



Pittsburgh Comprehensive Municipal Pension

Pittsburgh Comprehensive Municipal

Executive Summary

June 30, 2018

Manager Status

Market Value: \$747.6 Million and 100.0% of Fund

Investment Manager	Asset Class	Status	Reason
Federated Investors	Core Fixed Income	In Compliance	
BlackRock Total Return Fund	Core Fixed Income	In Compliance	
SSgA S&P 500 Index Fund	Large-Cap Core	In Compliance	
Twin Capital	Large-Cap Core	In Compliance	
Frontier Capital Management	Smid-Cap Core	In Compliance	
Guyasuta Investment Advisors	Small-Cap Core	In Compliance	
CIM Investment Management	Small-Cap Core	In Compliance	
MFS International Equity Fund	Non-U.S. Large-Cap Core	In Compliance	
Fusion Investment Group	Global Core Equity	In Compliance	
SSgA Active Emerging Markets Fund	Emerging Markets	In Compliance	
ABS Emerging Markets	Emerging Markets	In Compliance	
ABS Offshore SPC Global	Hedged Equity Hedge FoF	In Compliance	
Entrust Diversified Select Equity Fund	Hedged Equity Hedge FoF	Fund Closure	Liquidation will fund new EnTrust investment
Entrust Special Opportunities Fund III	Multi-Strat. Hedge Fund	In Compliance	
Parametric Defensive Equity	Defensive Equity	In Compliance	
Rreef America II	Core Real Estate	In Compliance	
Barings Core Property Fund	Core Real Estate	In Compliance	
Birchmere Ventures III, LP	Venture Private Equity	In Compliance	
Draper Triangle Ventures II, LP	Venture Private Equity	In Compliance	
Draper Triangle Ventures III, LP	Venture Private Equity	In Compliance	
Novitas Capital Partners III, LP	Venture Private Equity	In Compliance	
Hirtle Callaghan Private Equity Fund V, LP	Global Divers. Private Equity FoF	In Compliance	
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	In Compliance	
Crescent Mezzanine Partners VIIB, L.P.	Mezzanine Debt	In Compliance	
Dedicated Funding for CMPTF	Fixed Income Annuity	In Compliance	

Investment Manager Evaluation Terminology

The following terminology has been developed by Marquette Associates to facilitate efficient communication among the Investment Manager, Investment Consultant, and the Plan Sponsor. Each term signifies a particular status with the Fund and any conditions that may require improvement. In each case, communication is made only after consultation with the Trustees and/or the Investment Committee of the Plan.

In Compliance – The investment manager states it is acting in accordance with the Investment Policy Guidelines.

Market Value: \$747.6 Million and 100.0% of Fund

Ending June 30, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$747,636,718	-\$9,608,021	100.0%	100.0%	\$0
Dedicated Funding for CMPTF	Fixed Income Annuity	\$299,404,244	-\$6,688,000	40.0%	40.0%	\$349,556
Total Invested Portfolio		\$448,232,474	-\$2,920,021	60.0%	60.0%	-\$349,556
Fixed Income Composite		\$73,630,378	-\$33,692	9.8%	13.0%	-\$23,562,396
Federated Investors	Core Fixed Income	\$53,931,023	-\$33,692	7.2%		
BlackRock Total Return Fund	Core Fixed Income	\$19,699,355	\$0	2.6%		
U.S. Equity Composite		\$170,711,844	-\$91,592	22.8%	22.0%	\$6,231,766
SSgA S&P 500 Index Fund	Large-Cap Core	\$108,986,760	\$0	14.6%		
Frontier Capital Management	Smid-Cap Core	\$32,317,223	-\$59,452	4.3%		
Guyasuta Investment Advisors	Small-Cap Core	\$29,407,861	-\$32,140	3.9%		
Non-U.S. Equity Composite		\$84,757,707	\$0	11.3%	12.0%	-\$4,958,699
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$66,034,621	\$0	8.8%		
SSgA Active Emerging Markets Fund	Emerging Markets	\$8,901,615	\$0	1.2%		
ABS Emerging Markets	Emerging Markets	\$9,821,471	\$0	1.3%		
Emerging Manager Composite		\$7,584,722	-\$9,901	1.0%	-	\$7,584,722
Twin Capital	Large-Cap Core	\$2,593,026	-\$1,300	0.3%		
CIM Investment Management	Small-Cap Core	\$2,699,519	-\$4,534	0.4%		
Fusion Investment Group	Global Core Equity	\$2,292,177	-\$4,067	0.3%		
Hedge Fund Composite		\$40,466,889	-\$8,447,920	5.4%	5.0%	\$3,085,053
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$14,036,446	\$0	1.9%		
Entrust Diversified Select Equity Fund	Hedged Equity Hedge FoF	\$4,872,463	-\$7,556,861	0.7%		
Entrust Special Opportunities Fund III	Multi-Strat. Hedge Fund	\$10,409,014	-\$891,059	1.4%		
Parametric Defensive Equity	Defensive Equity	\$11,148,966	\$0	1.5%		
Real Estate Composite		\$43,625,321	-\$283,705	5.8%	5.0%	\$6,243,485
Rreef America II	Core Real Estate	\$22,370,776	-\$227,810	3.0%	2.5%	\$3,679,858
Barings Core Property Fund	Core Real Estate	\$21,254,545	-\$55,895	2.8%	2.5%	\$2,563,627
Private Equity Composite		\$10,511,373	-\$313,079	1.4%	3.0%	-\$11,917,728
Cash Composite		\$16,944,240	\$6,259,868	2.3%	0.0%	\$16,944,240

- Private Equity Composite may not include current performance, due to reporting cycle limitations.



