



Pittsburgh Comprehensive Municipal Pension

Pittsburgh Comprehensive Municipal

Executive Summary

September 30, 2018

Total Fund Composite

Manager Status

Market Value: \$758.8 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	---
Hirtle Callaghan Private Equity Fund V, LP	Global Divers. Private Equity FoF	In Compliance	---
Dedicated Funding for CMPTF	Fixed Income Annuity	In Compliance	---
Crescent Mezzanine Partners VIB, LP	Mezz. Private Equity	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.

Total Fund Composite

Market Value: \$758.8 Million and 100.0% of Fund

Ending September 30, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$758,820,265	-\$9,306,120	100.0%	100.0%	\$0
Dedicated Funding for CMPTF	Fixed Income Annuity	\$298,224,063	-\$6,688,000	39.3%	40.0%	-\$5,304,043
Total Invested Portfolio		\$460,596,202	-\$2,618,120	60.7%	60.0%	\$5,304,043
Fixed Income Composite		\$73,895,309	-\$33,427	9.7%	13.0%	-\$24,751,325
Federated Investors	Core Fixed Income	\$54,225,417	-\$33,427	7.1%		
BlackRock Total Return Fund	Core Fixed Income	\$19,669,892	\$0	2.6%		
U.S. Equity Composite		\$182,388,620	-\$98,412	24.0%	22.0%	\$15,448,161
SSgA S&P 500 Index Fund	Large-Cap Core	\$117,407,894	\$0	15.5%		
Frontier Capital Management	Mid-Cap Core	\$34,163,710	-\$63,635	4.5%		
Guyasuta Investment Advisors	Small-Cap Core	\$30,817,016	-\$34,777	4.1%		
Non-U.S. Equity Composite		\$85,515,188	\$0	11.3%	12.0%	-\$5,543,244
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$67,268,667	\$0	8.9%		
SSgA Active Emerging Markets Fund	Emerging Markets	\$8,931,489	\$0	1.2%		
ABS Emerging Markets	Emerging Markets	\$9,315,032	\$0	1.2%		
Emerging Manager Composite		\$7,861,870	-\$10,268	1.0%	--	\$7,861,870
Twin Capital	Large-Cap Core	\$2,765,119	-\$1,387	0.4%		
CIM Investment Management	Small-Cap Core	\$2,765,255	-\$4,783	0.4%		
Fusion Investment Group	Global Core Equity	\$2,331,496	-\$4,098	0.3%		
Hedge Fund Composite		\$37,506,332	-\$3,894,230	4.9%	5.0%	-\$434,681
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$14,142,002	\$0	1.9%		
Entrust Diversified Select Equity Fund	Hedged Equity Hedge FoF	\$1,336,494	-\$3,591,950	0.2%		
Entrust Special Opportunities Fund III	Multi-Strat. Hedge Fund	\$10,369,894	-\$302,280	1.4%		
Parametric Defensive Equity	Defensive Equity	\$11,657,942	\$0	1.5%		
Real Estate Composite		\$44,227,768	-\$288,755	5.8%	5.0%	\$6,286,754
Rreef America II	Core Real Estate	\$22,691,966	-\$231,869	3.0%	2.5%	\$3,721,459
Barings Core Property Fund	Core Real Estate	\$21,535,802	-\$56,886	2.8%	2.5%	\$2,565,295
Private Equity Composite		\$9,124,829	-\$1,342,278	1.2%	3.0%	-\$13,639,779
Cash Composite		\$20,076,286	\$3,049,250	2.6%	0.0%	\$20,076,286

