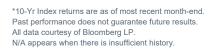


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			IVIO	I KECEI	NI WARN	ET DATA	,			_			
	As of		Up/Down	06/30/22	03/31/22	12/31/21	06/28/19	06/30/17	10-Yr	Average 20-Yr	40-Yr	Last 3 I	Months
ederal Funds Rate	08/08/22	2.33%	Op/Down	1.58%	0.33%	0.07%	2.40%	1.06%	0.66%	1.27%	3.79%	Last 3 i	vioritris
easury - 1 Year	08/08/22	3.30%	Â	2.80%	1.63%	0.39%	1.92%	1.24%	0.84%	1.41%	3.87%		
easury - 2 Year	08/08/22	3.21%	A	2.92%	2.28%	0.73%	1.75%	1.38%	1.03%	1.62%	4.21%	~	~
easury - 5 Year	08/08/22	2.91%	▼	3.01%	2.42%	1.26%	1.76%	1.89%	1.55%	2.26%	4.79%		
easury - 10 Year	08/08/22	2.77%	▼	2.98%	2.32%	1.52%	2.00%	2.31%	2.08%	2.92%	5.28%		-
easury - 30 Year	08/08/22	3.00%	▼	3.14%	2.44%	1.90%	2.52%	2.84%	2.72%	3.32%	5.81%	~~~	~~
Month LIBOR	08/08/22	2.91% 2.28%	A	2.29% 1.50%	0.96%	0.21%	2.32%	1.30% N/A	0.92% N/A	1.57% N/A	3.64% N/A		
ecured Overnight Financing Rate eakeven Inflation - 5 Year	08/08/22	2.70%		2.62%	3.43%	2.91%	1.54%	1.66%	1.86%	1.90%	N/A N/A	-	_
eakeven Inflation - 10 Year	08/08/22	2.47%	Ā	2.34%	2.83%	2.59%	1.70%	1.74%	1.98%	2.07%	N/A		-
eakeven Inflation - 30 Year	08/08/22	2.25%	A	2.21%	2.44%	2.38%	1.76%	1.85%	2.04%	2.26%	N/A		-
oomberg US Agg Bond Index - Yield	08/08/22	3.59%	▼	3.72%	2.92%	1.75%	2.49%	2.55%	2.29%	3.22%	4.79%		~~
oomberg US Agg Bond Index - OAS	08/08/22	0.50%	V	0.55%	0.41%	0.36%	0.46%	0.43%	0.47%	0.59%	N/A		min
oomberg US Credit Index - OAS	08/08/22	1.32%	▼	1.43%	1.08%	0.87%	1.09%	1.03%	1.19%	1.39%	N/A		
oomberg US Corp: Hi Yld Index - OAS apacity Utilization	08/08/22	4.26% 80.05%	▼	5.69% 80.05%	3.25% 79.94%	2.83% 78.74%	3.77% 78.54%	3.64% 76.67%	4.32% 77.08%	5.12% 76.91%	N/A 78.90%	_	
Unemployment Rate	07/31/22	3.50%	▼	3.60%	3.60%	3.90%	3.60%	4.30%	5.45%	6.06%	6.08%		_
ISM PMI - Manufacturing	07/31/22	52.80%		53.00%	57.10%	58.80%	52.60%	56.20%	54.53%	53.66%	52.72%		
Baltic Dry Index - Shipping	08/08/22	1,566	▼	2,240	2,358	2,217	1,354	901	1,325	2,423	N/A		
onsumer Confidence (Conf. Board)	07/31/22	95.70	▼	98.40	107.60	115.20	131.30	117.30	103.98	90.79	95.95		
PI YoY (Headline)	06/30/22	9.10%	_	9.10%	8.50%	7.00%	1.80%	1.60%	2.19%	2.34%	2.78%		
PI YoY (Core)	06/30/22	5.90%	_	5.90%	6.50%	5.50%	2.00%	1.70%	2.31%	2.11%	2.84%		
PI YoY - Producer Prices	06/30/22	18.60%	_	18.60%	15.30%	12.30%	1.30%	2.10%	2.22%	2.80%	2.30%		
CE YoY - Consumer Prices S Dollar Total Weighted Index	06/30/22	4.79% 122.41	_	4.79% 121.05	5.22% 115.35	4.89% 115.32	1.61% 114.58	1.70%	1.95% 108.89	1.89%	2.43% 90.26		
TI Crude Oil per Barrel	08/08/22	\$91	V	\$106	\$100	\$75	\$58	\$46	\$66	\$67	\$45		
old Spot per Oz	08/08/22	\$1,789	*	\$1,807	\$1,937	\$1,829	\$1,410	\$1,242	\$1,438	\$1,133	\$749		
			M	ARKET P	PERFORM	IANCE							
	As of	1-Day	MTD	QTD	CYTD	1-Yr	3-Yr	5-Yr	10-Yr*	2021	2020	2019	20
comberg US Corp: Hi Yld Index	08/08/22	0.31	0.97	6.93	-8.25	-6.95	2.49	3.25	4.92	5.28	7.11	14.32	-2
Morgan CEMBI Diversified Index	08/08/22	0.23	0.63	1.94	-13.07	-13.83	-1.21	1.23	3.24	0.49	7.35	13.55	-1
Morgan EMBI Global Diversified Index	08/08/22	0.61	1.52	4.46	-16.76	-18.18	-4.35	-0.60	2.12	-1.80	5.26	15.04	-4
Morgan GBI EM Global Diversified Index	08/08/22	0.66	1.41	1.71	-13.07	-16.77	-5.18	-2.37	-1.68	-8.75	2.69	13.47	-6
SCI ACW Ex US Growth Index (Net)	08/08/22	0.56	0.47	6.00	-20.28	-20.83	4.52	3.80	6.14	5.09	22.20	27.34	-14
SCI ACW Ex US Index (Net)	08/08/22	0.69	0.46	3.90	-15.24	-15.75	4.17	2.40	5.12	7.82	10.65	21.51	-14
SCI ACW Ex US Value Index (Net) SCI ACW Growth Index (Net)	08/08/22	0.84	0.44 1.14	1.78 11.41	-10.22 -19.69	-10.68 -16.77	3.31	0.66 10.77	3.89 11.18	10.46 17.10	-0.77 33.60	15.71 32.72	-13 -8
SCI ACW Index (Net)	08/08/22	0.04	0.52	7.54	-14.17	-10.77	9.50	7.88	9.36	18.54	16.25	26.60	-o -9
SCI ACW Value Index (Net)	08/08/22	0.38	-0.11	3.85	-8.97	-5.43	6.36	4.45	7.24	19.62	-0.33	20.58	-10
SCI EAFE Growth Index (Net)	08/08/22	0.92	0.10	8.03	-20.92	-19.88	4.69	4.46	6.98	11.25	18.29	27.90	-12
SCI EAFE Index (Net)	08/08/22	1.05	0.40	5.40	-15.22	-14.87	4.19	2.57	5.87	11.26	7.82	22.01	-13
SCI EAFE Value Index (Net)	08/08/22	1.19	0.71	2.81	-9.65	-10.17	3.08	0.27	4.51	10.89	-2.63	16.09	-14
SCI EAFE Small Cap Index (Net)	08/08/22	1.10	0.58	7.23	-19.26	-20.29	4.59	2.31	7.90	10.10	12.34	24.96	-17
SCI Emerging Markets Index (Net) asdag Composite Index	08/08/22	-0.10 -0.10	0.86 2.08	0.61 14.72	-17.12 -18.80	-20.34 -14.13	2.94 17.30	0.88 15.80	2.95 16.73	-2.54 22.21	18.31 45.05	18.42 36.74	-14 -2
1000 Growth Index	08/08/22	-0.10	1.26	13.42	-18.42	-11.66	16.83	16.46	15.87	27.59	38.49	36.39	-1
1000 Index	08/08/22	-0.03	0.64	10.01	-13.04	-7.14	13.66	12.64	13.61	26.43	20.95	31.42	-4
1000 Value Index	08/08/22	0.21	-0.02	6.61	-7.11	-2.33	9.58	8.27	11.01	25.12	2.78	26.52	-8
1000 Defensive Index	08/08/22	-0.10	0.23	6.83	-12.39	-6.14	10.98	12.50	12.97	26.93	13.93	30.47	-0
2000 Growth Index	08/08/22	1.07	4.07	15.72	-18.37	-20.80	6.80	7.90	10.47	2.82	34.61	28.43	-9
2000 Index	08/08/22	1.01	2.99	13.75	-12.92	-12.63	9.51	7.94	10.44	14.78	19.93	25.49	-11
2000 Value Index	08/08/22	0.96	1.91	11.78	-7.60	-4.03 -19.94	11.34	7.32	10.06	28.21	4.60	22.36	-12
2500 Growth Index 2500 Index	08/08/22 08/08/22	0.97	3.67 2.13	15.49 12.70	-18.52 -11.88	-19.94 -9.99	8.66 10.57	10.52 9.56	12.03 11.53	5.04 18.18	40.47 19.99	32.65 27.77	-7 -10
2500 Index 2500 Value Index	08/08/22	0.92	1.17	10.96	-7.53	-2.99	10.57	7.74	10.52	27.78	4.88	23.56	-12
3000 Growth Index	08/08/22	-0.17	1.43	13.55	-18.41	-12.24	16.17	15.87	15.50	25.85	38.26	35.85	-2
3000 Index	08/08/22	0.04	0.78	10.24	-13.02	-7.48	13.39	12.33	13.40	25.66	20.89	31.02	-5
3000 Value Index	08/08/22	0.26	0.10	6.92	-7.13	-2.41	9.71	8.22	10.95	25.37	2.87	26.26	-8
Microcap Index	08/08/22	0.99	5.80	16.34	-12.88	-15.83	12.46	8.12	10.08	19.34	20.96	22.43	-13
Mid Cap Index	08/08/22	0.37	2.75	15.32	-20.43	-20.16	8.85	11.80	12.67	12.73	35.59	35.47	-4
Mid Cap Index Mid Cap Value Index	08/08/22 08/08/22	0.52 0.60	1.21 0.36	11.20 9.00	-12.79 -8.69	-9.43 -3.28	10.50 10.24	10.10 7.97	12.21 11.40	22.58 28.34	17.10 4.96	30.54 27.06	-9 -12
RP 500 Index (Cap Wtd)	08/08/22	-0.12	0.36	9.51	-12.36	-5.32	13.95	12.81	13.72	28.68	18.39	31.47	-12 -4
comberg Global Agg Bond Index comberg US Agg Bond Index	08/08/22	0.50 0.45	-0.38 -0.59	1.74 1.84	-12.41 -8.70	-14.50 -9.27	-3.01 -0.86	-0.52 1.14	0.24 1.68	-4.71 -1.54	9.20 7.51	6.84 8.72	- 1
comberg US Agg Bond Index	08/08/22	0.45	-0.59	2.67	-8.70 -11.50	-9.27 -11.92	-0.86	1.14	2.54	-1.54	9.35	13.80	-2
comberg 14 Yr LDI Index	08/08/22	0.99	-0.09	4.52	-16.59	-16.78	-1.91	1.96	3.13	-2.52	13.98	21.51	-2 -6
comberg US Gov't Bond Index	08/08/22	0.45	-0.45	1.12	-8.02	-8.66	-1.08	0.92	1.12	-2.28	7.94	6.83	C
comberg US Gov't/Cred: 1-3 Yr Bond Index	08/08/22	0.08	-0.50	0.03	-3.08	-3.64	0.16	1.02	1.04	-0.47	3.33	4.03	1
comberg US Gov't/Cred: LngTrm Bond Index		1.16	0.37	4.14	-18.65	-18.25	-2.47	1.76	2.68	-2.52	16.12	19.59	-4
comberg US Gov't: 1-3 Yr Bond Index	08/08/22	0.06	-0.47	-0.09	-2.96	-3.51	0.03	0.86	0.78	-0.55	3.05	3.52	1
comberg US Gov't: Lng Trm Bond Index	08/08/22	1.39	0.73	3.42	-18.51	-17.80	-3.63	1.18	1.70	-4.57	17.55	14.75	-1
comberg US Long Credit Index	08/08/22 08/08/22	0.98	0.08 -1.02	4.73 2.16	-18.73 -6.81	-18.55 -7.40	-2.15 -1.01	1.83 0.67	3.22 1.43	-1.18 -1.04	13.32 3.87	23.36 6.35	- 6
comberg US Muni Bond Index	08/08/22	0.40	-0.07	2.10	-6.64	-6.88	0.06	1.82	2.49	1.52	5.21	7.54	1
SE Non-US Wrld Gov't Bond Index	08/08/22	0.66	-0.13	1.98	-17.13	-21.36	-6.41	-2.73	-1.57	-9.68	10.78	5.32	-1
RP/LSTA Leveraged Loan Index	08/08/22	0.28	1.10	3.26	-1.44	0.38	2.98	3.41	3.84	5.20	3.12	8.64	0
E BofAML 3 Mo US T-Bill Index	08/08/22	0.01	0.04	0.09	0.24	0.26	0.58	1.11	0.64	0.05	0.67	2.28	1
oomberg US TIPS 0-5 Index	08/08/22	0.28	-0.90	0.90	-0.50	1.11	3.62	3.09	1.79	5.34	5.07	4.85	0
oomberg US Trsy: US TIPS Index	08/08/22	0.69	-1.00	3.31	-5.91	-3.85	3.56	3.72	2.04	5.96	10.99	8.43	-1
comberg Precious Metals Index (TR)	08/08/22	1.49	1.55	-0.44	-4.81	-3.08	4.60	5.42	N/A	-6.11	25.60	17.02	-4
oomberg Cmdty Index (TR)	08/08/22	-0.45	-3.65	0.46	18.98	24.64	15.69	8.12	N/A	27.11	-3.12	7.69	-11
TSE EPRA/NAREIT Glbl Index (USD)	08/08/22	0.80	-1.24	5.60	-15.46	-12.07	-0.29	2.17	4.79	22.01	-9.95	22.50	-6
SE NAREIT Comp TR Index	08/08/22	0.87	-0.88	7.83	-12.87	-3.66	6.05	7.82	8.68	40.02	-5.98	28.21	-3
SE NAREIT Eq REITs TR Index	08/08/22	0.84	-0.83	7.64	-13.00	-3.32	6.57	8.24	9.01 -2.53	41.30	-5.12	28.66	-4.
oldman Sachs Commodities Index (GSCI)	08/08/22	0.43	-5.61	-5.65	28.12	39.51	15.12	9.60		40.35	-23.72	17.63	-13





Executive Summary



OKLAHOMA STATE PENSION COMMISSION Q2 2022 EXECUTIVE SUMMARY

Economic and Capital Market Review

Equity and fixed income markets declined significantly during the quarter while credit spreads widened amidst a very difficult period for nearly all asset classes. The inflationary environment worsened in Q2, even as global central banks moved aggressively to tighten monetary policy. Economic forecasters gradually reduced expectations for global GDP growth with the Organization for Economic Cooperation and Development (OECD) reducing its full year global GDP growth projection from 4.5% at the beginning of 2022 to 3.0% in June. Supply chain disruptions tied to the war in Ukraine and China's zero-COVID policy worked to keep inflation elevated and served to erode the purchasing power of consumers, while global central banks were forced to indicate increasingly restrictive monetary actions. Tightening financial conditions, falling growth, and persistent inflationary pressure proved disastrous for investor portfolios. The S&P 500 returned -16.1% during Q2, bringing its year-to-date return to -20.0%, the worst start for the index since 1970. Core bonds, normally a useful diversifier in down equity markets, returned -4.7%, bringing yearto-date returns for the Bloomberg US Aggregate Bond Index to -10.4%. Even commodities, which performed extraordinarily well in Q1, returned -5.7% in Q2, as the industrial metals complex rolled over amid global growth concerns. Emerging market equities modestly outperformed their developed market counterparts returning -11.4% in Q2. Notably, China was the only emerging market to generate a positive return. The US Dollar was bid up 4.9% during Q2 on a trade-weighted basis as cross currency flows favored the higher path of interest rates in the US. Key market index returns as of June 30, 2022 can be observed in Figure 1 below.

Figure 1: Key Market Index Returns
Period Ending June 30, 2022

Index	Asset Class	QTD	CYTD	1 Year	5 Year	10 Year
S&P 500 Index	US Equity	-16.1	-20.0	-10.6	11.3	13.0
MSCI ACW Ex-US Index (Net)	International Equity	-13.7	-18.4	-19.4	2.5	4.8
Bloomberg US Agg	US Fixed Income	-4.7	-10.3	-10.3	0.9	1.5
NCREIF ODCE (AWA) (Net)	Core Real Estate	4.5	12.0	28.3	9.6	10.2
HFRX Absolute Return Index	Hedge Funds	-1.1	-1.0	-1.3	1.9	1.9
Bloomberg Commodity Index	Commodities	-5.7	18.4	24.3	8.4	-0.8

Inflation, as measured by the Consumer Price Index (CPI), ticked up to 9.1% by the end of June, defying forecasts for moderation earlier in the quarter. Core CPI (excluding food and energy), which the US Federal Reserve (Fed) views as a better measure of true underlying inflation, accelerated at a more modest 5.9%. The tight labor market and its corresponding effects on wage growth remain top concerns for the Fed. The unemployment rate finished Q2 at 3.6% while non-farm payroll growth averaged just under 375k per month. To put that in perspective, the strongest quarter for job growth in the post-financial crisis recovery came in Q2 2014, where job gains averaged 290k per month. Indeed, the US currently has roughly two job openings for every unemployed individual according to the latest Job Openings and Labor Turnover Survey (JOLTS). Additionally, according to Atlanta Fed's wage tracker, the average annual wage growth is accelerating at 6.7% based on a 3-month moving average.

The ongoing broadening of inflation dynamics and persistent labor market strength forced the Fed into a more hawkish monetary policy stance. During its June meeting, the Federal Open Market Committee (FOMC) raised the federal funds rate by 0.75%, though it had guided to 0.50% just days earlier. Following the June CPI release, a 1.0% increase at the FOMC meeting in July is now the most likely scenario based on probabilities implied by traders. While forecasters increasingly cite rising recession risks in the US, the data is less clear. The Atlanta Fed's GDP Nowcast indicates a modest contraction of growth in Q2, with declining residential investment and the private inventory overhang as key negative effects. However, manufacturing and services Purchasing Managers' Indexes (PMIs) indicate expansion, ending June at 53.0 and 55.3, respectively.

Inflation is not just a US phenomenon. The OECD June Economic Outlook report forecasted global inflation to end 2022 near 9%, roughly double its published forecast from December 2021. In response, the European Central Bank recently announced a plan to end its asset purchase program and begin raising interest rates at its July meeting, while the Bank of England similarly moved forward with a fifth straight 0.25% rate hike in June. The policy outlier across major central banks is China, where policy makers have moved toward easing as the country's zero-COVID policy and related lockdowns have brought into question the country's ability to hit annual growth targets without further government support.

Performance Highlights

Total Fund Performance and Attribution

During the 2nd Quarter of 2022, the Oklahoma State Pension Funds produced negative returns, ranging between -7.4% to -12.6% net of fees. For the fiscal year ended June 30th, returns ranged from -3.9% to -14.9%. Relative to policy benchmarks, performance was mixed over the trailing 12-month period, as three out of seven plans outperformed their respective policy benchmark net of fees. Detailed comparative performance of the seven plans can be found on **pages 13-16** of the performance report.

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

- High Allocation to Growth Oriented Assets Overall, the Pension Plans have a higher than
 median allocation, when compared to their peers, to growth-oriented assets. This remains
 appropriate given the Plans' extended time horizons, healthy funded statuses, cash needs, and
 tolerance for risk. However, such risk posturing can lead to meaningful drawdowns that the plans
 have experienced thus far in 2022.
- 2. Bias Toward US Equities In general, the Pension Plans are invested more heavily in US equities. While international equities have held up slightly better than their US counterparts year-to-date, this strategic tilt has benefited the plans over the longer-term as US stocks continue to outpace international over the trailing 10-year time period. This may be appropriate since the plans liabilities are influenced by US economic conditions
- 3. **Avoidance of Dilutive Asset Classes** Institutional investors are constantly approached with marketing pitches on new investment strategies. Many of these strategies many only add alpha during one type of market environment or are largely unproven over multiple market cycles. They

may add portfolio complexity and higher costs without providing commensurate benefits, or tend to shift into new asset classes after an increase in their performance. In comparison to peers, the Oklahoma Pension Plans have resisted the temptation to invest in these products, which have kept fees low and avoided the unnecessary dilution of returns.

4. Selective Use of Active Management – When evaluating the potential benefits and costs of active management, it is often the case that the costs outweigh the benefits. The relative magnitude of these gap varies by asset class and the unique attributes of the investors themselves. In general, the Oklahoma State Pension Plans have employed active management strategies in a manner that extracted benefits that have exceeded the associated costs. This has enhanced absolute returns and performance relative to peers.

Despite negative returns through the first half of the year, RVK continues to believe that the Oklahoma Plans are well-positioned and are appropriately monitored for success in a manner that aligns with each Plan's objective, risk tolerance, constraints, and unique competitive advantages.

Asset Class Performance - Q2 2022

Asset class returns varied during the first quarter, with challenging equity and fixed income results driving performance. Performance highlights for specific asset classes are provided below, and detailed performance numbers can be found on **pages 17-28** of the performance report.

- US Equity Absolute US equity returns declined during Q2. Relative to benchmarks, returns varied, with three out of six plans outperforming their respective benchmarks. US equity returns ranged from approximately -17.4% (Law Enforcement) to -14.8% (Teachers). Longer term performance over 3-, 5-, 7-, and 10-year periods continues to mostly lag broad indexes of US equities.
- 2. International Equity International equity returns were negative on an absolute basis, though underlying Plan generally kept pace or outperformed their asset class benchmark during the second quarter. Returns for the quarter ranged from approximately -15.0% (Teachers) to -12.2% (Wildlife). The use of active management in this asset class has yielded 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 almost all trailing periods.
- 3. **Fixed Income** Fixed income absolute and relative returns were negative in the second quarter with all seven plans trailing their respective asset class benchmarks. Returns ranged from approximately -8.1% (Firefighters) to -5.0% (Police). Over longer periods of time, as measured by 7- and 10-year periods, most plans are exceeding or roughly flat against their respective benchmarks.

- 4. **Real Estate** Real estate returns are largely reported on a lagged basis and were positive for the quarter and the trailing year. For the quarter, the NFI-ODCE Index (Net) delivered a return of 4.5%, comprised of 0.6% income and 3.9% appreciation.
- 5. **Hedge Funds** Hedge funds returns were negative in the second quarter. Returns ranged from a low of approximately -14.2% (Police) to a high of -0.9%. (Firefighters). Longer-term returns for Oklahoma Plans' hedge fund allocations have been challenged, providing negative to low single-digit positive returns over the trailing 7- and 10-year time periods.
- 6. Private Equity Private equity produced mostly positive returns over the quarter, but the level of performance varied across the different pension plans. This variability is consistent with expectations given that each plan has different exposures by investment strategy and vintage year. Further, performance versus benchmarks varied considerably, but this is primarily due to the fact that one plan (Teachers) uses a public equity benchmark, while the others use a private benchmark.

Long-Term Performance

In aggregate, the 5-Year and 10-Year absolute and risk-adjusted returns for the Oklahoma Pension Plans continue to compare favorably relative to peers. Three out of seven plans performed at or above median on both metrics. Performance is more favorable on an asset-weighted basis, with 68.6% outperforming the median plan over the trailing 10-year period. The 5-Year and 10-Year return metrics are provided below in **Figure 3** and **Figure 4**.

Figure 3: Five and Ten-Year Performance of Oklahoma Pension Plans
Ordered by Level of 10-Year Net-of-Fees Return as of June 30, 2022

Plan	Percent of	5-Year Return	10-Year Return	10-Year Rank vs.
	Assets	Net of Fees	Net of Fees	All Public Plans ¹
Firefighters	8.6	7.8	9.0	3 rd
Teachers	52.0	6.9	8.7	6 th
Police	8.0	7.2	7.6	31 st
Public Employees	27.5	5.5	7.2	65 th
Judges	1.0	5.5	7.1	69 th
Law Enforcement	2.9	5.6	6.9	62 nd
Wildlife	0.3	5.4	6.7	78 th

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

Figure 4: 10-Year Risk-Adjusted Returns for Oklahoma Pension Plans
Ranked by Sharpe Ratio as of June 30, 2022

	Plan	Percent of	Sharpe	10-Year Rank vs.
_		Assets	Ratio	All Public Plans
	Police	8.0	0.92	12 th
68.6% of \prec	Firefighters	8.6	0.87	15 th
assets	Teachers	52.0	0.79	32 nd
	Law Enforcement	2.9	0.71	60 th
	Wildlife	0.3	0.69	71 st
	Public Employees	27.5	0.65	81 st
	Judges	1.0	0.64	84 th

Individual Plan Performance Highlights

Oklahoma Teachers' Retirement System (OTRS)

Detailed performance of the OTRS plan begins on **page 40** of the performance report. As of June 30, 2022, the market value of assets for OTRS was approximately **\$19.56 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OTRS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS Total Fund (Net)	-9.88	-14.31	-9.54	-9.54	6.61	6.94	6.62	8.72
OTRS Policy Index	-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35
Difference	1.48	0.95	1.49	1.49	0.05	-0.12	-0.34	0.37
OTRS Actual Allocation Index	-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42
Difference	2.05	1.88	2.56	2.56	0.17	0.20	-0.02	0.30
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	47	55	45	45	24	25	30	6

Commentary

The OTRS Total Fund returned -9.88% for the quarter, outperforming its policy index by 148 basis points. The largest sources of outperformance over the quarter were the Private Equity and Private Debt allocations, which outpaced their benchmarks by 20.22% and 8.30%, respectively. Over long-term periods, the Plan has provided mixed returns relative to its policy index; however, the Plan outperformed its policy index by 37 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 the trailing 3-year and all longer time periods. Favorable peer rankings were driven by the higher allocation to public equities (and US equity in particular) relative to other public plans. This posturing, however, proved challenging during the second quarter.

In summary, while the OTRS Plan has delivered negative absolute returns for the calendar year-to-date, longer-term performance remains robust and has outperformed its Policy Index by 0.37% annually over the trailing 10-year period. In addition, the Plan has produced strong returns relative to peers over longer-term trailing periods. Finally, on a risk-adjusted basis, the Plan ranks above median relative to other public plans, as well as other Oklahoma plans, as illustrated in **Figure 4** on the previous page.

Oklahoma Public Employees Retirement System (OPERS)

Detailed performance of the OPERS plan begins on **page 61** of the performance report. As of June 30, 2022, the market value of assets for OPERS was approximately **\$10.38 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPERS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPERS Total Fund (Net)	-12.51	-17.44	-14.67	-14.67	4.49	5.54	5.74	7.23
OPERS Policy Index	-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14
Difference	-0.15	-0.17	-0.10	-0.10	0.13	-0.02	-0.12	0.09
OPERS Actual Allocation Index	-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45
Difference	-0.01	-0.03	0.01	0.01	-1.08	-0.58	-0.51	-0.22
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	96	94	94	94	78	76	72	65

Commentary

The OPERS Total Fund continues to provide returns in line with its policy index over all periods but has ranked below median over almost all periods relative to a broad peer group of public plans. Among active equity strategies, value-oriented managers were moderately successful in exceeding their benchmarks for the quarter, but growth-oriented strategies generally trailed their respective benchmarks. Enhanced US equity strategies added value above their benchmarks, while the enhanced Fixed Income exposure trailed the Bloomberg US Agg Bond Index.

In summary, the OPERS plan has generated long-term returns in line with its policy index but has lagged relative to peers over all trailing periods shown. 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 78** of the performance report. As of June 30, 2022, the market value of assets for OFPRS was approximately **\$3.24 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OFPRS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OFPRS Total Fund (Net)	-9.61	-13.76	-10.57	-10.57	6.77	7.81	7.64	8.98
OFPRS Policy Index	-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17
Difference	0.83	-0.24	-2.63	-2.63	-0.74	-0.07	-0.32	-0.19
OFPRS Actual Allocation Index	-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10
Difference	0.19	-0.88	-2.68	-2.68	-1.49	-0.42	-0.27	-0.12
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	42	47	54	54	19	8	7	3

Commentary

The Firefighters Plan continues to demonstrate the strongest long-term returns among the seven Oklahoma pension plans on an absolute basis. The Plan outperformed its policy and actual allocation index in the second quarter, but has trailed over all longer periods. Relative to peers, however, the Firefighters has ranked above median over all trailing periods shown above. Over the trailing ten years, on a risk-adjusted basis, the Plan ranked in the 15th percentile relative to a broad peer group of public pension plans and 2nd among the group of seven Oklahoma pension plans.

In summary, the Firefighters' Plan has generally outpaced the performance of peers and other Oklahoma pension plans and has exceeded its required return of 7.5% over the trailing 5-, 7-, and 10-year periods. In addition, the Plan has performed well on a risk-adjusted basis, ranking in the 15th percentile relative to other public plans and 2nd among the other Oklahoma Plans.

Oklahoma Police Pension & Retirement System (OPPRS)

Detailed performance of the OPPRS plan begins on **page 105** of the performance report. As of June 30, 2022, the market value of assets for OPPRS was approximately **\$3.01 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPPRS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPPRS Total Fund (Net)	-7.37	-9.46	-3.86	-3.86	7.84	7.21	6.60	7.64
OPPRS Policy Index	-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99
Difference	3.21	4.35	4.78	4.78	1.83	0.93	0.63	0.65
OPPRS Actual Allocation Index	-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82
Difference	3.14	4.35	5.09	5.09	2.00	1.17	0.92	0.82
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	16	13	11	11	8	14	27	31

Commentary

The Police Plan provided absolute returns that ranked above median and 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 12th 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 its 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 outpaced the performance of peers and other Oklahoma pension plans in terms of absolute returns and, over the trailing 10-year period has delivered annualized returns in excess of its 7.5% actuarial rate. The Plan also 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 119** of the performance report. As of June 30, 2022, the market value of assets for OLERS was approximately **\$1.08 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OLERS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OLERS Total Fund (Net)	-9.98	-14.10	-10.52	-10.52	5.19	5.63	5.40	6.91
OLERS Policy Index	-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86
Difference	0.52	-0.40	-1.81	-1.81	-1.03	-0.99	-1.21	-0.95
OLERS Actual Allocation Index	-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11
Difference	0.93	0.49	-0.01	-0.01	-3.06	-2.11	-1.97	-1.20
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	47	50	53	53	50	59	70	62

Commentary

The Law Enforcement Plan generated a return of -9.98% for the quarter, outpacing both its Policy Index and Actual Allocation Index by 0.52% and 0.93%, respectively. Outperformance was driven primarily by Private Equity, which ended the quarter with a -0.06% return, leading the S&P 500 Index + 5% by 15.01%. Long/Short Equity and US Small Cap also contributed to positive relative performance, as each outperformed their benchmarks by 2.16% and 0.78%, respectively.

In summary, the OLERS Plan has ranked slightly below median relative to peers for most trailing periods and has trailed other Oklahoma plans in terms of absolute returns over various trailing periods. The Plan has also ranked slightly below peers on a risk-adjusted basis, as represented by a Sharpe ratio, ranking in the 60th percentile relative to peers over the trailing 10-year period.

Uniform Retirement System for Justices & Judges (URSJJ)

Detailed performance of the URSJJ plan begins on **page 135** of the performance report. As of June 30, 2022, the market value of assets for URSJJ was approximately **\$357.44 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

URSJJ Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
URSJJ Total Fund (Net)	-12.61	-17.56	-14.86	-14.86	4.36	5.49	5.76	7.14
URSJJ Policy Index	-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15
Difference	-0.25	-0.29	-0.29	-0.29	-0.01	-0.08	-0.11	-0.01
URSJJ Actual Allocation Index	-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36
Difference	-0.13	-0.16	-0.16	-0.16	-1.13	-0.61	-0.40	-0.22
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	97	95	95	95	84	79	76	69

Commentary

The Judges Plan generated a 10-year absolute return that ranked 5th relative to other Oklahoma Pension Plans, and in the 69th percentile relative to a broad peer group of public plans over the trailing 10 years. Fixed Income was the primary detractor from performance, trailing the custom index by 0.38%. Over longer periods, however, the plan has delivered performance that is generally in line with the benchmark given its significant use of passive management.

Overall, the URSJJ Plan has delivered returns in excess of its 6.5% actuarial rate over the past 10 years. However, the Plan has trailed relative to a broad peer group of public plans and to other Oklahoma plans. On a risk-adjusted basis, the Plan performed below median over the past 10 years relative to peers (with a Sharpe ratio ranking in the 84th percentile) and ranked 7th relative to Oklahoma Plans.

Oklahoma Wildlife Conservation Retirement System (OWCRS)

Detailed performance of the OWCRS plan begins on **page 147** of the performance report. As of June 30, 2022, the market value of assets for OWCRS was approximately **\$119.38 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OWCRS Annualized Net-of-Fees Returns

Period Ending June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OWCRS Total Fund (Net)	-11.16	-15.38	-12.24	-12.24	4.13	5.43	5.47	6.66
OWCRS Policy Index	-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96
Difference	-0.92	-0.24	0.87	0.87	0.79	1.03	0.68	0.70
OWCRS Actual Allocation Index	-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79
Difference	0.24	0.73	1.78	1.78	0.32	-0.01	-0.27	-0.13
All Public Plans – Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72
Rank	77	70	76	76	83	74	77	78

Commentary

The Wildlife Plan provided 10-year absolute returns that ranked 5th relative to other Oklahoma Pension Plans and below median relative to a broad peer group of public plans over all trailing periods. On a relative basis, the plan has outperformed its policy index over the trailing year and all longer time periods. Alternative investments were the primary detractor from relative performance for the quarter, trailing the custom index by 4.21%.

Overall, the OWCRS Plan performed below median relative to a broad peer group of public plans over all periods shown. On a risk-adjusted basis, the Plan also ranked below median over the past 10 years, with a Sharpe ratio ranking in the 71st percentile relative to other public plans and ranking 5th relative to the group of seven Oklahoma Plans.

Overview of Fundamental Investment Performance Drivers

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

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

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

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

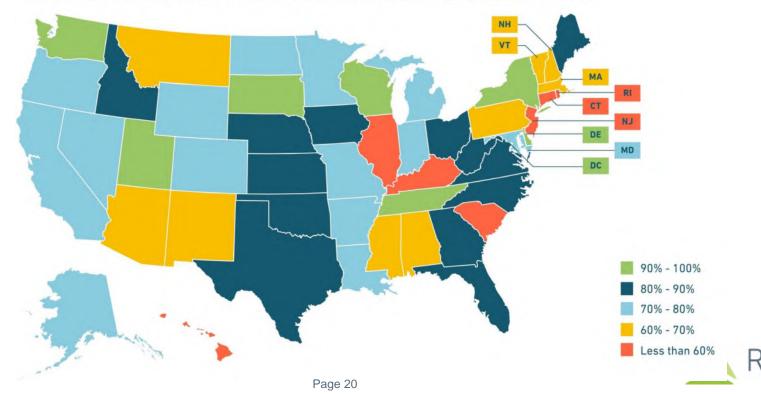
In summary, it is important for institutional investors to be aware of the three factors that drive absolute and relative performance of institutional investment portfolios. When evaluating the performance of the Oklahoma pension plans, both individually and collectively, we will often refer to these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



Public Pension Finances & Challenging Market Conditions

- COVID-19 has negatively impacted state finances, with the most adverse impact being felt by states that were more indebted going into the pandemic
- According a recent stress test conducted by the Equable Institute, the average projected 2022 funded ratios for state and local pension plans will decline to just below 78%. If this statistic holds, this would represent the single largest year-over-year decline since the Great Recession
- Contributing factors to decreases in funding ratios include challenging returns, lower assumed rate of returns, negative cash flow from unfunded liabilities, and increased COLAs



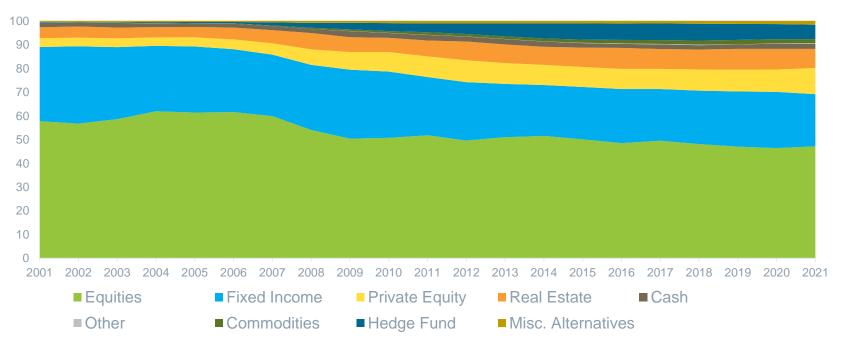


Source: Equable Institute

Asset Allocation

- Plans have increasingly become more illiquid with the amount in alternatives (private equity, private real estate, and other opportunistic) increasing and being sourced from traditional investment
- Plans are more dependent on investment returns to bridge the gap between contributions and promised liabilities. While these constructs perform well in up markets, the potential drawdown impact may be magnified if plans sell illiquid assets in the secondary market
- Even with high valuations, the amount of private equity dry powder remains at elevated levels and plans are increasing their exposure to alternatives
- While not shown, more plans are using leverage or tactical asset allocation to increase their equity beta

Asset Allocation of Public Funds



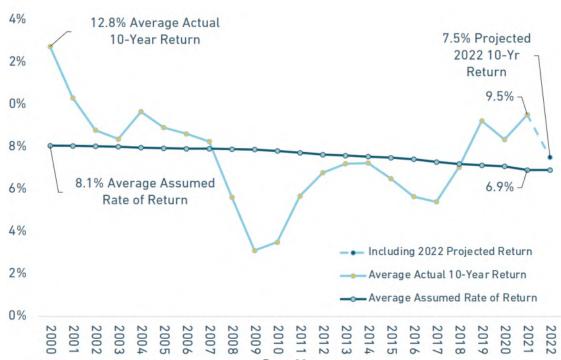


Challenging Market Conditions

- Preliminary plan returns are -13.9% for the calendar year to date on average for state and local plans with no one able to earn their actuarial rate of return
- Most plans have increased their allocations to alternatives as returns for both US equities and fixed income are projected to be muted and below most actuarial returns. This is in direct contrast from 20 years ago when plans could meet their actuarial assumptions through a 100% allocation to fixed income
- RVK's projected returns indicate a challenging return environment. Equities are projected to earn south of 6% while fixed income is forecasted close to 3%. A 60/40 plan is projected to only earn approximately 5%

INVESTMENT RETURN AVERAGES

COMPARED TO ASSUMED RATES OF RETURN 2001–2022





Source: Equable Institute

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Update on COLAs

- There are eight states that have no COLA provisions for public retirees or that are currently suspending COLAs until a future date (NJ, OK)
- In another two states, the largest statewide retirement system has no COLA rules, but some municipalities may
- Similar to OK, the state of NJ suspended COLA payments for all plans in 2011 to avoid further funding rate decreases until the plan reaches 80% funded. The Ohio State Teachers Retirement System has suspended their COLA since 2017 but granted a one-time adjustment in 2022

Type of COLA Provisions	# of Plans or Tiers of Benefits	Average COLA Provided Based on 2021 Inflation*
No COLA Rules or COLA Currently Suspended	98	N/A
Ad Hoc COLAs Only	70	0.0%
Automatic COLA: Fixed Amount	46	1.84%
Automatic COLA: Linked to Plan Performance (e.g., Funded Status or Investment Returns)	14	1.89%
Automatic COLA: Linked to Inflation (e.g., National CPI, Local CPI, or Social Security Rates)	118	2.16%
Automatic COLA: Linked to Inflation & Performance	26	1.99%
Total/Overall Average**	372	1.58%



The Inflation Debate

COVID-19 related demand shocks are likely to keep inflation elevated in the short term, but there is increasing debate regarding longer term impacts of accommodative monetary policy

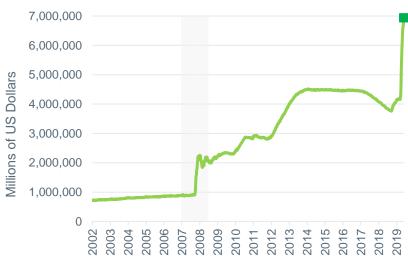
Demand-pull inflation: Occurs when aggregate demand increases faster than aggregate supply

- One catalyst for increased demand is an increase in the money supply, all else equal
- However, there are several factors that interact with this dynamic, including the rate at which money changes hands (velocity of money), which has been decreasing for over 20 years
- There are several additional secular trends that have suppressed inflation, including globalization and ease of price comparison driven by technological advancements

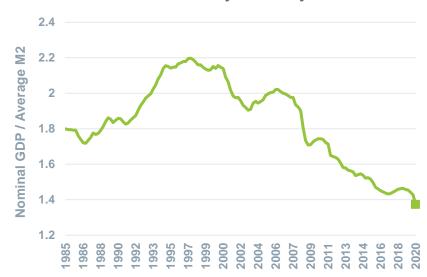
Cost-push Inflation: An increase in the cost of producing goods that decreases aggregate supply

 Catalysts could include an increase in, for example, wages, taxes, or commodity prices

Federal Reserve Total Assets



M2 Velocity of Money







Capital Markets Metrics



Capital Markets Review

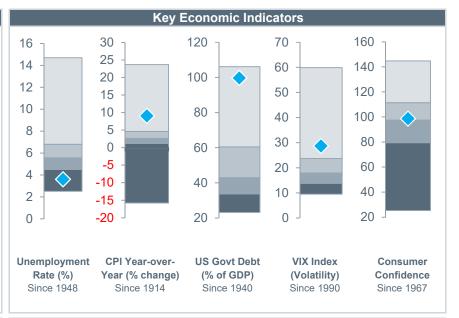
As of June 30, 2022

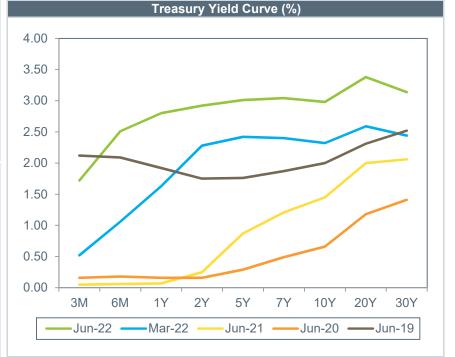
Second Quarter Economic Environment

Continued rising inflation, accelerated tightening of global monetary policy, and falling economic growth estimates led to most major indices ending negative in Q2. Inflation continued to rise in the US as the Consumer Price Index (CPI) rose to 9.1% at the end of June, spurred on by supply chain disruptions tied with the war in Ukraine and China's zero-COVID policy. The OECD's June Economic Outlook report now forecasts global inflation to end the year near 9%. Central banks continued to tighten monetary policy with the Federal Open Market Committee raising the federal funds rate by 0.75% in June, which followed a 0.50% increase in May. Following the June CPI release, a 1.0% increase at the FOMC meeting in July is now the most likely scenario based on probabilities implied by traders. Forecasters are increasingly citing a rising risk of a recession in the US, however the data is less clear. The Atlanta Fed's GDP Nowcast indicates a modest contraction of growth in Q2, with declining residential investment and private inventory overhang as key negative effects. However, manufacturing and services Purchasing Managers' indexes (PMIs) indicate expansion. The unemployment rate ended June at 3.6% as non-farm payroll growth averaged just under 375k per month. According to the latest JOLTS survey, the US currently has roughly two job openings for every unemployed individual. The Atlanta Fed's wage tracker also lists

average annual wage growth at 6.7% based on a 3-month moving average.												
Economic Indicators	Jun-22	Mar-22	Jun-21	Jun-19	20 Yr							
Federal Funds Rate (%)	1.58 🔺	0.33	0.08	2.40	1.30							
Breakeven Infl 5 Yr (%)	2.62	3.43	2.50	1.54	1.86							
Breakeven Infl 10 Yr (%)	2.34	2.83	2.34	1.70	2.04							
CPI YoY (Headline) (%)	9.1	8.5	5.4	1.6	2.2							
Unemployment Rate (%)	3.6 -	3.6	5.9	3.6	6.1							
Real GDP YoY (%)	N/A	3.5	12.2	2.1	1.9							
PMI - Manufacturing	53.0	57.1	60.9	51.5	53.5							
USD Total Wtd Idx	121.05	115.22	112.61	114.58	103.10							
WTI Crude Oil per Barrel (\$)	105.8	100.3	73.5	58.5	64.4							
Gold Spot per Oz (\$)	1,807	1,937	1,770	1,410	1,086							

σσια σροτρο: σ= (ψ)	1,001	1,007	1,770	1,110	1,000	,
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr	
S&P 500 (Cap Wtd)	-16.10	-19.96	-10.62	11.31	12.96	
Russell 2000	-17.20	-23.43	-25.20	5.17	9.35	
MSCI EAFE (Net)	-14.51	-19.57	-17.77	2.20	5.40	
MSCI EAFE SC (Net)	-17.69	-24.71	-23.98	1.72	7.18	
MSCI Emg Mkts (Net)	-11.45	-17.63	-25.28	2.18	3.06	
Bloomberg US Agg Bond	-4.69	-10.35	-10.29	0.88	1.54	
ICE BofAML 3 Mo US T-Bill	0.11	0.15	0.17	1.11	0.64	
NCREIF ODCE (Gross)	4.77	12.49	29.51	10.54	11.16	
FTSE NAREIT Eq REIT (TR)	-16.97	-20.20	-6.27	5.30	7.39	
HFRI FOF Comp	-4.08	-6.73	-5.65	3.59	3.73	
Bloomberg Cmdty (TR)	-5.66	18.44	24.27	8.39	-0.82	

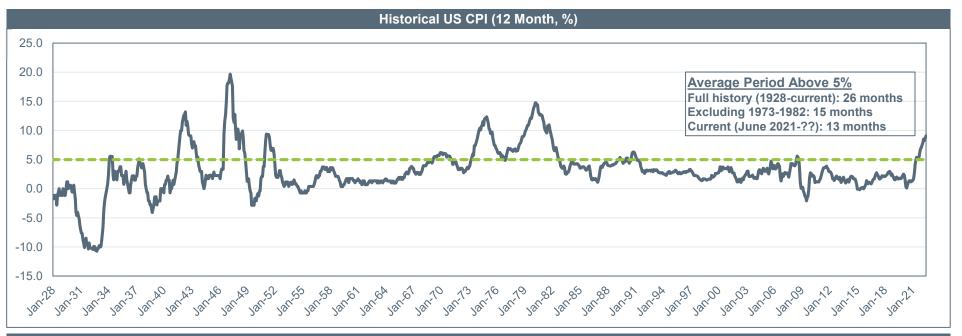


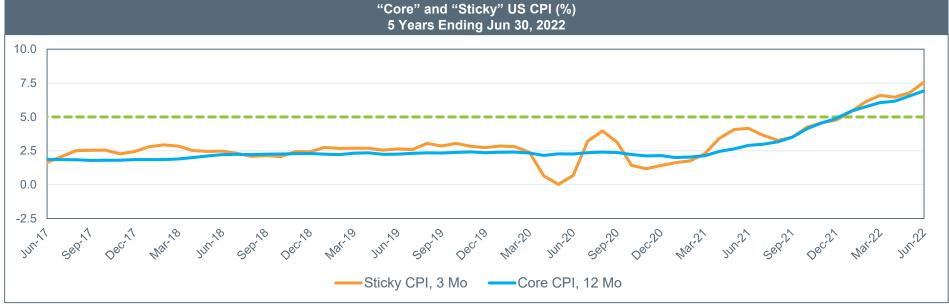




Current Inflation in Context

As of June 30, 2022

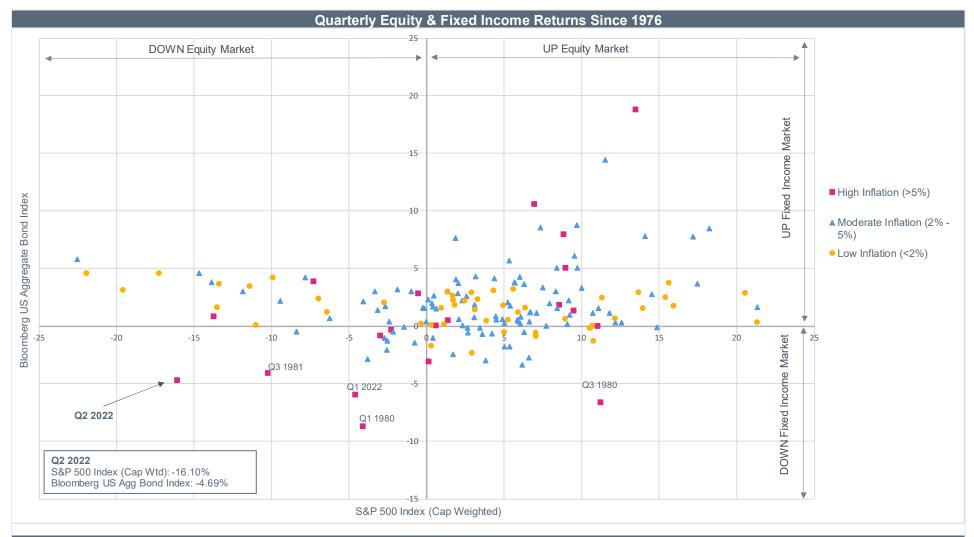




As of June 30, 2022. Sources: US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, and Federal Reserve Bank of Atlanta.

