J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Summary
For Period Ending May 2016
Net of Fee
Excess Return - Additive

Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	10 Year	Inception to Date	Inception Date
Total Fund	4,356,958,132	100.00%	0.36	6.12	(3.45)	1.42	(4.73)	3.48	4.63	4.75	7.31	07/01/88
Total Fund Policy			0.11	6.29	(1.64)	2.27	(3.09)	4.45	5.32	5.93	8.20	
Excess Return			0.24	(0.17)	(1.81)	(0.86)	(1.64)	(0.97)	(0.70)	(1.18)	(0.89)	
Total Fund without Alternative Assets	2,935,726,281	67.38%	0.11	6.72	(3.56)	1.37	(5.15)	-	-	-	0.95	01/01/14
U.S. Equity	1,160,309,004	26.63%	1.57	9.43	(1.43)	1.87	(2.85)	9.01	9.90	6.96	9.25	07/01/88
Russell 3000 Index			1.79	9.63	1.93	3.41	0.22	10.57	11.15	7.39	9.98	
Excess Return			(0.21)	(0.20)	(3.36)	(1.54)	(3.07)	(1.55)	(1.25)	(0.44)	(0.73)	
Non-US Equity Developed	676,805,885	15.53%	(0.57)	8.74	(8.12)	(0.42)	(10.75)	0.84	1.20	1.98	5.29	01/01/89
MSCI EAFE			(0.91)	8.59	(7.04)	(1.10)	(9.68)	2.00	1.99	2.14	4.46	
Excess Return			0.34	0.14	(1.07)	0.69	(1.07)	(1.16)	(0.79)	(0.16)	0.83	
Non-US Equity Emerging	188,140,993	4.32%	(3.66)	9.54	(13.45)	3.31	(15.95)	(4.67)	(6.10)	-	6.33	01/01/09
MSCI Emerging Markets (Net) Index			(3.73)	9.60	(15.43)	2.32	(17.63)	(4.95)	(4.83)	-	7.39	
Excess Return			0.07	(0.06)	1.99	0.99	1.68	0.28	(1.27)	-	(1.06)	
Investment Grade Fixed Income	589,632,962	13.53%	(0.99)	2.03	2.78	4.27	1.45	1.69	3.06	4.80	6.39	07/01/88
Barclays Capital Aggregate Index			0.03	1.33	4.13	3.45	2.99	2.91	3.33	4.97	6.57	
Excess Return			(1.02)	0.70	(1.35)	0.82	(1.54)	(1.22)	(0.27)	(0.17)	(0.18)	
Opportunistic Fixed Income	561,989,663	12.90%	1.20	4.15	(4.39)	0.30	(4.73)	0.87	-	-	1.99	12/01/12
50% Barclays HY/50% S&P Lev Loan			0.76	7.46	0.84	6.27	(0.11)	2.77	-	-	3.74	
Excess Return			0.44	(3.31)	(5.23)	(5.97)	(4.62)	(1.90)	-	-	(1.75)	
Absolute Return	273,155,649	6.27%	1.24	(0.42)	(7.90)	(3.55)	(7.54)	0.30	0.94	1.89	2.32	09/01/05
HFRI Fund of Funds Composite Index			0.47	(0.15)	(6.46)	(3.59)	(6.13)	0.68	0.18	1.01	1.73	
Excess Return			0.78	(0.27)	(1.45)	0.04	(1.41)	(0.38)	0.76	0.89	0.59	

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Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	10 Year	Inception to Date	Inception Date
Real Assets	329,853,415	7.57%	1.22	15.38	(6.03)	7.13	(8.91)	3.50	-	-	5.89	12/01/12
Real Assets Benchmark			(1.49)	7.73	(16.07)	(1.47)	(19.14)	(5.12)	-	-	(1.84)	
Excess Return			2.71	7.64	10.03	8.60	10.24	8.61	-	-	7.73	
Private Assets	427,703,103	9.82%	0.11	2.43	6.01	2.18	6.21	10.68	12.98	10.55	8.21	04/01/96
Private Assets Benchmark			0.11	2.44	6.02	2.19	6.22	10.68	-	-	-	
Excess Return			0.00	(0.01)	(0.01)	(0.01)	(0.01)	0.00	-	-	-	
Cash	149,367,459	3.43%	0.09	0.37	1.12	0.50	1.30	2.29	-	-	2.27	12/01/12
3 Month US T-Bill			0.02	0.07	0.12	0.10	0.12	0.06	-	-	0.06	
Excess Return			0.07	0.30	1.00	0.41	1.18	2.23	-	-	2.21	