Total Invested Portfolio

Market Value: \$448.2 Million and 60.0% of Fund

Ending June 30, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio
Total Invested Portfolio		\$448,232,474	-\$2,920,021	100.0%
Fixed Income Composite		\$73,630,378	-\$33,692	16.4%
Federated Investors	Core Fixed Income	\$53,931,023	-\$33,692	12.0%
BlackRock Total Return Fund	Core Fixed Income	\$19,699,355	\$0	4.4%
U.S. Equity Composite		\$170,711,844	-\$91,592	38.1%
SSgA S&P 500 Index Fund	Large-Cap Core	\$108,986,760	\$0	24.3%
Frontier Capital Management	Smid-Cap Core	\$32,317,223	-\$59,452	7.2%
Guyasuta Investment Advisors	Small-Cap Core	\$29,407,861	-\$32,140	6.6%
Non-U.S. Equity Composite		\$84,757,707	\$0	18.9%
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$66,034,621	\$0	14.7%
SSgA Active Emerging Markets Fund	Emerging Markets	\$8,901,615	\$0	2.0%
ABS Emerging Markets	Emerging Markets	\$9,821,471	\$0	2.2%
Emerging Manager Composite		\$7,584,722	-\$9,901	1.7%
Twin Capital	Large-Cap Core	\$2,593,026	-\$1,300	0.6%
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Fusion Investment Group	Global Core Equity	\$2,292,177	-\$4,067	0.5%
Hedge Fund Composite		\$40,466,889	-\$8,447,920	9.0%
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Cash Composite		\$16,944,240	\$6,259,868	3.8%

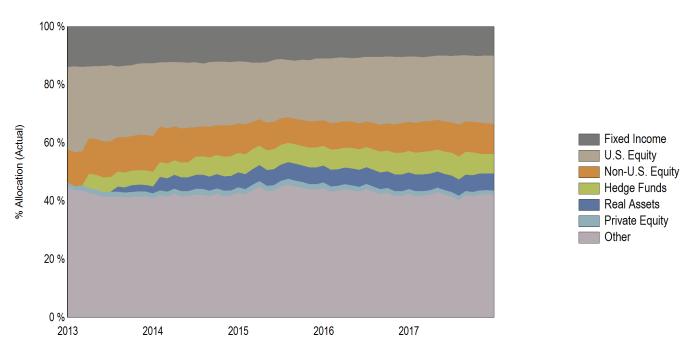
- Private Equity Composite may not include current performance, due to reporting cycle limitations.



Asset Allocation

Market Value: \$747.6 Million and 100.0% of Fund

Historic Asset Allocation

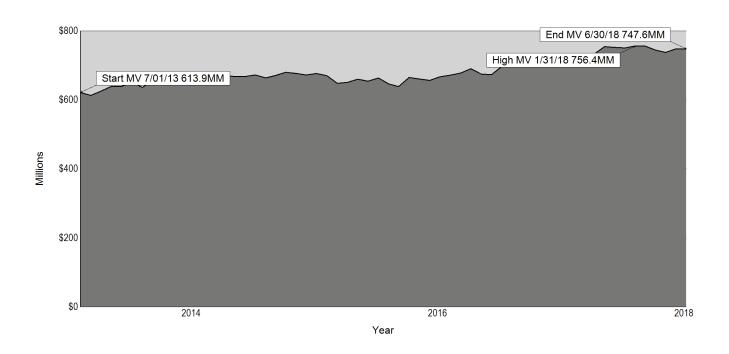


Asset Allocation vs. Target As Of June 30, 2018

	Current	Policy	Difference	%
U.S. Equity	\$176,004,389	\$164,480,078	\$11,524,311	1.5%
Non-U.S. Equity	\$77,228,413	\$89,716,406	-\$12,487,993	-1.7%
Hedge Funds	\$50,288,360	\$37,381,836	\$12,906,524	1.7%
Real Assets	\$43,625,321	\$37,381,836	\$6,243,485	0.8%
Private Equity	\$10,511,373	\$22,429,102	-\$11,917,728	-1.6%
Other	\$316,348,484	\$299,054,687	\$17,293,797	2.3%
Total	\$747,636,718	\$747,636,718		

Market Value History

Market Value: \$747.6 Million and 100.0% of Fund



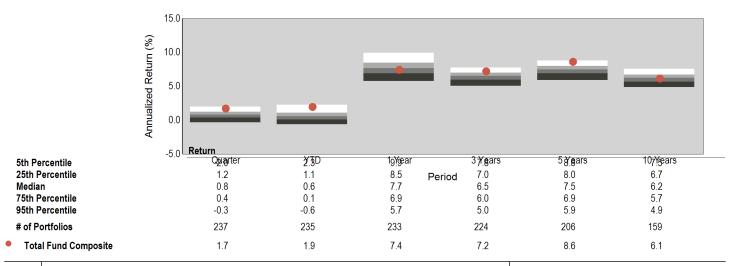
Summary of Cash Flows

	Second Quarter	Year-To-Date	One Year	Three Years
Beginning Market Value	\$443,614,467.93	\$448,620,579.80	\$424,290,747.14	\$394,283,974.71
Net Cash Flow	-\$2,676,436.22	-\$4,193,993.78	-\$7,608,175.73	-\$30,120,007.38
Net Investment Change	\$7,294,442.75	\$3,805,888.44	\$31,549,903.05	\$84,068,507.13
Ending Market Value	\$448,232,474.46	\$448,232,474.46	\$448,232,474.46	\$448,232,474.46

