

CALENDAR YEAR 2017 FEE ANALYSIS

OKLAHOMA STATE PENSION COMMISSION

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PUBLIC MARKETS FEE OVERVIEW

Within Public Markets (Both Equity & Fixed) there are 3 general types of Fee structures:

1. Flat Fee

- A flat basis point fee that is charged no matter the size of the mandate
- Typically used for passive or indexed mandates

2. Tier or Asset-Based Fee (Declining Marginal Rate Fee Structure)

- A fee schedule that includes breakpoints or “Tiers” based on the size of the mandate
- The breakpoints will provide lower fees as the amount of assets grows
- These fee structures are offered by passive and active managers and are the most prominently used (100 bps on the first \$50 mm, 75 bps on the next \$50 mm, with 50 bps on assets over \$100mm)

3. Performance-Based Fee

- A fee schedule that includes the ability for the manager to profit from the performance of a portfolio
- The fee is comprised of a base fee, which is substantially lower than the customary or normal fee, and a performance component that is earned or exceeded only when the manager earns a required excess returns (See Appendix for Formula)

Notes:

- Performance fees do not lead to better performance
- Clients may be able to negotiate better fees using the performance fee approach, since manager most-favored-nation restrictions are less binding
- When managers seriously underperform, the optics are better, but in rising markets fees can be noticeably higher

PRIVATE EQUITY/HEDGE FUND FEE OVERVIEW

Within the private equity and hedge fund fees, there are different types of fee structures which depend on the type of vehicle:

1. Private Equity Fee Structures

- Fees are typically much higher than for public market assets
- Fees structures often include the following components:
 - Management Fee – Typically 1-2%
 - Performance Fee or “carry” – Typically 20% of performance above a preferred return payable after all capital is returned
 - Preferred return or “hurdle rate” which needs to be attained in order to earn the performance fee– Typically 6-10%
- Fees often paid on committed, not invested capital, although this is changing

2. Hedge Fund Fee Structures

- Fees are very high compared to traditional managers
- Fees are made up of two components:
 - Management Fee
 - A fixed fee usually determined as a percentage of assets
 - Typically between 1-3%
 - Performance Fee:
 - Based on net new performance
 - Generally subject to a “highwater mark” or max fee
 - Typically between 15-30% of performance, which can be either above a hurdle or simply a positive return

GENERAL OBSERVATIONS

- **Competitive pressures are leading to lower fees**
- **In Public Markets, chronic manager underperformance has led to increased use of passive management**
- **In Alternatives, 1) Fees are coming down 2) Increasingly fees are being quoted on invested or drawn amounts, and 3) Non-zero hurdle rates are becoming more common**
- **Public Entities are facing greater political pressures on fees**

FEE COMPARISON FROM 2016 TO 2017 – USING MONTHLY AVERAGE OF MARKET VALUES

2017 FEES

	TEACHERS	PERS	FIRE	POLICE	LAW	JUDGES	WILDLIFE	Total
Total Average 2017 Market Values	\$15,483,609,242	\$9,287,203,577	\$2,521,798,612	\$2,377,058,326	\$911,486,500	\$322,990,545	\$110,182,881	\$31,014,329,683
Custody Fee	\$30,000	\$38,871	\$252,115	\$215,243	\$104,000	\$1,129	\$10,993	\$652,351
Securities Lending Income	(\$7,688,673)	(\$2,204,961)	(\$967,206)	\$0	(\$279,019)	\$0	\$0	(\$11,139,859)
Commission Recapture	(\$158,904)	(\$83,398)	(\$42,734)	\$0	\$0	\$0	\$0	(\$285,037)
Sub-Total (Custody - Net)	(\$7,817,577)	(\$2,249,488)	(\$757,826)	\$215,243	(\$175,019)	\$1,129	\$10,993	(\$10,772,545)
Investment Manager Fees (\$)	\$63,604,505	\$10,838,251	\$15,532,341	\$13,384,910	\$4,084,730	\$128,413	\$195,310	\$107,768,461
Investment Manager Fees (%)	0.41%	0.12%	0.62%	0.56%	0.45%	0.04%	0.18%	0.35%
Percent Passively Managed	7.9%	37.9%	20.0%	17.4%	16.2%	72.7%	0.0%	24.6%
Total Investment Return	16.2%	17.1%	18.7%	13.2%	14.7%	16.9%	14.3%	9.5%
Sub-Total Manager Fees	\$63,604,505	\$10,838,251	\$15,532,341	\$13,384,910	\$4,084,730	\$128,413	\$195,310	\$107,768,461
Investment Consultant Fee (\$)	\$1,077,930	\$272,098	\$270,000	\$650,000	\$150,000	\$7,903	\$0	\$2,427,930
Investment Consultant Fee (%)	0.01%	0.003%	0.01%	0.03%	0.02%	0.002%	0%	0.01%
Total Fee (\$)	\$56,864,858	\$8,860,860	\$15,044,516	\$14,250,153	\$4,059,711	\$137,444	\$206,303	\$99,423,846
Total Fee (%)	0.37%	0.10%	0.60%	0.60%	0.45%	0.04%	0.19%	0.32%

