J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Summary
For Period Ending June 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	4,303,567,829	100.00%	0.19	1.76	(3.27)	1.61	(3.27)	4.09	4.79	4.75	7.30	07/01/88
Total Fund Policy			0.41	1.79	(1.24)	2.69	(1.24)	5.14	5.59	5.96	8.19	
Excess Return			(0.22)	(0.03)	(2.03)	(1.08)	(2.03)	(1.05)	(0.80)	(1.20)	(0.89)	
Total Fund without Alternative Assets	2,879,814,329	66.92%	0.00	1.09	(3.56)	1.37	(3.56)	-	-	-	0.92	01/01/14
U.S. Equity	1,192,511,187	27.71%	(0.34)	1.67	(1.76)	1.53	(1.76)	9.45	10.21	6.95	9.21	07/01/88
Russell 3000 Index			0.21	2.63	2.14	3.62	2.14	11.13	11.60	7.40	9.95	
Excess Return			(0.55)	(0.96)	(3.90)	(2.10)	(3.90)	(1.67)	(1.39)	(0.45)	(0.75)	
Non-US Equity Developed	692,589,205	16.09%	(3.49)	(1.22)	(11.32)	(3.89)	(11.32)	0.57	0.73	1.64	5.14	01/01/89
MSCI EAFE			(3.36)	(1.46)	(10.16)	(4.42)	(10.16)	2.06	1.59	1.81	4.31	
Excess Return			(0.13)	0.24	(1.15)	0.53	(1.15)	(1.49)	(0.87)	(0.17)	0.82	
Non-US Equity Emerging	196,393,942	4.56%	4.39	0.87	(9.65)	7.84	(9.65)	(1.67)	(4.94)	-	6.87	01/01/09
MSCI Emerging Markets (Net) Index			4.00	0.66	(12.05)	6.41	(12.05)	(1.56)	(3.78)	-	7.87	
Excess Return			0.39	0.21	2.40	1.43	2.40	(0.11)	(1.16)	-	(1.00)	
Investment Grade Fixed Income	602,168,957	13.99%	2.13	1.79	4.96	6.49	4.96	3.07	3.55	5.00	6.45	07/01/88
Barclays Capital Aggregate Index			1.80	2.21	6.00	5.31	6.00	4.06	3.76	5.13	6.61	
Excess Return			0.33	(0.42)	(1.04)	1.17	(1.04)	(0.99)	(0.21)	(0.13)	(0.16)	
Opportunistic Fixed Income	567,731,145	13.19%	1.02	4.01	(3.42)	1.32	(3.42)	2.01	-	-	2.23	12/01/12
50% Barclays HY/50% S&P Lev Loan			0.47	4.22	1.31	6.77	1.31	3.50	-	-	3.79	
Excess Return			0.55	(0.20)	(4.73)	(5.45)	(4.73)	(1.49)	-	-	(1.56)	
Absolute Return	275,892,498	6.41%	1.00	2.07	(6.98)	(2.58)	(6.98)	0.47	1.43	2.02	2.40	09/01/05
HFRI Fund of Funds Composite Index			0.55	1.64	(5.94)	(3.06)	(5.94)	0.74	0.57	1.12	1.77	
Excess Return			0.45	0.43	(1.04)	0.48	(1.04)	(0.27)	0.86	0.90	0.63	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Summary
For Period Ending June 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
Real Assets	334,059,806	7.76%	2.20	8.17	(3.96)	9.49	(3.96)	4.10	-	-	6.39	12/01/12
Real Assets Benchmark			2.85	3.70	(13.67)	1.34	(13.67)	(4.51)	-	-	(1.02)	
Excess Return			(0.65)	4.47	9.71	8.15	9.71	8.61	-	-	7.41	
Private Assets	424,122,957	9.86%	(0.20)	0.13	5.80	1.97	5.80	10.53	12.18	10.01	8.16	04/01/96
Private Assets Benchmark			(0.20)	0.14	5.81	1.98	5.81	10.53	-	-	-	
Excess Return			0.00	(0.01)	(0.01)	(0.01)	(0.01)	0.00	-	-	-	
Cash	18,098,131	0.42%	0.27	0.45	1.39	0.77	1.39	2.24	-	-	2.29	12/01/12
3 Month US T-Bill			0.02	0.06	0.14	0.12	0.14	0.07	-	-	0.07	
Excess Return			0.25	0.38	1.25	0.65	1.25	2.17	-	-	2.22	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report

