



Pittsburgh Comprehensive Municipal Pension

Pittsburgh Comprehensive Municipal

Executive Summary

March 31, 2018

Manager Status

Market Value: \$744.4 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	In Compliance	
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 III, LP	Global Divers. Private Equity FoF	In Compliance	
Hirtle Callaghan Private Equity Fund IV, LP	Global Divers. Private Equity FoF	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: \$744.4 Million and 100.0% of Fund

Ending March 31, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$744,378,329	-\$8,447,215	100.0%	100.0%	\$0
Dedicated Funding for CMPTF	Fixed Income Annuity	\$300,622,666	-\$6,688,000	40.4%	40.0%	\$2,871,334
Total Invested Portfolio		\$443,755,663	-\$1,759,215	59.6%	60.0%	-\$2,871,334
Fixed Income Composite		\$73,765,583	-\$33,825	9.9%	13.0%	-\$23,003,599
Federated Investors	Core Fixed Income	\$54,020,906	-\$33,825	7.3%		
BlackRock Total Return Fund	Core Fixed Income	\$19,744,678	\$0	2.7%		
U.S. Equity Composite		\$163,986,818	-\$91,100	22.0%	22.0%	\$223,585
SSgA S&P 500 Index Fund	Large-Cap Core	\$105,379,280	\$0	14.2%		
Frontier Capital Management	Smid-Cap Core	\$30,896,822	-\$59,320	4.2%		
Guyasuta Investment Advisors	Small-Cap Core	\$27,710,715	-\$31,779	3.7%		
Non-U.S. Equity Composite		\$86,043,816	\$0	11.6%	12.0%	-\$3,281,583
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$65,929,595	\$0	8.9%		
SSgA Active Emerging Markets Fund	Emerging Markets	\$9,704,056	\$0	1.3%		
ABS Emerging Markets	Emerging Markets	\$10,410,165	\$0	1.4%		
Emerging Manager Composite		\$7,348,450	-\$9,788	1.0%	-	\$7,348,450
Twin Capital	Large-Cap Core	\$2,515,511	-\$1,313	0.3%		
CIM Investment Management	Small-Cap Core	\$2,500,389	-\$4,330	0.3%		
Fusion Investment Group	Global Core Equity	\$2,332,550	-\$4,145	0.3%		
Hedge Fund Composite		\$48,495,609	\$95,550	6.5%	5.0%	\$11,276,692
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$13,984,646	\$0	1.9%		
Entrust Diversified Select Equity Fund	Hedged Equity Hedge FoF	\$12,385,841	\$0	1.7%		
Entrust Special Opportunities Fund III	Multi-Strat. Hedge Fund	\$11,310,293	\$95,550	1.5%		
Parametric Defensive Equity	Defensive Equity	\$10,814,829	\$0	1.5%		
Real Estate Composite		\$42,983,442	-\$287,082	5.8%	5.0%	\$5,764,525
Rreef America II	Core Real Estate	\$22,125,279	-\$231,994	3.0%	2.5%	\$3,515,821
Barings Core Property Fund	Core Real Estate	\$20,858,163	-\$55,088	2.8%	2.5%	\$2,248,704
Private Equity Composite		\$10,502,245	-\$534,512	1.4%	3.0%	-\$11,829,105
Cash Composite		\$10,629,700	-\$898,459	1.4%	0.0%	\$10,629,700