2016 FEES

	TEACHERS	PERS	FIRE	POLICE	LAW	JUDGES	WILDLIFE	Total
Total Average 2016 Market Values	\$14,110,646,267	\$8,405,208,584	\$2,269,108,834	\$2,175,352,745	\$919,924,862	\$292,546,707	\$104,911,966	\$28,277,699,965
Custody Fee	\$25,000	\$31,407	\$251,489	\$189,974	\$101,000	\$868	\$10,603	\$610,341
Securities Lending Income	(\$7,736,648)	(\$2,521,390)	(\$1,068,717)	\$0	(\$309,444)	\$0	\$0	(\$11,636,199)
Commission Recapture	(\$148,125)	(\$95,409)	(\$55,807)	(\$319,669)	\$0	\$0	\$0	(\$619,010)
Sub-Total (Custody - Net)	(\$7,859,773)	(\$2,585,392)	(\$873,035)	(\$129,695)	(\$208,444)	\$868	\$10,603	(\$11,644,868)
Investment Manager Fees (\$)	\$53,773,816	\$7,747,736	\$13,110,976	\$12,434,199	\$4,045,278	\$116,274	\$186,573	\$91,414,852
Investment Manager Fees (%)	0.38%	0.09%	0.58%	0.57%	0.44%	0.04%	0.18%	0.32%
Percent Passively Managed	2.7%	39.8%	19.2%	19.5%	18.0%	70.5%	10.6%	25.8%
Total Investment Return	11.4%	7.7%	7.3%	7.5%	7.2%	8.1%	6.6%	9.5%
Sub-Total Manager Fees	\$53,773,816	\$7,747,736	\$13,110,976	\$12,434,199	\$4,045,278	\$116,274	\$186,573	\$91,414,852
Investment Consultant Fee (\$)	\$1,062,000	\$272,466	\$270,000	\$650,000	\$135,000	\$7,534	\$0	\$2,397,000
Investment Consultant Fee (%)	0.01%	0.003%	0.01%	0.03%	0.01%	0.003%	0%	0.01%
Total Fee (\$)	\$46,976,043	\$5,434,810	\$12,507,941	\$12,954,504	\$3,971,834	\$124,676	\$197,176	\$82,166,984
Total Fee (%)	0.33%	0.06%	0.55%	0.60%	0.43%	0.04%	0.19%	0.29%