Annualized Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.9%	1.7%	1.9%	7.4%	9.4%	7.2%	6.8%	8.6%	8.5%	6.1%
Total Fund Composite Benchmark	0.2%	1.4%	1.9%	8.1%	9.3%	7.4%	6.9%	8.2%	7.9%	6.7%
InvestorForce Public DB Net Rank	1	9	9	57	67	18	6	10	6	55
Total Invested Portfolio	0.3%	1.6%	0.8%	7.4%	10.7%	6.9%	6.2%	8.3%	7.9%	5.8%
Total Invested Portfolio Benchmark	-0.1%	1.2%	0.7%	8.7%	10.8%	7.3%	6.4%	8.6%	8.0%	6.9%
InvestorForce Public DB Net Rank	5	10	37	59	21	29	20	14	15	70
Fixed Income Composite	-0.2%	-0.2%	-1.6%	0.0%	0.9%	2.3%	2.1%	3.0%	3.4%	3.7%
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%
InvestorForce Public DB US Fix Inc Net Rank	94	76	92	48	40	32	36	26	25	56
U.S. Equity Composite	0.9%	4.0%	2.4%	12.8%	16.8%	11.2%	10.0%	13.0%	12.9%	9.3%
Dow Jones U.S. Total Stock Market	0.7%	3.9%	3.2%	14.8%	16.6%	11.6%	10.4%	13.2%	13.0%	10.3%
InvestorForce Public DB US Eq Net Rank	8	29	79	89	36	48	57	40	19	83
Non-U.S. Equity Composite	-1.6%	-1.5%	-2.0%	7.1%	14.5%	5.8%	4.0%	6.8%	4.8%	
MSCI ACWI ex USA	-1.9%	-2.6%	-3.8%	7.3%	13.7%	5.1%	2.4%	6.0%	3.8%	2.5%
InvestorForce Public DB ex-US Eq Net Rank	16	12	17	54	39	43	25	37	44	
Emerging Manager Composite	-0.1%	3.1%	3.4%	12.9%						
Emerging Manager Benchmark	0.3%	4.0%	3.5%	14.4%						
Hedge Fund Composite	0.5%	1.8%	0.7%	4.3%	8.2%	2.2%	2.9%			
HFRI Fund of Funds Composite Index	-0.5%	0.4%	0.7%	5.1%	5.8%	1.9%	2.4%	3.5%	2.8%	1.4%
HFRX Equity Hedge Index	-0.7%	-0.9%	0.2%	6.3%	7.2%	1.7%	1.9%	3.0%	1.7%	-0.4%
InvestorForce Public DB Hedge Funds Net Rank	17	39	78	68	19	58	37	-		
Real Estate Composite	1.9%	1.9%	3.8%	7.6%	7.4%	8.7%	9.7%	-	-	-
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%



Calendar Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

Calendar Year

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total Fund Composite	11.7%	8.1%	3.2%	9.2%	13.6%	12.3%	1.8%	5.6%	23.4%	-27.0%	11.6%
Total Fund Composite Benchmark	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%	-26.1%	8.5%
InvestorForce Public DB Net Rank	95	26	1	1	66	41	22	98	19	70	2
Total Invested Portfolio	14.8%	8.5%	0.0%	6.6%	17.6%	14.1%	-2.5%	5.6%	23.3%	-27.0%	11.6%
Total Invested Portfolio Benchmark	16.3%	7.7%	0.3%	6.9%	17.6%	12.2%	0.3%	12.4%	22.9%	-26.2%	8.2%
InvestorForce Public DB Net Rank	49	15	33	22	22	7	92	98	20	70	2
Fixed Income Composite	4.3%	4.5%	0.0%	6.1%	-0.4%	8.4%	5.4%	7.8%	13.8%	-9.3%	
BBgBarc US Aggregate TR	3.5%	2.6%	0.6%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
InvestorForce Public DB US Fix Inc Net Rank	39	47	56	15	32	35	87	41	42	91	
U.S. Equity Composite	19.5%	16.6%	-2.3%	12.5%	34.2%	17.8%	0.6%	8.6%	25.8%	-36.1%	
Dow Jones U.S. Total Stock Market	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%	-37.2%	5.6%
InvestorForce Public DB US Eq Net Rank	70	2	84	14	50	4	48	99	86	29	
Non-U.S. Equity Composite	28.6%	1.9%	-1.7%	-4.1%	13.1%	21.5%					
MSCI ACWI ex USA	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%	-45.5%	16.7%
InvestorForce Public DB ex-US Eq Net Rank	47	83	21	59	82	7	-	-			-
Emerging Manager Composite	16.9%										
Emerging Manager Benchmark	18.9%										
Hedge Fund Composite	9.0%	0.7%	0.0%	4.9%	-	-				-	
HFRI Fund of Funds Composite Index	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%	-21.4%	10.3%
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
InvestorForce Public DB Hedge Funds Net Rank	23	74	45	35							
Real Estate Composite	6.5%	8.4%	14.4%	11.0%							-
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%	14.8%