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



Total Invested Portfolio

Market Value: \$443.8 Million and 59.6% of Fund

Ending March 31, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio
Total Invested Portfolio		\$443,755,663	-\$1,759,215	100.0%
Fixed Income Composite		\$73,765,583	-\$33,825	16.6%
Federated Investors	Core Fixed Income	\$54,020,906	-\$33,825	12.2%
BlackRock Total Return Fund	Core Fixed Income	\$19,744,678	\$0	4.4%
U.S. Equity Composite		\$163,986,818	-\$91,100	37.0%
SSgA S&P 500 Index Fund	Large-Cap Core	\$105,379,280	\$0	23.7%
Frontier Capital Management	Smid-Cap Core	\$30,896,822	-\$59,320	7.0%
Guyasuta Investment Advisors	Small-Cap Core	\$27,710,715	-\$31,779	6.2%
Non-U.S. Equity Composite		\$86,043,816	\$0	19.4%
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$65,929,595	\$0	14.9%
SSgA Active Emerging Markets Fund	Emerging Markets	\$9,704,056	\$0	2.2%
ABS Emerging Markets	Emerging Markets	\$10,410,165	\$0	2.3%
Emerging Manager Composite		\$7,348,450	-\$9,788	1.7%
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Hedge Fund Composite		\$48,495,609	\$95,550	10.9%
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$13,984,646	\$0	3.2%
Entrust Diversified Select Equity Fund	Hedged Equity Hedge FoF	\$12,385,841	\$0	2.8%
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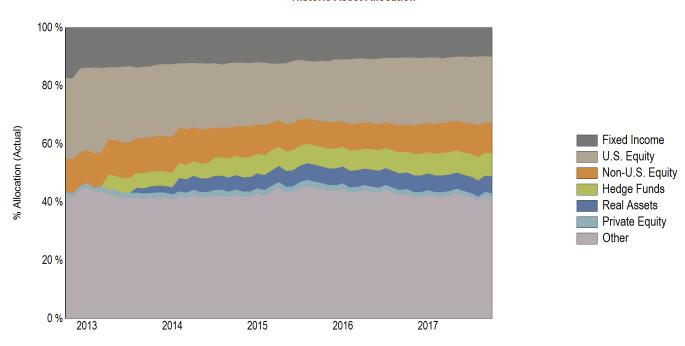
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Asset Allocation

Market Value: \$744.4 Million and 100.0% of Fund

Historic Asset Allocation

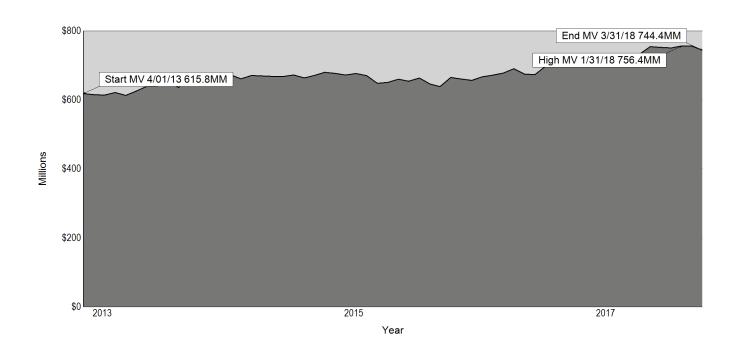


Asset Allocation vs. Target As Of March 31, 2018

	Current	Policy	Difference	%
U.S. Equity	\$169,002,718	\$163,763,232	\$5,239,485	0.7%
Non-U.S. Equity	\$77,966,201	\$89,325,399	-\$11,359,198	-1.5%
Hedge Funds	\$58,905,774	\$37,218,916	\$21,686,857	2.9%
Real Assets	\$42,983,442	\$37,218,916	\$5,764,525	0.8%
Private Equity	\$10,502,245	\$22,331,350	-\$11,829,105	-1.6%
Other	\$311,252,366	\$297,751,331	\$13,501,035	1.8%
Total	\$744,378,329	\$744,378,329		