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

Total Invested Portfolio

Market Value: \$460.6 Million and 60.7% of Fund

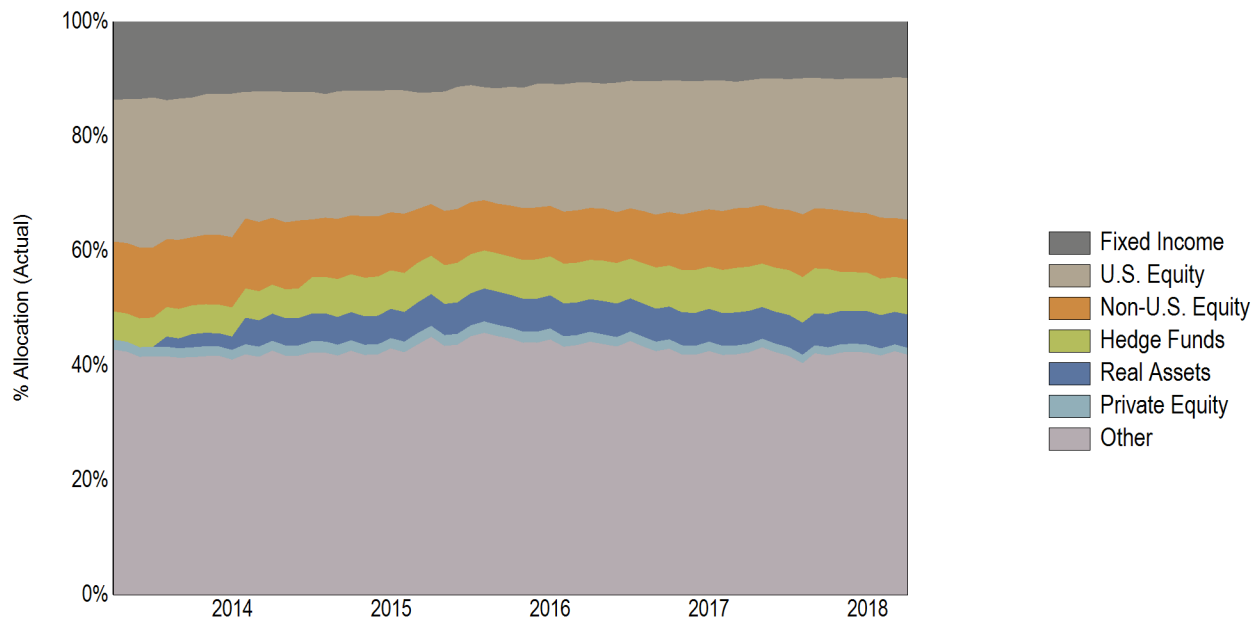
Ending September 30, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio
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Fixed Income Composite		\$73,895,309	-\$33,427	16.0%
Federated Investors	Core Fixed Income	\$54,225,417	-\$33,427	11.8%
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Guyasuta Investment Advisors	Small-Cap Core	\$30,817,016	-\$34,777	6.7%
Non-U.S. Equity Composite		\$85,515,188	\$0	18.6%
MFS International Equity Fund	Non-U.S. Large-Cap Core	\$67,268,667	\$0	14.6%
SSgA Active Emerging Markets Fund	Emerging Markets	\$8,931,489	\$0	1.9%
ABS Emerging Markets	Emerging Markets	\$9,315,032	\$0	2.0%
Emerging Manager Composite		\$7,861,870	-\$10,268	1.7%
Twin Capital	Large-Cap Core	\$2,765,119	-\$1,387	0.6%
CIM Investment Management	Small-Cap Core	\$2,765,255	-\$4,783	0.6%
Fusion Investment Group	Global Core Equity	\$2,331,496	-\$4,098	0.5%
Hedge Fund Composite		\$37,506,332	-\$3,894,230	8.1%
ABS Offshore SPC Global	Hedged Equity Hedge FoF	\$14,142,002	\$0	3.1%
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Private Equity Composite		\$9,124,829	-\$1,342,278	2.0%
Cash Composite		\$20,076,286	\$3,049,250	4.4%

