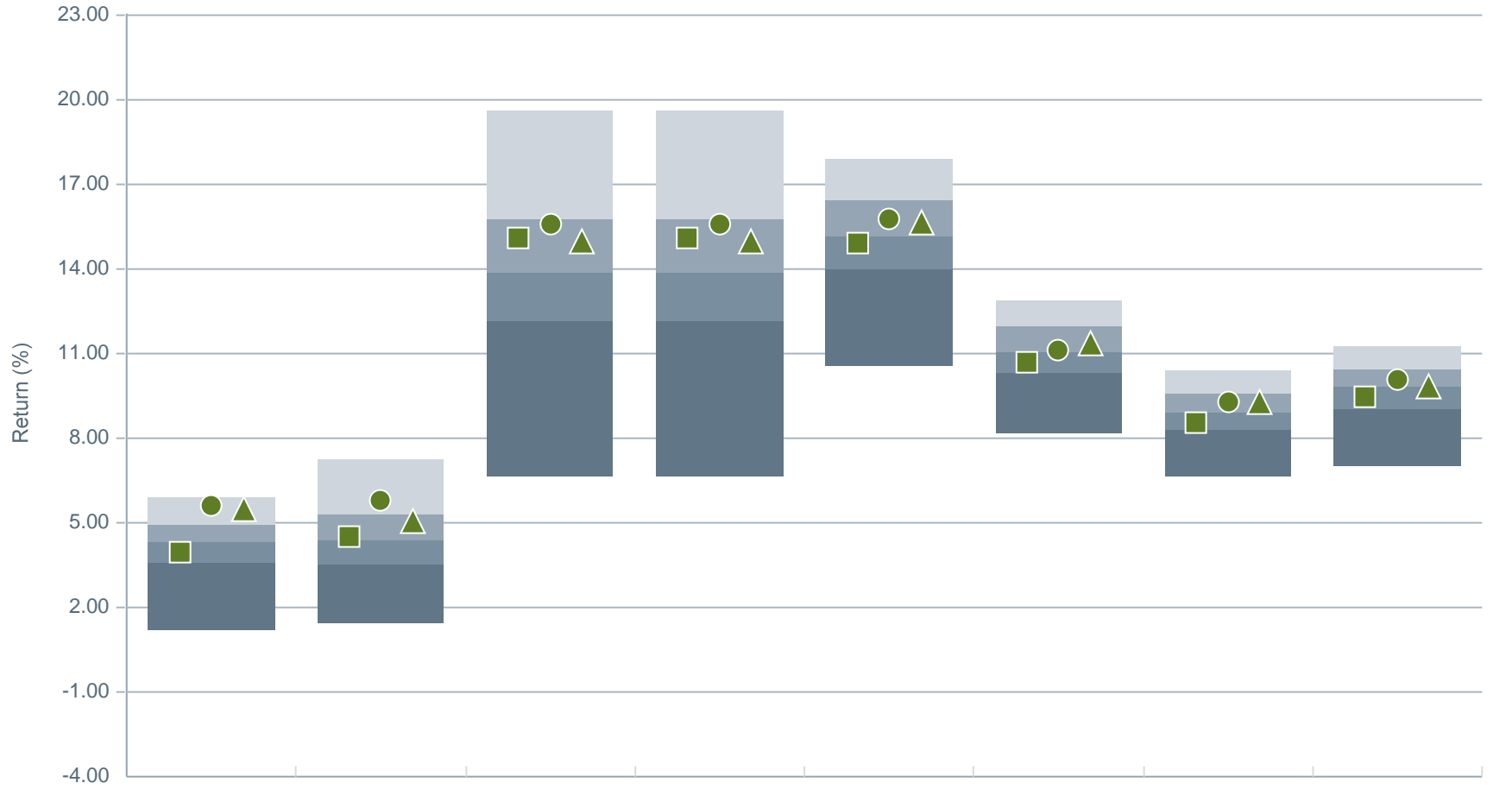
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Knightsbridge VII LP	10,601,975	0.88	7.42	25.93	81.03	81.03	42.24	29.05	23.46	20.54	12.63	09/01/2008
Oaktree Opp XI LP	5,256,355	0.44	5.98	21.47	46.64	46.64	N/A	N/A	N/A	N/A	29.82	08/01/2020
Warburg Pincus Global Growth LP	39,801,870	3.30	5.63	11.60	25.15	25.15	N/A	N/A	N/A	N/A	-7.65	03/01/2019
Warburg Pincus XII LP	13,890,234	1.15	5.78	24.55	56.19	56.19	26.88	20.75	N/A	N/A	7.86	12/01/2015

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



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

As of December 31, 2021



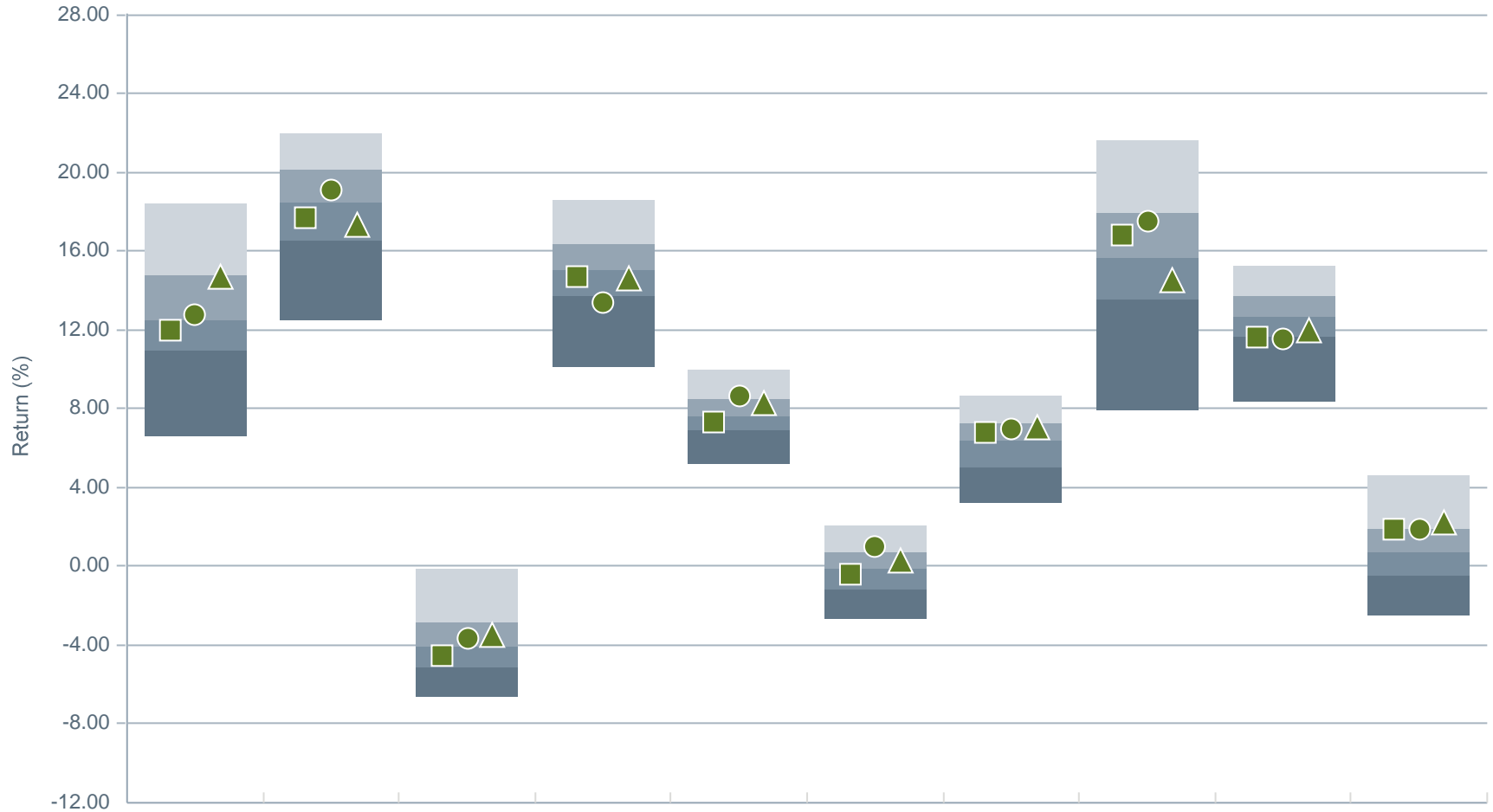
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OLERS Total Fund	3.95 (64)	4.53 (47)	15.08 (31)	15.08 (31)	14.91 (57)	10.69 (66)	8.56 (65)	9.49 (60)
● OLERS Policy Index	5.59 (8)	5.79 (19)	15.57 (27)	15.57 (27)	15.79 (39)	11.14 (47)	9.27 (40)	10.07 (40)
▲ OLERS Allocation Index	5.49 (10)	5.04 (33)	14.97 (32)	14.97 (32)	15.67 (42)	11.36 (42)	9.27 (40)	9.84 (49)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

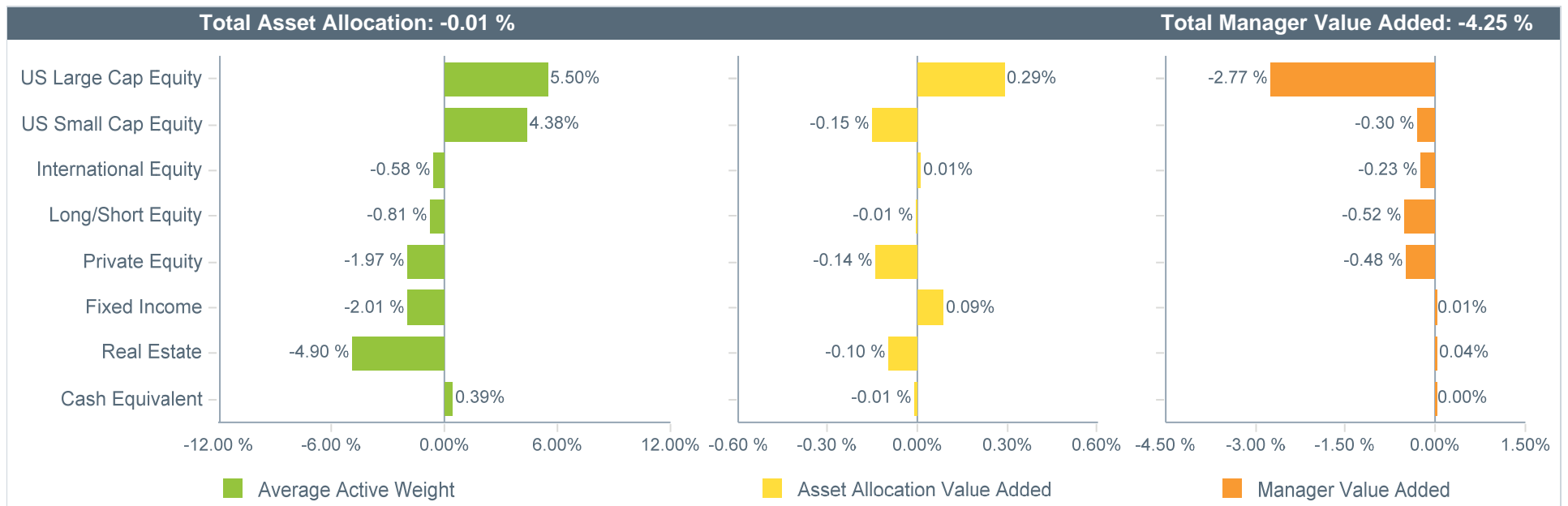
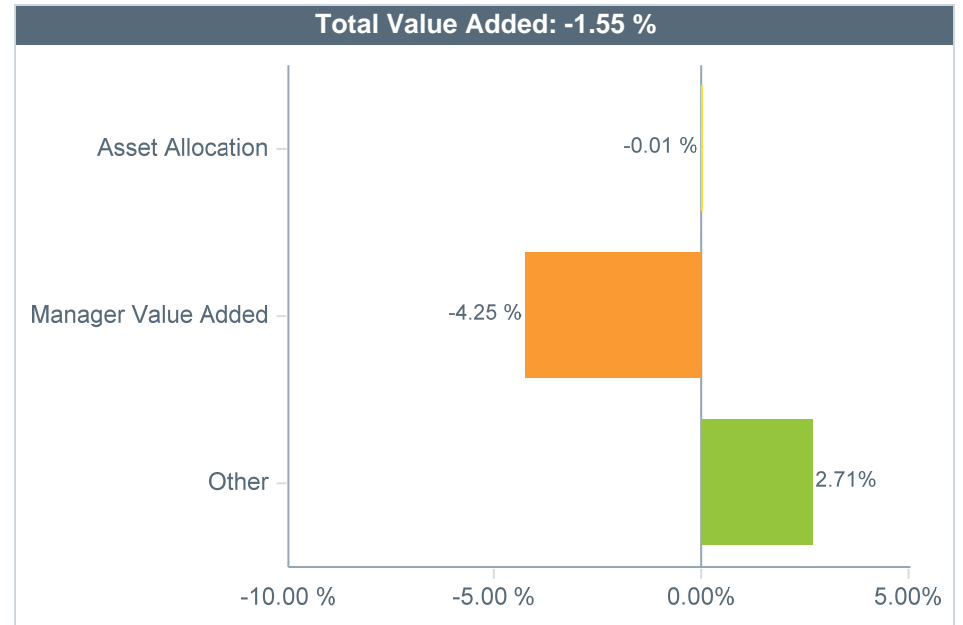
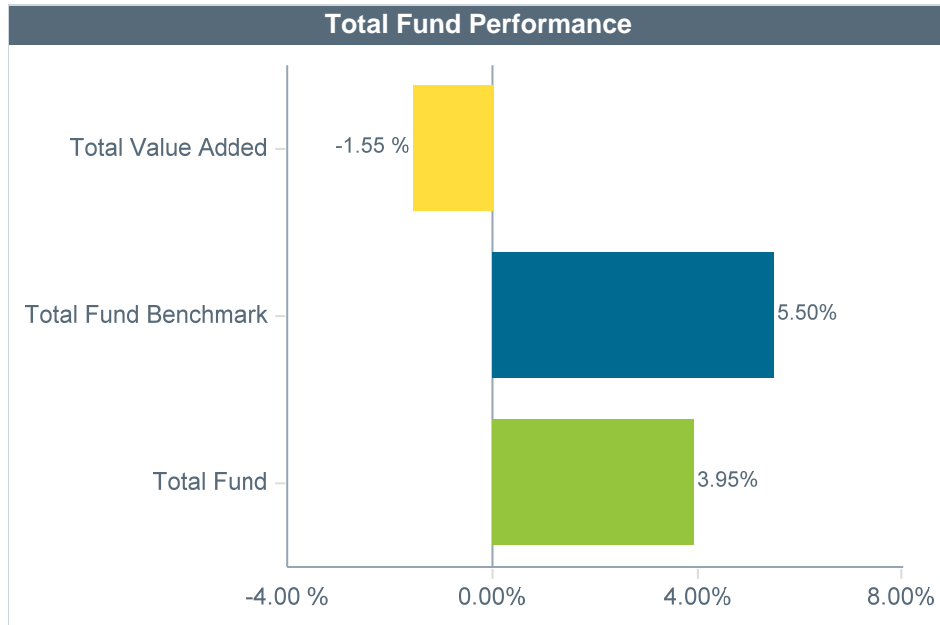
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OLERS Total Fund	12.03 (58)	17.70 (60)	-4.55 (61)	14.71 (59)	7.32 (63)	-0.37 (57)	6.83 (38)	16.80 (39)	11.69 (74)	1.93 (24)
● OLERS Policy Index	12.77 (48)	19.12 (40)	-3.67 (43)	13.36 (83)	8.64 (22)	1.00 (17)	7.01 (31)	17.53 (29)	11.57 (76)	1.93 (24)
▲ OLERS Allocation Index	14.73 (26)	17.33 (65)	-3.47 (38)	14.63 (60)	8.27 (32)	0.33 (36)	7.07 (29)	14.59 (63)	12.03 (67)	2.22 (22)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

