



Pension Plan

Employees' Retirement System
of Milwaukee County
Monthly Update
November 30, 2015

Total Fund Composite

Manager Status

Market Value: \$1,708.1 Million and 100.0% of Fund

Investment Manager	Asset Class	Status	Reason
J.P. Morgan	Core Fixed Income	In Compliance	---
Mellon Capital	Core Fixed Income	In Compliance	---
Boston Partners	Large-Cap Value	In Compliance	---
Mellon Capital	Large-Cap Core	In Compliance	---
Artisan Partners	Mid-Cap Growth	Alert	Performance
Geneva Capital	Mid-Cap Growth	Alert	Performance
Silvercrest Asset Management	Small-Cap Value	In Compliance	---
Fiduciary Management	Small-Cap Value	In Compliance	---
NTGI ACWI Ex-US	Non-U.S. All-Cap Core	In Compliance	---
Vontobel Asset Management	Non-U.S. Large-Cap Core	In Compliance	---
GMO Small-Cap	Non-U.S. Small-Cap Value	In Compliance	---
OFI Institutional Asset Management	Emerging Markets	In Compliance	---
ABS	Hedged Equity Hedge FoF	Alert	Performance
K2	Hedged Equity Hedge FoF	Termination	Organizational Issues
Parametric Defensive Equity	Long/Short Hedge Fund	In Compliance	---
American Realty Advisors	Core Real Estate	In Compliance	---
Morgan Stanley	Core Real Estate	In Compliance	---
UBS	Core Real Estate	In Compliance	---
IFM	Core Infrastructure	In Compliance	---
J.P. Morgan Infrastructure	Core Infrastructure	In Compliance	---
Adams Street	Private Equity	In Compliance	---
Siguler Guff	U.S. Private Equity FoF	In Compliance	---
Mesirow VI	U.S. Private Equity FoF	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.

Alert – The investment manager is notified of a problem in performance (usually related to a benchmark or volatility measure), a change in investment characteristics, an alteration in management style or key investment professionals, and/or any other irregularities.

On Notice – The investment manager is notified of continued concern with one or more Alert issues. Failure to improve upon stated issues within a specific time frame justifies termination.

Termination – The Trustees have decided to terminate the investment manager. The investment manager is notified and transition plans are in place.

Total Fund Composite

Market Value: \$1,708.1 Million and 100.0% of Fund

Ending November 30, 2015

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,708,145,452	-15,590,611	100.0	100.0	0
Fixed Income Composite		301,129,417	-17,000,000	17.6	22.0	-74,662,582
J.P. Morgan	Core Fixed Income	249,012,470	-17,000,000	14.6		
Mellon Capital	Core Fixed Income	52,116,948	0	3.1		
U.S. Equity Composite		409,328,098	-8,000,000	24.0	25.0	-17,708,265
Boston Partners	Large-Cap Value	119,157,178	-8,000,000	7.0	8.0	-17,494,459
Mellon Capital	Large-Cap Core	98,274,450	0	5.8	6.0	-4,214,277
Artisan Partners	Mid-Cap Growth	43,153,442	0	2.5	2.5	449,806
Geneva Capital	Mid-Cap Growth	43,832,175	0	2.6	2.5	1,128,539
Fiduciary Management	Small-Cap Value	52,154,856	0	3.1	3.0	910,492
Silvercrest Asset Management	Small-Cap Value	52,755,998	0	3.1	3.0	1,511,634
International Equity Composite		314,070,313	-8,104,480	18.4	20.0	-27,558,778
NTGI ACWI Ex-US	Non-U.S. All-Cap Core	70,217,730	-8,000,000	4.1	6.5	-40,811,725
Vontobel Asset Management	Non-U.S. Large-Cap Core	126,103,749	0	7.4	6.5	15,074,295
GMO Small-Cap	Non-U.S. Small-Cap Value	68,116,634	0	4.0	4.0	-209,184
OFI Institutional Asset Management	Emerging Markets	49,632,200	-104,480	2.9	3.0	-1,612,163
Hedged Equity Composite		182,793,048	-3,516,806	10.7	10.0	11,978,503
ABS	Hedged Equity Hedge FoF	92,581,769	0	5.4	5.0	7,174,496
Parametric Defensive Equity	Long/Short Hedge Fund	85,552,500	85,000,000	5.0	5.0	145,227
K2	Hedged Equity Hedge FoF	4,658,779	-88,516,806	0.3	0.0	4,658,779
Real Estate Composite		194,073,502	-2,341,633	11.4	8.5	48,881,139
American Realty Advisors	Core Real Estate	39,382,083	-580,141	2.3		
Morgan Stanley	Core Real Estate	135,417,774	-1,574,718	7.9		
UBS	Core Real Estate	19,273,317	-186,774	1.1		
Infrastructure Composite		151,427,513	-1,937,060	8.9	8.5	6,235,150
IFM	Core Infrastructure	71,419,456	0	4.2		
J.P. Morgan Infrastructure	Core Infrastructure	80,008,057	-1,937,060	4.7		