Core CPI is represented by the Revised FRB Cleveland Trimmed Mean, 12-month. Sticky CPI is represented by the FRB Atlanta Sticky-Price Index, 3-month.





	Bloomberg US Aggregate Bond Index: Worst Quarters and Subsequent Performance											
Quarter Ended	Quarter Return	YTW at Quarter End	Subsequent Quarter Return	Subsequent Year Return	Subsequent 3 Year Return Annualized							
Mar-1980	-8.71%	14.10	18.79%	13.05%	17.88%							
Sep-1980	-6.60%	12.43	1.36%	-2.58%	15.05%							
Mar-2022	-5.93%	2.92	-4.69%	?	?							
Jun-2022	-4.69%	3.72	?	?	?							
Sep-1981	-4.07%	16.50	10.58%	35.22%	19.35%							
Mar-2021	-3.38%	1.61	1.83%	-4.15%	?							
Dec-1979	-3.08%	11.19	-8.71%	2.67%	13.12%							

Inflation data provided by the Federal Reserve Economic Database. Yield to Worst data provided by Barclays Live.



US Equity Review
As of June 30, 2022

Second Quarter Review

Broad Market

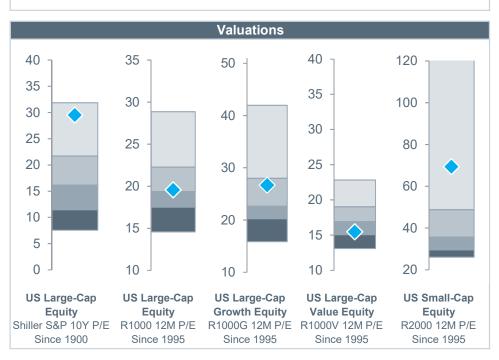
US equity markets were down sharply in Q2 in the midst of increasing concerns of a looming recession as the Fed acted to respond to sustained, elevated levels of inflation. With declines affecting all sectors, investors fled to defensive stocks as these were comparatively resilient. Likewise, investors in energy stocks benefited as the sector was buoyed by commodity prices.

Market Cap

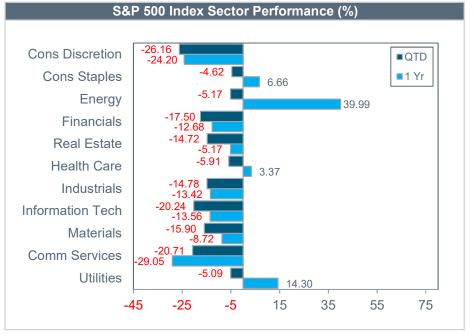
There was significant outperformance of value stocks over growth stocks, with the Russell 1000 Value and Russell 2000 Value indexes outperforming their growth counterparts by 8.7% and 4.0%, respectively.

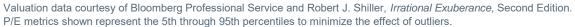
Style and Sector

Active management performed well in Q2, with the exception of large-cap growth managers. Small- and mid-cap core and value managers had an exceptionally strong Q2 with a majority outpacing their respective benchmarks by significant margins.











Non-US Equity Review
As of June 30, 2022

Second Quarter Review

Developed Markets

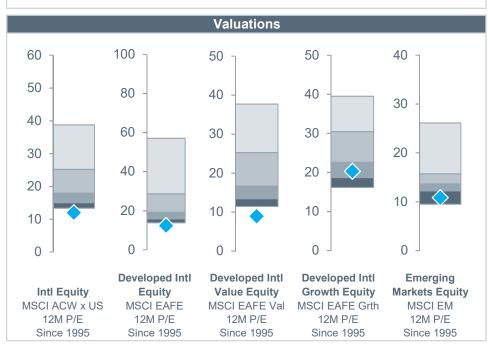
Developed International markets fared better than the domestic market, albeit still finishing Q2 in negative territory with the MSCI EAFE Index notching a -14.5% return for the period. Value stocks remained in favor with continued outperformance over growth stocks, while large-cap stocks outperformed small-cap stocks. All developed market countries and sectors were negative for the quarter, with the Asia-Pacific region and information technology sector leading markets lower.

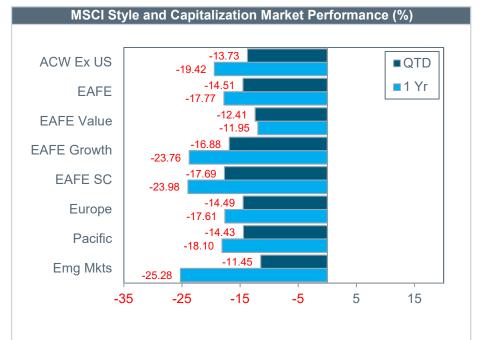
Emerging Markets

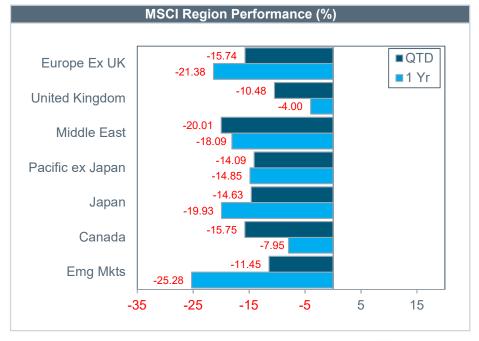
Emerging markets outperformed developed in Q2 with the MSCI EM Index returning -11.4%. Nearly all emerging market countries experienced negative returns.

Market Cap & Style

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









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

All returns are shown net of foreign taxes on dividends.



Fixed Income Review
As of June 30, 2022

Second Quarter Review

Broad Market

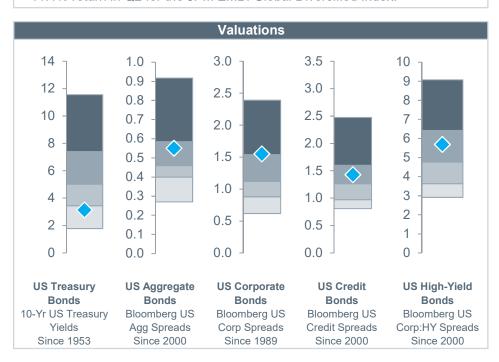
In Q2, Treasury yields rose 66 basis points from 2.32% to 2.98% with an intra-quarter high of 3.49%, as measured by the 10-year US Treasury yield. The Federal Reserve hiked the Federal Funds rate by 75 basis points over the quarter, the largest single increase since 1994. The Bloomberg US Aggregate ended the quarter down with an overall return of -4.7%.

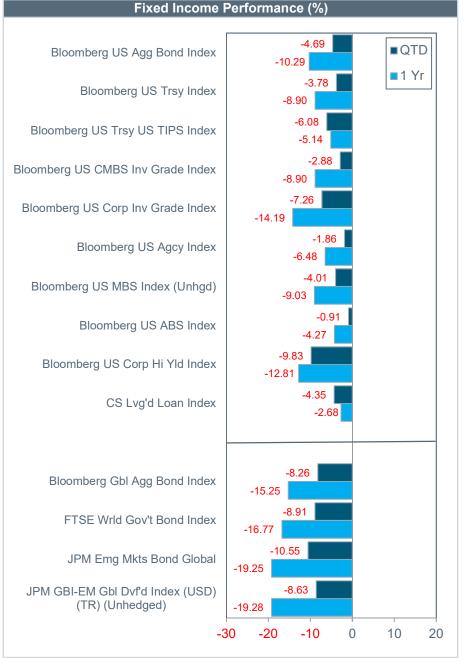
Credit Market

While fixed income broadly experienced negative absolute performance over the quarter, widening credit spreads presented additional headwinds to corporate credit. US Investment Grade credit detracted -6.9%, while US High Yield returned -9.8%, as measured by the Bloomberg US Credit Index and Bloomberg US High Yield index, respectively.

Emerging Market Debt

Foreign fixed income experienced headwinds from the Russia-Ukraine war, inflationary concerns, and mixed central bank policy. These factors led to a -11.4% return in Q2 for the JPM EMBI Global Diversified Index.







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



Alternatives Review As of June 30, 2022

Second Quarter Review - Absolute Return

General Market - Hedge Funds

Dispersion continues to be the theme across the hedge fund landscape. Although the HFRI Asset Weighted Composite returned -0.3% during the quarter, its year-to-date return remained positive at 1.6%. By contrast, the Equal Weighted Index, which is dominated by long/short equity strategies ("ELS"), returned -4.9% in Q2, led lower by ELS managers returning -8.3%. Prime brokerage data indicates that the 1st half of 2022 was one of the strongest on record for short alpha, as higher interest rates tend to structurally benefit short sellers.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generated disparate performance in Q2. Although overall performance was negative, nearly all managers outperformed a US centric blend of 60% equity and 40% fixed income. The top performing long-biased GTAA strategies tended to emphasize relative undervaluation in their asset allocation processes, while underperformers tended to hold larger allocations to US equity and non-USD fixed income.

HFRI Hedge Fund Performance (%) HFRI FOF ■ QTD -5.65 -4.42 Conv Arbitrage ■1 Yr **Equity Hedge** -12.20 0.66 Mkt Neutral Eq 2.05 -3.69 Distressed -1.61 1.80 Macro 7.98 -2.58 Relative Value -0.98 -6.39 **Event Driven** -7.08 -2.86 Merger Arb 0.47 -5.22 Credit Arb -4.59 -10 10 -20 0 20

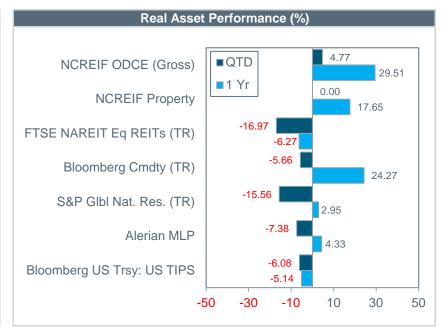
Second Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

After responding positively to record inflationary pressures in Q1, DIS posted losses ranging from negative mid-single digit to negative low double-digit. Manager allocations to inflation sensitive assets were affected by cross currents of Fed rate hikes combined with changing market estimates of future economic growth. Nearly all inflation sensitive asset classes were negative except for energy commodities in Q2. Managers with larger TIPS allocations tended to outperform peers, especially in cases where shorter duration TIPS were targeted.

General Market - Real Estate

Core private real estate generated a positive 4.8% return in Q2, as reported by the NFI-ODCE Index, with the total return comprising of 0.9% income and 3.9% price appreciation. While the income return is trending at the lower end of historical levels, the price appreciation return remains elevated. Investors in publicly traded real estate significantly underperformed their private market counterparts by a meaningful margin.





Annual Asset Class Performance As of June 30, 2022

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Best	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	18.44
1	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	12.49
	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	0.15
	-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	-6.73
	-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	-8.92
	-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	-10.35
	-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	-14.19
	-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	6.17	-17.63
	-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	-19.57
	-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	-19.96
	-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	-20.20
	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.88
	-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	-23.43
Worst	-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	-24.71
S&P 500 US Larg Cap		mall (Net)		(Net) - (N	MSCI EM Net) - Int'l Img Mkts	Bloombrg US Agg Bond - Fl		Bloombro i US Trsy U TIPS - FI	S Crodit I	ov ODO	CE NARI	EIT Eq C	dox	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



Oklahoma State Pension Commission All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation	n						Performa	Performance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
Oklahoma State Pension Commission	37,742,193,607	100.00												
OTRS (Teachers) Total Fund	19,559,152,827	51.82	-9.88	-14.31	-9.54	-9.54	6.61	6.94	6.62	8.72	18.20	13.22	19.48	-5.29
OTRS Policy Index			-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	15.60	15.24	21.72	-4.75
Difference			1.48	0.95	1.49	1.49	0.05	-0.12	-0.34	0.37	2.60	-2.02	-2.24	-0.54
OTRS Actual Allocation Index			-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	16.21	16.98	18.94	-4.70
Difference			2.05	1.88	2.56	2.56	0.17	0.20	-0.02	0.30	1.99	-3.76	0.54	-0.59
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-11.59	-17.75	-16.54	-16.54	-0.39	-0.06	-0.38	1.72	11.20	6.22	12.48	-12.29
OPERS (Public Employees) Total Fund	10,375,810,605	27.49	-12.51	-17.44	-14.67	-14.67	4.49	5.54	5.74	7.23	12.29	15.18	21.23	-6.57
OPERS Policy Index			-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	11.54	15.19	21.46	-6.09
Difference			-0.15	-0.17	-0.10	-0.10	0.13	-0.02	-0.12	0.09	0.75	-0.01	-0.23	-0.48
OPERS Actual Allocation Index			-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	12.14	18.93	20.87	-6.49
Difference			-0.01	-0.03	0.01	0.01	-1.08	-0.58	-0.51	-0.22	0.15	-3.75	0.36	-0.08
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-14.10	-20.64	-21.17	-21.17	-2.01	-0.96	-0.76	0.73	5.79	8.68	14.73	-13.07
OFPRS (Firefighters)	3,238,919,613	8.58	-9.61	-13.76	-10.57	-10.57	6.77	7.81	7.64	8.98	13.46	17.97	19.77	-2.77
OFPRS Policy Index			-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	17.66	13.85	21.76	-3.80
Difference			0.83	-0.24	-2.63	-2.63	-0.74	-0.07	-0.32	-0.19	-4.20	4.12	-1.99	1.03
OFPRS Actual Allocation Index			-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	15.88	17.79	20.30	-3.93
Difference			0.19	-0.88	-2.68	-2.68	-1.49	-0.42	-0.27	-0.12	-2.42	0.18	-0.53	1.16
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-11.43	-17.44	-18.07	-18.07	-0.73	0.31	0.14	1.48	5.96	10.47	12.27	-10.27
OPPRS (Police) Total Fund	3,012,989,309	7.98	-7.37	-9.46	-3.86	-3.86	7.84	7.21	6.60	7.64	17.28	12.17	15.22	-2.85
OPPRS Policy Index			-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	15.19	12.66	19.13	-5.34
Difference			3.21	4.35	4.78	4.78	1.83	0.93	0.63	0.65	2.09	-0.49	-3.91	2.49
OPPRS Actual Allocation Index			-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	14.36	14.67	15.02	-3.70
Difference			3.14	4.35	5.09	5.09	2.00	1.17	0.92	0.82	2.92	-2.50	0.20	0.85
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-9.19	-13.14	-11.36	-11.36	0.34	-0.29	-0.90	0.14	9.78	4.67	7.72	-10.35



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

	Allocation							Performa	ance (%)					
	Market	%	QTD	CYTD	FYTD	. 1	3	5	7	10	2021	2020	2019	2018
	Value (\$)					Year	Years	Years	Years	Years				
OLERS (Law Enforcement) Total Fund	1,078,499,312	2.86	-9.98	-14.10	-10.52	-10.52	5.19	5.63	5.40	6.91	14.56	12.26	17.44	-5.30
OLERS Policy Index			-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	15.57	12.77	19.12	-3.67
Difference			0.52	-0.40	-1.81	-1.81	-1.03	-0.99	-1.21	-0.95	-1.01	-0.51	-1.68	-1.63
OLERS Actual Allocation Index			-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	14.97	21.56	17.33	-3.47
Difference			0.93	0.49	-0.01	-0.01	-3.06	-2.11	-1.97	-1.20	-0.41	-9.30	0.11	-1.83
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-11.80	-17.78	-18.02	-18.02	-2.31	-1.87	-2.10	-0.59	7.06	4.76	9.94	-12.80
URSJJ (Judges) Total Fund	357,442,501	0.95	-12.61	-17.56	-14.86	-14.86	4.36	5.49	5.76	7.14	12.08	15.06	21.36	-6.43
URSJJ Policy Index	001,442,001	0.00	-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	11.54	15.19	21.51	-6.09
Difference			-0.25	-0.29	-0.29	-0.29	-0.01	-0.08	-0.11	-0.01	0.54	-0.13	-0.15	-0.34
URSJJ Actual Allocation Index			-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	12.10	18.70	21.01	-6.52
Difference			-0.13	-0.16	-0.16	-0.16	-1.13	-0.61	-0.40	-0.22	-0.02	-3.64	0.35	0.09
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-14.20	-20.76	-21.36	-21.36	-2.14	-1.01	-0.74	0.64	5.58	8.56	14.86	-12.93
OWCRS (Wildlife) Total Fund	119,379,439	0.32	-11.16	-15.38	-12.24	-12.24	4.13	5.43	5.47	6.66	11.58	13.00	19.21	-3.85
OWCRS Policy Index	, ,		-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	9.62	12.67	17.53	-4.95
Difference			-0.92	-0.24	0.87	0.87	0.79	1.03	0.68	0.70	1.96	0.33	1.68	1.10
OWCRS Actual Allocation Index			-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	10.43	13.21	20.53	-3.71
Difference			0.24	0.73	1.78	1.78	0.32	-0.01	-0.27	-0.13	1.15	-0.21	-1.32	-0.14
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-12.87	-18.82	-19.24	-19.24	-2.87	-1.57	-1.53	-0.34	4.58	6.00	12.21	-10.85



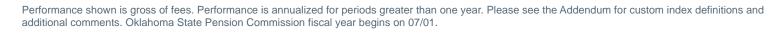
Oklahoma State Pension Commission All Plans Summary Asset Allocation & Performance - Gross of Fees

	Allocation	n						Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
Oklahoma State Pension Commission	37,742,193,607	100.00												
All Public Plans-Total Fund Median			-10.00	-13.92	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02
OTRS (Teachers) Total Fund	19,559,152,827	51.82	-9.83	-14.21	-9.36	-9.36	6.85	7.21	6.95	9.10	18.42	13.45	19.83	-4.98
OTRS Policy Index			-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	15.60	15.24	21.72	-4.75
Difference			1.53	1.05	1.67	1.67	0.29	0.15	-0.01	0.75	2.82	-1.79	-1.89	-0.23
OTRS Actual Allocation Index			-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	16.21	16.98	18.94	-4.70
Difference			2.10	1.98	2.74	2.74	0.41	0.47	0.31	0.68	2.21	-3.53	0.89	-0.28
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			-11.54	-17.65	-16.36	-16.36	-0.15	0.21	-0.05	2.10	11.42	6.45	12.83	-11.98
Rank			47	55	45	45	24	25	30	6	9	37	31	72
OPERS (Public Employees) Total Fund	10,375,810,605	27.49	-12.49	-17.40	-14.54	-14.54	4.63	5.67	5.86	7.36	12.46	15.34	21.38	-6.48
OPERS Policy Index			-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	11.54	15.19	21.46	-6.09
Difference			-0.13	-0.13	0.03	0.03	0.27	0.11	0.00	0.22	0.92	0.15	-0.08	-0.39
OPERS Actual Allocation Index			-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	12.14	18.93	20.87	-6.49
Difference			0.01	0.01	0.14	0.14	-0.94	-0.45	-0.39	-0.09	0.32	-3.59	0.51	0.01
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			-14.08	-20.60	-21.04	-21.04	-1.87	-0.83	-0.64	0.86	5.96	8.84	14.88	-12.98
Rank			96	94	94	94	78	76	72	65	72	19	11	94
OFPRS (Firefighters) Total Fund	3,238,919,613	8.58	-9.52	-13.60	-10.24	-10.24	7.16	8.18	8.00	9.34	13.87	18.44	20.15	-2.46
OFPRS Policy Index			-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	17.66	13.85	21.76	-3.80
Difference			0.92	-0.08	-2.30	-2.30	-0.35	0.30	0.04	0.17	-3.79	4.59	-1.61	1.34
OFPRS Actual Allocation Index			-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	15.88	17.79	20.30	-3.93
Difference			0.28	-0.72	-2.35	-2.35	-1.10	-0.05	0.09	0.24	-2.01	0.65	-0.15	1.47
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			-11.34	-17.28	-17.74	-17.74	-0.34	0.68	0.50	1.84	6.37	10.94	12.65	-9.96
Rank			42	47	54	54	19	8	7	3	53	5	26	19



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

	Allocation							Performa	ance (%)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
OPPRS (Police) Total Fund	3,012,989,309	7.98	-7.24	-9.21	-3.40	-3.40	8.26	7.65	7.04	8.08	17.71	12.54	15.68	-2.46
OPPRS Policy Index			-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	15.19	12.66	19.13	-5.34
Difference			3.34	4.60	5.24	5.24	2.25	1.37	1.07	1.09	2.52	-0.12	-3.45	2.88
OPPRS Actual Allocation Index			-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	14.36	14.67	15.02	-3.70
Difference			3.27	4.60	5.55	5.55	2.42	1.61	1.36	1.26	3.35	-2.13	0.66	1.24
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			-9.06	-12.89	-10.90	-10.90	0.76	0.15	-0.46	0.58	10.21	5.04	8.18	-9.96
Rank			16	13	11	11	8	14	27	31	13	50	85	20
OLERS (Law Enforcement) Total Fund	1,078,499,312	2.86	-9.88	-13.91	-10.14	-10.14	5.68	6.16	5.95	7.45	15.04	12.80	18.07	-4.76
OLERS Policy Index			-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	15.57	12.77	19.12	-3.67
Difference			0.62	-0.21	-1.43	-1.43	-0.54	-0.46	-0.66	-0.41	-0.53	0.03	-1.05	-1.09
OLERS Actual Allocation Index			-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	14.97	21.56	17.33	-3.47
Difference			1.03	0.68	0.37	0.37	-2.57	-1.58	-1.42	-0.66	0.07	-8.76	0.74	-1.29
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			-11.70	-17.59	-17.64	-17.64	-1.82	-1.34	-1.55	-0.05	7.54	5.30	10.57	-12.26
Rank			47	50	53	53	50	59	70	62	36	46	57	67
URSJJ (Judges) Total Fund	357,442,501	0.95	-12.60	-17.54	-14.83	-14.83	4.40	5.53	5.80	7.19	12.12	15.10	21.40	-6.38
URSJJ Policy Index			-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	11.54	15.19	21.51	-6.09
Difference			-0.24	-0.27	-0.26	-0.26	0.03	-0.04	-0.07	0.04	0.58	-0.09	-0.11	-0.29
URSJJ Actual Allocation Index			-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	12.10	18.70	21.01	-6.52
Difference			-0.12	-0.14	-0.13	-0.13	-1.09	-0.57	-0.36	-0.17	0.02	-3.60	0.39	0.14
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			-14.19	-20.74	-21.33	-21.33	-2.10	-0.97	-0.70	0.69	5.62	8.60	14.90	-12.88
Rank			97	95	95	95	84	79	76	69	77	21	11	92
OWCRS (Wildlife) Total Fund	119,379,439	0.32	-11.09	-15.24	-11.95	-11.95	4.43	5.70	5.71	6.89	11.95	13.34	19.46	-3.68
OWCRS Policy Index			-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	9.62	12.67	17.53	-4.95
Difference			-0.85	-0.10	1.16	1.16	1.09	1.30	0.92	0.93	2.33	0.67	1.93	1.27
OWCRS Actual Allocation Index			-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	10.43	13.21	20.53	-3.71
Difference			0.31	0.87	2.07	2.07	0.62	0.26	-0.03	0.10	1.52	0.13	-1.07	0.03
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			-12.80	-18.68	-18.95	-18.95	-2.57	-1.30	-1.29	-0.11	4.95	6.34	12.46	-10.68
Rank			77	70	76	76	83	74	77	78	79	39	36	44





						Performa	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
US Equity												
OTRS US Equity	-14.79	-19.37	-13.91	-13.91	7.37	8.53	8.40	11.61	24.40	15.40	27.64	-8.27
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	-5.24
Difference	1.91	1.73	-0.04	-0.04	-2.40	-2.07	-2.03	-0.96	-1.26	-5.49	-3.38	-3.03
OPERS US Equity	-16.49	-20.29	-13.22	-13.22	9.72	10.30	9.98	12.43	25.96	20.37	29.26	-6.45
OPERS US Equity Custom Index	-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	24.73	20.97	30.56	-5.70
Difference	0.26	1.01	1.71	1.71	0.38	0.13	-0.13	0.07	1.23	-0.60	-1.30	-0.75
OFPRS US Equity	-16.78	-22.96	-19.55	-19.55	7.63	9.79	9.50	11.95	19.50	25.45	31.05	-5.21
Wilshire 5000 Index	-16.77	-20.89	-13.19	-13.19	10.17	10.83	10.73	12.71	26.70	20.82	31.02	-5.27
Difference	-0.01	-2.07	-6.36	-6.36	-2.54	-1.04	-1.23	-0.76	-7.20	4.63	0.03	0.06
OLERS US Equity	-17.42	-23.09	-18.00	-18.00	8.02	8.96	8.68	11.46	25.28	19.31	32.25	-9.02
S&P 500 Index (Cap Wtd)	-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	28.71	18.40	31.49	-4.38
Difference	-1.32	-3.13	-7.38	-7.38	-2.58	-2.35	-2.46	-1.50	-3.43	0.91	0.76	-4.64
URSJJ US Equity	-16.75	-21.33	-14.96	-14.96	9.32	10.13	10.07	12.33	24.69	21.02	30.49	-5.83
URSJJ US Equity Custom Index	-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	24.73	20.97	30.56	-5.70
Difference	0.00	-0.03	-0.03	-0.03	-0.02	-0.04	-0.04	-0.03	-0.04	0.05	-0.07	-0.13
OWCRS US Equity	-15.38	-19.27	-11.45	-11.45	9.60	10.51	10.02	12.48	26.38	18.87	28.92	-5.64
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	-5.24
Difference	1.32	1.83	2.42	2.42	-0.17	-0.09	-0.41	-0.09	0.72	-2.02	-2.10	-0.40



						Performa	ance (%)					
	QTD	CYTD	FYTD	1	3	5	7	10	2021	2020	2019	2018
	QID	CIID	יווו	Year	Years	Years	Years	Years	2021	2020	2013	2010
International Equity												
OTRS International Equity	-14.97	-21.39	-21.24	-21.24	1.70	2.39	2.98	5.66	11.24	12.13	21.38	-16.32
MSCI ACW Ex US IM Index (USD) (Net)	-14.28	-19.08	-19.86	-19.86	1.55	2.50	3.02	5.01	8.53	11.12	21.63	-14.76
Difference	-0.69	-2.31	-1.38	-1.38	0.15	-0.11	-0.04	0.65	2.71	1.01	-0.25	-1.56
OPERS International Equity	-13.52	-19.36	-20.95	-20.95	1.46	2.65	3.22	5.14	6.98	12.30	23.21	-13.81
MSCI ACW Ex US Index (USD) (Gross)	-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	8.29	11.13	22.13	-13.78
Difference	0.02	-1.21	-1.94	-1.94	-0.35	-0.33	-0.18	-0.17	-1.31	1.17	1.08	-0.03
OFPRS International Equity	-13.16	-22.86	-23.25	-23.25	4.91	6.15	6.17	6.77	7.00	31.77	26.48	-13.83
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	0.57	-4.44	-3.83	-3.83	3.56	3.65	3.25	1.94	-0.82	21.12	4.97	0.37
OLERS International Equity	-13.69	-19.86	-21.01	-21.01	1.79	2.81	3.27	4.53	7.51	12.49	23.70	-14.62
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	0.04	-1.44	-1.59	-1.59	0.44	0.31	0.35	-0.30	-0.31	1.84	2.19	-0.42
URSJJ International Equity	-13.55	-18.20	-19.15	-19.15	1.60	2.76	3.18	5.08	8.06	10.86	21.83	-13.97
MSCI ACW Ex US Index (USD) (Gross)	-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	8.29	11.13	22.13	-13.78
Difference	-0.01	-0.05	-0.14	-0.14	-0.21	-0.22	-0.22	-0.23	-0.23	-0.27	-0.30	-0.19
OWCRS International Equity	-12.21	-18.83	-21.02	-21.02	0.64	2.01	2.78	4.96	5.57	10.17	23.05	-13.82
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	1.52	-0.41	-1.60	-1.60	-0.71	-0.49	-0.14	0.13	-2.25	-0.48	1.54	0.38
Total Equity												
OPPRS Total Equity	-11.37	-14.67	-8.58	-8.58	10.45	9.45	8.61	9.97	23.58	18.46	21.98	-5.24
MSCI ACW Index (USD) (Gross)	-15.53	-19.97	-15.37	-15.37	6.71	7.54	7.54	9.32	19.04	16.82	27.30	-8.93
Difference	4.16	5.30	6.79	6.79	3.74	1.91	1.07	0.65	4.54	1.64	-5.32	3.69



		CYTD FYTD 1 3 5 7 10 2021 2020 2019 A14.22 -13.29 -13.29 -0.33 1.65 2.44 2.94 0.05 11.91 11.84 -10.93 -10.89 -10.89 -0.94 0.94 1.62 1.83 -1.10 7.58 9.29 -3.29 -2.40 -2.40 0.61 0.71 0.82 1.11 1.15 4.33 2.55 -11.88 -11.05 -11.05 -0.23 1.51 1.96 2.00 -0.82 10.54 10.12 -11.49 -10.66 -10.66 -0.66 1.14 1.68 1.62 -1.01 9.08 9.43 -0.39 -0.39 -0.39 0.43 0.37 0.28 0.38 0.19 1.46 0.69 -10.35 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.54 -2.97 -2.97 -1.05 -1.25 -0.64 -0.29 -1.38 0.74 -1.75 -1.25 -0.64 -0.29 -1.38 0.74 -1.75 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -1.035 -10.29 -10.29 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.66 -1.31 -1.31 -1.63 -1.16 -0.74 -0.21 -0.36 -2.04 -2.71 -1.38 -1.09 -1.09 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.66 -1.31 -1.31 -1.63 -1.16 -0.74 -0.21 -0.36 -2.04 -2.71 -1.18 -1.06 -10.66 -10.66 -0.66 1.14 1.68 1.62 -1.01 9.08 9.43 -0.39 -0.39 -0.39 -0.39 0.40 0.35 0.25 0.32 0.09 1.50 0.63 -1.035 -1.029 -1.029 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.66 -1.01 -0.66 -1.066 -0.66 1.14 1.68 1.62 -1.01 9.08 9.43 -0.39 -0.39 -0.39 0.40 0.35 0.25 0.32 0.09 1.50 0.63 -1.035 -1.029 -1.029 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.66 -1.01 9.08 9.43 -0.39 -0.39 0.039 0.00 0.35 0.25 0.32 0.09 1.50 0.63 -1.035 -1.029 -1.029 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.66 -1.31 -1.31 -1.63 -1.16 -0.74 -0.21 -0.36 -2.04 -2.71 -1.18 -1.05 -1.066 -1.066 -0.66 1.14 1.68 1.62 -1.01 9.08 9.43 -0.39 -0.39 0.039 0.039 0.035 0.25 0.32 0.09 1.50 0.63 -1.029 -0.94 0.88 1.42 1.54 -1.55 7.51 8.72 -0.04 -0.05 -0.05 0.05 0.05 0.05 0.05 0.05 0.											
	QTD	CYTD	FYTD		_	_			2021	2020	2019	2018	
Fixed Income													
OTRS Fixed Income	-8.00	-14.22	-13.29	-13.29	-0.33	1.65	2.44	2.94	0.05	11.91	11.84	-1.44	
Bloomberg US Unv Bond Index	-5.13	-10.93	-10.89		-0.94							-0.25	
Difference	-2.87	-3.29	-2.40	-2.40	0.61	0.71	0.82	1.11	1.15	4.33	2.55	-1.19	
OPERS Fixed Income	-6.06	-11.88	-11.05	-11.05	-0.23	1.51	1.96	2.00	-0.82	10.54	10.12	-0.33	
OPERS Fixed Income Custom Index	-5.67				-0.66	1.14	1.68	1.62	-1.01	9.08	9.43	-0.33	
Difference	-0.39	-0.39	-0.39	-0.39	0.43	0.37	0.28	0.38	0.19	1.46	0.69	0.00	
OFPRS Fixed Income	-8.06	-11.89	-13.26	-13.26	-1.99	-0.37	0.78	1.25	-2.93	8.25	6.97	-2.67	
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01	
Difference	-3.37	-1.54	-2.97	-2.97	-1.05	-1.25	-0.64	-0.29	-1.38	0.74	-1.75	-2.68	
OPPRS Fixed Income	-4.96		-8.23	-8.23	0.31				1.28			-0.21	
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42		-1.55	7.51	8.72	0.01	
Difference	-0.27	2.08	2.06	2.06	1.25	0.72	0.26	N/A	2.83	-0.88	-1.48	-0.22	
OLERS Fixed Income	-5.52	-11.01	-11.60	-11.60	-2.57	-0.28	0.68	1.33	-1.91	5.47	6.01	0.14	
Bloomberg US Agg Bond Index	-4.69		-10.29		-0.94	0.88	1.42	1.54	-1.55	7.51		0.01	
Difference	-0.83	-0.66	-1.31	-1.31	-1.63	-1.16	-0.74	-0.21	-0.36	-2.04	-2.71	0.13	
URSJJ Fixed Income	-6.05	-11.88	-11.05	-11.05		1.49	1.93		-0.92	10.58	10.06	-0.32	
URSJJ Fixed Income Custom Index	-5.67		-10.66		-0.66	1.14	1.68		-1.01	9.08	9.43	-0.33	
Difference	-0.38	-0.39	-0.39	-0.39	0.40	0.35	0.25	0.32	0.09	1.50	0.63	0.01	
OWCRS Fixed Income	-5.01	-10.31	-10.34	-10.34	-0.43	1.22	1.39	1.46	-0.41	8.29	7.94	0.76	
Bloomberg US Agg Bond Index	-4.69				-0.94		1.42	1.54	-1.55		8.72	0.01	
Difference	-0.32	0.04	-0.05	-0.05	0.51	0.34	-0.03	-0.08	1.14	0.78	-0.78	0.75	



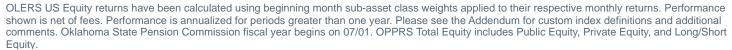
2019 2018	2019	2020	2021	10 Years	7 Years	5 Years	3 Years	1 Year	FYTD	CYTD	QTD	
												Real Estate
5.59 7.4	5.59	-2.48	11.65	N/A	8.46	7.66	7.41	24.49	24.49	13.81	6.83	OTRS Real Estate
6.42 6.7	6.42	1.60	17.70	9.67	8.84	8.86	10.22	21.45	21.45	8.73	3.23	NCREIF Property Index
-0.83 0.7	-0.83	-4.08	-6.05	N/A	-0.38	-1.20	-2.81	3.04	3.04	5.08	3.60	Difference
4.39 7.3	4.39	0.34	21.02	10.15	9.35	9.55	11.66	28.31	28.31	12.00	4.54	NCREIF ODCE Index (AWA) (Net)
1.20 0.0	1.20	-2.82	-9.37	N/A	-0.89	-1.89	-4.25	-3.82	-3.82	1.81	2.29	Difference
2.90 1.1	2.90	-8.51	-8.15	N/A	-0.40	-1.64	-3.74	0.77	0.77	1.79	0.53	OPERS Real Estate
4.39 7.3	4.39	0.34	21.02	10.15	9.35	9.55	11.66	28.31	28.31	12.00	4.54	NCREIF ODCE Index (AWA) (Net)
-1.49 -6.2	-1.49	-8.85	-29.17	N/A	-9.75	-11.19	-15.40	-27.54	-27.54	-10.21	-4.01	Difference
3.99 8.6	3.99	-0.50	16.14	9.50	8.58	8.23	8.93	24.11	24.11	10.07	2.99	OFPRS Real Estate
4.39 7.3	4.39	0.34	21.02	10.15	9.35	9.55	11.66	28.31	28.31	12.00	4.54	NCREIF ODCE Index (AWA) (Net)
-0.40 1.2	-0.40	-0.84	-4.88	-0.65	-0.77	-1.32	-2.73	-4.20	-4.20	-1.93	-1.55	Difference
												Real Assets
3.52 3.5	3.52	-1.07	17.79	7.40	7.09	8.16	10.50	28.02	28.02	13.87	6.82	OPPRS Real Assets
4.43 0.9	~ - ~ -	0.34	21.02	5.90	5.88	8.49	11.29	28.31	28.31	12.00	4.54	OPPRS Real Assets Blended Benchmark
	-0.91	-1.41	-3.23	1.50	1.21	-0.33	-0.79	-0.29	-0.29	1.87	2.28	Difference
2.74 3.1	2.74	0.06	18.80	7.27	6.63	7.66	9.91	25.46	25.46	9.96	3.45	OLERS Real Assets
4.46 1.5	4.46	0.34	21.02	6.56	6.97	8.59	11.34	28.31	28.31	12.00	4.54	OLERS Real Assets Blended Benchmark
-1.72 1.5	-1.72	-0.28	-2.22	0.71	-0.34	-0.93	-1.43	-2.85	-2.85	-2.04	-1.09	Difference



						Performa	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
Hedge Funds												
OFPRS Hedge Fund	-0.88	-20.45	-42.71	-42.71	-17.98	-10.16	-6.79	-3.37	-26.04	-4.62	3.52	-2.86
HFRI FOF: Cnsvt Index	-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	7.62	6.47	6.30	-0.87
Difference	0.65	-19.07	-42.99	-42.99	-22.68	-14.23	-9.92	-7.21	-33.66	-11.09	-2.78	-1.99
OPPRS Long/Short Equity	-14.21	-19.97	-23.38	-23.38	1.03	2.69	2.52	4.84	0.11	22.33	16.34	-4.94
MSCI ACW Index (USD) (Net)	-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	18.54	16.25	26.60	-9.42
Difference	1.45	0.21	-7.63	-7.63	-5.18	-4.31	-4.46	-3.92	-18.43	6.08	-10.26	4.48
HFRI FOF: Strategic Index	-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	6.26	14.62	10.52	-6.67
Difference	-7.25	-7.34	-11.31	-11.31	-1.98	-0.25	0.28	1.09	-6.15	7.71	5.82	1.73
OLERS Long/Short Equity	-13.50	-20.27	-24.38	-24.38	-2.77	-0.19	0.35	3.35	-1.52	13.12	12.40	-5.52
MSCI ACW Index (USD) (Net)	-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	18.54	16.25	26.60	-9.42
Difference	2.16	-0.09	-8.63	-8.63	-8.98	-7.19	-6.63	-5.41	-20.06	-3.13	-14.20	3.90
HFRI FOF: Strategic Index	-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	6.26	14.62	10.52	-6.67
Difference	-6.54	-7.64	-12.31	-12.31	-5.78	-3.13	-1.89	-0.40	-7.78	-1.50	1.88	1.15

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

						Performa	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
Private Equity												
OTRS Private Equity	3.84	3.77	24.76	24.76	28.18	23.79	20.67	20.59	57.72	17.27	17.73	23.03
R 2000 Index+4%	-16.38	-21.91	-22.21	-22.21	8.38	9.37	10.15	13.73	19.41	24.76	30.55	-7.45
Difference	20.22	25.68	46.97	46.97	19.80	14.42	10.13	6.86	38.31	-7.49	-12.82	30.48
OFPRS Private Equity	5.77	11.27	28.87	28.87	23.54	19.90	16.50	N/A	49.68	7.49	6.45	18.91
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40
Difference	5.77	10.69	16.05	16.05	1.82	1.05	0.22	N/A	9.27	-14.18	-7.37	8.51
OPPRS Private Equity	1.59	7.72	37.24	37.24	30.08	23.13	17.89	16.41	67.32	15.87	10.51	15.22
MSCI ACW Index (USD) (Net)	-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	18.54	16.25	26.60	-9.42
Difference	17.25	27.90	52.99	52.99	23.87	16.13	10.91	7.65	48.78	-0.38	-16.09	24.64
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40
Difference	1.59	7.14	24.42	24.42	8.36	4.28	1.61	0.25	26.91	-5.80	-3.31	4.82
OLERS Private Equity	-0.06	2.04	15.45	15.45	22.06	17.71	12.94	13.01	41.10	20.25	14.02	4.82
S&P 500 Index+5%	-15.07	-17.98	-6.15	-6.15	16.13	16.87	16.70	18.60	35.14	24.32	38.06	0.40
Difference	15.01	20.02	21.60	21.60	5.93	0.84	-3.76	-5.59	5.96	-4.07	-24.04	4.42
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40
Difference	-0.06	1.46	2.63	2.63	0.34	-1.14	-3.34	-3.15	0.69	-1.42	0.20	-5.58
Other Alternatives												
OWCRS Alternative Investments	-8.09	-8.56	-6.71	-6.71	2.11	2.88	3.23	2.83	8.64	2.14	15.31	-6.07
OWCRS Alternatives Custom Index	-3.88	-6.53	-5.45	-5.45	3.96	3.63	2.62	N/A	6.17	10.88	8.38	-4.02
Difference	-4.21	-2.03	-1.26	-1.26	-1.85	-0.75	0.61	N/A	2.47	-8.74	6.93	-2.05

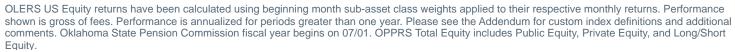




						Performa	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
US Equity												
OTRS US Equity	-14.75	-19.30	-13.75	-13.75	7.58	8.81	8.74	11.85	24.61	15.62	28.03	-7.94
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	-5.24
Difference	1.95	1.80	0.12	0.12	-2.19	-1.79	-1.69	-0.72	-1.05	-5.27	-2.99	-2.70
OPERS US Equity	-16.47	-20.26	-13.09	-13.09	9.89	10.44	10.11	12.55	26.13	20.53	29.50	-6.38
OPERS US Equity Custom Index	-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	24.73	20.97	30.56	-5.70
Difference	0.28	1.04	1.84	1.84	0.55	0.27	0.00	0.19	1.40	-0.44	-1.06	-0.68
OFPRS US Equity	-16.71	-22.83	-19.29	-19.29	7.97	10.12	9.81	12.26	19.85	25.89	31.43	-4.96
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	-5.24
Difference	-0.01	-1.73	-5.42	-5.42	-1.80	-0.48	-0.62	-0.31	-5.81	5.00	0.41	0.28
OLERS US Equity	-17.29	-22.87	-17.57	-17.57	8.56	9.52	9.23	12.01	25.88	19.84	32.95	-8.51
S&P 500 Index (Cap Wtd)	-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	28.71	18.40	31.49	-4.38
Difference	-1.19	-2.91	-6.95	-6.95	-2.04	-1.79	-1.91	-0.95	-2.83	1.44	1.46	-4.13
URSJJ US Equity	-16.75	-21.33	-14.95	-14.95	9.33	10.14	10.08	12.34	24.70	21.03	30.51	-5.81
URSJJ US Equity Custom Index	-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	24.73	20.97	30.56	-5.70
Difference	0.00	-0.03	-0.02	-0.02	-0.01	-0.03	-0.03	-0.02	-0.03	0.06	-0.05	-0.11
OWCRS US Equity	-15.35	-19.21	-11.31	-11.31	9.83	10.75	10.27	12.69	26.59	19.18	29.17	-5.38
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	-5.24
Difference	1.35	1.89	2.56	2.56	0.06	0.15	-0.16	0.12	0.93	-1.71	-1.85	-0.14