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

Market Value: \$758.8 Million and 100.0% of Fund

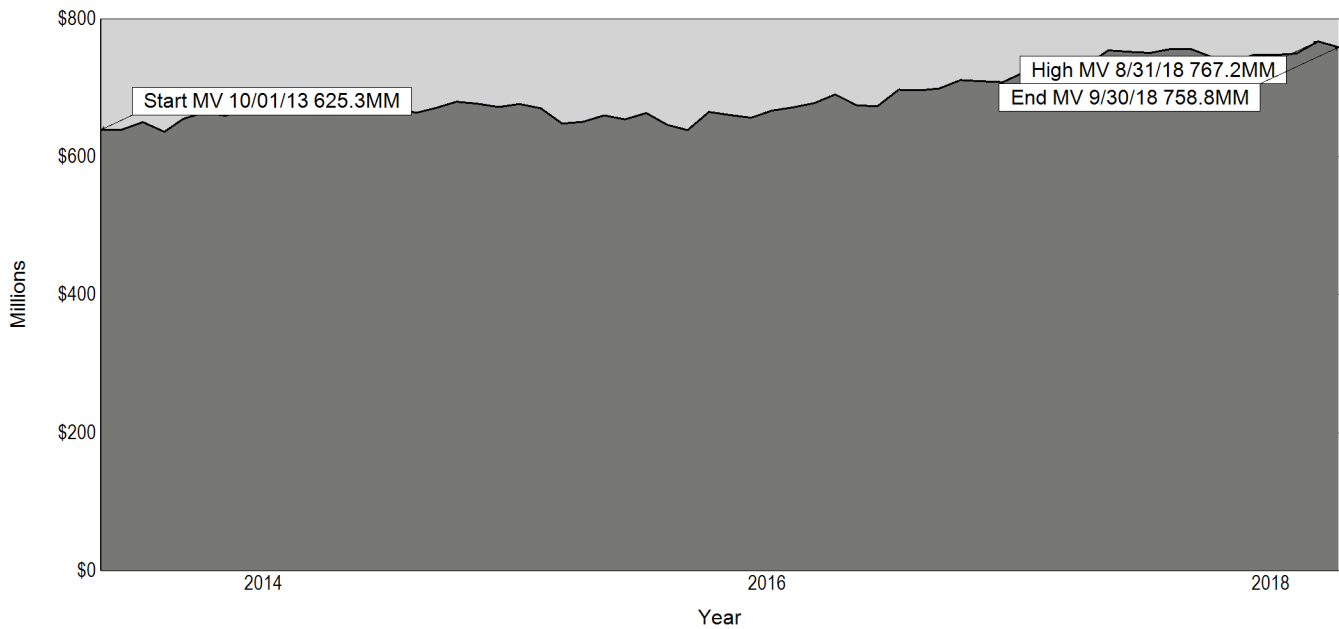
Historic Asset Allocation



Asset Allocation vs. Target
As Of September 30, 2018

	Current	Policy	Difference	%
U.S. Equity	\$187,918,993	\$166,940,458	\$20,978,535	2.8%
Non-U.S. Equity	\$78,531,653	\$91,058,432	-\$12,526,779	-1.7%
Hedge Funds	\$46,821,364	\$37,941,013	\$8,880,351	1.2%
Real Assets	\$44,227,768	\$37,941,013	\$6,286,754	0.8%
Private Equity	\$9,124,829	\$22,764,608	-\$13,639,779	-1.8%
Other	\$318,300,349	\$303,528,106	\$14,772,243	1.9%
Total	\$758,820,265	\$758,820,265		

Market Value: \$758.8 Million and 100.0% of Fund



Summary of Cash Flows

	Third Quarter	Year-To-Date	One Year	Three Years
Beginning Market Value	\$448,095,649.31	\$448,620,579.80	\$432,772,397.59	\$366,570,575.52
Net Cash Flow	-\$2,365,487.24	-\$6,559,481.02	-\$4,604,277.10	-\$26,512,421.63
Net Investment Change	\$14,866,039.83	\$18,535,103.12	\$32,428,081.41	\$120,538,048.01
Ending Market Value	\$460,596,201.90	\$460,596,201.90	\$460,596,201.90	\$460,596,201.90

Total Fund Composite

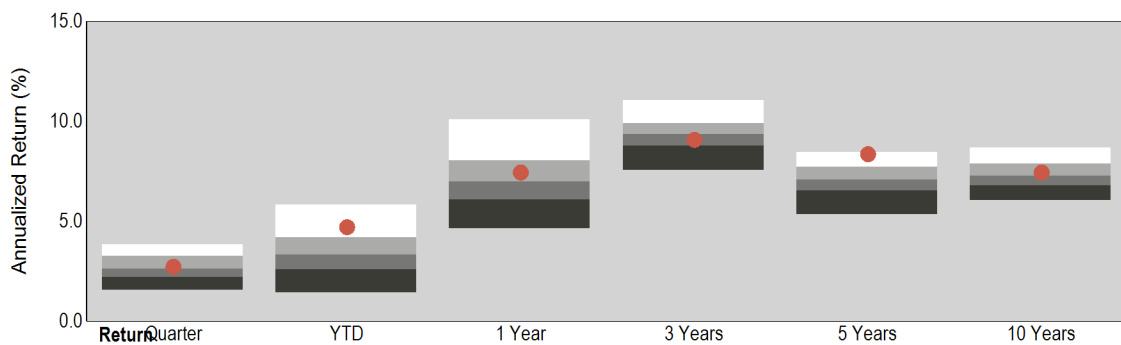
Annualized Performance (Net of Fees)