Annualized Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.9%	1.7%	1.9%	7.4%	9.4%	7.2%	6.8%	8.6%	8.5%	6.1%
Total Fund Composite Benchmark	0.2%	1.4%	1.9%	8.1%	9.3%	7.4%	6.9%	8.2%	7.9%	6.7%
InvestorForce Public DB Net Rank	1	9	9	57	67	18	6	10	6	55
Dedicated Funding for CMPTF	1.9%	1.9%	3.7%	7.6%	7.6%	7.6%	7.5%	9.0%	9.2%	
Annual Return	0.6%	1.8%	3.7%	7.5%	7.5%	7.5%	7.5%	7.5%	7.7%	
Total Invested Portfolio	0.3%	1.6%	0.8%	7.4%	10.7%	6.9%	6.2%	8.3%	7.9%	5.8%
Total Invested Portfolio Benchmark	-0.1%	1.2%	0.7%	8.7%	10.8%	7.3%	6.4%	8.6%	8.0%	6.9%
InvestorForce Public DB Net Rank	5	10	37	59	21	29	20	14	15	70
Fixed Income Composite	-0.2%	-0.2%	-1.6%	0.0%	0.9%	2.3%	2.1%	3.0%	3.4%	3.7%
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%
InvestorForce Public DB US Fix Inc Net Rank	94	76	92	48	40	32	36	26	25	56
Federated Investors	-0.2%	-0.2%	-1.6%	0.1%	1.0%	2.4%	2.0%	2.8%	3.2%	4.0%
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%
eV US Core Fixed Inc Net Rank	79	62	51	22	10	17	32	23	29	58
BlackRock Total Return Fund	-0.3%	-0.2%	-1.6%	-0.2%	0.5%	2.1%	2.2%	3.2%	3.9%	4.4%
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%
eV US Core Fixed Inc Net Rank	93	62	51	42	20	34	21	11	8	34
U.S. Equity Composite	0.9%	4.0%	2.4%	12.8%	16.8%	11.2%	10.0%	13.0%	12.9%	9.3%
Dow Jones U.S. Total Stock Market	0.7%	3.9%	3.2%	14.8%	16.6%	11.6%	10.4%	13.2%	13.0%	10.3%
InvestorForce Public DB US Eq Net Rank	8	29	79	89	36	48	57	40	19	83
SSgA S&P 500 Index Fund	0.6%	3.4%	2.6%	14.4%	16.2%	12.0%	10.9%	13.5%		
S&P 500	0.6%	3.4%	2.6%	14.4%	16.1%	11.9%	10.8%	13.4%	13.2%	10.2%
eV US Large Cap Core Equity Net Rank	27	23	29	33	35	14	19	22		-
Frontier Capital Management	-0.1%	4.4%	1.7%	10.9%	19.1%	8.7%	8.6%	12.5%	11.8%	11.0%
Russell 2500	0.7%	5.7%	5.5%	16.2%	18.0%	10.3%	9.2%	12.3%	11.9%	10.7%
eV US Small-Mid Cap Core Equity Net Rank	83	41	86	88	19	71	63	45	45	52
Guyasuta Investment Advisors	3.2%	6.0%	2.5%	9.1%	16.3%	11.1%	8.3%	12.2%	13.2%	12.8%
Russell 2000	0.7%	7.8%	7.7%	17.6%	21.0%	11.0%	9.8%	12.5%	11.8%	10.6%
eV US Small Cap Core Equity Net Rank	1	58	84	91	81	45	78	60	29	16



Annualized Performance (Net of Fees)

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	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Non-U.S. Equity Composite	-1.6%	-1.5%	-2.0%	7.1%	14.5%	5.8%	4.0%	6.8%	4.8%	
MSCI ACWI ex USA	-1.9%	-2.6%	-3.8%	7.3%	13.7%	5.1%	2.4%	6.0%	3.8%	2.5%
InvestorForce Public DB ex-US Eq Net Rank	16	12	17	54	39	43	25	37	44	
MFS International Equity Fund	-0.9%	0.2%	-1.2%	7.2%	14.7%	5.8%	4.2%	7.2%	5.9%	
MSCI EAFE	-1.2%	-1.2%	-2.7%	6.8%	13.4%	4.9%	2.5%	6.4%	4.9%	2.8%
Foreign Large Blend MStar MF Rank	19	6	12	30	16	21	12	20	14	
SSgA Active Emerging Markets Fund	-4.5%	-8.3%	-5.4%	6.9%	16.8%	6.2%	3.9%	5.5%	1.5%	-
MSCI Emerging Markets	-4.2%	-8.0%	-6.7%	8.2%	15.7%	5.6%	2.8%	5.0%	1.4%	2.3%
eV Emg Mkts Equity Net Rank	56	46	22	55	30	41	32	46	72	
ABS Emerging Markets	-3.5%	-5.7%	-4.3%	6.5%	11.2%	5.6%				
HFRI Emerging Markets (Total) Index	-3.0%	-4.6%	-3.7%	5.0%	9.5%	4.4%	3.1%	4.3%	2.2%	2.0%
MSCI Emerging Markets	-4.2%	-8.0%	-6.7%	8.2%	15.7%	5.6%	2.8%	5.0%	1.4%	2.3%
Emerging Manager Composite	-0.1%	3.1%	3.4%	12.9%						
Emerging Manager Benchmark	0.3%	4.0%	3.5%	14.4%						
Twin Capital	0.6%	3.0%	1.9%	14.0%				-		-
S&P 500	0.6%	3.4%	2.6%	14.4%	16.1%	11.9%	10.8%	13.4%	13.2%	10.2%
Russell 1000	0.6%	3.6%	2.9%	14.5%	16.3%	11.6%	10.6%	13.4%	13.1%	10.2%
eV US Large Cap Core Equity Net Rank	31	33	41	36						
CIM Investment Management	1.0%	7.8%	9.1%	16.2%				-		
Russell 2000	0.7%	7.8%	7.7%	17.6%	21.0%	11.0%	9.8%	12.5%	11.8%	10.6%
eV US Small Cap Core Equity Net Rank	45	34	20	50						
Fusion Investment Group	-2.1%	-1.9%	-0.9%	8.1%						
MSCI ACWI	-0.5%	0.5%	-0.4%	10.7%	14.7%	8.2%	6.3%	9.4%	8.0%	5.8%
eV Global All Cap Core Eq Net Rank	95	93	58	66						