						Performa	ance (%)					
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018
International Equity												
OTRS International Equity	-14.87	-21.21	-20.88	-20.88	2.15	2.86	3.45	6.14	11.72	12.61	21.95	-15.88
MSCI ACW Ex US IM Index (USD) (Net)	-14.28	-19.08	-19.86	-19.86	1.55	2.50	3.02	5.01	8.53	11.12	21.63	-14.76
Difference	-0.59	-2.13	-1.02	-1.02	0.60	0.36	0.43	1.13	3.19	1.49	0.32	-1.12
OPERS International Equity	-13.49	-19.31	-20.77	-20.77	1.63	2.82	3.40	5.31	7.22	12.53	23.34	-13.69
MSCI ACW Ex US Index (USD) (Gross)	-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	8.29	11.13	22.13	-13.78
Difference	0.05	-1.16	-1.76	-1.76	-0.18	-0.16	0.00	0.00	-1.07	1.40	1.21	0.09
OFPRS International Equity	-13.02	-22.62	-22.76	-22.76	5.52	6.81	6.86	7.40	7.66	32.50	27.22	-13.23
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	0.71	-4.20	-3.34	-3.34	4.17	4.31	3.94	2.57	-0.16	21.85	5.71	0.97
OLERS International Equity	-13.55	-19.39	-20.60	-20.60	2.31	3.40	3.86	5.07	7.69	13.02	24.39	-14.03
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	0.18	-0.97	-1.18	-1.18	0.96	0.90	0.94	0.24	-0.13	2.37	2.88	0.17
URSJJ International Equity	-13.54	-18.19	-19.13	-19.13	1.62	2.78	3.22	5.12	8.09	10.87	21.86	-13.93
MSCI ACW Ex US Index (USD) (Gross)	-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	8.29	11.13	22.13	-13.78
Difference	0.00	-0.04	-0.12	-0.12	-0.19	-0.20	-0.18	-0.19	-0.20	-0.26	-0.27	-0.15
OWCRS International Equity	-12.09	-18.61	-20.59	-20.59	1.23	2.67	3.50	5.50	6.16	10.82	23.86	-13.14
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	-14.20
Difference	1.64	-0.19	-1.17	-1.17	-0.12	0.17	0.58	0.67	-1.66	0.17	2.35	1.06
Total Equity												
OPPRS Total Equity	-11.32	-14.58	-8.37	-8.37	10.76	9.79	8.96	10.33	23.90	18.81	22.38	-4.91
MSCI ACW Index (USD) (Gross)	-15.53	-19.97	-15.37	-15.37	6.71	7.54	7.54	9.32	19.04	16.82	27.30	-8.93
Difference	4.21	5.39	7.00	7.00	4.05	2.25	1.42	1.01	4.86	1.99	-4.92	4.02





						Performa	ance (%)					
	QTD	CYTD	FYTD	1	3	5	7	10	2021	2020	2019	2018
Fixed Income				Year	Years	Years	Years	Years				
Tixed moonic												
OTRS Fixed Income	-7.98	-14.16	-13.15	-13.15	-0.15	1.84	2.65	3.16	0.23	12.11	12.05	-1.23
Bloomberg US Unv Bond Index	-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.62	1.83	-1.10	7.58	9.29	-0.25
Difference	-2.85	-3.23	-2.26	-2.26	0.79	0.90	1.03	1.33	1.33	4.53	2.76	-0.98
OPERS Fixed Income	-6.04	-11.85	-10.96	-10.96	-0.13	1.60	2.05	2.10	-0.72	10.65	10.19	-0.24
Fixed Income Custom Index	-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	-1.01	9.08	9.43	-0.33
Difference	-0.37	-0.36	-0.30	-0.30	0.53	0.46	0.37	0.48	0.29	1.57	0.76	0.09
OFPRS Fixed Income	-7.94	-11.70	-12.95	-12.95	-1.76	-0.13	1.02	1.51	-2.70	8.41	7.22	-2.41
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01
Difference	-3.25	-1.35	-2.66	-2.66	-0.82	-1.01	-0.40	-0.03	-1.15	0.90	-1.50	-2.42
OPPRS Fixed Income	-4.88	-8.13	-7.94	-7.94	0.64	2.00	2.11	2.95	1.60	6.98	7.74	0.24
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01
Difference	-0.19	2.22	2.35	2.35	1.58	1.12	0.69	1.41	3.15	-0.53	-0.98	0.23
OLERS Fixed Income	-5.48	-10.94	-11.46	-11.46	-2.35	-0.03	0.94	1.58	-1.71	5.74	6.29	0.41
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01
Difference	-0.79	-0.59	-1.17	-1.17	-1.41	-0.91	-0.48	0.04	-0.16	-1.77	-2.43	0.40
URSJJ Fixed Income	-6.04	-11.85	-10.96	-10.96	-0.17	1.58	2.02	2.03	-0.82	10.70	10.14	-0.23
Fixed Income Custom Index	-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	-1.01	9.08	9.43	-0.33
Difference	-0.37	-0.36	-0.30	-0.30	0.49	0.44	0.34	0.41	0.19	1.62	0.71	0.10
OWCRS Fixed Income	-4.93	-10.17	-10.06	-10.06	-0.19	1.37	1.50	1.53	-0.10	8.56	7.94	0.76
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01
Difference	-0.24	0.18	0.23	0.23	0.75	0.49	0.08	-0.01	1.45	1.05	-0.78	0.75



	Performance (%)												
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	
Real Estate													
OTRS Real Estate	6.90	13.96	24.81	24.81	7.64	7.88	8.65	N/A	11.92	-2.27	5.77	7.60	
NCREIF Property Index	3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	17.70	1.60	6.42	6.72	
Difference	3.67	5.23	3.36	3.36	-2.58	-0.98	-0.19	N/A	-5.78	-3.87	-0.65	0.88	
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	21.02	0.34	4.39	7.36	
Difference	2.36	1.96	-3.50	-3.50	-4.02	-1.67	-0.70	N/A	-9.10	-2.61	1.38	0.24	
OPERS Real Estate	0.53	1.79	0.77	0.77	-3.74	-1.64	-0.40	N/A	-8.15	-8.51	2.90	1.12	
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	21.02	0.34	4.39	7.36	
Difference	-4.01	-10.21	-27.54	-27.54	-15.40	-11.19	-9.75	N/A	-29.17	-8.85	-1.49	-6.24	
OFPRS Real Estate	3.14	10.39	24.84	24.84	9.62	8.94	9.31	10.16	16.84	0.18	4.69	9.39	
NCREIF Property Index	3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	17.70	1.60	6.42	6.72	
Difference	-0.09	1.66	3.39	3.39	-0.60	0.08	0.47	0.49	-0.86	-1.42	-1.73	2.67	
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	21.02	0.34	4.39	7.36	
Difference	-1.40	-1.61	-3.47	-3.47	-2.04	-0.61	-0.04	0.01	-4.18	-0.16	0.30	2.03	
Real Assets													
OPPRS Real Assets	7.44	15.19	30.39	30.39	11.66	9.21	8.00	8.28	19.08	-0.51	4.21	4.30	
OPPRS Real Assets Blended Benchmark	4.54	12.00	28.31	28.31	11.29	8.49	5.88	5.90	21.02	0.34	4.43	0.98	
Difference	2.90	3.19	2.08	2.08	0.37	0.72	2.12	2.38	-1.94	-0.85	-0.22	3.32	
OLERS Real Assets	3.64	10.38	26.44	26.44	10.85	8.59	7.57	8.19	19.82	0.94	3.67	4.01	
OLERS Real Assets Blended Benchmark	4.54	12.00	28.31	28.31	11.34	8.59	6.97	6.56	21.02	0.34	4.46	1.55	
Difference	-0.90	-1.62	-1.87	-1.87	-0.49	0.00	0.60	1.63	-1.20	0.60	-0.79	2.46	



		Performance (%)												
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018		
Hedge Funds														
OFPRS Hedge Fund	-0.88	-20.45	-42.71	-42.71	-17.98	-10.16	-6.79	-3.37	-26.04	-4.62	3.52	-2.86		
HFRI FOF: Cnsvt Index	-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	7.62	6.47	6.30	-0.87		
Difference	0.65	-19.07	-42.99	-42.99	-22.68	-14.23	-9.92	-7.21	-33.66	-11.09	-2.78	-1.99		
OPPRS Long/Short Equity	-14.21	-19.97	-23.38	-23.38	1.21	2.98	2.85	5.25	0.14	22.68	16.85	-4.52		
HFRI FOF: Strategic Index	-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	6.26	14.62	10.52	-6.67		
Difference	-7.25	-7.34	-11.31	-11.31	-1.80	0.04	0.61	1.50	-6.12	8.06	6.33	2.15		
OLERS Long/Short Equity	-13.49	-20.27	-24.37	-24.37	-2.38	0.38	1.05	4.11	-1.46	13.93	13.34	-4.75		
HFRI FOF: Strategic Index	-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	6.26	14.62	10.52	-6.67		
Difference	-6.53	-7.64	-12.30	-12.30	-5.39	-2.56	-1.19	0.36	-7.72	-0.69	2.82	1.92		



	Performance (%)												
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	
Private Equity													
OTRS Private Equity	3.84	3.77	24.76	24.76	28.18	23.79	20.67	20.59	57.72	17.27	17.73	23.03	
R 2000 Index+4%	-16.38	-21.91	-22.21	-22.21	8.38	9.37	10.15	13.73	19.41	24.76	30.55	-7.45	
Difference	20.22	25.68	46.97	46.97	19.80	14.42	10.52	6.86	38.31	-7.49	-12.82	30.48	
OFPRS Private Equity	5.77	11.27	28.87	28.87	23.54	19.90	16.50	N/A	49.68	7.49	6.45	18.91	
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40	
Difference	5.77	10.69	16.05	16.05	1.82	1.05	0.22	N/A	9.27	-14.18	-7.37	8.51	
OPPRS Private Equity	1.59	7.72	37.24	37.24	30.08	23.13	17.89	16.41	67.32	15.87	10.51	15.22	
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40	
Difference	1.59	7.14	24.42	24.42	8.36	4.28	1.61	0.25	26.91	-5.80	-3.31	4.82	
OLERS Private Equity	-0.06	2.04	15.45	15.45	22.06	17.71	12.94	13.01	41.10	20.25	14.02	4.82	
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	10.40	
Difference	-0.06	1.46	2.63	2.63	0.34	-1.14	-3.34	-3.15	0.69	-1.42	0.20	-5.58	
Other Alternatives													
OWCRS Alternative Investments	-7.88	-8.15	-5.87	-5.87	2.76	3.28	3.52	3.02	9.60	2.74	15.31	-6.07	
OWCRS Alternatives Custom Index	-3.88	-6.53	-5.45	-5.45	3.96	3.63	2.62	N/A	6.17	10.88	8.38	-4.02	
Difference	-4.00	-1.62	-0.42	-0.42	-1.20	-0.35	0.90	N/A	3.43	-8.14	6.93	-2.05	



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



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



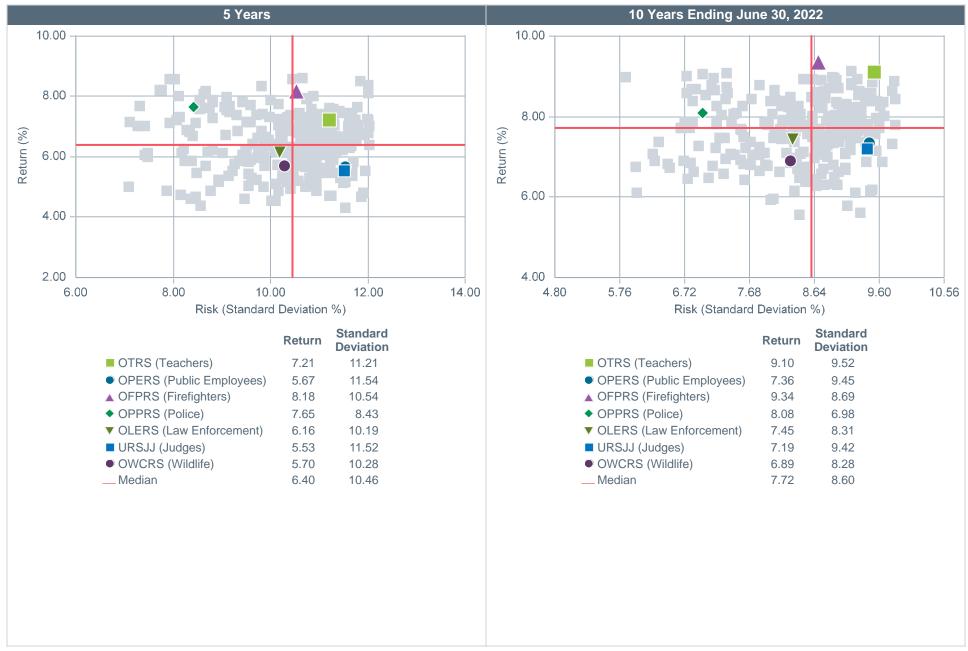
Oklahoma State Pension Commission All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



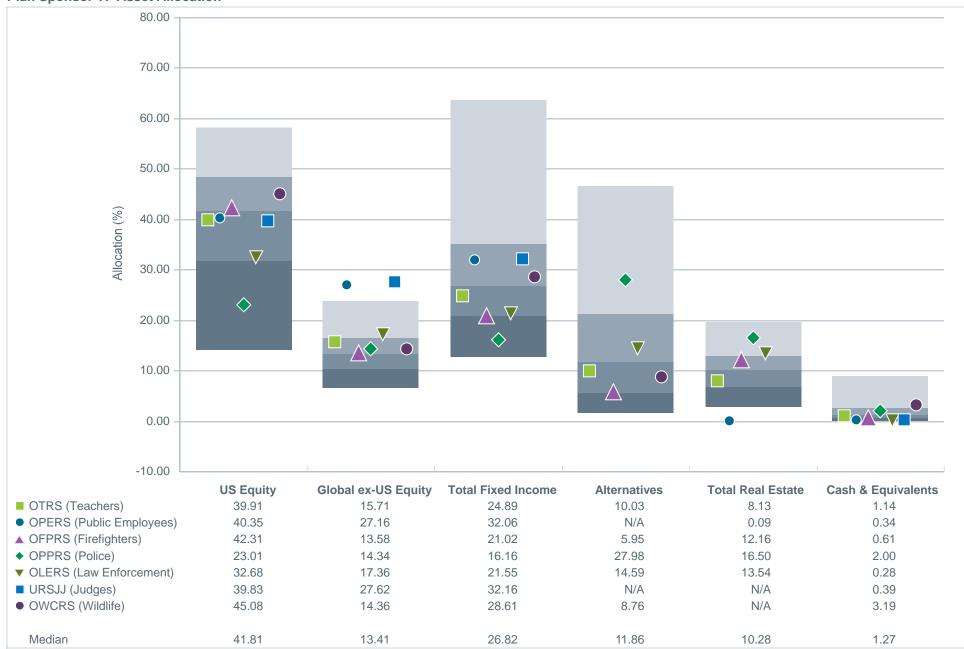
Total Fund Risk & Return vs. All Public Plans-Total Fund



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

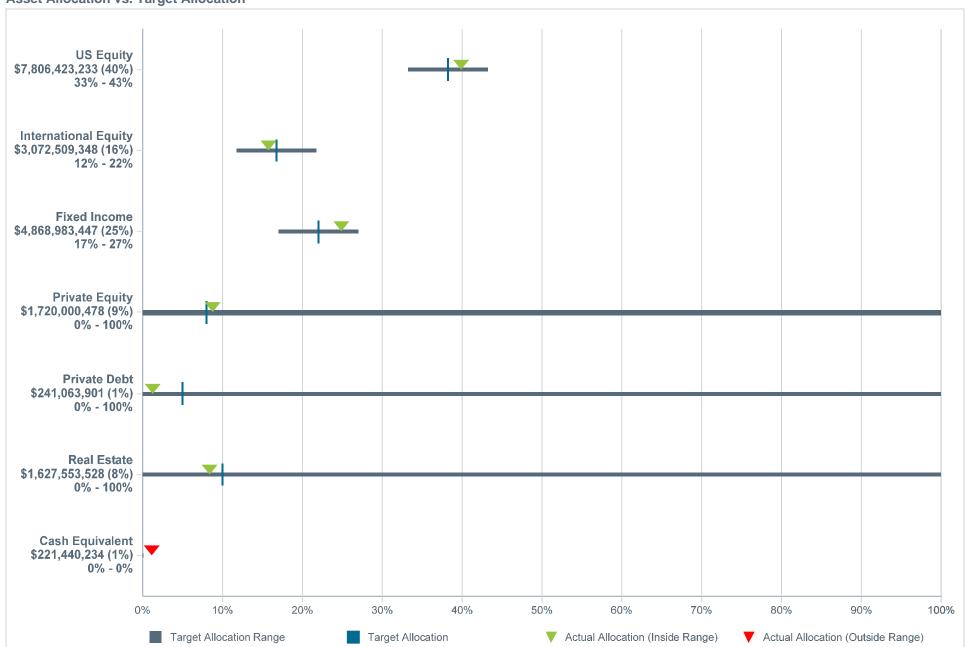


Oklahoma State Pension Commission All Plans Total Fund vs. All Public Plans-Total Fund Plan Sponsor TF Asset Allocation



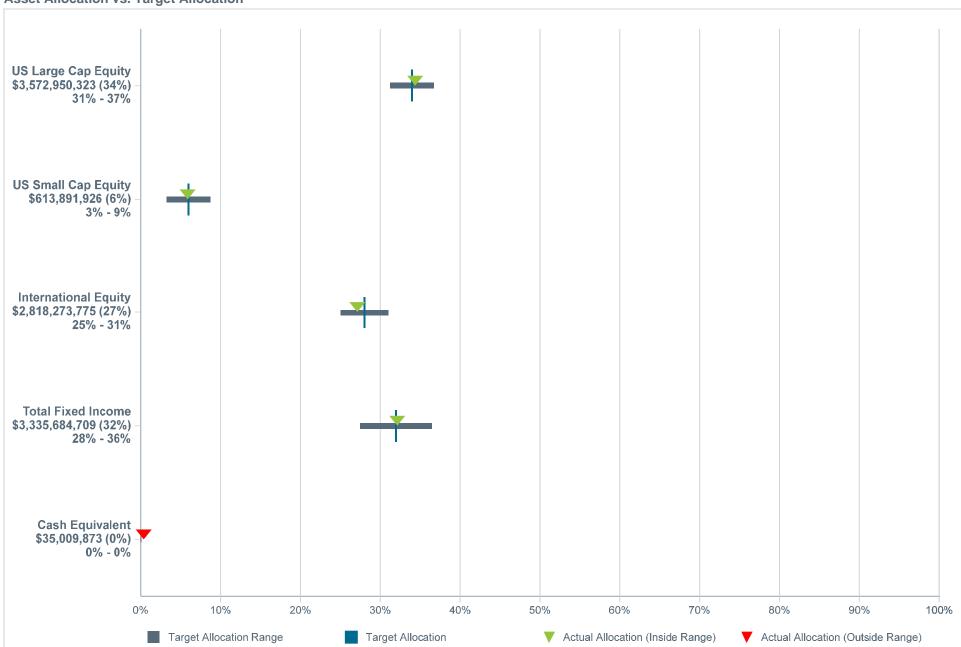
Parentheses contain percentile ranks.





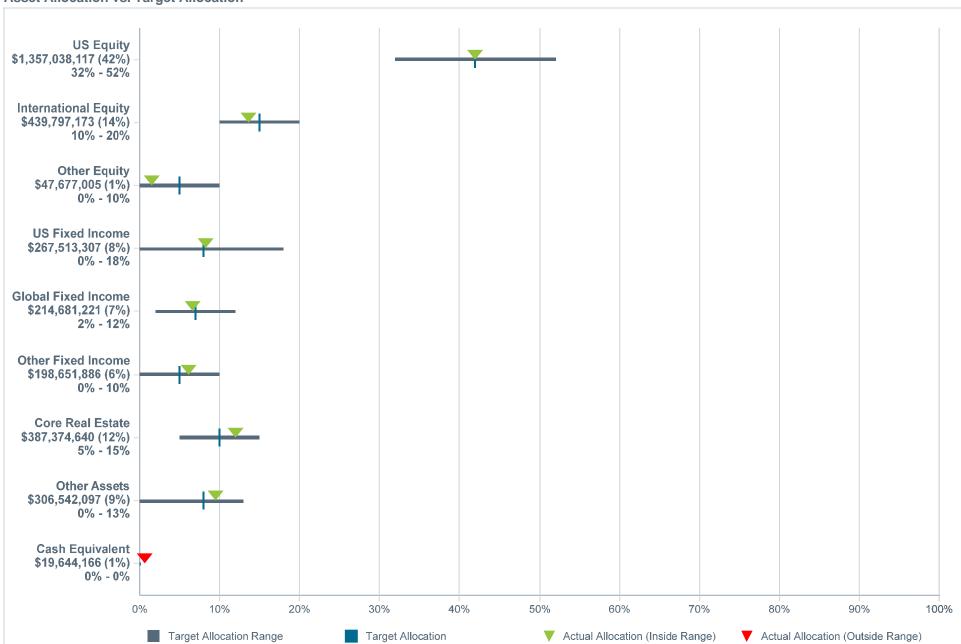
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Private Equity includes Private Credit. Cash held in short-term investments with the Custodian shall be considered as domestic fixed income for rebalancing purposes.





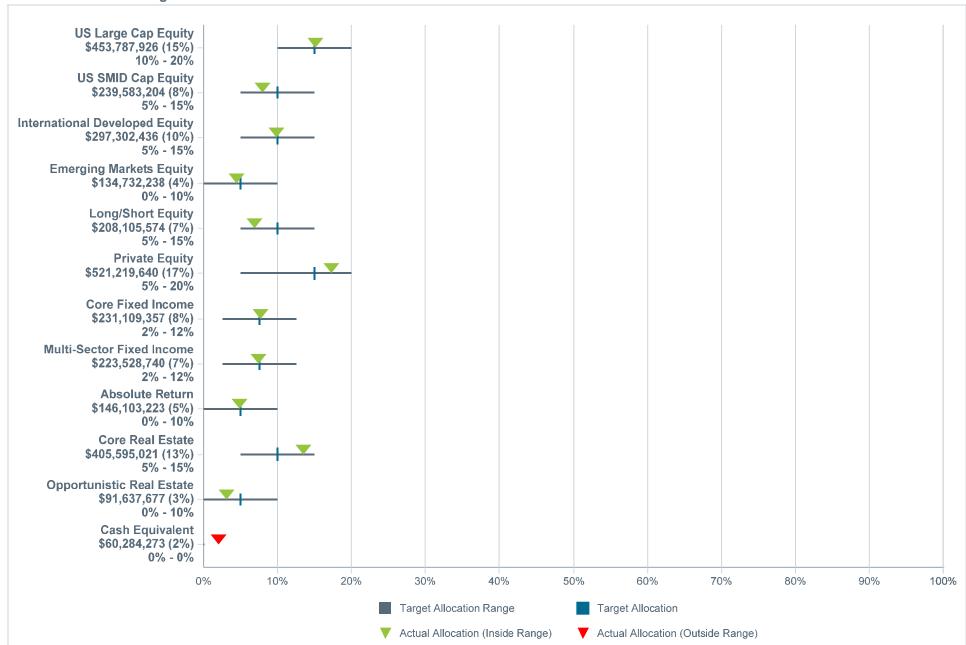
Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.





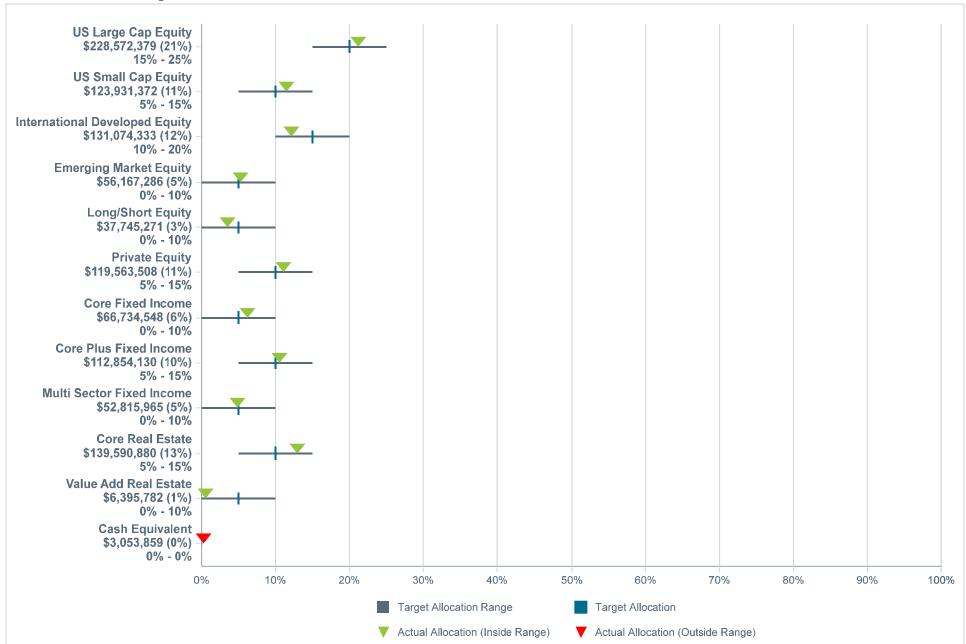
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include Hedge Funds and Private Equity.





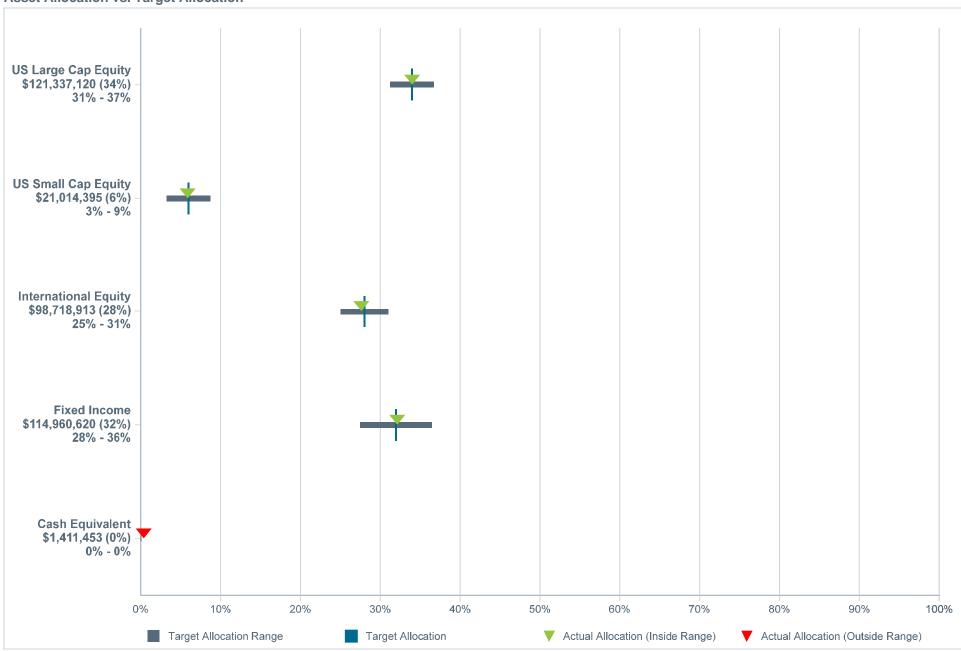






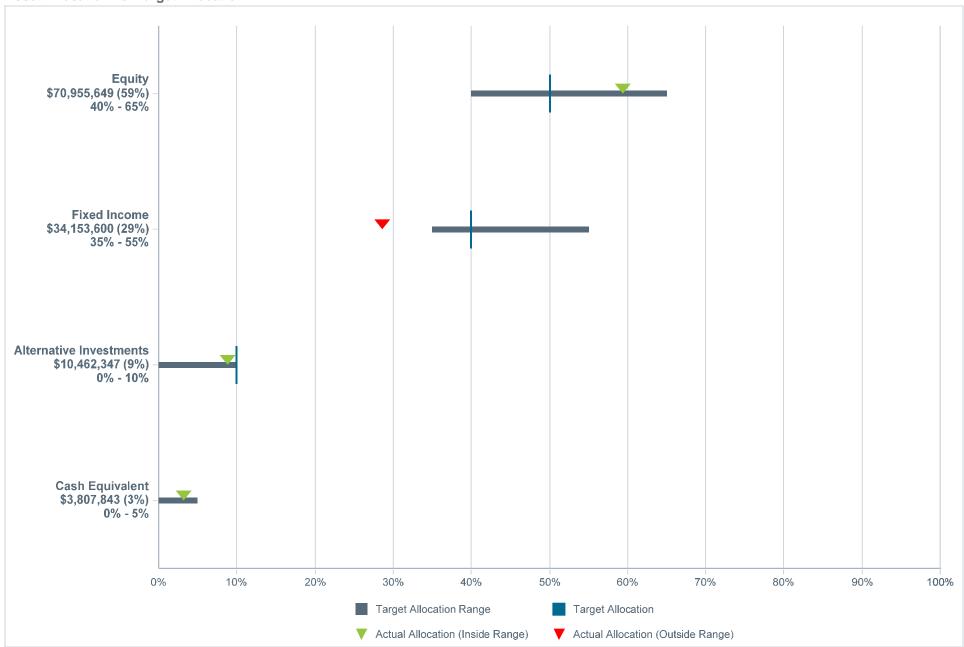
Allocations shown may not sum up to 100% exactly due to rounding. Short term cash reserves shall be considered as fixed income for rebalancing purposes.





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.





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



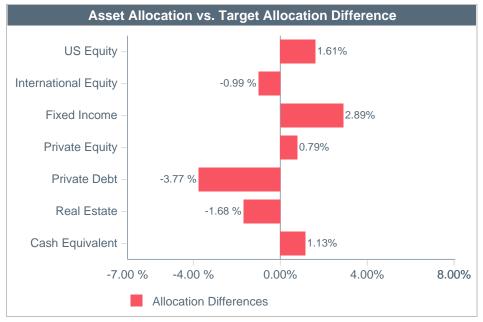
Oklahoma Teachers' Retirement System (OTRS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OTRS Total Fund (Net)	-9.88	-14.31	-9.54	-9.54	6.61	6.94	6.62	8.72	18.20	13.22	19.48	-5.29	15.83
OTRS Policy Index	-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	15.60	15.24	21.72	-4.75	15.16
Difference	1.48	0.95	1.49	1.49	0.05	-0.12	-0.34	0.37	2.60	-2.02	-2.24	-0.54	0.67
OTRS Actual Allocation Index	-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	16.21	16.98	18.94	-4.70	14.35
Difference	2.05	1.88	2.56	2.56	0.17	0.20	-0.02	0.30	1.99	-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	7.00
Difference	-11.59	-17.75	-16.54	-16.54	-0.39	-0.06	-0.38	1.72	11.20	6.22	12.48	-12.29	8.83
OTRS Total Fund (Gross)	-9.83	-14.21	-9.36	-9.36	6.85	7.21	6.95	9.10	18.42	13.45	19.83	-4.98	16.20
OTRS Policy Index	-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	15.60	15.24	21.72	-4.75	15.16
Difference	1.53	1.05	1.67	1.67	0.29	0.15	-0.01	0.75	2.82	-1.79	-1.89	-0.23	1.04
OTRS Actual Allocation Index	-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	16.21	16.98	18.94	-4.70	14.35
Difference	2.10	1.98	2.74	2.74	0.41	0.47	0.31	0.68	2.21	-3.53	0.89	-0.28	1.85
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	47	55	45	45	24	25	30	6	9	37	31	72	29

	Asset Allocation vs. Target Allocation												
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)										
OTRS (Teachers)	19,559,152,827	100.00	100.00										
US Equity	7,806,423,233	39.91	38.30										
International Equity	3,072,509,348	15.71	16.70										
Fixed Income	4,868,983,447	24.89	22.00										
Private Equity	1,720,000,478	8.79	8.00										
Private Debt	241,063,901	1.23	5.00										
Real Estate	1,627,553,528	8.32	10.00										
Cash Equivalent	221,440,234	1.13	0.00										



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Opportunistic Fixed Income accounts for 1.23% of the Total Fund. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation	1					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	19,559,152,827	100.00	-9.88	-14.31	-9.54	-9.54	6.61	6.94	6.62	8.72	8.73	12/01/1991
OTRS Policy Index			-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	8.75	
Difference			1.48	0.95	1.49	1.49	0.05	-0.12	-0.34	0.37	-0.02	
OTRS Actual Allocation Index			-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	N/A	
Difference			2.05	1.88	2.56	2.56	0.17	0.20	-0.02	0.30	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			-11.59	-17.75	-16.54	-16.54	-0.39	-0.06	-0.38	1.72	1.73	
US Equity	7,806,423,233	39.91	-14.79	-19.37	-13.91	-13.91	7.37	8.53	8.40	11.61	10.42	04/01/1990
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	10.02	
Difference			1.91	1.73	-0.04	-0.04	-2.40	-2.07	-2.03	-0.96	0.40	
US Active Equity	1,166,619,359	5.96	-15.49	-21.05	-18.18	-18.18	7.29	8.35	8.29	11.45	8.30	12/01/1998
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	7.34	
Difference			1.21	0.05	-4.31	-4.31	-2.48	-2.25	-2.14	-1.12	0.96	
Frontier Small Cap Value Equity (SA)	195,403,189	1.00	-13.26	-15.09	-11.61	-11.61	7.23	6.28	7.58	N/A	8.44	06/01/2013
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	7.32	
Difference			2.02	2.22	4.67	4.67	1.05	1.39	1.18	N/A	1.12	
Neumeier Poma Small Cap Equity (SA)	220,799,967	1.13	-11.88	-20.67	-14.73	-14.73	5.23	6.40	7.99	N/A	10.27	06/01/2013
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.68	
Difference			5.32	2.76	10.47	10.47	1.02	1.23	2.08	N/A	2.59	
Shapiro Enhanced Small Cap Equity (SA)	385,165,865	1.97	-14.41	-18.02	-17.31	-17.31	7.03	6.58	7.76	11.24	9.13	02/01/1998
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.21	
Difference			2.79	5.41	7.89	7.89	2.82	1.41	1.85	1.89	1.92	
Geneva US Small Cap Growth Equity (SA)	186,023,574	0.95	-12.95	-25.11	-22.09	-22.09	5.50	9.57	10.06	N/A	11.46	06/01/2013
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.66	
Difference			6.30	4.34	11.34	11.34	4.10	4.77	5.10	N/A	3.80	
Wasatch Small Cap Core Growth (SA)	177,754,860	0.91	-18.07	-31.04	-27.16	-27.16	8.06	12.19	10.82	N/A	11.57	06/01/2013
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.66	
Difference			1.18	-1.59	6.27	6.27	6.66	7.39	5.86	N/A	3.91	





	Allocation	Allocation					Perform	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Cap Wgt)	3,795,942,611	19.41	-20.67	-24.81	-18.55	-18.55	7.42	9.03	9.42	11.72	11.24	04/01/2012
Northern Trust Russell 3000 Index (SA)	3,790,601,597	19.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
US Passive Equity (Non-Cap Wgt)	2,840,486,215	14.52	-12.74	-16.54	-9.40	-9.40	7.10	9.12	9.27	12.17	11.59	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			-12.69	-16.49	-9.35	-9.35	7.13	N/A	N/A	N/A	N/A	
Difference			-0.05	-0.05	-0.05	-0.05	-0.03	N/A	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	2,840,486,215	14.52	-12.74	-16.54	-9.40	-9.40	7.10	N/A	N/A	N/A	7.07	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			-12.69	-16.49	-9.35	-9.35	7.13	N/A	N/A	N/A	7.11	
Difference			-0.05	-0.05	-0.05	-0.05	-0.03	N/A	N/A	N/A	-0.04	



	Allocation	1					Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,072,509,348	15.71	-14.97	-21.39	-21.24	-21.24	1.70	2.39	2.98	5.66	6.95	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			-14.10	-18.82	-19.46	-19.46	2.01	2.97	3.49	5.48	4.99	
Difference			-0.87	-2.57	-1.78	-1.78	-0.31	-0.58	-0.51	0.18	1.96	
Causeway Intl Opportunities (SA)	532,540,652	2.72	-10.72	-15.55	-17.06	-17.06	1.72	2.10	2.31	5.30	7.14	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			-11.65	-11.41	-12.14	-12.14	1.17	1.85	2.34	4.36	7.07	
Difference			0.93	-4.14	-4.92	-4.92	0.55	0.25	-0.03	0.94	0.07	
Allianz Best Styles AC Intl Equity (SA)	1,098,347,035	5.62	-13.49	-16.79	-17.18	-17.18	1.20	2.13	N/A	N/A	5.37	07/01/2016
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.78	
Difference			0.05	1.36	1.83	1.83	-0.61	-0.85	N/A	N/A	-0.41	
Wellington Intl Quality Growth (SA)	557,824,230	2.85	-15.36	-26.34	-26.12	-26.12	2.83	5.43	N/A	N/A	7.25	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.98	
Difference			0.23	-1.71	-0.53	-0.53	0.91	1.66	N/A	N/A	1.27	
TOK121 Sanctioned Asset (SA)	3,066	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
MSCI ACW Ex US Grth Index (USD) (Net)			-15.71	-24.79	-25.80	-25.80	1.62	3.43	3.86	5.71	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Wasatch International Small Cap Growth (SA)	308,487,874	1.58	-22.66	-34.25	-31.38	-31.38	-0.20	2.87	3.71	7.42	8.13	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			-17.38	-22.69	-22.08	-22.08	3.35	2.96	4.11	6.62	6.49	
Difference			-5.28	-11.56	-9.30	-9.30	-3.55	-0.09	-0.40	0.80	1.64	
Wellington International Small Cap Equity (CF)	251,221,756	1.28	-17.16	-26.37	-26.64	-26.64	-0.45	-1.41	0.63	5.28	5.71	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			-17.50	-24.46	-23.63	-23.63	1.51	2.11	4.12	7.57	7.45	
Difference			0.34	-1.91	-3.01	-3.01	-1.96	-3.52	-3.49	-2.29	-1.74	
SSGA Emerging Market Small Cap (CF)	324,084,735	1.66	-16.06	-16.96	-15.98	-15.98	6.07	3.93	N/A	N/A	5.48	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			-16.28	-19.85	-20.29	-20.29	6.24	3.89	3.15	4.67	5.08	
Difference			0.22	2.89	4.31	4.31	-0.17	0.04	N/A	N/A	0.40	
Fixed Income	4,868,983,447	24.89	-8.00	-14.22	-13.29	-13.29	-0.33	1.65	2.44	2.94	6.23	04/01/1990
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	N/A	
Difference			-1.71	-2.78	-2.31	-2.31	0.26	0.39	0.37	0.50	N/A	
Loomis Sayles Multisector Full Discretion (SA)	1,391,359,949	7.11	-7.07	-11.99	-12.45	-12.45	1.35	2.29	2.70	3.06	5.40	07/01/1999
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.77	
Difference			-0.78	-0.55	-1.47	-1.47	1.94	1.03	0.63	0.62	0.63	

During 06/2022, Northern Trust Russell 3000 Index (SA), TOK121 Sanctioned Asset (SA), and Artemis Real Estate IV LP were funded. Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation					Perfori	mance (%	(a)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Mackay Shields Core+ Extended Discretion (SA)	1,356,682,590	6.94	-7.31	-12.60	-11.98	-11.98	0.37	1.65	2.02	2.41	4.20	11/01/2004
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.11	
Difference			-1.02	-1.16	-1.00	-1.00	0.96	0.39	-0.05	-0.03	0.09	
Lord Abbett Core Plus Full Discretion (SA)	1,349,659,824	6.90	-6.22	-11.24	-10.65	-10.65	-0.27	1.37	1.96	2.39	4.18	11/01/2004
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.11	
Difference			0.07	0.20	0.33	0.33	0.32	0.11	-0.11	-0.05	0.07	
Hoisington Active Duration Long Bonds (SA)	771,281,083	3.94	-13.57	-23.99	-20.92	-20.92	-3.18	0.61	1.86	1.62	5.42	11/01/2004
Bloomberg US Trsy Index			-3.78	-9.14	-8.90	-8.90	-0.88	0.74	1.06	1.01	2.86	
Difference			-9.79	-14.85	-12.02	-12.02	-2.30	-0.13	0.80	0.61	2.56	
Private Equity	1,720,000,478	8.79	3.84	3.77	24.76	24.76	28.18	23.79	20.67	20.59	20.67	07/01/2015
R 2000 Index+4%			-16.38	-21.91	-22.21	-22.21	8.38	9.37	10.15	13.73	10.15	
Difference			20.22	25.68	46.97	46.97	19.80	14.42	10.52	6.86	10.52	
Franklin Park Private Equity LP	1,711,009,771	8.75	3.82	3.76	24.85	24.85	28.36	24.11	20.77	16.92	20.77	07/01/2015
Legacy Private Equity LP	8,990,707	0.05	6.45	6.45	12.89	12.89	11.02	4.78	6.10	7.54	4.74	10/01/2008
Private Debt	241,063,901	1.23	3.00	9.49	23.67	23.67	11.27	9.78	9.38	N/A	9.38	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			-5.30	-5.46	-4.18	-4.18	1.45	2.46	2.81	3.29	2.81	
Difference			8.30	14.95	27.85	27.85	9.82	7.32	6.57	N/A	6.57	
PIMCO Bravo LP	82,034	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	03/01/2011
PIMCO Bravo II LP	24,205,443	0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	03/01/2013
PIMCO Bravo III LP	172,313,717	0.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO COF II LP	44,462,707	0.23	0.42	13.70	26.94	26.94	13.70	11.92	N/A	N/A	12.77	10/01/2016
Bloomberg US Unv Bond Index			-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.62	1.83	0.80	
Difference			5.55	24.63	37.83	37.83	14.64	10.98	N/A	N/A	11.97	



	Allocation						Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate	1,627,553,528	8.32	6.83	13.81	24.49	24.49	7.41	7.66	8.46	N/A	8.46	07/01/2015
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	8.84	
Difference			3.60	5.08	3.04	3.04	-2.81	-1.20	-0.38	N/A	-0.38	
AEW Core Property Trust (CF)	434,451,400	2.22	8.30	16.95	27.71	27.71	10.83	9.22	9.16	9.17	8.88	07/01/2011
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.26	
Difference			3.76	4.95	-0.60	-0.60	-0.83	-0.33	-0.19	-0.98	-1.38	
Heitman America Real Estate (CF)	435,306,341	2.23	9.30	19.06	32.24	32.24	10.30	8.65	9.26	9.82	9.56	05/01/2011
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.52	
Difference			4.76	7.06	3.93	3.93	-1.36	-0.90	-0.09	-0.33	-0.96	
L&B Core Income Partners LP	32,120,768	0.16	0.60	-0.19	8.00	8.00	-4.03	-0.23	2.97	5.02	4.61	04/01/2011
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.44	
Difference			-3.94	-12.19	-20.31	-20.31	-15.69	-9.78	-6.38	-5.13	-5.83	
American Strategic Value Realty (CF)	124,314,665	0.64	5.90	11.09	22.32	22.32	10.75	9.88	10.47	N/A	10.02	12/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.98	
Difference			1.36	-0.91	-5.99	-5.99	-0.91	0.33	1.12	N/A	0.04	
Angelo Gordon Value X LP	52,068,151	0.27	5.29	16.88	33.53	33.53	8.16	N/A	N/A	N/A	8.16	07/01/2019
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	11.66	
Difference			0.75	4.88	5.22	5.22	-3.50	N/A	N/A	N/A	-3.50	
Artemis Real Estate III LP	37,886,487	0.19	0.38	19.21	59.87	59.87	28.00	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.80	
Difference			-4.16	7.21	31.56	31.56	16.34	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	63,495	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	35,079,799	0.18	4.75	3.47	13.41	13.41	-3.34	3.20	5.66	N/A	5.00	11/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.87	
Difference			0.21	-8.53	-14.90	-14.90	-15.00	-6.35	-3.69	N/A	-4.87	
Dune Real Estate IV LP	27,153,564	0.14	-3.32	12.84	45.64	45.64	N/A	N/A	N/A	N/A	-9.64	09/01/2019
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	12.39	
Difference			-7.86	0.84	17.33	17.33	N/A	N/A	N/A	N/A	-22.03	

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	Allocation						Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
FCP Realty IV LP	39,971,163	0.20	21.79	21.79	34.77	34.77	12.08	N/A	N/A	N/A	-0.76	12/01/2018
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.74	
Difference			17.25	9.79	6.46	6.46	0.42	N/A	N/A	N/A	-11.50	
FCP Realty V LP	26,343,943	0.13	0.89	-6.11	N/A	N/A	N/A	N/A	N/A	N/A	-25.46	10/01/2021
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	20.58	
Difference			-3.65	-18.11	N/A	N/A	N/A	N/A	N/A	N/A	-46.04	
GreenOak US II LP	22,826,770	0.12	-6.64	-6.64	-13.63	-13.63	-19.86	-10.21	-6.18	N/A	-6.14	10/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.76	
Difference			-11.18	-18.64	-41.94	-41.94	-31.52	-19.76	-15.53	N/A	-15.90	
GreenOak US III LP	40,465,400	0.21	8.36	8.36	24.21	24.21	-1.09	N/A	N/A	N/A	-9.01	06/01/2018
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.35	
Difference			3.82	-3.64	-4.10	-4.10	-12.75	N/A	N/A	N/A	-19.36	
Harbert European Real Estate V LP	36,921,561	0.19	4.24	6.84	18.34	18.34	11.55	N/A	N/A	N/A	0.02	12/01/2018
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.74	
Difference			-0.30	-5.16	-9.97	-9.97	-0.11	N/A	N/A	N/A	-10.72	
Invesco Strategic Opportunity (CF)	18,041,173	0.09	0.85	17.30	34.65	34.65	N/A	N/A	N/A	N/A	50.56	10/01/2019
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	12.35	
Difference			-3.69	5.30	6.34	6.34	N/A	N/A	N/A	N/A	38.21	
L&B Gloden Driller (SA)	78,857,681	0.40	-0.01	-0.02	-0.02	-0.02	-1.46	5.96	4.93	N/A	N/A	07/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.84	
Difference			-4.55	-12.02	-28.33	-28.33	-13.12	-3.59	-4.42	N/A	N/A	
Landmark Real Estate VII LP	7,337,870	0.04	3.77	3.77	7.23	7.23	-0.58	1.21	6.38	N/A	8.38	12/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.98	
Difference			-0.77	-8.23	-21.08	-21.08	-12.24	-8.34	-2.97	N/A	-1.60	
Lyrical-OTRS Realty Partner IV LP	65,857,270	0.34	6.65	15.87	15.49	15.49	11.38	14.75	8.06	N/A	5.87	11/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.87	
Difference			2.11	3.87	-12.82	-12.82	-0.28	5.20	-1.29	N/A	-4.00	
Starwood Opportunity X LP	14,065,335	0.07	19.18	27.15	53.95	53.95	18.68	16.79	15.47	N/A	15.47	07/01/2015
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.35	
Difference			14.64	15.15	25.64	25.64	7.02	7.24	6.12	N/A	6.12	