Market Value History

Market Value: \$744.4 Million and 100.0% of Fund



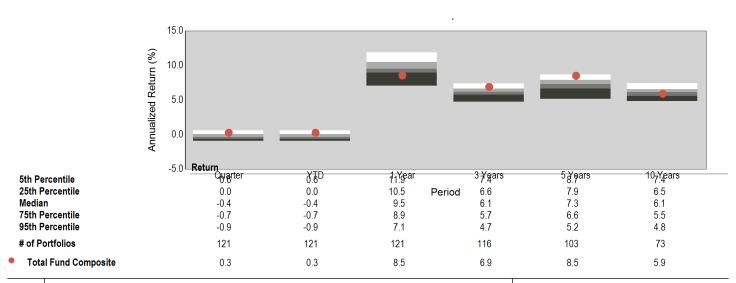
Summary of Cash Flows

	First Quarter	Year-To-Date	One Year	Three Years
Beginning Market Value	\$448,620,579.80	\$448,620,579.80	\$415,559,629.31	\$399,402,852.89
Net Cash Flow	-\$1,517,557.56	-\$1,517,557.56	-\$10,244,380.92	-\$32,816,681.80
Net Investment Change	-\$3,347,359.31	-\$3,347,359.31	\$38,440,414.54	\$77,169,491.84
Ending Market Value	\$443,755,662.93	\$443,755,662.93	\$443,755,662.93	\$443,755,662.93

Annualized Performance (Net of Fees)

Market Value: \$744.4 Million and 100.0% of Fund

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.7%	0.3%	8.5%	9.4%	6.9%	7.1%	8.5%	8.4%	5.9%
Total Fund Composite Benchmark	-0.4%	0.5%	9.2%	9.4%	7.2%	7.3%	8.1%	7.8%	6.4%
InvestorForce Public DB Net Rank	67	11	85	78	15	8	8	8	66
Total Invested Portfolio	-0.8%	-0.8%	9.3%	10.8%	6.4%	6.8%	8.0%	7.8%	5.6%
Total Invested Portfolio Benchmark	-1.0%	-0.5%	10.7%	11.0%	6.9%	7.1%	8.3%	7.9%	6.7%
InvestorForce Public DB Net Rank	84	90	62	32	34	18	19	19	72
Fixed Income Composite	0.1%	-1.4%	1.9%	2.3%	1.8%	2.8%	2.5%	3.7%	3.7%
BBgBarc US Aggregate TR	0.6%	-1.5%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%
InvestorForce Public DB US Fix Inc Net Rank	99	97	40	37	36	31	18	28	44
U.S. Equity Composite	-1.9%	-1.5%	11.8%	16.1%	9.6%	10.3%	12.7%	12.3%	8.7%
Dow Jones U.S. Total Stock Market	-2.0%	-0.6%	13.8%	15.9%	10.2%	10.7%	13.0%	12.4%	9.7%
InvestorForce Public DB US Eq Net Rank	92	94	89	23	57	46	38	12	89
Non-U.S. Equity Composite	-1.3%	-0.6%	17.4%	15.1%	6.8%	5.6%	6.4%	5.5%	
MSCI ACWI ex USA	-1.8%	-1.3%	16.4%	14.7%	6.1%	4.3%	5.9%	4.2%	2.7%
InvestorForce Public DB ex-US Eq Net Rank	71	61	58	60	69	34	62	50	
Emerging Manager Composite	-0.6%	0.4%	11.8%						-
Emerging Manager Benchmark	-1.0%	-0.6%	13.5%						
InvestorForce Public DB Glbl Eq Net Rank	9	8	92					-	-
Hedge Fund Composite	-0.7%	-0.5%	5.5%	7.3%	1.7%	3.2%			
HFRI Fund of Funds Composite Index	-0.4%	0.6%	5.9%	6.0%	2.0%	2.8%	3.4%	2.6%	1.6%
HFRX Equity Hedge Index	-0.7%	1.2%	8.3%	7.1%	2.1%	2.2%	3.1%	1.0%	0.0%
InvestorForce Public DB Hedge Funds Net Rank	77	81	28	28	38	39		-	-
Real Estate Composite	1.9%	1.9%	7.2%	7.3%	9.2%	9.8%		-	
NFI	0.7%	2.0%	7.1%	7.2%	9.0%	9.8%	10.4%	10.8%	4.2%



Calendar Performance (Net of Fees)

Market Value: \$744.4 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%										
InvestorForce Public DB Glbl Eq Net Rank	98					-					-
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: \$744.4 Million and 100.0% of Fund

