



Pension Plan

Employees' Retirement System
of Milwaukee County
Monthly Update
July 31, 2015

Total Fund Composite

Manager Status

Market Value: \$1,750.1 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
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	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: \$1,750.1 Million and 100.0% of Fund

Ending July 31, 2015

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,750,147,847	-48,318,716	100.0	100.0	0
Fixed Income Composite		325,843,360	-8,000,000	18.6	22.0	-59,189,166
J.P. Morgan	Core Fixed Income	264,852,550	0	15.1		
Mellon Capital	Core Fixed Income	60,990,810	-8,000,000	3.5		
U.S. Equity Composite		436,206,459	-45,400,000	24.9	25.0	-1,330,503
Boston Partners	Large-Cap Value	142,218,953	-6,000,000	8.1	8.0	2,207,125
Mellon Capital	Large-Cap Core	98,600,352	-17,400,000	5.6	6.0	-6,408,518
Artisan Partners	Mid-Cap Growth	44,248,136	-6,000,000	2.5	2.5	494,440
Geneva Capital	Mid-Cap Growth	45,129,886	-6,000,000	2.6	2.5	1,376,190
Fiduciary Management	Small-Cap Value	53,395,973	-6,000,000	3.1	3.0	891,537
Silvercrest Asset Management	Small-Cap Value	52,613,159	-4,000,000	3.0	3.0	108,724
International Equity Composite		338,451,003	-119,871	19.3	20.0	-11,578,566
NTGI ACWI Ex-US	Non-U.S. All-Cap Core	83,641,273	0	4.8	6.5	-30,118,337
Vontobel Asset Management	Non-U.S. Large-Cap Core	130,310,447	0	7.4	6.5	16,550,837
GMO Small-Cap	Non-U.S. Small-Cap Value	71,183,276	0	4.1	4.0	1,177,362
OFI Institutional Asset Management	Emerging Markets	53,316,007	-119,871	3.0	3.0	811,572
Hedged Equity Composite		193,531,669	0	11.1	10.0	18,516,884
ABS	Hedged Equity Hedge FoF	93,423,018	0	5.3	5.0	5,915,625
K2	Hedged Equity Hedge FoF	100,108,651	0	5.7	5.0	12,601,258
Real Estate Composite		189,479,975	-2,379,009	10.8	8.5	40,717,408
American Realty Advisors	Core Real Estate	38,676,039	-567,392	2.2		
Morgan Stanley	Core Real Estate	131,987,401	-1,624,673	7.5		
UBS	Core Real Estate	18,816,201	-186,945	1.1		
Infrastructure Composite		146,880,645	-2,135,405	8.4	8.5	-1,881,922
IFM	Core Infrastructure	70,132,239	-417,363	4.0		
J.P. Morgan	Core Infrastructure	76,748,406	-1,718,041	4.4		

Total Fund Composite

Market Value: \$1,750.1 Million and 100.0% of Fund

Ending July 31, 2015

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Private Equity Composite		79,040,801	3,915,925	4.5	6.0	-25,968,070
Progress	U.S. Private Equity FoF	25,924	0	0.0		
Brinson 1998	U.S. Private Equity FoF	71,922	0	0.0		
Brinson 1999	U.S. Private Equity FoF	155,632	0	0.0		
Brinson 2000	U.S. Private Equity FoF	414,621	-166,342	0.0		
Brinson 2001	U.S. Private Equity FoF	997,492	0	0.1		
Brinson 2002	U.S. Private Equity FoF	532,156	0	0.0		
Brinson 2003	U.S. Private Equity FoF	631,567	-82,829	0.0		
Brinson 2004	U.S. Private Equity FoF	97,187	-204,604	0.0		
Adams Street 2005	U.S. Private Equity FoF	5,683,881	-374,477	0.3		
Adams Street 2009	U.S. Private Equity FoF	22,114,555	-402,884	1.3		
Adams Street 2012	Global Divers. Private Equity FoF	18,366,593	1,640,000	1.0		
Adams Street Co-Investment III	Private Equity Co- Investment	792,265	-189,000	0.0		
Siguler Guff	U.S. Private Equity FoF	25,419,677	3,696,061	1.5		
Mesirov VI	U.S. Private Equity FoF	3,737,329	0	0.2		
Total Cash Equivalents		40,713,935	5,799,645	2.3	0.0	40,713,935

Total Fund Composite

Annualized Performance (Net of Fees)