OK TEACHERS OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
OTRS-HOISINGTON INVESTMENT	Core Fixed Income	\$493,409	\$452,450,745	0.11%	\$7,688,673	\$158,904	\$1,077,930	\$30,000
OTRS-LOOMIS SAYLES CORE PLUS	Core Fixed Income	\$932,012	\$665,674,915	0.14%				
OTRS-LORD ABBETT CORE PLUS	Core Fixed Income	\$1,057,045	\$660,528,054	0.16%				
OTRS-MACKAY SHIELDS CORE PLUS	Core Fixed Income	\$1,293,995	\$645,661,036	0.20%				
OTRS-LOOMIS SAYLES HIGH YIELD	High-Yield Fixed Income	\$1,387,490	\$292,096,444	0.48%				
OTRS-LORD ABBETT HIGH YIELD	High-Yield Fixed Income	\$1,106,517	\$311,971,446	0.35%				
OTRS-MACKAY SHIELDS HIGH YIELD	High-Yield Fixed Income	\$1,159,578	\$306,965,761	0.38%				
*OTRS-PIMCO BRAVO III	Private Credit	\$216,295	\$15,904,045	1.36%				
*OTRS-PIMCO BRAVO II	Private Credit	\$2,195,657	\$161,445,372	1.36%				
*OTRS-PIMCO BRAVO-SL	Private Credit	\$80,196	\$5,940,439	1.35%				
*OTRS-PIMCO COF II	Private Credit	\$254,280	\$18,697,052	1.36%				
OTRS-ALLIANZ INTL EQ	International Lg Cap	\$2,233,890	\$904,714,802	0.25%				
OTRS-CAUSEWAY CAPITAL	International Lg Cap	\$1,364,292	\$420,528,135	0.32%				
OTRS-WELLINGTON INTLGR EQ	International Lg Cap	\$1,830,484	\$419,438,193	0.44%				
OTRS-ADVISORY RESEARCH INTL	International Sm Cap	\$849,004	\$102,675,692	0.83%				
OTRS-EPOCH INTL	International Sm Cap	\$1,527,034	\$240,062,845	0.64%				
OTRS-SSGA EMSC	International Sm Cap	\$973,769	\$235,879,162	0.41%				
OTRS-WASATCH INTL	International Sm Cap	\$1,830,219	\$248,676,778	0.74%				
OTRS-WELLINGTON INTL	International Sm Cap	\$1,078,826	\$250,275,986	0.43%				
OTRS-ADVISORY RESEARCH	Master Limited Partnerships	\$988,850	\$129,014,895	0.77%				
OTRS-CHICKASAW CAPITAL	Master Limited Partnerships	\$2,464,701	\$344,130,001	0.72%				
OTRS-CUSHING ASSET	Master Limited Partnerships	\$1,683,711	\$394,456,895	0.43%				
*OTRS-LEGACY LP	Private Equity	\$87,358	\$34,943,098	0.25%				
OTRS-FRANKLIN PARK	Private Equity	\$2,154,944	\$861,977,509	0.25%				
*OTRS-AEW CORE PROPERTY TRUST	Core Real Estate	\$3,088,202	\$280,745,669	1.10%				
*OTRS-L&B CORE INCOME-SL	Core Real Estate	\$2,105,238	\$258,938,958	0.81%				
HEITMAN AMERICA REAL ESTATE	Core Real Estate	\$2,051,928	\$289,723,531	0.71%				
*OTRS-AMERICAN STRATEGIC VALUE	Non-Core Real Estate	\$663,060	\$38,079,839	1.74%				
*OTRS-DUNE REAL ESTATE III	Non-Core Real Estate	\$699,477	\$46,631,774	1.50%				
*OTRS-GREENOAK US II	Non-Core Real Estate	\$612,274	\$34,987,071	1.75%				
*OTRS-L&B GOLDEN DRILLER-SL	Non-Core Real Estate	\$160,232	\$64,092,801	0.25%				
*OTRS-LANDMARK REAL ESTATE VII	Non-Core Real Estate	\$198,365	\$19,836,450	1.00%				
*OTRS-STARWOOD OPPORTUNITY X	Non-Core Real Estate	\$339,790	\$33,979,044	1.00%				
OTRS REALTY PARTNERS I	Non-Core Real Estate	\$688,739	\$45,915,954	1.50%				
OTRS-EPOCH INVESTMENTS	All Cap U.S. Equity	\$578,357	\$46,862,480	1.23%				
OTRS - NT RUSSELL 1000	Domestic Large Cap	\$0	\$107,227,147	0.00%				
OTRS - SCIBETA US HFE MBMS 6F	Domestic Large Cap	\$0	\$161,484,618	0.00%				
OTRS-HOTCHKIS & WILEY LG CAP	Domestic Large Cap	\$1,786,174	\$652,608,038	0.27%				
OTRS-NORTHERN TRUST S&P 500	Domestic Large Cap	\$76,411	\$688,495,920	0.01%				
OTRS-SAWGRASS LG CAP	Domestic Large Cap	\$1,938,731	\$605,838,484	0.32%				
OTRS-SSGA S&P EQUAL WEIGHT	Domestic Large Cap	\$52,414	\$185,169,570	0.03%				
OTRS-ARONSON, JOHNSON & ORTIZ	Domestic Mid Cap	\$733,726	\$544,206,345	0.13%				
OTRS-FRONTIER MID CAP	Domestic Mid Cap	\$2,947,893	\$532,337,597	0.55%				
OTRS-HOTCHKIS & WILEY MID CAP	Domestic Mid Cap	\$2,810,395	\$538,378,501	0.52%				
OTRS-WELLINGTON MID CAP	Domestic Mid Cap	\$1,276,586	\$515,330,780	0.25%				
OTRS-COVE STREET	Domestic Small Cap	\$440,978	\$53,037,943	0.83%				
OTRS-FRONTIER CAP SMALL CAP	Domestic Small Cap	\$1,867,596	\$203,741,377	0.92%				
OTRS-GENEVA CAPITAL	Domestic Small Cap	\$1,593,688	\$235,251,331	0.68%				
OTRS-NEUMEIER POMA SMALL CAP	Domestic Small Cap	\$1,042,987	\$170,242,320	0.61%				
OTRS-SHAPIRO CAP SMALL CAP	Domestic Small Cap	\$4,739,391	\$786,900,910	0.60%				
OTRS-WASATCH ADV SMALL CAP	Domestic Small Cap	\$1,868,317	\$219,455,493	0.85%				
Total		\$63,604,505	\$15,483,609,242	0.41%				

Asset Allocation Breakdown		
	2017 % of Total Fund	2016 % of Total Fund
Domestic Equity	39.2%	41.9%
% Active	29.3%	38.3%
% Passive	9.9%	3.6%
Domestic Fixed	21.4%	21.5%
% Active	21.4%	21.5%
% Passive	0.0%	0.0%
International Eq	19.7%	15.4%
% Active	17.9%	15.4%
% Passive	1.8%	0.0%
Private Equity	7.4%	7.0%
Other	12.3%	14.2%
Calendar Year Return	16.2%	11.4%