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.7%	0.3%	8.5%	9.4%	6.9%	7.1%	8.5%	8.4%	5.9%
Total Fund Composite Benchmark	-0.4%	0.5%	9.2%	9.4%	7.2%	7.3%	8.1%	7.8%	6.4%
InvestorForce Public DB Net Rank	67	11	85	78	15	8	8	8	66
Dedicated Funding for CMPTF	-0.4%	1.8%	7.5%	7.5%	7.5%	7.5%	9.1%	9.0%	
Annual Return	0.6%	1.8%	7.5%	7.5%	7.5%	7.5%	7.6%	7.7%	
Total Invested Portfolio	-0.8%	-0.8%	9.3%	10.8%	6.4%	6.8%	8.0%	7.8%	5.6%
Total Invested Portfolio Benchmark	-1.0%	-0.5%	10.7%	11.0%	6.9%	7.1%	8.3%	7.9%	6.7%
InvestorForce Public DB Net Rank	84	90	62	32	34	18	19	19	72
Fixed Income Composite	0.1%	-1.4%	1.9%	2.3%	1.8%	2.8%	2.5%	3.7%	3.7%
BBgBarc US Aggregate TR	0.6%	-1.5%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%
InvestorForce Public DB US Fix Inc Net Rank	99	97	40	37	36	31	18	28	44
Federated Investors	0.1%	-1.4%	1.9%	2.5%	2.0%	2.6%	2.3%	3.5%	3.9%
BBgBarc US Aggregate TR	0.6%	-1.5%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%
eV US Core Fixed Inc Net Rank	99	42	19	7	12	29	24	30	59
BlackRock Total Return Fund	0.3%	-1.4%	1.8%	1.9%	1.5%	3.0%	2.8%	4.1%	4.3%
BBgBarc US Aggregate TR	0.6%	-1.5%	1.2%	0.8%	1.2%	2.3%	1.8%	2.9%	3.6%
eV US Core Fixed Inc Net Rank	96	44	21	19	40	10	5	6	33
U.S. Equity Composite	-1.9%	-1.5%	11.8%	16.1%	9.6%	10.3%	12.7%	12.3%	8.7%
Dow Jones U.S. Total Stock Market	-2.0%	-0.6%	13.8%	15.9%	10.2%	10.7%	13.0%	12.4%	9.7%
InvestorForce Public DB US Eq Net Rank	92	94	89	23	57	46	38	12	89
SSgA S&P 500 Index Fund	-2.5%	-0.8%	14.0%	15.6%	10.8%	11.3%	13.4%		-
S&P 500	-2.5%	-0.8%	14.0%	15.6%	10.8%	11.3%	13.3%	12.7%	9.5%
eV US Large Cap Core Equity Net Rank	63	51	51	35	16	18	26		
Frontier Capital Management	-1.5%	-2.5%	9.1%	16.9%	6.9%	8.4%	12.5%	10.8%	11.2%
Russell 2500	1.0%	-0.2%	12.3%	16.8%	8.2%	8.6%	11.5%	10.9%	10.3%
eV US Small-Mid Cap Core Equity Net Rank	99	98	90	29	74	62	37	55	26
Guyasuta Investment Advisors	0.0%	-3.3%	6.6%	16.4%	7.8%	8.2%	10.7%	12.5%	11.5%
Russell 2000	1.3%	-0.1%	11.8%	18.8%	8.4%	8.3%	11.5%	10.4%	9.8%
eV US Small Cap Core Equity Net Rank	91	95	88	62	62	59	68	18	22