Annualized Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedge Fund Composite	0.5%	1.8%	0.7%	4.3%	8.2%	2.2%	2.9%			
HFRI Fund of Funds Composite Index	-0.5%	0.4%	0.7%	5.1%	5.8%	1.9%	2.4%	3.5%	2.8%	1.4%
HFRX Equity Hedge Index	-0.7%	-0.9%	0.2%	6.3%	7.2%	1.7%	1.9%	3.0%	1.7%	-0.4%
InvestorForce Public DB Hedge Funds Net Rank	17	39	78	68	19	58	37			
ABS Offshore SPC Global	-1.1%	0.3%	1.0%	6.5%	8.9%	2.7%	3.6%			
HFRX Equity Hedge Index	-0.7%	-0.9%	0.2%	6.3%	7.2%	1.7%	1.9%	3.0%	1.7%	-0.4%
Entrust Diversified Select Equity Fund	0.1%	0.8%	-0.1%	1.3%	7.2%	0.1%	1.0%			
HFRX Equity Hedge Index	-0.7%	-0.9%	0.2%	6.3%	7.2%	1.7%	1.9%	3.0%	1.7%	-0.4%
Entrust Special Opportunities Fund III	2.9%	2.9%	0.1%	1.7%	7.4%	8.2%	-	-		
HFRI Fund of Funds Composite Index	-0.5%	0.4%	0.7%	5.1%	5.8%	1.9%	2.4%	3.5%	2.8%	1.4%
Parametric Defensive Equity	0.6%	3.1%	1.1%	7.1%	-	-	-	-		
50% S&P 500/50% 91 Day T-Bill	0.4%	1.9%	1.8%	7.8%	8.4%	6.3%	5.7%	6.9%	6.8%	5.4%
Real Estate Composite	1.9%	1.9%	3.8%	7.6%	7.4%	8.7%	9.7%			
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%
Rreef America II	1.9%	1.9%	4.1%	7.8%	7.5%	8.8%	10.2%			
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%
Barings Core Property Fund	1.9%	1.9%	3.5%	7.3%	7.2%	8.6%	9.1%			
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%

Calendar Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

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	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total Fund Composite	11.7%	8.1%	3.2%	9.2%	13.6%	12.3%	1.8%	5.6%	23.4%	-27.0%	11.6%
Total Fund Composite Benchmark	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%	-26.1%	8.5%
InvestorForce Public DB Net Rank	95	26	1	1	66	41	22	98	19	70	2
Dedicated Funding for CMPTF	7.5%	7.6%	7.5%	13.2%	8.1%	9.8%	7.2%	-		-	
Annual Return	7.5%	7.5%	7.5%	7.5%	8.0%	8.0%	8.0%				
Total Invested Portfolio	14.8%	8.5%	0.0%	6.6%	17.6%	14.1%	-2.5%	5.6%	23.3%	-27.0%	11.6%
Total Invested Portfolio Benchmark	16.3%	7.7%	0.3%	6.9%	17.6%	12.2%	0.3%	12.4%	22.9%	-26.2%	8.2%
InvestorForce Public DB Net Rank	49	15	33	22	22	7	92	98	20	70	2
Fixed Income Composite	4.3%	4.5%	0.0%	6.1%	-0.4%	8.4%	5.4%	7.8%	13.8%	-9.3%	
BBgBarc US Aggregate TR	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
InvestorForce Public DB US Fix Inc Net Rank	39	47	56	15	32	35	87	41	42	91	
Federated Investors	4.3%	4.8%	-0.2%	5.0%	-0.8%	7.1%	6.5%	8.2%	11.2%	-2.7%	7.1%
BBgBarc US Aggregate TR	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
eV US Core Fixed Inc Net Rank	18	7	89	80	19	23	81	12	33	76	25
BlackRock Total Return Fund	4.3%	3.5%	0.4%	8.2%	-0.1%	10.3%	4.7%	10.1%	16.3%	-11.1%	5.3%
BBgBarc US Aggregate TR	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
eV US Core Fixed Inc Net Rank	19	33	64	4	8	2	96	2	14	95	87
U.S. Equity Composite	19.5%	16.6%	-2.3%	12.5%	34.2%	17.8%	0.6%	8.6%	25.8%	-36.1%	
Dow Jones U.S. Total Stock Market	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%	-37.2%	5.6%
InvestorForce Public DB US Eq Net Rank	70	2	84	14	50	4	48	99	86	29	
SSgA S&P 500 Index Fund	21.9%	12.0%	1.5%	13.8%							
S&P 500	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%	5.5%
eV US Large Cap Core Equity Net Rank	46	20	36	33							
Frontier Capital Management	18.6%	20.1%	-6.5%	12.1%	39.0%	18.0%	-6.5%	28.9%	46.5%	-39.5%	12.8%
Russell 2500	16.8%	17.6%	-2.9%	7.1%	36.8%	17.9%	-2.5%	26.7%	34.4%	-36.8%	1.4%
eV US Small-Mid Cap Core Equity Net Rank	35	5	88	1	26	29	86	25	5	75	15
Guyasuta Investment Advisors	12.2%	29.4%	-9.9%	8.4%	36.2%	25.7%	4.1%	19.3%	40.8%	-30.6%	-2.8%
Russell 2000	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%	-4.2%	26.9%	27.2%	-33.8%	-1.6%
eV US Small Cap Core Equity Net Rank	71	3	88	15	73	1	17	97	9	18	80