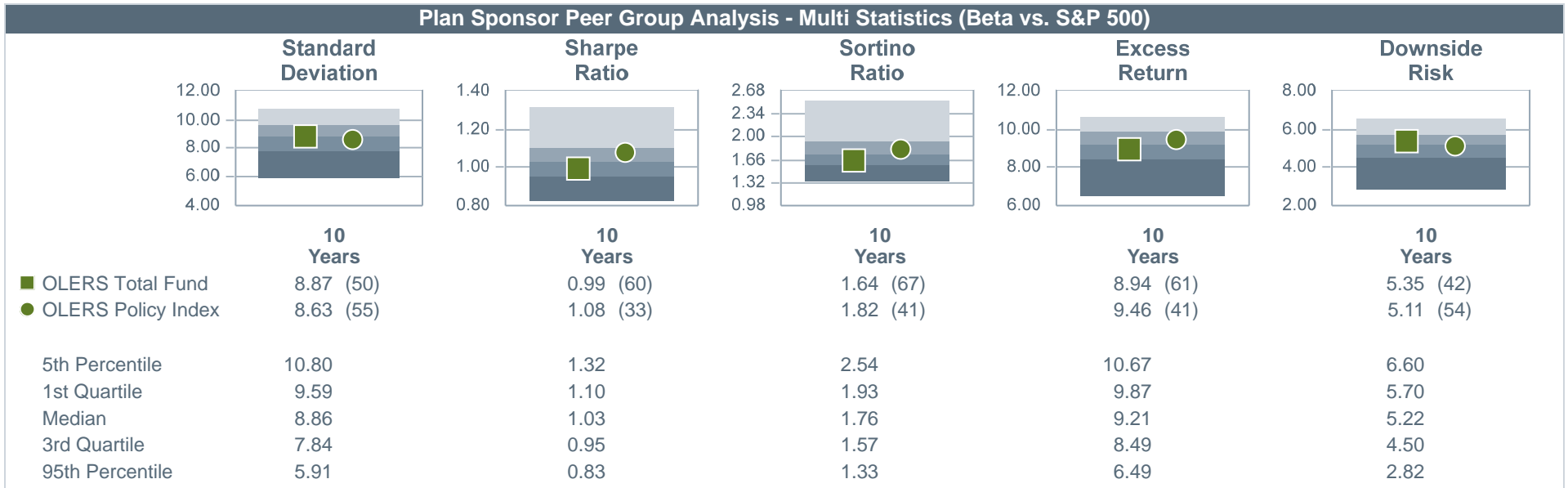
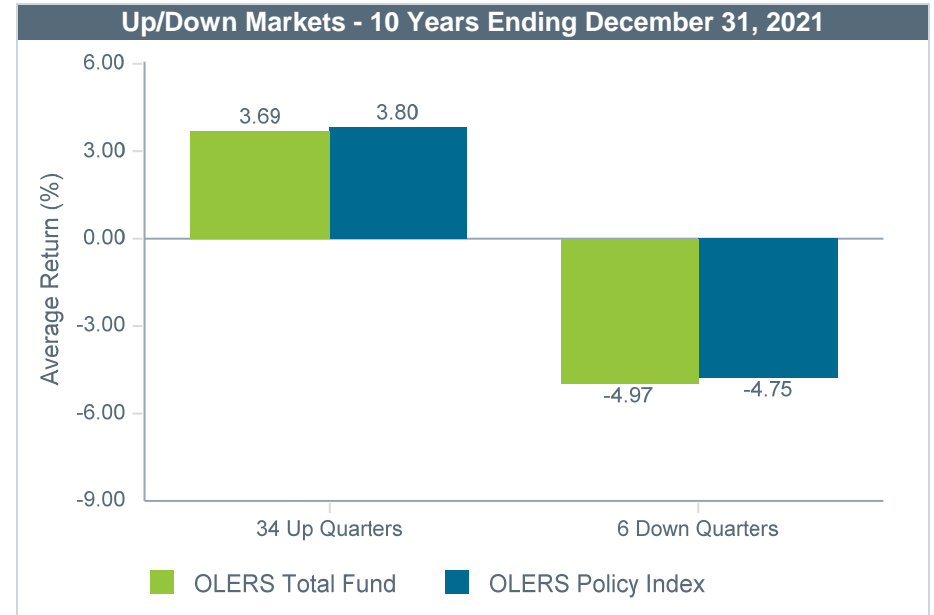
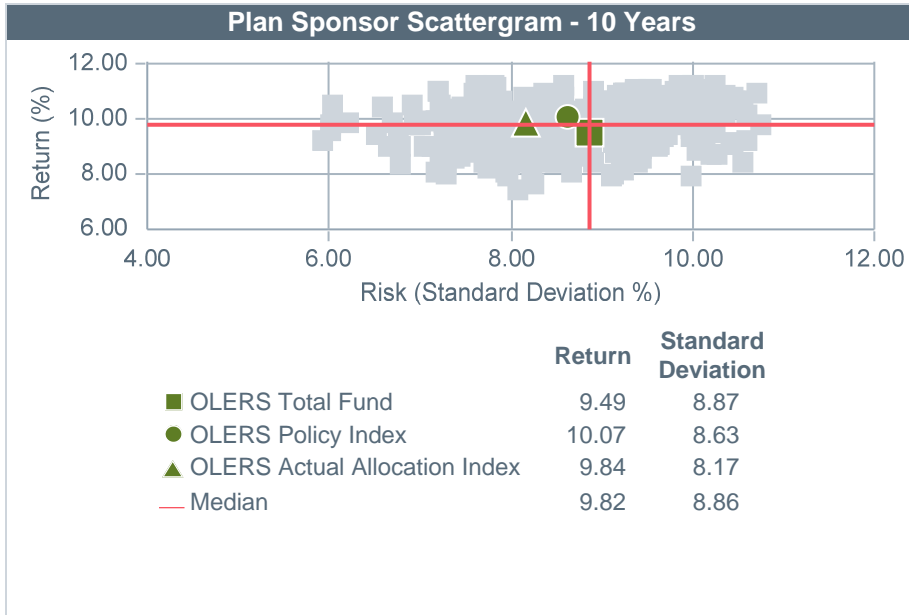
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



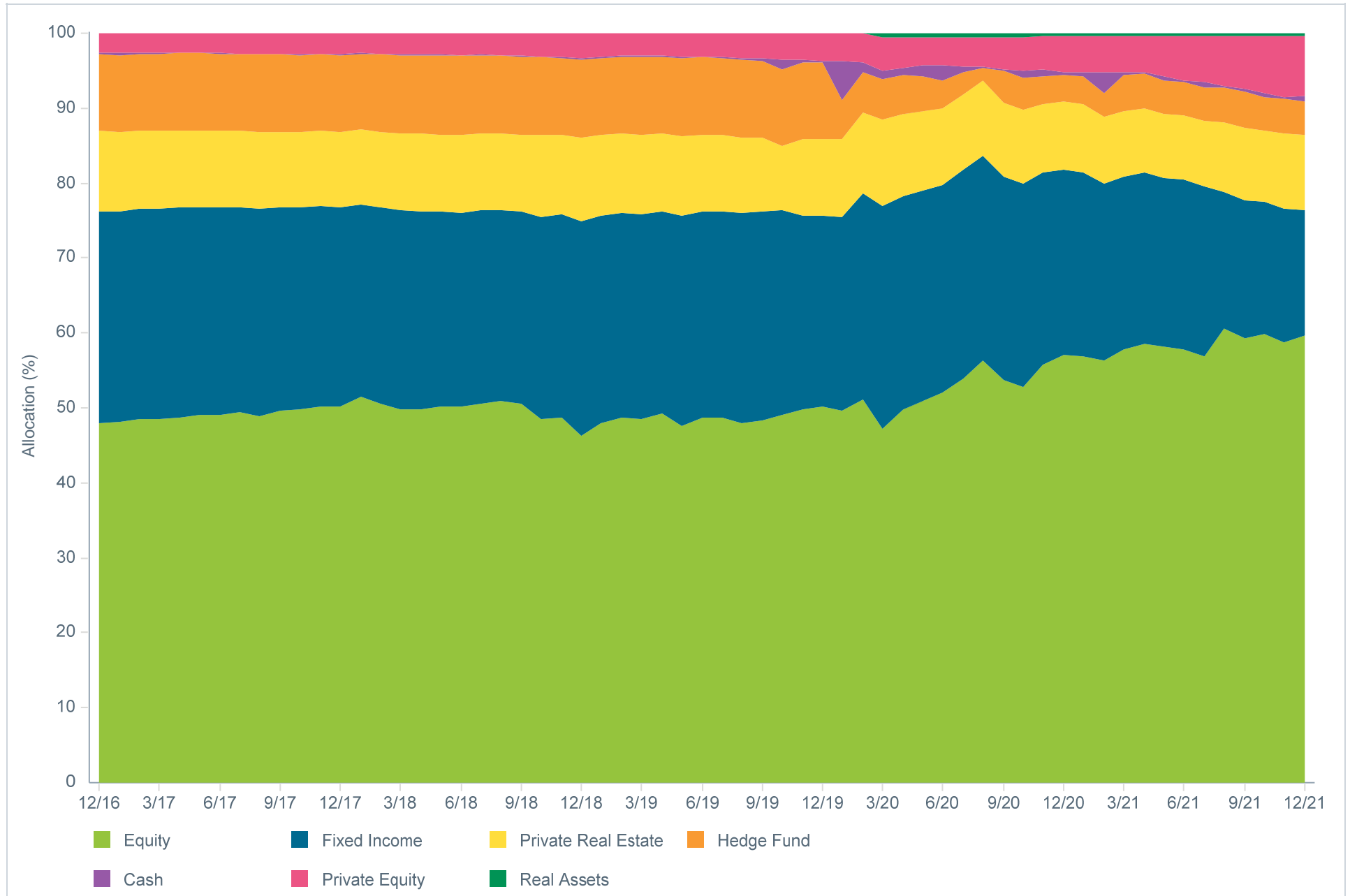


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





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



Uniform Retirement System for Justices & Judges (URSJJ)

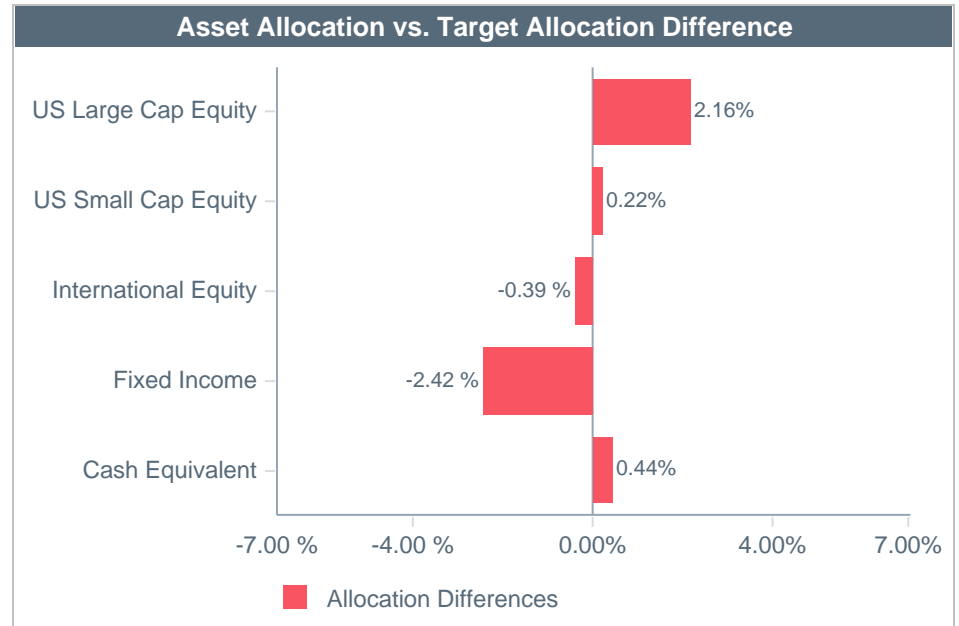


Oklahoma State Pension Commission
 Uniform Retirement System for Justices & Judges
 Total Fund Summary