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Non-U.S. Equity Composite	-1.3%	-0.6%	17.4%	15.1%	6.8%	5.6%	6.4%	5.5%	
MSCI ACWI ex USA	-1.8%	-1.3%	16.4%	14.7%	6.1%	4.3%	5.9%	4.2%	2.7%
InvestorForce Public DB ex-US Eq Net Rank	71	61	58	60	69	34	62	50	
MFS International Equity Fund	-1.4%	-1.4%	16.6%	13.9%	6.1%	5.2%	6.9%	6.4%	-
MSCI EAFE	-1.8%	-1.7%	14.6%	13.1%	5.5%	3.9%	6.5%	5.3%	2.7%
Foreign Large Blend MStar MF Rank	89	78	39	44	50	29	42	13	
SSgA Active Emerging Markets Fund	-0.3%	3.1%	23.1%	22.8%	10.4%	7.7%	5.3%	2.6%	
MSCI Emerging Markets	-1.9%	1.3%	24.8%	20.9%	8.8%	6.6%	5.0%	2.4%	3.0%
eV Emg Mkts Equity Net Rank	17	14	58	34	34	38	51	75	
ABS Emerging Markets	-1.2%	1.4%	17.1%	16.6%	8.6%		_	-	-
HFRI Emerging Markets (Total) Index	-1.0%	0.9%	13.3%	13.8%	7.3%	5.2%	4.6%	2.7%	2.5%
MSCI Emerging Markets	-1.9%	1.3%	24.8%	20.9%	8.8%	6.6%	5.0%	2.4%	3.0%
Emerging Manager Composite	-0.6%	0.4%	11.8%				-	-	
Emerging Manager Benchmark	-1.0%	-0.6%	13.5%						
InvestorForce Public DB Glbl Eq Net Rank	9	8	92						
Twin Capital	-2.4%	-1.1%	13.5%						
Twin Capital S&P 500	-2.4% -2.5%	-1.1% -0.8%	13.5% 14.0%	 15.6%	 10.8%	 11.3%	 13.3%	 12.7%	9.5%
•				 15.6% 15.7%	 10.8% 10.4%		 13.3% 13.2%	 12.7% 12.6%	9.5% 9.6%
S&P 500	-2.5%	-0.8%	14.0%			11.3%			
S&P 500 Russell 1000 eV US Large Cap Core Equity Net	-2.5% -2.3%	-0.8% -0.7%	14.0% 14.0%			11.3%			
S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank	-2.5% -2.3% 54	-0.8% -0.7% 60	14.0% 14.0% 55			11.3% 11.0% 			
S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management	-2.5% -2.3% 54 1.0%	-0.8% -0.7% 60 1.2%	14.0% 14.0% 55 9.0%	15.7% 	10.4% 	11.3% 11.0% 	13.2%	12.6% 	9.6%
S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity Net	-2.5% -2.3% 54 1.0% 1.3%	-0.8% -0.7% 60 1.2% -0.1%	14.0% 14.0% 55 9.0% 11.8%	15.7% 	10.4% 	11.3% 11.0% 	13.2%	12.6% 	9.6%
S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity Net Rank	-2.5% -2.3% 54 1.0% 1.3% 53	-0.8% -0.7% 60 1.2% -0.1%	14.0% 14.0% 55 9.0% 11.8%	15.7% 18.8%	10.4% 8.4% 	11.3% 11.0% 8.3%	13.2% 11.5%	12.6% 10.4%	9.6%

Annualized Performance (Net of Fees)