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Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
Total Fund	**4,356,958,132**	**100.00%**	**0.36**	**6.12**	**(3.45)**	**1.42**	**(4.73)**	**3.48**	**4.63**	**7.31**	**07/01/88**
Total Fund Policy			**0.11**	**6.29**	**(1.64)**	**2.27**	**(3.09)**	**4.45**	**5.32**	**8.20**	
Excess Return			**0.24**	**(0.17)**	**(1.81)**	**(0.86)**	**(1.64)**	**(0.97)**	**(0.70)**	**(0.89)**	
U.S. Equity	**1,160,309,004**	**26.63%**	**1.57**	**9.43**	**(1.43)**	**1.87**	**(2.85)**	**9.01**	**9.90**	**9.25**	**07/01/88**
Russell 3000 Index			**1.79**	**9.63**	**1.93**	**3.41**	**0.22**	**10.57**	**11.15**	**9.98**	
Excess Return			**(0.21)**	**(0.20)**	**(3.36)**	**(1.54)**	**(3.07)**	**(1.55)**	**(1.25)**	**(0.73)**	
Rhumbline Russell 1000 Index	235,796,345	5.41%	1.63	9.42	2.12	3.10	0.24	10.52	11.19	6.24	05/01/07
Russell 1000 Index			1.75	9.43	2.70	3.51	0.78	10.89	11.44	6.26	
Excess Return			(0.12)	(0.01)	(0.58)	(0.41)	(0.54)	(0.37)	(0.24)	(0.03)	
Rhumbline S&P 500 Index	400,698,830	9.20%	1.79	9.05	3.67	3.38	1.69	10.89	-	12.28	04/01/12
S&P 500 Index			1.80	9.12	3.72	3.57	1.72	11.06	-	12.41	
Excess Return			(0.01)	(0.07)	(0.06)	(0.18)	(0.03)	(0.16)	-	(0.14)	
Rhumbline Russell 1000 Growth Index	109,361,012	2.51%	1.93	7.90	3.21	1.69	1.42	11.90	11.80	7.75	05/01/07
Russell 1000 Growth			1.94	7.82	3.43	1.76	1.61	12.50	12.11	7.91	
Excess Return			(0.01)	0.07	(0.22)	(0.07)	(0.19)	(0.61)	(0.31)	(0.17)	
Aronson+Johnson+Ortiz, LP	34,576,809	0.79%	(0.03)	7.49	(5.59)	(2.67)	(7.67)	7.36	9.68	7.25	05/01/01
Russell 1000 Value			1.55	11.16	1.98	5.39	(0.06)	9.23	10.70	6.29	
Excess Return			(1.59)	(3.67)	(7.56)	(8.06)	(7.62)	(1.87)	(1.02)	0.96	
Brandywine LCV	22,472,618	0.52%	(0.64)	8.19	(11.36)	(1.35)	(14.17)	-	-	(5.38)	10/01/14
Russell 1000 Value (Gross)			1.55	11.16	1.98	5.39	(0.06)	-	-	3.79	
Excess Return			(2.19)	(2.96)	(13.34)	(6.73)	(14.11)	-	-	(9.17)	
Lyrical LCV	30,652,182	0.70%	2.03	11.31	(4.81)	2.59	(8.13)	-	-	1.84	10/01/14
Russell 1000 Value (Gross)			1.55	11.16	1.98	5.39	(0.06)	-	-	3.79	
Excess Return			0.47	0.15	(6.79)	(2.80)	(8.07)	-	-	(1.95)	