Calendar Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

Calendar Year

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Non-U.S. Equity Composite	28.6%	1.9%	-1.7%	-4.1%	13.1%	21.5%					
MSCI ACWI ex USA	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%	-45.5%	16.7%
InvestorForce Public DB ex-US Eq Net Rank	47	83	21	59	82	7					
MFS International Equity Fund	28.0%	0.3%	0.0%	-4.2%	18.6%	22.5%	-		_		
MSCI EAFE	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%	-12.1%	7.8%	31.8%	-43.4%	11.2%
Foreign Large Blend MStar MF Rank	24	64	37	36	64	12					
SSgA Active Emerging Markets Fund	35.3%	12.5%	-13.1%	-2.6%	-4.8%	18.1%	-		_		
MSCI Emerging Markets	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%	-18.4%	18.9%	78.5%	-53.3%	39.4%
eV Emg Mkts Equity Net Rank	63	26	53	67	87	66					
ABS Emerging Markets	26.7%	4.9%	-3.4%								
HFRI Emerging Markets (Total) Index	19.4%	7.0%	-3.3%	-2.6%	5.5%	10.4%	-14.0%	11.4%	40.3%	-37.3%	24.9%
MSCI Emerging Markets	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%	-18.4%	18.9%	78.5%	-53.3%	39.4%
Emerging Manager Composite	16.9%	-				-	-		-		
Emerging Manager Benchmark	18.9%										
Twin Capital	20.9%	-	-				-		-		
S&P 500	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%	5.5%
Russell 1000	21.7%	12.1%	0.9%	13.2%	33.1%	16.4%	1.5%	16.1%	28.4%	-37.6%	5.8%
eV US Large Cap Core Equity Net Rank	56										
CIM Investment Management	11.1%	-							_		
Russell 2000	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%	-4.2%	26.9%	27.2%	-33.8%	-1.6%
eV US Small Cap Core Equity Net Rank	79										
Fusion Investment Group											
MSCI ACWI	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%	-7.3%	12.7%	34.6%	-42.2%	11.7%
eV Global All Cap Core Eq Net Rank											



Calendar Performance (Net of Fees)

Market Value: \$747.6 Million and 100.0% of Fund

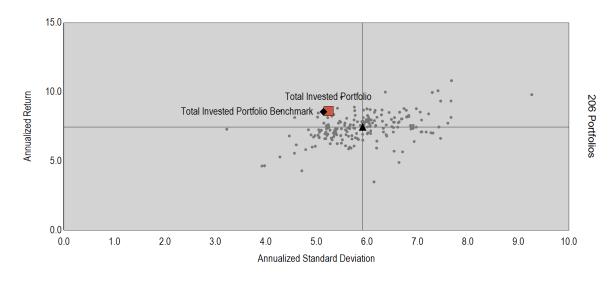
Calendar Year

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Hedge Fund Composite	9.0%	0.7%	0.0%	4.9%			-		-		
HFRI Fund of Funds Composite Index	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%	-21.4%	10.3%
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
InvestorForce Public DB Hedge Funds Net Rank	23	74	45	35							
ABS Offshore SPC Global	12.3%	-4.3%	4.0%	4.8%							
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
Entrust Diversified Select Equity Fund	6.0%	2.5%	-4.9%	4.9%	-			-	_	-	
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
Entrust Special Opportunities Fund III	5.7%	16.1%			-	-			-	-	
HFRI Fund of Funds Composite Index	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%	-21.4%	10.3%
Parametric Defensive Equity								-	_		
50% S&P 500/50% 91 Day T-Bill	10.9%	6.1%	0.9%	6.7%	15.3%	7.9%	1.4%	7.8%	13.3%	-19.4%	5.1%
Real Estate Composite	6.5%	8.4%	14.4%	11.0%	-	-	-		-	-	
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%	14.8%
Rreef America II	6.4%	8.1%	15.6%	12.0%					-	-	
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%	14.8%
Barings Core Property Fund	6.6%	8.6%	13.0%			-	-	-	_	-	
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%	14.8%

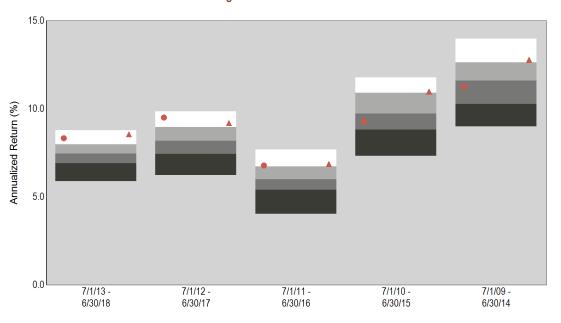
Invested Portfolio vs. Peer Universe

Market Value: \$448.2 Million and 60.0% of Fund

Annualized Return vs. Annualized Standard Deviation 5 Years Ending June 30, 2018



Rolling 5 Year Returns



	Return (Rank)										
5th Percentile	8.8		9.9		7.7		11.8		14.0		_
25th Percentile	8.0		9.0		6.7		10.9		12.6		
Median	7.5		8.2		6.0		9.7		11.6		
75th Percentile	6.9		7.4		5.4		8.8		10.3		
95th Percentile	5.9		6.2		4.1		7.3		9.0		
# of Portfolios	206		245		208		187		134		
Total Invested Portfolio Total Invested Portfolio Benchmark	8.3 8.6	(14) (10)	9.5 9.2	(9) (16)	6.8 6.9	(24) (20)	9.3 11.0	(63) (24)	11.3 12.8	(59) (22)	