Market Value: \$744.4 Million and 100.0% of Fund

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedge Fund Composite	-0.7%	-0.5%	5.5%	7.3%	1.7%	3.2%			
HFRI Fund of Funds Composite Index	-0.4%	0.6%	5.9%	6.0%	2.0%	2.8%	3.4%	2.6%	1.6%
HFRX Equity Hedge Index	-0.7%	1.2%	8.3%	7.1%	2.1%	2.2%	3.1%	1.0%	0.0%
InvestorForce Public DB Hedge Funds Net Rank	77	81	28	28	38	39			
ABS Offshore SPC Global	-0.7%	0.6%	8.9%	7.4%	2.8%	4.1%			
HFRX Equity Hedge Index	-0.7%	1.2%	8.3%	7.1%	2.1%	2.2%	3.1%	1.0%	0.0%
Entrust Diversified Select Equity Fund	-0.7%	-1.0%	2.2%	7.0%	-0.5%	1.4%		-	
HFRX Equity Hedge Index	-0.7%	1.2%	8.3%	7.1%	2.1%	2.2%	3.1%	1.0%	0.0%
Entrust Special Opportunities Fund III	0.0%	0.0%	4.1%	9.3%	7.5%			-	
HFRI Fund of Funds Composite Index	-0.4%	0.6%	5.9%	6.0%	2.0%	2.8%	3.4%	2.6%	1.6%
Parametric Defensive Equity	-1.3%	-2.0%	6.3%	-	-				
50% S&P 500/50% 91 Day T-Bill	-1.2%	-0.1%	7.5%	8.0%	5.7%	5.8%	6.8%	6.5%	5.1%
Real Estate Composite	1.9%	1.9%	7.2%	7.3%	9.2%	9.8%	-	-	-
NFI	0.7%	2.0%	7.1%	7.2%	9.0%	9.8%	10.4%	10.8%	4.2%
Rreef America II	2.1%	2.1%	7.4%	7.5%	9.3%	10.3%	-	-	
NFI	0.7%	2.0%	7.1%	7.2%	9.0%	9.8%	10.4%	10.8%	4.2%
Barings Core Property Fund	1.6%	1.6%	6.9%	7.0%	9.0%		-		-
NFI	0.7%	2.0%	7.1%	7.2%	9.0%	9.8%	10.4%	10.8%	4.2%

Calendar Performance (Net of Fees)

Market Value: \$744.4 Million and 100.0% of Fund

C	al	e	n	d	а	r	Υ	e	a	ľ

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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%	0.6%	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	
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%	0.6%	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%	0.6%	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: \$744.4 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%
	40.00/						-				
Emerging Manager Composite	16.9%			-	-			-	-	-	
Emerging Manager Composite Emerging Manager Benchmark	16.9% 18.9%	 		 				-		-	
		 	 		-	 	 	- -	 	- 	
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq	18.9%	 	 	 	 	- - -	 	 	 	 	
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank	18.9% 98	 12.0%	 1.4%	 13.7%	 32.4%	 16.0%	 2.1%	 15.1%	 26.5%	 -37.0%	 5.5%
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital	18.9% 98 20.9%	 	 	 	 	 16.0% 16.4%	 	 	 	 	 5.5% 5.8%
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500	18.9% 98 20.9% 21.8%	 12.0%	 1.4%	 13.7%	 32.4%		 2.1%	 15.1%	 26.5%	 -37.0%	
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank	18.9% 98 20.9% 21.8% 21.7%	 12.0%	 1.4%	 13.7%	 32.4%		 2.1%	 15.1%	 26.5%	 -37.0%	
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity	18.9% 98 20.9% 21.8% 21.7% 56	 12.0% 12.1%	 1.4% 0.9%	 13.7%	 32.4% 33.1% 		 2.1%	 15.1% 16.1%	 26.5%	 -37.0%	
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management	18.9% 98 20.9% 21.8% 21.7% 56	 12.0% 12.1% 	 1.4% 0.9% 	 13.7% 13.2% 	 32.4% 33.1% 	16.4%	 2.1% 1.5% 	 15.1% 16.1% 	 26.5% 28.4% 	 -37.0% -37.6% 	5.8%
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity	18.9% 98 20.9% 21.8% 21.7% 56 11.1% 14.6%	 12.0% 12.1% 	 1.4% 0.9% 	 13.7% 13.2% 	 32.4% 33.1% 	16.4%	 2.1% 1.5% 	 15.1% 16.1% 	 26.5% 28.4% 	 -37.0% -37.6% 	5.8%
Emerging Manager Benchmark InvestorForce Public DB Glbl Eq Net Rank Twin Capital S&P 500 Russell 1000 eV US Large Cap Core Equity Net Rank CIM Investment Management Russell 2000 eV US Small Cap Core Equity Net Rank	18.9% 98 20.9% 21.8% 21.7% 56 11.1% 14.6%	 12.0% 12.1% 	 1.4% 0.9% 	 13.7% 13.2% 	 32.4% 33.1% 	16.4%	 2.1% 1.5% 	 15.1% 16.1% 	 26.5% 28.4% 	 -37.0% -37.6% 	5.8%