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O'Shaughnessy Asset Management, LLC	34,792,006	0.80%	(1.48)	5.01	(6.69)	1.53	(8.55)	8.52	-	13.29	07/01/12
Russell 1000 Value (Gross)			1.55	11.16	1.98	5.39	(0.06)	9.23	-	13.60	
Excess Return			(3.03)	(6.15)	(8.67)	(3.85)	(8.49)	(0.71)	-	(0.31)	
Ceredex Value Advisors LLC	75,966,244	1.74%	1.80	11.65	1.16	5.85	(1.64)	8.57	-	14.02	01/01/12
Russell Midcap Value Index			1.64	13.40	2.31	7.89	(0.31)	10.22	-	15.15	
Excess Return			0.16	(1.76)	(1.15)	(2.04)	(1.33)	(1.65)	-	(1.13)	
Hahn Capital	51,012,313	1.17%	0.97	12.08	(2.75)	4.69	(2.31)	-	-	2.21	10/01/14
Russell Midcap Value (Gross)			1.64	13.40	2.31	7.89	(0.31)	-	-	5.28	
Excess Return			(0.66)	(1.32)	(5.06)	(3.20)	(2.00)	-	-	(3.07)	
Herndon MCV	18,442,251	0.42%	0.24	8.42	(12.12)	0.29	(13.48)	-	-	(3.91)	10/01/14
S&P 400 Value (Gross)			1.42	13.62	0.79	9.73	(0.96)	-	-	5.59	
Excess Return			(1.19)	(5.20)	(12.92)	(9.44)	(12.52)	-	-	(9.50)	
Apex Capital Management, Inc.	18,937,780	0.43%	2.13	11.01	(10.50)	(1.70)	(10.78)	8.46	9.55	15.72	12/31/09
Russell 2500 Growth (Gross)			2.48	11.43	(7.00)	0.71	(7.31)	8.89	9.03	14.43	
Excess Return			(0.35)	(0.42)	(3.50)	(2.41)	(3.48)	(0.44)	0.52	1.29	
Emerald Advisors, Inc.	34,927,188	0.80%	2.81	8.51	(14.90)	(4.49)	(11.64)	10.46	9.97	8.23	01/01/05
Russell 2000 Growth Index			2.69	11.66	(10.34)	(1.14)	(9.13)	7.68	8.15	7.21	
Excess Return			0.12	(3.15)	(4.56)	(3.35)	(2.50)	2.78	1.83	1.02	
Ariel	33,416,105	0.77%	0.91	10.11	-	-	-	-	-	9.87	02/01/16
Russell 2500 Value (Gross)			1.77	12.99	-	-	-	-	-	14.20	
Excess Return			(0.86)	(2.88)	-	-	-	-	-	(4.33)	
Rhumbline Russell 2000 Growth	30,739,173	0.71%	2.66	11.68	(10.42)	(1.16)	(9.23)	7.59	-	11.81	09/01/12
Russell 2000 Growth (Gross)			2.69	11.66	(10.34)	(1.14)	(9.13)	7.68	-	11.94	
Excess Return			(0.03)	0.01	(0.08)	(0.02)	(0.09)	(0.09)	-	(0.13)	