Performance Results - Detail
For Period Ending June 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
Total Fund	**4,303,567,829**	**100.00%**	**0.19**	**1.76**	**(3.27)**	**1.61**	**(3.27)**	**4.09**	**4.79**	**7.30**	**07/01/88**
Total Fund Policy			**0.41**	**1.79**	**(1.24)**	**2.69**	**(1.24)**	**5.14**	**5.59**	**8.19**	
Excess Return			**(0.22)**	**(0.03)**	**(2.03)**	**(1.08)**	**(2.03)**	**(1.05)**	**(0.80)**	**(0.89)**	
U.S. Equity	**1,192,511,187**	**27.71%**	**(0.34)**	**1.67**	**(1.76)**	**1.53**	**(1.76)**	**9.45**	**10.21**	**9.21**	**07/01/88**
Russell 3000 Index			**0.21**	**2.63**	**2.14**	**3.62**	**2.14**	**11.13**	**11.60**	**9.95**	
Excess Return			**(0.55)**	**(0.96)**	**(3.90)**	**(2.10)**	**(3.90)**	**(1.67)**	**(1.39)**	**(0.75)**	
Rhumbline Russell 1000 Index	691,660,496	16.07%	0.47	2.70	2.61	3.58	2.61	11.22	11.69	6.23	05/01/07
Russell 1000 Index			0.23	2.54	2.93	3.74	2.93	11.48	11.88	6.23	
Excess Return			0.25	0.16	(0.33)	(0.16)	(0.33)	(0.26)	(0.19)	0.00	
Rhumbline S&P 500 Index	1,815,533	0.04%	(1.19)	0.90	2.44	2.15	2.44	10.98	-	11.71	04/01/12
S&P 500 Index			0.26	2.46	3.99	3.84	3.99	11.66	-	12.22	
Excess Return			(1.45)	(1.56)	(1.56)	(1.68)	(1.56)	(0.68)	-	(0.52)	
Rhumbline Russell 1000 Growth Index	108,768,901	2.53%	(0.54)	0.47	2.66	1.14	2.66	12.48	12.00	7.61	05/01/07
Russell 1000 Growth			(0.39)	0.61	3.02	1.36	3.02	13.07	12.35	7.79	
Excess Return			(0.15)	(0.15)	(0.37)	(0.22)	(0.37)	(0.59)	(0.35)	(0.18)	
Aronson+Johnson+Ortiz, LP	34,167,465	0.79%	(1.18)	(0.98)	(6.70)	(3.82)	(6.70)	7.33	9.61	7.12	05/01/01
Russell 1000 Value			0.86	4.58	2.86	6.30	2.86	9.87	11.35	6.31	
Excess Return			(2.05)	(5.56)	(9.56)	(10.12)	(9.56)	(2.54)	(1.74)	0.81	
Brandywine LCV	21,714,818	0.50%	(3.37)	(1.48)	(14.35)	(4.67)	(14.35)	-	-	(6.97)	10/01/14
Russell 1000 Value (Gross)			0.86	4.58	2.86	6.30	2.86	-	-	4.12	
Excess Return			(4.24)	(6.06)	(17.21)	(10.97)	(17.21)	-	-	(11.09)	
Lyrical LCV	30,233,466	0.70%	(1.37)	0.99	(6.11)	1.19	(6.11)	-	-	0.96	10/01/14
Russell 1000 Value (Gross)			0.86	4.58	2.86	6.30	2.86	-	-	4.12	
Excess Return			(2.23)	(3.59)	(8.97)	(5.11)	(8.97)	-	-	(3.16)	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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
O'Shaughnessy Asset Management, LLC	34,487,040	0.80%	(0.88)	(2.68)	(7.51)	0.64	(7.51)	8.18	-	12.75	07/01/12
Russell 1000 Value (Gross)			0.86	4.58	2.86	6.30	2.86	9.87	-	13.54	
Excess Return			(1.74)	(7.26)	(10.37)	(5.65)	(10.37)	(1.69)	-	(0.80)	
Ceredex Value Advisors LLC	75,332,104	1.75%	(0.83)	2.02	0.32	4.97	0.32	9.17	-	13.53	01/01/12
Russell Midcap Value Index			0.91	4.77	3.25	8.87	3.25	11.00	-	15.08	
Excess Return			(1.75)	(2.75)	(2.93)	(3.90)	(2.93)	(1.82)	-	(1.55)	
Hahn Capital	49,908,446	1.16%	(2.16)	1.17	(4.85)	2.42	(4.85)	-	-	0.83	10/01/14
Russell Midcap Value (Gross)			0.91	4.77	3.25	8.87	3.25	-	-	5.57	