Total Fund Composite

Market Value: \$1,708.1 Million and 100.0% of Fund

Ending November 30, 2015

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Private Equity Composite		87,397,582	113,416	5.1	6.0	-15,091,145
Progress	U.S. Private Equity FoF	25,924	0	0.0		
Brinson 1998	U.S. Private Equity FoF	73,041	0	0.0		
Brinson 1999	U.S. Private Equity FoF	168,592	0	0.0		
Brinson 2000	U.S. Private Equity FoF	430,605	0	0.0		
Brinson 2001	U.S. Private Equity FoF	973,256	0	0.1		
Brinson 2002	U.S. Private Equity FoF	524,095	-14,299	0.0		
Brinson 2003	U.S. Private Equity FoF	628,889	-23,529	0.0		
Brinson 2004	U.S. Private Equity FoF	966,621	0	0.1		
Adams Street 2005	U.S. Private Equity FoF	5,383,280	-281,693	0.3		
Adams Street 2009	U.S. Private Equity FoF	22,778,309	-718,471	1.3		
Adams Street 2012	Global Divers. Private Equity FoF	20,698,941	0	1.2		
Adams Street Co-Investment III	Private Equity Co- Investment	3,039,732	0	0.2		
Siguler Guff	U.S. Private Equity FoF	26,754,672	-198,592	1.6		
Mesirow VI	U.S. Private Equity FoF	4,951,625	1,350,000	0.3		
Total Cash Equivalents		67,925,978	25,195,952	4.0	0.0	67,925,978

Total Fund Composite

Annualized Performance (Net of Fees)

Market Value: \$1,708.1 Million and 100.0% of Fund

Ending November 30, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.2%	2.3%	2.9%	2.7%	5.1%	8.4%	8.7%	7.7%	9.9%	5.9%
<i>Total Fund Benchmark</i>	-0.1%	1.7%	1.7%	1.4%	4.1%	7.6%	8.2%	7.4%	9.9%	5.6%
Fixed Income Composite	-0.2%	0.4%	1.5%	1.5%	3.2%	1.8%	2.8%	3.3%	6.2%	5.1%
<i>Barclays Aggregate</i>	-0.3%	0.4%	0.9%	1.0%	3.1%	1.5%	2.5%	3.1%	4.7%	4.6%
U.S. Equity Composite	0.6%	4.1%	2.4%	2.9%	7.3%	15.4%	15.0%	13.0%	15.8%	7.6%
<i>Wilshire 5000 Total Market</i>	0.5%	5.6%	2.7%	2.6%	9.0%	15.9%	15.9%	14.0%	15.6%	7.6%
International Equity Composite	-1.7%	2.7%	-1.0%	-4.8%	-1.0%	5.2%	6.4%	4.1%	8.5%	1.3%
<i>MSCI ACWI ex USA</i>	-2.1%	0.3%	-3.9%	-7.3%	-3.4%	3.3%	5.3%	3.0%	8.6%	3.6%
Hedged Equity Composite	0.8%	-1.3%	2.6%	3.2%	5.0%	9.2%	8.1%	6.1%	--	--
<i>HFRX Equity Hedge Index</i>	0.0%	-0.2%	-1.2%	-1.8%	0.7%	3.8%	3.7%	-0.1%	1.9%	0.0%
<i>Russell 3000</i>	0.6%	5.3%	2.6%	2.6%	8.9%	16.0%	16.0%	14.1%	15.7%	7.6%
<i>MSCI ACWI</i>	-0.8%	3.1%	-0.6%	-2.5%	2.6%	9.2%	10.2%	8.0%	11.6%	5.2%
Real Estate Composite	0.0%	3.4%	10.9%	14.8%	13.6%	13.6%	12.9%	13.6%	16.8%	6.9%
<i>Custom Real Estate Benchmark</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	16.9%	6.4%
<i>NFI</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	4.5%	5.4%
Infrastructure Composite	-0.6%	1.0%	3.0%	1.5%	2.7%	4.0%	5.3%	6.1%	--	--
<i>CPI +4%</i>	0.3%	0.7%	4.9%	4.7%	5.0%	5.1%	5.3%	5.7%	5.7%	5.9%
Private Equity Composite	0.0%	0.0%	4.6%	6.7%	11.6%	9.3%	10.2%	10.6%	8.4%	10.7%
<i>Cambridge Associates All PE</i>	0.0%	0.0%	1.7%	2.4%	7.5%	11.2%	11.5%	11.2%	11.2%	11.0%