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	Allocation						Perforr	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Starwood Opportunity XI LP	55,163,255	0.28	3.56	6.63	22.76	22.76	14.80	N/A	N/A	N/A	22.54	08/01/2018
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.30	
Difference			-0.98	-5.37	-5.55	-5.55	3.14	N/A	N/A	N/A	12.24	
Starwood Opportunity XII LP	32,857,436	0.17	8.45	13.93	N/A	N/A	N/A	N/A	N/A	N/A	13.93	01/01/2022
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	12.00	
Difference			3.91	1.93	N/A	N/A	N/A	N/A	N/A	N/A	1.93	
Property ACQ Fund	10,400,000	0.05	3.17	3.17	3.15	3.15	-7.47	N/A	N/A	N/A	-9.92	08/01/2017



	Allocation	Allocation					Performance (%)						
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date	
OTRS Total Fund	19,559,152,827	100.00	-9.83	-14.21	-9.36	-9.36	6.85	7.21	6.95	9.10	9.06	12/01/1991	
OTRS Policy Index			-11.36	-15.26	-11.03	-11.03	6.56	7.06	6.96	8.35	8.75		
Difference			1.53	1.05	1.67	1.67	0.29	0.15	-0.01	0.75	0.31		
OTRS Actual Allocation Index			-11.93	-16.19	-12.10	-12.10	6.44	6.74	6.64	8.42	N/A		
Difference			2.10	1.98	2.74	2.74	0.41	0.47	0.31	0.68	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			-11.54	-17.65	-16.36	-16.36	-0.15	0.21	-0.05	2.10	2.06		
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	7.94		
Rank			47	55	45	45	24	25	30	6	2		
US Equity	7,806,423,233	39.91	-14.75	-19.30	-13.75	-13.75	7.58	8.81	8.74	11.85	10.50	04/01/1990	
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	10.02		
Difference			1.95	1.80	0.12	0.12	-2.19	-1.79	-1.69	-0.72	0.48		
IM U.S. Equity (SA+CF) Median			-15.39	-19.85	-13.06	-13.06	8.42	9.20	9.09	11.96	10.94		
Rank			45	47	54	54	60	56	56	53	66		
US Active Equity	1,166,619,359	5.96	-15.28	-20.73	-17.66	-17.66	7.85	8.88	8.73	11.92	8.78	12/01/1998	
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	7.34		
Difference			1.42	0.37	-3.79	-3.79	-1.92	-1.72	-1.70	-0.65	1.44		
IM U.S. Equity (SA+CF) Median			-15.39	-19.85	-13.06	-13.06	8.42	9.20	9.09	11.96	9.13		
Rank			50	56	68	68	57	55	56	51	57		
Frontier Small Cap Value Equity (SA)	195,403,189	1.00	-13.10	-14.76	-10.99	-10.99	8.00	7.09	8.45	N/A	9.35	06/01/2013	
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	7.32		
Difference			2.18	2.55	5.29	5.29	1.82	2.20	2.05	N/A	2.03		
IM U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	8.68		
Rank			51	40	53	53	45	36	22	N/A	30		
Neumeier Poma Small Cap Equity (SA)	220,799,967	1.13	-11.72	-20.37	-14.15	-14.15	5.88	7.04	8.66	N/A	10.97	06/01/2013	
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.68		
Difference			5.48	3.06	11.05	11.05	1.67	1.87	2.75	N/A	3.29		
IM U.S. Small Cap Equity (SA+CF) Median			-15.39	-20.74	-16.96	-16.96	6.91	7.31	7.73	11.18	9.43		
Rank			15	49	37	37	65	55	31	N/A	20		
Shapiro Enhanced Small Cap Equity (SA)	385,165,865	1.97	-14.23	-17.67	-16.78	-16.78	7.64	7.20	8.45	12.01	10.01	02/01/1998	
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.21		
Difference			2.97	5.76	8.42	8.42	3.43	2.03	2.54	2.66	2.80		
IM U.S. Small Cap Equity (SA+CF) Median			-15.39	-20.74	-16.96	-16.96	6.91	7.31	7.73	11.18	9.88		
Rank			39	32	50	50	42	52	35	32	49		

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	Allocation	1					Perfori	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Geneva US Small Cap Growth Equity (SA)	186,023,574	0.95	-12.77	-24.76	-21.46	-21.46	6.24	10.34	10.83	N/A	12.06	06/01/2013
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.66	
Difference			6.48	4.69	11.97	11.97	4.84	5.54	5.87	N/A	4.40	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	10.76	
Rank			7	22	17	17	49	43	23	N/A	21	
Wasatch Small Cap Core Growth (SA)	177,754,860	0.91	-17.87	-30.67	-26.47	-26.47	8.94	13.11	11.76	N/A	12.52	06/01/2013
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.66	
Difference			1.38	-1.22	6.96	6.96	7.54	8.31	6.80	N/A	4.86	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	10.76	
Rank			33	55	37	37	24	18	14	N/A	15	
US Passive Equity (Cap Wgt)	3,795,942,611	19.41	-20.67	-24.81	-18.55	-18.55	7.43	9.04	9.42	11.73	11.25	04/01/2012
Northern Trust Russell 3000 Index (SA)	3,790,601,597	19.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Large Cap Equity (SA+CF) Median			-15.66	-19.72	-10.74	-10.74	9.67	10.76	10.45	12.79	N/A	
Rank			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Non-Cap Wgt)	2,840,486,215	14.52	-12.72	-16.51	-9.34	-9.34	7.16	9.19	9.32	12.22	11.63	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			-12.69	-16.49	-9.35	-9.35	7.13	N/A	N/A	N/A	N/A	
Difference			-0.03	-0.02	0.01	0.01	0.03	N/A	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	2,840,486,215	14.52	-12.72	-16.51	-9.34	-9.34	7.16	N/A	N/A	N/A	7.14	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			-12.69	-16.49	-9.35	-9.35	7.13	N/A	N/A	N/A	7.11	
Difference			-0.03	-0.02	0.01	0.01	0.03	N/A	N/A	N/A	0.03	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.11	-20.00	-11.14	-11.14	10.28	11.01	10.81	12.84	9.73	
Rank			17	18	19	19	87	N/A	N/A	N/A	83	
International Equity	3,072,509,348	15.71	-14.87	-21.21	-20.88	-20.88	2.15	2.86	3.45	6.14	7.39	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			-14.10	-18.82	-19.46	-19.46	2.01	2.97	3.49	5.48	4.99	
Difference			-0.77	-2.39	-1.42	-1.42	0.14	-0.11	-0.04	0.66	2.40	
IM International Equity (SA+CF) Median			-13.68	-19.63	-20.54	-20.54	2.36	3.12	3.88	6.36	6.77	
Rank			64	61	53	53	52	56	61	55	34	
Causeway Intl Opportunities (SA)	532,540,652	2.72	-10.65	-15.41	-16.79	-16.79	2.05	2.44	2.65	5.55	7.27	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			-11.65	-11.41	-12.14	-12.14	1.17	1.85	2.34	4.36	7.07	
Difference			1.00	-4.00	-4.65	-4.65	0.88	0.59	0.31	1.19	0.20	
IM ACWI Ex US Value (SA+CF) Median			-11.90	-15.29	-15.94	-15.94	2.09	2.52	3.33	6.07	7.48	
Rank			25	52	54	54	54	52	66	62	55	
Allianz Best Styles AC Intl Equity (SA)	1,098,347,035	5.62	-13.44	-16.67	-16.96	-16.96	1.46	2.40	N/A	N/A	5.65	07/01/2016
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.78	
Difference			0.10	1.48	2.05	2.05	-0.35	-0.58	N/A	N/A	-0.13	
IM ACWI Ex US Core (SA+CF) Median			-13.51	-19.70	-19.39	-19.39	2.75	3.37	3.67	6.05	5.85	
Rank			50	15	18	18	65	75	N/A	N/A	62	
Wellington Intl Quality Growth (SA)	557,824,230	2.85	-15.23	-26.11	-25.68	-25.68	3.39	6.03	N/A	N/A	7.85	07/01/2016
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.98	
Difference			0.36	-1.48	-0.09	-0.09	1.47	2.26	N/A	N/A	1.87	
IM ACWI Ex US Growth (SA+CF) Median			-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	6.83	
Rank			36	50	56	56	40	22	N/A	N/A	34	
TOK121 Sanctioned Asset (SA)	3,066	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
MSCI ACW Ex US Grth Index (USD) (Net)			-15.71	-24.79	-25.80	-25.80	1.62	3.43	3.86	5.71	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM ACWI Ex US Growth (SA+CF) Median			-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	N/A	
Rank			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	



	Allocation	١					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wasatch International Small Cap Growth (SA)	308,487,874	1.58	-22.50	-33.97	-30.84	-30.84	0.53	3.64	4.52	8.30	9.03	12/01/2011
MSCI ACW Ex US Sm Cap Index (USD) (Gross)			-17.38	-22.69	-22.08	-22.08	3.35	2.96	4.11	6.62	6.49	
Difference			-5.12	-11.28	-8.76	-8.76	-2.82	0.68	0.41	1.68	2.54	
IM International Small Cap Equity (SA+CF) Median			-16.63	-24.60	-24.03	-24.03	2.68	3.02	4.12	7.89	7.92	
Rank			91	85	81	81	79	38	47	43	24	
Wellington International Small Cap Equity (CF)	251,221,756	1.28	-17.07	-26.29	-26.40	-26.40	-0.04	-0.91	1.21	5.94	6.39	12/01/2011
MSCI EAFE Sm Cap Index (USD) (Gross)			-17.50	-24.46	-23.63	-23.63	1.51	2.11	4.12	7.57	7.45	
Difference			0.43	-1.83	-2.77	-2.77	-1.55	-3.02	-2.91	-1.63	-1.06	
IM EAFE Core (SA+CF) Median			-14.29	-19.85	-17.98	-17.98	2.05	3.12	3.51	6.52	6.43	
Rank			98	95	95	95	87	99	99	77	55	
SSGA Emerging Market Small Cap (CF)	324,084,735	1.66	-15.91	-16.67	-15.41	-15.41	6.83	4.62	N/A	N/A	6.13	09/01/2016
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			-16.28	-19.85	-20.29	-20.29	6.24	3.89	3.15	4.67	5.08	
Difference			0.37	3.18	4.88	4.88	0.59	0.73	N/A	N/A	1.05	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	5.17	
Rank			87	38	16	16	10	18	N/A	N/A	27	
Fixed Income	4,868,983,447	24.89	-7.98	-14.16	-13.15	-13.15	-0.15	1.84	2.65	3.16	6.41	04/01/1990
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	N/A	
Difference			-1.69	-2.72	-2.17	-2.17	0.44	0.58	0.58	0.72	N/A	
IM U.S. Fixed Income (SA+CF) Median			-4.63	-8.80	-8.64	-8.64	0.26	1.61	2.10	2.28	5.62	
Rank			81	86	86	86	67	39	37	31	22	
Loomis Sayles Multisector Full Discretion (SA)	1,391,359,949	7.11	-7.07	-11.95	-12.31	-12.31	1.56	2.49	2.89	3.24	5.59	07/01/1999
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.77	
Difference			-0.78	-0.51	-1.33	-1.33	2.15	1.23	0.82	0.80	0.82	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	5.00	
Rank			92	80	92	92	7	13	17	17	16	
Mackay Shields Core+ Extended Discretion (SA)	1,356,682,590	6.94	-7.27	-12.52	-11.82	-11.82	0.57	1.86	2.23	2.63	4.44	11/01/2004
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.11	
Difference			-0.98	-1.08	-0.84	-0.84	1.16	0.60	0.16	0.19	0.33	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	4.18	
Rank			94	91	81	81	20	31	48	46	33	
Lord Abbett Core Plus Full Discretion (SA)	1,349,659,824	6.90	-6.19	-11.18	-10.51	-10.51	-0.10	1.54	2.13	2.55	4.36	11/01/2004
OTRS Fixed Income Blended Benchmark			-6.29	-11.44	-10.98	-10.98	-0.59	1.26	2.07	2.44	4.11	
Difference			0.10	0.26	0.47	0.47	0.49	0.28	0.06	0.11	0.25	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	4.18	
Rank			75	63	44	44	48	58	55	50	36	



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Hoisington Active Duration Long Bonds (SA)	771,281,083	3.94	-13.55	-23.96	-20.85	-20.85	-3.10	0.70	1.97	1.74	5.56	11/01/2004
Bloomberg US Trsy Index			-3.78	-9.14	-8.90	-8.90	-0.88	0.74	1.06	1.01	2.86	
Difference			-9.77	-14.82	-11.95	-11.95	-2.22	-0.04	0.91	0.73	2.70	
IM U.S. Long Duration (SA+CF) Median			-12.52	-21.98	-20.44	-20.44	-1.56	1.66	3.27	3.32	5.86	
Rank			97	97	69	69	100	100	100	100	60	
Private Equity	1,720,000,478	8.79	3.84	3.77	24.76	24.76	28.18	23.79	20.67	20.59	20.67	07/01/2015
R 2000 Index+4%			-16.38	-21.91	-22.21	-22.21	8.38	9.37	10.15	13.73	10.15	
Difference			20.22	25.68	46.97	46.97	19.80	14.42	10.52	6.86	10.52	
Franklin Park Private Equity LP	1,711,009,771	8.75	3.82	3.76	24.85	24.85	28.36	24.11	20.95	17.03	20.95	07/01/2015
Legacy Private Equity LP	8,990,707	0.05	6.45	6.45	12.89	12.89	11.02	4.78	6.15	7.58	4.76	10/01/2008
Private Debt	241,063,901	1.23	3.00	9.49	23.67	23.67	11.27	9.78	9.38	N/A	9.38	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			-5.30	-5.46	-4.18	-4.18	1.45	2.46	2.81	3.29	2.81	
Difference			8.30	14.95	27.85	27.85	9.82	7.32	6.57	N/A	6.57	
PIMCO Bravo LP	82,034	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	03/01/2011
PIMCO Bravo II LP	24,205,443	0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	03/01/2013
PIMCO Bravo III LP	172,313,717	0.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO COF II LP	44,462,707	0.23	0.42	13.70	26.94	26.94	13.70	11.92	N/A	N/A	12.77	10/01/2016
Bloomberg US Unv Bond Index			-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.62	1.83	0.80	
Difference			5.55	24.63	37.83	37.83	14.64	10.98	N/A	N/A	11.97	
Real Estate	1,627,553,528	8.32	6.90	13.96	24.81	24.81	7.64	7.88	8.65	N/A	8.65	07/01/2015
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	8.84	
Difference			3.67	5.23	3.36	3.36	-2.58	-0.98	-0.19	N/A	-0.19	
AEW Core Property Trust (CF)	434,451,400	2.22	8.30	16.95	27.71	27.71	10.83	9.22	9.63	9.78	9.51	07/01/2011
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.28	
Difference			3.53	4.46	-1.80	-1.80	-1.83	-1.32	-0.71	-1.38	-1.77	
Heitman America Real Estate (CF)	435,306,341	2.23	9.49	19.48	33.18	33.18	11.03	9.43	10.03	10.61	10.35	05/01/201
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.55	
Difference			4.72	6.99	3.67	3.67	-1.63	-1.11	-0.31	-0.55	-1.20	
L&B Core Income Partners LP	32,120,768	0.16	0.60	-0.19	7.79	7.79	-4.36	-0.57	2.76	4.97	4.61	04/01/201
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.46	
Difference			-4.17	-12.68	-21.72	-21.72	-17.02	-11.11	-7.58	-6.19	-6.85	



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
American Strategic Value Realty (CF)	124,314,665	0.64	6.20	11.72	23.73	23.73	12.03	11.15	11.76	N/A	11.34	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.00	
Difference			1.43	-0.77	-5.78	-5.78	-0.63	0.61	1.42	N/A	0.34	
Angelo Gordon Value X LP	52,068,151	0.27	5.29	16.88	33.53	33.53	8.16	N/A	N/A	N/A	8.16	07/01/2019
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	12.66	
Difference			0.52	4.39	4.02	4.02	-4.50	N/A	N/A	N/A	-4.50	
Artemis Real Estate III LP	37,886,487	0.19	0.38	19.21	59.87	59.87	28.00	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.82	
Difference			-4.39	6.72	30.36	30.36	15.34	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	63,495	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	N/A	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	35,079,799	0.18	4.75	3.47	13.41	13.41	-3.34	3.20	5.98	N/A	6.03	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.87	
Difference			-0.02	-9.02	-16.10	-16.10	-16.00	-7.34	-4.36	N/A	-4.84	
Dune Real Estate IV LP	27,153,564	0.14	-3.32	12.84	45.64	45.64	N/A	N/A	N/A	N/A	-9.64	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	13.46	
Difference			-8.09	0.35	16.13	16.13	N/A	N/A	N/A	N/A	-23.10	
FCP Realty IV LP	39,971,163	0.20	21.79	21.79	34.77	34.77	12.08	N/A	N/A	N/A	-0.76	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.78	
Difference			17.02	9.30	5.26	5.26	-0.58	N/A	N/A	N/A	-12.54	
FCP Realty V LP	26,343,943	0.13	0.89	-6.11	N/A	N/A	N/A	N/A	N/A	N/A	-25.46	10/01/2021
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	21.46	
Difference			-3.88	-18.60	N/A	N/A	N/A	N/A	N/A	N/A	-46.92	
GreenOak US II LP	22,826,770	0.12	-6.64	-6.64	-13.63	-13.63	-19.86	-10.21	-5.83	N/A	-5.23	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.75	
Difference			-11.41	-19.13	-43.14	-43.14	-32.52	-20.75	-16.17	N/A	-15.98	
GreenOak US III LP	40,465,400	0.21	8.36	8.36	24.21	24.21	-1.09	N/A	N/A	N/A	-9.01	06/01/2018
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.38	
Difference			3.59	-4.13	-5.30	-5.30	-13.75	N/A	N/A	N/A	-20.39	
Harbert European Real Estate V LP	36,921,561	0.19	4.24	6.84	18.34	18.34	11.55	N/A	N/A	N/A	0.02	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.78	
Difference			-0.53	-5.65	-11.17	-11.17	-1.11	N/A	N/A	N/A	-11.76	



	Allocation	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Strategic Opportunity (CF)	18,041,173	0.09	0.85	17.30	34.65	34.65	N/A	N/A	N/A	N/A	50.56	10/01/2019
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	13.36	
Difference			-3.92	4.81	5.14	5.14	N/A	N/A	N/A	N/A	37.20	
L&B Gloden Driller (SA)	78,857,681	0.40	-0.01	-0.02	-0.02	-0.02	-1.46	5.96	5.03	N/A	4.12	07/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.84	
Difference			-4.78	-12.51	-29.53	-29.53	-14.12	-4.58	-5.31	N/A	-6.72	
Landmark Real Estate VII LP	7,337,870	0.04	3.77	3.77	7.23	7.23	-0.58	1.21	7.38	N/A	10.27	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.00	
Difference			-1.00	-8.72	-22.28	-22.28	-13.24	-9.33	-2.96	N/A	-0.73	
Lyrical-OTRS Realty Partner IV LP	65,857,270	0.34	6.65	15.87	15.49	15.49	11.38	14.75	8.66	N/A	7.88	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.87	
Difference			1.88	3.38	-14.02	-14.02	-1.28	4.21	-1.68	N/A	-2.99	
Starwood Opportunity X LP	14,065,335	0.07	19.18	27.15	53.95	53.95	18.68	16.79	16.33	N/A	16.33	07/01/2015
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.34	
Difference			14.41	14.66	24.44	24.44	6.02	6.25	5.99	N/A	5.99	
Starwood Opportunity XI LP	55,163,255	0.28	3.56	6.63	22.76	22.76	14.80	N/A	N/A	N/A	22.54	08/01/2018
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.32	
Difference			-1.21	-5.86	-6.75	-6.75	2.14	N/A	N/A	N/A	11.22	
Starwood Opportunity XII LP	32,857,436	0.17	8.45	13.93	N/A	N/A	N/A	N/A	N/A	N/A	13.93	01/01/2022
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	12.49	
Difference			3.68	1.44	N/A	N/A	N/A	N/A	N/A	N/A	1.44	
Property ACQ Fund	10,400,000	0.05	3.17	3.17	3.17	3.17	-7.45	N/A	N/A	N/A	-4.04	08/01/2017

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



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



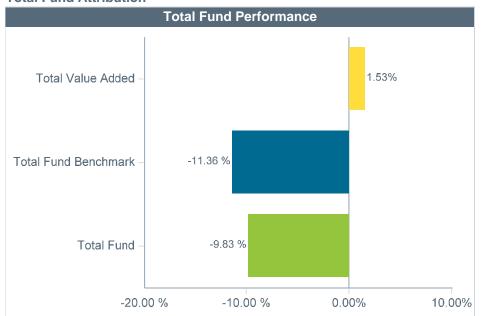
Oklahoma State Pension Commission Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

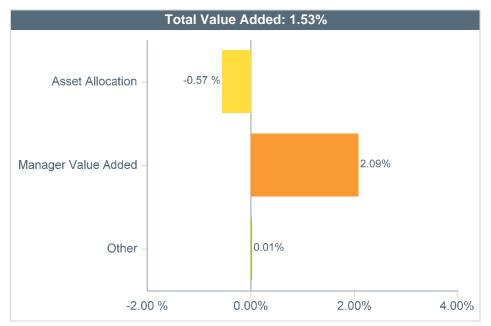


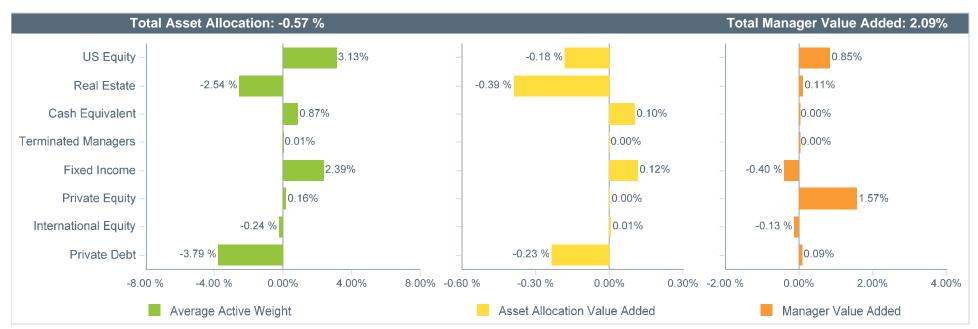
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Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Total Fund Attribution





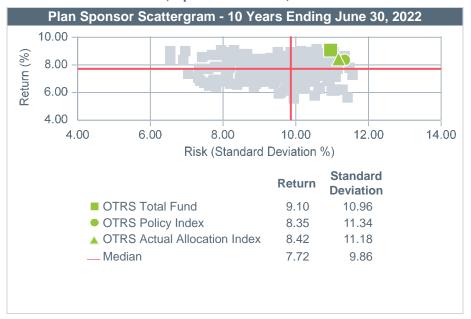


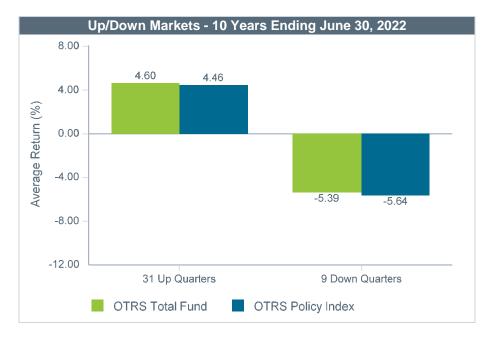
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Private Equity includes Private Credit.

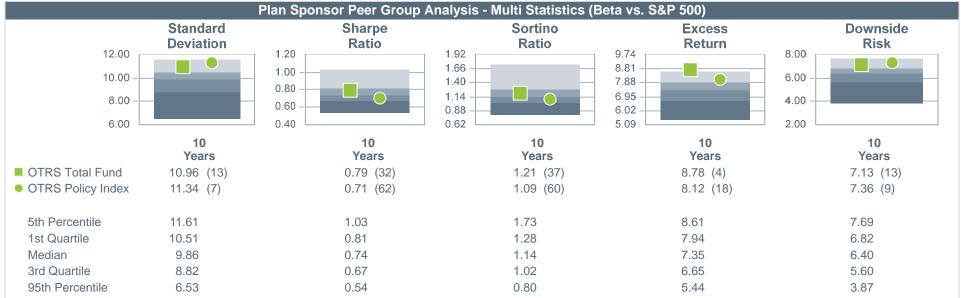


Oklahoma State Pension Commission Oklahoma Teachers' Retirement System

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

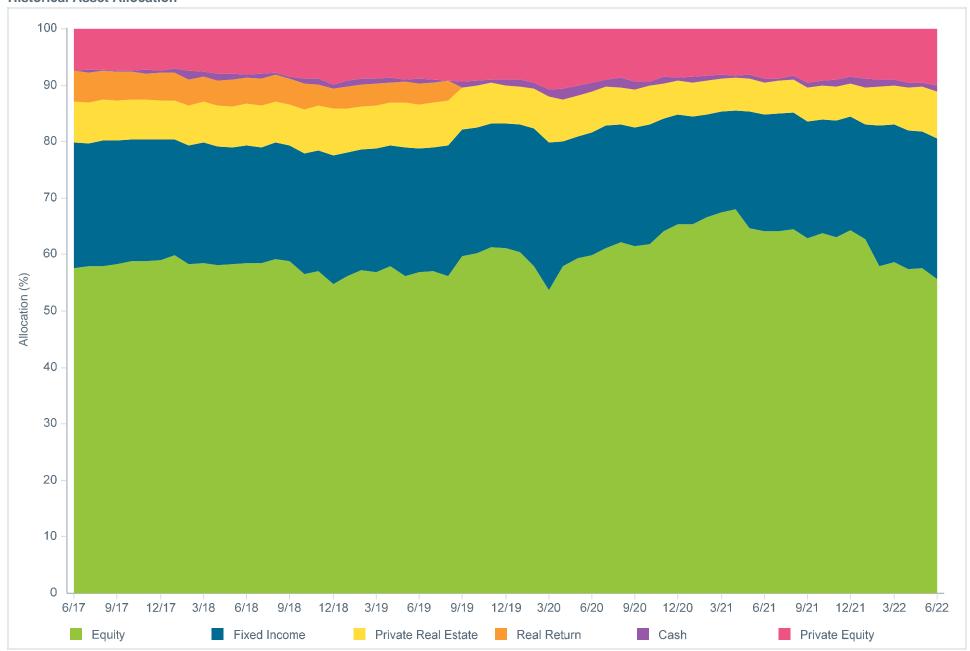






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







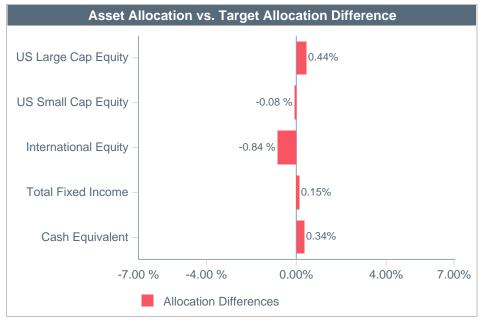
Oklahoma Public Employees Retirement System (OPERS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OPERS Total Fund (Net)	-12.51	-17.44	-14.67	-14.67	4.49	5.54	5.74	7.23	12.29	15.18	21.23	-6.57	17.01
OPERS Policy Index	-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	11.54	15.19	21.46	-6.09	16.86
Difference	-0.15	-0.17	-0.10	-0.10	0.13	-0.02	-0.12	0.09	0.75	-0.01	-0.23	-0.48	0.15
OPERS Actual Allocation Index	-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	12.14	18.93	20.87	-6.49	16.51
Difference	-0.01	-0.03	0.01	0.01	-1.08	-0.58	-0.51	-0.22	0.15	-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	6.50
Difference	-14.10	-20.64	-21.17	-21.17	-2.01	-0.96	-0.76	0.73	5.79	8.68	14.73	-13.07	10.51
OPERS Total Fund (Gross)	-12.49	-17.40	-14.54	-14.54	4.63	5.67	5.86	7.36	12.46	15.34	21.38	-6.48	17.13
OPERS Policy Index	-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	11.54	15.19	21.46	-6.09	16.86
Difference	-0.13	-0.13	0.03	0.03	0.27	0.11	0.00	0.22	0.92	0.15	-0.08	-0.39	0.27
OPERS Actual Allocation Index	-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	12.14	18.93	20.87	-6.49	16.51
Difference	0.01	0.01	0.14	0.14	-0.94	-0.45	-0.39	-0.09	0.32	-3.59	0.51	0.01	0.62
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	96	94	94	94	78	76	72	65	72	19	11	94	14

Asset Allo	cation vs. Target A	Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPERS (Public Employees)	10,375,810,605	100.00	100.00
US Large Cap Equity	3,572,950,323	34.44	34.00
US Small Cap Equity	613,891,926	5.92	6.00
International Equity	2,818,273,775	27.16	28.00
Total Fixed Income	3,335,684,709	32.15	32.00
Cash Equivalent	35,009,873	0.34	0.00



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

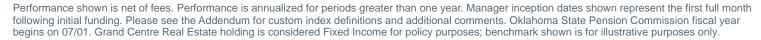


	Allocation	n					Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,375,810,605	100.00	-12.51	-17.44	-14.67	-14.67	4.49	5.54	5.74	7.23	N/A	03/01/1987
OPERS Policy Index			-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	7.88	
Difference			-0.15	-0.17	-0.10	-0.10	0.13	-0.02	-0.12	0.09	N/A	
OPERS Actual Allocation Index			-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	7.94	
Difference			-0.01	-0.03	0.01	0.01	-1.08	-0.58	-0.51	-0.22	N/A	
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			-14.10	-20.64	-21.17	-21.17	-2.01	-0.96	-0.76	0.73	N/A	
US Equity	4,186,842,249	40.35	-16.49	-20.29	-13.22	-13.22	9.72	10.30	9.98	12.43	N/A	09/01/1988
OPERS US Equity Custom Index			-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	N/A	
Difference			0.26	1.01	1.71	1.71	0.38	0.13	-0.13	0.07	N/A	
US Active Large Cap Equity	305,838,936	2.95	-22.24	-28.46	-21.86	-21.86	4.17	7.08	7.21	10.71	N/A	08/01/2003
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.59	
Difference			-5.57	-7.52	-8.82	-8.82	-6.00	-3.92	-3.57	-2.11	N/A	
Westfield Large Cap Growth Equity (SA)	305,838,936	2.95	-22.24	-28.46	-21.86	-21.86	10.46	12.71	N/A	N/A	14.09	02/01/2017
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	15.19	
Difference			-1.32	-0.39	-3.09	-3.09	-2.12	-1.58	N/A	N/A	-1.10	
US Large Cap Enhanced Index Equity	1,257,761,135	12.12	-15.94	-19.63	-10.36	-10.36	10.03	10.17	9.92	12.42	N/A	03/01/2000
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	6.73	
Difference			0.73	1.31	2.68	2.68	-0.14	-0.83	-0.86	-0.40	N/A	
State Street Large Cap Enhanced Index (SA)	627,570,996	6.05	-15.67	-19.99	-10.36	-10.36	10.38	10.86	10.67	12.96	9.09	09/01/2004
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.42	
Difference			1.00	0.95	2.68	2.68	0.21	-0.14	-0.11	0.14	-0.33	
Mellon EB DV Large Cap Stock Index (SA)	630,190,139	6.07	-16.20	-19.28	-10.36	-10.36	9.68	9.46	9.16	11.88	8.51	06/01/2004
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.21	
Difference			0.47	1.66	2.68	2.68	-0.49	-1.54	-1.62	-0.94	-0.70	
US Large Cap Passive Equity	2,009,350,252	19.37	-15.91	-19.69	-11.95	-11.95	10.64	11.29	10.98	12.99	N/A	01/01/2003
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	10.06	
Difference			0.76	1.25	1.09	1.09	0.47	0.29	0.20	0.17	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.

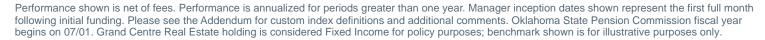


	Allocation						Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock Russell 1000 Value (CF)	318,243,752	3.07	-12.29	-12.95	-6.93	-6.93	N/A	N/A	N/A	N/A	5.89	01/01/2021
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	5.96	
Difference			-0.08	-0.09	-0.11	-0.11	N/A	N/A	N/A	N/A	-0.07	
Blackrock Russell 1000 Index (CF)	1,691,106,500	16.30	-16.61	-20.92	-12.96	-12.96	10.22	11.04	10.81	12.86	13.59	09/01/2010
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	13.56	
Difference			0.06	0.02	0.08	0.08	0.05	0.04	0.03	0.04	0.03	
US Active Small Cap Equity	613,891,926	5.92	-16.47	-19.15	-18.11	-18.11	9.42	9.44	8.43	11.80	N/A	08/01/2003
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	8.40	
Difference			0.73	4.28	7.09	7.09	5.21	4.27	2.52	2.45	N/A	
BHMS Small Cap Value Equity (SA)	211,206,094	2.04	-15.18	-18.66	-13.58	-13.58	10.74	7.85	8.08	11.87	9.92	12/01/2004
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	6.65	
Difference			0.10	-1.35	2.70	2.70	4.56	2.96	1.68	2.82	3.27	
UBS US Small Cap Growth Equity (SA)	172,646,923	1.66	-23.60	-31.12	-33.89	-33.89	5.70	10.06	7.54	11.70	N/A	06/01/2003
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	8.83	
Difference			-4.35	-1.67	-0.46	-0.46	4.30	5.26	2.58	2.40	N/A	
DePrince Race & Zollo Small Cap Value (SA)	230,038,910	2.22	-11.99	-8.87	-7.12	-7.12	9.35	8.71	8.48	10.82	9.70	03/01/2011
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	7.69	
Difference			3.29	8.44	9.16	9.16	3.17	3.82	2.08	1.77	2.01	
International Equity	2,818,273,775	27.16	-13.52	-19.36	-20.95	-20.95	1.46	2.65	3.22	5.14	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.15	
Difference			0.02	-1.21	-1.94	-1.94	-0.35	-0.33	-0.18	-0.17	N/A	
International Core Active Equity	623,670,414	6.01	-9.79	-11.64	-14.90	-14.90	0.76	1.71	2.25	4.38	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	6.72	
Difference			3.75	6.51	4.11	4.11	-1.05	-1.27	-1.15	-0.93	N/A	
Mondrian ACWI ex US Equity (SA)	623,670,414	6.01	-9.79	-11.64	-14.90	-14.90	0.76	1.71	2.25	4.38	N/A	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			-11.65	-11.41	-12.14	-12.14	1.17	1.85	2.34	4.36	5.47	
Difference			1.86	-0.23	-2.76	-2.76	-0.41	-0.14	-0.09	0.02	N/A	





	Allocation				Perfor	mance (%	5)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,622,067,520	15.63	-13.56	-18.21	-19.16	-19.16	1.61	2.76	3.19	5.09	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	6.72	
Difference			-0.02	-0.06	-0.15	-0.15	-0.20	-0.22	-0.21	-0.22	N/A	
Blackrock ACWI Ex US Index (CF)	1,622,067,520	15.63	-13.56	-18.21	-19.16	-19.16	1.61	2.76	3.19	5.09	4.34	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.56	
Difference			-0.02	-0.06	-0.15	-0.15	-0.20	-0.22	-0.21	-0.22	-0.22	
International Growth Equity	572,535,840	5.52	-17.17	-28.97	-30.68	-30.68	0.81	2.68	3.66	5.55	5.28	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.56	
Difference			-1.58	-4.34	-5.09	-5.09	-1.11	-1.09	-0.55	-0.52	-0.28	
Baille Gifford Intl Growth Equity (SA)	263,941,638	2.54	-19.54	-34.99	-37.99	-37.99	-0.26	1.72	3.30	N/A	3.64	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	4.27	
Difference			-3.95	-10.36	-12.40	-12.40	-2.18	-2.05	-0.91	N/A	-0.63	
Blackrock ACWI Ex US Growth (CF)	308,594,202	2.97	-15.02	-22.85	-22.91	-22.91	1.70	3.54	3.93	5.63	5.09	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.43	
Difference			0.57	1.78	2.68	2.68	-0.22	-0.23	-0.28	-0.44	-0.34	
Fixed Income	3,326,399,709	32.06	-6.06	-11.88	-11.05	-11.05	-0.23	1.51	1.96	2.00	N/A	04/01/1989
OPERS Fixed Income Custom Index			-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	N/A	
Difference			-0.39	-0.39	-0.39	-0.39	0.43	0.37	0.28	0.38	N/A	
Active Fixed Income	1,296,352,802	12.49	-7.36	-14.20	-13.27	-13.27	-0.80	1.41	1.96	2.18	N/A	08/01/2003
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.42	
Difference			-2.67	-3.85	-2.98	-2.98	0.14	0.53	0.54	0.64	N/A	
MetWest Core Plus Fixed Income (SA)	989,881,812	9.54	-5.31	-10.72	-10.65	-10.65	-0.22	1.52	1.87	2.25	N/A	09/01/2001
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.67	
Difference			-0.62	-0.37	-0.36	-0.36	0.72	0.64	0.45	0.71	N/A	
Hoisington Long Duration Fixed Income (SA)	306,470,990	2.95	-13.40	-23.78	-20.79	-20.79	-3.23	0.55	1.82	1.68	N/A	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-11.93	-21.25	-18.45	-18.45	-2.94	0.51	1.83	1.63	6.52	
Difference			-1.47	-2.53	-2.34	-2.34	-0.29	0.04	-0.01	0.05	N/A	





	Allocation					Perfori	mance (%	o)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Enhanced Fixed Income	1,625,675,771	15.67	-4.98	-10.69	-10.61	-10.61	-0.60	1.13	1.68	1.83	N/A	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.29	-0.34	-0.32	-0.32	0.34	0.25	0.26	0.29	N/A	
Blackrock Enhanced Core (SA)	1,625,675,771	15.67	-4.98	-10.69	-10.61	-10.61	-0.60	1.13	1.68	1.83	N/A	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.29	-0.34	-0.32	-0.32	0.34	0.25	0.26	0.29	N/A	
Passive Fixed Income	404,371,136	3.90	-6.10	-8.88	-5.13	-5.13	3.13	3.32	2.94	1.84	3.29	03/01/2010
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	2.43	
Difference			-1.41	1.47	5.16	5.16	4.07	2.44	1.52	0.30	0.86	
Blackrock TIPS (CF)	404,371,136	3.90	-6.10	-8.88	-5.13	-5.13	3.13	3.32	2.94	1.84	3.29	03/01/2010
Bloomberg US Trsy US TIPS Index			-6.08	-8.92	-5.14	-5.14	3.04	3.21	2.82	1.73	3.25	
Difference			-0.02	0.04	0.01	0.01	0.09	0.11	0.12	0.11	0.04	



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,375,810,605	100.00	-12.49	-17.40	-14.54	-14.54	4.63	5.67	5.86	7.36	8.03	03/01/1987
OPERS Policy Index			-12.36	-17.27	-14.57	-14.57	4.36	5.56	5.86	7.14	7.88	
Difference			-0.13	-0.13	0.03	0.03	0.27	0.11	0.00	0.22	0.15	
OPERS Actual Allocation Index			-12.50	-17.41	-14.68	-14.68	5.57	6.12	6.25	7.45	7.94	
Difference			0.01	0.01	0.14	0.14	-0.94	-0.45	-0.39	-0.09	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			-14.08	-20.60	-21.04	-21.04	-1.87	-0.83	-0.64	0.86	1.53	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	8.22	
Rank			96	94	94	94	78	76	72	65	72	
US Equity	4,186,842,249	40.35	-16.47	-20.26	-13.09	-13.09	9.89	10.44	10.11	12.55	10.14	09/01/1988
OPERS US Equity Custom Index			-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	N/A	
Difference			0.28	1.04	1.84	1.84	0.55	0.27	0.00	0.19	N/A	
IM U.S. Equity (SA+CF) Median			-15.39	-19.85	-13.06	-13.06	8.42	9.20	9.09	11.96	11.27	
Rank			63	55	51	51	33	37	37	39	92	
US Active Large Cap Equity	305,838,936	2.95	-22.22	-28.42	-21.78	-21.78	4.25	7.19	7.35	10.85	8.11	08/01/2003
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.59	
Difference			-5.55	-7.48	-8.74	-8.74	-5.92	-3.81	-3.43	-1.97	-1.48	
IM U.S. Large Cap Equity (SA+CF) Median			-15.66	-19.72	-10.74	-10.74	9.67	10.76	10.45	12.79	9.87	
Rank			92	86	86	86	98	91	93	84	95	
Westfield Large Cap Growth Equity (SA)	305,838,936	2.95	-22.22	-28.42	-21.78	-21.78	10.56	12.90	N/A	N/A	14.27	02/01/2017
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	15.19	
Difference			-1.30	-0.35	-3.01	-3.01	-2.02	-1.39	N/A	N/A	-0.92	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-20.20	-28.41	-20.97	-20.97	9.63	12.58	11.83	13.90	13.62	
Rank			73	51	54	54	41	44	N/A	N/A	39	



	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Enhanced Index Equity	1,257,761,135	12.12	-15.93	-19.62	-10.34	-10.34	10.05	10.19	9.95	12.45	5.81	03/01/2000
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	6.73	
Difference			0.74	1.32	2.70	2.70	-0.12	-0.81	-0.83	-0.37	-0.92	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-15.79	-19.31	-10.49	-10.49	10.46	11.19	10.95	12.97	7.36	
Rank			58	55	50	50	62	68	77	78	100	
State Street Large Cap Enhanced Index (SA)	627,570,996	6.05	-15.66	-19.97	-10.33	-10.33	10.41	10.89	10.70	12.99	9.15	09/01/2004
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.42	
Difference			1.01	0.97	2.71	2.71	0.24	-0.11	-0.08	0.17	-0.27	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-15.79	-19.31	-10.49	-10.49	10.46	11.19	10.95	12.97	9.68	
Rank			42	65	50	50	57	59	60	50	85	
Mellon EB DV Large Cap Stock Index (SA)	630,190,139	6.07	-16.19	-19.27	-10.35	-10.35	9.69	9.48	9.18	11.91	8.55	06/01/2004
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	9.21	
Difference			0.48	1.67	2.69	2.69	-0.48	-1.52	-1.60	-0.91	-0.66	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-15.79	-19.31	-10.49	-10.49	10.46	11.19	10.95	12.97	9.43	
Rank			69	50	50	50	69	80	83	86	97	
US Large Cap Passive Equity	2,009,350,252	19.37	-15.91	-19.69	-11.94	-11.94	10.65	11.30	10.99	13.00	10.30	01/01/2003
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	10.06	
Difference			0.76	1.25	1.10	1.10	0.48	0.30	0.21	0.18	0.24	
BlackRock Russell 1000 Value (CF)	318,243,752	3.07	-12.29	-12.95	-6.92	-6.92	N/A	N/A	N/A	N/A	5.89	01/01/2021
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	5.96	
Difference			-0.08	-0.09	-0.10	-0.10	N/A	N/A	N/A	N/A	-0.07	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.76	-11.82	-5.54	-5.54	9.04	8.88	8.90	11.42	8.14	
Rank			58	61	66	66	N/A	N/A	N/A	N/A	68	
Blackrock Russell 1000 Index (CF)	1,691,106,500	16.30	-16.61	-20.92	-12.96	-12.96	10.23	11.05	10.82	12.86	13.60	09/01/2010
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	13.56	
Difference			0.06	0.02	0.08	0.08	0.06	0.05	0.04	0.04	0.04	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.11	-20.00	-11.14	-11.14	10.28	11.01	10.81	12.84	13.59	
Rank			57	60	59	59	51	46	49	48	50	



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Active Small Cap Equity	613,891,926	5.92	-16.39	-19.01	-17.41	-17.41	10.40	10.18	9.12	12.49	11.37	08/01/2003
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	8.40	
Difference			0.81	4.42	7.79	7.79	6.19	5.01	3.21	3.14	2.97	
IM U.S. Small Cap Equity (SA+CF) Median			-15.39	-20.74	-16.96	-16.96	6.91	7.31	7.73	11.18	10.36	
Rank			59	41	52	52	17	20	26	22	21	
BHMS Small Cap Value Equity (SA)	211,206,094	2.04	-15.07	-18.46	-13.13	-13.13	11.30	8.40	8.63	12.44	10.55	12/01/2004
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	6.65	
Difference			0.21	-1.15	3.15	3.15	5.12	3.51	2.23	3.39	3.90	
IM U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	8.83	
Rank			76	76	72	72	12	18	19	13	8	
UBS US Small Cap Growth Equity (SA)	172,646,923	1.66	-23.56	-31.05	-32.78	-32.78	7.15	11.03	8.39	12.50	10.64	06/01/2003
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	8.83	
Difference			-4.31	-1.60	0.65	0.65	5.75	6.23	3.43	3.20	1.81	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	11.39	
Rank			81	59	61	61	36	34	57	40	78	
DePrince Race & Zollo Small Cap Value (SA)	230,038,910	2.22	-11.90	-8.70	-6.79	-6.79	10.14	9.33	9.11	11.47	10.31	03/01/2011
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	7.69	
Difference			3.38	8.61	9.49	9.49	3.96	4.44	2.71	2.42	2.62	
IM U.S. Micro Cap Equity (SA+CF) Median			-14.38	-20.41	-20.09	-20.09	8.47	7.69	8.68	13.04	11.16	
Rank			20	11	15	15	40	32	43	67	67	
International Equity	2,818,273,775	27.16	-13.49	-19.31	-20.77	-20.77	1.63	2.82	3.40	5.31	5.40	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.15	
Difference			0.05	-1.16	-1.76	-1.76	-0.18	-0.16	0.00	0.00	0.25	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	6.62	
Rank			45	43	56	56	64	62	62	84	100	
International Core Active Equity	623,670,414	6.01	-9.71	-11.48	-14.59	-14.59	1.12	2.07	2.62	4.77	6.43	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	6.72	
Difference			3.83	6.67	4.42	4.42	-0.69	-0.91	-0.78	-0.54	-0.29	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	7.26	
Rank			8	6	13	13	75	78	81	90	82	
Mondrian ACWI ex US Equity (SA)	623,670,414	6.01	-9.71	-11.48	-14.59	-14.59	1.12	2.07	2.62	4.77	6.32	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			-11.65	-11.41	-12.14	-12.14	1.17	1.85	2.34	4.36	5.47	
Difference			1.94	-0.07	-2.45	-2.45	-0.05	0.22	0.28	0.41	0.85	
IM ACWI Ex US Core (SA+CF) Median			-13.51	-19.70	-19.39	-19.39	2.75	3.37	3.67	6.05	6.36	
Rank			8	5	12	12	71	79	73	100	60	

