

Chicago Transit Authority
Employees' Retirement Plan
Performance Summary
June 30, 2018

Total Fund Composite

Market Value: \$1,823.1 Million and 100.0% of Fund

			9			
	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
otal Fund Composite		\$1,823,083,797	-\$25,785,636	100.0%	100.0%	\$0
Total Fixed Income Composite		\$319,541,838	-\$4,369,601	17.5%	17.0%	\$9,617,593
U.S. Fixed Income Composite		\$159,890,123	-\$1,802,284	8.8%	9.0%	-\$4,187,419
Rhumbline Core Bond Pooled Index Fund	Core Fixed Income	\$50,203,596	\$0	2.8%		
Baird Advisors	Core Fixed Income	\$54,976,662	-\$60,284	3.0%		
Amalgatrust	Core Plus Fixed Income	\$54,709,482	-\$1,078,939	3.0%		
Stable Value Composite		\$17,359,191	-\$2,419,744	1.0%	0.0%	\$17,359,191
Goode	Stable Value	\$17,359,191	-\$2,419,744	1.0%		
Bank Loans Composite		\$38,369,867	\$0	2.1%	2.0%	\$1,908,191
Symphony	Senior Secured Loans	\$38,369,867	\$0	2.1%		
Global Fixed Income Composite		\$103,922,657	-\$147,574	5.7%	6.0%	-\$5,462,371
Franklin Templeton Global Bond	Global Fixed Income	\$52,133,984	-\$61,346	2.9%		
Logan Circle Partners EMD	EM Fixed Income	\$51,788,673	-\$86,228	2.8%		
Total Equity Composite		\$851,141,091	-\$8,137,078	46.7%	49.0%	-\$42,169,969
U.S. Equity Composite		\$499,551,078	-\$6,999,828	27.4%	28.0%	-\$10,912,386
Large Cap Equity Composite		\$321,492,560	-\$387,980	17.6%	18.0%	-\$6,662,523
Rhumbline Russell 1000 Value	Large-Cap Value	\$48,511,375	\$0	2.7%		
Edgar Lomax	Large-Cap Value	\$66,114,636	-\$186,415	3.6%		
Paradigm	Large-Cap Value	\$74,682,362	-\$194,219	4.1%		
Northern Trust S&P 500	Large-Cap Core	\$132,147,855	-\$7,282	7.2%		
Mid Cap Equity Composite		\$86,347,413	-\$341,725	4.7%	5.0%	-\$4,806,777
Denali	Mid-Cap Value	\$56,315,446	-\$196,147	3.1%		
Nuveen	Mid-Cap Growth	\$30,031,967	-\$145,578	1.6%		
Small Cap Equity Composite		\$91,711,104	-\$6,270,123	5.0%	5.0%	\$556,915
Ariel	Small-Cap Value	\$49,314,876	-\$3,122,318	2.7%		
Channing	Small-Cap Value	\$26,655,178	-\$3,116,601	1.5%		
Rhumbline S&P 600	Small-Cap Core	\$15,739,356	-\$685	0.9%		
Non-U.S. Equity Composite		\$351,590,013	-\$1,137,250	19.3%	21.0%	-\$31,257,584
Northern Trust ACWI ex US	Non-U.S. Large-Cap Core	\$50,114,316	-\$19,155	2.7%		
Brown Capital	Non-U.S. Large-Cap Core	\$96,353,026	-\$286,462	5.3%		
LSV	Non-U.S. Small-Cap Core	\$51,820,498	-\$260,666	2.8%		
Northern Trust Emerging Markets	Emerging Markets	\$49,591,976	-\$30,040,100	2.7%		
ARGA Emerging Markets Equity	Emerging Markets	\$54,122,279	\$29,946,837	3.0%		
Northern Trust Emerging Markets Small Cap	EM Small-Cap	\$49,520,400	\$0	2.7%		
Cash Composite		\$32,351,733	\$303,557	1.8%	-	\$32,351,733