As of December 31, 2021

	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
URSJJ Total Fund (Net)	4.24	3.27	12.08	12.08	16.10	11.34	9.00	9.85	15.06	21.36	-6.43	16.85	8.05
URSJJ Policy Index	4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	15.19	21.51	-6.09	16.86	8.12
Difference	0.04	0.00	0.54	0.54	0.09	-0.03	-0.07	0.04	-0.13	-0.15	-0.34	-0.01	-0.07
URSJJ Actual Allocation Index	4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	18.70	21.01	-6.52	16.63	7.90
Difference	-0.03	-0.01	-0.02	-0.02	-1.11	-0.57	-0.37	-0.15	-3.64	0.35	0.09	0.22	0.15
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	2.65	0.07	5.58	5.58	9.60	4.84	2.50	3.35	8.56	14.86	-12.93	10.35	1.55
URSJJ Total Fund (Gross)	4.26	3.30	12.12	12.12	16.14	11.38	9.05	9.90	15.10	21.40	-6.38	16.89	8.09
URSJJ Policy Index	4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	15.19	21.51	-6.09	16.86	8.12
Difference	0.06	0.03	0.58	0.58	0.13	0.01	-0.02	0.09	-0.09	-0.11	-0.29	0.03	-0.03
URSJJ Actual Allocation Index	4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	18.70	21.01	-6.52	16.63	7.90
Difference	-0.01	0.02	0.02	0.02	-1.07	-0.53	-0.32	-0.10	-3.60	0.39	0.14	0.26	0.19
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	52	81	76	76	31	40	47	47	22	10	92	18	38

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
URSJJ (Judges)	441,051,921	100.00	100.00
US Large Cap Equity	159,476,810	36.16	34.00
US Small Cap Equity	27,419,477	6.22	6.00
International Equity	121,776,221	27.61	28.00
Fixed Income	130,457,939	29.58	32.00
Cash Equivalent	1,921,475	0.44	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 Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	441,051,921	100.00	4.24	3.27	12.08	12.08	16.10	11.34	9.00	9.85	N/A	06/01/1986
URSJJ Policy Index			4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	9.13	
Difference			0.04	0.00	0.54	0.54	0.09	-0.03	-0.07	0.04	N/A	
URSJJ Actual Allocation Index			4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	8.70	
Difference			-0.03	-0.01	-0.02	-0.02	-1.11	-0.57	-0.37	-0.15	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			2.65	0.07	5.58	5.58	9.60	4.84	2.50	3.35	N/A	
US Equity	186,896,286	42.38	8.63	8.11	24.69	24.69	25.34	17.46	14.26	16.07	N/A	10/01/1989
URSJJ US Equity Custom Index			8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	N/A	
Difference			0.02	0.01	-0.04	-0.04	-0.02	-0.07	-0.02	-0.05	N/A	
BlackRock Russell 1000 Index (CF)	159,476,810	36.16	9.81	10.06	26.51	26.51	26.25	18.45	14.87	16.57	15.80	07/01/2009
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	16.44	
Difference			0.03	0.05	0.06	0.06	0.04	0.02	0.03	0.03	-0.64	
BlackRock Russell 2000 Index (CF)	27,419,477	6.22	2.15	-2.27	14.90	14.90	20.13	12.17	10.94	13.44	14.29	07/01/2009
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	14.13	
Difference			0.01	0.04	0.08	0.08	0.11	0.15	0.18	0.21	0.16	
International Equity	121,776,221	27.61	1.86	-1.16	8.06	8.06	13.43	9.87	6.82	7.53	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.01	
Difference			-0.02	-0.11	-0.23	-0.23	-0.27	-0.25	-0.23	-0.25	N/A	
BlackRock MSCI ACWI Ex US (CF)	121,776,221	27.61	1.86	-1.16	8.06	8.06	13.43	9.87	6.82	7.53	6.21	10/01/2009
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.34	
Difference			-0.02	-0.11	-0.23	-0.23	-0.27	-0.25	-0.23	-0.25	-0.13	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	130,457,939	29.58	0.59	0.94	-0.92	-0.92	6.44	4.64	3.73	3.60	N/A	10/01/1989
URSJJ Fixed Income Custom Index			0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	N/A	
Difference			-0.10	0.00	0.09	0.09	0.72	0.49	0.35	0.45	N/A	
BlackRock US Fixed Income (SA)	63,164,407	14.32	-0.04	0.10	-1.46	-1.46	5.30	3.87	3.31	3.23	N/A	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.05	0.04	0.09	0.09	0.51	0.30	0.31	0.33	N/A	
MetWest US Fixed Income (SA)	38,326,049	8.69	-0.10	0.06	-0.83	-0.83	5.86	4.34	3.55	3.77	N/A	09/01/2001
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.32	
Difference			-0.11	0.00	0.72	0.72	1.07	0.77	0.55	0.87	N/A	
Hoisington US Long Duration Fixed Income (SA)	14,201,781	3.22	3.58	4.00	-5.18	-5.18	10.25	7.60	5.00	4.87	N/A	10/01/1991
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	5.41	
Difference			3.57	3.94	-3.63	-3.63	5.46	4.03	2.00	1.97	N/A	
BlackRock TIPS (CF)	14,765,702	3.35	2.31	4.11	5.94	5.94	8.53	5.46	4.39	3.20	4.26	03/01/2010
Bloomberg US Trsy US TIPS Index			2.36	4.16	5.96	5.96	8.44	5.34	4.25	3.09	4.21	
Difference			-0.05	-0.05	-0.02	-0.02	0.09	0.12	0.14	0.11	0.05	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	441,051,921	100.00	4.26	3.30	12.12	12.12	16.14	11.38	9.05	9.90	8.84	06/01/1986
URSJJ Policy Index			4.20	3.27	11.54	11.54	16.01	11.37	9.07	9.81	9.13	
Difference			0.06	0.03	0.58	0.58	0.13	0.01	-0.02	0.09	-0.29	
URSJJ Actual Allocation Index			4.27	3.28	12.10	12.10	17.21	11.91	9.37	10.00	8.70	
Difference			-0.01	0.02	0.02	0.02	-1.07	-0.53	-0.32	-0.10	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			2.55	-0.14	5.12	5.12	9.14	4.38	2.05	2.90	1.84	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	8.86	
Rank			52	81	76	76	31	40	47	47	52	
US Equity	186,896,286	42.38	8.63	8.11	24.70	24.70	25.35	17.47	14.28	16.08	10.39	10/01/1989
URSJJ US Equity Custom Index			8.61	8.10	24.73	24.73	25.36	17.53	14.28	16.12	N/A	
Difference			0.02	0.01	-0.03	-0.03	-0.01	-0.06	0.00	-0.04	N/A	
All Public Plans-US Equity Segment Median			8.70	8.73	24.57	24.57	24.70	17.10	13.82	15.64	N/A	
Rank			51	58	48	48	32	37	28	30	N/A	
BlackRock Russell 1000 Index (CF)	159,476,810	36.16	9.81	10.06	26.53	26.53	26.26	18.46	14.88	16.58	15.81	07/01/2009
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	16.44	
Difference			0.03	0.05	0.08	0.08	0.05	0.03	0.04	0.04	-0.63	
IM U.S. Large Cap Core Equity (SA+CF) Median			10.24	10.38	27.83	27.83	25.23	18.03	14.45	16.33	16.11	
Rank			58	53	59	59	34	39	37	39	63	
BlackRock Russell 2000 Index (CF)	27,419,477	6.22	2.15	-2.27	14.92	14.92	20.15	12.19	10.97	13.46	14.32	07/01/2009
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	14.13	
Difference			0.01	0.04	0.10	0.10	0.13	0.17	0.21	0.23	0.19	
IM U.S. Small Cap Core Equity (SA+CF) Median			6.20	4.83	25.27	25.27	22.84	14.28	12.80	15.03	16.31	
Rank			96	99	93	93	76	74	86	87	94	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	121,776,221	27.61	1.87	-1.15	8.09	8.09	13.45	9.91	6.85	7.57	6.02	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.01	
Difference			-0.01	-0.10	-0.20	-0.20	-0.25	-0.21	-0.20	-0.21	0.01	
All Public Plans-Intl. Equity Segment Median			1.89	-0.08	9.51	9.51	16.42	11.70	8.44	9.09	N/A	
Rank			51	65	74	74	86	89	92	98	N/A	
BlackRock MSCI ACWI Ex US (CF)	121,776,221	27.61	1.87	-1.15	8.09	8.09	13.45	9.91	6.85	7.57	6.30	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			1.88	-1.05	8.29	8.29	13.70	10.12	7.05	7.78	6.49	
Difference			-0.01	-0.10	-0.20	-0.20	-0.25	-0.21	-0.20	-0.21	-0.19	
IM All ACWI Ex US (SA+CF) Median			1.82	-0.07	9.36	9.36	16.49	11.48	8.22	9.38	8.16	
Rank			49	65	61	61	70	68	71	81	87	
Fixed Income	130,457,939	29.58	0.65	1.01	-0.82	-0.82	6.54	4.73	3.81	3.70	6.54	10/01/1989
OPERS Fixed Income Custom Index			0.69	0.94	-1.01	-1.01	5.72	4.15	3.38	3.15	N/A	
Difference			-0.04	0.07	0.19	0.19	0.82	0.58	0.43	0.55	N/A	
BlackRock US Fixed Income (SA)	63,164,407	14.32	-0.02	0.12	-1.41	-1.41	5.38	3.95	3.39	3.32	5.12	06/01/2000
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.84	
Difference			-0.03	0.06	0.14	0.14	0.59	0.38	0.39	0.42	0.28	
IM U.S. Broad Market Fixed Income (SA+CF) Median			0.00	0.15	-0.74	-0.74	5.77	4.30	3.74	3.79	5.52	
Rank			55	55	77	77	71	77	75	80	81	
MetWest US Fixed Income (SA)	38,326,049	8.69	0.06	0.23	-0.65	-0.65	6.00	4.45	3.66	3.89	5.32	09/01/2001
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.32	
Difference			0.05	0.17	0.90	0.90	1.21	0.88	0.66	0.99	1.00	
IM U.S. Broad Market Fixed Income (SA+CF) Median			0.00	0.15	-0.74	-0.74	5.77	4.30	3.74	3.79	5.02	
Rank			41	39	45	45	41	42	56	45	26	
Hoisington US Long Duration Fixed Income (SA)	14,201,781	3.22	3.61	4.06	-5.06	-5.06	10.39	7.74	5.14	5.02	8.31	10/01/1991
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	5.41	
Difference			3.60	4.00	-3.51	-3.51	5.60	4.17	2.14	2.12	2.90	
IM U.S. Long Duration (SA+CF) Median			1.80	1.81	-1.72	-1.72	11.59	8.01	6.36	6.54	N/A	
Rank			1	1	100	100	82	75	96	98	N/A	

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



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

As of December 31, 2021

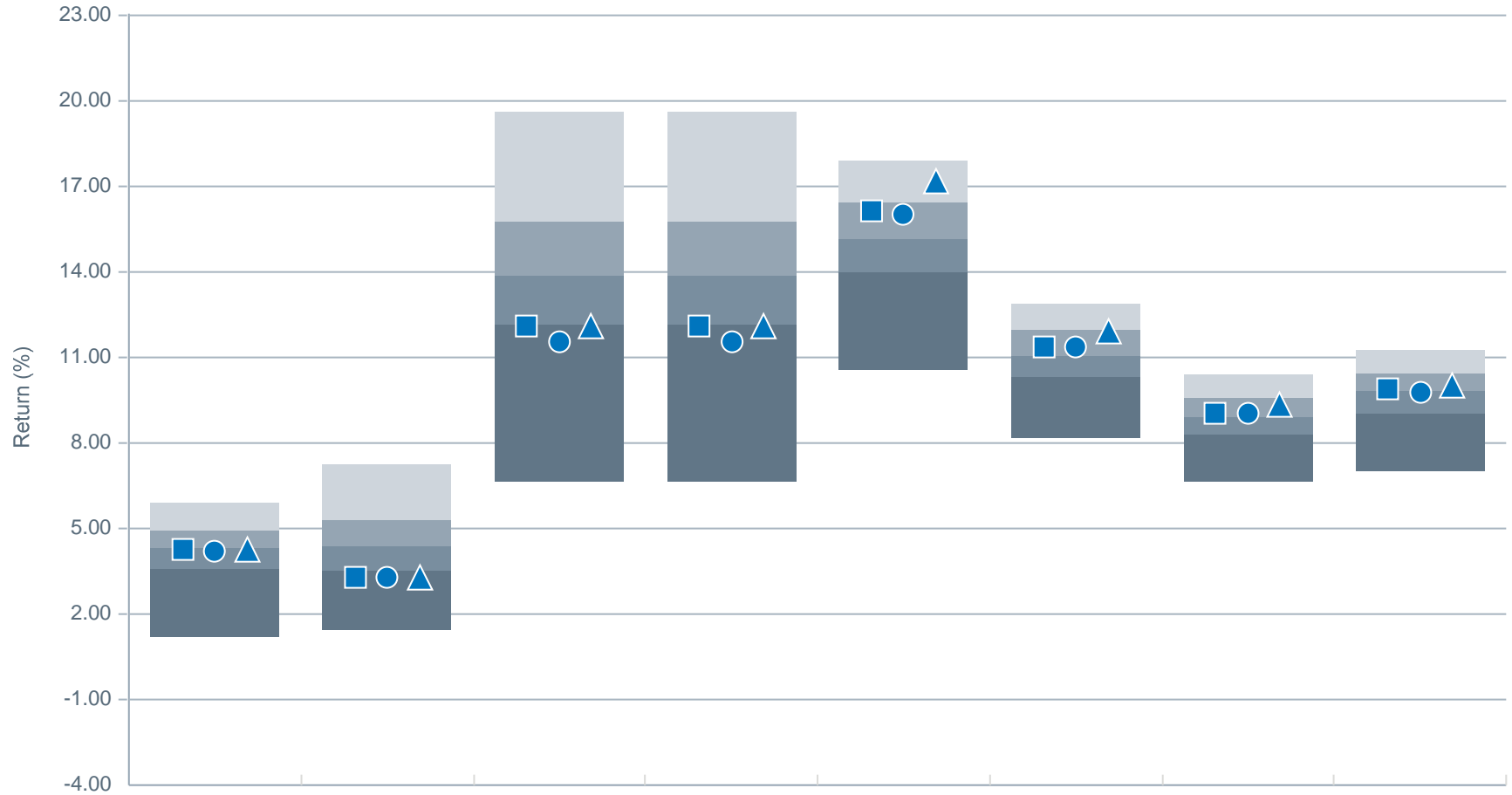
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock TIPS (CF)	14,765,702	3.35	2.32	4.12	5.95	5.95	8.54	5.47	4.40	3.21	4.27	03/01/2010
Bloomberg US Trsy US TIPS Index			2.36	4.16	5.96	5.96	8.44	5.34	4.25	3.09	4.21	
Difference			-0.04	-0.04	-0.01	-0.01	0.10	0.13	0.15	0.12	0.06	
IM U.S. TIPS (SA+CF) Median			2.31	4.10	5.91	5.91	8.46	5.38	4.28	3.12	4.25	
Rank			47	45	44	44	43	41	32	47	43	