Calendar Performance (Net of Fees)

Market Value: \$744.4 Million and 100.0% of Fund

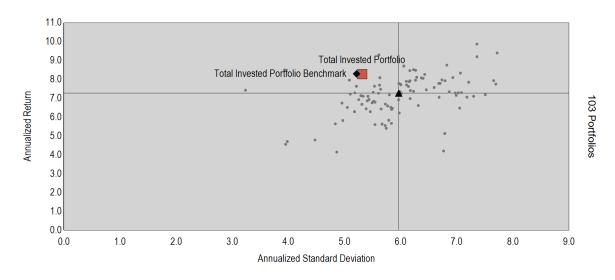
Calendar Year

	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%

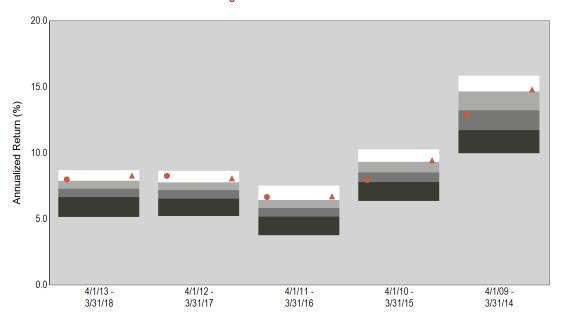
Invested Portfolio vs. Peer Universe

Market Value: \$443.8 Million and 59.6% of Fund

Annualized Return vs. Annualized Standard Deviation 5 Years Ending March 31, 2018



Rolling 5 Year Returns



	Return (Rank)										
5th Percentile	8.7		8.6		7.5		10.3		15.8		_
25th Percentile	7.9		7.8		6.4		9.3		14.7		
Median	7.3		7.2		5.8		8.5		13.2		
75th Percentile	6.6		6.5		5.2		7.8		11.7		
95th Percentile	5.2		5.2		3.8		6.4		10.0		
# of Portfolios	103		222		206		188		155		
Total Invested Portfolio Total Invested Portfolio Benchmark	8.0 8.3	(19) (12)	8.3 8.1	(11) (15)	6.7 6.7	(20) (19)	7.9 9.5	(69) (23)	12.9 14.8	(58) (19)	

Private Equity Composite

Annualized Performance

Asset Class	Fund Company	Vintage Yr.	Perf. as of:	Net IRR
Venture	Birchmere Ventures III	2005	12/31/2017	-2.4%
Venture	Draper Triangle Venture II	2004	12/31/2017	4.3%
Venture	Draper Triangle Venture III	2013	12/31/2017	
Venture	Novitas Capital Partners III	2003	12/31/2017	-19.1%
Global Diversified FoFs	Hirtle Callaghan PEP III	2003	12/31/2017	16.9%
Global Diversified FoFs	Hirtle Callaghan PEP IV	2004	12/31/2017	9.1%
Global Diversified FoFs	Hirtle Callaghan PEP V	2006	12/31/2017	2.2%
Mezzanine	Crescent Mezz Partners VI	2013	12/31/2017	8.5%
Mezzanine	Crescent Mezz Partners VII	2016	12/31/2017	5.4%
Total Private Equity				