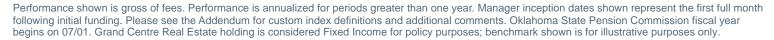
Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal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



	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,622,067,520	15.63	-13.55	-18.20	-19.14	-19.14	1.63	2.79	3.22	5.13	5.98	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	6.72	
Difference			-0.01	-0.05	-0.13	-0.13	-0.18	-0.19	-0.18	-0.18	-0.74	
Blackrock ACWI Ex US Index (CF)	1,622,067,520	15.63	-13.55	-18.20	-19.14	-19.14	1.63	2.79	3.22	5.13	4.38	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.56	
Difference			-0.01	-0.05	-0.13	-0.13	-0.18	-0.19	-0.18	-0.18	-0.18	
International Growth Equity	572,535,840	5.52	-17.13	-28.91	-30.27	-30.27	1.18	3.00	3.95	5.79	5.44	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.56	
Difference			-1.54	-4.28	-4.68	-4.68	-0.74	-0.77	-0.26	-0.28	-0.12	
IM ACWI Ex US Growth (SA+CF) Median			-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	6.54	
Rank			62	66	86	86	77	79	72	97	98	
Baille Gifford Intl Growth Equity (SA)	263,941,638	2.54	-19.48	-34.90	-37.29	-37.29	0.39	2.28	3.81	N/A	4.09	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	4.27	
Difference			-3.89	-10.27	-11.70	-11.70	-1.53	-1.49	-0.40	N/A	-0.18	
IM ACWI Ex US Growth (SA+CF) Median			-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	4.96	
Rank			93	96	97	97	85	90	73	N/A	85	
Blackrock ACWI Ex US Growth (CF)	308,594,202	2.97	-15.00	-22.83	-22.87	-22.87	1.75	3.59	3.99	5.69	5.15	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			-15.59	-24.63	-25.59	-25.59	1.92	3.77	4.21	6.07	5.43	
Difference			0.59	1.80	2.72	2.72	-0.17	-0.18	-0.22	-0.38	-0.28	
IM ACWI Ex US Growth (SA+CF) Median			-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	6.58	
Rank			35	33	40	40	66	62	72	98	98	



	Allocation				Perfor	mance (%))					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,326,399,709	32.06	-6.04	-11.85	-10.96	-10.96	-0.13	1.60	2.05	2.10	6.26	04/01/1989
OPERS Fixed Income Custom Index			-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	N/A	
Difference			-0.37	-0.36	-0.30	-0.30	0.53	0.46	0.37	0.48	N/A	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.48	-10.40	-10.40	-0.26	1.44	2.01	2.28	5.93	
Rank			85	88	75	75	40	39	46	64	13	
Active Fixed Income	1,296,352,802	12.49	-7.34	-14.16	-13.12	-13.12	-0.67	1.53	2.08	2.31	5.29	08/01/2003
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.42	
Difference			-2.65	-3.81	-2.83	-2.83	0.27	0.65	0.66	0.77	1.87	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.48	-10.40	-10.40	-0.26	1.44	2.01	2.28	4.09	
Rank			97	100	99	99	77	45	42	48	7	
MetWest Core Plus Fixed Income (SA)	989,881,812	9.54	-5.30	-10.69	-10.48	-10.48	-0.08	1.64	1.98	2.37	4.76	09/01/2001
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.67	
Difference			-0.61	-0.34	-0.19	-0.19	0.86	0.76	0.56	0.83	1.09	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	4.58	
Rank			41	46	41	41	46	48	70	67	38	
Hoisington Long Duration Fixed Income (SA)	306,470,990	2.95	-13.36	-23.73	-20.69	-20.69	-3.10	0.68	1.96	1.82	7.26	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-11.93	-21.25	-18.45	-18.45	-2.94	0.51	1.83	1.63	6.52	
Difference			-1.43	-2.48	-2.24	-2.24	-0.16	0.17	0.13	0.19	0.74	
IM U.S. Long Duration (SA+CF) Median			-12.52	-21.98	-20.44	-20.44	-1.56	1.66	3.27	3.32	N/A	
Rank			97	96	61	61	100	100	100	100	N/A	
Enhanced Fixed Income	1,625,675,771	15.67	-4.96	-10.65	-10.55	-10.55	-0.52	1.21	1.76	1.92	4.41	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.27	-0.30	-0.26	-0.26	0.42	0.33	0.34	0.38	0.20	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	4.61	
Rank			62	66	63	63	60	62	65	66	76	
Blackrock Enhanced Core (SA)	1,625,675,771	15.67	-4.96	-10.65	-10.55	-10.55	-0.52	1.21	1.76	1.92	4.41	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.27	-0.30	-0.26	-0.26	0.42	0.33	0.34	0.38	0.20	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	4.61	
Rank			62	66	63	63	60	62	65	66	76	





	Allocation	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Passive Fixed Income	404,371,136	3.90	-6.09	-8.87	-5.12	-5.12	3.13	3.33	2.95	1.85	3.31	03/01/2010
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	2.43	
Difference			-1.40	1.48	5.17	5.17	4.07	2.45	1.53	0.31	0.88	
Blackrock TIPS (CF)	404,371,136	3.90	-6.09	-8.87	-5.12	-5.12	3.13	3.33	2.95	1.85	3.31	03/01/2010
Bloomberg US Trsy US TIPS Index			-6.08	-8.92	-5.14	-5.14	3.04	3.21	2.82	1.73	3.25	
Difference			-0.01	0.05	0.02	0.02	0.09	0.12	0.13	0.12	0.06	
IM U.S. TIPS (SA+CF) Median			-6.10	-8.88	-5.11	-5.11	3.13	3.25	2.87	1.82	3.30	
Rank			47	48	52	52	50	31	34	48	45	



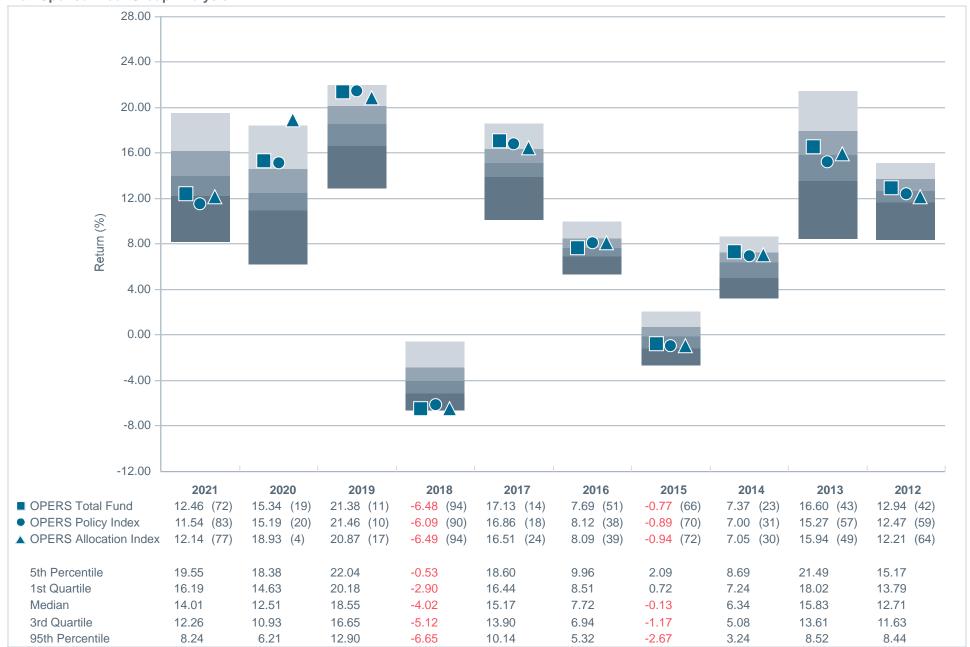
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



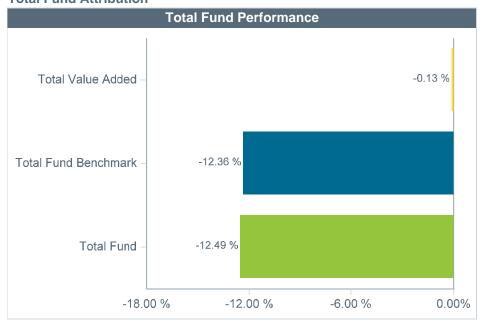
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

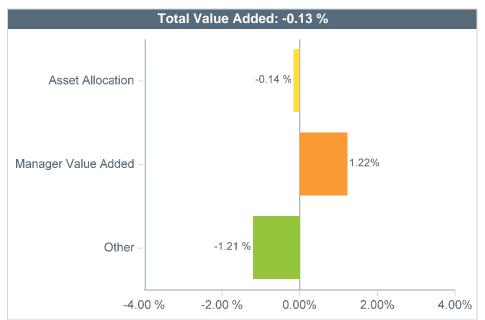


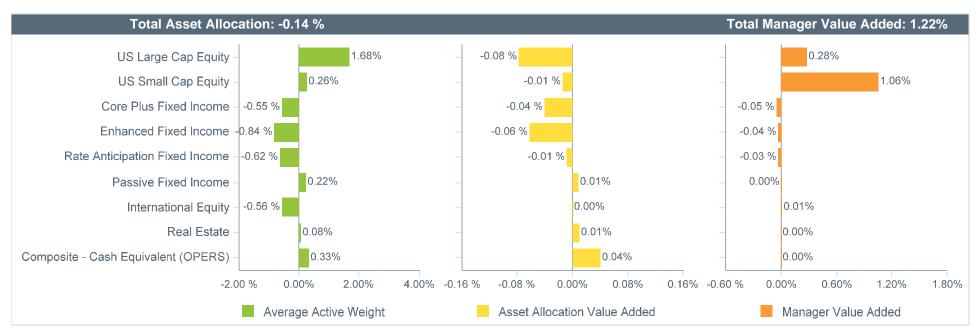
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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





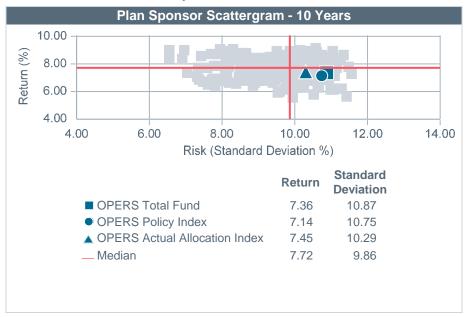


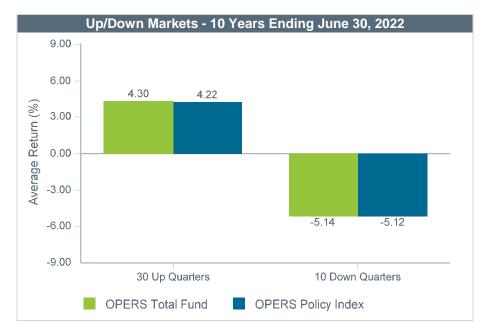
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

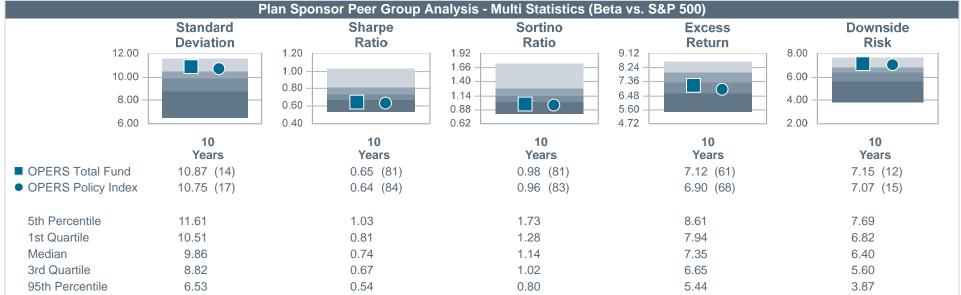


Oklahoma State Pension Commission Oklahoma Public Employees Retirement System

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

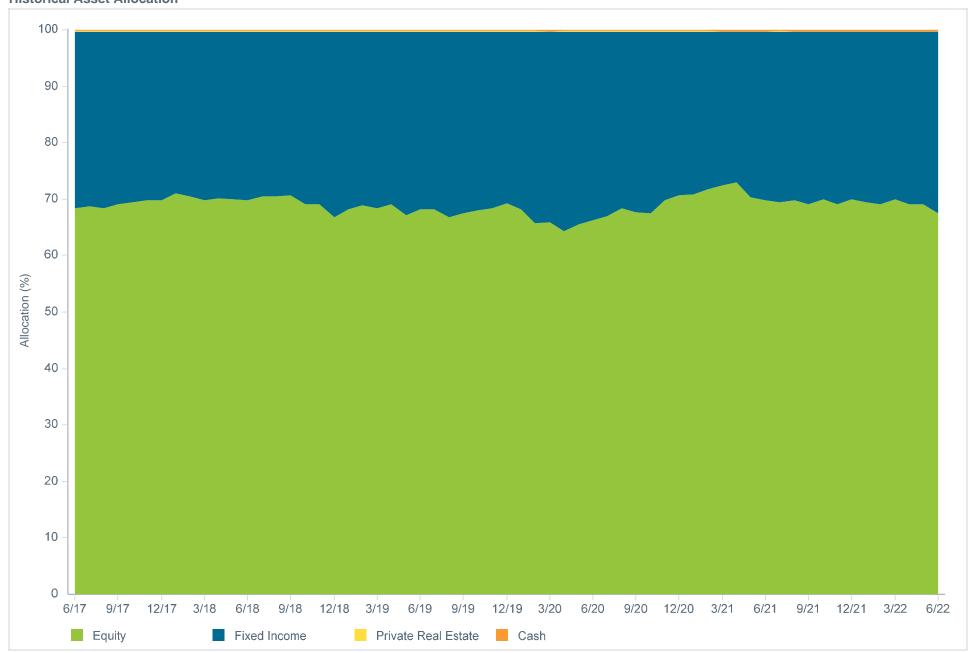






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







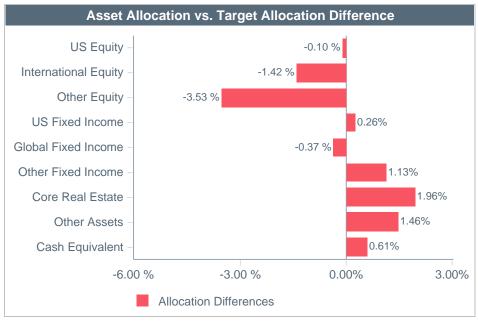
Oklahoma Firefighters Pension & Retirement System (OFPRS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OFPRS Total Fund (Net)					6.77	7.81	7.64	8.98	13.46	17.97	19.77		18.30
OFPRS Policy Index	-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	17.66	13.85	21.76	-3.80	16.41
Difference	0.83	-0.24	-2.63	-2.63	-0.74	-0.07	-0.32	-0.19	-4.20	4.12	-1.99	1.03	1.89
OFPRS Actual Allocation Index	-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	15.88	17.79	20.30	-3.93	15.64
Difference	0.19	-0.88	-2.68	-2.68	-1.49	-0.42	-0.27	-0.12	-2.42	0.18	-0.53	1.16	2.66
Actuarial Discount Rate (7.5%)	1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	-11.43	-17.44	-18.07	-18.07	-0.73	0.31	0.14	1.48	5.96	10.47	12.27	-10.27	10.80
OFPRS Total Fund (Gross)	-9.52	-13.60	-10.24	-10.24	7.16	8.18	8.00	9.34	13.87	18.44	20.15	-2.46	18.67
OFPRS Policy Index	-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	17.66	13.85	21.76	-3.80	16.41
Difference	0.92	-0.08	-2.30	-2.30	-0.35	0.30	0.04	0.17	-3.79	4.59	-1.61	1.34	2.26
OFPRS Actual Allocation Index	-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	15.88	17.79	20.30	-3.93	15.64
Difference	0.28	-0.72	-2.35	-2.35	-1.10	-0.05	0.09	0.24	-2.01	0.65	-0.15	1.47	3.03
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	42	47	54	54	19	8	7	3	53	5	26	19	5

Asset	Allocation vs. Targ	get Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OFPRS (Firefighters)	3,238,919,613	100.00	100.00
US Equity	1,357,038,117	41.90	42.00
International Equity	439,797,173	13.58	15.00
Other Equity	47,677,005	1.47	5.00
US Fixed Income	267,513,307	8.26	8.00
Global Fixed Income	214,681,221	6.63	7.00
Other Fixed Income	198,651,886	6.13	5.00
Core Real Estate	387,374,640	11.96	10.00
Other Assets	306,542,097	9.46	8.00
Cash Equivalent	19,644,166	0.61	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.



	Allocation	on					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,238,919,613	100.00	-9.61	-13.76	-10.57	-10.57	6.77	7.81	7.64	8.98	6.95	01/01/1997
OFPRS Policy Index			-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	7.46	
Difference			0.83	-0.24	-2.63	-2.63	-0.74	-0.07	-0.32	-0.19	-0.51	
OFPRS Actual Allocation Index			-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	7.41	
Difference			0.19	-0.88	-2.68	-2.68	-1.49	-0.42	-0.27	-0.12	-0.46	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-11.43	-17.44	-18.07	-18.07	-0.73	0.31	0.14	1.48	-0.55	
All Public Plans-Total Fund Median			-10.61	-14.93	-11.08	-11.08	5.29	6.13	6.01	7.35	6.48	
Rank			28	33	44	44	12	5	4	3	30	
Total Equity	1,844,512,295	56.95	-15.91	-22.93	-20.43	-20.43	6.93	8.95	8.87	10.93	7.39	01/01/1997
Wilshire 5000 Index			-16.77	-20.89	-13.19	-13.19	10.17	10.83	10.73	12.71	8.66	
Difference			0.86	-2.04	-7.24	-7.24	-3.24	-1.88	-1.86	-1.78	-1.27	
US Equity	1,357,038,117	41.90	-16.78	-22.96	-19.55	-19.55	7.63	9.79	9.50	11.95	7.89	01/01/1997
Wilshire 5000 Index			-16.77	-20.89	-13.19	-13.19	10.17	10.83	10.73	12.71	8.66	
Difference			-0.01	-2.07	-6.36	-6.36	-2.54	-1.04	-1.23	-0.76	-0.77	
IM U.S. Equity (SA+CF) Median			-15.39	-20.00	-13.79	-13.79	7.58	8.40	8.26	11.10	9.26	
Rank			65	65	67	67	50	34	32	33	88	
US Large Cap Equity	974,520,301	30.09	-16.61	-21.83	-15.83	-15.83	8.66	9.88	9.75	12.25	8.02	12/01/1996
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	8.59	
Difference			0.06	-0.89	-2.79	-2.79	-1.51	-1.12	-1.03	-0.57	-0.57	
IM U.S. Large Cap Equity (SA+CF) Median			-15.45	-19.69	-11.34	-11.34	8.63	9.79	9.53	11.89	8.84	
Rank			65	64	70	70	50	49	46	43	84	
US Large Cap Core Equity	488,254,007	15.07	-16.15	-20.10	-11.34	-11.34	9.99	10.50	10.48	12.75	8.45	12/01/1997
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	7.75	
Difference			-0.05	-0.14	-0.72	-0.72	-0.61	-0.81	-0.66	-0.21	0.70	
IM U.S. Large Cap Core Equity (SA+CF) Median			-15.09	-19.18	-10.91	-10.91	8.78	9.72	9.68	12.01	8.14	
Rank			73	64	55	55	27	38	32	21	41	
Liquidity Pool - SSgA Equity Index (CF)	244,392,983	7.55	-16.10	-19.96	-10.65	-10.65	N/A	N/A	N/A	N/A	N/A	03/01/2021
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	0.95	
Difference			0.00	0.00	-0.03	-0.03	N/A	N/A	N/A	N/A	N/A	
IM U.S. Large Cap Core Equity (SA+CF) Median			-15.09	-19.18	-10.91	-10.91	8.78	9.72	9.68	12.01	0.48	
Rank			72	61	48	48	N/A	N/A	N/A	N/A	N/A	



	Allocation			Perfori	mance (%)							
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	243,861,024	7.53	-16.20	-20.19	-12.68	-12.68	10.11	10.60	10.46	12.60	8.71	01/01/2002
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	8.10	
Difference			-0.10	-0.23	-2.06	-2.06	-0.49	-0.71	-0.68	-0.36	0.61	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.14	-20.03	-10.79	-10.79	10.02	10.77	11.00	12.77	8.11	
Rank			64	64	69	69	48	56	62	55	20	
US Large Cap Value Equity	245,608,820	7.58	-10.27	-13.20	-10.99	-10.99	6.56	6.95	7.22	9.77	7.41	12/01/1996
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	8.04	
Difference			1.94	-0.34	-4.17	-4.17	-0.31	-0.22	-0.47	-0.73	-0.63	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.72	-12.10	-5.99	-5.99	8.10	8.03	8.17	10.83	8.47	
Rank			28	61	81	81	83	71	73	76	94	
Beutel Goodman American Equity (SA)	123,414,701	3.81	-8.60	-7.89	-8.82	-8.82	10.09	9.30	N/A	N/A	11.20	04/01/2016
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	8.94	
Difference			3.61	4.97	-2.00	-2.00	3.22	2.13	N/A	N/A	2.26	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.72	-12.10	-5.99	-5.99	8.10	8.03	8.17	10.83	9.62	
Rank			13	16	72	72	20	24	N/A	N/A	15	
Aristotle US Equity (SA)	122,194,119	3.77	-12.20	-18.48	-12.63	-12.63	N/A	N/A	N/A	N/A	8.24	09/01/2020
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	12.29	
Difference			0.01	-5.62	-5.81	-5.81	N/A	N/A	N/A	N/A	-4.05	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.72	-12.10	-5.99	-5.99	8.10	8.03	8.17	10.83	13.17	
Rank			58	85	89	89	N/A	N/A	N/A	N/A	83	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Growth Equity	240,657,474	7.43	-24.65	-33.94	-30.27	-30.27	6.83	10.97	10.32	13.36	7.02	12/01/1996
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	8.60	
Difference			-3.73	-5.87	-11.50	-11.50	-5.75	-3.32	-3.13	-1.44	-1.58	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-20.74	-29.14	-22.16	-22.16	8.58	11.51	10.82	12.87	9.21	
Rank			87	83	84	84	76	63	63	38	99	
Fred Alger Capital Appreciation (SA)	240,657,474	7.43	-24.19	-33.54	-29.54	-29.54	7.20	11.21	10.46	13.47	13.60	07/01/2010
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	15.57	
Difference			-3.27	-5.47	-10.77	-10.77	-5.38	-3.08	-2.99	-1.33	-1.97	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-20.74	-29.14	-22.16	-22.16	8.58	11.51	10.82	12.87	13.73	
Rank			84	82	82	82	73	57	60	36	54	
US Small Cap Equity	382,517,817	11.81	-16.63	-25.27	-27.61	-27.61	5.06	9.56	8.83	11.52	8.36	01/01/1997
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.67	
Difference			0.57	-1.84	-2.41	-2.41	0.85	4.39	2.92	2.17	0.69	
IM U.S. Small Cap Equity (SA+CF) Median			-15.34	-20.35	-17.05	-17.05	6.20	6.61	7.09	10.49	9.75	
Rank			62	71	79	79	67	19	20	25	88	
Liqiduity Pool - SSgA Small Cap Completeness Index (CF)	63,098,998	1.95	-19.96	-27.24	-28.51	-28.51	N/A	N/A	N/A	N/A	N/A	03/01/2021
Russell Sm Cap Compl Index			-19.96	-27.21	-28.53	-28.53	5.25	6.88	7.05	10.56	-18.34	
Difference			0.00	-0.03	0.02	0.02	N/A	N/A	N/A	N/A	N/A	
IM U.S. Small Cap Equity (SA+CF) Median			-15.34	-20.35	-17.05	-17.05	6.20	6.61	7.09	10.49	-8.35	
Rank			82	75	80	80	N/A	N/A	N/A	N/A	N/A	
US Small Cap Value Equity	159,166,151	4.91	-14.45	-17.79	-15.03	-15.03	5.86	7.14	8.33	10.67	8.79	12/01/1996
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	8.68	
Difference			0.83	-0.48	1.25	1.25	-0.32	2.25	1.93	1.62	0.11	
IM U.S. Small Cap Value Equity (SA+CF) Median			-13.30	-15.65	-11.61	-11.61	6.80	5.52	6.34	9.78	9.87	
Rank			69	68	80	80	64	22	12	20	84	
Earnest Partner Small Cap Value Equity (SA)	78,419,475	2.42	-15.86	-17.20	-13.12	-13.12	9.54	9.34	9.43	12.19	8.49	08/01/2005
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	6.37	
Difference			-0.58	0.11	3.16	3.16	3.36	4.45	3.03	3.14	2.12	
IM U.S. Small Cap Value Equity (SA+CF) Median			-13.30	-15.65	-11.61	-11.61	6.80	5.52	6.34	9.78	7.54	
Rank			85	61	67	67	18	5	5	2	28	
River Road Small Cap Value Equity (SA)	80,746,676	2.49	-9.84	-12.25	-7.83	-7.83	5.27	6.81	8.57	10.07	6.53	04/01/2007
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	5.64	
				F 00	0.45	0.45	0.04	4.00	0.47	4 00	0.00	
Difference			5.44	5.06	8.45	8.45	-0.91	1.92	2.17	1.02	0.89	
Difference IM U.S. Small Cap Value Equity (SA+CF) Median			5.44 -13.30	-15.65	-11.61	-11.61	6.80	5.52	6.34	9.78	7.11	

As of 06/2022, OFP Adams Street Co-Invest Fund V was funded. Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocatio	n					Perform	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Growth Equity	160,252,669	4.95	-22.76	-38.37	-45.46	-45.46	-1.15	8.96	7.07	10.70	6.12	07/01/1995
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	6.82	
Difference			-3.51	-8.92	-12.03	-12.03	-2.55	4.16	2.11	1.40	-0.70	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.38	-30.78	-31.33	-31.33	5.20	9.23	7.97	11.41	10.26	
Rank			73	90	93	93	94	55	72	78	100	
Lord Abbett Small Cap Growth Equity (SA)	81,031,667	2.50	-20.49	-35.75	-40.16	-40.16	1.47	12.06	7.14	11.42	9.74	04/01/2011
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.90	
Difference			-1.24	-6.30	-6.73	-6.73	0.07	7.26	2.18	2.12	1.84	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.38	-30.78	-31.33	-31.33	5.20	9.23	7.97	11.41	10.06	
Rank			51	79	84	84	86	21	70	50	59	
Delaware SMID Focus Growth Equity (SA)	79,221,002	2.45	-23.43	-39.71	-49.39	-49.39	-3.13	6.43	7.09	10.01	9.26	04/01/2011
Russell 2500 Grth Index			-19.55	-29.45	-31.81	-31.81	3.68	7.53	7.05	10.88	9.34	
Difference			-3.88	-10.26	-17.58	-17.58	-6.81	-1.10	0.04	-0.87	-0.08	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			-19.75	-28.60	-25.39	-25.39	5.94	9.46	8.49	11.26	10.08	
Rank			82	92	95	95	96	86	79	84	70	
Other Equity												
OFP Adams Street Co-Invest Fund V	2,500,000	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
OFP LGT Co-Invest Fund III	10,701,049	0.33	-0.16	-0.64	N/A	N/A	N/A	N/A	N/A	N/A	-0.64	01/01/2022
OFP Schroders P/E Global DIR III	34,475,956	1.06	11.09	11.09	N/A	N/A	N/A	N/A	N/A	N/A	11.09	01/01/2022
International Equity	439,797,173	13.58	-13.16	-22.86	-23.25	-23.25	4.91	6.15	6.17	6.77	4.86	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.60	
Difference			0.57	-4.44	-3.83	-3.83	3.56	3.65	3.25	1.94	0.26	
IM International Equity (SA+CF) Median			-13.89	-20.06	-21.38	-21.38	1.75	2.49	3.22	5.67	6.31	
Rank			42	67	60	60	15	9	12	28	93	
International Developed Equity	268,755,398	8.30	-14.14	-24.45	-22.71	-22.71	6.86	8.23	8.09	8.55	5.54	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.60	
Difference			-0.41	-6.03	-3.29	-3.29	5.51	5.73	5.17	3.72	0.94	
IM International Equity Developed Markets (SA+CF) Median			-14.53	-21.00	-20.14	-20.14	1.86	2.54	3.24	6.05	6.13	
			45		67	67	6	4	2	8	70	



	Allocation	Allocation				Performance (%)								
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date		
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	67,523,824	2.08	-13.51	-18.17	-19.17	-19.17	N/A	N/A	N/A	N/A	N/A	03/01/2021		
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	-10.64			
Difference			0.22	0.25	0.25	0.25	N/A	N/A	N/A	N/A	N/A			
IM All ACWI Ex US (SA+CF) Median			-13.85	-20.24	-20.30	-20.30	1.82	2.48	3.22	5.81	-11.93			
Rank			44	36	38	38	N/A	N/A	N/A	N/A	N/A			
Chautauqua Intl Growth Equity (CF)	140,433,817	4.34	-10.22	-19.00	-18.83	-18.83	8.09	8.05	7.57	N/A	8.25	08/01/2012		
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.73			
Difference			3.51	-0.58	0.59	0.59	6.74	5.55	4.65	N/A	3.52			
IM All ACWI Ex US (SA+CF) Median			-13.85	-20.24	-20.30	-20.30	1.82	2.48	3.22	5.81	5.73			
Rank			7	41	37	37	1	3	4	N/A	4			
WCM Berkeley Street Intl Equity (SA)	128,291,077	3.96	-18.29	-31.84	-28.07	-28.07	5.12	8.09	8.42	N/A	9.34	08/01/2012		
MSCI EAFE Index (USD) (Net)			-14.51	-19.57	-17.77	-17.77	1.07	2.20	2.70	5.40	5.32			
Difference			-3.78	-12.27	-10.30	-10.30	4.05	5.89	5.72	N/A	4.02			
IM EAFE Core (SA+CF) Median			-14.20	-19.83	-17.93	-17.93	1.82	2.25	2.78	5.99	5.88			
Rank			98	98	98	98	1	1	1	N/A	1			
Emerging Markets Equity	103,517,951	3.20	-9.96	-17.52	-24.83	-24.83	-0.73	0.29	0.82	N/A	3.49	08/01/2012		
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	2.89			
Difference			1.49	0.11	0.45	0.45	-1.30	-1.89	-1.97	N/A	0.60			
IM Emerging Markets Equity (SA+CF) Median			-12.71	-18.80	-25.36	-25.36	0.80	2.09	3.00	3.64	3.49			
Rank			13	40	48	48	73	84	89	N/A	50			
RBC GAM Emerging Markets Equity (CF)	52,149,650	1.61	-9.74	-14.36	-20.87	-20.87	-0.14	N/A	N/A	N/A	1.21	01/01/2019		
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	3.42			
Difference			1.71	3.27	4.41	4.41	-0.71	N/A	N/A	N/A	-2.21			
IM Emerging Markets Equity (SA+CF) Median			-12.71	-18.80	-25.36	-25.36	0.80	2.09	3.00	3.64	4.05			
Rank			12	18	29	29	67	N/A	N/A	N/A	88			
Wellington Emerging Markets (CF)	51,368,301	1.59	-10.18	-20.51	-28.48	-28.48	-1.34	N/A	N/A	N/A	0.09	01/01/2019		
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	3.42			
Difference			1.27	-2.88	-3.20	-3.20	-1.91	N/A	N/A	N/A	-3.33			
IM Emerging Markets Equity (SA+CF) Median			-12.71	-18.80	-25.36	-25.36	0.80	2.09	3.00	3.64	4.05			
Rank			16	61	67	67	79	N/A	N/A	N/A	93			



	Allocatio	n					Perfor					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	482,194,528	14.89	-8.06	-11.89	-13.26	-13.26	-1.99	-0.37	0.78	1.25	4.27	01/01/1997
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.39	
Difference			-3.37	-1.54	-2.97	-2.97	-1.05	-1.25	-0.64	-0.29	-0.12	
IM Global Fixed Income (SA+CF) Median			-9.11	-13.87	-13.79	-13.79	-0.88	1.06	1.98	2.05	4.92	
Rank			35	34	48	48	66	74	72	60	56	
Garcia Hamilton Core Fixed Income (SA)	103,350,249	3.19	-3.93	-7.97	-8.27	-8.27	-0.35	1.16	1.82	N/A	1.91	07/01/2014
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.47	
Difference			0.76	2.38	2.02	2.02	0.59	0.28	0.40	N/A	0.44	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.91	-10.47	-10.52	-10.52	-0.72	1.06	1.63	1.79	1.63	
Rank			8	4	5	5	22	37	23	N/A	18	
Orleans Core Fixed Income (SA)	87,638,696	2.71	-5.05	-10.57	-11.09	-11.09	-1.16	0.80	1.45	N/A	1.36	07/01/2014
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.47	
Difference			-0.36	-0.22	-0.80	-0.80	-0.22	-0.08	0.03	N/A	-0.11	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.91	-10.47	-10.52	-10.52	-0.72	1.06	1.63	1.79	1.63	
Rank			67	56	73	73	84	76	72	N/A	82	
Liquidity Pool - SSgA Aggregate Bond (CF)	72,211,517	2.23	-4.72	-10.36	-10.33	-10.33	N/A	N/A	N/A	N/A	N/A	03/01/2021
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-7.44	
Difference			-0.03	-0.01	-0.04	-0.04	N/A	N/A	N/A	N/A	N/A	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.91	-10.47	-10.52	-10.52	-0.72	1.06	1.63	1.79	-7.48	
Rank			37	43	40	40	N/A	N/A	N/A	N/A	N/A	
Garrison Middle Market Funding (CF)	809,814	0.03	-0.81	-9.64	0.70	0.70	5.52	4.68	3.66	N/A	4.37	07/01/2013
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.79	
Difference			3.88	0.71	10.99	10.99	6.46	3.80	2.24	N/A	2.58	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.59	-11.16	-11.03	-11.03	-0.50	1.26	1.86	2.27	2.35	
Rank			1	14	1	1	1	1	2	N/A	1	
Medley Opportunity II (CF)	3,503,031	0.11	-5.86	-5.86	-9.01	-9.01	-10.22	-9.65	-5.40	N/A	-3.54	07/01/2013
CS Lvg'd Loan Index			-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.31	3.90	3.49	
Difference			-1.51	-1.41	-6.33	-6.33	-12.25	-12.62	-8.71	N/A	-7.03	
Brandywine Global Fixed Income (CF)	214,681,221	6.63	-12.19	-14.44	-17.73	-17.73	-2.49	-0.71	0.85	1.14	2.85	08/01/2009
FTSE Wrld Gov't Bond Index			-8.91	-14.79	-16.77	-16.77	-4.27	-1.17	0.08	-0.69	0.54	
Difference			-3.28	0.35	-0.96	-0.96	1.78	0.46	0.77	1.83	2.31	
IM Global Fixed Income (SA+CF) Median			-9.11	-13.87	-13.79	-13.79	-0.88	1.06	1.98	2.05	3.01	
Rank			92	65	86	86	72	81	71	61	54	

As of 06/2022, OFP Adams Street Co-Invest Fund V was funded. Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
DIMCO Cornerete Onn II (CE)	15,718,544	0.49	0.39	13.96	27.00	27.00	13.34	11.84	N/A	N/A	12.32	12/01/2016
PIMCO Corporate Opp II (CF) Bloomberg US Corp Hi Yld Index	15,710,544	0.49	-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	3.10	12/01/2010
Difference			10.22	28.15	39.81	39.81	13.13	9.74	3.46 N/A	4.47 N/A	9.22	
Difference			10.22	20.10	33.01	33.01	13.13	3.74	IN/A	IV/A	9.22	
PIMCO Bravo III (CF)	48,960,381	1.51	3.80	9.26	23.54	23.54	12.01	N/A	N/A	N/A	12.08	12/01/2017
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	1.83	
Difference			13.63	23.45	36.35	36.35	11.80	N/A	N/A	N/A	10.25	
PIMCO Private Income (CF)	97,794,612	3.02	1.30	2.62	9.04	9.04	9.82	N/A	N/A	N/A	9.28	05/01/2019
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	0.53	
Difference			11.13	16.81	21.85	21.85	9.61	N/A	N/A	N/A	8.75	
PIMCO Bravo IV (CF)	36,178,349	1.12	3.91	3.94	N/A	N/A	N/A	N/A	N/A	N/A	2.42	10/01/202
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	-13.58	
Difference			13.74	18.13	N/A	N/A	N/A	N/A	N/A	N/A	16.00	
Hedge Fund	269,402	0.01	-0.88	-20.45	-42.71	-42.71	-17.98	-10.16	-6.79	-3.37	-0.72	01/01/2006
HFRI FOF: Cnsvt Index			-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	2.64	
Difference			0.65	-19.07	-42.99	-42.99	-22.68	-14.23	-9.92	-7.21	-3.36	
Glouston Capital Partners Permal (CF)	269.402	0.01	-0.88	-20.45	-42.71	-42.71	-17.95	-10.14	-6.96	N/A	-6.88	06/01/201
HFRI FOF: Cnsvt Index	,		-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	3.01	
Difference			0.65	-19.07	-42.99	-42.99	-22.65	-14.21	-10.09	N/A	-9.89	
Core Real Estate	387,374,640	11.96	2.99	10.07	24.11	24.11	8.93	8.23	8.58	9.50	7.03	05/01/200
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	7.51	
Difference			-1.55	-1.93	-4.20	-4.20	-2.73	-1.32	-0.77	-0.65	-0.48	
JP Morgan Strategic Property (CF)	129,741,161	4.01	4.46	10.83	27.34	27.34	10.91	8.78	8.71	10.00	8.02	04/01/200
NCREIF ODCE Index (AWA) (Net)	, ,		4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	7.47	
Difference			-0.08	-1.17	-0.97	-0.97	-0.75	-0.77	-0.64	-0.15	0.55	
Portfolio Advisors Real Estate III LP	2,154,454	0.07	2.37	8.98	10.90	10.90	-7.51	-4.14	0.02	3.95	-1.51	07/01/200
NCREIF ODCE Index (AWA) (Net)	_,,		4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	5.94	
Difference			-2.17	-3.02	-17.41	-17.41	-19.17	-13.69	-9.33	-6.20	-7.45	
Portfolio Advisors Real Estate IV LP	1,113,695	0.03	9.97	19.44	24.92	24.92	4.64	7.61	8.55	11.08	7.99	07/01/201
NCREIF ODCE Index (AWA) (Net)	-,,		4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.26	
Difference			5.43	7.44	-3.39	-3.39	-7.02	-1.94	-0.80	0.93	-2.27	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Angelo Gordon Net Lease III LP	23,093,808	0.71	1.70	5.87	10.06	10.06	7.70	7.81	7.23	N/A	5.47	03/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.08	
Difference			-2.84	-6.13	-18.25	-18.25	-3.96	-1.74	-2.12	N/A	-4.61	
Mesirow Real Estate (CF)	3,919,258	0.12	4.59	7.35	128.91	128.91	42.29	28.88	23.04	N/A	19.03	04/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.88	
Difference			0.05	-4.65	100.60	100.60	30.63	19.33	13.69	N/A	9.15	
Mesirow Real Estate Value IV LP (OFPRS)	12,703,953	0.39	0.70	10.42	36.15	36.15	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	30.14	
Difference			-3.84	-1.58	7.84	7.84	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	16,316,215	0.50	4.75	3.48	13.41	13.41	-3.31	3.21	5.82	N/A	6.33	05/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.99	
Difference			0.21	-8.52	-14.90	-14.90	-14.97	-6.34	-3.53	N/A	-3.66	
Portfolio Advisors Real Estate LP	3,969,462	0.12	3.86	6.03	6.87	6.87	-6.22	-2.76	0.09	N/A	2.93	06/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.10	
Difference			-0.68	-5.97	-21.44	-21.44	-17.88	-12.31	-9.26	N/A	-7.17	
Landmark Real Estate VII LP	5,241,337	0.16	-1.23	2.95	6.31	6.31	-0.85	1.04	7.13	N/A	9.69	09/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.06	
Difference			-5.77	-9.05	-22.00	-22.00	-12.51	-8.51	-2.22	N/A	-0.37	
JP Morgan Special Situation Property (CF)	78,928,889	2.44	2.84	9.16	26.26	26.26	11.99	10.28	10.29	N/A	11.23	11/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.87	
Difference			-1.70	-2.84	-2.05	-2.05	0.33	0.73	0.94	N/A	1.36	
Hall Capital III LP	7,419,398	0.23	0.07	0.05	-0.85	-0.85	5.40	5.63	5.35	N/A	2.71	11/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.87	
Difference			-4.47	-11.95	-29.16	-29.16	-6.26	-3.92	-4.00	N/A	-7.16	
Portfolio Advisors Real Estate VI LP	18,074,741	0.56	10.91	17.96	30.23	30.23	13.18	13.25	N/A	N/A	11.98	01/01/2017
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.24	
Difference			6.37	5.96	1.92	1.92	1.52	3.70	N/A	N/A	2.74	
Dune Real Estate IV LP	22,476,378	0.69	-3.38	12.83	45.77	45.77	N/A	N/A	N/A	N/A	-4.41	08/01/2019
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	12.01	
Difference			-7.92	0.83	17.46	17.46	N/A	N/A	N/A	N/A	-16.42	
Hall Capital Real Estate LP	6,810,996	0.21	2.05	13.83	16.49	16.49	14.09	N/A	N/A	N/A	11.01	09/01/2018
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.54	
Difference			-2.49	1.83	-11.82	-11.82	2.43	N/A	N/A	N/A	0.47	



	Allocation	ı					Perforr	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Terracap Partners V LP (OFPRS)	55,410,896	1.71	1.19	11.45	11.38	11.38	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	27.72	
Difference			-3.35	-0.55	-16.93	-16.93	N/A	N/A	N/A	N/A	N/A	



	Allocation	1					Perfori	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	306,272,695	9.46	5.77	11.27	28.87	28.87	23.54	19.90	16.50	N/A	18.35	03/01/2014
Pomona Captial VIII LP	3,532,510	0.11	-7.80	-7.80	6.52	6.52	20.36	18.59	17.37	N/A	18.46	03/01/2014
Capital Dynamics Global Secondaries IV	27,528,974	0.85	4.24	8.28	10.40	10.40	13.35	14.23	11.27	N/A	12.11	12/01/2014
Ardian AESF VI LP	36,835,832	1.14	1.04	8.94	28.47	28.47	21.46	17.26	N/A	N/A	15.23	02/01/2017
Pomona Capital IX LP	27,148,419	0.84	4.60	4.60	24.25	24.25	28.42	N/A	N/A	N/A	38.27	02/01/2018
Pomona Capital X LP	18,969,925	0.59	78.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	18,578,076	0.57	25.33	25.33	38.08	38.08	15.62	N/A	N/A	N/A	11.02	08/01/2018
Argonaut Private Equity V LP	9,353,504	0.29	-1.86	-1.86	N/A	N/A	N/A	N/A	N/A	N/A	-1.86	01/01/2022
Ardian ASF VIII LP	50,452,727	1.56	0.68	11.33	45.76	45.76	N/A	N/A	N/A	N/A	49.87	05/01/2020
Ardian Real Estate (CF)	6,556,728	0.20	0.14	9.34	37.32	37.32	23.11	18.73	15.74	N/A	16.62	04/01/2014
IFM Global Infrastructure Fund LP	107,316,000	3.31	2.54	7.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12/01/2021



	Allocation	on					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,238,919,613	100.00	-9.52	-13.60	-10.24	-10.24	7.16	8.18	8.00	9.34	8.24	07/01/1989
OFPRS Policy Index			-10.44	-13.52	-7.94	-7.94	7.51	7.88	7.96	9.17	N/A	
Difference			0.92	-0.08	-2.30	-2.30	-0.35	0.30	0.04	0.17	N/A	
OFPRS Actual Allocation Index			-9.80	-12.88	-7.89	-7.89	8.26	8.23	7.91	9.10	8.15	
Difference			0.28	-0.72	-2.35	-2.35	-1.10	-0.05	0.09	0.24	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			-11.34	-17.28	-17.74	-17.74	-0.34	0.68	0.50	1.84	0.74	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	8.15	
Rank			42	47	54	54	19	8	7	3	44	
Total Equity	1,844,512,295	56.95	-15.83	-22.78	-20.12	-20.12	7.33	9.35	9.16	11.15	9.03	07/01/1989
Wilshire 5000 Index			-16.77	-20.89	-13.19	-13.19	10.17	10.83	10.73	12.71	10.00	
Difference			0.94	-1.89	-6.93	-6.93	-2.84	-1.48	-1.57	-1.56	-0.97	
US Equity	1,357,038,117	41.90	-16.71	-22.83	-19.29	-19.29	7.97	10.12	9.81	12.26	9.50	07/01/1989
Wilshire 5000 Index			-16.77	-20.89	-13.19	-13.19	10.17	10.83	10.73	12.71	10.00	
Difference			0.06	-1.94	-6.10	-6.10	-2.20	-0.71	-0.92	-0.45	-0.50	
IM U.S. Equity (SA+CF) Median			-15.39	-19.85	-13.06	-13.06	8.42	9.20	9.09	11.96	10.96	
Rank			66	67	71	71	55	41	40	45	96	
US Large Cap Equity	974,520,301	30.09	-16.56	-21.74	-15.65	-15.65	8.86	10.07	9.95	12.46	9.85	07/01/1989
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	10.14	
Difference			0.11	-0.80	-2.61	-2.61	-1.31	-0.93	-0.83	-0.36	-0.29	
IM U.S. Large Cap Equity (SA+CF) Median			-15.66	-19.72	-10.74	-10.74	9.67	10.76	10.45	12.79	10.57	
Rank			65	69	74	74	66	61	61	59	92	
US Large Cap Core Equity	488,254,007	15.07	-16.13	-20.08	-11.29	-11.29	10.03	10.55	10.53	12.83	9.51	11/01/1996
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	8.77	
Difference			-0.03	-0.12	-0.67	-0.67	-0.57	-0.76	-0.61	-0.13	0.74	
IM U.S. Large Cap Core Equity (SA+CF) Median			-15.06	-19.06	-10.55	-10.55	9.83	10.68	10.43	12.83	9.34	
Rank			70	66	58	58	46	54	46	51	41	
Liquidity Pool - SSgA Equity Index (CF)	244,392,983	7.55	-16.10	-19.96	-10.65	-10.65	N/A	N/A	N/A	N/A	-2.43	04/01/2021
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	-2.39	
Difference			0.00	0.00	-0.03	-0.03	N/A	N/A	N/A	N/A	-0.04	
IM U.S. Large Cap Core Equity (SA+CF) Median			-15.06	-19.06	-10.55	-10.55	9.83	10.68	10.43	12.83	-2.41	
Rank			69	65	54	54	N/A	N/A	N/A	N/A	52	