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Fisher Asset Management LLC	28,518,149	0.65%	3.03	13.44	(2.63)	2.97	(1.75)	9.33	8.82	8.53	06/01/08
Russell 2000 Value Index			1.83	12.61	(2.88)	5.76	(2.75)	6.10	7.55	6.36	
Excess Return			1.19	0.83	0.25	(2.79)	1.00	3.23	1.27	2.17	
Non-US Equity Developed	**676,805,885**	**15.53%**	**(0.57)**	**8.74**	**(8.12)**	**(0.42)**	**(10.75)**	**0.84**	**1.20**	**5.29**	**01/01/89**
MSCI EAFE			**(0.91)**	**8.59**	**(7.04)**	**(1.10)**	**(9.68)**	**2.00**	**1.99**	**4.46**	
Excess Return			**0.34**	**0.14**	**(1.07)**	**0.69**	**(1.07)**	**(1.16)**	**(0.79)**	**0.83**	
Causeway Capital Management LLC	198,657,678	4.56%	0.10	8.03	(8.66)	(2.01)	(11.07)	2.50	-	8.46	12/01/11
MSCI EAFE + Canada (Net)			(1.13)	8.98	(7.01)	0.06	(9.66)	1.63	-	5.89	
Excess Return			1.23	(0.95)	(1.65)	(2.07)	(1.42)	0.87	-	2.57	
Northern Trust Investments	343,309,904	7.88%	(1.01)	9.32	(6.58)	0.28	(9.25)	2.70	2.13	1.91	03/01/07
MSCI EAFE + Canada (Net)			(1.13)	8.98	(7.01)	0.06	(9.66)	1.63	1.57	1.39	
Excess Return			0.12	0.34	0.43	0.22	0.41	1.06	0.56	0.52	
Northern Trust MSCI Europe	131,432,914	3.02%	(0.41)	8.62	(6.45)	(0.31)	(9.40)	-	-	(6.17)	05/01/14
MSCI Europe (Net)			(0.59)	8.23	(7.08)	(0.71)	(9.94)	-	-	(6.73)	
Excess Return			0.18	0.39	0.63	0.40	0.54	-	-	0.56	
Non-US Equity Emerging	**188,140,993**	**4.32%**	**(3.66)**	**9.54**	**(13.45)**	**3.31**	**(15.95)**	**(4.67)**	**(6.10)**	**6.33**	**01/01/09**
MSCI Emerging Markets (Net) Index			**(3.73)**	**9.60**	**(15.43)**	**2.32**	**(17.63)**	**(4.95)**	**(4.83)**	**7.39**	
Excess Return			**0.07**	**(0.06)**	**1.99**	**0.99**	**1.68**	**0.28**	**(1.27)**	**(1.06)**	
Rhumbline Emerging Markets	188,129,223	4.32%	(3.66)	9.54	(13.52)	3.31	(16.05)	(4.58)	-	(5.50)	01/31/13
MSCI EM (Emerging Markets) (Net)			(3.73)	9.60	(15.43)	2.32	(17.63)	(4.95)	-	(5.71)	
Excess Return			0.07	(0.06)	1.91	0.99	1.59	0.37	-	0.21	
Investment Grade Fixed Income	**589,632,962**	**13.53%**	**(0.99)**	**2.03**	**2.78**	**4.27**	**1.45**	**1.69**	**3.06**	**6.39**	**07/01/88**
Barclays Capital Aggregate Index			**0.03**	**1.33**	**4.13**	**3.45**	**2.99**	**2.91**	**3.33**	**6.57**	
Excess Return			**(1.02)**	**0.70**	**(1.35)**	**0.82**	**(1.54)**	**(1.22)**	**(0.27)**	**(0.18)**	

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Brandywine Global Investment Management, LLC	150,615,345	3.46%	(3.89)	3.38	1.72	6.13	0.15	0.62	3.35	7.38	01/01/09
Citigroup WGBI (Unhedged)			(1.51)	2.38	7.29	6.80	7.00	1.22	0.49	1.87	
Excess Return			(2.38)	1.00	(5.57)	(0.67)	(6.84)	(0.59)	2.86	5.51	
Garcia Hamilton & Associates, L.P.	101,409,826	2.33%	(0.03)	0.44	4.06	3.18	3.24	3.33	4.01	5.95	09/01/00
Barclays U.S. Aggregate (Total)			0.03	1.33	4.13	3.45	2.99	2.91	3.33	5.27	
Excess Return			(0.06)	(0.90)	(0.07)	(0.27)	0.24	0.42	0.68	0.68	
Logan Circle	41,721,382	0.96%	0.01	2.18	4.05	3.66	2.91	-	-	3.43	10/01/14
Barclays U.S. Aggregate (Total)			0.03	1.33	4.13	3.45	2.99	-	-	3.49	
Excess Return			(0.02)	0.85	(0.08)	0.20	(0.08)	-	-	(0.07)	
Longfellow	96,851,783	2.22%	0.21	0.87	3.50	3.02	2.67	-	-	3.10	10/01/14
Barclays U.S. Aggregate (Total)			0.03	1.33	4.13	3.45	2.99	-	-	3.49	
Excess Return			0.18	(0.46)	(0.63)	(0.44)	(0.33)	-	-	(0.39)	
Rhumbline Core Bond Index Trust	198,532,288	4.56%	0.02	1.14	3.86	3.13	2.75	2.47	2.89	4.57	06/01/07
Barclays Capital Aggregate Index			0.03	1.33	4.13	3.45	2.99	2.91	3.33	4.78	
Excess Return			(0.01)	(0.19)	(0.27)	(0.33)	(0.25)	(0.44)	(0.44)	(0.21)	
Opportunistic Fixed Income	**561,989,663**	**12.90%**	**1.20**	**4.15**	**(4.39)**	**0.30**	**(4.73)**	**0.87**	**-**	**1.99**	**12/01/12**
50% Barclays HY/50% S&P Lev Loan			**0.76**	**7.46**	**0.84**	**6.27**	**(0.11)**	**2.77**	**-**	**3.74**	
Excess Return			**0.44**	**(3.31)**	**(5.23)**	**(5.97)**	**(4.62)**	**(1.90)**	**-**	**(1.75)**	
Allianz Global Investors - Convertibles	106,350,313	2.44%	1.93	6.40	(6.32)	(0.19)	(8.15)	5.38	6.28	7.94	12/01/10
ML Convertible Bond Index			1.70	7.91	(5.18)	1.51	(7.47)	6.16	6.59	7.88	
Excess Return			0.23	(1.51)	(1.14)	(1.70)	(0.68)	(0.78)	(0.31)	0.07	
Apollo Strategic Investment Fund LP	80,020,805	1.84%	1.92	1.36	(13.21)	(5.24)	(12.42)	(6.26)	-	(6.09)	05/31/13
50% Barclays HY/50% S&P Lev Loan			2.94	6.69	(0.86)	3.59	(0.63)	2.51	-	2.85	
Excess Return			(1.02)	(5.32)	(12.34)	(8.82)	(11.78)	(8.77)	-	(8.94)	