Investment Manager

Annualized Performance (Net of Fees)

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Ending November 30, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	-0.2%	2.3%	2.9%	2.7%	5.1%	8.4%	8.7%	7.7%	9.9%	5.9%
<i>Total Fund Benchmark</i>	-0.1%	1.7%	1.7%	1.4%	4.1%	7.6%	8.2%	7.4%	9.9%	5.6%
Fixed Income Composite	-0.2%	0.4%	1.5%	1.5%	3.2%	1.8%	2.8%	3.3%	6.2%	5.1%
<i>Barclays Aggregate</i>	-0.3%	0.4%	0.9%	1.0%	3.1%	1.5%	2.5%	3.1%	4.7%	4.6%
J.P. Morgan	-0.2%	0.4%	1.6%	1.7%	3.2%	1.9%	2.9%	3.3%	5.1%	4.9%
<i>Barclays Aggregate</i>	-0.3%	0.4%	0.9%	1.0%	3.1%	1.5%	2.5%	3.1%	4.7%	4.6%
Mellon Capital	-0.3%	0.4%	0.8%	0.9%	3.1%	1.4%	2.4%	3.0%	4.6%	4.6%
<i>Barclays Aggregate</i>	-0.3%	0.4%	0.9%	1.0%	3.1%	1.5%	2.5%	3.1%	4.7%	4.6%
U.S. Equity Composite	0.6%	4.1%	2.4%	2.9%	7.3%	15.4%	15.0%	13.0%	15.8%	7.6%
<i>Wilshire 5000 Total Market</i>	0.5%	5.6%	2.7%	2.6%	9.0%	15.9%	15.9%	14.0%	15.6%	7.6%
Boston Partners	-0.1%	3.1%	-1.4%	-1.2%	6.6%	15.5%	16.6%	14.5%	15.2%	8.4%
<i>Russell 1000 Value</i>	0.4%	4.7%	-1.7%	-1.1%	6.9%	14.7%	15.4%	13.5%	13.6%	6.5%
Mellon Capital	0.3%	6.1%	3.0%	2.7%	9.5%	16.0%	16.1%	14.4%	15.2%	7.5%
<i>S&P 500</i>	0.3%	6.1%	3.0%	2.7%	9.6%	16.1%	16.1%	14.4%	15.3%	7.5%
Artisan Partners	1.8%	3.5%	5.0%	4.4%	7.3%	16.4%	15.3%	14.0%	21.0%	10.7%
<i>Russell MidCap Growth</i>	0.2%	2.4%	2.1%	1.8%	8.6%	16.4%	15.3%	13.4%	19.0%	8.5%
Geneva Capital	-0.4%	3.0%	7.5%	7.7%	8.0%	14.4%	--	--	--	--
<i>Russell MidCap Growth</i>	0.2%	2.4%	2.1%	1.8%	8.6%	16.4%	15.3%	13.4%	19.0%	8.5%
Fiduciary Management	1.7%	3.2%	4.7%	6.3%	5.8%	15.4%	13.3%	11.3%	--	--
<i>Russell 2000 Value</i>	2.8%	4.8%	-2.3%	0.4%	1.8%	12.6%	13.2%	10.6%	13.6%	6.1%
Silvercrest Asset Management	1.2%	4.8%	2.7%	5.9%	5.0%	--	--	--	--	--
<i>Russell 2000 Value</i>	2.8%	4.8%	-2.3%	0.4%	1.8%	12.6%	13.2%	10.6%	13.6%	6.1%
International Equity Composite	-1.7%	2.7%	-1.0%	-4.8%	-1.0%	5.2%	6.4%	4.1%	8.5%	1.3%
<i>MSCI ACWI ex USA</i>	-2.1%	0.3%	-3.9%	-7.3%	-3.4%	3.3%	5.3%	3.0%	8.6%	3.6%
NTGI ACWI Ex-US	-1.9%	0.6%	-2.8%	-6.0%	-2.7%	4.0%	--	--	--	--
<i>MSCI ACWI ex USA</i>	-2.1%	0.3%	-3.9%	-7.3%	-3.4%	3.3%	5.3%	3.0%	8.6%	3.6%
Vontobel Asset Management	-2.3%	4.3%	2.6%	-1.4%	3.3%	--	--	--	--	--
<i>MSCI EAFE</i>	-1.6%	0.8%	0.5%	-2.9%	-1.5%	6.6%	8.1%	5.5%	8.9%	3.6%
GMO Small-Cap	-0.4%	1.1%	3.1%	1.2%	-1.1%	10.4%	11.1%	8.2%	--	--
<i>MSCI EAFE Small Cap</i>	0.0%	2.4%	8.8%	8.2%	2.9%	11.7%	12.0%	8.5%	14.5%	5.3%
OFI Institutional Asset Management	-1.9%	4.0%	-11.7%	-17.6%	-7.8%	--	--	--	--	--
<i>MSCI Emerging Markets</i>	-3.9%	-0.1%	-13.0%	-17.0%	-8.4%	-4.6%	-0.8%	-3.0%	9.0%	4.4%