	Allocation	ı					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	243,861,024	7.53	-16.18	-20.14	-12.60	-12.60	10.22	10.72	10.61	12.82	8.94	02/01/2002
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	8.21	
Difference			-0.08	-0.18	-1.98	-1.98	-0.38	-0.59	-0.53	-0.14	0.73	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.11	-20.00	-11.14	-11.14	10.28	11.01	10.81	12.84	8.34	
Rank			53	52	56	56	52	64	61	54	12	
US Large Cap Value Equity	245,608,820	7.58	-10.17	-13.01	-10.62	-10.62	6.95	7.30	7.55	10.04	9.06	06/01/1990
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	9.50	
Difference			2.04	-0.15	-3.80	-3.80	0.08	0.13	-0.14	-0.46	-0.44	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.76	-11.82	-5.54	-5.54	9.04	8.88	8.90	11.42	10.55	
Rank			26	61	82	82	87	78	84	89	97	
Beutel Goodman American Equity (SA)	123,414,701	3.81	-8.50	-7.69	-8.44	-8.44	10.55	9.76	N/A	N/A	12.02	05/01/2016
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	8.70	
Difference			3.71	5.17	-1.62	-1.62	3.68	2.59	N/A	N/A	3.32	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.76	-11.82	-5.54	-5.54	9.04	8.88	8.90	11.42	10.28	
Rank			13	16	73	73	26	28	N/A	N/A	15	
Aristotle US Equity (SA)	122,194,119	3.77	-12.10	-18.30	-12.26	-12.26	N/A	N/A	N/A	N/A	8.70	09/01/2020
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	12.29	
Difference			0.11	-5.44	-5.44	-5.44	N/A	N/A	N/A	N/A	-3.59	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.76	-11.82	-5.54	-5.54	9.04	8.88	8.90	11.42	13.95	
Rank			56	84	89	89	N/A	N/A	N/A	N/A	83	



US Large Cap Growth Equity Russell 1000 Grth Index Difference M U.S. Large Cap Growth Equity (SA+CF) Median Rank Fred Alger Capital Appreciation (SA)	Market Value (\$) 240,657,474	% 7.43	QTD -24.57 -20.92	CYTD -33.80	FYTD -29.99	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Russell 1000 Grth Index Difference M U.S. Large Cap Growth Equity (SA+CF) Median Rank Fred Alger Capital Appreciation (SA)	240,657,474	7.43	-20.92		-29.99	20.00						
Difference M U.S. Large Cap Growth Equity (SA+CF) Median Rank Fred Alger Capital Appreciation (SA)					_0.00	-29.99	7.30	11.45	10.79	13.88	9.45	07/01/1989
M U.S. Large Cap Growth Equity (SA+CF) Median Rank Fred Alger Capital Appreciation (SA)			0.05	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	10.33	
Rank Fred Alger Capital Appreciation (SA)			-3.65	-5.73	-11.22	-11.22	-5.28	-2.84	-2.66	-0.92	-0.88	
Fred Alger Capital Appreciation (SA)			-20.20	-28.41	-20.97	-20.97	9.63	12.58	11.83	13.90	11.37	
			89	87	88	88	80	71	74	51	100	
	240,657,474	7.43	-24.11	-33.40	-29.25	-29.25	7.68	11.68	10.94	13.98	14.24	08/01/2010
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	15.02	
Difference			-3.19	-5.33	-10.48	-10.48	-4.90	-2.61	-2.51	-0.82	-0.78	
M U.S. Large Cap Growth Equity (SA+CF) Median			-20.20	-28.41	-20.97	-20.97	9.63	12.58	11.83	13.90	14.05	
Rank			88	85	86	86	78	66	73	46	43	
JS Small Cap Equity	382,517,817	11.81	-16.50	-25.11	-27.33	-27.33	5.54	10.07	9.33	11.97	9.60	07/01/1992
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	9.09	
Difference			0.70	-1.68	-2.13	-2.13	1.33	4.90	3.42	2.62	0.51	
M U.S. Small Cap Equity (SA+CF) Median			-15.39	-20.74	-16.96	-16.96	6.91	7.31	7.73	11.18	11.90	
Rank			60	72	79	79	68	21	23	33	94	
.iqiduity Pool - SSgA Small Cap Completeness Index (CF)	63,098,998	1.95	-19.96	-27.24	-28.51	-28.51	N/A	N/A	N/A	N/A	-19.37	04/01/2021
Russell Sm Cap Compl Index			-19.96	-27.21	-28.53	-28.53	5.25	6.88	7.05	10.56	-19.35	
Difference			0.00	-0.03	0.02	0.02	N/A	N/A	N/A	N/A	-0.02	
M U.S. Small Cap Equity (SA+CF) Median			-15.39	-20.74	-16.96	-16.96	6.91	7.31	7.73	11.18	-11.05	
Rank			84	77	82	82	N/A	N/A	N/A	N/A	81	
JS Small Cap Value Equity	159,166,151	4.91	-14.20	-17.40	-14.31	-14.31	6.93	8.16	9.29	11.61	10.41	09/01/1992
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	10.06	
Difference			1.08	-0.09	1.97	1.97	0.75	3.27	2.89	2.56	0.35	
M U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	12.76	
Rank			67	66	76	76	66	20	12	23	100	
Earnest Partner Small Cap Value Equity (SA)	78,419,475	2.42	-15.51	-16.65	-12.13	-12.13	10.70	10.39	10.37	13.13	9.19	09/01/2005
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	6.54	
Difference			-0.23	0.66	4.15	4.15	4.52	5.50	3.97	4.08	2.65	
M U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	8.52	
Rank			83	59	65	65	16	6	6	3	33	
River Road Small Cap Value Equity (SA)	80,746,676	2.49	-9.69	-11.99	-7.32	-7.32	6.28	7.83	9.57	11.00	7.31	05/01/2007
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	5.60	
Difference			5.59	5.32	8.96	8.96	0.10	2.94	3.17	1.95	1.71	
M U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	7.74	
Rank			10	12	20	20	73	23	10	39	64	



	Allocatio	n					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Growth Equity	160,252,669	4.95	-22.69	-38.25	-45.23	-45.23	-0.74	9.38	7.45	11.08	7.55	07/01/1992
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.63	
Difference			-3.44	-8.80	-11.80	-11.80	-2.14	4.58	2.49	1.78	-0.08	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	12.40	
Rank			76	92	95	95	97	61	76	80	100	
Lord Abbett Small Cap Growth Equity (SA)	81,031,667	2.50	-20.37	-35.51	-39.68	-39.68	2.31	12.92	7.93	12.21	10.19	05/01/2011
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	7.62	
Difference			-1.12	-6.06	-6.25	-6.25	0.91	8.12	2.97	2.91	2.57	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	10.36	
Rank			55	81	86	86	87	19	68	52	54	
Delaware SMID Focus Growth Equity (SA)	79,221,002	2.45	-23.43	-39.71	-49.39	-49.39	-3.13	6.43	7.09	10.01	9.10	05/01/2011
Russell 2500 Grth Index			-19.55	-29.45	-31.81	-31.81	3.68	7.53	7.05	10.88	9.07	
Difference			-3.88	-10.26	-17.58	-17.58	-6.81	-1.10	0.04	-0.87	0.03	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			-19.66	-28.28	-24.78	-24.78	6.64	10.23	9.38	12.11	10.71	
Rank			82	93	95	95	97	91	88	92	88	
Other Equity												
OFP Adams Street Co-Invest Fund V	2,500,000	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2022
OFP LGT Co-Invest Fund III	10,701,049	0.33	-0.16	-0.64	N/A	N/A	N/A	N/A	N/A	N/A	-0.64	01/01/2022
OFP Schroders P/E Global DIR III	34,475,956	1.06	11.09	11.09	N/A	N/A	N/A	N/A	N/A	N/A	11.09	01/01/2022
International Equity	439,797,173	13.58	-13.02	-22.62	-22.76	-22.76	5.52	6.81	6.86	7.40	N/A	07/01/1989
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	N/A	
Difference			0.71	-4.20	-3.34	-3.34	4.17	4.31	3.94	2.57	N/A	
IM International Equity (SA+CF) Median			-13.68	-19.63	-20.54	-20.54	2.36	3.12	3.88	6.36	7.59	
Rank			42	69	62	62	16	11	11	28	N/A	
International Developed Equity	268,755,398	8.30	-13.95	-24.12	-22.06	-22.06	7.62	9.06	8.99	9.38	6.31	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.88	
Difference			-0.22	-5.70	-2.64	-2.64	6.27	6.56	6.07	4.55	1.43	
IM International Equity Developed Markets (SA+CF) Median			-14.35	-20.20	-19.43	-19.43	2.50	3.15	3.88	6.71	6.75	
Rank			44	74	68	68	6	3	3	10	71	



	Allocation	ı					Perfori	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	67,523,824	2.08	-13.51	-18.17	-19.17	-19.17	N/A	N/A	N/A	N/A	-11.92	04/01/2021
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	-12.20	
Difference			0.22	0.25	0.25	0.25	N/A	N/A	N/A	N/A	0.28	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	-12.95	
Rank			45	37	40	40	N/A	N/A	N/A	N/A	40	
Chautauqua Intl Growth Equity (CF)	140,433,817	4.34	-10.22	-19.00	-18.83	-18.83	8.09	8.16	7.81	N/A	8.63	09/01/2012
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.55	
Difference			3.51	-0.58	0.59	0.59	6.74	5.66	4.89	N/A	4.08	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	6.24	
Rank			10	40	36	36	4	5	5	N/A	8	
WCM Berkeley Street Intl Equity (SA)	128,291,077	3.96	-17.89	-31.23	-26.83	-26.83	6.57	9.48	9.80	N/A	10.83	09/01/2012
MSCI EAFE Index (USD) (Net)			-14.51	-19.57	-17.77	-17.77	1.07	2.20	2.70	5.40	5.09	
Difference			-3.38	-11.66	-9.06	-9.06	5.50	7.28	7.10	N/A	5.74	
IM EAFE Core (SA+CF) Median			-14.29	-19.85	-17.98	-17.98	2.05	3.12	3.51	6.52	6.19	
Rank			98	99	95	95	1	1	1	N/A	1	
Emerging Markets Equity	103,517,951	3.20	-9.88	-17.37	-24.55	-24.55	-0.37	0.53	1.00	N/A	1.98	09/01/2012
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	2.95	
Difference			1.57	0.26	0.73	0.73	-0.94	-1.65	-1.79	N/A	-0.97	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	4.13	
Rank			17	45	48	48	79	91	95	N/A	98	
RBC GAM Emerging Markets Equity (CF)	52,149,650	1.61	-9.74	-14.36	-20.87	-20.87	-0.14	N/A	N/A	N/A	1.24	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	0.99	
Difference			1.71	3.27	4.41	4.41	-0.71	N/A	N/A	N/A	0.25	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	2.47	
Rank			16	21	31	31	76	N/A	N/A	N/A	72	
Wellington Emerging Markets (CF)	51,368,301	1.59	-10.02	-20.21	-27.95	-27.95	-0.63	N/A	N/A	N/A	0.80	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	0.99	
Difference			1.43	-2.58	-2.67	-2.67	-1.20	N/A	N/A	N/A	-0.19	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	2.47	
Rank			18	62	69	69	83	N/A	N/A	N/A	77	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	482,194,528	14.89	-7.94	-11.70	-12.95	-12.95	-1.76	-0.13	1.02	1.51	5.26	07/01/1989
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	5.34	
Difference			-3.25	-1.35	-2.66	-2.66	-0.82	-1.01	-0.40	-0.03	-0.08	
IM Global Fixed Income (SA+CF) Median			-9.07	-13.72	-13.55	-13.55	-0.47	1.53	2.44	2.33	N/A	
Rank			35	34	46	46	68	76	77	58	N/A	
Garcia Hamilton Core Fixed Income (SA)	103,350,249	3.19	-3.89	-7.89	-8.11	-8.11	-0.18	1.34	2.01	N/A	2.07	08/01/2014
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.52	
Difference			0.80	2.46	2.18	2.18	0.76	0.46	0.59	N/A	0.55	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	1.97	
Rank			8	4	4	4	33	44	35	N/A	33	
Orleans Core Fixed Income (SA)	87,638,696	2.71	-5.01	-10.51	-10.97	-10.97	-1.03	0.94	1.59	N/A	1.58	08/01/2014
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.52	
Difference			-0.32	-0.16	-0.68	-0.68	-0.09	0.06	0.17	N/A	0.06	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	1.97	
Rank			65	62	83	83	95	85	81	N/A	87	
Liquidity Pool - SSgA Aggregate Bond (CF)	72,211,517	2.23	-4.72	-10.36	-10.33	-10.33	N/A	N/A	N/A	N/A	-7.01	04/01/2021
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-6.98	
Difference			-0.03	-0.01	-0.04	-0.04	N/A	N/A	N/A	N/A	-0.03	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	-6.91	
Rank			45	51	57	57	N/A	N/A	N/A	N/A	60	
Garrison Middle Market Funding (CF)	809,814	0.03	-0.81	-9.64	0.70	0.70	5.52	4.68	3.66	N/A	4.41	08/01/2013
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	1.79	
Difference			3.88	0.71	10.99	10.99	6.46	3.80	2.24	N/A	2.62	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	2.62	
Rank			1	13	1	1	1	1	3	N/A	1	
Medley Opportunity II (CF)	3,503,031	0.11	-5.86	-5.86	-9.01	-9.01	-10.22	-9.65	-5.40	N/A	-3.57	08/01/2013
CS Lvg'd Loan Index			-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.31	3.90	3.40	
Difference			-1.51	-1.41	-6.33	-6.33	-12.25	-12.62	-8.71	N/A	-6.97	
Brandywine Global Fixed Income (CF)	214,681,221	6.63	-11.98	-14.08	-17.18	-17.18	-2.14	-0.30	1.27	1.66	3.46	10/01/2009
FTSE Wrld Gov't Bond Index			-8.91	-14.79	-16.77	-16.77	-4.27	-1.17	0.08	-0.69	0.22	
Difference			-3.07	0.71	-0.41	-0.41	2.13	0.87	1.19	2.35	3.24	
IM Global Fixed Income (SA+CF) Median			-9.07	-13.72	-13.55	-13.55	-0.47	1.53	2.44	2.33	2.77	
Rank			89	60	85	85	74	81	72	57	41	



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
DIMCO Cornerete Onn II (CE)	15,718,544	0.49	0.39	13.96	27.00	27.00	13.34	11.84	N/A	N/A	12.52	01/01/2017
PIMCO Corporate Opp II (CF) Bloomberg US Corp Hi Yld Index	15,710,544	0.49	-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	2.81	01/01/2017
Difference			10.22	28.15	39.81	39.81	13.13	9.74	3.46 N/A	4.47 N/A	9.71	
Difference			10.22	20.10	33.01	33.01	13.13	3.74	IN/A	IN/A	9.71	
PIMCO Bravo III (CF)	48,960,381	1.51	3.80	9.26	23.54	23.54	12.01	N/A	N/A	N/A	12.08	12/01/2017
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	1.83	
Difference			13.63	23.45	36.35	36.35	11.80	N/A	N/A	N/A	10.25	
PIMCO Private Income (CF)	97,794,612	3.02	1.30	2.62	9.04	9.04	9.82	N/A	N/A	N/A	9.28	05/01/2019
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	0.53	
Difference			11.13	16.81	21.85	21.85	9.61	N/A	N/A	N/A	8.75	
PIMCO Bravo IV (CF)	36,178,349	1.12	3.91	3.94	N/A	N/A	N/A	N/A	N/A	N/A	2.42	10/01/202
Bloomberg US Corp Hi Yld Index			-9.83	-14.19	-12.81	-12.81	0.21	2.10	3.48	4.47	-13.58	
Difference			13.74	18.13	N/A	N/A	N/A	N/A	N/A	N/A	16.00	
Hedge Fund	269,402	0.01	-0.88	-20.45	-42.71	-42.71	-17.98	-10.16	-6.79	-3.37	-6.61	06/01/201
HFRI FOF: Cnsvt Index			-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	3.01	
Difference			0.65	-19.07	-42.99	-42.99	-22.68	-14.23	-9.92	-7.21	-9.62	
Glouston Capital Partners Permal (CF)	269.402	0.01	-0.88	-20.45	-42.71	-42.71	-17.95	-10.14	-6.96	N/A	-6.88	06/01/201
HFRI FOF: Cnsvt Index	,		-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	3.01	
Difference			0.65	-19.07	-42.99	-42.99	-22.65	-14.21	-10.09	N/A	-9.89	
Core Real Estate	387,374,640	11.96	3.14	10.39	24.84	24.84	9.62	8.94	9.31	10.16	7.50	05/01/2009
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	8.51	
Difference			-1.63	-2.10	-4.67	-4.67	-3.04	-1.60	-1.03	-1.00	-1.01	
JP Morgan Strategic Property (CF)	129,741,161	4.01	4.71	11.53	28.69	28.69	11.97	9.79	9.71	10.96	8.72	05/01/200
NCREIF ODCE Index (AWA) (Gross)	, ,		4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	8.51	
Difference			-0.06	-0.96	-0.82	-0.82	-0.69	-0.75	-0.63	-0.20	0.21	
Portfolio Advisors Real Estate III LP	2,154,454	0.07	2.37	8.98	10.90	10.90	-7.51	-4.14	0.02	3.95	-1.52	08/01/200
NCREIF ODCE Index (AWA) (Gross)	_,,		4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	6.96	
Difference			-2.40	-3.51	-18.61	-18.61	-20.17	-14.68	-10.32	-7.21	-8.48	
Portfolio Advisors Real Estate IV LP	1,113,695	0.03	9.97	19.44	24.92	24.92	4.64	7.61	8.55	11.08	8.06	08/01/201
NCREIF ODCE Index (AWA) (Gross)	, ,,,,,,,		4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.37	
Difference			5.20	6.95	-4.59	-4.59	-8.02	-2.93	-1.79	-0.08	-3.31	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Angelo Gordon Net Lease III LP	23,093,808	0.71	1.70	5.87	10.06	10.06	7.70	7.81	7.23	N/A	5.53	04/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.88	
Difference			-3.07	-6.62	-19.45	-19.45	-4.96	-2.73	-3.11	N/A	-5.35	
Mesirow Real Estate (CF)	3,919,258	0.12	4.59	7.35	128.91	128.91	42.29	28.88	23.04	N/A	19.25	05/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.00	
Difference			-0.18	-5.14	99.40	99.40	29.63	18.34	12.70	N/A	8.25	
Mesirow Real Estate Value IV LP (OFPRS)	12,703,953	0.39	0.70	10.42	36.15	36.15	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	31.56	
Difference			-4.07	-2.07	6.64	6.64	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	16,316,215	0.50	4.75	3.48	13.41	13.41	-3.31	3.21	5.82	N/A	6.40	06/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.12	
Difference			-0.02	-9.01	-16.10	-16.10	-15.97	-7.33	-4.52	N/A	-4.72	
Portfolio Advisors Real Estate LP	3,969,462	0.12	3.86	6.03	6.87	6.87	-6.22	-2.76	0.09	N/A	2.96	07/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.84	
Difference			-0.91	-6.46	-22.64	-22.64	-18.88	-13.30	-10.25	N/A	-7.88	
Landmark Real Estate VII LP	5,241,337	0.16	-1.23	2.95	6.31	6.31	-0.85	1.04	7.13	N/A	9.80	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.75	
Difference			-6.00	-9.54	-23.20	-23.20	-13.51	-9.50	-3.21	N/A	-0.95	
JP Morgan Special Situation Property (CF)	78,928,889	2.44	3.20	10.47	28.87	28.87	14.03	12.19	12.16	N/A	13.16	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.00	
Difference			-1.57	-2.02	-0.64	-0.64	1.37	1.65	1.82	N/A	2.16	
Hall Capital III LP	7,419,398	0.23	0.07	0.05	-0.85	-0.85	5.40	5.63	5.35	N/A	2.74	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.00	
Difference			-4.70	-12.44	-30.36	-30.36	-7.26	-4.91	-4.99	N/A	-8.26	
Portfolio Advisors Real Estate VI LP	18,074,741	0.56	10.91	17.96	30.23	30.23	13.18	13.25	N/A	N/A	12.17	02/01/2017
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.39	
Difference			6.14	5.47	0.72	0.72	0.52	2.71	N/A	N/A	1.78	
Dune Real Estate IV LP	22,476,378	0.69	-3.38	12.83	45.77	45.77	N/A	N/A	N/A	N/A	-4.54	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	13.46	
Difference			-8.15	0.34	16.26	16.26	N/A	N/A	N/A	N/A	-18.00	
Hall Capital Real Estate LP	6,810,996	0.21	2.05	13.83	16.49	16.49	14.09	N/A	N/A	N/A	11.26	10/01/2018
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	11.23	
Difference			-2.72	1.34	-13.02	-13.02	1.43	N/A	N/A	N/A	0.03	



	Allocation	า					Perforr	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Terracap Partners V LP (OFPRS)	55,410,896	1.71	1.19	11.45	11.38	11.38	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Gross)			4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	29.00	
Difference			-3.58	-1.04	-18.13	-18.13	N/A	N/A	N/A	N/A	N/A	



	Allocation	Allocation					Perform	nance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	306,272,695	9.46	5.77	11.27	28.87	28.87	23.54	19.90	16.50	N/A	18.55	04/01/2014
Pomona Captial VIII LP	3,532,510	0.11	-7.80	-7.80	6.52	6.52	20.36	18.59	17.37	N/A	18.66	04/01/2014
Capital Dynamics Global Secondaries IV	27,528,974	0.85	4.24	8.28	10.40	10.40	13.35	14.23	11.27	N/A	12.25	01/01/2015
Ardian AESF VI LP	36,835,832	1.14	1.04	8.94	28.47	28.47	21.46	17.26	N/A	N/A	15.75	04/01/2017
Pomona Capital IX LP	27,148,419	0.84	4.60	4.60	24.25	24.25	28.42	N/A	N/A	N/A	39.13	03/01/2018
Pomona Capital X LP	18,969,925	0.59	78.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	18,578,076	0.57	25.33	25.33	38.08	38.08	15.62	N/A	N/A	N/A	11.27	09/01/2018
Argonaut Private Equity V LP	9,353,504	0.29	-1.86	-1.86	N/A	N/A	N/A	N/A	N/A	N/A	-1.86	01/01/2022
Ardian ASF VIII LP	50,452,727	1.56	0.68	11.33	45.76	45.76	N/A	N/A	N/A	N/A	49.87	05/01/2020
Ardian Real Estate (CF)	6,556,728	0.20	0.14	9.34	37.32	37.32	23.11	18.73	15.74	N/A	16.80	05/01/2014
IFM Global Infrastructure Fund LP	107,316,000	3.31	2.54	7.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12/01/2021



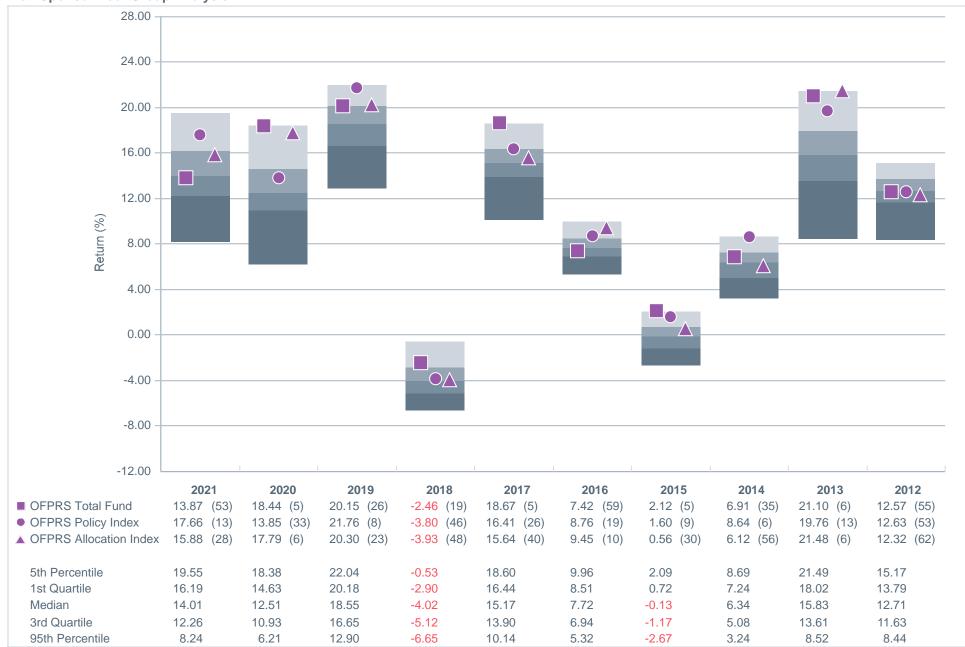
Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



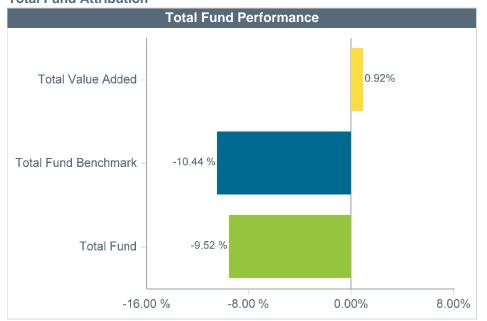
Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

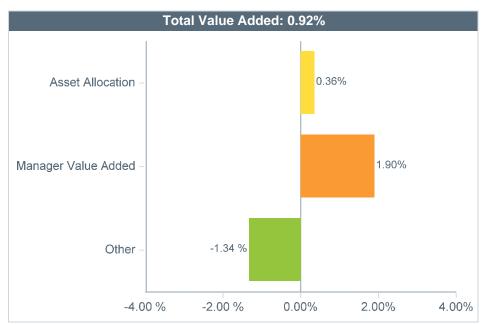


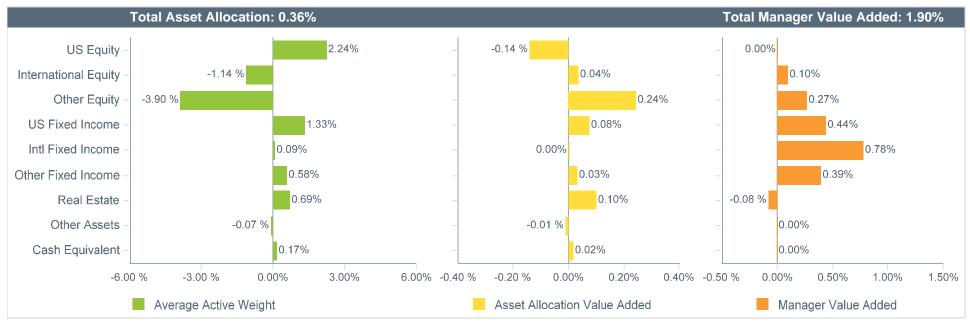
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Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Attribution







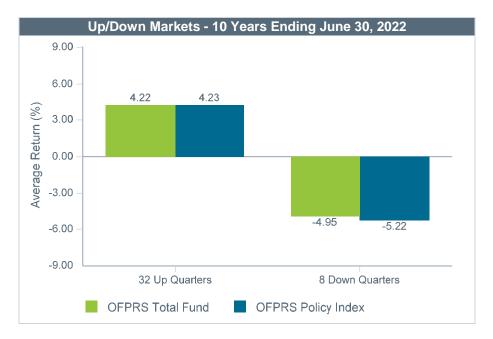
Performance shown is gross of fees. Calculation is based on quarterly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include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

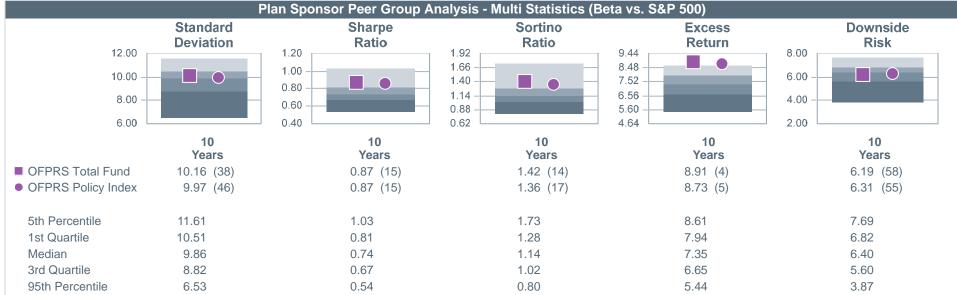


Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System

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

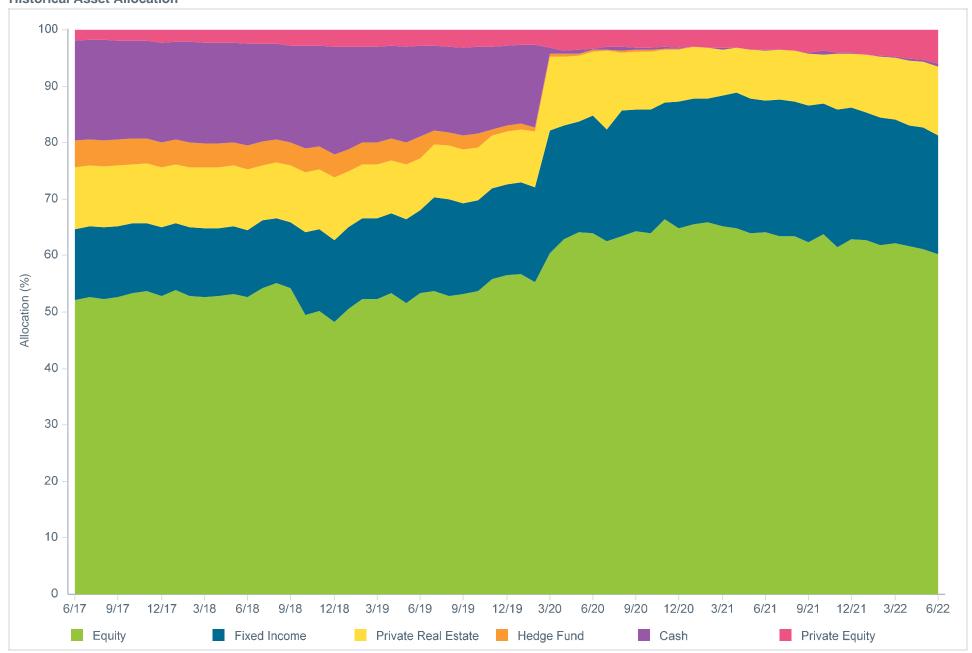






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







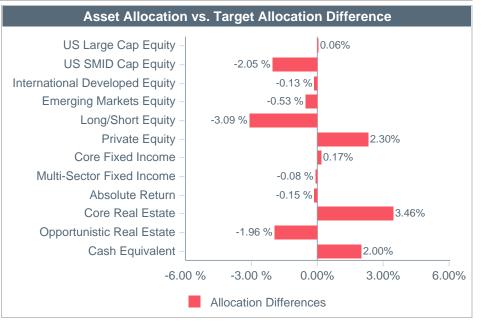
Oklahoma Police Pension & Retirement System (OPPRS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OPPRS Total Fund (Net)					7.84	7.21	6.60	7.64	17.28	12.17	15.22		12.91
OPPRS Policy Index	-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	15.19	12.66	19.13	-5.34	15.45
Difference	3.21	4.35	4.78	4.78	1.83	0.93	0.63	0.65	2.09	-0.49	-3.91	2.49	-2.54
OPPRS Actual Allocation Index	-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	14.36	14.67	15.02	-3.70	13.78
Difference	3.14	4.35	5.09	5.09	2.00	1.17	0.92	0.82	2.92	-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	7.50
Difference	-9.19	-13.14	-11.36	-11.36	0.34	-0.29	-0.90	0.14	9.78	4.67	7.72	-10.35	5.41
OPPRS Total Fund (Gross)	-7.24	-9.21	-3.40	-3.40	8.26	7.65	7.04	8.08	17.71	12.54	15.68	-2.46	13.40
OPPRS Policy Index	-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	15.19	12.66	19.13	-5.34	15.45
Difference	3.34	4.60	5.24	5.24	2.25	1.37	1.07	1.09	2.52	-0.12	-3.45	2.88	-2.05
OPPRS Actual Allocation Index	-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	14.36	14.67	15.02	-3.70	13.78
Difference	3.27	4.60	5.55	5.55	2.42	1.61	1.36	1.26	3.35	-2.13	0.66	1.24	-0.38
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	16	13	11	11	8	14	27	31	13	50	85	20	83

Asset Allocation vs. Target Allocation													
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)										
OPPRS (Police)	3,012,989,309	100.00	100.00										
US Large Cap Equity	453,787,926	15.06	15.00										
US SMID Cap Equity	239,583,204	7.95	10.00										
International Developed Equity	297,302,436	9.87	10.00										
Emerging Markets Equity	134,732,238	4.47	5.00										
Long/Short Equity	208,105,574	6.91	10.00										
Private Equity	521,219,640	17.30	15.00										
Core Fixed Income	231,109,357	7.67	7.50										
Multi-Sector Fixed Income	223,528,740	7.42	7.50										
Absolute Return	146,103,223	4.85	5.00										
Core Real Estate	405,595,021	13.46	10.00										
Opportunistic Real Estate	91,637,677	3.04	5.00										
Cash Equivalent	60,284,273	2.00	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.



	Allocatio				Perfor	mance (%	6)					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	3,012,989,309	100.00	-7.37	-9.46	-3.86	-3.86	7.84	7.21	6.60	7.64	6.51	07/01/2005
OPPRS Policy Index			-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	6.03	
Difference			3.21	4.35	4.78	4.78	1.83	0.93	0.63	0.65	0.48	
OPPRS Actual Allocation Index			-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	6.11	
Difference			3.14	4.35	5.09	5.09	2.00	1.17	0.92	0.82	0.40	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-9.19	-13.14	-11.36	-11.36	0.34	-0.29	-0.90	0.14	-0.99	
Total Equity	1,854,731,018	61.56	-11.37	-14.67	-8.58	-8.58	10.45	9.45	8.61	9.97	7.61	07/01/2005
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	6.64	
Difference			4.29	5.51	7.17	7.17	4.24	2.45	1.63	1.21	0.97	
US Equity												
Northern Trust Russell 1000 Index (SA)	453,787,926	15.06	-16.66	-20.92	-13.01	-13.01	10.17	11.00	10.78	12.80	N/A	07/01/1998
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	7.29	
Difference			0.01	0.02	0.03	0.03	0.00	0.00	0.00	-0.02	N/A	
Boston Partners SMID Value Equity (SA)	133,308,186	4.42	-11.78	-12.39	-10.28	-10.28	8.32	5.88	6.79	10.16	N/A	06/01/1997
Russell 2500 Val Index			-15.39	-16.66	-13.19	-13.19	6.19	5.54	6.49	9.54	8.95	
Difference			3.61	4.27	2.91	2.91	2.13	0.34	0.30	0.62	N/A	
Silvercrest Small Cap Growth Equity (SA)	106,275,018	3.53	-22.89	-32.10	-33.65	-33.65	9.11	10.25	10.33	N/A	6.46	01/01/2014
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	5.78	
Difference			-3.64	-2.65	-0.22	-0.22	7.71	5.45	5.37	N/A	0.68	
International Equity												
Mondrian International Value Equity (SA)	146,491,090	4.86	-9.64	-10.96	-11.43	-11.43	0.90	1.74	2.21	4.88	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			-12.11	-11.67	-11.29	-11.29	0.79	1.13	1.78	4.85	4.37	
Difference			2.47	0.71	-0.14	-0.14	0.11	0.61	0.43	0.03	N/A	
Barings Focused EAFE Plus Equity (SA)	150,811,346	5.01	-13.43	-20.31	-19.76	-19.76	0.23	1.67	3.00	4.56	3.45	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.74	
Difference			0.11	-2.16	-0.75	-0.75	-1.58	-1.31	-0.40	-0.75	-1.29	





	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
AB EM Strategic Core Equity (CF)	89,343,674	2.97	-11.34	-18.88	-24.41	-24.41	-0.73	-0.15	N/A	N/A	2.03	10/01/2016
MSCI Emg Mkts Index (USD) (Gross)			-11.34	-17.47	-25.00	-25.00	0.92	2.55	3.16	3.43	4.53	
Difference			0.00	-1.41	0.59	0.59	-1.65	-2.70	N/A	N/A	-2.50	
Wasatch EM Small Cap (SA)	45,388,564	1.51	-23.98	-38.92	-31.69	-31.69	7.86	6.09	4.34	N/A	4.46	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			-16.28	-19.85	-20.29	-20.29	6.24	3.89	3.15	4.67	4.72	
Difference			-7.70	-19.07	-11.40	-11.40	1.62	2.20	1.19	N/A	-0.26	
Fixed Income	600,741,320	19.94	-4.96	-8.27	-8.23	-8.23	0.31	1.60	1.68	N/A	N/A	07/01/2005
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.18	
Difference			-0.27	2.08	2.06	2.06	1.25	0.72	0.26	N/A	N/A	
Agincourt Core Fixed Income (SA)	231,109,357	7.67	-4.89	-10.37	-10.37	-10.37	-0.63	1.19	1.74	1.90	N/A	07/01/1998
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.11	
Difference			-0.20	-0.02	-0.08	-0.08	0.31	0.31	0.32	0.36	N/A	
Loomis Sayles Global World Bond (SA)	73,159,533	2.43	-10.11	-16.09	-18.41	-18.41	-3.56	-0.63	0.73	0.09	1.73	05/01/2008
FTSE Wrld Gov't Bond Index			-8.91	-14.79	-16.77	-16.77	-4.27	-1.17	0.08	-0.69	0.83	
Difference			-1.20	-1.30	-1.64	-1.64	0.71	0.54	0.65	0.78	0.90	
Oaktree Global Credit (SA)	122,749,348	4.07	-7.17	-8.88	-7.70	-7.70	0.28	1.37	2.56	3.84	5.09	01/01/1998
Oaktree Global Credit Custom Index			-7.88	-10.72	-10.39	-10.39	0.13	0.76	1.34	1.49	N/A	
Difference			0.71	1.84	2.69	2.69	0.15	0.61	1.22	2.35	N/A	
Absolute Return	146,103,223	4.85	-0.70	-0.43	-0.99	-0.99	0.74	1.49	0.59	2.75	2.37	12/01/2010
PAAMCO (CF)	4,179,801	0.14	0.40	-0.50	5.28	5.28	4.27	2.99	1.78	3.59	N/A	10/01/2002
HFRI FOF: Cnsvt Index			-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	3.32	
Difference			1.93	0.88	5.00	5.00	-0.43	-1.08	-1.35	-0.25	N/A	
Wellington Global Total Return (CF)	81,915,922	2.72	1.31	4.46	3.10	3.10	2.36	3.53	N/A	N/A	3.12	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			1.09	2.13	4.18	4.18	4.65	5.15	4.92	4.67	5.10	
Difference			0.22	2.33	-1.08	-1.08	-2.29	-1.62	N/A	N/A	-1.98	
TCW MetWest Unconstrained (SA)	60,007,500	1.99	-3.47	-6.53	-6.71	-6.71	N/A	N/A	N/A	N/A	-3.89	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			0.85	1.64	3.18	3.18	3.65	4.14	3.92	3.66	3.13	
Difference			-4.32	-8.17	-9.89	-9.89	N/A	N/A	N/A	N/A	-7.02	
Private Credit	27,619,859	0.92	-1.47	-1.35	4.34	4.34	11.63	10.53	N/A	N/A	9.82	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.