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Avenue Coppers Opportunity Fund LP	97,563,138	2.24%	1.03	2.18	(4.61)	(2.11)	(4.21)	-	-	1.69	12/31/13
CPBPR Actuarial Rate			0.65	1.97	7.40	3.30	8.10	-	-	8.10	
Excess Return			0.38	0.21	(12.01)	(5.41)	(12.31)	-	-	(6.41)	
KKR-PBPR Capital Partners LP	156,231,672	3.59%	1.45	3.47	(1.01)	1.27	(0.46)	3.26	-	4.98	06/30/12
CPBPR Actuarial Rate			0.65	1.97	7.40	3.30	8.10	8.10	-	-	
Excess Return			0.80	1.51	(8.41)	(2.03)	(8.56)	(4.84)	-	-	
Logan Circle - EMD	45,154,286	1.04%	(1.68)	6.58	2.54	7.17	0.91	-	-	2.81	02/01/15
J.P. Morgan EMG Bond Blended Index			(1.77)	5.71	1.67	6.97	0.60	-	-	0.97	
Excess Return			0.09	0.87	0.87	0.20	0.31	-	-	1.84	
Strategic Income Management	76,248,042	1.75%	0.93	-	-	-	-	-	-	4.23	04/01/16
Merrill Lynch US HIGH YIELD MASTER II INDEX			0.74	-	-	-	-	-	-	4.75	
Excess Return			0.19	-	-	-	-	-	-	(0.52)	
Absolute Return	**273,155,649**	**6.27%**	**1.24**	**(0.42)**	**(7.90)**	**(3.55)**	**(7.54)**	**0.30**	**0.94**	**2.32**	**09/01/05**
HFRI Fund of Funds Composite Index			**0.47**	**(0.15)**	**(6.46)**	**(3.59)**	**(6.13)**	**0.68**	**0.18**	**1.73**	
Excess Return			**0.78**	**(0.27)**	**(1.45)**	**0.04**	**(1.41)**	**(0.38)**	**0.76**	**0.59**	
400 Capital Credit	54,221,759	1.24%	1.36	(2.64)	(10.26)	(8.19)	(9.97)	2.26	-	2.26	06/01/13
HFRX Distressed Restructuring Index			4.27	6.25	(10.94)	(0.68)	(10.41)	(2.36)	-	(2.36)	
Excess Return			(2.91)	(8.89)	0.67	(7.51)	0.44	4.63	-	4.63	
Archview	26,828,568	0.62%	2.71	(1.71)	(15.26)	(7.31)	(13.72)	-	-	(5.03)	04/01/14
HFRX Event Driven Index in USD			0.43	3.13	(8.57)	(1.73)	(8.13)	-	-	(5.87)	
Excess Return			2.28	(4.84)	(6.69)	(5.59)	(5.59)	-	-	0.85	
Axonic Credit Opportunities Overseas Fund	56,019,950	1.29%	1.45	(0.89)	(5.49)	(3.36)	(5.14)	3.68	-	5.69	01/31/13
HFRX ED Distressed Restructuring Index			2.69	11.82	(6.26)	4.53	(5.71)	(0.68)	-	0.29	
Excess Return			(1.24)	(12.72)	0.77	(7.89)	0.57	4.36	-	5.41	