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



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

As of December 31, 2021



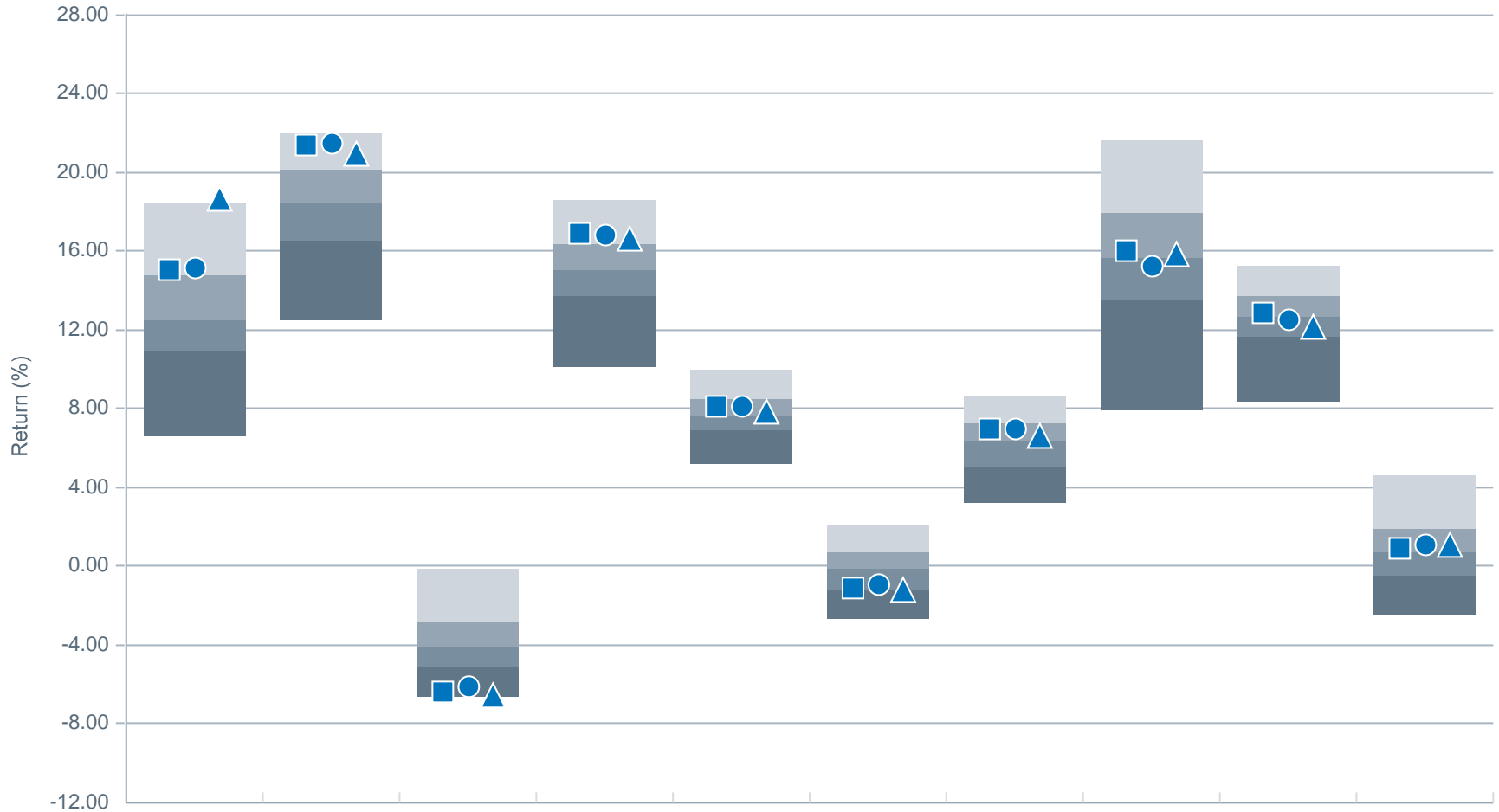
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ URSJJ Total Fund	4.26 (52)	3.30 (81)	12.12 (76)	12.12 (76)	16.14 (31)	11.38 (40)	9.05 (47)	9.90 (47)
● URSJJ Policy Index	4.20 (54)	3.27 (81)	11.54 (81)	11.54 (81)	16.01 (34)	11.37 (41)	9.07 (45)	9.81 (52)
▲ URSJJ Allocation Index	4.27 (52)	3.28 (81)	12.10 (77)	12.10 (77)	17.21 (12)	11.91 (27)	9.37 (35)	10.00 (42)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

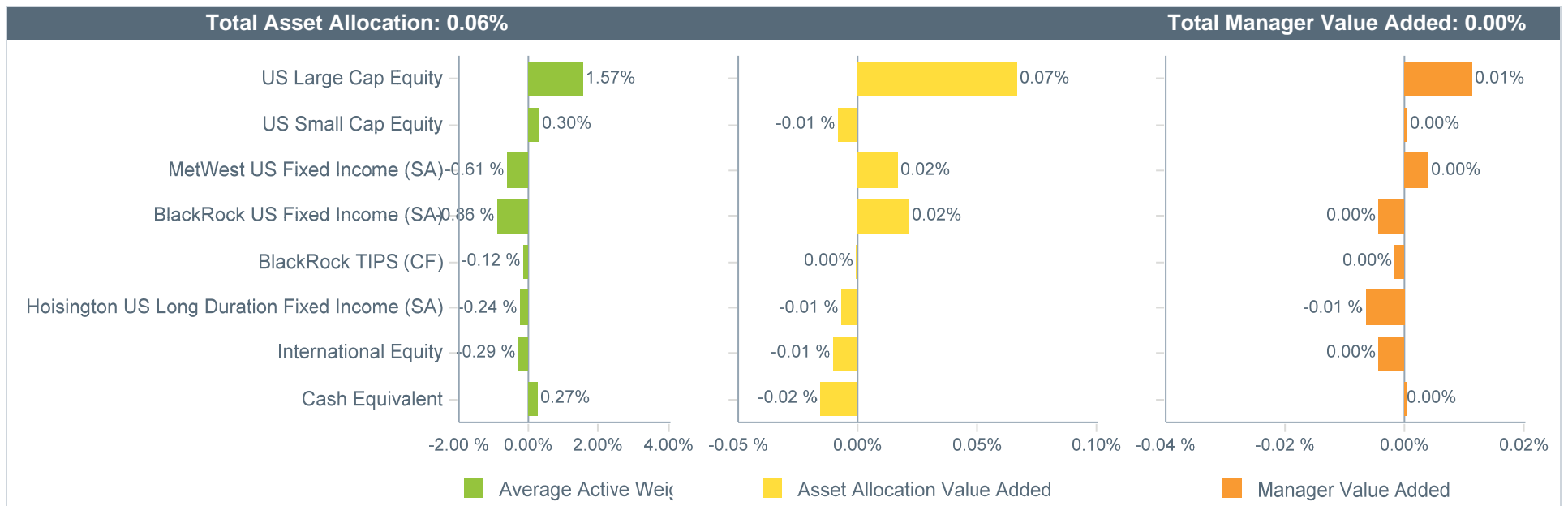
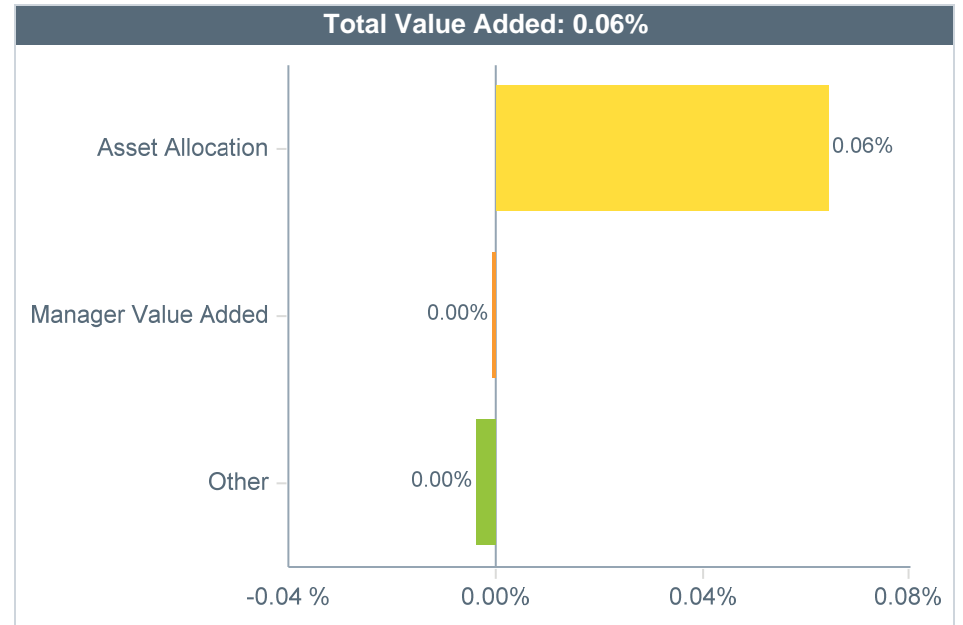
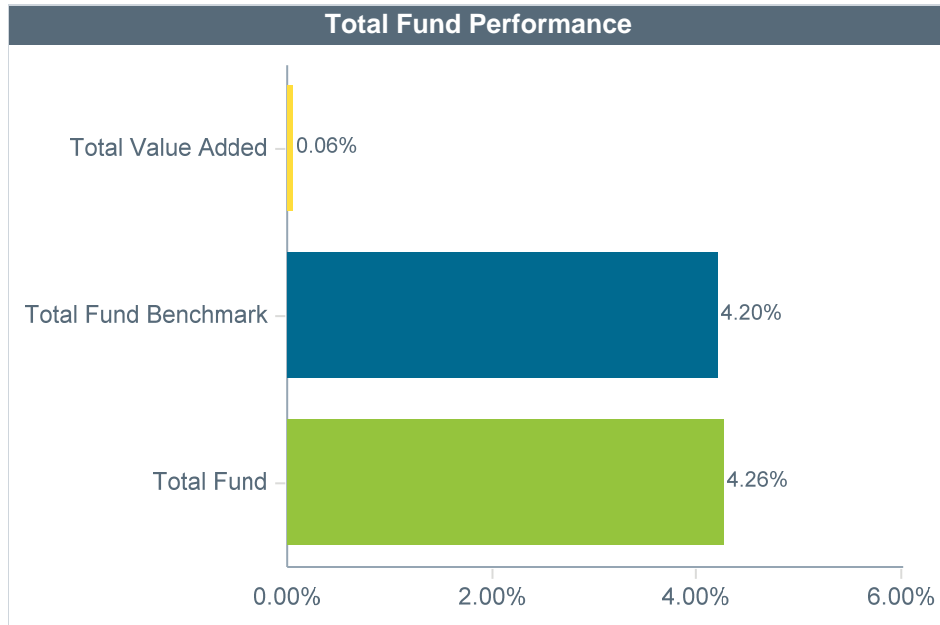
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ URSJJ Total Fund	15.10 (22)	21.40 (10)	-6.38 (92)	16.89 (18)	8.09 (38)	-1.07 (73)	7.00 (32)	16.01 (48)	12.91 (43)	0.88 (45)
● URSJJ Policy Index	15.19 (21)	21.51 (10)	-6.09 (90)	16.86 (18)	8.12 (37)	-0.89 (70)	7.00 (31)	15.27 (56)	12.52 (55)	1.10 (40)
▲ URSJJ Allocation Index	18.70 (4)	21.01 (15)	-6.52 (94)	16.63 (21)	7.90 (45)	-1.19 (75)	6.67 (42)	15.87 (49)	12.14 (65)	1.07 (41)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