Investment Manager

Annualized Performance (Net of Fees)

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Ending November 30, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedged Equity Composite	0.8%	-1.3%	2.6%	3.2%	5.0%	9.2%	8.1%	6.1%	--	--
<i>HFRX Equity Hedge Index</i>	0.0%	-0.2%	-1.2%	-1.8%	0.7%	3.8%	3.7%	-0.1%	1.9%	0.0%
<i>Russell 3000</i>	0.6%	5.3%	2.6%	2.6%	8.9%	16.0%	16.0%	14.1%	15.7%	7.6%
<i>MSCI ACWI</i>	-0.8%	3.1%	-0.6%	-2.5%	2.6%	9.2%	10.2%	8.0%	11.6%	5.2%
ABS	1.0%	0.4%	4.6%	5.5%	6.1%	10.2%	8.5%	6.5%	--	--
<i>HFRX Equity Hedge Index</i>	0.0%	-0.2%	-1.2%	-1.8%	0.7%	3.8%	3.7%	-0.1%	1.9%	0.0%
<i>Russell 3000</i>	0.6%	5.3%	2.6%	2.6%	8.9%	16.0%	16.0%	14.1%	15.7%	7.6%
<i>MSCI ACWI</i>	-0.8%	3.1%	-0.6%	-2.5%	2.6%	9.2%	10.2%	8.0%	11.6%	5.2%
Parametric Defensive Equity	0.7%	--	--	--	--	--	--	--	--	--
<i>HFRX Equity Hedge Index</i>	0.0%	-0.2%	-1.2%	-1.8%	0.7%	3.8%	3.7%	-0.1%	1.9%	0.0%
<i>S&P 500</i>	0.3%	6.1%	3.0%	2.7%	9.6%	16.1%	16.1%	14.4%	15.3%	7.5%
K2	0.0%	-3.5%	0.0%	0.3%	3.6%	7.9%	7.6%	5.5%	--	--
<i>HFRX Equity Hedge Index</i>	0.0%	-0.2%	-1.2%	-1.8%	0.7%	3.8%	3.7%	-0.1%	1.9%	0.0%
<i>Russell 3000</i>	0.6%	5.3%	2.6%	2.6%	8.9%	16.0%	16.0%	14.1%	15.7%	7.6%
<i>MSCI ACWI</i>	-0.8%	3.1%	-0.6%	-2.5%	2.6%	9.2%	10.2%	8.0%	11.6%	5.2%
Real Estate Composite	0.0%	3.4%	10.9%	14.8%	13.6%	13.6%	12.9%	13.6%	16.8%	6.9%
<i>Custom Real Estate Benchmark</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	16.9%	6.4%
<i>NFI</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	4.5%	5.4%
American Realty Advisors	0.0%	3.1%	11.2%	12.9%	12.2%	11.8%	11.5%	--	--	--
<i>NFI</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	4.5%	5.4%
Morgan Stanley	0.0%	3.6%	11.2%	15.9%	14.5%	14.8%	14.1%	15.0%	--	--
<i>NFI</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	4.5%	5.4%
UBS	0.0%	3.1%	8.4%	11.7%	10.7%	10.0%	--	--	--	--
<i>NFI</i>	0.0%	1.2%	10.8%	11.9%	11.7%	12.0%	11.5%	12.3%	4.5%	5.4%
Infrastructure Composite	-0.6%	1.0%	3.0%	1.5%	2.7%	4.0%	5.3%	6.1%	--	--
<i>CPI +4%</i>	0.3%	0.7%	4.9%	4.7%	5.0%	5.1%	5.3%	5.7%	5.7%	5.9%
IFM	-1.3%	2.2%	4.0%	4.1%	3.7%	4.5%	5.8%	7.0%	--	--
<i>CPI +4%</i>	0.3%	0.7%	4.9%	4.7%	5.0%	5.1%	5.3%	5.7%	5.7%	5.9%
J.P. Morgan Infrastructure	0.0%	0.0%	2.2%	-0.5%	1.9%	3.7%	4.9%	4.8%	--	--
<i>CPI +4%</i>	0.3%	0.7%	4.9%	4.7%	5.0%	5.1%	5.3%	5.7%	5.7%	5.9%