Private Equity Composite

Annualized Performance

Asset Class	Fund Company	Vintage Yr.	Perf. as of:	Net IRR
Venture	Birchmere Ventures III	2005	3/31/2018	-2.4%
Venture	Draper Triangle Venture II	2004	3/31/2018	4.3%
Venture	Draper Triangle Venture III	2013	3/31/2018	
Venture	Novitas Capital Partners III	2003	3/31/2018	-18.8%
Global Diversified FoFs	Hirtle Callaghan PEP III	2003	3/31/2018	16.9%
Global Diversified FoFs	Hirtle Callaghan PEP IV	2004	3/31/2018	9.1%
Global Diversified FoFs	Hirtle Callaghan PEP V	2006	3/31/2018	2.2%
Mezzanine	Crescent Mezz Partners VI	2013	12/31/2017	8.8%
Mezzanine	Crescent Mezz Partners VII	2016	12/31/2017	8.0%
Total Private Equity				

Since Inception Cash Flows

Asset Class	Fund Company	Commitment	Capital Calls	Distributions	Remaining Callable Amt.	Ending Value	¹ Cash Multiple
710001 Glado	Tuna company	Communication	oupitui ouilo	Diotributions	ounusio / unc.	Litating Value	ouon munipio
Venture	Birchmere Ventures III	\$1,000,000	\$1,000,000	\$893,272	\$0	\$69,610	1.0
Venture	Draper Triangle Venture II	\$1,000,000	\$1,000,000	\$1,139,804	\$0	\$324,120	1.5
Venture	Draper Triangle Venture III	\$2,000,000	\$1,574,147	\$28,929	\$0	\$1,341,939	0.9
Venture	Novitas Capital Partners III	\$1,000,000	\$989,904	\$423,678	\$0	\$40,314	0.5
Global Diversified FoFs	Hirtle Callaghan PEP III	\$8,000,000	\$7,600,835	\$12,277,293	\$399,165	\$0	1.6
Global Diversified FoFs	Hirtle Callaghan PEP IV	\$8,000,000	\$7,418,650	\$10,802,530	\$581,350	\$0	1.5
Global Diversified FoFs	Hirtle Callaghan PEP V	\$3,000,000	\$2,481,360	\$2,052,482	\$518,640	\$815,225	1.2
Mezzanine	Crescent Mezz Partners VI	\$10,000,000	\$8,891,794	\$6,225,609	\$1,108,206	\$5,059,727	1.3
Mezzanine	Crescent Mezz Partners VII	\$10,000,000	\$3,024,768	\$391,963	\$6,975,232	\$2,860,438	
Total Private Equity		\$44,000,000	\$33,981,458	\$34,235,560	\$9,582,593	\$10,511,373	1.3

¹ Calculated as the sum of the distributions and ending value divided by the amount of all capital calls.

Investment Manager **Statistics**

Market Value: \$747.6 Million and 100.0% of Fund

3 Years Ending June 30, 2018

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio Anlzd	Down Mkt Capture Ratio Anlzd
Federated Investors	0.7	1.1%	0.3%	0.8	0.9	0.8	1.5%	111.2%	70.1%
BBgBarc US Aggregate TR	0.3				-		1.6%		
BlackRock Total Return Fund	0.5	0.7%	0.1%	0.9	0.9	0.4	1.5%	103.0%	87.3%
BBgBarc US Aggregate TR	0.3				-		1.6%		
SSgA S&P 500 Index Fund	1.5	0.0%	0.0%	1.0	1.0	1.6	3.7%	100.3%	99.2%
S&P 500	1.5				-		3.7%	-	
Frontier Capital Management	0.6	6.2%	-1.0%	1.4	0.9	-0.1	6.8%	117.3%	168.7%
Russell 2500	1.0				-		4.6%	-	
Guyasuta Investment Advisors	0.9	4.8%	0.2%	1.0	0.8	0.1	6.1%	103.3%	97.4%
Russell 2000	0.9				-		5.7%		
MFS International Equity Fund	0.5	2.6%	0.2%	1.0	0.9	0.3	5.2%	101.1%	89.2%
MSCI EAFE	0.4				-		5.2%		
SSgA Active Emerging Markets Fund	0.3	2.5%	0.2%	1.0	1.0	0.2	8.3%	101.0%	96.8%
MSCI Emerging Markets	0.3				-		8.4%		
ABS Emerging Markets	0.4	3.5%	0.1%	1.3	1.0	0.4	5.9%	137.7%	134.5%
HFRI Emerging Markets (Total) Index	0.4						4.6%		
ABS Offshore SPC Global	0.3	3.2%	0.2%	1.0	0.7	0.3	3.1%	124.7%	107.5%
HFRX Equity Hedge Index	0.2						2.6%		
Entrust Diversified Select Equity Fund	-0.1	4.0%	-0.4%	1.1	0.7	-0.4	3.5%	79.4%	115.8%
HFRX Equity Hedge Index	0.2						2.6%		