Market Value: \$758.8 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.1%	2.7%	4.7%	7.4%	9.3%	9.1%	7.5%	8.4%	9.4%	7.4%
<i>Total Fund Composite Benchmark</i>	0.2%	2.7%	4.6%	7.9%	9.2%	9.1%	7.5%	7.9%	9.1%	7.9%
<i>InvestorForce Public DB Net Rank</i>	73	47	16	37	53	64	15	7	37	42
Total Invested Portfolio	0.0%	3.3%	4.1%	7.3%	10.1%	10.2%	7.4%	7.9%	10.2%	7.2%
<i>Total Invested Portfolio Benchmark</i>	-0.1%	3.2%	3.9%	8.2%	10.5%	10.4%	7.4%	8.2%	10.1%	8.2%
<i>InvestorForce Public DB Net Rank</i>	48	24	30	40	28	18	19	19	12	52
Fixed Income Composite	-0.4%	0.3%	-1.3%	-0.8%	0.4%	2.3%	2.2%	2.8%	3.3%	4.3%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
<i>InvestorForce Public DB US Fix Inc Net Rank</i>	73	39	83	64	35	33	31	24	20	45
U.S. Equity Composite	-0.2%	6.8%	9.4%	15.1%	17.0%	17.6%	12.1%	13.0%	16.9%	11.1%
<i>Dow Jones U.S. Total Stock Market</i>	0.2%	7.1%	10.6%	17.6%	18.1%	17.0%	12.4%	13.4%	16.8%	12.0%
<i>InvestorForce Public DB US Eq Net Rank</i>	66	31	67	81	66	8	46	42	15	77
Non-U.S. Equity Composite	-0.5%	0.9%	-1.2%	3.1%	11.5%	10.1%	5.4%	5.0%	8.6%	--
<i>MSCI ACWI ex USA</i>	0.5%	0.7%	-3.1%	1.8%	10.3%	10.0%	4.0%	4.1%	7.2%	5.2%
<i>InvestorForce Public DB ex-US Eq Net Rank</i>	86	25	13	16	15	49	27	36	35	--
Emerging Manager Composite	-1.1%	3.5%	7.1%	12.4%	15.9%	--	--	--	--	--
<i>Emerging Manager Benchmark</i>	-0.6%	5.1%	8.7%	14.4%	17.3%	--	--	--	--	--
Hedge Fund Composite	0.7%	2.5%	3.2%	4.9%	7.4%	4.7%	3.8%	4.9%	--	--
<i>HFRI Fund of Funds Composite Index</i>	-0.2%	0.2%	0.9%	3.0%	4.7%	3.3%	2.4%	3.2%	3.6%	2.5%
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>InvestorForce Public DB Hedge Funds Net Rank</i>	13	14	41	46	17	30	26	17	--	--

InvestorForce Public DB Net Return Comparison



	Quarter	YTD	1 Year	3 Years	5 Years	10 Years
5th Percentile	3.8	5.8	10.1	11.0	8.4	8.7
25th Percentile	3.3	4.2	8.0	9.9	7.7	7.9
Median	2.6	3.3	7.0	9.3	7.1	7.3
75th Percentile	2.2	2.6	6.1	8.8	6.5	6.8
95th Percentile	1.6	1.4	4.6	7.5	5.3	6.0
# of Portfolios	254	253	252	237	219	168
Total Fund Composite	2.7	4.7	7.4	9.1	8.4	7.4

Total Fund Composite

Calendar Performance (Net of Fees)

Market Value: \$758.8 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%
<i>Total Fund Composite Benchmark</i>	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%	-26.1%	8.5%
<i>InvestorForce Public DB Net Rank</i>	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%
<i>Total Invested Portfolio Benchmark</i>	16.3%	7.7%	0.3%	6.9%	17.6%	12.2%	0.3%	12.4%	22.9%	-26.2%	8.2%
<i>InvestorForce Public DB Net Rank</i>	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%	--
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.6%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
<i>InvestorForce Public DB US Fix Inc Net Rank</i>	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%	--
<i>Dow Jones U.S. Total Stock Market</i>	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%	-37.2%	5.6%
<i>InvestorForce Public DB US Eq Net Rank</i>	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%	--	--	--	--	--
<i>MSCI ACWI ex USA</i>	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%	-45.5%	16.7%
<i>InvestorForce Public DB ex-US Eq Net Rank</i>	47	83	21	59	82	7	--	--	--	--	--
Emerging Manager Composite	16.9%	--	--	--	--	--	--	--	--	--	--
<i>Emerging Manager Benchmark</i>	18.9%	--	--	--	--	--	--	--	--	--	--
Hedge Fund Composite	9.0%	0.7%	0.0%	4.9%	--	--	--	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%	-21.4%	10.3%
<i>HFRX Equity Hedge Index</i>	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
<i>InvestorForce Public DB Hedge Funds Net Rank</i>	23	74	45	35	--	--	--	--	--	--	--