Excess Return			(3.08)	(3.60)	(8.10)	(6.45)	(8.10)	-	-	(4.73)	
Herndon MCV	12,093	0.00%	3.15	3.25	(9.35)	3.46	(9.35)	-	-	(2.01)	10/01/14
S&P 400 Value (Gross)			0.48	3.67	1.28	10.26	1.28	-	-	5.60	
Excess Return			2.67	(0.42)	(10.63)	(6.80)	(10.63)	-	-	(7.61)	
Apex Capital Management, Inc.	18,570,511	0.43%	(1.94)	1.28	(12.24)	(3.60)	(12.24)	8.15	9.40	15.17	12/31/09
Russell 2500 Growth (Gross)			(0.74)	2.70	(7.69)	(0.03)	(7.69)	9.06	9.27	14.10	
Excess Return			(1.20)	(1.41)	(4.54)	(3.57)	(4.54)	(0.91)	0.13	1.06	
Emerald Advisors, Inc.	34,986,161	0.81%	0.17	2.23	(14.76)	(4.33)	(14.76)	9.89	10.47	8.18	01/01/05
Russell 2000 Growth Index			(0.46)	3.24	(10.75)	(1.59)	(10.75)	7.74	8.51	7.11	
Excess Return			0.63	(1.01)	(4.01)	(2.74)	(4.01)	2.15	1.96	1.07	
Ariel	32,032,666	0.74%	(4.14)	(2.41)	-	-	-	-	-	5.33	02/01/16
Russell 2500 Value (Gross)			0.60	4.37	-	-	-	-	-	14.89	
Excess Return			(4.74)	(6.77)	-	-	-	-	-	(9.56)	
Rhumbline Russell 2000 Growth	30,594,824	0.71%	(0.47)	3.21	(10.84)	(1.62)	(10.84)	7.63	-	11.41	09/01/12
Russell 2000 Growth (Gross)			(0.46)	3.24	(10.75)	(1.59)	(10.75)	7.74	-	11.53	
Excess Return			(0.01)	(0.04)	(0.09)	(0.03)	(0.09)	(0.10)	-	(0.13)	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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
Fisher Asset Management LLC	28,226,664	0.66%	(1.02)	2.83	(3.62)	1.91	(3.62)	9.13	9.21	8.30	06/01/08
Russell 2000 Value Index			0.30	4.31	(2.58)	6.08	(2.58)	6.36	8.15	6.33	
Excess Return			(1.33)	(1.48)	(1.04)	(4.17)	(1.04)	2.78	1.07	1.97	
Non-US Equity Developed	**692,589,205**	**16.09%**	**(3.49)**	**(1.22)**	**(11.32)**	**(3.89)**	**(11.32)**	**0.57**	**0.73**	**5.14**	**01/01/89**
MSCI EAFE			**(3.36)**	**(1.46)**	**(10.16)**	**(4.42)**	**(10.16)**	**2.06**	**1.59**	**4.31**	
Excess Return			**(0.13)**	**0.24**	**(1.15)**	**0.53**	**(1.15)**	**(1.49)**	**(0.87)**	**0.82**	
Causeway Capital Management LLC	188,475,106	4.38%	(5.13)	(2.49)	(13.35)	(7.04)	(13.35)	1.52	-	7.06	12/01/11
MSCI EAFE + Canada (Net)			(3.04)	(1.05)	(9.84)	(2.98)	(9.84)	1.88	-	5.07	
Excess Return			(2.09)	(1.44)	(3.50)	(4.05)	(3.50)	(0.36)	-	1.99	
Northern Trust Investments	499,055,330	11.60%	(3.26)	(1.11)	(9.63)	(3.00)	(9.63)	2.85	1.73	1.53	03/01/07
MSCI EAFE + Canada (Net)			(3.04)	(1.05)	(9.84)	(2.98)	(9.84)	1.88	1.23	1.04	
Excess Return			(0.22)	(0.06)	0.21	(0.01)	0.21	0.97	0.50	0.49	
Northern Trust MSCI Europe	1,634,657	0.04%	(1.04)	1.05	(7.42)	(1.35)	(7.42)	-	-	(6.39)	05/01/14
MSCI Europe (Net)			(4.45)	(2.69)	(11.22)	(5.13)	(11.22)	-	-	(8.43)	
Excess Return			3.41	3.74	3.79	3.78	3.79	-	-	2.03	
Non-US Equity Emerging	**196,393,942**	**4.56%**	**4.39**	**0.87**	**(9.65)**	**7.84**	**(9.65)**	**(1.67)**	**(4.94)**	**6.87**	**01/01/09**
MSCI Emerging Markets (Net) Index			**4.00**	**0.66**	**(12.05)**	**6.41**	**(12.05)**	**(1.56)**	**(3.78)**	**7.87**	