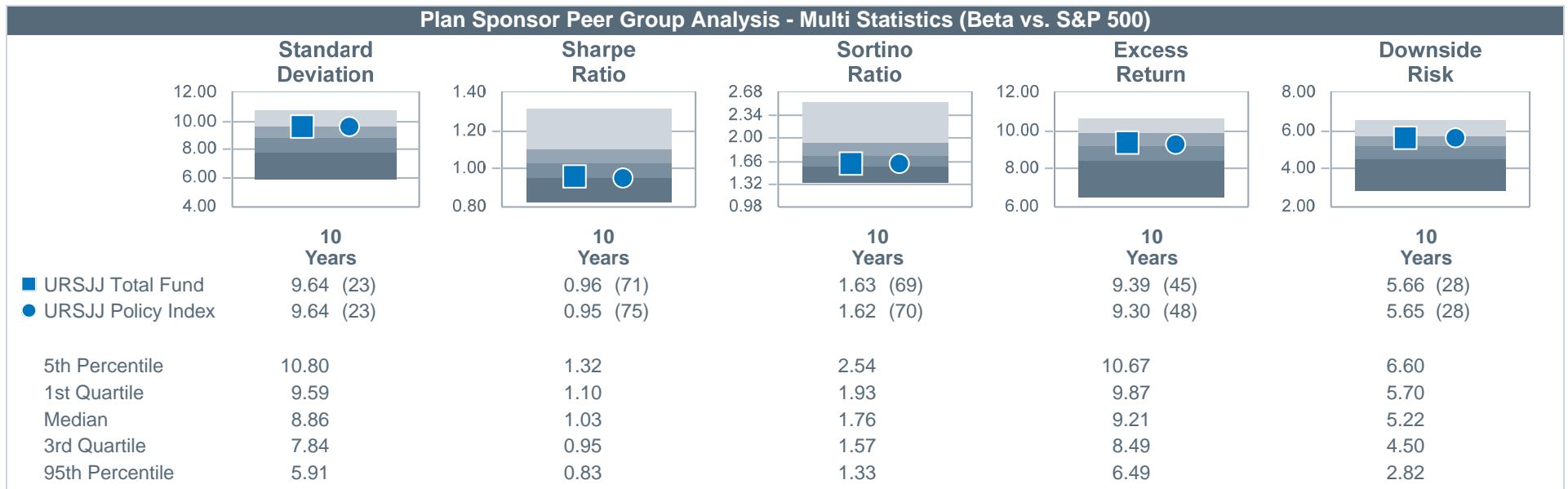
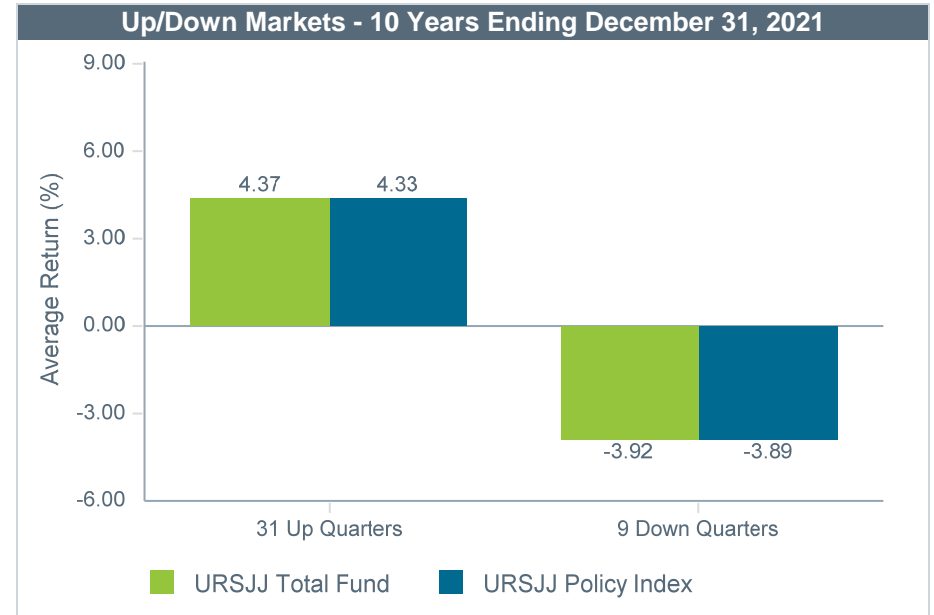
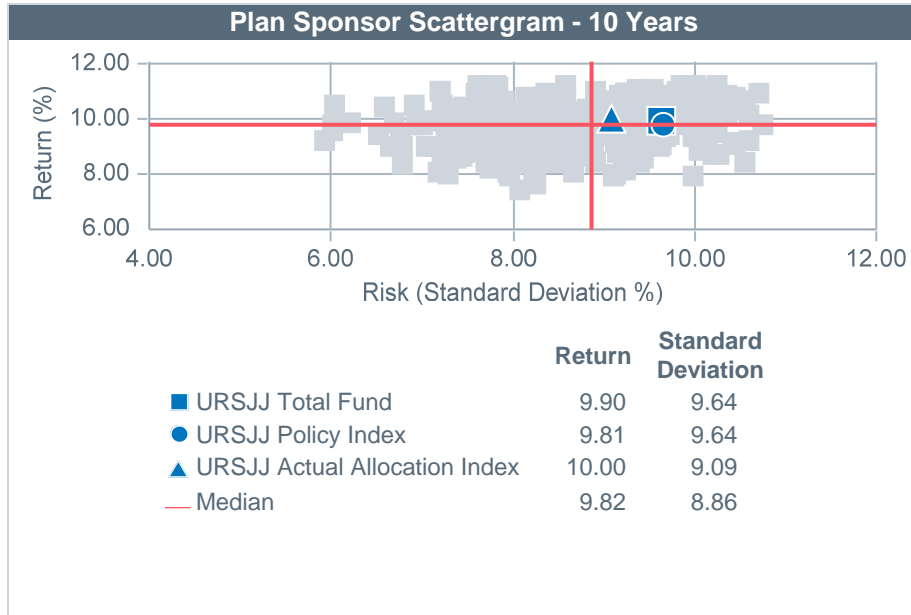
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



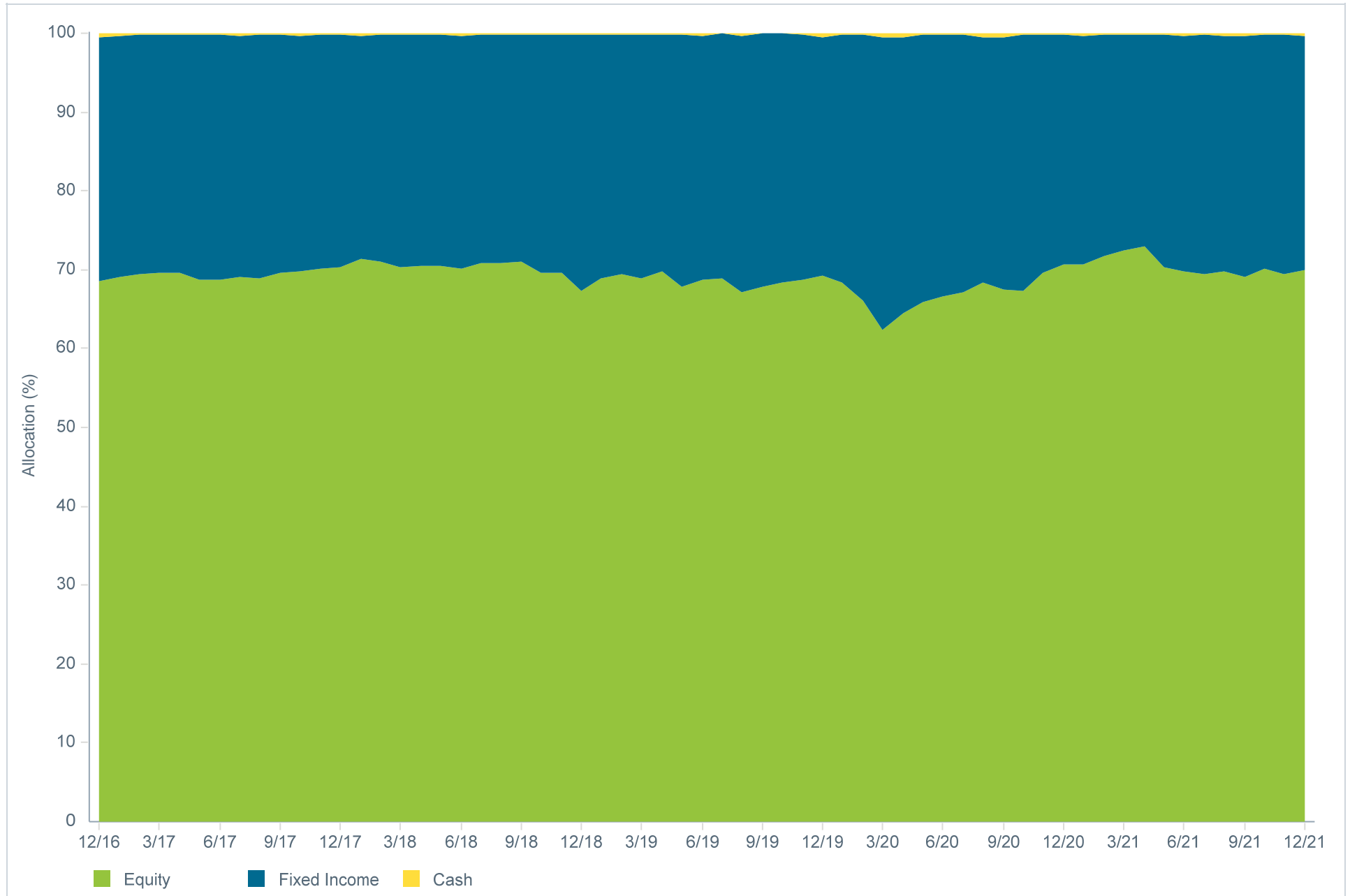


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





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

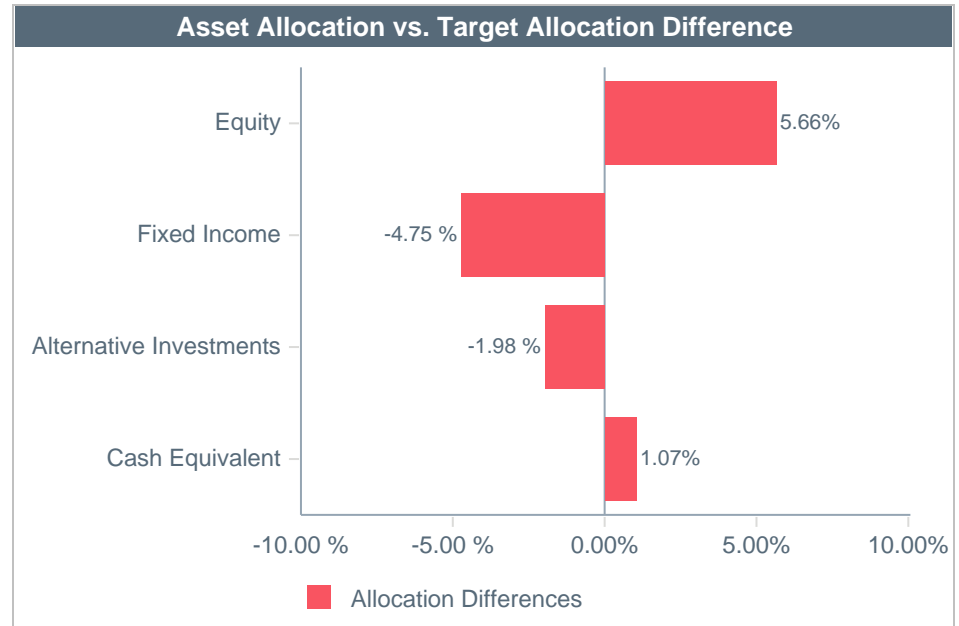


Oklahoma Wildlife Conservation Retirement System (OWCRS)



	Performance (%)												
	Trailing							Calendar Year					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
OWCRS Total Fund (Net)	4.06	3.71	11.58	11.58	14.55	10.49	8.29	8.96	13.00	19.21	-3.85	13.93	6.18
OWCRS Policy Index	3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	12.67	17.53	-4.95	12.96	7.34
Difference	1.04	1.34	1.97	1.97	1.33	1.21	0.86	0.64	0.33	1.68	1.10	0.97	-1.16
OWCRS Actual Allocation Index	3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	13.21	20.53	-3.71	14.38	8.04
Difference	0.82	1.22	1.16	1.16	-0.09	-0.17	-0.36	-0.27	-0.21	-1.32	-0.14	-0.45	-1.86
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	2.35	0.27	4.58	4.58	7.55	3.49	1.29	1.96	6.00	12.21	-10.85	6.93	-0.82
OWCRS Total Fund (Gross)	4.14	3.88	11.95	11.95	14.87	10.75	8.53	9.19	13.34	19.46	-3.68	14.13	6.39
OWCRS Policy Index	3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	12.67	17.53	-4.95	12.96	7.34
Difference	1.12	1.51	2.34	2.34	1.65	1.47	1.10	0.87	0.67	1.93	1.27	1.17	-0.95
OWCRS Actual Allocation Index	3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	13.21	20.53	-3.71	14.38	8.04
Difference	0.90	1.39	1.53	1.53	0.23	0.09	-0.12	-0.04	0.13	-1.07	0.03	-0.25	-1.65
All Public Plans-Total Fund Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	12.55	18.49	-4.05	15.09	7.65
Rank	56	66	78	78	57	63	67	71	40	35	44	70	85

Asset Allocation vs. Target Allocation			
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OWCRS (Wildlife)	144,319,790	100.00	100.00
Equity	80,333,928	55.66	50.00
Fixed Income	50,871,438	35.25	40.00
Alternative Investments	11,572,605	8.02	10.00
Cash Equivalent	1,541,818	1.07	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 Oklahoma State Pension Commission fiscal year begins on 07/01.