OK PERS OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
BlackRock Financial Hoisington	Constrained Core Interest Rate Sensitive	\$1,128,598	\$1,404,771,531	0.08%	\$2,204,961	\$83,398	\$272,098	\$38,871
BlackRock TIPS	Interest Rate Sensitive	\$32,562	\$286,410,854	0.01%				
MetWest	Core Plus	\$410,838	\$836,101,311	0.05%				
Mondrian	International Equity Value	\$2,089,258	\$578,507,549	0.36%				
Baillie Gifford	International Equity Growth	\$1,930,714	\$321,334,892	0.60%				
BlackRock ACWI x-US Growth	International Equity Growth	\$162,171	\$317,984,378	0.05%				
BlackRock ACWI x-US	International Equity	\$613,198	\$1,243,814,501	0.05%				
BlackRock R1000 Index	US Equity Large Cap	\$126,747	\$1,675,762,085	0.01%				
BlackRock R1000 Growth Index	US Equity Large Cap	\$381		-				
Mellon	US Equity Large Cap	\$125,000	\$552,584,654	0.02%				
SSgA	US Equity Large Cap	\$166,349	\$555,636,818	0.03%				
AJO	US Equity Large Cap		\$274,498,820	-				
Westfield	US Equity Large Cap	\$1,442,735	\$290,102,110	0.50%				
UBS	US Equity Small Cap	\$313,220	\$211,462,248	0.15%				
Barrow Hanley	US Equity Small Cap	\$1,095,811	\$211,545,483	0.52%				
DRZ	US Equity Small Cap	\$740,964	\$213,771,105	0.35%				
Grand Center/Price Edwards	Property Management	\$28,619	\$12,422,917	0.23%				
Total		\$10,838,251	\$9,287,203,577	0.12%				

Asset Allocation Breakdown		
	2017 % of Total Fund	2016 % of Total Fund
Domestic Equity	41.3%	46.8%
% Active	24.7%	23.2%
% Passive	16.6%	23.6%
Domestic Fixed	30.5%	30.5%
% Active	27.4%	27.7%
% Passive	3.1%	2.8%
Int'l Equity	22.2%	22.2%
% Active	3.5%	9.0%
% Passive	18.7%	13.2%
Other	6.0%	0.5%
Calendar Year Return	17.1%	7.7%

OK FIREFIGHTERS OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
ALLIANZ GLOBAL INVESTORS DMAP	OTHER FIXED INCOME	\$192,177	\$52,973,500	0.36%	\$967,206	\$42,734	\$270,000	\$252,115
ANGELO GORDON NET LEASE REALTY III	REAL ESTATE	\$401,909	\$17,076,789	2.35%				
ARDIAN ESF VI LP	PRIVATE EQUITY SECONDARIES	\$844,400	\$6,495,258	2.62%				
ARDIAN SF VI LP	PRIVATE EQUITY SECONDARIES		\$25,678,669					
ARONSON+ PARTNERS	LARGE CAP VALUE	\$87,252	\$90,084,231	0.10%				
ARTIO GLOBAL MANAGEMENT LLC	REMNANT		\$31,663	0.00%				
AZUL HOLDCO	REMNANT		\$2,824,269	0.00%				
BEUTEL GOODMAN COMPANY	LARGE CAP VALUE	\$427,093	\$94,273,343	0.45%				
BRANDYWINE GLOBAL FIXED	GLOBAL FIXED INCOME	\$906,902	\$153,740,670	0.59%				
CAPITAL DYNAMICS	PRIVATE EQUITY SECONDARIES	\$427,500	\$13,221,424	3.23%				
CHAUTAUQUA INT EQUITY	INTERNATIONAL EQUITY	\$706,411	\$111,106,184	0.64%				
CLARIVEST EM EQUITY	EMERGING MARKETS	\$426,864	\$53,741,145	0.79%				
DUNE REAL ESTATE FUND III	REAL ESTATE	\$373,324	\$21,645,454	1.72%				
EARNEST PARTNERS	SMALL CAP VALUE	\$580,808	\$79,635,175	0.73%				
ENHANCED INVESTMENT TECHNOLOGIES	LARGE CAP CORE	\$232,790	\$169,314,705	0.14%				
FRED ALGER MANAGEMENT, INC.	LARGE CAP GROWTH	\$718,927	\$179,731,872	0.40%				
GARCIA HAMILTON & ASSOCIATES, LP	BONDS	\$108,419	\$55,127,623	0.20%				
GARRISON MIDDLE MKT FUNDING LP	OTHER FIXED INCOME	\$349,222	\$19,577,434	1.78%				
HALL CAPITAL III LP	REAL ESTATE	\$159,809	\$10,131,147	1.58%				
HERNDON CAPITAL (TERMINATED)	REMNANT		\$74,610	0.00%				
INTERNAL CASH ACCOUNT	CASH		\$12,116,499	0.00%				
JACKSON SQUARE PARTNERS	SMALL CAP GROWTH	\$679,254	\$78,800,802	0.86%				
JP MORGAN RE	REAL ESTATE	\$1,296,964	\$145,725,844	0.89%				
JPMCB SPECIAL SITUA PROP FUND	REAL ESTATE	\$938,083	\$58,082,535	1.62%				
LANDMARK RE VII	REAL ESTATE	\$265,031	\$14,587,727	1.82%				
LORD ABBETT	SMALL CAP GROWTH	\$404,216	\$64,166,264	0.63%				
MEDLEY OPPORTUNITY FUND II LP	OTHER FIXED INCOME	\$257,071	\$31,194,653	0.82%				
MESIROW	REAL ESTATE	\$307,020	\$24,611,860	1.25%				
ORLEANS CAPITAL MANAGEMENT	BONDS	\$40,167	\$26,919,093	0.15%				
PERMAL FUND LLC	HEDGE FUND	\$465,817	\$77,160,656	0.60%				
PIMCO BRAVO FUND III, LP	OTHER FIXED INCOME		\$6,429,880	0.00%				
PIMCO CORPORATE OPP FUND II, LP	OTHER FIXED INCOME	\$167,605	\$6,609,238	2.54%				
POMONA CAPITAL FUND VIII	PRIVATE EQUITY SECONDARIES	\$310,464	\$13,414,573	2.31%				
PORTFOLIO ADV REAL ESTATE FD III	REAL ESTATE	\$504,683	\$6,304,604	1.53%				
PORTFOLIO ADV REAL ESTATE FD IV	REAL ESTATE		\$4,698,406					
PORTFOLIO ADV REAL ESTATE FD V	REAL ESTATE		\$15,543,917					
PORTFOLIO ADV REAL ESTATE FD VI	REAL ESTATE		\$6,454,460					
PRIVATE ADVISORS	LOW VOLATILITY HEDGE FUND		\$13,644,824	0.00%				
RIVER ROAD ASSET MGMT	SMALL CAP VALUE	\$656,447	\$75,344,469	0.87%				
SSGA EQUITY S&P FLAGSHIP	INDEXES	\$160,340	\$173,013,660	0.03%				
SSGA LEHMAN IM	INDEXES		\$43,971,208					
SSGA NL FIXED INCOME FUND	INDEXES		\$44,549,977					
SSGA RUSSELL SMCAP COMPLETE NL	INDEXES		\$70,835,038					
SSGA S&P 500 EQUAL WEIGHT CTF	INDEXES		\$171,468,728					
TA ASSOCIATES REALTY FUND VII	REAL ESTATE	\$50,000	\$40,351	1.65%				
TA REALTY ASSOCIATES IX CORP	REAL ESTATE		\$2,986,499					
THORNBURG INVESTMENT MGMT	REMNANT		\$62,731	0.00%				
TORTOISE DIRECT OPPORTUNITIES FUND	OTHER EQUITY	\$416,931	\$37,421,199	1.11%				
WASATCH EM EQUITY	EMERGING MARKETS	\$216,666	\$21,945,717	0.99%				
WCM INT EQTY	INTERNATIONAL EQUITY	\$1,451,775	\$117,208,036	1.24%				
Total		\$15,532,341	\$2,521,798,612	0.62%				