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$758.8 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.1%	2.7%	4.7%	7.4%	9.3%	9.1%	7.5%	8.4%	9.4%	7.4%
<i>Total Fund Composite Benchmark</i>	0.2%	2.7%	4.6%	7.9%	9.2%	9.1%	7.5%	7.9%	9.1%	7.9%
<i>InvestorForce Public DB Net Rank</i>	73	47	16	37	53	64	15	7	37	42
Dedicated Funding for CMPTF	-0.4%	1.8%	5.6%	7.6%	8.1%	7.6%	7.5%	9.0%	8.4%	--
<i>Annual Return</i>	0.6%	1.8%	5.6%	7.5%	7.5%	7.5%	7.5%	7.5%	7.7%	--
Total Invested Portfolio	0.0%	3.3%	4.1%	7.3%	10.1%	10.2%	7.4%	7.9%	10.2%	7.2%
<i>Total Invested Portfolio Benchmark</i>	-0.1%	3.2%	3.9%	8.2%	10.5%	10.4%	7.4%	8.2%	10.1%	8.2%
<i>InvestorForce Public DB Net Rank</i>	48	24	30	40	28	18	19	19	12	52
Fixed Income Composite	-0.4%	0.3%	-1.3%	-0.8%	0.4%	2.3%	2.2%	2.8%	3.3%	4.3%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
<i>InvestorForce Public DB US Fix Inc Net Rank</i>	73	39	83	64	35	33	31	24	20	45
Federated Investors	-0.4%	0.5%	-1.1%	-0.5%	0.6%	2.5%	2.2%	2.7%	2.9%	4.4%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
<i>eV US Core Fixed Inc Net Rank</i>	13	10	18	15	12	9	21	23	21	42
BlackRock Total Return Fund	-0.7%	-0.1%	-1.8%	-1.5%	0.0%	1.8%	2.1%	3.0%	3.7%	5.1%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
<i>eV US Core Fixed Inc Net Rank</i>	89	91	78	88	25	31	28	12	6	12
U.S. Equity Composite	-0.2%	6.8%	9.4%	15.1%	17.0%	17.6%	12.1%	13.0%	16.9%	11.1%
<i>Dow Jones U.S. Total Stock Market</i>	0.2%	7.1%	10.6%	17.6%	18.1%	17.0%	12.4%	13.4%	16.8%	12.0%
<i>InvestorForce Public DB US Eq Net Rank</i>	66	31	67	81	66	8	46	42	15	77
SSgA S&P 500 Index Fund	0.6%	7.7%	10.6%	17.9%	18.3%	17.4%	12.6%	14.0%	--	--
<i>S&P 500</i>	0.6%	7.7%	10.6%	17.9%	18.3%	17.3%	12.5%	13.9%	16.9%	12.0%
<i>eV US Large Cap Core Equity Net Rank</i>	36	29	24	28	30	14	19	15	--	--
Frontier Capital Management	-1.8%	5.5%	7.4%	11.4%	15.1%	17.3%	11.6%	11.5%	16.6%	13.0%
<i>Russell 2500</i>	-1.5%	4.7%	10.4%	16.2%	17.0%	16.1%	12.0%	11.4%	16.5%	12.0%
<i>eV US Small-Mid Cap Core Equity Net Rank</i>	77	37	70	80	80	16	58	52	38	27
Guyasuta Investment Advisors	-1.2%	4.7%	7.3%	9.0%	14.1%	18.4%	11.0%	10.9%	17.8%	13.1%
<i>Russell 2000</i>	-2.4%	3.6%	11.5%	15.2%	18.0%	17.1%	12.9%	11.1%	16.4%	11.1%
<i>eV US Small Cap Core Equity Net Rank</i>	21	34	71	84	79	20	78	56	25	20

Investment Manager

Annualized Performance (Net of Fees)