	Allocation	n					Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Assets	497,232,698	16.50	6.82	13.87	28.02	28.02	10.50	8.16	7.09	7.40	N/A	01/01/1998
OPPRS Real Assets Blended Benchmark			4.54	12.00	28.31	28.31	11.29	8.49	5.88	5.90	6.55	
Difference			2.28	1.87	-0.29	-0.29	-0.79	-0.33	1.21	1.50	N/A	
JP Morgan Strategic Property (CF)	203,948,331	6.77	4.51	11.10	27.69	27.69	11.10	8.89	8.78	10.00	6.15	11/01/2007
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	5.89	
Difference			-0.03	-0.90	-0.62	-0.62	-0.56	-0.66	-0.57	-0.15	0.26	
Blackstone Property Partners (CF)	201,646,690	6.69	9.47	16.40	27.92	27.92	10.64	9.13	11.16	N/A	10.69	12/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.98	
Difference			4.93	4.40	-0.39	-0.39	-1.02	-0.42	1.81	N/A	0.71	
Private Real Estate	91,637,677	3.04	6.74	15.53	31.90	31.90	14.51	12.74	12.49	11.66	10.61	08/01/2011
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.34	
Difference			2.20	3.53	3.59	3.59	2.85	3.19	3.14	1.51	0.27	
Columbus Square (SA)	4,562,476	0.15	1.02	2.54	-0.28	-0.28	-1.53	1.52	4.17	5.20	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	8.53	
Difference			-3.52	-9.46	-28.59	-28.59	-13.19	-8.03	-5.18	-4.95	N/A	
Long/Short Equity	208,105,574	6.91	-14.21	-19.97	-23.38	-23.38	1.03	2.69	2.52	4.84	4.46	05/01/2012
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	8.12	
Difference			1.45	0.21	-7.63	-7.63	-5.18	-4.31	-4.46	-3.92	-3.66	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	3.40	
Difference			-7.25	-7.34	-11.31	-11.31	-1.98	-0.25	0.28	1.09	1.06	
Grosvenor Long/Short Equity (CF)	2,304,098	0.08	-10.43	-9.92	-10.42	-10.42	7.65	6.68	5.34	6.85	N/A	09/01/2003
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	3.64	
Difference			-3.47	2.71	1.65	1.65	4.64	3.74	3.10	3.10	N/A	
K2 Mauna Kea (CF)	205,801,476	6.83	-14.26	-20.08	-23.51	-23.51	N/A	N/A	N/A	N/A	-1.43	06/01/2020
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	5.51	
Difference			-7.30	-7.45	-11.44	-11.44	N/A	N/A	N/A	N/A	-6.94	
Private Equity	521,219,640	17.30	1.59	7.72	37.24	37.24	30.08	23.13	17.89	16.41	14.64	07/01/2003
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	7.75	
Difference			17.25	27.90	52.99	52.99	23.87	16.13	10.91	7.65	6.89	
Cambridge US Prvt Eq Index			0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	15.69	
Difference			1.59	7.14	24.42	24.42	8.36	4.28	1.61	0.25	-1.05	

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. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



	Allocatio				Perfor	mance (%))					
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	3,012,989,309	100.00	-7.24	-9.21	-3.40	-3.40	8.26	7.65	7.04	8.08	6.86	07/01/2005
OPPRS Policy Index			-10.58	-13.81	-8.64	-8.64	6.01	6.28	5.97	6.99	6.03	
Difference			3.34	4.60	5.24	5.24	2.25	1.37	1.07	1.09	0.83	
OPPRS Actual Allocation Index			-10.51	-13.81	-8.95	-8.95	5.84	6.04	5.68	6.82	6.11	
Difference			3.27	4.60	5.55	5.55	2.42	1.61	1.36	1.26	0.75	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-9.06	-12.89	-10.90	-10.90	0.76	0.15	-0.46	0.58	-0.64	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	6.58	
Rank			16	13	11	11	8	14	27	31	33	
Total Equity	1,854,731,018	61.56	-11.32	-14.58	-8.37	-8.37	10.76	9.79	8.96	10.33	7.90	07/01/2005
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	6.64	
Difference			4.34	5.60	7.38	7.38	4.55	2.79	1.98	1.57	1.26	
IM Global Equity (SA+CF) Median			-14.95	-19.60	-15.34	-15.34	6.45	7.41	7.44	9.80	7.70	
Rank			27	29	20	20	8	18	24	35	43	
US Equity												
Northern Trust Russell 1000 Index (SA)	453,787,926	15.06	-16.66	-20.91	-13.00	-13.00	10.18	N/A	N/A	N/A	N/A	07/01/1998
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	7.29	
Difference			0.01	0.03	0.04	0.04	0.01	N/A	N/A	N/A	N/A	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.11	-20.00	-11.14	-11.14	10.28	11.01	10.81	12.84	7.23	
Rank			61	59	59	59	56	N/A	N/A	N/A	N/A	
Boston Partners SMID Value Equity (SA)	133,308,186	4.42	-11.64	-12.11	-9.73	-9.73	8.99	N/A	N/A	N/A	N/A	06/01/1997
Russell 2500 Val Index			-15.39	-16.66	-13.19	-13.19	6.19	5.54	6.49	9.54	8.95	
Difference			3.75	4.55	3.46	3.46	2.80	N/A	N/A	N/A	N/A	
IM U.S. SMID Cap Value Equity (SA+CF) Median			-13.45	-15.30	-10.47	-10.47	7.92	7.09	7.52	11.06	10.77	
Rank			32	19	47	47	38	N/A	N/A	N/A	N/A	
Silvercrest Small Cap Growth Equity (SA)	106,275,018	3.53	-22.70	-31.77	-33.05	-33.05	10.05	N/A	N/A	N/A	N/A	01/01/2014
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	5.78	
Difference			-3.45	-2.32	0.38	0.38	8.65	N/A	N/A	N/A	N/A	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	8.76	
Rank			76	67	62	62	17	N/A	N/A	N/A	N/A	





	Allocation	า					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Mondrian International Value Equity (SA)	146,491,090	4.86	-9.54	-10.77	-11.06	-11.06	1.33	N/A	N/A	N/A	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross) Difference			-12.11 2.57	-11.67 0.90	-11.29 0.23	-11.29 0.23	0.79 0.54	1.13 N/A	1.78 N/A	4.85 N/A	4.37 N/A	
IM International Value Equity (SA+CF) Median			-12.28	-16.06	-17.02	-17.02	2.40	2.46	3.20	6.41	5.91	
Rank			14	12	11	11	70	N/A	N/A	N/A	N/A	
Barings Focused EAFE Plus Equity (SA)	150,811,346	5.01	-13.34	-20.15	-19.43	-19.43	0.79	N/A	N/A	N/A	N/A	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.74	
Difference			0.20	-2.00	-0.42	-0.42	-1.02	N/A	N/A	N/A	N/A	
IM International Equity (SA+CF) Median			-13.68	-19.63	-20.54	-20.54	2.36	3.12	3.88	6.36	5.89	
Rank			46	54	45	45	74	N/A	N/A	N/A	N/A	
AB EM Strategic Core Equity (CF)	89,343,674	2.97	-11.22	-18.65	-23.99	-23.99	-0.12	N/A	N/A	N/A	N/A	10/01/201
MSCI Emg Mkts Index (USD) (Gross)			-11.34	-17.47	-25.00	-25.00	0.92	2.55	3.16	3.43	4.53	
Difference			0.12	-1.18	1.01	1.01	-1.04	N/A	N/A	N/A	N/A	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	4.98	
Rank			34	53	46	46	76	N/A	N/A	N/A	N/A	
Wasatch EM Small Cap (SA)	45,388,564	1.51	-23.77	-38.58	-30.93	-30.93	9.25	N/A	N/A	N/A	N/A	08/01/201
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			-16.28	-19.85	-20.29	-20.29	6.24	3.89	3.15	4.67	4.72	
Difference			-7.49	-18.73	-10.64	-10.64	3.01	N/A	N/A	N/A	N/A	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	4.28	
Rank			99	100	82	82	6	N/A	N/A	N/A	N/A	
Fixed Income	600,741,320	19.94	-4.88	-8.13	-7.94	-7.94	0.64	2.00	2.11	2.95	4.23	07/01/200
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.18	
Difference			-0.19	2.22	2.35	2.35	1.58	1.12	0.69	1.41	1.05	
IM U.S. Fixed Income (SA+CF) Median			-4.63	-8.80	-8.64	-8.64	0.26	1.61	2.10	2.28	3.67	
Rank			57	45	47	47	36	32	50	36	32	
Agincourt Core Fixed Income (SA)	231,109,357	7.67	-4.85	-10.30	-10.24	-10.24	-0.49	N/A	N/A	N/A	N/A	07/01/199
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.11	
Difference			-0.16	0.05	0.05	0.05	0.45	N/A	N/A	N/A	N/A	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	4.48	
Rank			50	45	46	46	54	N/A	N/A	N/A	N/A	

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



	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Loomis Sayles Global World Bond (SA)	73,159,533	2.43	-10.03	-15.94	-18.13	-18.13	-3.23	N/A	N/A	N/A	N/A	05/01/2008
FTSE Wrld Gov't Bond Index			-8.91	-14.79	-16.77	-16.77	-4.27	-1.17	0.08	-0.69	0.83	
Difference			-1.12	-1.15	-1.36	-1.36	1.04	N/A	N/A	N/A	N/A	
IM Global Fixed Income (SA+CF) Median			-9.07	-13.72	-13.55	-13.55	-0.47	1.53	2.44	2.33	2.65	
Rank			69	82	89	89	83	N/A	N/A	N/A	N/A	
Oaktree Global Credit (SA)	122,749,348	4.07	-7.01	-8.57	-7.10	-7.10	0.90	2.01	3.19	4.43	5.57	01/01/1998
Oaktree Global Credit Custom Index			-7.88	-10.72	-10.39	-10.39	0.13	0.76	1.34	1.49	N/A	
Difference			0.87	2.15	3.29	3.29	0.77	1.25	1.85	2.94	N/A	
Absolute Return	146,103,223	4.85	-0.62	-0.26	-0.61	-0.61	1.22	2.06	1.22	3.31	2.85	12/01/2010
PAAMCO (CF)	4,179,801	0.14	0.63	-0.06	6.24	6.24	5.21	N/A	N/A	N/A	N/A	10/01/2002
HFRI FOF: Cnsvt Index			-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	3.32	
Difference			2.16	1.32	5.96	5.96	0.51	N/A	N/A	N/A	N/A	
Wellington Global Total Return (CF)	81,915,922	2.72	1.37	4.59	3.36	3.36	2.61	N/A	N/A	N/A	N/A	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			1.09	2.13	4.18	4.18	4.65	5.15	4.92	4.67	5.10	
Difference			0.28	2.46	-0.82	-0.82	-2.04	N/A	N/A	N/A	N/A	
TCW MetWest Unconstrained (SA)	60,007,500	1.99	-3.36	-6.32	-6.26	-6.26	N/A	N/A	N/A	N/A	-3.44	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			0.85	1.64	3.18	3.18	3.65	4.14	3.92	3.66	3.13	
Difference			-4.21	-7.96	-9.44	-9.44	N/A	N/A	N/A	N/A	-6.57	
Private Credit	27,619,859	0.92	-1.47	-1.35	4.34	4.34	11.63	10.53	N/A	N/A	9.82	10/01/2016
Real Assets	497,232,698	16.50	7.44	15.19	30.39	30.39	11.66	9.21	8.00	8.28	6.38	01/01/1998
OPPRS Real Assets Blended Benchmark			4.54	12.00	28.31	28.31	11.29	8.49	5.88	5.90	6.55	
Difference			2.90	3.19	2.08	2.08	0.37	0.72	2.12	2.38	-0.17	
JP Morgan Strategic Property (CF)	203,948,331	6.77	4.71	11.53	28.69	28.69	12.02	N/A	N/A	N/A	N/A	11/01/2007
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	5.89	
Difference			0.17	-0.47	0.38	0.38	0.36	N/A	N/A	N/A	N/A	
Blackstone Property Partners (CF)	201,646,690	6.69	10.80	19.30	32.92	32.92	12.53	N/A	N/A	N/A	N/A	12/01/2014
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	9.98	
Difference			6.26	7.30	4.61	4.61	0.87	N/A	N/A	N/A	N/A	
Private Real Estate	91,637,677	3.04	6.74	15.53	31.90	31.90	14.51	12.74	12.49	11.66	10.61	08/01/2011
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	10.34	
Difference			2.20	3.53	3.59	3.59	2.85	3.19	3.14	1.51	0.27	

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



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Columbus Square (SA)	4,562,476	0.15	1.02	2.54	-0.28	-0.28	-1.53	N/A	N/A	N/A	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	8.53	
Difference			-3.52	-9.46	-28.59	-28.59	-13.19	N/A	N/A	N/A	N/A	
Long/Short Equity	208,105,574	6.91	-14.21	-19.97	-23.38	-23.38	1.21	2.98	2.85	5.25	4.87	05/01/2012
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	8.12	
Difference			1.45	0.21	-7.63	-7.63	-5.00	-4.02	-4.13	-3.51	-3.25	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	3.40	
Difference			-7.25	-7.34	-11.31	-11.31	-1.80	0.04	0.61	1.50	1.47	
Grosvenor Long/Short Equity (CF)	2,304,098	0.08	-10.25	-9.55	-9.66	-9.66	8.45	N/A	N/A	N/A	N/A	09/01/2003
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	3.64	
Difference			-3.29	3.08	2.41	2.41	5.44	N/A	N/A	N/A	N/A	
K2 Mauna Kea (CF)	205,801,476	6.83	-14.26	-20.08	-23.51	-23.51	N/A	N/A	N/A	N/A	-1.43	06/01/2020
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	5.51	
Difference			-7.30	-7.45	-11.44	-11.44	N/A	N/A	N/A	N/A	-6.94	
Private Equity	521,219,640	17.30	1.59	7.72	37.24	37.24	30.08	23.13	17.89	16.41	14.64	07/01/2003
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	7.75	
Difference			17.25	27.90	52.99	52.99	23.87	16.13	10.91	7.65	6.89	
Cambridge US Prvt Eq Index			0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	15.69	
Difference			1.59	7.14	24.42	24.42	8.36	4.28	1.61	0.25	-1.05	

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



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



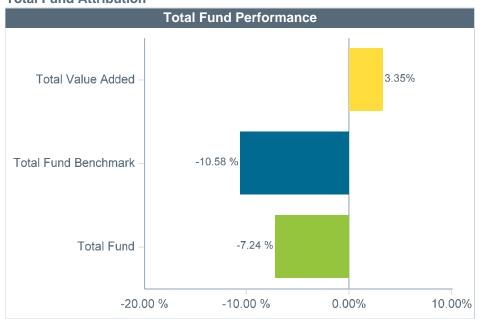
Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

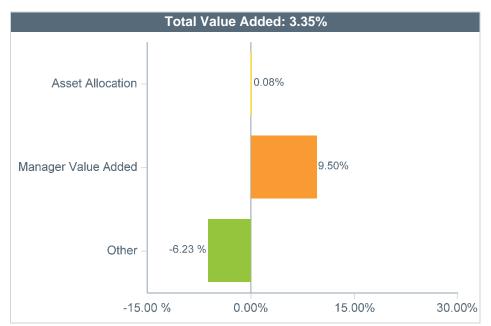


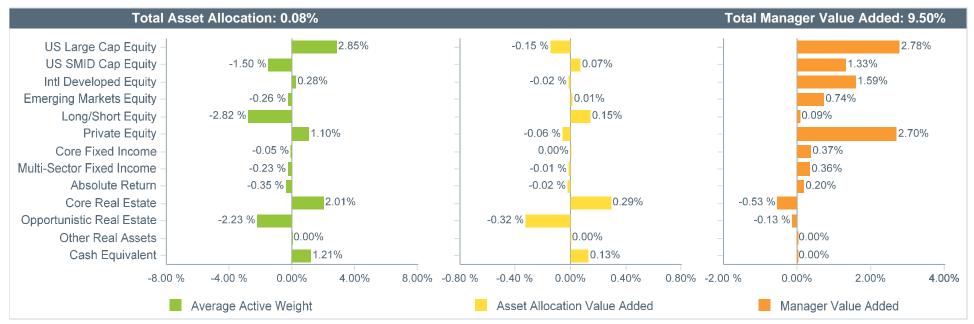
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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





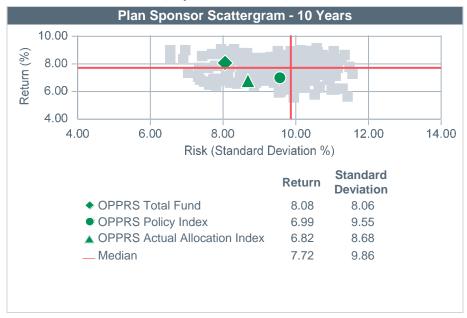


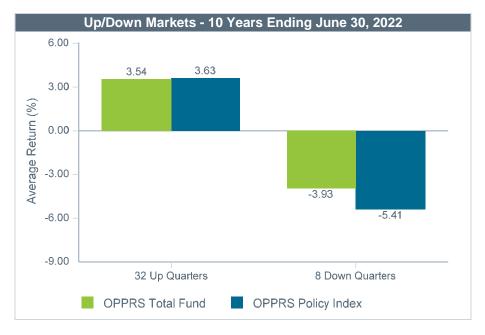
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Multi-Sector Fixed Income includes Private Credit.

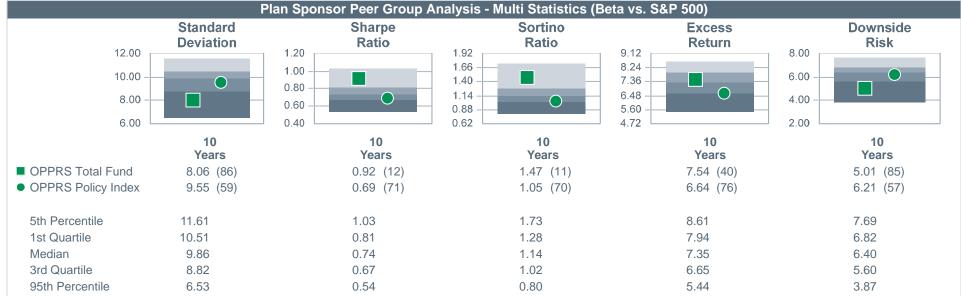


Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System

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



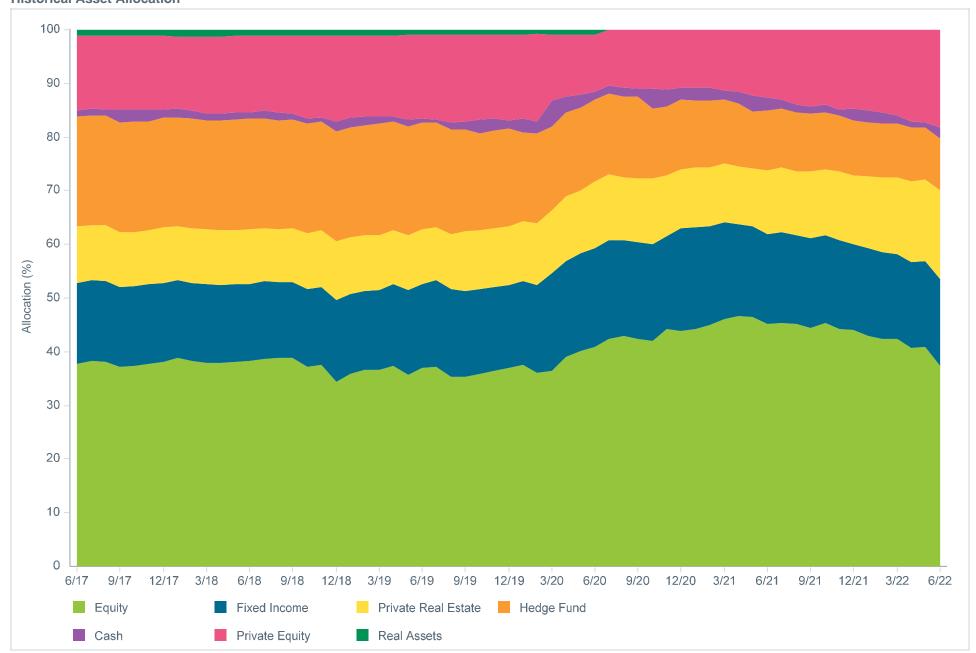




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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



Allocation to Fixed Income includes Private Credit.



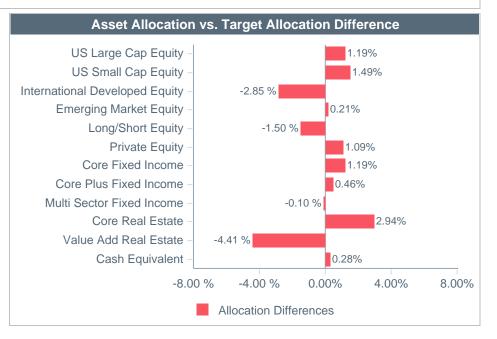
Oklahoma Law Enforcement Retirement System (OLERS)



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

Performance (%)													
			Trail	ing						Calendar	Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OLERS Total Fund (Net)	-9.98	-14.10	-10.52	-10.52	5.19	5.63	5.40	6.91	14.56	12.26	17.44	-5.30	14.36
OLERS Policy Index	-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	15.57	12.77	19.12	-3.67	13.36
Difference	0.52	-0.40	-1.81	-1.81	-1.03	-0.99	-1.21	-0.95	-1.01	-0.51	-1.68	-1.63	1.00
OLERS Actual Allocation Index	-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	14.97	21.56	17.33	-3.47	14.63
Difference	0.93	0.49	-0.01	-0.01	-3.06	-2.11	-1.97	-1.20	-0.41	-9.30	0.11	-1.83	-0.27
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	-11.80	-17.78	-18.02	-18.02	-2.31	-1.87	-2.10	-0.59	7.06	4.76	9.94	-12.80	6.86
OLERS Total Fund (Gross)	-9.88	-13.91	-10.14	-10.14	5.68	6.16	5.95	7.45	15.04	12.80	18.07	-4.76	15.00
OLERS Policy Index	-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	15.57	12.77	19.12	-3.67	13.36
Difference	0.62	-0.21	-1.43	-1.43	-0.54	-0.46	-0.66	-0.41	-0.53	0.03	-1.05	-1.09	1.64
OLERS Actual Allocation Index	-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	14.97	21.56	17.33	-3.47	14.63
Difference	1.03	0.68	0.37	0.37	-2.57	-1.58	-1.42	-0.66	0.07	-8.76	0.74	-1.29	0.37
Rank	47	50	53	53	50	59	70	62	36	46	57	67	53
Rank	47	50	53	53	50	59	70	62	36	46	57	67	

Asset Allocation vs. Target Allocation									
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)						
OLERS (Law Enforcement)	1,078,499,312	100.00	100.00						
US Large Cap Equity	228,572,379	21.19	20.00						
US Small Cap Equity	123,931,372	11.49	10.00						
International Developed Equity	131,074,333	12.15	15.00						
Emerging Market Equity	56,167,286	5.21	5.00						
Long/Short Equity	37,745,271	3.50	5.00						
Private Equity	119,563,508	11.09	10.00						
Core Fixed Income	66,734,548	6.19	5.00						
Core Plus Fixed Income	112,854,130	10.46	10.00						
Multi Sector Fixed Income	52,815,965	4.90	5.00						
Core Real Estate	139,590,880	12.94	10.00						
Value Add Real Estate	6,395,782	0.59	5.00						
Cash Equivalent	3,053,859	0.28	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

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,078,499,312	100.00	-9.98	-14.10	-10.52	-10.52	5.19	5.63	5.40	6.91	31.00	10/01/1990
OLERS Policy Index			-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	N/A	
Difference			0.52	-0.40	-1.81	-1.81	-1.03	-0.99	-1.21	-0.95	N/A	
OLERS Actual Allocation Index			-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	8.37	
Difference			0.93	0.49	-0.01	-0.01	-3.06	-2.11	-1.97	-1.20	22.63	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-11.80	-17.78	-18.02	-18.02	-2.31	-1.87	-2.10	-0.59	23.50	
US Large Cap Equity	228,572,379	21.19	-17.95	-22.06	-15.87	-15.87	9.34	10.82	10.29	12.94	12.02	04/01/2010
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	12.27	
Difference			-1.85	-2.10	-5.25	-5.25	-1.26	-0.49	-0.85	-0.02	-0.25	
Hotchkis Wiley Large Cap Value Equity (SA)	72,149,891	6.69	-14.52	-11.83	-8.41	-8.41	7.83	7.33	7.84	11.55	11.52	11/01/1990
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	10.28	
Difference			-2.31	1.03	-1.59	-1.59	0.96	0.16	0.15	1.05	1.24	
NTGI S&P 500 Index (CF)	91,766,221	8.51	-16.10	-19.96	-10.55	-10.55	10.61	11.29	11.11	12.93	10.41	08/01/2008
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	10.41	
Difference			0.00	0.00	0.07	0.07	0.01	-0.02	-0.03	-0.03	0.00	
Polen Focus Growth (CF)	64,656,267	6.00	-23.87	-34.17	-28.95	-28.95	6.79	N/A	N/A	N/A	12.53	01/01/2019
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	17.02	
Difference			-2.95	-6.10	-10.18	-10.18	-5.79	N/A	N/A	N/A	-4.49	
US Small Cap Equity	123,931,372	11.49	-16.42	-24.86	-21.68	-21.68	5.47	5.52	5.72	8.74	N/A	11/01/2009
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	10.63	
Difference			0.78	-1.43	3.52	3.52	1.26	0.35	-0.19	-0.61	N/A	
Kennedy Capital Small Cap Value Equity (SA)	64,627,929	5.99	-13.45	-19.00	-11.08	-11.08	8.64	5.93	7.33	10.02	20.95	02/01/1996
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	9.03	
Difference			1.83	-1.69	5.20	5.20	2.46	1.04	0.93	0.97	11.92	
Wellington Small Cap Growth (CF)	59,303,443	5.50	-19.46	-30.74	-31.54	-31.54	1.58	4.52	N/A	N/A	6.79	08/01/2016
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	6.81	
Difference			-0.21	-1.29	1.89	1.89	0.18	-0.28	N/A	N/A	-0.02	





	Allocation	1					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	187,241,619	17.36	-13.69	-19.86	-21.01	-21.01	1.79	2.81	3.27	4.53	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.88	
Difference			0.04	-1.44	-1.59	-1.59	0.44	0.31	0.35	-0.30	N/A	
Mondrian International Equity (SA)	70,182,998	6.51	-9.66	-11.00	-11.52	-11.52	0.79	1.61	2.06	4.73	4.04	01/01/2005
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.33	
Difference			4.07	7.42	7.90	7.90	-0.56	-0.89	-0.86	-0.10	-0.29	
Barings Focused Intl Equity (SA)	60,891,335	5.65	-13.43	-20.31	-19.76	-19.76	0.26	1.69	3.01	4.46	3.82	02/01/2012
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.25	
Difference			0.30	-1.89	-0.34	-0.34	-1.09	-0.81	0.09	-0.37	-0.43	
William Blair Emerging Markets Leaders (CF)	40,603,489	3.76	-16.19	-23.24	-31.29	-31.29	0.46	3.09	N/A	N/A	4.76	09/01/2016
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	4.33	
Difference			-4.74	-5.61	-6.01	-6.01	-0.11	0.91	N/A	N/A	0.43	
Wasatch EM Small Cap CI A (CF)	15,563,797	1.44	-23.98	-38.92	-31.68	-31.68	7.86	6.09	4.34	4.52	4.52	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	3.06	
Difference			-12.53	-21.29	-6.40	-6.40	7.29	3.91	1.55	1.46	1.46	
Long/Short Equity	37,745,271	3.50	-13.50	-20.27	-24.38	-24.38	-2.77	-0.19	0.35	3.35	3.08	04/01/2010
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	7.68	
Difference			2.16	-0.09	-8.63	-8.63	-8.98	-7.19	-6.63	-5.41	-4.60	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	2.92	
Difference			-6.54	-7.64	-12.31	-12.31	-5.78	-3.13	-1.89	-0.40	0.16	
Grosvenor (CF)	333,086	0.03	-1.63	-3.73	-1.71	-1.71	3.82	3.82	3.22	5.41	3.38	01/01/2008
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	4.85	
Difference			14.03	16.45	14.04	14.04	-2.39	-3.18	-3.76	-3.35	-1.47	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	1.39	
Difference			5.33	8.90	10.36	10.36	0.81	0.88	0.98	1.66	1.99	
Mauna Kea (CF)	37,412,185	3.47	-13.61	-18.84	-22.58	-22.58	N/A	N/A	N/A	N/A	-4.32	08/01/2020
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	5.81	
Difference			2.05	1.34	-6.83	-6.83	N/A	N/A	N/A	N/A	-10.13	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	2.89	
Difference			-6.65	-6.21	-10.51	-10.51	N/A	N/A	N/A	N/A	-7.21	

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



	Allocation	1					Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	119,563,508	11.09	-0.06	2.04	15.45	15.45	22.06	17.71	12.94	13.01	10.03	12/01/2001
S&P 500 Index+5%			-15.07	-17.98	-6.15	-6.15	16.13	16.87	16.70	18.60	13.52	
Difference			15.01	20.02	21.60	21.60	5.93	0.84	-3.76	-5.59	-3.49	
Cambridge US Prvt Eq Index			0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	14.34	
Difference			-0.06	1.46	2.63	2.63	0.34	-1.14	-3.34	-3.15	-4.31	



	Allocation	Allocation					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	232,404,643	21.55	-5.52	-11.01	-11.60	-11.60	-2.57	-0.28	0.68	1.33	N/A	10/01/1990
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	5.28	
Difference			-0.83	-0.66	-1.31	-1.31	-1.63	-1.16	-0.74	-0.21	N/A	
NTGI Aggregate Index (SA)	66,734,548	6.19	-4.63	-10.30	-10.27	-10.27	-0.93	0.88	1.41	1.54	3.23	04/01/2004
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.20	
Difference			0.06	0.05	0.02	0.02	0.01	0.00	-0.01	0.00	0.03	
TCW Core Plus Fixed Income (SA)	112,854,130	10.46	-5.53	-11.14	-10.95	-10.95	-0.23	1.50	1.95	2.61	4.96	12/01/1993
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.57	
Difference			-0.84	-0.79	-0.66	-0.66	0.71	0.62	0.53	1.07	0.39	
Loomis Sayles	52,815,965	4.90	-6.59	-11.65	N/A	N/A	N/A	N/A	N/A	N/A	-12.23	09/01/2021
Bloomberg US Gov't Crdt Bond Index			-5.03	-11.05	-10.85	-10.85	-0.77	1.05	1.63	1.67	-11.84	
Difference			-1.56	-0.60	N/A	N/A	N/A	N/A	N/A	N/A	-0.39	
Real Assets	145,986,662	13.54	3.45	9.96	25.46	25.46	9.91	7.66	6.63	7.27	N/A	06/01/1999
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	8.01	
Difference			-1.09	-2.04	-2.85	-2.85	-1.75	-1.89	-2.72	-2.88	N/A	
Core Real Estate												
JPMCB Strategic Property (CF)	116,562,487	10.81	4.50	11.06	27.60	27.60	10.99	8.79	8.69	9.96	9.97	04/01/2012
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	9.71	
Difference			1.27	2.33	6.15	6.15	0.77	-0.07	-0.15	0.29	0.26	
UBS Trumbull Property (SA)	18,228,393	1.69	-0.15	7.05	19.05	19.05	5.77	4.58	5.24	N/A	6.51	01/01/2013
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	9.65	
Difference			-3.38	-1.68	-2.40	-2.40	-4.45	-4.28	-3.60	N/A	-3.14	
Colcord Center (CF)	4,800,000	0.45	-3.77	-3.98	3.44	3.44	6.71	5.48	7.47	4.04	5.10	05/01/2008
Value Add Real Estate	6,395,782	0.59	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.99	03/01/2022



	Allocatio	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,078,499,312	100.00	-9.88	-13.91	-10.14	-10.14	5.68	6.16	5.95	7.45	7.90	10/01/1990
OLERS Policy Index			-10.50	-13.70	-8.71	-8.71	6.22	6.62	6.61	7.86	N/A	
Difference			0.62	-0.21	-1.43	-1.43	-0.54	-0.46	-0.66	-0.41	N/A	
OLERS Actual Allocation Index			-10.91	-14.59	-10.51	-10.51	8.25	7.74	7.37	8.11	8.37	
Difference			1.03	0.68	0.37	0.37	-2.57	-1.58	-1.42	-0.66	-0.47	
Actuarial Discount Rate (7.5%)			1.82	3.68	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-11.70	-17.59	-17.64	-17.64	-1.82	-1.34	-1.55	-0.05	0.40	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	8.21	
Rank			47	50	53	53	50	59	70	62	79	
US Large Cap Equity	228,572,379	21.19	-17.86	-21.90	-15.59	-15.59	9.66	11.18	10.66	13.32	12.33	04/01/2010
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	12.27	
Difference			-1.76	-1.94	-4.97	-4.97	-0.94	-0.13	-0.48	0.36	0.06	
Hotchkis Wiley Large Cap Value Equity (SA)	72,149,891	6.69	-14.33	-11.64	-8.04	-8.04	8.29	7.86	8.37	12.11	11.51	11/01/1990
Russell 1000 Val Index			-12.21	-12.86	-6.82	-6.82	6.87	7.17	7.69	10.50	10.28	
Difference			-2.12	1.22	-1.22	-1.22	1.42	0.69	0.68	1.61	1.23	
IM U.S. Large Cap Value Equity (SA+CF) Median			-11.76	-11.82	-5.54	-5.54	9.04	8.88	8.90	11.42	11.22	
Rank			80	48	69	69	63	70	63	29	36	
NTGI S&P 500 Index (CF)	91,766,221	8.51	-16.10	-19.95	-10.54	-10.54	10.62	11.31	11.14	12.96	10.43	08/01/2008
S&P 500 Index (Cap Wtd)			-16.10	-19.96	-10.62	-10.62	10.60	11.31	11.14	12.96	10.41	
Difference			0.00	0.01	0.08	0.08	0.02	0.00	0.00	0.00	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			-16.11	-20.00	-11.14	-11.14	10.28	11.01	10.81	12.84	10.39	
Rank			43	35	27	27	24	31	31	29	35	
Polen Focus Growth (CF)	64,656,267	6.00	-23.76	-34.00	-28.58	-28.58	7.33	N/A	N/A	N/A	13.10	01/01/2019
Russell 1000 Grth Index			-20.92	-28.07	-18.77	-18.77	12.58	14.29	13.45	14.80	17.02	
Difference			-2.84	-5.93	-9.81	-9.81	-5.25	N/A	N/A	N/A	-3.92	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-20.20	-28.41	-20.97	-20.97	9.63	12.58	11.83	13.90	14.69	
Rank			84	88	82	82	80	N/A	N/A	N/A	76	



	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	123,931,372	11.49	-16.24	-24.53	-21.01	-21.01	6.37	6.43	6.60	9.57	N/A	11/01/2009
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	10.63	
Difference			0.96	-1.10	4.19	4.19	2.16	1.26	0.69	0.22	N/A	
Kennedy Capital Small Cap Value Equity (SA)	64,627,929	5.99	-13.32	-18.70	-10.34	-10.34	9.61	6.89	8.32	10.98	12.38	02/01/1996
Russell 2000 Val Index			-15.28	-17.31	-16.28	-16.28	6.18	4.89	6.40	9.05	9.03	
Difference			1.96	-1.39	5.94	5.94	3.43	2.00	1.92	1.93	3.35	
IM U.S. Small Cap Value Equity (SA+CF) Median			-13.08	-15.22	-10.92	-10.92	7.79	6.40	7.20	10.67	11.47	
Rank			54	79	43	43	24	41	26	40	11	
Wellington Small Cap Growth (CF)	59,303,443	5.50	-19.29	-30.45	-30.98	-30.98	2.39	5.36	N/A	N/A	7.60	08/01/2016
Russell 2000 Grth Index			-19.25	-29.45	-33.43	-33.43	1.40	4.80	4.96	9.30	6.81	
Difference			-0.04	-1.00	2.45	2.45	0.99	0.56	N/A	N/A	0.79	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-20.04	-30.23	-30.41	-30.41	6.09	9.92	8.75	12.24	11.15	
Rank			48	53	54	54	87	94	N/A	N/A	93	
International Equity	187,241,619	17.36	-13.55	-19.39	-20.60	-20.60	2.31	3.40	3.86	5.07	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.88	
Difference			0.18	-0.97	-1.18	-1.18	0.96	0.90	0.94	0.24	N/A	
IM International Equity (SA+CF) Median			-13.68	-19.63	-20.54	-20.54	2.36	3.12	3.88	6.36	6.73	
Rank			49	48	51	51	51	43	51	76	N/A	
Mondrian International Equity (SA)	70,182,998	6.51	-9.54	-10.77	-11.06	-11.06	1.33	2.17	2.64	5.33	4.53	01/01/2005
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.33	
Difference			4.19	7.65	8.36	8.36	-0.02	-0.33	-0.28	0.50	0.20	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	5.65	
Rank			7	6	5	5	71	76	81	84	84	
Barings Focused Intl Equity (SA)	60,891,335	5.65	-13.34	-20.15	-19.43	-19.43	0.79	2.38	3.79	5.23	4.57	02/01/2012
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	4.25	
Difference			0.39	-1.73	-0.01	-0.01	-0.56	-0.12	0.87	0.40	0.32	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	6.07	
Rank			42	49	42	42	79	71	53	84	88	
William Blair Emerging Markets Leaders (CF)	40,603,489	3.76	-16.01	-22.93	-30.75	-30.75	1.25	3.90	N/A	N/A	5.55	09/01/2016
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	4.33	
Difference			-4.56	-5.30	-5.47	-5.47	0.68	1.72	N/A	N/A	1.22	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	5.17	
Rank			88	79	80	80	57	29	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.



	Allocation	Allocation					Perfori	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wasatch EM Small Cap CI A (CF)	15,563,797	1.44	-23.73	-38.50	-30.76	-30.76	9.35	7.61	5.86	6.05	6.05	07/01/2012
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	3.06	
Difference			-12.28	-20.87	-5.48	-5.48	8.78	5.43	3.07	2.99	2.99	
IM Emerging Markets Equity (SA+CF) Median			-12.05	-18.20	-25.03	-25.03	1.46	2.93	3.80	4.41	4.41	
Rank			99	100	80	80	5	4	11	19	18	
Long/Short Equity	37,745,271	3.50	-13.49	-20.27	-24.37	-24.37	-2.38	0.38	1.05	4.11	3.70	04/01/2010
MSCI ACW Index (USD) (Net)			-15.66	-20.18	-15.75	-15.75	6.21	7.00	6.98	8.76	7.68	
Difference			2.17	-0.09	-8.62	-8.62	-8.59	-6.62	-5.93	-4.65	-3.98	
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	2.92	
Difference			-6.53	-7.64	-12.30	-12.30	-5.39	-2.56	-1.19	0.36	0.78	
Grosvenor (CF)	333,086	0.03	-1.28	-3.05	-0.32	-0.32	5.10	4.93	4.30	6.44	4.08	01/01/2008
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	1.39	
Difference			5.68	9.58	11.75	11.75	2.09	1.99	2.06	2.69	2.69	
Mauna Kea (CF)	37,412,185	3.47	-13.61	-18.84	-22.58	-22.58	N/A	N/A	N/A	N/A	-4.32	08/01/2020
HFRI FOF: Strategic Index			-6.96	-12.63	-12.07	-12.07	3.01	2.94	2.24	3.75	2.89	
Difference			-6.65	-6.21	-10.51	-10.51	N/A	N/A	N/A	N/A	-7.21	



	Allocation	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	119,563,508	11.09	-0.06	2.04	15.45	15.45	22.06	17.71	12.94	13.01	N/A	10/01/1990
S&P 500 Index+5%			-15.07	-17.98	-6.15	-6.15	16.13	16.87	16.70	18.60	16.01	
Difference			15.01	20.02	21.60	21.60	5.93	0.84	-3.76	-5.59	N/A	
Cambridge US Prvt Eq Index			0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	15.18	
Difference			-0.06	1.46	2.63	2.63	0.34	-1.14	-3.34	-3.15	N/A	



	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	232,404,643	21.55	-5.48	-10.94	-11.46	-11.46	-2.35	-0.03	0.94	1.58	6.08	10/01/1990
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	5.28	
Difference			-0.79	-0.59	-1.17	-1.17	-1.41	-0.91	-0.48	0.04	0.80	
IM Global Fixed Income (SA+CF) Median			-9.07	-13.72	-13.55	-13.55	-0.47	1.53	2.44	2.33	5.57	
Rank			20	31	38	38	75	74	80	58	26	
NTGI Aggregate Index (SA)	66,734,548	6.19	-4.63	-10.29	-10.25	-10.25	-0.91	0.91	1.44	1.57	3.20	04/01/2004
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.20	
Difference			0.06	0.06	0.04	0.04	0.03	0.03	0.02	0.03	0.00	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	3.65	
Rank			29	44	47	47	87	88	90	89	93	
TCW Core Plus Fixed Income (SA)	112,854,130	10.46	-5.45	-10.99	-10.66	-10.66	0.09	1.83	2.27	2.92	5.33	12/01/1993
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.57	
Difference			-0.76	-0.64	-0.37	-0.37	1.03	0.95	0.85	1.38	0.76	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	5.40	
Rank			48	56	53	53	37	34	45	30	53	
Loomis Sayles	52,815,965	4.90	-6.59	-11.65	N/A	N/A	N/A	N/A	N/A	N/A	-12.23	09/01/2021
Bloomberg US Gov't Crdt Bond Index			-5.03	-11.05	-10.85	-10.85	-0.77	1.05	1.63	1.67	-11.84	
Difference			-1.56	-0.60	N/A	N/A	N/A	N/A	N/A	N/A	-0.39	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-5.49	-10.90	-10.61	-10.61	-0.17	1.61	2.19	2.55	-11.51	
Rank			83	74	N/A	N/A	N/A	N/A	N/A	N/A	73	
Real Assets	145,986,662	13.54	3.64	10.38	26.44	26.44	10.85	8.59	7.57	8.19	7.56	06/01/1999
NCREIF ODCE Index (AWA) (Net)			4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	8.01	
Difference			-0.90	-1.62	-1.87	-1.87	-0.81	-0.96	-1.78	-1.96	-0.45	
Core Real Estate												
JPMCB Strategic Property (CF)	116,562,487	10.81	4.71	11.53	28.69	28.69	12.03	9.83	9.74	10.98	10.96	04/01/2012
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	9.71	
Difference			1.48	2.80	7.24	7.24	1.81	0.97	0.90	1.31	1.25	
UBS Trumbull Property (SA)	18,228,393	1.69	0.00	7.38	19.80	19.80	6.53	5.43	6.19	N/A	7.52	01/01/2013
NCREIF Property Index			3.23	8.73	21.45	21.45	10.22	8.86	8.84	9.67	9.65	
Difference			-3.23	-1.35	-1.65	-1.65	-3.69	-3.43	-2.65	N/A	-2.13	
Colcord Center (CF)	4,800,000	0.45	-3.77	-3.98	3.44	3.44	6.71	5.48	7.47	4.04	5.10	05/01/2008
Value Add Real Estate	6,395,782	0.59	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.99	03/01/2022

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



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



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



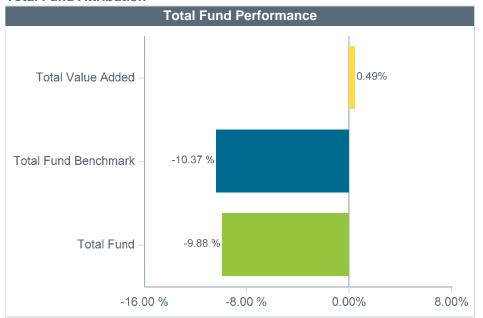
Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

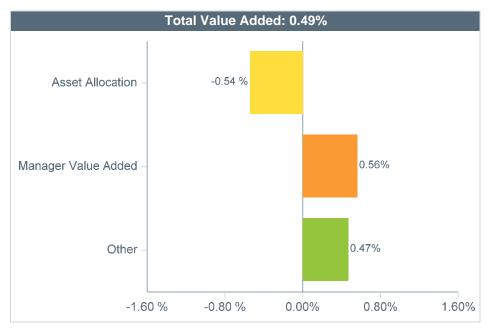


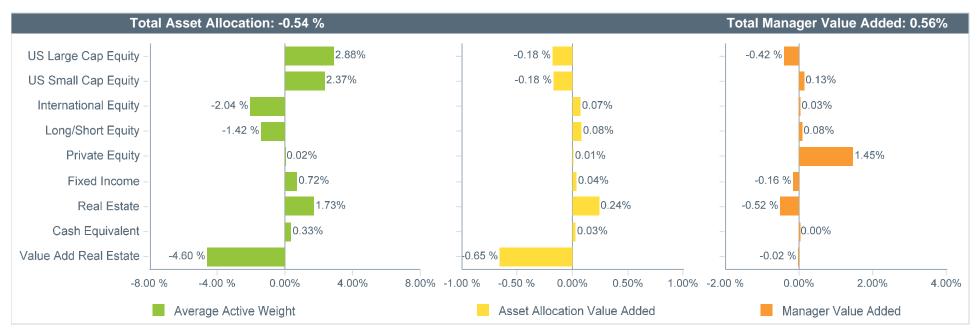
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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







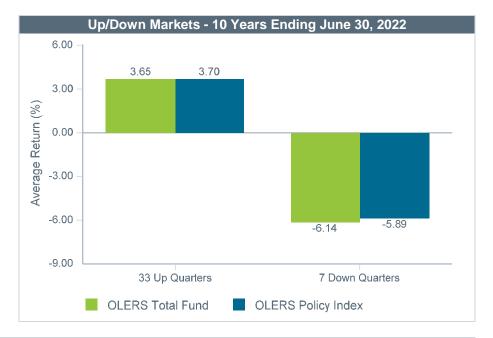
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

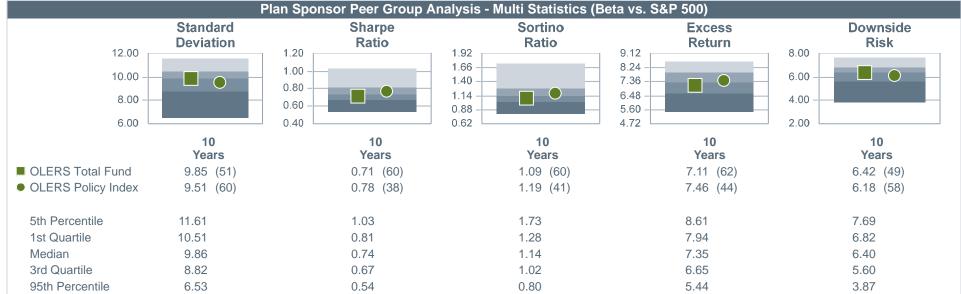


Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System

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

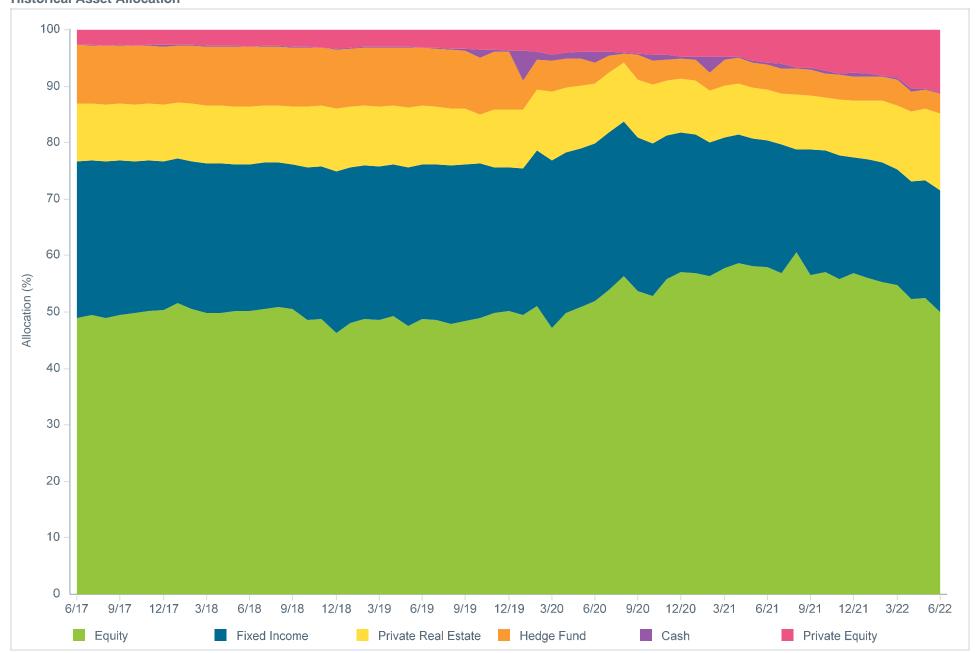






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







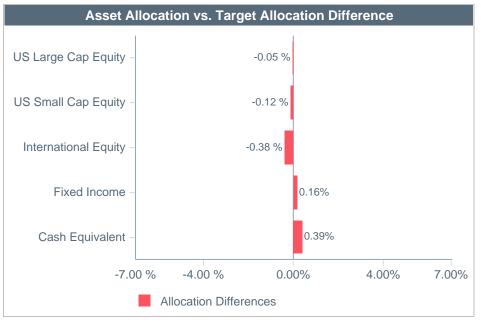
Uniform Retirement System for Justices & Judges (URSJJ)



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

Performance (%)													
			Trailiı	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
URSJJ Total Fund (Net)	-12.61	-17.56	-14.86	-14.86	4.36	5.49	5.76	7.14	12.08	15.06	21.36	-6.43	16.85
URSJJ Policy Index	-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	11.54	15.19	21.51	-6.09	16.86
Difference	-0.25	-0.29	-0.29	-0.29	-0.01	-0.08	-0.11	-0.01	0.54	-0.13	-0.15	-0.34	-0.01
URSJJ Actual Allocation Index	-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	12.10	18.70	21.01	-6.52	16.63
Difference	-0.13	-0.16	-0.16	-0.16	-1.13	-0.61	-0.40	-0.22	-0.02	-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	6.50
Difference	-14.20	-20.76	-21.36	-21.36	-2.14	-1.01	-0.74	0.64	5.58	8.56	14.86	-12.93	10.35
URSJJ Total Fund (Gross)	-12.60	-17.54	-14.83	-14.83	4.40	5.53	5.80	7.19	12.12	15.10	21.40	-6.38	16.89
URSJJ Policy Index	-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	11.54	15.19	21.51	-6.09	16.86
Difference	-0.24	-0.27	-0.26	-0.26	0.03	-0.04	-0.07	0.04	0.58	-0.09	-0.11	-0.29	0.03
URSJJ Actual Allocation Index	-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	12.10	18.70	21.01	-6.52	16.63
Difference	-0.12	-0.14	-0.13	-0.13	-1.09	-0.57	-0.36	-0.17	0.02	-3.60	0.39	0.14	0.26
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	97	95	95	95	84	79	76	69	77	21	11	92	18

Asse	t Allocation vs. Ta	rget Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
URSJJ (Judges)	357,442,501	100.00	100.00
US Large Cap Equity	121,337,120	33.95	34.00
US Small Cap Equity	21,014,395	5.88	6.00
International Equity	98,718,913	27.62	28.00
Fixed Income	114,960,620	32.16	32.00
Cash Equivalent	1,411,453	0.39	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