Asset Allocation Breakdown		
	2017 % of Total Fund	2016 % of Total Fund
Domestic Equity	51.2%	50.0%
% Active	34.4%	33.6%
% Passive	16.8%	16.4%
Domestic Fixed	4.8%	5.4%
% Active	3.1%	3.5%
% Passive	1.7%	1.9%
International Equity	16.0%	10.9%
% Active	16.0%	10.9%
% Passive	0.0%	0.0%
Global Fixed	6.0%	8.0%
% Active	6.0%	6.1%
% Passive	0.0%	1.9%
Other*	22.0%	25.7%
Calendar Year Return	18.7%	7.3%

*Includes L/S Equity



OK POLICE OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)
ACCEL	Private Equity - Venture Capital	\$0	\$3,089,431		FIRSTMARK II (FIRSTMARK V)	Private Equity - Venture Capital	\$90,000	\$6,742,469	1.33%
ACITS GLOBAL 4	Private Equity - EM	\$135,000	\$5,176,420	2.61%	FIRSTMARK CAP IV	Private Equity - Venture Capital	\$106,250	\$299,259	35.50%
AGINCOURT	Global Fixed Income - Core	\$307,666	\$170,087,060	0.18%	FRANCISCO PARTNERS IV	Private Equity - Venture Capital	\$63,842	\$5,698,802	1.12%
ALLIANCE BERNSTEIN EMERGING MKT	International Equity - EM	\$446,263	\$79,918,309	0.56%	FRANCISCO PARTNERS V	Private Equity - Venture Capital	\$0	\$0	-
APOLLO FUND VIII	Private Equity - Buyout	\$50,279	\$5,309,917	0.95%	GREEN EQUITY	Private Equity - Venture Capital	\$14,498	\$811,226	1.79%
APOLLO EUROPEAN PFF III	Private Equity - Buyout	\$148,793	\$0	-	GRESHAM INV	Real Assets - Commodities	\$370,290	\$49,345,263	0.75%
APOLLO FUND X	Private Equity - Buyout	\$0	\$0	-	GROSVENOR "A" CLASS A	Long/Short Equity	\$1,525,205	\$191,067,615	0.80%
ARCLIGHT ENERGY	Other	\$111,218	\$4,518,127	2.46%	GROSVENOR "B" CLASS B	Long/Short Equity	\$0	\$147,534,182	0.00%
ARSENAL I - CLOSED	Private Equity - Buyout	\$0	\$0	-	HALL CAPITAL III	Real Estate	\$79,905	\$5,363,887	1.49%
ARSENAL II	Private Equity - Buyout	\$0	\$6,253,152	0.00%	J.P. MORGAN	Real Assets - Core	\$1,053,733	\$116,000,358	0.91%
ARSENAL III	Private Equity - Buyout	\$113,579	\$7,933,698	1.43%	KNIGHTSBRIDGE	Private Equity - Distressed	\$58,063	\$7,764,963	0.75%
BARING FOCUSED INTERNATIONAL EQ	International Equity	\$450,073	\$112,453,090	0.40%	LBC CREDIT PARTNERS IV	Private Equity - Credit	\$197,066	\$9,489,498	2.08%
BLACKSTONE PROPERTY	Core Real Estate	\$385,945	\$37,205,786	1.04%	LEVINE LEICHTMAN III	Private Equity - Buyout	\$0	\$958,747	0.00%
BOSTON PARTNERS	US Equity/SMid Cap Value	\$625,747	\$102,657,756	0.61%	LEVINE LEICHTMAN IV	Private Equity - Buyout	\$27,949	\$2,945,623	0.95%
CALERA III (SEMI ANNUAL) - CLOSED	Private Equity - Buyout	\$0	\$72,281	0.00%	LExINGTON CAPITAL PARTNES VI-B	Private Equity - Fund Of Funds	\$33,497	\$4,116,563	0.81%
CALERA IV (SEMI ANNUAL)	Private Equity - Buyout	\$10,141	\$1,283,795	0.79%	LIGHTSPEED VENTURE PARTNERS VI	Private Equity - Venture Capital	\$0	\$370,324	0.00%
CENTEROAK EQUITY I	Private Equity - Buyout	\$74,518	\$1,780,407	4.19%	LOOMIS SAYLES	Global Fixed Income	\$311,751	\$95,188,430	0.33%
CERBERUS FUND III	Real Assets - Opportunistic	\$136,127	\$16,869,122	0.81%	MARATHON V - CLOSED	Private Equity - Distressed	\$79,997	\$5,235	1528.14%
CERBERUS FUND IV	Real Assets - Opportunistic	\$225,000	\$1,560,553	14.42%	MIDTOWN FUND III - CLOSED	Private Equity - Venture Capital	\$0	\$2,170	0.00%
COLUMBUS SQUARE	Real Assets - Core	\$0	\$4,602,368	0.00%	MONDRIAN INVESTMENTS	Internal Equity	\$594,160	\$133,042,977	0.45%
CONTROL ACCOUNT	Cash & Cash Equivalent	\$0	\$15,534,535	0.00%	NEWTONE CAPITAL	Private Equity - Mezzanine	\$3,377	\$399,574	0.85%
CORTINA CAPITAL	Small/Mid Cap Growth	\$734,691	\$83,930,685	0.88%	NEWTONE CAPITAL II	Private Equity - Mezzanine	\$26,344	\$2,602,898	1.01%
ENCAP ENERGY CAPITAL FUND IX	Other	\$72,829	\$4,902,138	1.49%	NEWTONE CAPITAL III	Private Equity - Mezzanine	\$0	\$8,903,383	0.00%