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City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending May 2016
Net of Fee
Excess Return - Additive

Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
Blue Harbor Strategic Value Partners	50,976,537	1.17%	0.22	4.05	(6.74)	(3.38)	(8.47)	-	-	1.24	12/31/13
HFRX Event Driven Index in USD			0.43	3.13	(9.89)	(1.73)	(9.46)	-	-	(4.50)	
Excess Return			(0.22)	0.92	3.15	(1.65)	0.98	-	-	5.74	
Caspian Select Credit International	8,100,762	0.19%	2.71	1.13	(10.65)	(2.83)	(10.93)	(1.45)	0.86	3.03	11/01/09
HFRX Event Driven Index			0.43	3.13	(9.89)	(1.73)	(9.46)	(2.81)	(1.28)	0.02	
Excess Return			2.28	(2.00)	(0.76)	(1.10)	(1.47)	1.36	2.14	3.01	
Elizabeth Park	22,082,208	0.51%	5.89	4.47	4.15	(2.79)	5.01	-	-	5.08	06/30/14
HFRX Event Driven Index in USD			0.43	3.13	(8.57)	(1.73)	(8.13)	-	-	(6.34)	
Excess Return			5.46	1.34	12.72	(1.06)	13.14	-	-	11.42	
ESG Cross Border Equity Offshore Fund Ltd	25,414,731	0.58%	(2.57)	(8.68)	(17.25)	(5.33)	(15.59)	(5.51)	-	(0.84)	02/01/12
MSCI Emerging Markets Gross			0.56	13.72	(14.14)	4.04	(17.56)	(4.23)	-	0.77	
Excess Return			(3.13)	(22.40)	(3.11)	(9.37)	1.97	(1.28)	-	(1.62)	
Kildonan	29,510,963	0.68%	0.80	2.63	0.30	2.44	(0.69)	-	-	(0.76)	04/01/14
HFRX Event Driven Index in USD			0.43	3.13	(8.57)	(1.73)	(8.13)	-	-	(5.87)	
Excess Return			0.37	(0.50)	8.87	4.16	7.44	-	-	5.12	
Real Assets	**329,853,415**	**7.57%**	**1.22**	**15.38**	**(6.03)**	**7.13**	**(8.91)**	**3.50**	**-**	**5.89**	**12/01/12**
Real Assets Benchmark			**(1.49)**	**7.73**	**(16.07)**	**(1.47)**	**(19.14)**	**(5.12)**	**-**	**(1.84)**	
Excess Return			**2.71**	**7.64**	**10.03**	**8.60**	**10.24**	**8.61**	**-**	**7.73**	
Real Assets - MLPs	**155,878,388**	**3.58%**	**1.90**	**23.93**	**(20.36)**	**6.72**	**(25.31)**	**(2.07)**	**-**	**6.96**	**09/01/11**
Alerian MLP Index			**2.53**	**23.33**	**(17.35)**	**9.11**	**(24.20)**	**(5.99)**	**-**	**2.97**	
Excess Return			**(0.63)**	**0.60**	**(3.00)**	**(2.39)**	**(1.11)**	**3.92**	**-**	**3.99**	
Harvest Fund Advisors LLC	59,698,607	1.37%	2.38	23.71	(20.46)	7.49	(24.68)	(1.30)	-	7.88	09/01/11
Alerian MLP Index			2.53	23.33	(17.35)	9.11	(24.20)	(5.99)	-	2.97	
Excess Return			(0.15)	0.39	(3.11)	(1.62)	(0.48)	4.69	-	4.91	