	Allocati	Allocation					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	357,442,501	100.00	-12.61	-17.56	-14.86	-14.86	4.36	5.49	5.76	7.14	N/A	06/01/1986
URSJJ Policy Index			-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	8.43	
Difference			-0.25	-0.29	-0.29	-0.29	-0.01	-0.08	-0.11	-0.01	N/A	
URSJJ Actual Allocation Index			-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	8.00	
Difference			-0.13	-0.16	-0.16	-0.16	-1.13	-0.61	-0.40	-0.22	N/A	
Actuarial Discount Rate (6.5%)			1.59	3.20	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			-14.20	-20.76	-21.36	-21.36	-2.14	-1.01	-0.74	0.64	N/A	
US Equity	142,351,516	39.83	-16.75	-21.33	-14.96	-14.96	9.32	10.13	10.07	12.33	N/A	10/01/1989
URSJJ US Equity Custom Index			-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	N/A	
Difference			0.00	-0.03	-0.03	-0.03	-0.02	-0.04	-0.04	-0.03	N/A	
BlackRock Russell 1000 Index (CF)	121,337,120	33.95	-16.68	-20.98	-13.03	-13.03	10.18	11.01	10.79	12.84	13.08	07/01/2009
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	13.69	
Difference			-0.01	-0.04	0.01	0.01	0.01	0.01	0.01	0.02	-0.61	
BlackRock Russell 2000 Index (CF)	21,014,395	5.88	-17.18	-23.37	-25.11	-25.11	4.31	5.29	6.08	9.54	11.40	07/01/2009
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	11.25	
Difference			0.02	0.06	0.09	0.09	0.10	0.12	0.17	0.19	0.15	
International Equity	98,718,913	27.62	-13.55	-18.20	-19.15	-19.15	1.60	2.76	3.18	5.08	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.15	
Difference			-0.01	-0.05	-0.14	-0.14	-0.21	-0.22	-0.22	-0.23	N/A	
BlackRock MSCI ACWI Ex US (CF)	98,718,913	27.62	-13.55	-18.20	-19.15	-19.15	1.60	2.76	3.18	5.08	4.31	10/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.43	
Difference			-0.01	-0.05	-0.14	-0.14	-0.21	-0.22	-0.22	-0.23	-0.12	



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

	Allocation						Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	114,960,620	32.16	-6.05	-11.88	-11.05	-11.05	-0.26	1.49	1.93	1.94	N/A	10/01/1989
URSJJ Fixed Income Custom Index			-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	N/A	
Difference			-0.38	-0.39	-0.39	-0.39	0.40	0.35	0.25	0.32	N/A	
BlackRock US Fixed Income (SA)	56,475,215	15.80	-4.96	-10.59	-10.50	-10.50	-0.64	1.10	1.64	1.79	N/A	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.27	-0.24	-0.21	-0.21	0.30	0.22	0.22	0.25	N/A	
MetWest US Fixed Income (SA)	34,226,398	9.58	-5.25	-10.70	-10.64	-10.64	-0.19	1.53	1.86	2.19	N/A	09/01/2001
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.67	
Difference			-0.56	-0.35	-0.35	-0.35	0.75	0.65	0.44	0.65	N/A	
Hoisington US Long Duration Fixed Income (SA)	10,801,570	3.02	-13.54	-23.94	-20.90	-20.90	-3.22	0.56	1.86	1.56	N/A	10/01/1991
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.95	
Difference			-8.85	-13.59	-10.61	-10.61	-2.28	-0.32	0.44	0.02	N/A	
BlackRock TIPS (CF)	13,457,437	3.76	-6.10	-8.88	-5.13	-5.13	3.13	3.32	2.94	1.84	3.30	03/01/2010
Bloomberg US Trsy US TIPS Index			-6.08	-8.92	-5.14	-5.14	3.04	3.21	2.82	1.73	3.25	
Difference			-0.02	0.04	0.01	0.01	0.09	0.11	0.12	0.11	0.05	



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

	Allocation						Perfori	mance (%	(o)			
	Market	%	QTD	CYTD	FYTD	1	3	5	7	10	Since	Inception
	Value (\$)					Year	Years	Years	Years	Years	Incep.	Date
URSJJ Total Fund	357,442,501	100.00	-12.60	-17.54	-14.83	-14.83	4.40	5.53	5.80	7.19	8.13	06/01/1986
URSJJ Policy Index			-12.36	-17.27	-14.57	-14.57	4.37	5.57	5.87	7.15	8.43	
Difference			-0.24	-0.27	-0.26	-0.26	0.03	-0.04	-0.07	0.04	-0.30	
URSJJ Actual Allocation Index			-12.48	-17.40	-14.70	-14.70	5.49	6.10	6.16	7.36	8.00	
Difference			-0.12	-0.14	-0.13	-0.13	-1.09	-0.57	-0.36	-0.17	0.13	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-14.31	-20.98	-21.83	-21.83	-2.60	-1.47	-1.20	0.19	1.13	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	8.33	
Rank			97	95	95	95	84	79	76	69	64	
US Equity	142,351,516	39.83	-16.75	-21.33	-14.95	-14.95	9.33	10.14	10.08	12.34	9.42	10/01/1989
URSJJ US Equity Custom Index			-16.75	-21.30	-14.93	-14.93	9.34	10.17	10.11	12.36	N/A	
Difference			0.00	-0.03	-0.02	-0.02	-0.01	-0.03	-0.03	-0.02	N/A	
All Public Plans-US Equity Segment Median			-16.10	-20.11	-13.42	-13.42	8.73	9.55	9.69	11.91	N/A	
Rank			75	72	64	64	38	40	34	36	N/A	
BlackRock Russell 1000 Index (CF)	121,337,120	33.95	-16.68	-20.98	-13.03	-13.03	10.19	11.02	10.80	12.85	13.09	07/01/2009
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	13.69	
Difference			-0.01	-0.04	0.01	0.01	0.02	0.02	0.02	0.03	-0.60	
IM U.S. Large Cap Core Equity (SA+CF) Median			-15.06	-19.06	-10.55	-10.55	9.83	10.68	10.43	12.83	13.58	
Rank			81	72	73	73	41	41	39	50	69	
BlackRock Russell 2000 Index (CF)	21,014,395	5.88	-17.17	-23.37	-25.10	-25.10	4.33	5.31	6.11	9.57	11.43	07/01/2009
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	11.25	
Difference			0.03	0.06	0.10	0.10	0.12	0.14	0.20	0.22	0.18	
IM U.S. Small Cap Core Equity (SA+CF) Median			-15.12	-20.90	-16.96	-16.96	7.15	7.78	8.07	11.33	13.22	
Rank			85	75	96	96	86	88	89	92	97	



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

	Allocation						Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	98,718,913	27.62	-13.54	-18.19	-19.13	-19.13	1.62	2.78	3.22	5.12	5.16	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	5.15	
Difference			0.00	-0.04	-0.12	-0.12	-0.19	-0.20	-0.18	-0.19	0.01	
All Public Plans-Intl. Equity Segment Median			-14.21	-19.25	-19.57	-19.57	2.79	3.66	4.06	6.22	N/A	
Rank			34	24	47	47	77	79	79	98	N/A	
BlackRock MSCI ACWI Ex US (CF)	98,718,913	27.62	-13.54	-18.19	-19.13	-19.13	1.62	2.78	3.22	5.12	4.38	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-13.54	-18.15	-19.01	-19.01	1.81	2.98	3.40	5.31	4.56	
Difference			0.00	-0.04	-0.12	-0.12	-0.19	-0.20	-0.18	-0.19	-0.18	
IM All ACWI Ex US (SA+CF) Median			-14.15	-20.35	-20.04	-20.04	2.52	3.37	4.00	6.52	5.86	
Rank			47	37	40	40	65	64	67	87	87	
Fixed Income	114,960,620	32.16	-6.04	-11.85	-10.96	-10.96	-0.17	1.58	2.02	2.03	6.03	10/01/1989
OPERS Fixed Income Custom Index			-5.67	-11.49	-10.66	-10.66	-0.66	1.14	1.68	1.62	N/A	
Difference			-0.37	-0.36	-0.30	-0.30	0.49	0.44	0.34	0.41	N/A	
BlackRock US Fixed Income (SA)	56,475,215	15.80	-4.94	-10.55	-10.45	-10.45	-0.56	1.18	1.72	1.87	4.47	06/01/2000
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.21	
Difference			-0.25	-0.20	-0.16	-0.16	0.38	0.30	0.30	0.33	0.26	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.48	-10.40	-10.40	-0.26	1.44	2.01	2.28	4.83	
Rank			47	52	51	51	70	75	79	82	80	
MetWest US Fixed Income (SA)	34,226,398	9.58	-5.23	-10.67	-10.47	-10.47	-0.05	1.64	1.96	2.31	4.62	09/01/2001
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.67	
Difference			-0.54	-0.32	-0.18	-0.18	0.89	0.76	0.54	0.77	0.95	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.48	-10.40	-10.40	-0.26	1.44	2.01	2.28	4.32	
Rank			60	57	51	51	36	36	55	48	26	
Hoisington US Long Duration Fixed Income (SA)	10,801,570	3.02	-13.50	-23.89	-20.80	-20.80	-3.10	0.70	2.00	1.71	7.21	10/01/1991
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	4.95	
Difference			-8.81	-13.54	-10.51	-10.51	-2.16	-0.18	0.58	0.17	2.26	
IM U.S. Long Duration (SA+CF) Median			-12.52	-21.98	-20.44	-20.44	-1.56	1.66	3.27	3.32	N/A	
Rank			97	97	65	65	100	100	100	100	N/A	





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

	Allocation	n					Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock TIPS (CF)	13,457,437	3.76	-6.09	-8.87	-5.12	-5.12	3.13	3.33	2.95	1.85	3.31	03/01/2010
Bloomberg US Trsy US TIPS Index			-6.08	-8.92	-5.14	-5.14	3.04	3.21	2.82	1.73	3.25	
Difference			-0.01	0.05	0.02	0.02	0.09	0.12	0.13	0.12	0.06	
IM U.S. TIPS (SA+CF) Median			-6.10	-8.88	-5.11	-5.11	3.13	3.25	2.87	1.82	3.30	
Rank			47	48	52	52	50	31	34	48	44	



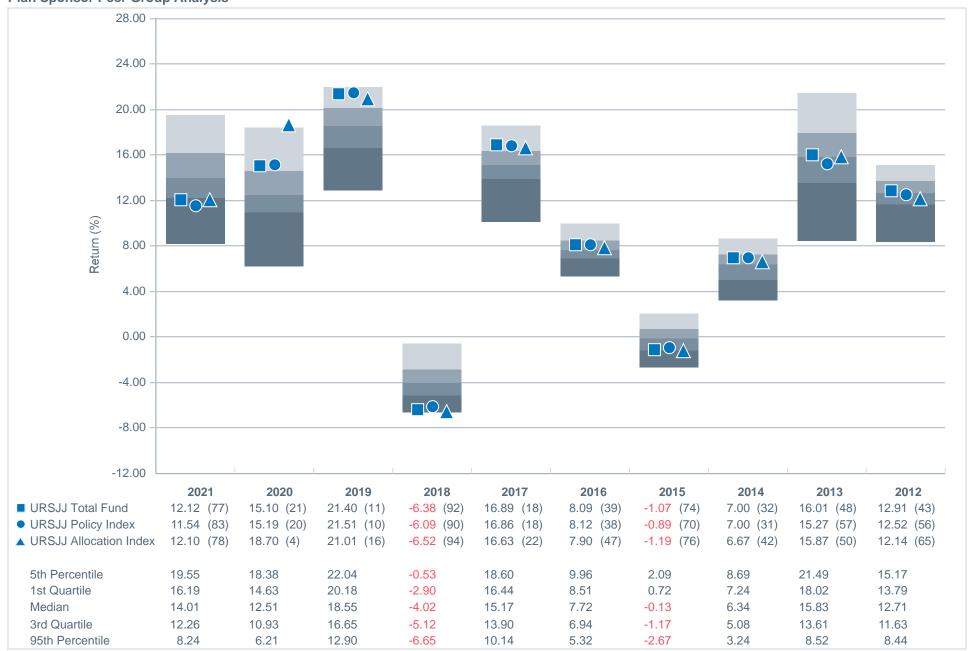
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



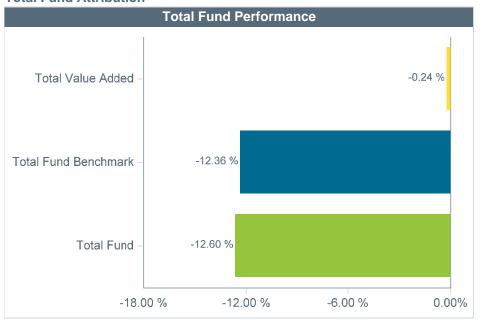
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



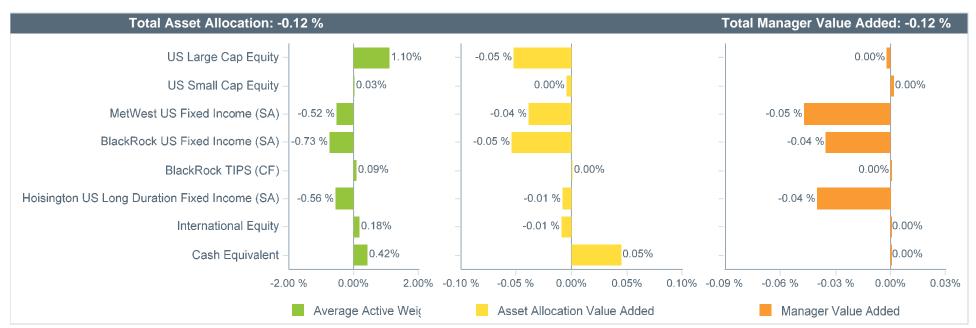
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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







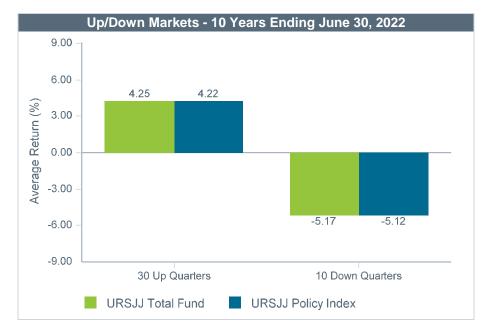
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

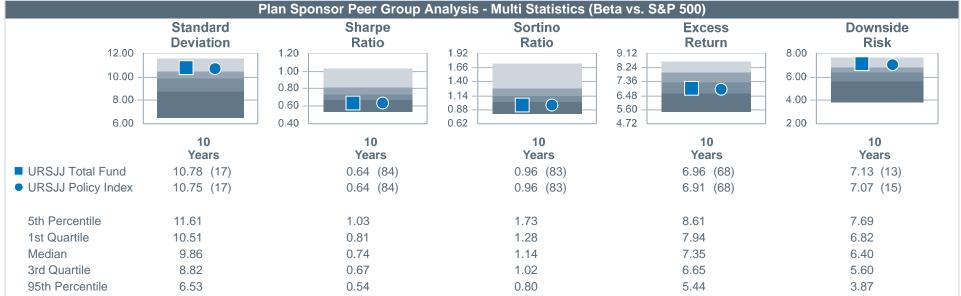


Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges

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

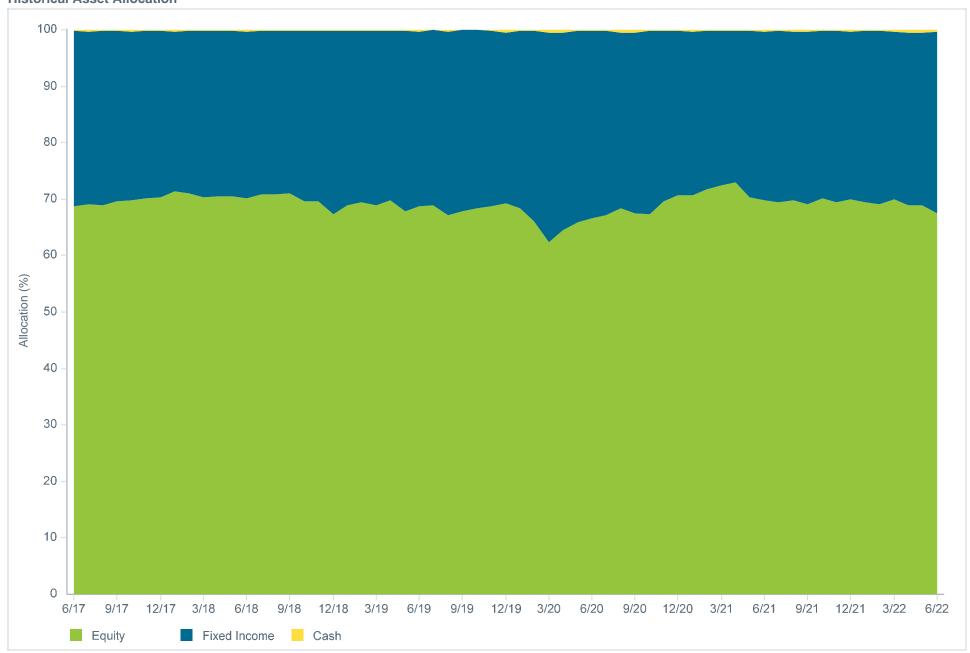






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







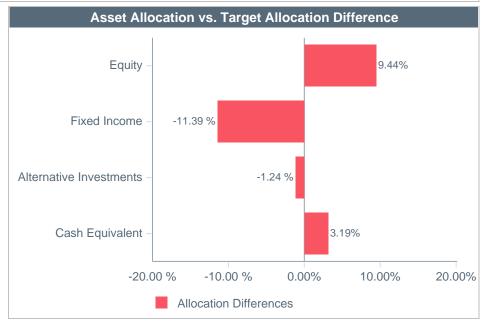
Oklahoma Wildlife Conservation Retirement System (OWCRS)



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

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
OWCRS Total Fund (Net)	-11.16	-15.38	-12.24	-12.24	4.13	5.43	5.47	6.66	11.58	13.00	19.21	-3.85	13.93
OWCRS Policy Index	-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	9.62	12.67	17.53	-4.95	12.96
Difference	-0.92	-0.24	0.87	0.87	0.79	1.03	0.68	0.70	1.96	0.33	1.68	1.10	0.97
OWCRS Actual Allocation Index	-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	10.43	13.21	20.53	-3.71	14.38
Difference	0.24	0.73	1.78	1.78	0.32	-0.01	-0.27	-0.13	1.15	-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	7.00
Difference	-12.87	-18.82	-19.24	-19.24	-2.87	-1.57	-1.53	-0.34	4.58	6.00	12.21	-10.85	6.93
OWCRS Total Fund (Gross)	-11.09	-15.24	-11.95	-11.95	4.43	5.70	5.71	6.89	11.95	13.34	19.46	-3.68	14.13
OWCRS Policy Index	-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	9.62	12.67	17.53	-4.95	12.96
Difference	-0.85	-0.10	1.16	1.16	1.09	1.30	0.92	0.93	2.33	0.67	1.93	1.27	1.17
OWCRS Actual Allocation Index	-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	10.43	13.21	20.53	-3.71	14.38
Difference	0.31	0.87	2.07	2.07	0.62	0.26	-0.03	0.10	1.52	0.13	-1.07	0.03	-0.25
All Public Plans-Total Fund Median	-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	14.01	12.51	18.55	-4.02	15.17
Rank	77	70	76	76	83	74	77	78	79	39	36	44	71

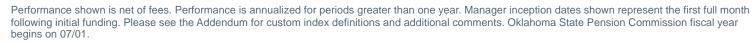
Asset	Asset Allocation vs. Target Allocation												
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)										
OWCRS (Wildlife)	119,379,439	100.00	100.00										
Equity	70,955,649	59.44	50.00										
Fixed Income	34,153,600	28.61	40.00										
Alternative Investments	10,462,347	8.76	10.00										
Cash Equivalent	3,807,843	3.19	0.00										



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



	Allocati	on					Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	119,379,439	100.00	-11.16	-15.38	-12.24	-12.24	4.13	5.43	5.47	6.66	5.46	01/01/2006
OWCRS Policy Index			-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	5.61	
Difference			-0.92	-0.24	0.87	0.87	0.79	1.03	0.68	0.70	-0.15	
OWCRS Actual Allocation Index			-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	5.91	
Difference			0.24	0.73	1.78	1.78	0.32	-0.01	-0.27	-0.13	-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	
Difference			-12.87	-18.82	-19.24	-19.24	-2.87	-1.57	-1.53	-0.34	-1.54	
Equity	70,955,649	59.44	-14.63	-19.17	-13.84	-13.84	6.46	8.42	8.43	11.10	7.88	01/01/2006
OWCRS Equity Custom Index			-15.80	-20.59	-17.13	-17.13	5.80	6.53	7.10	N/A	N/A	
Difference			1.17	1.42	3.29	3.29	0.66	1.89	1.33	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	5,908,991	4.95	-16.65	-20.93	-13.03	-13.03	9.58	10.59	10.45	12.54	11.74	03/01/2020
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	12.47	
Difference			0.02	0.01	0.01	0.01	-0.59	-0.41	-0.33	-0.28	-0.73	
Vanguard S-C Id;Inst (VSCIX)	3,952,256	3.31	-17.10	-21.85	-21.15	-21.15	5.22	6.78	7.00	10.40	8.28	12/01/2005
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.16	
Difference			0.10	1.58	4.05	4.05	1.01	1.61	1.09	1.05	1.12	
Bank of Oklahoma Managed Equity (SA)	43,950,421	36.82	-15.04	-18.86	-10.49	-10.49	N/A	N/A	N/A	N/A	18.88	04/01/2020
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	20.29	
Difference			1.66	2.24	3.38	3.38	N/A	N/A	N/A	N/A	-1.41	
Vanguard Dev Mkt;Adm (VTMGX)	5,992,296	5.02	-14.06	-19.26	-18.15	-18.15	2.10	2.68	3.30	5.84	3.76	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			-14.66	-18.76	-16.76	-16.76	1.70	2.66	2.98	5.37	3.72	
Difference			0.60	-0.50	-1.39	-1.39	0.40	0.02	0.32	0.47	0.04	
Dodge & Cox Intnl Stck;I (DODFX)	4,167,449	3.49	-9.49	-10.02	-10.99	-10.99	3.51	2.13	2.33	6.10	2.26	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	2.42	
Difference			4.24	8.40	8.43	8.43	2.16	-0.37	-0.59	1.27	-0.16	
MFS Intl New Discv;R6 (MIDLX)	3,743,948	3.14	-12.84	-22.02	-22.04	-22.04	-0.77	2.23	3.68	6.06	3.39	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			-15.71	-24.79	-25.80	-25.80	1.62	3.43	3.86	5.71	3.52	
Difference			2.87	2.77	3.76	3.76	-2.39	-1.20	-0.18	0.35	-0.13	





	Allocation			Perfori	mance (%	o)						
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Dev Mkt;R6 (ODVIX)	3,240,289	2.71	-11.36	-25.26	-34.86	-34.86	-4.19	0.43	1.76	2.77	1.65	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	2.31	
Difference			0.09	-7.63	-9.58	-9.58	-4.76	-1.75	-1.03	-0.29	-0.66	
Fixed Income	34,153,600	28.61	-5.01	-10.31	-10.34	-10.34	-0.43	1.22	1.39	1.46	2.69	01/01/2006
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.29	
Difference			-0.32	0.04	-0.05	-0.05	0.51	0.34	-0.03	-0.08	-0.60	
Bank of Oklahoma Managed Fixed Income (SA)	16,180,848	13.55	-4.75	-10.36	-10.61	-10.61	-0.96	0.81	1.02	1.10	2.53	12/01/2005
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.33	
Difference			-0.06	-0.01	-0.32	-0.32	-0.02	-0.07	-0.40	-0.44	-0.80	
MetWest:Total Rtn;I (MWTIX)	4,601,426	3.85	-5.73	-11.67	-11.64	-11.64	-0.80	1.05	1.45	2.26	0.99	08/01/2017
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	0.80	
Difference			-1.04	-1.32	-1.35	-1.35	0.14	0.17	0.03	0.72	0.19	
PIMCO:Income;Inst (PIMIX)	5,500,450	4.61	-5.18	-9.16	-8.48	-8.48	0.33	2.05	3.37	5.07	1.95	08/01/2017
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	0.80	
Difference			-0.49	1.19	1.81	1.81	1.27	1.17	1.95	3.53	1.15	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,148,054	2.64	-4.90	-8.44	-8.85	-8.85	-1.02	1.52	2.51	3.47	-2.67	03/01/2020
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-3.76	
Difference			-0.21	1.91	1.44	1.44	-0.08	0.64	1.09	1.93	1.09	



	Allocatio	Allocation					Perfori	mance (%	5)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Alternative Investments	10,462,347	8.76	-8.09	-8.56	-6.71	-6.71	2.11	2.88	3.23	2.83	2.74	12/01/2010
OWCRS Alternatives Custom Index			-3.88	-6.53	-5.45	-5.45	3.96	3.63	2.62	N/A	N/A	
Difference			-4.21	-2.03	-1.26	-1.26	-1.85	-0.75	0.61	N/A	N/A	
First Eagle:Global;I (SGIIX)	5,129,132	4.30	-10.43	-10.13	-8.38	-8.38	5.09	5.20	5.90	6.92	5.03	08/01/2017
MSCI Wrld Index (USD) (Net)			-16.19	-20.51	-14.34	-14.34	7.00	7.67	7.53	9.51	7.29	
Difference			5.76	10.38	5.96	5.96	-1.91	-2.47	-1.63	-2.59	-2.26	
Calamos:Mkt Neut Inc;I (CMNIX)	5,333,215	4.47	-5.71	-6.99	-4.99	-4.99	1.67	2.63	2.96	3.27	2.58	08/01/2017
Bloomberg US Govt/Credit Bond Index			-5.03	-11.05	-10.85	-10.85	-0.77	1.05	1.63	1.67	0.98	
Difference			-0.68	4.06	5.86	5.86	2.44	1.58	1.33	1.60	1.60	



	Allocation	on					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	119,379,439	100.00	-11.09	-15.24	-11.95	-11.95	4.43	5.70	5.71	6.89	5.68	01/01/2006
OWCRS Policy Index			-10.24	-15.14	-13.11	-13.11	3.34	4.40	4.79	5.96	5.61	
Difference			-0.85	-0.10	1.16	1.16	1.09	1.30	0.92	0.93	0.07	
OWCRS Actual Allocation Index			-11.40	-16.11	-14.02	-14.02	3.81	5.44	5.74	6.79	5.91	
Difference			0.31	0.87	2.07	2.07	0.62	0.26	-0.03	0.10	-0.23	
Actuarial Discount Rate (7.0%)			1.71	3.44	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-12.80	-18.68	-18.95	-18.95	-2.57	-1.30	-1.29	-0.11	-1.32	
All Public Plans-Total Fund Median			-10.01	-13.95	-9.98	-9.98	5.64	6.40	6.37	7.72	6.43	
Rank			77	70	76	76	83	74	77	78	89	
Equity	70,955,649	59.44	-14.58	-19.07	-13.63	-13.63	6.66	8.55	8.52	11.16	7.91	01/01/2006
OWCRS Equity Custom Index			-15.80	-20.59	-17.13	-17.13	5.80	6.53	7.10	N/A	N/A	
Difference			1.22	1.52	3.50	3.50	0.86	2.02	1.42	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	5,908,991	4.95	-16.62	-20.87	-12.89	-12.89	9.75	10.76	10.62	12.71	11.91	03/01/2020
Russell 1000 Index			-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	12.47	
Difference			0.05	0.07	0.15	0.15	-0.42	-0.24	-0.16	-0.11	-0.56	
IM U.S. Large Cap Equity (MF) Median			-16.48	-21.74	-13.69	-13.69	8.96	10.40	10.01	12.03	11.02	
Rank			51	46	44	44	35	44	35	33	39	
Vanguard S-C Id;Inst (VSCIX)	3,952,256	3.31	-17.09	-21.83	-21.12	-21.12	5.26	6.82	7.04	10.44	8.33	12/01/2005
Russell 2000 Index			-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	7.16	
Difference			0.11	1.60	4.08	4.08	1.05	1.65	1.13	1.09	1.17	
IM U.S. Small Cap Core Equity (MF) Median			-14.56	-19.23	-15.84	-15.84	5.77	5.49	6.01	9.30	7.13	
Rank			81	77	81	81	59	22	26	21	13	
Bank of Oklahoma Managed Equity (SA)	43,950,421	36.82	-15.01	-18.79	-10.34	-10.34	N/A	N/A	N/A	N/A	19.06	04/01/2020
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	20.29	
Difference			1.69	2.31	3.53	3.53	N/A	N/A	N/A	N/A	-1.23	
Vanguard Dev Mkt;Adm (VTMGX)	5,992,296	5.02	-14.05	-19.23	-18.09	-18.09	2.17	2.75	3.38	5.91	3.83	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			-14.66	-18.76	-16.76	-16.76	1.70	2.66	2.98	5.37	3.72	
Difference			0.61	-0.47	-1.33	-1.33	0.47	0.09	0.40	0.54	0.11	
IM All ACWI Ex US (MF) Median			-13.70	-20.75	-21.68	-21.68	1.53	2.44	2.85	5.13	4.34	
Rank			54	35	22	22	37	42	33	23	65	

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



	Allocatio			Perform	mance (%	(a)						
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dodge & Cox Intnl Stck;I (DODFX)	4,167,449	3.49	-9.34	-9.74	-10.42	-10.42	4.16	2.78	2.98	6.77	2.90	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	2.42	
Difference			4.39	8.68	9.00	9.00	2.81	0.28	0.06	1.94	0.48	
IM ACWI Ex US Core (MF) Median			-12.91	-19.97	-19.86	-19.86	1.70	2.43	2.72	4.98	2.33	
Rank			1	1	1	1	11	34	40	2	22	
MFS Intl New Discv;R6 (MIDLX)	3,743,948	3.14	-12.64	-21.65	-21.31	-21.31	0.15	3.18	4.64	7.04	4.35	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			-15.71	-24.79	-25.80	-25.80	1.62	3.43	3.86	5.71	3.52	
Difference			3.07	3.14	4.49	4.49	-1.47	-0.25	0.78	1.33	0.83	
IM ACWI Ex US Growth (MF) Median			-16.27	-27.51	-28.08	-28.08	1.70	3.24	3.60	5.71	3.12	
Rank			23	22	14	14	74	53	29	22	28	
Invesco Dev Mkt;R6 (ODVIX)	3,240,289	2.71	-11.17	-24.94	-34.31	-34.31	-3.39	1.26	2.60	3.62	2.49	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	2.79	3.06	2.31	
Difference			0.28	-7.31	-9.03	-9.03	-3.96	-0.92	-0.19	0.56	0.18	
IM Emerging Markets Equity (MF) Median			-11.91	-20.54	-28.03	-28.03	0.13	1.56	2.40	2.75	1.87	
Rank			33	76	84	84	89	57	45	30	34	

	Allocation	on					Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	34,153,600	28.61	-4.93	-10.17	-10.06	-10.06	-0.19	1.37	1.50	1.53	2.74	01/01/2006
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.29	
Difference			-0.24	0.18	0.23	0.23	0.75	0.49	0.08	-0.01	-0.55	
Bank of Oklahoma Managed Fixed Income (SA)	16,180,848	13.55	-4.71	-10.29	-10.45	-10.45	-0.78	1.02	1.23	1.30	2.72	12/01/2005
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	3.33	
Difference			-0.02	0.06	-0.16	-0.16	0.16	0.14	-0.19	-0.24	-0.61	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-5.00	-10.48	-10.40	-10.40	-0.26	1.44	2.01	2.28	3.99	
Rank			32	38	51	51	86	87	100	100	100	
MetWest:Total Rtn;I (MWTIX)	4,601,426	3.85	-5.62	-11.47	-11.23	-11.23	-0.36	1.50	1.90	2.71	1.44	08/01/2017
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	0.80	
Difference			-0.93	-1.12	-0.94	-0.94	0.58	0.62	0.48	1.17	0.64	
IM U.S. Broad Market Core+ Fixed Income (MF) Median			-5.94	-11.45	-11.33	-11.33	-0.75	0.94	1.51	1.84	0.84	
Rank			35	51	46	46	30	18	23	10	18	
PIMCO:Income;Inst (PIMIX)	5,500,450	4.61	-5.06	-8.93	-8.02	-8.02	1.03	2.91	4.31	6.07	2.81	08/01/2017
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	0.80	
Difference			-0.37	1.42	2.27	2.27	1.97	2.03	2.89	4.53	2.01	
IM Multi-Sector General Bond (MF) Median			-6.26	-10.77	-10.95	-10.95	-0.28	1.34	2.25	2.72	1.19	
Rank			27	24	22	22	16	3	1	1	3	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,148,054	2.64	-4.77	-8.20	-8.37	-8.37	-0.47	2.08	3.08	4.04	-2.13	03/01/2020
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-3.76	
Difference			-0.08	2.15	1.92	1.92	0.47	1.20	1.66	2.50	1.63	
IM International Fixed Income (MF) Median			-9.03	-13.51	-16.55	-16.55	-5.21	-2.39	-1.06	-0.63	-6.58	
Rank			7	17	6	6	3	1	1	1	5	



	Allocation	Allocation					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Alternative Investments	10,462,347	8.76	-7.88	-8.15	-5.87	-5.87	2.76	3.28	3.52	3.02	2.91	12/01/2010
OWCRS Alternatives Custom Index			-3.88	-6.53	-5.45	-5.45	3.96	3.63	2.62	N/A	N/A	
Difference			-4.00	-1.62	-0.42	-0.42	-1.20	-0.35	0.90	N/A	N/A	
First Eagle:Global;I (SGIIX)	5,129,132	4.30	-10.23	-9.74	-7.58	-7.58	5.99	6.10	6.80	7.83	5.93	08/01/2017
MSCI Wrld Index (USD) (Net)			-16.19	-20.51	-14.34	-14.34	7.00	7.67	7.53	9.51	7.29	
Difference			5.96	10.77	6.76	6.76	-1.01	-1.57	-0.73	-1.68	-1.36	
Calamos:Mkt Neut Inc;I (CMNIX)	5,333,215	4.47	-5.50	-6.57	-4.11	-4.11	2.65	3.64	3.98	4.30	3.59	08/01/2017
Bloomberg US Govt/Credit Bond Index			-5.03	-11.05	-10.85	-10.85	-0.77	1.05	1.63	1.67	0.98	
Difference			-0.47	4.48	6.74	6.74	3.42	2.59	2.35	2.63	2.61	



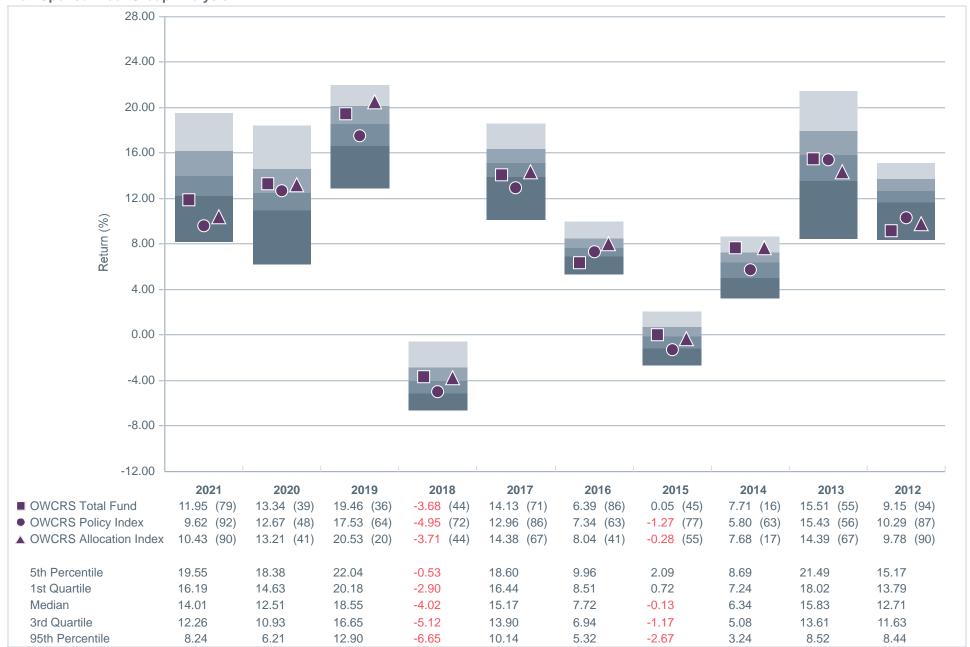
Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



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



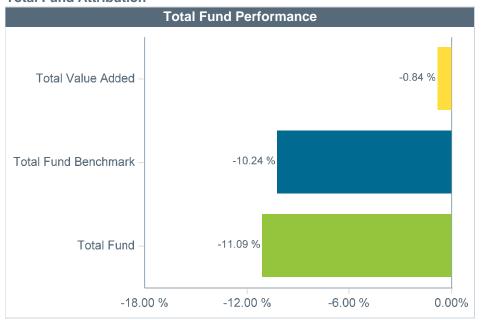
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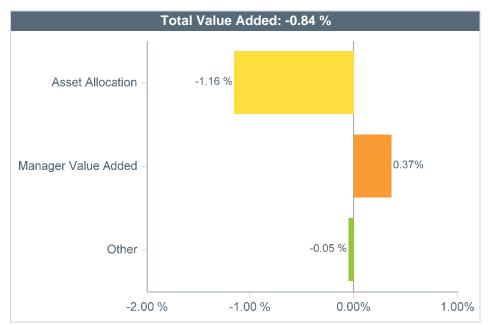


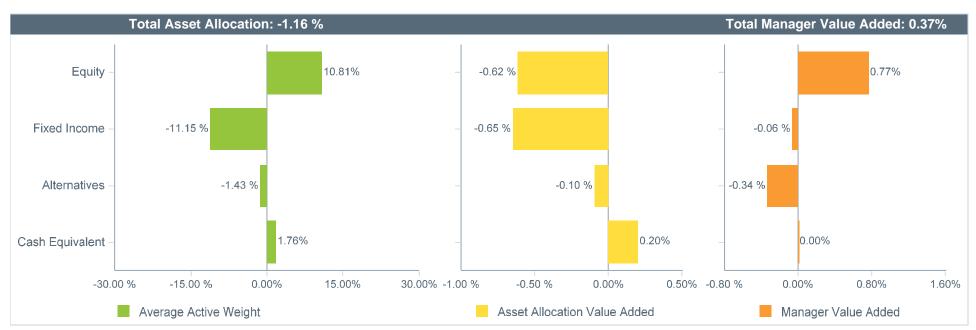
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



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





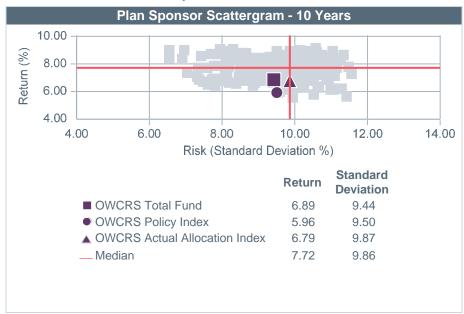


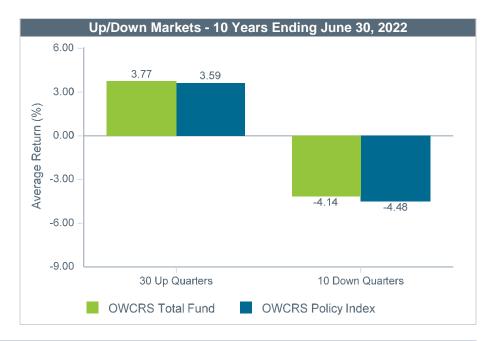
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

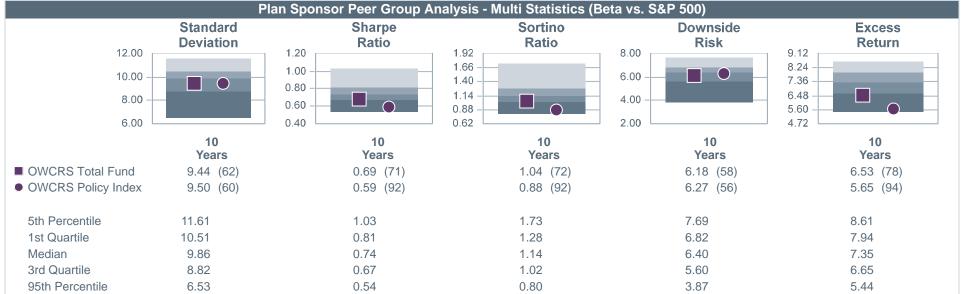


Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System

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



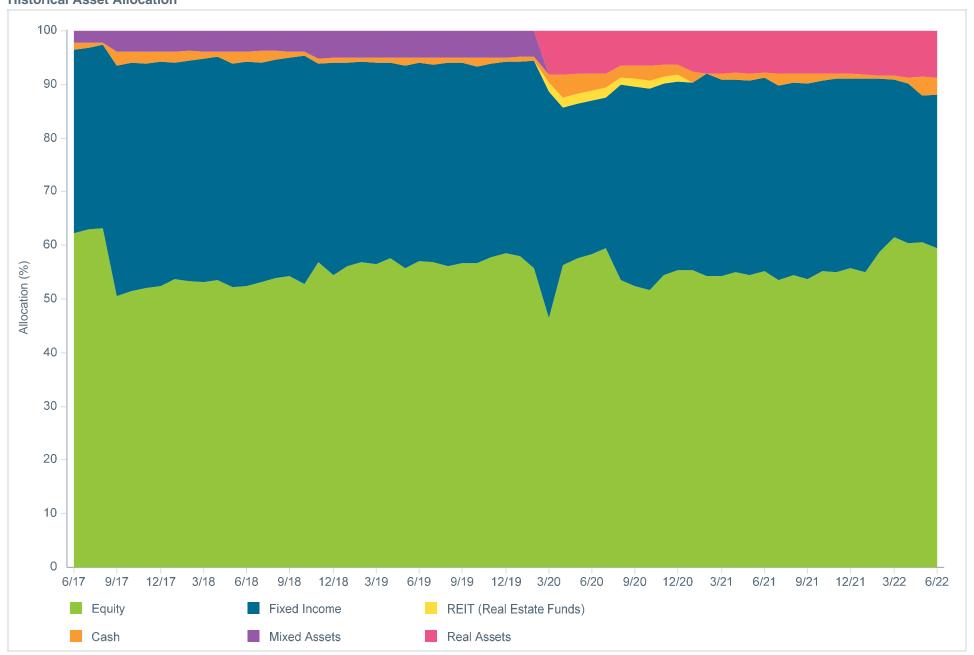




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Historical Asset Allocation





Addendum & Glossary



Oklahoma State Pension Commission As of June 30, 2022
Addendum

Performance Comments:

- Fiscal year begins on 07/01.
- RVK began monitoring the assets of Oklahoma State Pension Commission as of 07/01/2020. Prior historical data on market values and performance was provided by the prior investment consultant and/or custodian bank.
- Manager inception dates shown reflect the first full month of performance following initial funding.
- Mutual fund performance prior to 07/01/2020 or client inception is product specific.
- Manager inception dates shown represent the first full month following initial funding.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Net of fees performance show N/A for since inception returns when the fund contains more gross of fees performance history.
- During 06/2022, Northern Trust Russell 3000 Index (SA), TOK121 Sanctioned Asset (SA), Artemis Real Estate IV LP, and OFP Adams Street Co-Invest Fund V 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 38.3% Russell 3000 Index, 16.7% MSCI ACW ex US IMI (USD) (Net), 22% OTRS Fixed Income Custom Index, 10% OTRS Real Estate Custom Index, and 8% Russell 2000 Index+4%, and 5% S&P/LSTA Leveraged Loan 100 Index +3%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OTRS Fixed Income Custom Index is calculated monthly and currently consists of 70% Bloomberg US Agg Bond Index and 30% ICE BofAML US High Yield Master II Constrained Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OTRS Real Estate Custom Index is calculated monthly and currently consists of 50% NCREIF ODCE (AWA) (Net) (Monthly) and 50% NCREIF ODCE (AWA) (Net) (Monthly) +1%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPERS Policy Index: OPERS's passive, policy index is calculated monthly and currently consists of 40% OPERS US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (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 currently consists of 85% Russell 1000 Index and 15% Russell 2000 Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPERS Fixed Income Custom Index is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OFPRS Policy Index: OFPRS's passive, policy index is calculated monthly and currently consists of 47% Russell 3000 Index, 15% MSCI ACW ex US Index (USD) (Net), 13% Bloomberg US Agg Bond Index, 7% Bloomberg Global Agg ex US Index (USD) (Unhedged), 10% NCREIF ODCE Index (AWA) (Net) (Monthly), and 8% Other Assets on a net fee basis. 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.
- OLERS Real Assets Blended Index: is calculated monthly and current consists of 100% NCREIF ODCE Index (AWA) (Net) (Monthly).
- URSJJ Policy Index: URSJJ's passive, policy index is calculated monthly and currently consists of 40% URSJJ US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (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.



Oklahoma State Pension Commission
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- URSJJ Fixed Income Custom Index is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OWCRS Policy Index: OWCRS's passive, policy index is calculated monthly and currently consists of 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.



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

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

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

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

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

S&P	Moody's	<u>Explanation</u>	S&P	Moody's	Explanation	
Higher Cr	edit Quality – I	nvestment Grade	Lower Cr	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	В	B2		
Α	A2		B-	B3		
A-	A3		CCC+	Caa1	Substantial credit/default risk	
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative	
BBB	Baa2		CCC-	Caa3		
BBB-	Baa3		CC	Ca	Vulnerable to default	
			С	Ca		
			D	С	In default	

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

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

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

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

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

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

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

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

Capital Markets Review -

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and



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

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

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

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

Peer Groups -

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

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

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

1 - Highest Statistical Value 100 - Lowest Statistical Value

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

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

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

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



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

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
<u>Liquid Investments</u>		Less Liquid Investments	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	Not Liquid Investments	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity 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>	Capital Appreciation	Capital Preservation	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

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

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

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

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

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

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

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

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

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

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

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

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

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



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