ENCAP ENERGY CAPITAL FUND X	Other	\$77,241	\$3,245,570	2.38%	NT-EMERGING MKTS INDEX	International Equit - EM	\$0	\$8	0.00%
ENCAP ENERGY CAPITAL FUND XI	Other	\$161,538	\$95,274	169.55%	NT-RUSSELL 1000 INDEX	Domestic Equity/Large Cap	\$40,104	\$414,255,500	0.01%
FIRSTMARK CAP II	Private Equity - Venture Capital	\$0	\$59	0.00%	OAKTREE CAPITAL TRUST	Global Fixed Income	\$604,325	\$120,808,986	0.50%
FIRSTMARK CAP III	Private Equity - Venture Capital	\$85,589	\$4,139,206	2.07%	OAKTREE EURPOEAN DISLOCATION	Private Equity - Distressed	\$22,519	\$1,150,221	1.96%
FIRSTMARK CAP OPP I	Private Equity - Venture Capital	\$23,744	\$3,640,809	0.65%	OAKTREE OPPORTUNITIES FUND IV	Private Equity - Distressed	\$0	\$11,923	0.00%
FIRSTMARK CAP OPP II	Private Equity - Venture Capital	\$0	\$0	-	OAKTREE FUND III - CLOSED	Private Equity - Distressed	\$0	\$24,761	0.00%
FIRSTMARK I (FIRSTMARK IV)	Private Equity - Venture Capital	\$38,886	\$20,291,332	0.19%	OAKTREE FUND V	Private Equity - Distressed	\$0	\$88,915	0.00%
					OAKTREE FUND VI	Private Equity - Distressed	\$0	\$7,396	0.00%
					OAKTREE FUND VII	Private Equity - Distressed	\$20,963	\$727,272	2.88%
					OAKTREE FUND VIII	Private Equity - Distressed	\$10,069	\$580,020	1.74%
					OAKTREE FUND VIII	Private Equity - Distressed	\$30,801	\$1,889,878	1.63%
					OAKTREE FUND IX	Private Equity - Distressed	\$113,104	\$6,715,512	1.68%
					OAKTREE FUND X	Private Equity - Distressed	\$119,897	\$3,288,367	3.65%
					OVERSEAS CAP PARTNERS	Private Equity - Distressed	\$0	\$0	-
					PAAMCO/NEW PORT MESA	Low Volatility	\$1,140,275	\$126,697,192	0.90%
					PEAK PARTNERS	Real Assets - Commodities	\$296,642	\$29,701,321	1.00%
					SIGULER GUFF I - CLOSED	Private Equity - Distressed	\$0	\$30,532	0.00%
					SIGULER GUFF II (E)	Private Equity - Distressed	\$24,696	\$832,386	2.97%
					SIGULER GUFF III	Real Assets - Opportunistic	\$57,351	\$3,804,420	1.51%
					SIGULER GUFF DREOF I	Private Equity - Distressed	\$73,261	\$7,272,803	1.01%
					SIGULER GUFF DREOF II	Real Assets - Opportunistic	\$100,000	\$7,758,374	1.29%
					SIGULER GUFF DREOF IIB	Private Equity - Distressed	\$322	\$233,885	0.14%
					SUN CAPITAL V	Private Equity - Buyout	\$0	\$6,651,456	0.00%
					TA ASSOC REALTY FUND X	Real Assets - Opportunistic	\$360,371	\$15,860,125	2.27%
					TCW/CRESCENT MEZZ LP. III	Private Equity - Mezzanine	\$0	\$321,525	0.00%
					TCW/CRESCENT MEZZ LP. IV	Private Equity - Mezzanine	\$3,816	\$192,942	1.98%
					TCW/CRESCENT MEZZ LP. V	Private Equity - Mezzanine	\$18,130	\$1,262,293	1.44%
					THOMPSON STREET II	Private Equity - Buyout	\$37,007	\$2,350,529	1.57%
					THOMPSON STREET III	Private Equity - Buyout	\$62,360	\$4,123,774	1.51%
					THOMPSON STREET IV	Private Equity - Buyout	\$146,713	\$3,566,139	4.11%
					VENTURE LENDING & LEASING - CLOSED	Private Equity - Venture Capital	\$0	\$81,743	0.00%
					WARBURG PINCUS X	Private Equity - Venture Capital	\$33,587	\$7,287,926	0.46%
					WARBURG PINCUS XI	Private Equity - Venture Capital	\$49,382	\$7,235,746	0.68%
					WARBURG PINCUS XII	Private Equity - Venture Capital	\$81,622	\$3,292,415	2.48%
					WASATCH ADVISOR/COMERICA	International EM	\$507,779	\$34,287,143	1.48%
					WEATHERGAGE VENTURE CAPITAL FUND I	Private Equity - Venture Capital	\$57,713	\$6,668,405	0.87%
					WEATHERGAGE VENTURE CAPITAL FUND II	Private Equity - Venture Capital	\$71,250	\$9,779,707	0.73%
					WEATHERGAGE VENTURE CAPITAL FUND IV	Private Equity - Venture Capital	\$100,000	\$989,472	10.11%
					WEISS, PECK & GREER V	Private Equity - Venture Capital	\$0	\$94	0.00%
					WELLINGTON GLOBAL TOTAL RETURN FUND	Private Equity - Venture Capital	\$150,057	\$60,022,899	0.25%
					WILLIAM BLAIR		\$0	\$1	0.00%
					Total		\$13,384,910	\$2,377,058,326	0.56%