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Non-U.S. Equity Composite	-0.5%	0.9%	-1.2%	3.1%	11.5%	10.1%	5.4%	5.0%	8.6%	--
MSCI ACWI ex USA	0.5%	0.7%	-3.1%	1.8%	10.3%	10.0%	4.0%	4.1%	7.2%	5.2%
InvestorForce Public DB ex-US Eq Net Rank	86	25	13	16	15	49	27	36	35	--
MFS International Equity Fund	-0.2%	1.9%	0.6%	4.7%	12.3%	10.0%	5.9%	5.5%	9.7%	--
MSCI EAFE	0.9%	1.4%	-1.4%	2.7%	10.6%	9.2%	4.5%	4.4%	8.3%	5.4%
Foreign Large Blend MStar MF Rank	83	15	6	8	5	24	12	14	14	--
SSgA Active Emerging Markets Fund	-0.1%	0.3%	-5.1%	-0.1%	11.6%	13.4%	4.8%	4.2%	5.5%	--
MSCI Emerging Markets	-0.5%	-1.1%	-7.7%	-0.8%	10.2%	12.4%	3.4%	3.6%	5.0%	5.4%
eV Emg Mkts Equity Net Rank	29	18	12	20	14	21	19	36	50	--
ABS Emerging Markets	-2.9%	-5.2%	-9.2%	-3.9%	5.5%	8.2%	--	--	--	--
HFRI Emerging Markets (Total) Index	-1.3%	-3.7%	-7.2%	-3.7%	4.8%	6.6%	2.4%	3.0%	3.6%	3.6%
MSCI Emerging Markets	-0.5%	-1.1%	-7.7%	-0.8%	10.2%	12.4%	3.4%	3.6%	5.0%	5.4%
Emerging Manager Composite	-1.1%	3.5%	7.1%	12.4%	15.9%	--	--	--	--	--
Emerging Manager Benchmark	-0.6%	5.1%	8.7%	14.4%	17.3%	--	--	--	--	--
Twin Capital	0.0%	6.6%	8.6%	16.2%	17.3%	--	--	--	--	--
S&P 500	0.6%	7.7%	10.6%	17.9%	18.3%	17.3%	12.5%	13.9%	16.9%	12.0%
Russell 1000	0.4%	7.4%	10.5%	17.8%	18.2%	17.1%	12.4%	13.7%	16.9%	12.1%
eV US Large Cap Core Equity Net Rank	69	61	52	48	39	--	--	--	--	--
CIM Investment Management	-2.9%	2.3%	11.6%	15.3%	16.6%	--	--	--	--	--
Russell 2000	-2.4%	3.6%	11.5%	15.2%	18.0%	17.1%	12.9%	11.1%	16.4%	11.1%
eV US Small Cap Core Equity Net Rank	85	76	41	42	61	--	--	--	--	--
Fusion Investment Group	-0.3%	1.5%	0.7%	5.1%	--	--	--	--	--	--
MSCI ACWI	0.4%	4.3%	3.8%	9.8%	14.1%	13.4%	8.0%	8.7%	11.6%	8.2%
eV Global All Cap Core Eq Net Rank	75	91	82	87	--	--	--	--	--	--

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$758.8 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedge Fund Composite	0.7%	2.5%	3.2%	4.9%	7.4%	4.7%	3.8%	4.9%	--	--
<i>HFRI Fund of Funds Composite Index</i>	-0.2%	0.2%	0.9%	3.0%	4.7%	3.3%	2.4%	3.2%	3.6%	2.5%
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>InvestorForce Public DB Hedge Funds Net Rank</i>	13	14	41	46	17	30	26	17	--	--
ABS Offshore SPC Global	-0.7%	0.8%	1.8%	3.8%	7.0%	4.0%	4.3%	5.0%	--	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
Entrust Diversified Select Equity Fund	0.3%	2.9%	2.8%	4.0%	6.4%	3.6%	1.9%	3.5%	--	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
Entrust Special Opportunities Fund III	2.6%	2.6%	2.7%	3.1%	7.0%	9.2%	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>	-0.2%	0.2%	0.9%	3.0%	4.7%	3.3%	2.4%	3.2%	3.6%	2.5%
Parametric Defensive Equity	0.8%	4.6%	5.7%	8.8%	--	--	--	--	--	--
<i>50% S&P 500/50% 91 Day T-Bill</i>	0.4%	4.1%	6.0%	9.6%	9.5%	8.9%	6.6%	7.2%	8.5%	6.3%
Real Estate Composite	1.8%	1.8%	5.7%	7.5%	7.3%	8.0%	9.3%	--	--	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
Rreef America II	2.3%	2.3%	6.4%	8.6%	7.7%	8.2%	9.8%	--	--	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
Barings Core Property Fund	1.3%	1.3%	4.9%	6.4%	6.8%	7.8%	8.7%	--	--	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%

Investment Manager

Calendar Performance (Net of Fees)

Market Value: \$758.8 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%
<i>Total Fund Composite Benchmark</i>	12.2%	7.7%	3.5%	7.2%	14.1%	10.5%	1.3%	12.6%	23.0%	-26.1%	8.5%
<i>InvestorForce Public DB Net Rank</i>	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%	--	--	--	--
<i>Annual Return</i>	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%
<i>Total Invested Portfolio Benchmark</i>	16.3%	7.7%	0.3%	6.9%	17.6%	12.2%	0.3%	12.4%	22.9%	-26.2%	8.2%
<i>InvestorForce Public DB Net Rank</i>	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%	--
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
<i>InvestorForce Public DB US Fix Inc Net Rank</i>	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%
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
<i>eV US Core Fixed Inc Net Rank</i>	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%
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%	7.0%
<i>eV US Core Fixed Inc Net Rank</i>	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%	--
<i>Dow Jones U.S. Total Stock Market</i>	21.2%	12.6%	0.4%	12.5%	33.5%	16.4%	1.1%	17.5%	28.6%	-37.2%	5.6%
<i>InvestorForce Public DB US Eq Net Rank</i>	70	2	84	14	50	4	48	99	86	29	--
SSgA S&P 500 Index Fund	21.9%	12.0%	1.5%	13.8%	--	--	--	--	--	--	--
<i>S&P 500</i>	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%	5.5%
<i>eV US Large Cap Core Equity Net Rank</i>	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%
<i>Russell 2500</i>	16.8%	17.6%	-2.9%	7.1%	36.8%	17.9%	-2.5%	26.7%	34.4%	-36.8%	1.4%
<i>eV US Small-Mid Cap Core Equity Net Rank</i>	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%
<i>Russell 2000</i>	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%	-4.2%	26.9%	27.2%	-33.8%	-1.6%
<i>eV US Small Cap Core Equity Net Rank</i>	71	3	88	15	73	1	17	97	9	18	80