Excess Return			**0.39**	**0.21**	**2.40**	**1.43**	**2.40**	**(0.11)**	**(1.16)**	**(1.00)**	
Rhumbline Emerging Markets	196,382,916	4.56%	4.39	0.87	(9.73)	7.85	(9.73)	(1.03)	-	(4.20)	01/31/13
MSCI EM (Emerging Markets) (Net)			4.00	0.66	(12.05)	6.41	(12.05)	(1.56)	-	(4.51)	
Excess Return			0.39	0.21	2.33	1.43	2.33	0.53	-	0.31	
Investment Grade Fixed Income	**602,168,957**	**13.99%**	**2.13**	**1.79**	**4.96**	**6.49**	**4.96**	**3.07**	**3.55**	**6.45**	**07/01/88**
Barclays Capital Aggregate Index			**1.80**	**2.21**	**6.00**	**5.31**	**6.00**	**4.06**	**3.76**	**6.61**	
Excess Return			**0.33**	**(0.42)**	**(1.04)**	**1.17**	**(1.04)**	**(0.99)**	**(0.21)**	**(0.16)**	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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
Brandywine Global Investment Management, LLC	155,720,696	3.62%	3.39	1.20	5.17	9.73	5.17	2.58	4.25	7.77	01/01/09
Citigroup WGBI (Unhedged)			3.69	3.41	11.26	10.74	11.26	2.65	1.18	2.34	
Excess Return			(0.31)	(2.22)	(6.09)	(1.01)	(6.09)	(0.07)	3.07	5.43	
Garcia Hamilton & Associates, L.P.	102,876,540	2.39%	1.45	1.48	5.56	4.67	5.56	4.41	4.43	6.01	09/01/00
Barclays U.S. Aggregate (Total)			1.80	2.21	6.00	5.31	6.00	4.06	3.76	5.36	
Excess Return			(0.35)	(0.73)	(0.44)	(0.64)	(0.44)	0.34	0.67	0.66	
Logan Circle	42,480,082	0.99%	1.82	2.62	5.95	5.54	5.95	-	-	4.33	10/01/14
Barclays U.S. Aggregate (Total)			1.80	2.21	6.00	5.31	6.00	-	-	4.38	
Excess Return			0.02	0.41	(0.05)	0.23	(0.05)	-	-	(0.05)	
Longfellow	98,506,838	2.29%	1.71	2.03	5.26	4.78	5.26	-	-	3.96	10/01/14
Barclays U.S. Aggregate (Total)			1.80	2.21	6.00	5.31	6.00	-	-	4.38	
Excess Return			(0.09)	(0.18)	(0.74)	(0.54)	(0.74)	-	-	(0.42)	
Rhumbline Core Bond Index Trust	202,083,063	4.70%	1.79	2.12	5.71	4.97	5.71	3.65	3.31	4.73	06/01/07
Barclays Capital Aggregate Index			1.80	2.21	6.00	5.31	6.00	4.06	3.76	4.94	
Excess Return			(0.01)	(0.09)	(0.29)	(0.34)	(0.29)	(0.42)	(0.45)	(0.21)	
Opportunistic Fixed Income	**567,731,145**	**13.19%**	**1.02**	**4.01**	**(3.42)**	**1.32**	**(3.42)**	**2.01**	**-**	**2.23**	**12/01/12**
50% Barclays HY/50% S&P Lev Loan			**0.47**	**4.22**	**1.31**	**6.77**	**1.31**	**3.50**	**-**	**3.79**	
Excess Return			**0.55**	**(0.20)**	**(4.73)**	**(5.45)**	**(4.73)**	**(1.49)**	**-**	**(1.56)**	
Allianz Global Investors - Convertibles	105,731,807	2.46%	(0.58)	2.08	(6.87)	(0.77)	(6.87)	6.14	6.72	7.71	12/01/10
ML Convertible Bond Index			0.43	3.57	(4.77)	1.95	(4.77)	7.05	7.08	7.84	
Excess Return			(1.01)	(1.49)	(2.09)	(2.72)	(2.09)	(0.91)	(0.36)	(0.13)	
Apollo Strategic Investment Fund LP	80,262,338	1.87%	0.30	2.66	(12.95)	(4.95)	(12.95)	(6.14)	-	(5.85)	05/31/13
50% Barclays HY/50% S&P Lev Loan			0.76	7.46	(0.11)	4.37	(0.11)	2.77	-	3.02	
Excess Return			(0.46)	(4.80)	(12.84)	(9.33)	(12.84)	(8.91)	-	(8.87)	