2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
\$0	\$0	\$650,000	\$215,243

Asset Allocation Breakdown		
	2017 % of Total Fund	2016 % of Total Fund
Domestic Equity	24.8%	24.7%
% Active	7.2%	8.0%
% Passive	17.6%	16.7%
Domestic Fixed	15.7%	12.4%
% Active	15.7%	12.4%
% Passive	0.0%	0.0%
International Eq	15.7%	13.6%
% Active	15.7%	13.6%
% Passive	0.0%	0.0%
Global Fixed	3.9%	4.0%
% Active	3.9%	4.0%
% Passive	0.0%	0.0%
Other*	39.9%	45.3%
Calendar Year Return	13.2%	7.5%

*Includes L/S Equity



OK LAW OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
Hotchkis and Wiley Capital	Large Cap Value Equities	\$376,578	\$71,573,000	0.53%	\$279,019	\$122,084	\$150,000	\$104,000
Waddell and Reed	Large Cap Growth Equities	\$349,003	\$73,086,500	0.48%				
Kennedy Capital Management	Small Cap Value Equities	\$544,679	\$58,085,000	0.94%				
Wellington Management	Small Cap Growth Equities	\$487,554	\$58,936,000	0.83%				
Northern Trust S & P 500 Index	Passive Equities	\$26,000	\$71,319,000	0.04%				
Northern Trust Bond Index	Passive Fixed Income		\$76,775,000	0.00%				
TCW/Met West Investment Advisors	Opportunistic Fixed Income	\$332,710	\$102,654,000	0.32%				
Franklin Templeton Institutional	International Bonds	\$341,656	\$79,426,000	0.43%				
JP Morgan	Real Estate	\$598,752	\$60,032,000	1.00%				
UBS Trumbull	Real Estate	\$189,421	\$14,556,000	1.30%				
William Blair	Emerging Markets	\$282,366	\$31,788,000	0.89%				
Wasatch Advisors	Small Cap Emerging Markets	\$105,448	\$11,757,000	0.90%				
Mondrian Investments	International Equity	\$271,037	\$47,701,000	0.57%				
Baring International	International Equity	\$179,526	\$39,087,000	0.46%				
Gresham Tap Fund	Commodities		\$17,680,000	0.00%				
Grosvenor Investments	Long/Short Equity	\$654,461	\$97,031,000	0.67%				
	Total	4,084,730.00	\$911,486,500	0.45%				