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	144,319,790	100.00	4.06	3.71	11.58	11.58	14.55	10.49	8.29	8.96	6.74	01/01/2006
OWCRS Policy Index			3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	6.88	
Difference			1.04	1.34	1.97	1.97	1.33	1.21	0.86	0.64	-0.14	
OWCRS Actual Allocation Index			3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	7.28	
Difference			0.82	1.22	1.16	1.16	-0.09	-0.17	-0.36	-0.27	-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	
Difference			2.35	0.27	4.58	4.58	7.55	3.49	1.29	1.96	-0.26	
Equity	80,333,928	55.66	7.23	6.58	21.01	21.01	20.93	15.39	12.29	14.31	9.58	01/01/2006
OWCRS Equity Custom Index			5.93	4.36	19.85	19.85	20.37	13.75	11.08	N/A	N/A	
Difference			1.30	2.22	1.16	1.16	0.56	1.64	1.21	N/A	N/A	
iShares:Russ 1000 ETF (IWB)	3,218,872	2.23	9.77	9.98	24.75	24.75	25.50	17.96	14.48	16.24	30.91	03/01/2020
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	32.02	
Difference			-0.01	-0.03	-1.70	-1.70	-0.71	-0.47	-0.36	-0.30	-1.11	
Vanguard S-C Id;Inst (VSCIX)	4,480,465	3.10	3.58	0.89	17.40	17.40	21.23	13.44	11.49	14.14	10.23	12/01/2005
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	9.19	
Difference			1.44	3.20	2.58	2.58	1.21	1.42	0.73	0.91	1.04	
Bank of Oklahoma Managed Equity (SA)	54,167,789	37.53	9.89	10.32	27.04	27.04	N/A	N/A	N/A	N/A	40.75	04/01/2020
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	45.19	
Difference			0.61	1.15	1.38	1.38	N/A	N/A	N/A	N/A	-4.44	
Vanguard Dev Mkt;Adm (VTMGX)	6,441,895	4.46	2.99	1.38	11.43	11.43	14.46	10.15	7.49	8.51	4.85	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			3.14	2.46	12.62	12.62	14.07	9.63	6.73	7.84	4.78	
Difference			-0.15	-1.08	-1.19	-1.19	0.39	0.52	0.76	0.67	0.07	
Dodge & Cox Intl Stock (DODFX)	4,021,709	2.79	2.33	-1.07	10.95	10.95	11.63	7.18	4.46	7.58	3.79	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	5.27	
Difference			0.51	0.15	3.13	3.13	-1.55	-2.43	-2.10	0.30	-1.48	
MFS Intl New Discv;R6 (MIDLX)	4,221,517	2.93	-0.32	-0.02	5.04	5.04	12.46	11.01	8.28	9.82	6.96	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			2.37	-1.34	5.09	5.09	17.82	13.06	8.99	9.13	7.59	
Difference			-2.69	1.32	-0.05	-0.05	-5.36	-2.05	-0.71	0.69	-0.63	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Dev Mkt;R6 (ODVIX)	3,781,682	2.62	-4.07	-12.86	-7.13	-7.13	10.81	10.19	6.02	6.65	5.25	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	4.79	
Difference			-2.76	-3.56	-4.59	-4.59	-0.13	0.32	-0.09	1.16	0.46	
Fixed Income	50,871,438	35.25	-0.14	-0.03	-0.41	-0.41	5.20	3.86	3.00	2.84	3.48	01/01/2006
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.10	
Difference			-0.15	-0.09	1.14	1.14	0.41	0.29	0.00	-0.06	-0.62	
Bank of Oklahoma Managed Fixed Income (SA)	23,707,940	16.43	-0.25	-0.27	-0.95	-0.95	4.58	3.41	2.61	2.44	3.31	12/01/2005
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.14	
Difference			-0.26	-0.33	0.60	0.60	-0.21	-0.16	-0.39	-0.46	-0.83	
MetWest:Total Rtn;I (MWTIX)	7,175,011	4.97	-0.09	0.04	-1.12	-1.12	5.58	4.04	3.27	4.06	3.99	08/01/2017
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.42	
Difference			-0.10	-0.02	0.43	0.43	0.79	0.47	0.27	1.16	0.57	
PIMCO:Income;Inst (PIMIX)	8,441,631	5.85	0.16	0.74	2.59	2.59	5.47	5.09	5.24	6.97	4.42	08/01/2017
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.42	
Difference			0.15	0.68	4.14	4.14	0.68	1.52	2.24	4.07	1.00	
PIMCO:Intl Bd (DH);Inst (PFORX)	4,302,738	2.98	-0.35	-0.45	-1.66	-1.66	3.87	3.55	3.58	4.78	1.37	03/01/2020
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	1.09	
Difference			-0.36	-0.51	-0.11	-0.11	-0.92	-0.02	0.58	1.88	0.28	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Alternative Investments	11,572,605	8.02	2.70	2.04	8.65	8.65	8.57	5.62	4.52	3.95	3.70	12/01/2010
OWCRS Alternatives Custom Index			0.29	1.02	6.03	6.03	8.41	5.54	3.75	N/A	N/A	
Difference			2.41	1.02	2.62	2.62	0.16	0.08	0.77	N/A	N/A	
First Eagle:Global;I (SGIIX)	5,825,862	4.04	3.87	1.93	12.51	12.51	13.76	8.97	7.82	8.60	8.20	08/01/2017
MSCI Wrld Index (USD) (Net)			7.77	7.76	21.82	21.82	21.70	15.03	11.53	12.70	13.91	
Difference			-3.90	-5.83	-9.31	-9.31	-7.94	-6.06	-3.71	-4.10	-5.71	
Calamos:Mkt Neut Inc;I (CMNIX)	5,746,742	3.98	1.55	2.15	4.92	4.92	5.66	4.70	4.25	4.41	4.57	08/01/2017
Bloomberg US Govt/Credit Bond Index			0.18	0.22	-1.75	-1.75	5.50	3.99	3.30	3.13	3.81	
Difference			1.37	1.93	6.67	6.67	0.16	0.71	0.95	1.28	0.76	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	144,319,790	100.00	4.14	3.88	11.95	11.95	14.87	10.75	8.53	9.19	6.96	01/01/2006
OWCRS Policy Index			3.02	2.37	9.61	9.61	13.22	9.28	7.43	8.32	6.88	
Difference			1.12	1.51	2.34	2.34	1.65	1.47	1.10	0.87	0.08	
OWCRS Actual Allocation Index			3.24	2.49	10.42	10.42	14.64	10.66	8.65	9.23	7.28	
Difference			0.90	1.39	1.53	1.53	0.23	0.09	-0.12	-0.04	-0.32	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			2.43	0.44	4.95	4.95	7.87	3.75	1.53	2.19	-0.04	
All Public Plans-Total Fund Median			4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82	7.55	
Rank			56	66	78	78	57	63	67	71	80	
Equity	80,333,928	55.66	7.29	6.72	21.32	21.32	21.11	15.49	12.36	14.36	9.61	01/01/2006
OWCRS Equity Custom Index			5.93	4.36	19.85	19.85	20.37	13.75	11.08	N/A	N/A	
Difference			1.36	2.36	1.47	1.47	0.74	1.74	1.28	N/A	N/A	
iShares:Russ 1000 ETF (IWB)	3,218,872	2.23	9.81	10.08	24.96	24.96	25.69	18.14	14.66	16.42	31.11	03/01/2020
Russell 1000 Index			9.78	10.01	26.45	26.45	26.21	18.43	14.84	16.54	32.02	
Difference			0.03	0.07	-1.49	-1.49	-0.52	-0.29	-0.18	-0.12	-0.91	
IM U.S. Large Cap Equity (MF) Median			8.69	8.85	25.27	25.27	24.94	17.52	13.78	15.54	30.41	
Rank			34	32	54	54	46	47	42	40	47	
Vanguard S-C Id;Inst (VSCIX)	4,480,465	3.10	3.59	0.91	17.45	17.45	21.28	13.48	11.54	14.18	10.27	12/01/2005
Russell 2000 Index			2.14	-2.31	14.82	14.82	20.02	12.02	10.76	13.23	9.19	
Difference			1.45	3.22	2.63	2.63	1.26	1.46	0.78	0.95	1.08	
IM U.S. Small Cap Core Equity (MF) Median			5.89	3.98	24.55	24.55	19.55	10.97	10.12	12.54	8.87	
Rank			84	81	83	83	25	12	17	10	7	
Bank of Oklahoma Managed Equity (SA)	54,167,789	37.53	9.94	10.41	27.26	27.26	N/A	N/A	N/A	N/A	40.95	04/01/2020
Russell 3000 Index			9.28	9.17	25.66	25.66	25.79	17.97	14.55	16.30	45.19	
Difference			0.66	1.24	1.60	1.60	N/A	N/A	N/A	N/A	-4.24	
Vanguard Dev Mkt;Adm (VTMGX)	6,441,895	4.46	3.00	1.41	11.50	11.50	14.54	10.22	7.57	8.59	4.92	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			3.14	2.46	12.62	12.62	14.07	9.63	6.73	7.84	4.78	
Difference			-0.14	-1.05	-1.12	-1.12	0.47	0.59	0.84	0.75	0.14	
IM All ACWI Ex US (MF) Median			2.22	-0.19	8.77	8.77	16.08	11.00	7.29	8.38	5.71	
Rank			35	19	22	22	62	57	48	45	67	

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



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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dodge & Cox Intl Stock (DODFX)	4,021,709	2.79	2.50	-0.76	11.66	11.66	12.34	7.85	5.12	8.26	4.45	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			1.82	-1.22	7.82	7.82	13.18	9.61	6.56	7.28	5.27	
Difference			0.68	0.46	3.84	3.84	-0.84	-1.76	-1.44	0.98	-0.82	
IM ACWI Ex US Core (MF) Median			2.36	-0.04	8.98	8.98	14.54	10.11	6.81	7.73	5.46	
Rank			49	59	21	21	88	93	93	38	81	
MFS Intl New Discv;R6 (MIDLX)	4,221,517	2.93	-0.10	0.43	6.00	6.00	13.49	12.04	9.29	10.84	7.95	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			2.37	-1.34	5.09	5.09	17.82	13.06	8.99	9.13	7.59	
Difference			-2.47	1.77	0.91	0.91	-4.33	-1.02	0.30	1.71	0.36	
IM ACWI Ex US Growth (MF) Median			1.96	0.26	7.93	7.93	19.21	14.24	9.19	9.62	7.69	
Rank			69	49	60	60	98	81	50	23	45	
Invesco Dev Mkt;R6 (ODVIX)	3,781,682	2.62	-3.87	-12.49	-6.37	-6.37	11.73	11.10	6.90	7.53	6.12	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-1.31	-9.30	-2.54	-2.54	10.94	9.87	6.11	5.49	4.79	
Difference			-2.56	-3.19	-3.83	-3.83	0.79	1.23	0.79	2.04	1.33	
IM Emerging Markets Equity (MF) Median			-1.26	-8.75	-1.60	-1.60	11.81	9.59	5.87	5.62	4.63	
Rank			83	83	79	79	51	33	32	22	24	

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

As of December 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	50,871,438	35.25	-0.07	0.12	-0.10	-0.10	5.40	3.98	3.08	2.90	3.51	01/01/2006
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.10	
Difference			-0.08	0.06	1.45	1.45	0.61	0.41	0.08	0.00	-0.59	
Bank of Oklahoma Managed Fixed Income (SA)	23,707,940	16.43	-0.21	-0.19	-0.78	-0.78	4.77	3.64	2.83	2.65	3.50	12/01/2005
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	4.14	
Difference			-0.22	-0.25	0.77	0.77	-0.02	0.07	-0.17	-0.25	-0.64	
IM U.S. Broad Market Fixed Income (SA+CF) Median			0.00	0.15	-0.74	-0.74	5.77	4.30	3.74	3.79	4.87	
Rank			88	91	53	53	94	88	98	99	99	
MetWest:Total Rtn;I (MWTIX)	7,175,011	4.97	0.03	0.26	-0.69	-0.69	6.05	4.50	3.73	4.52	4.45	08/01/2017
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.42	
Difference			0.02	0.20	0.86	0.86	1.26	0.93	0.73	1.62	1.03	
IM U.S. Broad Market Core+ Fixed Income (MF) Median			-0.16	-0.04	-0.96	-0.96	5.74	4.13	3.36	3.58	3.85	
Rank			22	22	39	39	37	28	26	9	20	
PIMCO:Income;Inst (PIMIX)	8,441,631	5.85	0.29	1.00	3.10	3.10	6.30	6.03	6.23	8.01	5.34	08/01/2017
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	3.42	
Difference			0.28	0.94	4.65	4.65	1.51	2.46	3.23	5.11	1.92	
IM Multi-Sector General Bond (MF) Median			-0.07	0.12	1.53	1.53	5.94	4.42	3.91	4.51	3.99	
Rank			22	17	22	22	40	6	2	1	8	
PIMCO:Intl Bd (DH);Inst (PFORX)	4,302,738	2.98	-0.22	-0.19	-1.11	-1.11	4.45	4.13	4.15	5.36	1.94	03/01/2020
Bloomberg US Agg Bond Index			0.01	0.06	-1.55	-1.55	4.79	3.57	3.00	2.90	1.09	
Difference			-0.23	-0.25	0.44	0.44	-0.34	0.56	1.15	2.46	0.85	
IM International Fixed Income (MF) Median			-1.20	-2.63	-5.46	-5.46	2.66	2.69	0.96	1.32	0.43	
Rank			16	12	4	4	8	6	2	1	14	

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



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

As of December 31, 2021

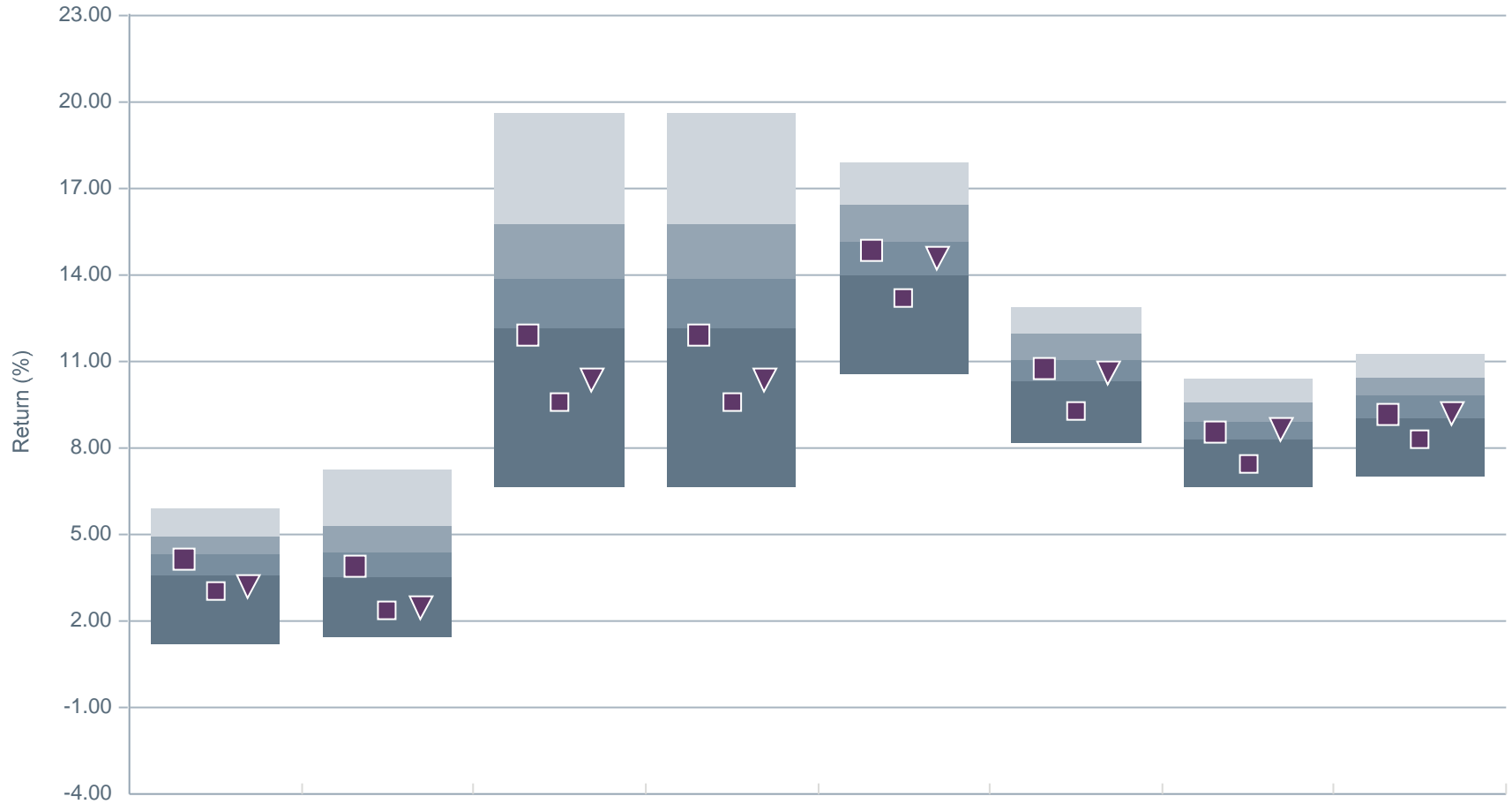
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Alternative Investments	11,572,605	8.02	2.94	2.50	9.62	9.62	9.10	5.93	4.74	4.11	3.84	12/01/2010
OWCRS Alternatives Custom Index			0.29	1.02	6.03	6.03	8.41	5.54	3.75	N/A	N/A	
Difference			2.65	1.48	3.59	3.59	0.69	0.39	0.99	N/A	N/A	
First Eagle:Global;I (SGIIX)	5,825,862	4.04	4.09	2.37	13.47	13.47	14.72	9.90	8.73	9.52	9.12	08/01/2017
MSCI Wrld Index (USD) (Net)			7.77	7.76	21.82	21.82	21.70	15.03	11.53	12.70	13.91	
Difference			-3.68	-5.39	-8.35	-8.35	-6.98	-5.13	-2.80	-3.18	-4.79	
Calamos:Mkt Neut Inc;I (CMNIX)	5,746,742	3.98	1.79	2.63	5.91	5.91	6.70	5.74	5.30	5.46	5.61	08/01/2017
Bloomberg US Govt/Credit Bond Index			0.18	0.22	-1.75	-1.75	5.50	3.99	3.30	3.13	3.81	
Difference			1.61	2.41	7.66	7.66	1.20	1.75	2.00	2.33	1.80	