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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
Avenue Coppers Opportunity Fund LP	99,242,707	2.31%	1.72	5.14	(2.97)	(0.42)	(2.97)	-	-	2.31	12/31/13
CPBPR Actuarial Rate			0.65	1.97	8.10	3.97	8.10	-	-	8.10	
Excess Return			1.07	3.17	(11.07)	(4.40)	(11.07)	-	-	(5.79)	
KKR-PBPR Capital Partners LP	158,109,954	3.67%	1.20	4.59	0.18	2.49	0.18	3.51	-	5.18	06/30/12
CPBPR Actuarial Rate			0.65	1.97	8.10	3.97	8.10	8.10	-	-	
Excess Return			0.55	2.63	(7.92)	(1.49)	(7.92)	(4.59)	-	-	
Logan Circle - EMD	47,143,179	1.10%	4.40	5.37	7.05	11.89	7.05	-	-	5.81	02/01/15
J.P. Morgan EMG Bond Blended Index			4.09	4.44	5.83	11.35	5.83	-	-	3.81	
Excess Return			0.31	0.92	1.22	0.54	1.22	-	-	2.00	
Strategic Income Management	76,821,740	1.79%	0.73	4.99	-	-	-	-	-	4.99	04/01/16
Merrill Lynch US HIGH YIELD MASTER II INDEX			1.08	5.88	-	-	-	-	-	5.88	
Excess Return			(0.36)	(0.89)	-	-	-	-	-	(0.89)	
Absolute Return	**275,892,498**	**6.41%**	**1.00**	**2.07**	**(6.98)**	**(2.58)**	**(6.98)**	**0.47**	**1.43**	**2.40**	**09/01/05**
HFRI Fund of Funds Composite Index			**0.55**	**1.64**	**(5.94)**	**(3.06)**	**(5.94)**	**0.74**	**0.57**	**1.77**	
Excess Return			**0.45**	**0.43**	**(1.04)**	**0.48**	**(1.04)**	**(0.27)**	**0.86**	**0.63**	
400 Capital Credit	54,454,372	1.27%	0.43	0.51	(9.88)	(7.80)	(9.88)	2.41	-	2.34	06/01/13
HFRX Distressed Restructuring Index			2.69	11.73	(8.54)	1.99	(8.54)	(1.07)	-	(1.46)	
Excess Return			(2.26)	(11.22)	(1.33)	(9.79)	(1.33)	3.48	-	3.80	
Archview	27,229,053	0.63%	1.49	2.82	(14.00)	(5.93)	(14.00)	-	-	(4.22)	04/01/14
HFRX Event Driven Index in USD			2.67	5.83	(6.13)	0.90	(6.13)	-	-	(4.55)	
Excess Return			(1.18)	(3.01)	(7.87)	(6.83)	(7.87)	-	-	0.33	
Axonic Credit Opportunities Overseas Fund	56,736,158	1.32%	1.28	2.02	(4.28)	(2.12)	(4.28)	3.91	-	5.94	01/31/13
HFRX ED Distressed Restructuring Index			1.82	9.11	(4.56)	6.44	(4.56)	0.35	-	0.80	
Excess Return			(0.54)	(7.08)	0.27	(8.56)	0.27	3.56	-	5.14	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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	51,422,088	1.19%	0.87	3.39	(5.92)	(2.53)	(5.92)	-	-	1.55	12/31/13
HFRX Event Driven Index in USD			2.67	5.83	(7.48)	0.90	(7.48)	-	-	(3.37)	
Excess Return			(1.80)	(2.43)	1.56	(3.43)	1.56	-	-	4.92	
Caspian Select Credit International	8,131,561	0.19%	0.38	3.98	(10.31)	(2.46)	(10.31)	(1.59)	0.92	3.05	11/01/09
HFRX Event Driven Index			2.67	5.83	(7.48)	0.90	(7.48)	(2.65)	(0.50)	0.42	
Excess Return			(2.29)	(1.85)	(2.83)	(3.36)	(2.83)	1.06	1.42	2.63	
Elizabeth Park	22,369,262	0.52%	1.30	10.42	5.50	(1.52)	5.50	-	-	5.52	06/30/14
HFRX Event Driven Index in USD			2.67	5.83	(6.13)	0.90	(6.13)	-	-	(4.90)	
Excess Return			(1.37)	4.59	11.63	(2.42)	11.63	-	-	10.42	
ESG Cross Border Equity Offshore Fund Ltd	26,039,476	0.61%	2.46	(3.74)	(15.22)	(3.00)	(15.22)	(5.09)	-	(0.28)	02/01/12
MSCI Emerging Markets Gross			(3.71)	9.67	(17.33)	0.18	(17.33)	(4.62)	-	(0.10)	
Excess Return			6.17	(13.41)	2.11	(3.18)	2.11	(0.47)	-	(0.18)	
Kildonan	29,510,528	0.69%	0.00	1.10	0.30	2.44	0.30	-	-	(0.73)	04/01/14
HFRX Event Driven Index in USD			2.67	5.83	(6.13)	0.90	(6.13)	-	-	(4.55)	
Excess Return			(2.68)	(4.73)	6.42	1.53	6.42	-	-	3.82	