Asset Allocation Breakdown		
	<u>2017 % of Total Fund</u>	<u>2016 % of Total Fund</u>
Domestic Equity	36.5%	35.3%
% Active	28.7%	28.0%
% Passive	7.8%	7.3%
Fixed Income	28.4%	28.4%
% Active	20.0%	19.9%
% Passive	8.4%	8.5%
Int'l Equity	10.8%	17.6%
% Active	10.8%	17.6%
% Passive	0.0%	0.0%
Other	24.3%	18.7%
Calendar Year Return	14.7%	7.2%

OK JUDGES & JUSTICES OVERVIEW

Manager	Asset Class/Style	2017 Total Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
BlackRock Financial	Constrained Core	39,149	48,727,141	0.08%	\$0	\$0	\$7,903	\$1,129
Hoisington	Interest Rate Sensitive	15,466	10,770,197	0.14%				
BlackRock TIPS	Interest Rate Sensitive	1,122	9,859,201	0.01%				
MetWest	Core Plus	14,215	28,839,422	0.05%				
BlackRock R1000 Index	US Equity Large Cap	8,908	117,758,580	0.01%				
BlackRock R2000 Index	US Equity Small Cap	7,145	21,013,841	0.03%				
BlackRock ACWI x-US	International Equity	42,409	86,022,162	0.05%				
Total		\$128,413	\$322,990,545	0.04%				

Asset Allocation Breakdown		
	<u>2017 % of Total Fund</u>	<u>2016 % of Total Fund</u>
Domestic Equity	41.4%	46.4%
% Active	0.0%	0.0%
% Passive	41.4%	46.4%
Domestic Fixed	29.5%	31.0%
% Active	14.4%	12.3%
% Passive	15.1%	18.7%
Int'l Equity	26.6%	22.2%
% Active	0.0%	0.0%
% Passive	26.6%	22.2%
Other	2.5%	0.4%
Calendar Year Return	16.9%	8.1%

OK WILDLIFE OVERVIEW

Manager	Asset Class/Style	2017 Total Annual Fees Paid	Avg. Market Value	Fees (%)	2017 Securities Lending Income	2017 Commission Recapture	2017 Investment Consultant Fee	2017 Custody Fee
Bank of Oklahoma	Cash/CashEquivalents	6,049	\$3,412,613	0.18%	\$ -	\$ -	\$ -	\$10,993
Bank of Oklahoma	Individual Equity	54,940	\$30,993,954	0.18%				
Bank of Oklahoma	Growth Equity	12,527	\$7,066,793	0.18%				
Bank of Oklahoma	Core Equity	5,162	\$2,912,166	0.18%				
Bank of Oklahoma	Value Equity	6,556	\$3,698,509	0.18%				
Bank of Oklahoma	Small Cap	4,759	\$2,684,671	0.18%				
Bank of Oklahoma	Core Fixed	73,136	\$41,259,177	0.18%				
Bank of Oklahoma	Multi Cap	13,409	\$7,564,624	0.18%				
Bank of Oklahoma	International Equity	12,682	\$7,154,573	0.18%				
Bank of Oklahoma	Alternatives	6,090	\$3,435,803	0.18%				
Total		\$195,310	\$110,182,881	0.18%				

Asset Allocation Breakdown		
	2017 % of Total Fund	2016 % of Total Fund
Domestic Equity	46.0%	52.9%
% Active	46.0%	9.9%
% Passive	0.0%	43.0%
Domestic Fixed	41.8%	35.6%
% Active	41.8%	35.6%
% Passive	0.0%	0.0%
Int'l Equity	6.3%	9.7%
% Active	6.3%	9.7%
% Passive	0.0%	0.0%
Other	5.9%	1.8%
Calendar Year Return	14.3%	6.6%

APPENDIX

NEPC, LLC



NEPC, LLC

PERFORMANCE FEE FORMULA

Where:

- **BF** = **Base Fee, a substantial discount from the normal fee**
- **PF** = **Performance Fee**
- **NF** = **Normal Fee, manager's standard fee schedule for public fund**
- **RER** = **Required Excess Return, the premium to be earned above the benchmark or market rate of return to earn the normal fee**
- **PR** = **Portfolio Return**
- **MR** = **Benchmark, the market or other index return which represents the minimum performance standard**

$$(NF - BF) / (RER) \times (PR - MR - BF)$$

- (The Maximum Fee should be symmetrically balanced, i.e., the sum of the BF and the PF should equal the BF plus two times the sum of the NF minus the BF. In no event can the MF (PF plus the BF) exceed the BF plus two times the sum of the NF minus the BF)
- For the initial three quarters, the manager will receive a fee equal to the Base Fee. After the end of the fourth quarter under management an annualized fee calculation will be computed to award a performance fee due to the initial twelve-month period. If the Agreement is extended for the fifth through twelfth quarters, the annualized performance fee calculation will be made each quarter on a cumulative, annualized, basis. Thereafter, the performance fee calculation will be based on the cumulative, annualized returns for the immediately preceding twelve quarters.