Market Value: \$1,750.1 Million and 100.0% of Fund

Ending July 31, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.6%	0.8%	3.6%	5.4%	8.3%	10.1%	7.8%	8.9%	6.5%	6.2%
<i>Total Fund Benchmark</i>	0.3%	-0.5%	3.1%	4.5%	7.6%	9.5%	7.6%	8.8%	6.1%	5.9%
Fixed Income Composite	0.6%	-0.3%	1.1%	3.3%	3.5%	2.0%	3.2%	3.5%	5.3%	5.0%
<i>Barclays Aggregate</i>	0.7%	-0.6%	0.6%	2.8%	3.4%	1.6%	3.0%	3.3%	4.7%	4.6%
U.S. Equity Composite	1.2%	2.3%	4.4%	12.3%	12.5%	17.9%	14.3%	15.6%	10.2%	8.0%
<i>Wilshire 5000 Total Market</i>	1.7%	1.2%	3.4%	11.0%	13.6%	17.7%	15.0%	16.2%	10.0%	7.9%
International Equity Composite	0.1%	-2.6%	4.1%	-3.0%	6.0%	10.0%	3.5%	6.6%	1.9%	2.1%
<i>MSCI ACWI ex USA</i>	-0.3%	-4.6%	3.7%	-4.6%	5.0%	8.8%	3.2%	5.8%	2.0%	5.1%
Hedged Equity Composite	1.2%	2.6%	6.5%	10.2%	10.5%	11.7%	7.7%	8.0%	--	--
<i>HFRX Equity Hedge Index</i>	-0.3%	-1.3%	2.1%	3.8%	3.5%	5.8%	1.8%	1.5%	-0.9%	0.4%
<i>Russell 3000</i>	1.7%	1.4%	3.6%	11.3%	13.8%	18.0%	15.2%	16.4%	10.0%	7.9%
<i>MSCI ACWI</i>	0.9%	-1.6%	3.6%	2.8%	9.2%	12.8%	8.5%	10.4%	5.3%	6.1%
Real Estate Composite	0.0%	3.9%	7.2%	14.9%	13.7%	13.4%	12.8%	14.5%	8.1%	6.5%
<i>Custom Real Estate Benchmark</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.4%	6.9%	5.8%
<i>NFI</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.9%	2.7%	5.7%
Infrastructure Composite	-0.3%	0.7%	-0.4%	-4.6%	2.0%	4.4%	4.0%	6.1%	--	--
<i>CPI +4%</i>	0.3%	1.9%	4.0%	4.2%	5.1%	5.4%	5.4%	5.9%	5.2%	6.1%
Private Equity Composite	-1.1%	-0.4%	-0.7%	1.6%	10.2%	9.4%	7.7%	11.0%	6.6%	10.5%
<i>Cambridge Associates All PE</i>	0.0%	0.0%	1.7%	4.0%	12.2%	12.9%	11.1%	13.5%	8.3%	12.0%

Investment Manager

Annualized Performance (Net of Fees)