Real Assets	**334,059,806**	**7.76%**	**2.20**	**8.17**	**(3.96)**	**9.49**	**(3.96)**	**4.10**	**-**	**6.39**	**12/01/12**
Real Assets Benchmark			**2.85**	**3.70**	**(13.67)**	**1.34**	**(13.67)**	**(4.51)**	**-**	**(1.02)**	
Excess Return			**(0.65)**	**4.47**	**9.71**	**8.15**	**9.71**	**8.61**	**-**	**7.41**	
Real Assets - MLPs	**159,269,198**	**3.70%**	**2.18**	**16.90**	**(18.63)**	**9.04**	**(18.63)**	**(2.20)**	**-**	**7.31**	**09/01/11**
Alerian MLP Index			**5.13**	**19.70**	**(13.11)**	**14.71**	**(13.11)**	**(5.38)**	**-**	**3.99**	
Excess Return			**(2.96)**	**(2.80)**	**(5.51)**	**(5.67)**	**(5.51)**	**3.19**	**-**	**3.32**	
Harvest Fund Advisors LLC	61,685,348	1.43%	3.33	18.42	(17.82)	11.07	(17.82)	(0.79)	-	8.47	09/01/11
Alerian MLP Index			5.13	19.70	(13.11)	14.71	(13.11)	(5.38)	-	3.99	
Excess Return			(1.80)	(1.28)	(4.70)	(3.64)	(4.70)	4.59	-	4.48	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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	53,824,924	1.25%	(1.31)	15.31	(22.50)	6.23	(22.50)	(6.43)	-	4.25	09/01/11
Alerian MLP Index			5.13	19.70	(13.11)	14.71	(13.11)	(5.38)	-	3.99	
Excess Return			(6.44)	(4.38)	(9.39)	(8.48)	(9.39)	(1.05)	-	0.25	
Tortoise Capital Advisors LLC	43,758,926	1.02%	5.09	16.75	(14.57)	9.78	(14.57)	0.46	-	5.64	03/01/12
Alerian MLP Index			5.13	19.70	(13.11)	14.71	(13.11)	(5.38)	-	0.46	
Excess Return			(0.04)	(2.94)	(1.45)	(4.93)	(1.45)	5.84	-	5.17	
Real Assets - Public Real Estate	**59,645,652**	**1.39%**	**6.90**	**7.36**	**23.65**	**13.77**	**23.65**	**13.55**	**-**	**12.29**	**01/01/13**
NAREIT Index			**6.92**	**7.41**	**23.62**	**13.68**	**23.62**	**13.31**	**-**	**11.96**	
Excess Return			**(0.01)**	**(0.05)**	**0.03**	**0.09**	**0.03**	**0.23**	**-**	**0.33**	
Rhumbline FTSE NAREIT	59,645,652	1.39%	6.90	7.36	23.65	13.77	23.65	13.28	-	9.68	05/01/13
NAREIT Index			6.92	7.41	23.62	13.68	23.62	13.31	-	9.66	
Excess Return			(0.01)	(0.05)	0.03	0.09	0.03	(0.03)	-	0.02	
Real Assets - Private Real Estate	**115,144,956**	**2.68%**	**0.00**	**(0.06)**	**7.90**	**10.39**	**7.90**	**11.15**	**10.51**	**3.35**	**05/01/06**
Private Real Estate Benchmark			**0.00**	**(0.06)**	**7.91**	**10.39**	**7.91**	**11.20**	**-**	**-**	
Excess Return			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**(0.05)**	**-**	**-**	
Private Assets	**424,122,957**	**9.86%**	**(0.20)**	**0.13**	**5.80**	**1.97**	**5.80**	**10.53**	**12.18**	**8.16**	**04/01/96**
Private Assets Benchmark			**(0.20)**	**0.14**	**5.81**	**1.98**	**5.81**	**10.53**	**-**	**-**	
Excess Return			**0.00**	**(0.01)**	**(0.01)**	**(0.01)**	**(0.01)**	**0.00**	**-**	**-**	
Private Assets - Private Equity	**403,045,687**	**9.37%**	**(0.35)**	**0.03**	**5.94**	**1.75**	**5.94**	**10.69**	**-**	**-**	**04/01/96**
Private Equity Benchmark			**(0.35)**	**0.03**	**5.94**	**1.75**	**5.94**	**-**	**-**	**-**	
Excess Return			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-**	**-**	**-**	
Private Assets - Private Debt	**21,077,270**	**0.49%**	**2.66**	**2.00**	**2.89**	**6.89**	**2.89**	**5.06**	**-**	**9.04**	**12/01/12**
Private Debt Benchmark			**2.66**	**2.00**	**2.88**	**6.89**	**2.88**	**5.06**	**-**	**9.04**	
Excess Return			**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**-**	**0.00**	