Investment Manager

Calendar Performance (Net of Fees)

Market Value: \$758.8 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	--	--	--	--	--	--	--	--	--	--	--

Investment Manager

Calendar Performance (Net of Fees)

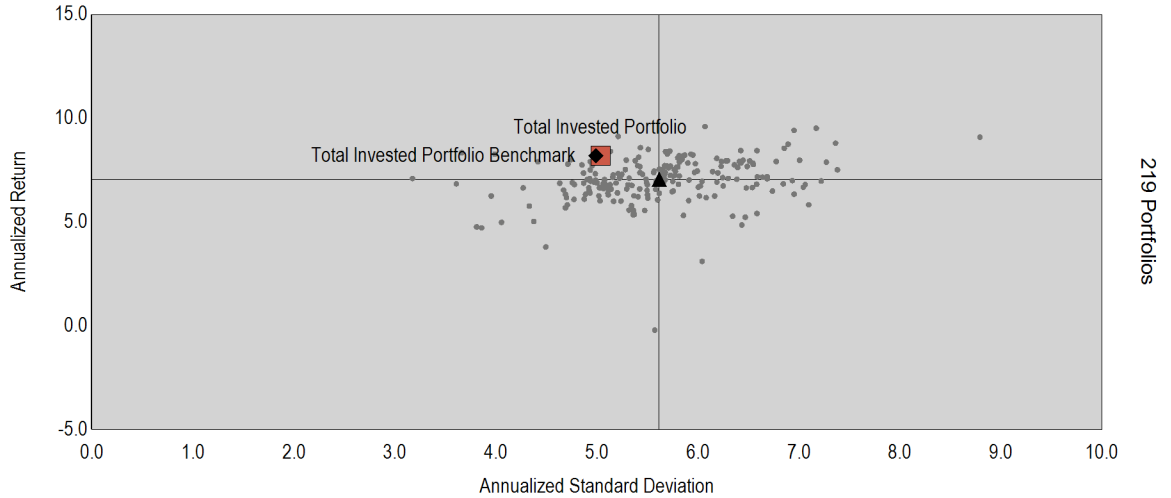
Market Value: \$758.8 Million and 100.0% of Fund

	Calendar Year										
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Hedge Fund Composite	9.0%	0.7%	0.0%	4.9%	--	--	--	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>	7.8%	0.5%	-0.3%	3.4%	9.0%	4.8%	-5.7%	5.7%	11.5%	-21.4%	10.3%
<i>HFRX Equity Hedge Index</i>	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%	3.2%
<i>InvestorForce Public DB Hedge Funds Net Rank</i>	23	74	45	35	--	--	--	--	--	--	--
ABS Offshore SPC Global	12.3%	-4.3%	4.0%	4.8%	--	--	--	--	--	--	--
<i>HFRX Equity Hedge Index</i>	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%	--	--	--	--	--	--	--
<i>HFRX Equity Hedge Index</i>	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%	--	--	--	--	--	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>	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	--	--	--	--	--	--	--	--	--	--	--
<i>50% S&P 500/50% 91 Day T-Bill</i>	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%	--	--	--	--	--	--	--
<i>NFI</i>	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%	--	--	--	--	--	--	--
<i>NFI</i>	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%	--	--	--	--	--	--	--	--
<i>NFI</i>	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%	14.8%