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Ending July 31, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.6%	0.8%	3.6%	5.4%	8.3%	10.1%	7.8%	8.9%	6.5%	6.2%
<i>Total Fund Benchmark</i>	0.3%	-0.5%	3.1%	4.5%	7.6%	9.5%	7.6%	8.8%	6.1%	5.9%
Fixed Income Composite	0.6%	-0.3%	1.1%	3.3%	3.5%	2.0%	3.2%	3.5%	5.3%	5.0%
<i>Barclays Aggregate</i>	0.7%	-0.6%	0.6%	2.8%	3.4%	1.6%	3.0%	3.3%	4.7%	4.6%
J.P. Morgan	0.6%	-0.2%	1.3%	3.4%	3.5%	2.1%	3.3%	3.6%	5.1%	--
<i>Barclays Aggregate</i>	0.7%	-0.6%	0.6%	2.8%	3.4%	1.6%	3.0%	3.3%	4.7%	4.6%
Mellon Capital	0.6%	-0.7%	0.6%	2.8%	3.4%	1.5%	2.9%	3.2%	4.6%	4.6%
<i>Barclays Aggregate</i>	0.7%	-0.6%	0.6%	2.8%	3.4%	1.6%	3.0%	3.3%	4.7%	4.6%
U.S. Equity Composite	1.2%	2.3%	4.4%	12.3%	12.5%	17.9%	14.3%	15.6%	10.2%	8.0%
<i>Wilshire 5000 Total Market</i>	1.7%	1.2%	3.4%	11.0%	13.6%	17.7%	15.0%	16.2%	10.0%	7.9%
Boston Partners	0.9%	0.4%	1.3%	8.3%	11.4%	18.8%	16.3%	16.4%	11.1%	9.1%
<i>Russell 1000 Value</i>	0.4%	-0.4%	-0.2%	6.4%	10.8%	17.1%	14.7%	15.1%	8.7%	6.8%
Mellon Capital	2.1%	1.4%	3.3%	11.2%	14.0%	17.5%	15.4%	16.2%	9.8%	7.7%
<i>S&P 500</i>	2.1%	1.4%	3.4%	11.2%	14.0%	17.6%	15.4%	16.2%	9.9%	7.7%
Artisan Partners	2.2%	4.1%	7.9%	16.1%	14.0%	19.7%	15.0%	18.5%	13.5%	11.5%
<i>Russell MidCap Growth</i>	1.6%	1.2%	5.9%	14.7%	14.9%	19.9%	14.8%	17.5%	11.2%	9.2%
Geneva Capital	3.4%	5.6%	10.9%	20.3%	13.9%	17.2%	--	--	--	--
<i>Russell MidCap Growth</i>	1.6%	1.2%	5.9%	14.7%	14.9%	19.9%	14.8%	17.5%	11.2%	9.2%
Fiduciary Management	0.6%	4.6%	7.5%	15.6%	12.1%	17.8%	12.7%	14.5%	--	--
<i>Russell 2000 Value</i>	-2.8%	-1.8%	-2.0%	4.3%	6.2%	14.8%	11.2%	12.6%	8.1%	6.0%
Silvercrest Asset Management	-1.5%	1.2%	2.5%	10.8%	--	--	--	--	--	--
<i>Russell 2000 Value</i>	-2.8%	-1.8%	-2.0%	4.3%	6.2%	14.8%	11.2%	12.6%	8.1%	6.0%
International Equity Composite	0.1%	-2.6%	4.1%	-3.0%	6.0%	10.0%	3.5%	6.6%	1.9%	2.1%
<i>MSCI ACWI ex USA</i>	-0.3%	-4.6%	3.7%	-4.6%	5.0%	8.8%	3.2%	5.8%	2.0%	5.1%
NTGI ACWI Ex-US	-0.5%	-4.4%	4.2%	-4.2%	5.5%	--	--	--	--	--
<i>MSCI ACWI ex USA</i>	-0.3%	-4.6%	3.7%	-4.6%	5.0%	8.8%	3.2%	5.8%	2.0%	5.1%
Vontobel Asset Management	4.0%	1.2%	6.0%	2.5%	--	--	--	--	--	--
<i>MSCI EAFE</i>	2.1%	-1.3%	7.7%	-0.3%	7.1%	12.3%	5.8%	8.0%	2.8%	5.0%
GMO Small-Cap	-2.0%	-3.2%	7.8%	-1.8%	7.4%	16.1%	7.0%	11.1%	--	--
<i>MSCI EAFE Small Cap</i>	0.8%	0.6%	11.1%	2.5%	10.4%	15.9%	7.6%	10.7%	6.3%	6.2%
OFI Institutional Asset Management	-4.8%	-7.7%	-5.2%	-14.2%	--	--	--	--	--	--
<i>MSCI Emerging Markets</i>	-6.9%	-13.0%	-4.2%	-13.4%	-0.1%	0.6%	-3.2%	0.6%	0.4%	6.6%

Investment Manager

Annualized Performance (Net of Fees)