J.P.Morgan

City of Philadelphia Municipal Pension Fund Excess Return Report
Performance Results - Detail
For Period Ending June 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	18,098,131	0.42%	0.27	0.45	1.39	0.77	1.39	2.24	-	2.29	12/01/12
3 Month US T-Bill			0.02	0.06	0.14	0.12	0.14	0.07	-	0.07	
Excess Return			0.25	0.38	1.25	0.65	1.25	2.17	-	2.22	

J.P.Morgan

Disclaimer

This report is provided exclusively for the purpose of assisting the customer in monitoring the investment performance of its accounts. J.P. Morgan is providing a reporting service to the customer to assist it in the management of the accounts and, in doing so, is not acting in a fiduciary capacity for the accounts. J.P. Morgan has no responsibility for the selection, monitoring or termination of any investment manager with respect to any of the accounts. The reports are not intended to be considered the rendering of investment advice or in any way to influence any investment decisions or the selection of any investment managers for the accounts. The customer assumes sole responsibility for its use of the reports.

This report contains information that is the property of J.P. Morgan and/or its content providers, and is intended for use by the investment officers of our institutional clients. J.P. Morgan makes no warranty, express or implied, concerning the accuracy or completeness of this information and the information in this report should not be relied on in substitution for the exercise of independent judgment by any recipient. This report may not be copied, published, or used in whole or in part with third-parties for any purposes other than expressly authorized by J.P. Morgan.

The information furnished in this report may contain data obtained from third-party sources that J.P. Morgan believes to be reliable. However, J.P. Morgan makes no warranty, express or implied, concerning the accuracy or completeness of third-party data. Where J.P. Morgan relies on accounting, pricing and associated security data – or instructions for what accounts comprise composites – by the customer or its third party administrators, J.P. Morgan takes no responsibility for the accuracy of such information.

Third-party data is the intellectual property of those vendors and is subject to restrictions contained in the licenses, which J.P. Morgan cannot unilaterally change. If the third party supplier adds additional restrictions to data use, J.P. Morgan shall use reasonable efforts to notify the customer of such changes in writing. Customer's continued use of the report after receipt of notice shall constitute customer's acceptance of the revised usage provision.

The information contained in this report may be subject to change from time to time without prior notice to the Customer, for reasons including, but not limited to, the subsequent restating of accounting information or index returns.

The information furnished in this report does not constitute the provision of 'financial product advice' as defined under the Corporations Act 2001 (Cth) and does not take into account the financial situation, needs or objectives of individuals in Australia.

The information furnished in this report is available in New Zealand solely to persons who are wholesale clients for the purposes of the Financial Advisers Act 2008. If you do not meet this criterion, you are not entitled to this report.

J.P. Morgan shall not be liable to the customer or any other person for any direct or indirect liability, loss, claim, cost, damage, penalty, fine, obligation or expense of any kind whatsoever suffered or incurred by, or asserted against, the customer or any other person howsoever arising, whether in tort (including negligence), in contract or under statute, directly or indirectly from, or in connection with, the use of this report or report information, for any trading decision.

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of Morgan Stanley Capital International Inc. ("MSCI") and Standard's,' a division of The McGraw-Hill Companies, Inc. ("S&P") and is licensed for use by The JPMorgan Chase & Co. and its wholly owned subsidiaries.

Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Standard and Poor's including its subsidiary corporations ("S&P") is a division of the McGraw-Hill Companies, Inc. Reproduction of S&P Index Alerts in any form is prohibited except with the prior written permission of S&P. Because of the possibility of human or mechanical error by S&P sources, S&P, or others, S&P does not guarantee the accuracy, adequacy, completeness or availability of any information and is not responsible for any errors or omissions or for the results obtained from the use of such information. S&P gives not express or implied warranties, including, but not limited to, any warranties or merchantability or fitness for a particular purpose or use. In no event shall S&P be liable for any indirect, special or consequential damages in connection with subscriber's or others' use of S&P Index Alerts.

The recipient of the credit ratings data (in any format other than locked, non-manipulable on-screen display) must ensure that a valid and fully paid license with the relevant credit ratings agency is in existence as at the time of receipt and throughout the period during which recipient retains or uses such credit ratings data.