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



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

As of December 31, 2021



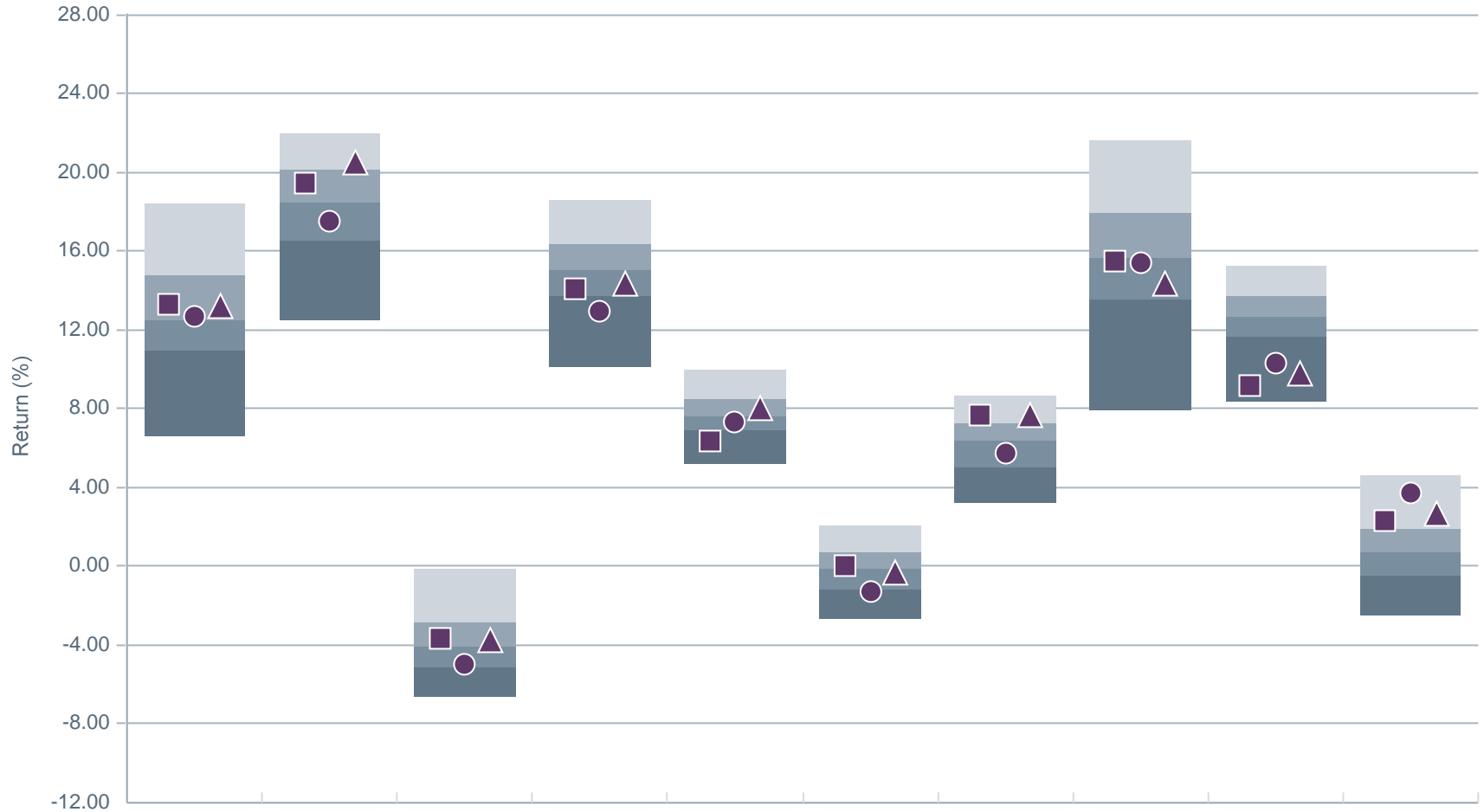
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
■ OWCERS Total Fund	4.14 (56)	3.88 (66)	11.95 (78)	11.95 (78)	14.87 (57)	10.75 (63)	8.53 (67)	9.19 (71)
■ OWCERS Policy Index	3.02 (87)	2.37 (91)	9.61 (92)	9.61 (92)	13.22 (86)	9.28 (91)	7.43 (92)	8.32 (91)
▼ OWCERS Allocation Index	3.24 (84)	2.49 (90)	10.42 (89)	10.42 (89)	14.64 (63)	10.66 (66)	8.65 (62)	9.23 (70)
5th Percentile	5.94	7.26	19.60	19.60	17.93	12.92	10.39	11.25
1st Quartile	4.96	5.32	15.80	15.80	16.45	11.95	9.60	10.43
Median	4.30	4.39	13.86	13.86	15.15	11.03	8.93	9.82
3rd Quartile	3.57	3.53	12.15	12.15	14.00	10.33	8.30	9.04
95th Percentile	1.20	1.44	6.64	6.64	10.57	8.19	6.65	7.01

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



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

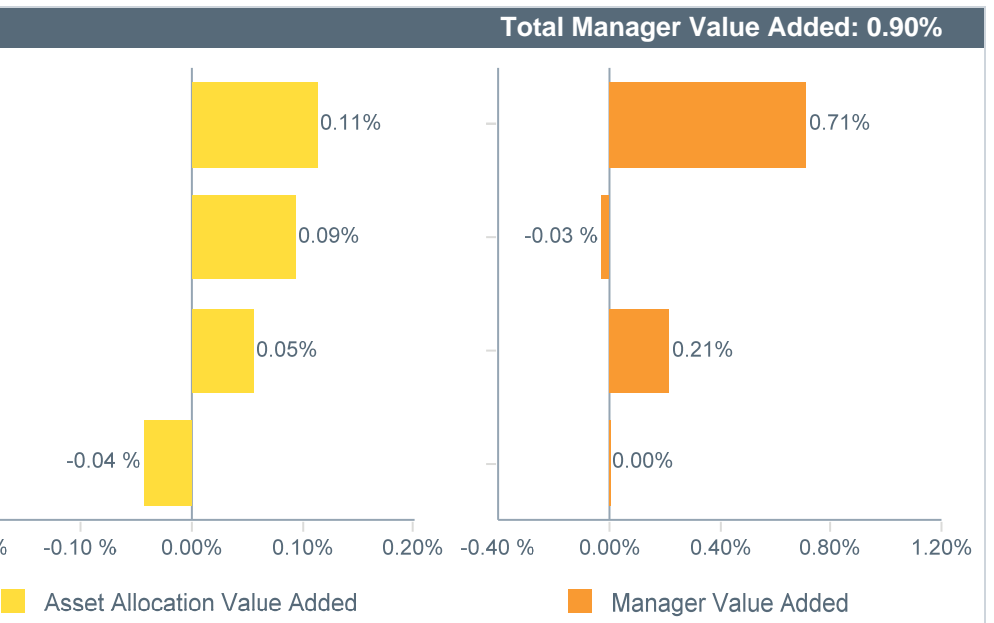
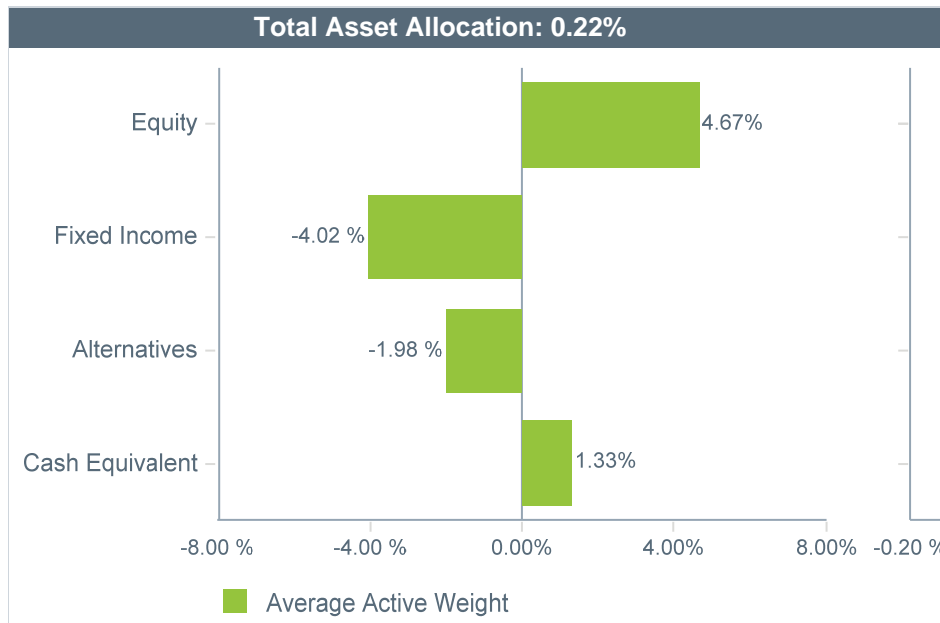
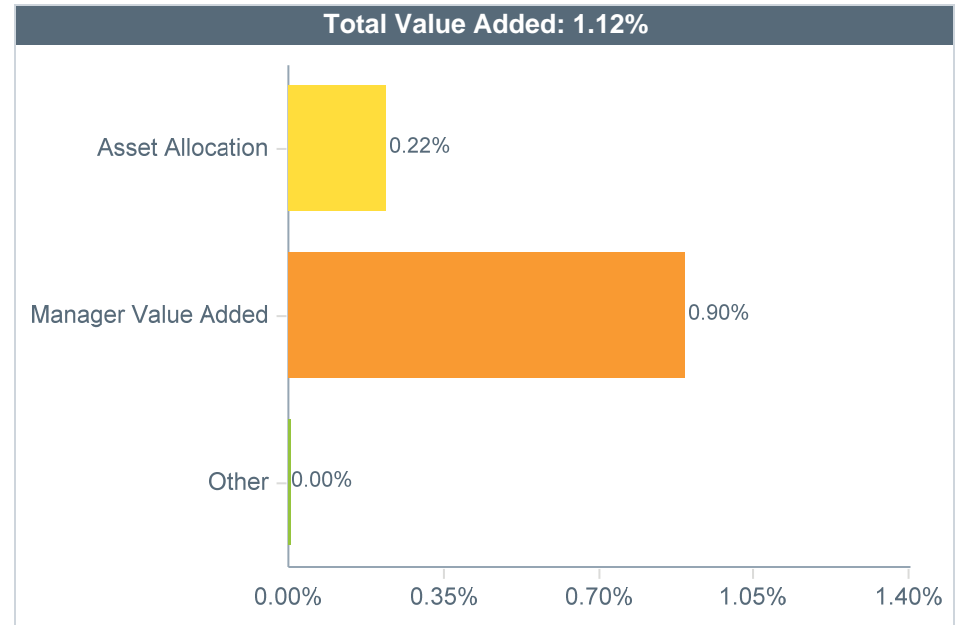
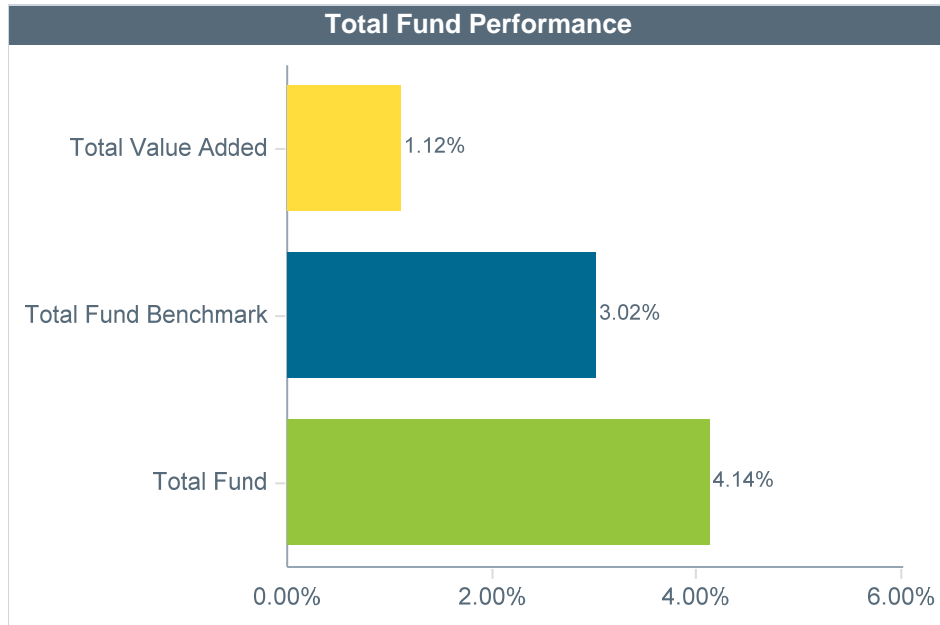
As of December 31, 2021