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Ending July 31, 2015

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedged Equity Composite	1.2%	2.6%	6.5%	10.2%	10.5%	11.7%	7.7%	8.0%	--	--
<i>HFRX Equity Hedge Index</i>	-0.3%	-1.3%	2.1%	3.8%	3.5%	5.8%	1.8%	1.5%	-0.9%	0.4%
<i>Russell 3000</i>	1.7%	1.4%	3.6%	11.3%	13.8%	18.0%	15.2%	16.4%	10.0%	7.9%
<i>MSCI ACWI</i>	0.9%	-1.6%	3.6%	2.8%	9.2%	12.8%	8.5%	10.4%	5.3%	6.1%
ABS	1.2%	2.1%	5.6%	9.5%	10.3%	11.8%	7.3%	7.9%	--	--
<i>HFRX Equity Hedge Index</i>	-0.3%	-1.3%	2.1%	3.8%	3.5%	5.8%	1.8%	1.5%	-0.9%	0.4%
<i>Russell 3000</i>	1.7%	1.4%	3.6%	11.3%	13.8%	18.0%	15.2%	16.4%	10.0%	7.9%
<i>MSCI ACWI</i>	0.9%	-1.6%	3.6%	2.8%	9.2%	12.8%	8.5%	10.4%	5.3%	6.1%
K2	1.2%	3.0%	7.4%	10.9%	10.7%	11.6%	8.1%	8.0%	--	--
<i>HFRX Equity Hedge Index</i>	-0.3%	-1.3%	2.1%	3.8%	3.5%	5.8%	1.8%	1.5%	-0.9%	0.4%
<i>Russell 3000</i>	1.7%	1.4%	3.6%	11.3%	13.8%	18.0%	15.2%	16.4%	10.0%	7.9%
<i>MSCI ACWI</i>	0.9%	-1.6%	3.6%	2.8%	9.2%	12.8%	8.5%	10.4%	5.3%	6.1%
Real Estate Composite	0.0%	3.9%	7.2%	14.9%	13.7%	13.4%	12.8%	14.5%	8.1%	6.5%
<i>Custom Real Estate Benchmark</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.4%	6.9%	5.8%
<i>NFI</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.9%	2.7%	5.7%
<i>American Realty Advisors</i>	0.0%	3.5%	7.9%	12.9%	12.2%	11.6%	11.5%	--	--	--
<i>NFI</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.9%	2.7%	5.7%
<i>Morgan Stanley</i>	0.0%	4.2%	7.3%	16.0%	14.7%	14.7%	14.6%	--	--	--
<i>NFI</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.9%	2.7%	5.7%
<i>UBS</i>	-0.3%	2.6%	5.1%	11.4%	10.3%	9.7%	--	--	--	--
<i>NFI</i>	0.0%	2.4%	6.8%	12.3%	11.9%	11.8%	11.6%	12.9%	2.7%	5.7%
Infrastructure Composite	-0.3%	0.7%	-0.4%	-4.6%	2.0%	4.4%	4.0%	6.1%	--	--
<i>CPI +4%</i>	0.3%	1.9%	4.0%	4.2%	5.1%	5.4%	5.4%	5.9%	5.2%	6.1%
IFM	-0.6%	1.4%	2.2%	-1.3%	2.4%	5.8%	4.7%	7.1%	--	--
<i>CPI +4%</i>	0.3%	1.9%	4.0%	4.2%	5.1%	5.4%	5.4%	5.9%	5.2%	6.1%
J.P. Morgan	0.0%	0.0%	-2.6%	-7.3%	2.0%	3.4%	3.5%	--	--	--
<i>CPI +4%</i>	0.3%	1.9%	4.0%	4.2%	5.1%	5.4%	5.4%	5.9%	5.2%	6.1%

Total Fund Composite

Fee Schedule

Market Value: \$1,750.1 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% \$444,720	0.24%
Core Fixed Income	Mellon Capital	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$27,420	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	0.20% \$278,477	0.46%
Large-Cap Core	Mellon Capital	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$38,634	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% \$361,907	0.78%
Mid-Cap Growth	Geneva Capital	0.55% on the Balance	0.55% \$250,615	0.78%
Small-Cap Value	Silvercrest Asset Management	0.65% on the first \$50 million 0.55% on the Balance	0.64% \$365,962	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	0.65% \$360,112	0.83%
Non-U.S. All-Cap Core	NTGI ACWI Ex-US	0.08% on the Balance	0.08% \$67,271	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% \$964,702	0.68%
Non-U.S. Small-Cap Value	GMO Small-Cap	0.75% on the Balance	0.75% \$544,667	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	0.84% \$472,810	0.92%
Hedged Equity Hedge FoF	ABS	0.85% on the Balance *redemptions quarterly with 45 days notice	0.85% \$785,045	1.37%
Hedged Equity Hedge FoF	K2	0.90% on the Balance *redemptions quarterly with 91 days notice	0.90% \$889,652	1.37%

Total Fund Composite

Fee Schedule

Market Value: \$1,750.1 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% \$371,856	1.03%
Core Real Estate	Morgan Stanley	0.90% on the Balance	0.90% \$1,187,887	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% \$170,210	1.03%
Core Infrastructure	IFM	1.25% on the Balance Performance Fee: 20% of return above 8% on a rolling three year basis	1.25% \$883,518	1.80%
Core Infrastructure	J.P. Morgan	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% \$1,164,600	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% \$335,264	1.11%
U.S. Private Equity FoF	Siguler Guff	0.69% on commitment	1.16% \$276,000	1.87%
U.S. Private Equity FoF	Mesirow VI	0.70% on commitment	5.62% \$210,000	8.91%
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% \$27,234	0.20%
Total Investment Management Fees			0.60% \$10,478,563	0.79%
Custodian	BNY Mellon	\$100,000 Annual Fee (approximate)	\$100,000	N/A
Total Fund			0.60% \$10,578,563	

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

² Source: 2010 Marquette Associates Investment Management Fee Study.