Since Inception Cash Flows

					Remaining		
Asset Class	Fund Company	Commitment	Capital Calls	Distributions	Callable Amt.	Ending Value	¹ Cash Multiple
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	\$324,308	1.5
Venture	Draper Triangle Venture III	\$2,000,000	\$1,314,913	\$28,929	\$0	\$1,215,928	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	\$12,216,039	\$399,165	\$59,163	1.6
Global Diversified FoFs	Hirtle Callaghan PEP IV	\$8,000,000	\$7,418,650	\$10,725,222	\$581,350	\$77,307	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	\$8,780,541	\$5,615,184	\$1,219,459	\$5,338,317	1.2
Mezzanine	Crescent Mezz Partners VII	\$10,000,000	\$2,772,619	\$328,079	\$7,227,381	\$2,562,703	
Total Private Equity		\$44,000,000	\$33,358,822	\$33,422,689	\$9,945,995	\$10,502,875	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: \$744.4 Million and 100.0% of Fund

3 Years Ending March 31, 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	0.5	1.1%	0.3%	0.9	0.9	0.9	1.6%	111.2%	73.1%
BBgBarc US Aggregate TR	0.2						1.7%		
BlackRock Total Return Fund	0.3	0.7%	0.1%	0.9	1.0	0.4	1.6%	103.0%	91.6%
BBgBarc US Aggregate TR	0.2						1.7%		
SSgA S&P 500 Index Fund	1.4	0.0%	0.0%	1.0	1.0	1.7	3.7%	100.3%	99.2%
S&P 500	1.4						3.8%		
Frontier Capital Management	0.5	6.1%	-0.8%	1.4	0.9	-0.1	6.9%	123.3%	167.8%
Russell 2500	0.8						4.5%		
Guyasuta Investment Advisors	0.6	5.2%	-0.1%	1.0	0.8	0.0	6.2%	98.0%	97.4%
Russell 2000	0.7						5.5%		
MFS International Equity Fund	0.5	2.5%	0.2%	1.0	0.9	0.2	5.2%	102.4%	95.2%
MSCI EAFE	0.5						5.2%		
SSgA Active Emerging Markets Fund	0.6	2.8%	0.4%	1.0	1.0	0.6	7.7%	106.6%	94.3%
MSCI Emerging Markets	0.5						7.8%		
ABS Emerging Markets	0.7	3.5%	-0.1%	1.3	0.9	0.4	5.5%	129.5%	141.6%
HFRI Emerging Markets (Total) Index	0.8						4.2%		
ABS Offshore SPC Global	0.4	3.1%	0.2%	1.0	0.7	0.2	3.1%	126.7%	120.7%
HFRX Equity Hedge Index	0.3						2.6%		
Entrust Diversified Select Equity Fund	-0.1	3.8%	-0.7%	1.1	0.7	-0.7	3.5%	73.4%	134.7%
HFRX Equity Hedge Index	0.3						2.6%		

Investment Manager Statistics

Market Value: \$744.4 Million and 100.0% of Fund

5 Years Ending March 31, 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%	0.2%	0.9	0.9	0.6	1.5%	106.2%	76.1%
BBgBarc US Aggregate TR	0.5				-	-	1.6%		
BlackRock Total Return Fund	0.7	0.8%	0.2%	1.0	0.9	1.2	1.6%	118.1%	83.9%
BBgBarc US Aggregate TR	0.5						1.6%		
SSgA S&P 500 Index Fund	1.9	0.0%	0.0%	1.0	1.0	1.6	3.5%	100.4%	99.2%
S&P 500	1.8						3.5%		
Frontier Capital Management	1.1	5.1%	-0.2%	1.3	0.9	0.4	6.1%	125.5%	142.3%
Russell 2500	1.2						4.6%		
Guyasuta Investment Advisors	0.9	5.0%	0.0%	1.0	0.8	0.0	6.0%	94.4%	88.0%
Russell 2000	1.0						5.5%		
MFS International Equity Fund	0.6	2.3%	0.2%	1.0	1.0	0.2	5.1%	98.6%	90.9%
MSCI EAFE	0.6						5.2%		
SSgA Active Emerging Markets Fund	0.4	2.4%	0.1%	1.0	1.0	0.1	6.8%	101.9%	98.9%
MSCI Emerging Markets	0.3			-	-	-	6.8%		