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
■ OWCRS Total Fund	13.34 (40)	19.46 (35)	-3.68 (44)	14.13 (70)	6.39 (85)	0.05 (45)	7.71 (17)	15.51 (54)	9.15 (94)	2.34 (20)
● OWCRS Policy Index	12.67 (49)	17.53 (63)	-4.95 (72)	12.96 (86)	7.34 (62)	-1.27 (76)	5.80 (63)	15.43 (55)	10.29 (87)	3.69 (8)
▲ OWCRS Allocation Index	13.21 (43)	20.53 (20)	-3.71 (44)	14.38 (65)	8.04 (41)	-0.28 (54)	7.68 (17)	14.39 (66)	9.78 (90)	2.68 (15)
5th Percentile	18.44	22.05	-0.14	18.63	9.95	2.08	8.66	21.67	15.24	4.64
1st Quartile	14.80	20.16	-2.90	16.43	8.49	0.71	7.25	17.95	13.79	1.92
Median	12.55	18.49	-4.05	15.09	7.65	-0.15	6.33	15.72	12.71	0.72
3rd Quartile	10.94	16.57	-5.12	13.79	6.87	-1.22	5.07	13.60	11.62	-0.47
95th Percentile	6.63	12.56	-6.66	10.14	5.24	-2.66	3.24	7.92	8.40	-2.49

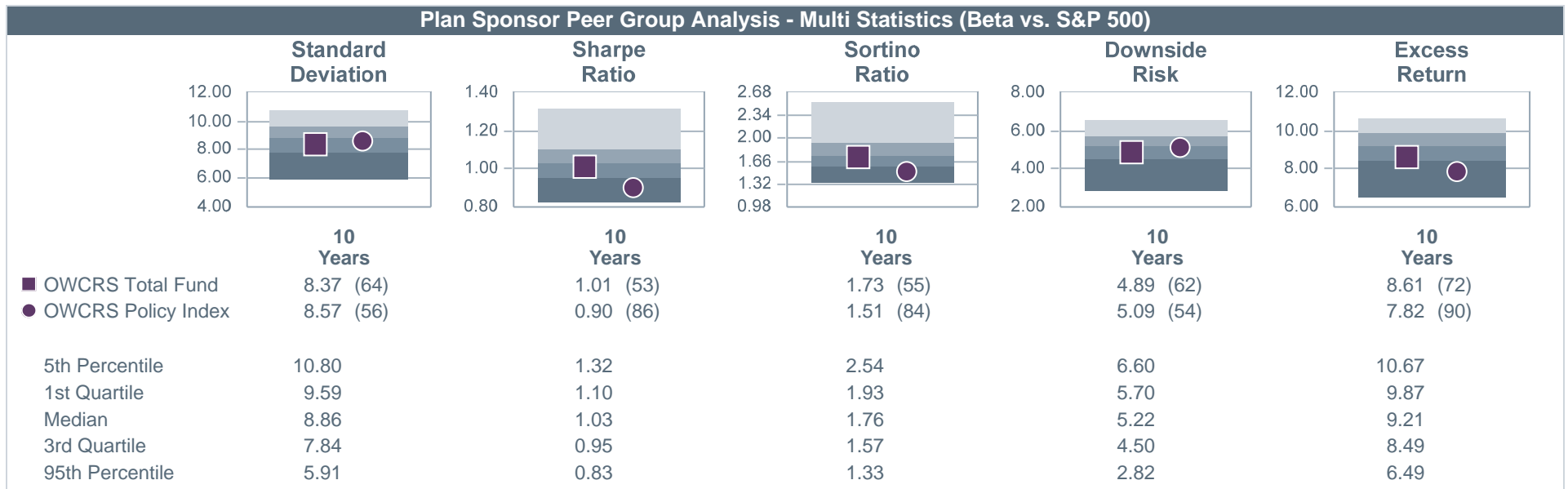
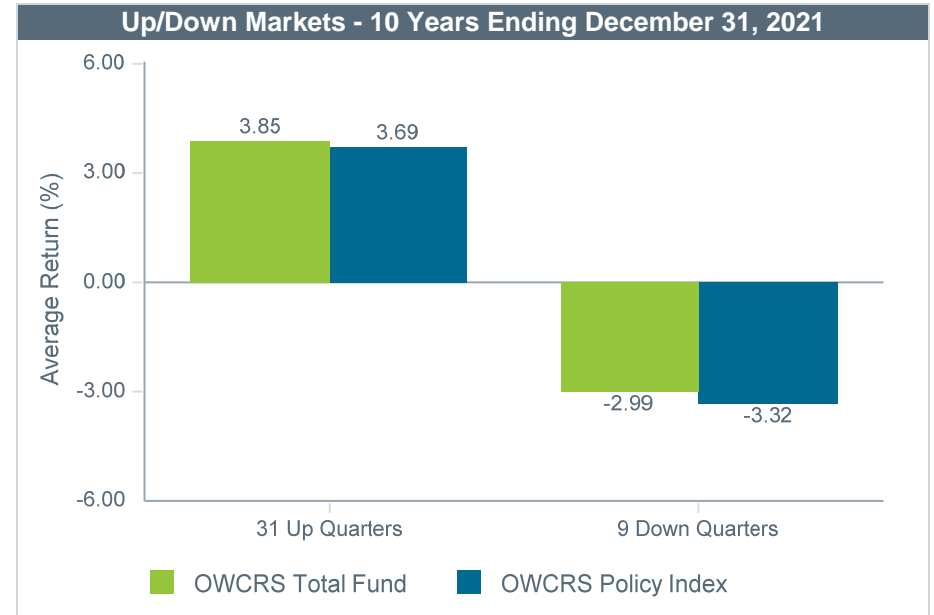
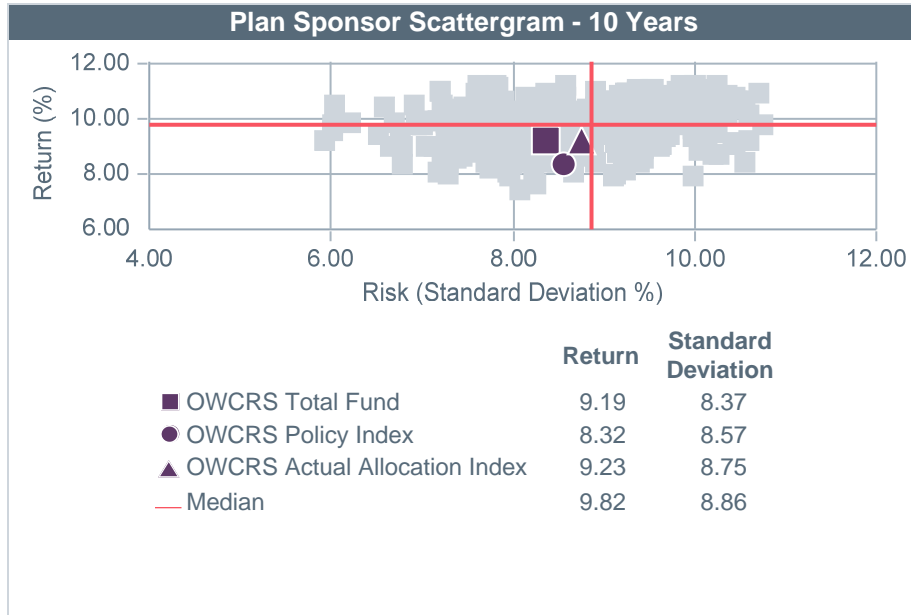
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



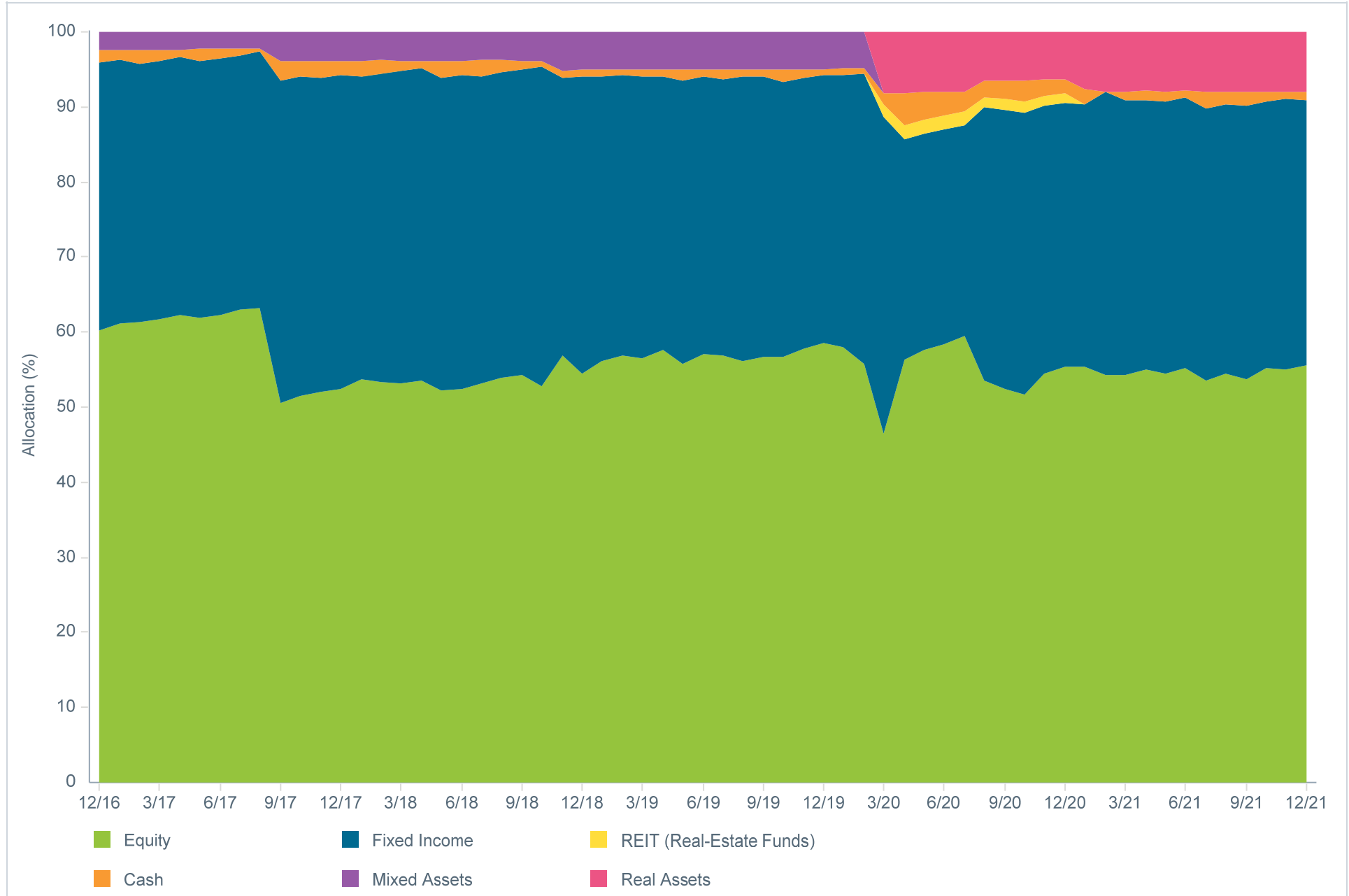


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.





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



Addendum & Glossary



Performance Comments:

- Fiscal year begins on 07/01.
- RVK began monitoring the assets of Oklahoma State Pension Commission as of 07/01/2020. Prior historical data on market values and performance was provided by the prior investment consultant and/or custodian bank.
- Manager inception dates shown reflect the first full month of performance following initial funding.
- Mutual fund performance prior to 07/01/2020 or client inception is product specific.
- Manager inception dates shown represent the first full month following initial funding.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Net of fees performance show N/A for since inception returns when the fund contains more gross of fees performance history.
- During 12/2021, SSgA Equity Index (CF) and SSgA Eq Wtd S&P Index (CF) were liquidated.
- During 12/2021, FCP Realty V LP, PIMCO Bravo IV (CF), IFM Global Infrastructure Fund LP, and OFP LGT Co-Invest Fund III were 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 43.5% Russell 3000 Index, 19% MSCI ACW ex US IMI (USD) (Net), 22% Bloomberg US Universal Bond Index, 9% NCREIF Property Index (Monthly), and 6.5% Russell 2000 Index+4%. 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) (Net), 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 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.
- **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 (AWA) (Net) (Monthly), and 8% Cambridge US Private Equity Index (Monthly). 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) (Net), 20% Bloomberg US Universal Bond Index, and 15% NCREIF ODCE Index (AWA) (Net) (Monthly). 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) (Monthly). 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, 20% MSCI ACW ex US Index (USD) (Net), 20% Bloomberg US Agg Bond Index, and 15% NCREIF ODCE Index (AWA) (Net) (Monthly). From 07/01/2020 through 01/31/2021, it consisted of 35% S&P 500 Index (Cap Weighted), 10% Russell 2000 Index, 15% MSCI ACW ex US Index (USD) (Net), 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.
- **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) (Net), 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.
- **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 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 current consists of 25% MSCI EAFE Index (USD) (Net), 25% S&P 500 Index (Cap Weighted), 25% Russell 2000 Index, and 25% S&P Mid Cap 400 Index (Gross) (Cap Weighted). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **OWCRS Alternatives Custom Index** is calculated monthly and currently consists of 100% HFRI FoF Composite Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- **Vanguard Spl Sm Cap Val Index** consists of S&P Sm Cap 600 Val Index through 05/16/03; MSCI US Sm Cap Val Index through 04/16/13; and CRSP US Sm Cap Val Index thereafter.

Glossary

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

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

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

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

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

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

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

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

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

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

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider.

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

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

Capital Markets Review -

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

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

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



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- 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

Glossary

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

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

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

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

Peer Groups -

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

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

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

1 - Highest Statistical Value 100 - Lowest Statistical Value

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

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

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

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

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

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

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

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

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

Return - Compounded rate of return for the period.

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

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

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



Glossary

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

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

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

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

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

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

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