Investment Manager Statistics

Market Value: \$747.6 Million and 100.0% of Fund

5 Years Ending June 30, 2018

	Sharpe Ratio	Tracking Error	Alpha	Beta	R-Squared	Information Ratio	Standard Deviation	Up Mkt Capture Ratio Anlzd	Down Mkt Capture Ratio Anlzd
Federated Investors	1.0	1.1%	0.3%	0.8	0.9	0.7	1.3%	106.2%	62.4%
BBgBarc US Aggregate TR	0.6				-		1.5%		
BlackRock Total Return Fund	0.9	0.8%	0.2%	1.0	0.9	1.1	1.5%	118.1%	80.9%
BBgBarc US Aggregate TR	0.6				-		1.5%		
SSgA S&P 500 Index Fund	1.9	0.0%	0.0%	1.0	1.0	1.4	3.5%	100.4%	99.2%
S&P 500	1.8				-		3.5%		
Frontier Capital Management	1.1	5.0%	-0.4%	1.2	0.9	0.2	6.1%	119.2%	142.3%
Russell 2500	1.3				-		4.6%		
Guyasuta Investment Advisors	1.0	4.8%	0.2%	1.0	0.8	0.1	6.0%	97.7%	88.0%
Russell 2000	1.1						5.6%		
MFS International Equity Fund	0.7	2.3%	0.3%	0.9	0.9	0.3	5.1%	98.6%	85.3%
MSCI EAFE	0.6				-		5.2%		
SSgA Active Emerging Markets Fund	0.4	2.3%	0.1%	1.0	1.0	0.2	6.8%	101.7%	97.6%
MSCI Emerging Markets	0.3				-	-	6.8%		

Fee Schedule

Market Value: \$747.6 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Fixed Income	Federated Investors	0.25% on the Balance	0.25% \$134,828	0.26%
Core Fixed Income	BlackRock Total Return Fund	0.40% on the Balance	0.40% \$78,797	0.50%
Large-Cap Core	SSgA S&P 500 Index Fund	0.04% on the Balance	0.04% \$43,595	0.05%
Large-Cap Core	Twin Capital	0.35% on the first \$50 million 0.20% on the Balance	0.35% \$9,076	0.60%
Smid-Cap Core	Frontier Capital Management	0.75% on the Balance	0.75% \$242,379	0.84%
Small-Cap Core	Guyasuta Investment Advisors	0.45% on the Balance	0.45% \$132,335	0.88%
Small-Cap Core	CIM Investment Management	0.75% on the first \$1 million 0.65% on the next \$3 million 0.60% on the Balance	0.69% \$18,547	0.88%
Non-U.S. Large-Cap Core	MFS International Equity Fund	0.75% on the Balance	0.75% \$495,260	0.97%
Global Core Equity	Fusion Investment Group	0.70% on the Balance	0.70% \$16,045	0.40%
Emerging Markets	SSgA Active Emerging Markets Fund	0.75% on the Balance	0.75% \$66,762	0.95%
Emerging Markets	ABS Emerging Markets	0.80% on the Balance	0.80% \$78,572	1.00%
Hedged Equity Hedge FoF	ABS Offshore SPC Global	1.00% on the Balance	1.00% \$140,364	1.00%
Hedged Equity Hedge FoF	Entrust Diversified Select Equity Fund	1.30% on the Balance	1.30% \$63,342	1.00%
Multi-Strat. Hedge Fund	Entrust Special Opportunities Fund III	1.25% on the Balance Plus 10% incentive fee after 7.5% preferred return	1.25% \$130,113	1.00%
Defensive Equity	Parametric Defensive Equity	0.325% on the first \$50 million 0.30% on the next \$50 million 0.275% on the Balance	0.32% \$36,234	1.00%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$212,522	1.01%
Core Real Estate	Barings Core Property Fund	1.10% on the first \$15 million 1.00% on the next \$10 million 0.80% on the Balance	1.07% \$227,545	1.01%

Fee Schedule

Market Value: \$747.6 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Venture Private Equity	Birchmere Ventures III, LP	2.50% on total commitments plus 20% carried interest after 8% preferred return	 \$25,000	28.73%
Venture Private Equity	Draper Triangle Ventures II, LP	1.00% on total commitments plus 20% carried interest	3.09% \$10,000	6.17%
Venture Private Equity	Novitas Capital Partners III, LP	2.00% on total commitments plus 20% carried interest after 8% preferred return	 \$20,000	49.61%
Global Divers. Private Equity FoF	Hirtle Callaghan Private Equity Fund V, LP	0.00% on the Balance	0.00% \$0	1.25%
Mezz. Private Equity	Crescent Mezzanine Partners VIB, LP	1.50% on total commitments plus 20% carried interest after 8% preferred return	2.96% \$150,000	3.46%
Mezzanine Debt	Crescent Mezzanine Partners VIIB, L.P.	0.75% on total commitments 0.75% on invested capital plus 20% carried interest after 8% preferred return	3.37% \$96,453	3.93%
Fixed Income Annuity	Dedicated Funding for CMPTF	0.00% on the Balance	0.00% \$0	0.00%
Total Investment Management Fees			0.32% \$2,427,770	0.38%
Custodian	PNC Bank	0.03% on the all assets, excluding Dedicated Funding for CMPTF	0.02% \$143,357	
Total Fund			0.34% \$2,571,127	

¹ Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End.

² Source: 2016 Marquette Associates Investment Management Fee Study.