Total Fund Composite

Fee Schedule

Market Value: \$1,708.1 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Fixed Income	J.P. Morgan	0.20% on the first \$100 million 0.15% on the Balance	0.17% \$424,180	0.24%
Core Fixed Income	Mellon Capital	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$20,902	0.08%
Large-Cap Value	Boston Partners	0.40% on the first \$15 million 0.30% on the next \$25 million 0.20% on the next \$25 million 0.15% on the next \$35 million 0.10% on the Balance	0.22% \$256,751	0.51%
Large-Cap Core	Mellon Capital	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$39,193	0.09%
Mid-Cap Growth	Artisan Partners	0.80% on the first \$50 million 0.60% on the next \$50 million 0.50% on the Balance	0.80% \$338,799	0.78%
Mid-Cap Growth	Geneva Capital	0.55% on the Balance	0.55% \$242,024	0.78%
Small-Cap Value	Silvercrest Asset Management	0.65% on the first \$50 million 0.55% on the Balance	0.65% \$336,475	0.83%
Small-Cap Value	Fiduciary Management	0.70% on the first \$10 million 0.65% on the next \$40 million 0.60% on the next \$25 million 0.50% on the Balance	0.66% \$337,383	0.83%
Non-U.S. All-Cap Core	NTGI ACWI Ex-US	0.08% on the Balance	0.08% \$57,243	0.12%
Non-U.S. Large-Cap Core	Vontobel Asset Management	0.85% on the first \$50 million 0.75% on the next \$50 million 0.65% on the next \$400 million 0.60% on the Balance	0.77% \$988,816	0.68%
Non-U.S. Small-Cap Value	GMO Small-Cap	0.75% on the Balance	0.75% \$512,966	1.16%
Emerging Markets	OFI Institutional Asset Management	0.85% on the first \$50 million 0.80% on the next \$50 million 0.70% on the Balance	0.85% \$429,709	0.92%
Hedged Equity Hedge FoF	ABS	0.85% on the Balance *redemptions quarterly with 45 days notice	0.85% \$778,692	1.37%
Long/Short Hedge Fund	Parametric Defensive Equity	0.35% on the Balance	0.35% \$297,500	1.69%

Total Fund Composite

Fee Schedule

Market Value: \$1,708.1 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Real Estate	American Realty Advisors	0.95% on the Balance	0.95% \$374,130	1.03%
Core Real Estate	Morgan Stanley	0.90% on the Balance	0.90% \$1,218,760	1.03%
Core Real Estate	UBS	0.955% on the first \$10 million 0.825% on the next \$15 million 0.805% on the next \$25 million 0.79% on the next \$50 million 0.67% on the next \$150 million 0.60% on the Balance	0.89% \$172,005	1.03%
Core Infrastructure	IFM	0.97% on the Balance Performance Fee: 20% of return above 8% on a rolling three year basis	0.97% \$701,714	1.80%
Core Infrastructure	J.P. Morgan Infrastructure	1.50% on the first \$50 million 1.55% on the Balance Performance Fee: 15% with 7% Hurdle (six year soft lock, effective lock 4.5 years)	1.52% \$1,215,125	1.80%
Private Equity	Adams Street	0.67% on the first \$50 million 0.60% on the Balance 10% carry on secondaries and co-invest (Effective Rate Over 15 Yr Term)	0.67% \$355,659	1.11%
U.S. Private Equity FoF	Siguler Guff	0.69% on commitment	1.01% \$276,000	1.62%
U.S. Private Equity FoF	Mesirow VI	0.70% on commitment	4.24% \$210,000	6.73%
Cash Overlay	Northern Trust	0.07% on the first \$100 million 0.06% on the next \$150 million 0.05% on the Balance	0.07% \$35,720	0.20%
Total Investment Management Fees			0.57% \$9,619,747	1.24%
Custodian	BNY Mellon	\$100,000 Annual Fee (approximate)	\$100,000	N/A
Total Fund			0.57% \$9,719,747	

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

² Source: 2010 Marquette Associates Investment Management Fee Study.