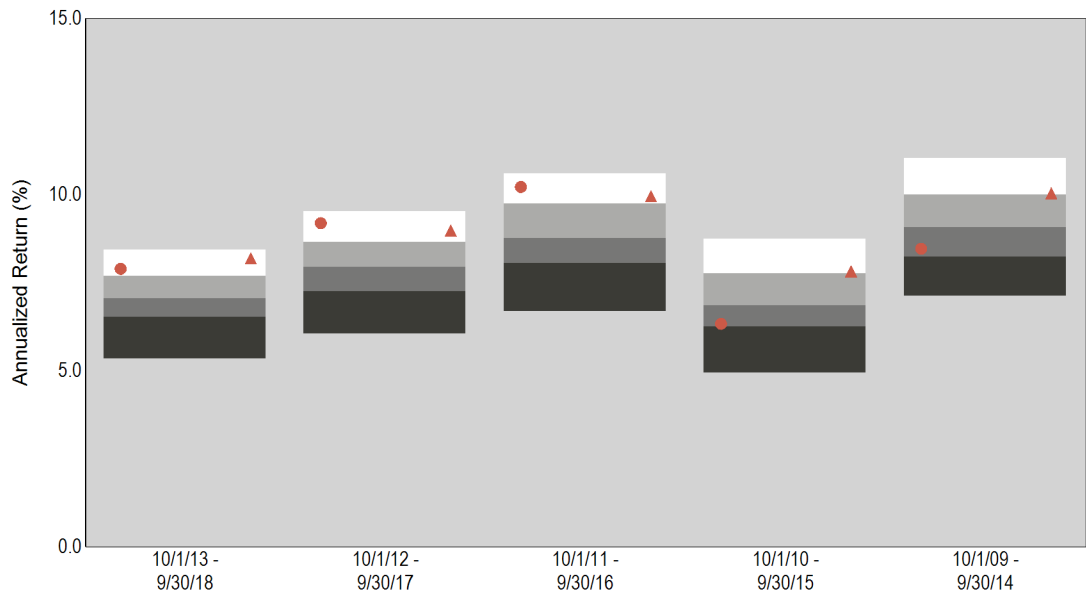
Invested Portfolio vs. Peer Universe

Market Value: \$460.6 Million and 60.7% of Fund

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



Rolling 5 Year Returns



	Return (Rank)				
	10/1/13 - 9/30/18	10/1/12 - 9/30/17	10/1/11 - 9/30/16	10/1/10 - 9/30/15	10/1/09 - 9/30/14
5th Percentile	8.4	9.5	10.6	8.8	11.0
25th Percentile	7.7	8.7	9.7	7.8	10.0
Median	7.1	8.0	8.8	6.9	9.1
75th Percentile	6.5	7.3	8.1	6.3	8.2
95th Percentile	5.3	6.1	6.7	5.0	7.1
# of Portfolios	219	227	219	198	159
● Total Invested Portfolio	7.9 (19)	9.2 (9)	10.2 (11)	6.3 (72)	8.5 (68)
▲ Total Invested Portfolio Benchmark	8.2 (11)	9.0 (13)	10.0 (19)	7.8 (24)	10.0 (24)

Private Equity Composite

Annualized Performance

Asset Class	Fund Company	Vintage Yr.	Perf. as of:	Net IRR
Venture	Birchmere Ventures III	2005	6/30/2018	-2.4%
Venture	Draper Triangle Venture II	2004	6/30/2018	4.3%
Venture	Draper Triangle Venture III	2013	6/30/2018	-8.0%
Venture	Novitas Capital Partners III	2003	6/30/2018	-35.6%
Global Diversified FoFs	Hirtle Callaghan PEP III	2003	6/30/2018	16.9%
Global Diversified FoFs	Hirtle Callaghan PEP IV	2004	6/30/2018	9.1%
Global Diversified FoFs	Hirtle Callaghan PEP V	2006	6/30/2018	1.9%
Mezzanine	Crescent Mezz Partners VI	2013	9/30/2018	8.8%
Mezzanine	Crescent Mezz Partners VII	2016	9/30/2018	7.6%
Total Private Equity				

Since Inception Cash Flows

Asset Class	Fund Company	Commitment	Capital Calls	Distributions	Remaining 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	\$1,272,598	\$0	\$191,312	1.5
Venture	Draper Triangle Venture III	\$2,000,000	\$1,574,147	\$28,929	\$0	\$1,256,074	0.8
Venture	Novitas Capital Partners III	\$1,000,000	\$989,904	\$425,899	\$0	\$0	0.4
Global Diversified FoFs	Hirtle Callaghan PEP III	\$8,000,000	\$7,600,835	\$12,277,293	\$0	\$0	1.6
Global Diversified FoFs	Hirtle Callaghan PEP IV	\$8,000,000	\$7,418,650	\$10,802,530	\$0	\$0	1.5
Global Diversified FoFs	Hirtle Callaghan PEP V	\$3,000,000	\$2,481,360	\$2,117,184	\$518,640	\$699,854	1.1
Mezzanine	Crescent Mezz Partners VI	\$10,000,000	\$8,952,898	\$7,216,097	\$1,047,102	\$4,223,191	1.3
Mezzanine	Crescent Mezz Partners VII	\$10,000,000	\$3,024,768	\$605,140	\$6,975,232	\$2,684,788	1.1
Total Private Equity		\$44,000,000	\$34,042,562	\$35,638,942	\$8,540,974	\$9,124,829	1.3

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