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City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending May 2016
Net of Fee
Excess Return - Additive

Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
Fiduciary Asset Management, LLC	54,539,460	1.25%	2.31	29.79	(21.47)	7.64	(27.59)	(5.09)	-	4.61	09/01/11
Alerian MLP Index			2.53	23.33	(17.35)	9.11	(24.20)	(5.99)	-	2.97	
Excess Return			(0.23)	6.46	(4.12)	(1.48)	(3.39)	0.90	-	1.64	
Tortoise Capital Advisors LLC	41,640,322	0.96%	0.71	17.28	(18.70)	4.47	(23.26)	(0.18)	-	4.52	03/01/12
Alerian MLP Index			2.53	23.33	(17.35)	9.11	(24.20)	(5.99)	-	(0.70)	
Excess Return			(1.82)	(6.05)	(1.35)	(4.64)	0.94	5.81	-	5.23	
Real Assets - Public Real Estate	**55,793,439**	**1.28%**	**2.29**	**10.75**	**15.66**	**6.42**	**10.88**	**10.75**	**-**	**10.43**	**01/01/13**
NAREIT Index			**2.31**	**10.68**	**15.62**	**6.32**	**10.86**	**10.00**	**-**	**10.09**	
Excess Return			**(0.02)**	**0.08**	**0.04**	**0.10**	**0.02**	**0.75**	**-**	**0.33**	
Rhumbline FTSE NAREIT	55,793,439	1.28%	2.29	10.75	15.66	6.42	10.88	9.97	-	7.60	05/01/13
NAREIT Index			2.31	10.68	15.62	6.32	10.86	10.00	-	7.58	
Excess Return			(0.02)	0.08	0.04	0.10	0.02	(0.03)	-	0.03	
Real Assets - Private Real Estate	**118,181,588**	**2.71%**	**(0.15)**	**9.94**	**7.90**	**10.38**	**8.98**	**11.16**	**10.75**	**3.38**	**05/01/06**
Private Real Estate Benchmark			**(0.15)**	**9.94**	**7.90**	**10.38**	**8.98**	**11.21**	**-**	**-**	
Excess Return			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.05)**	**-**	**-**	
Private Assets	**427,703,103**	**9.82%**	**0.11**	**2.43**	**6.01**	**2.18**	**6.21**	**10.68**	**12.98**	**8.21**	**04/01/96**
Private Assets Benchmark			**0.11**	**2.44**	**6.02**	**2.19**	**6.22**	**10.68**	**-**	**-**	
Excess Return			**0.00**	**(0.01)**	**(0.01)**	**(0.01)**	**(0.01)**	**0.00**	**-**	**-**	
Private Assets - Private Equity	**407,172,874**	**9.35%**	**0.09**	**2.15**	**5.97**	**1.78**	**6.18**	**10.78**	**-**	**-**	**04/01/96**
Private Equity Benchmark			**0.09**	**2.47**	**6.31**	**2.10**	**6.51**	**-**	**-**	**-**	
Excess Return			**0.00**	**(0.32)**	**(0.33)**	**(0.32)**	**(0.33)**	**-**	**-**	**-**	
Private Assets - Private Debt	**20,530,228**	**0.47%**	**0.50**	**1.70**	**0.22**	**4.12**	**0.22**	**4.14**	**-**	**8.45**	**12/01/12**
Private Debt Benchmark			**0.50**	**1.70**	**0.21**	**4.12**	**0.21**	**4.14**	**-**	**8.45**	
Excess Return			**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**-**	**0.00**	

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City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending May 2016
Net of Fee
Excess Return - Additive

Name	Market Value	% of Total Fund	Month	Trailing Three Months	Fiscal YTD	Calendar YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
Cash	149,367,459	3.43%	0.09	0.37	1.12	0.50	1.30	2.29	-	2.27	12/01/12
3 Month US T-Bill			0.02	0.07	0.12	0.10	0.12	0.06	-	0.06	
Excess Return			0.07	0.30	1.00	0.41	1.18	2.23	-	2.21	

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