This may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. THIRD PARTY CONTENT PROVIDERS GIVE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. THIRD PARTY CONTENT PROVIDERS shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs OR LOSSES CAUSED BY NEGLIGENCE) in connection with any use of THEIR CONTENT, INCLUDING ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Neither JPMorgan Chase & Co nor any of its affiliates, subsidiaries, or third party suppliers ("JPMorgan") accepts any liability for any losses, costs, claims, damages, liabilities or expenses (including, without limitation, loss of profits) (collectively, "Losses") which the recipient may incur as a result of its use of the data or its failure to hold a valid and fully paid license with the relevant credit rating agencies." SM

Copyright MSCI 2014. Unpublished. All Rights Reserved. This information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used to create any financial instruments or products or any indices. This information is provided on an "as is" basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality,accuracy,completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information have any liability for any direct,indirect,special,incidental,punitive, consequential or any other damages (including,without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages.

FTSE ® is a trade mark of London Stock Exchange Plc and The Financial Times Limited and is used by FTSE under license. All rights in the FTSE Indices vest in FTSE and/or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE Indices or underlying data.

The Industry Classification Benchmark is a joint product of FTSE International Limited and Dow Jones & Company, Inc. and has been licensed for use. "FTSE" is a trade and service mark of London Stock Exchange and The Financial Times Limited."Dow Jones" and "DJ" are trade and service marks of Dow Jones Inc. FTSE and Dow Jones & Company do not accept any liability to any person for any loss or damage arising out of any error or omission in the ICB.

The Dow Jones Wilshire IndexesSM are calculated, distributed and marketed by Dow Jones & Company , Inc. pursuant to an agreement between Dow Jones and Wilshire and have been licensed for use. All content of the Dow Jones Wilshire IndexesSM © 2011 Dow Jones & Company, Inc. and Wilshire Associates Incorporated.

Frank Russell Company ("FRC") is the source and owner of the Russell Index data contained or reflected in this material and all trademarks and copyrights related thereto. The presentation may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited. This is a USER presentation of the Russell Index data. Frank Russell Company is not responsible for the formatting or configuration of this material or for any inaccuracy in USER's presentation thereof.

The Merrill Lynch Indices are used with permission. Copyright 2011, Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. The Merrill Lynch Indices may not be copied, used, or distributed without Merrill Lynch's prior written approval. Merrill Lynch does not guarantee the quality, accuracy and/or completeness of the Merrill Lynch indices or any data included therein or derived therefrom and shall not be liable to any third party in connection with their use.

© UBS 2011. All rights reserved. The name UBS Global Convertible Bond Index and the names of the related UBS AG sub-indices (together the "UBS Indices") are proprietary to UBS AG ("UBS"). UBS and MACE Advisers Ltd (the UBS Global Convertible Bond Index Calculation Agent) are together the "Index Parties". SM

© IPD (Investment Property Databank Ltd.) 2011 All rights conferred by law of copyright, by virtue of international copyright conventions and all other intellectual property laws are reserved by IPD. No part of the Mercer / IPD Australian Pooled Property Fund Index - Wholesale Core may be reproduced or transmitted, in any form or by any means, without the prior written consent of IPD. This index is neither appropriate nor authorized by IPD for use as a benchmark for portfolio or manager performance, or as the basis for any business decision. IPD gives no warranty or representation that the use of this information will achieve any particular result for you. Neither Mercer nor IPD has any liability for any losses, damages, costs or expenses suffered by any person as a result of any reliance on this information.

The NZX indices referred to in this report are the property of NZX Limited ("NZX"). Any adaptation, reproduction or transmittance of the data or contents of the NZX indices in any form or by any means other than for private use is prohibited without the prior written permission of NZX. NZX and its affiliates, directors, officers, agents or employees do not make any warranty of any kind, either express or implied, as to the accuracy of the content of the NZX indices or fitness for a particular purpose or use. NZX hereby disclaims all liability to the maximum extent permitted by law in relation to the NZX indices. Neither NZX, its subsidiary companies, nor their directors, officers, agents or employees shall, under any circumstances, be liable to any person for any direct, indirect, consequential, The calculation of Value-at-Risk requires numerous assumptions that should be kept in mind when interpreting it. These limitations include but are not limited to the following: VaR measures may not appropriately convey the magnitude of sudden and unexpected extreme events, historical data that forms the basis of VaR may fail to predict content and future market volatility, and our VaR methodology does not fully reflect the effects of market illiquidity (the inability to sell or hedge a position over a relatively long period) and does not incorporate credit risk events that may affect its value.

Please review this report carefully. The contents of this report will be considered correct and the recipient will be taken to have read, accepted and acknowledged the correctness and accuracy of this report, if no error is reported by the recipient within 3 business days of the issue of this report.