Total Fund Composite

Market Value: \$1,823.1 Million and 100.0% of Fund

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Hedge Fund Composite		\$113,388,294	-\$4,293,640	6.2%	7.0%	-\$14,227,572
Graham Absolute Return	Hedged Equity Hedge FoF	\$12,355,434	\$0	0.7%		
Magnitude Capital	Multi-Strat. Hedge FoF	\$57,391,303	\$0	3.1%		
Pluscios	Multi-Strat. Hedge FoF	\$42,344,680	\$0	2.3%		
Harbinger Capital Partners	Event Driven Hedge Fund	\$1,296,877		0.1%		
Real Estate Composite		\$245,140,750	-\$9,983,347	13.4%	12.0%	\$26,370,695
Open-End Real Estate Composite		\$203,890,015	-\$1,394,012	11.2%		\$203,890,015
Heitman America Real Estate	Core Real Estate	\$39,036,411	-\$95,642	2.1%		
JPMorgan Strategic Property Fund	Core Real Estate	\$49,875,569	-\$486,945	2.7%		
PRISA I	Core Real Estate	\$47,378,263	-\$537,039	2.6%		
Rreef America II	Core Real Estate	\$15,539,446	-\$158,244	0.9%		
UBS Trumbull Property Fund	Core Real Estate	\$52,017,813	-\$116,143	2.9%		
JPMorgan Alternative Property Fund	Value-Added Real Estate	\$42,514	\$0	0.0%		
Closed-End Real Estate Composite		\$41,250,735	-\$8,589,335	2.3%	-	\$41,250,735
Infrastructure Composite		\$97,507,132	-\$667,579	5.3%	5.0%	\$6,352,942
FlexShares STOXX Global Broad Infrastructure Index Fund	Publicly-Traded Infrastructure	\$50,898,270	-\$490,682	2.8%		
IFM Global Infrastructure L.P.	Core Infrastructure	\$46,608,862	-\$176,897	2.6%		
Private Equity Composite		\$164,012,958	\$1,362,052	9.0%	10.0%	-\$18,295,422
Open-End Private Equity Composite		\$73,061,359	\$0	4.0%		\$73,061,359
Partners Group Private Equity Master Fund LLC	U.S. Divers. Private Equity	\$52,675,619	\$0	2.9%		
Partners Group Private Equity CIT	Private Equity Co- Investment	\$20,522,800	\$0	1.1%		

Annualized Performance (Net of Fees)

Market Value: \$1,823.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	-0.2%	0.0%	0.3%	7.5%	9.5%	5.9%	5.3%	7.5%	6.9%	6.2%	8.3%	Dec-90
Total Fund Policy Benchmark	-0.1%	0.7%	0.7%	7.3%	9.3%	6.2%	5.8%	7.8%	7.8%	6.3%		Dec-90
Actuarial Rate	0.7%	2.0%	4.0%	8.3%	8.3%	8.3%	8.3%	8.3%	8.4%	8.4%	8.5%	Dec-90
Total Fixed Income Composite	-0.5%	-1.5%	-1.8%	-0.4%	1.4%	2.0%	1.8%	1.9%	2.1%	2.9%	4.1%	Mar-00
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	4.8%	Mar-00
U.S. Fixed Income Composite	-0.1%	-0.1%	-1.8%	-0.6%	-0.5%	1.3%	1.4%	1.9%	2.4%	3.4%	4.3%	Mar-00
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	4.8%	Mar-00
Rhumbline Core Bond Pooled Index Fund	-0.1%	-0.1%									-0.1%	Mar-18
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	-0.2%	Mar-18
Baird Advisors	-0.1%	-0.2%	-1.7%	-0.2%	0.4%	2.3%	2.3%	2.9%	3.3%		3.9%	Aug-09
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	3.2%	Aug-09
Amalgatrust	-0.1%	-0.1%	-1.4%	0.0%	-0.1%						-0.1%	Jun-16
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	-0.4%	Jun-16
Stable Value Composite	0.1%	0.4%	0.9%	1.7%	1.6%	1.4%	1.3%	1.3%	1.5%	1.8%	3.0%	Jun-01
91 Day T-Bills	0.2%	0.5%	0.8%	1.4%	1.0%	0.7%	0.5%	0.4%	0.3%	0.3%	1.3%	Jun-01
Goode	0.1%	0.4%	0.9%	1.7%	1.6%	1.4%	1.4%	1.4%	1.6%	1.9%	2.7%	Dec-02
91 Day T-Bills	0.2%	0.5%	0.8%	1.4%	1.0%	0.7%	0.5%	0.4%	0.3%	0.3%	1.2%	Dec-02
Bank Loans Composite	0.0%	0.6%	2.1%	3.8%							5.0%	Jul-16
CSFB Leveraged Loan	0.1%	0.8%	2.4%	4.7%	6.1%	4.3%	3.8%	4.2%	4.6%	5.0%	5.6%	Jul-16
Symphony	0.0%	0.6%	2.1%	3.8%							5.0%	Jul-16
CSFB Leveraged Loan	0.1%	0.8%	2.4%	4.7%	6.1%	4.3%	3.8%	4.2%	4.6%	5.0%	5.6%	Jul-16
Global Fixed Income Composite	-1.5%	-4.7%	-3.8%	-1.9%	3.1%						2.9%	Jul-15
BBgBarc Global Aggregate TR	-0.4%	-2.8%	-1.5%	1.4%	-0.4%	2.6%	0.1%	1.5%	1.1%	2.6%	2.6%	Jul-15
Franklin Templeton Global Bond	-0.9%	-2.6%	-1.0%	-1.7%	2.9%						1.1%	Jul-15
BBgBarc Global Aggregate TR	-0.4%	-2.8%	-1.5%	1.4%	-0.4%	2.6%	0.1%	1.5%	1.1%	2.6%	2.6%	Jul-15
Logan Circle Partners EMD	-2.1%	-6.7%	-6.4%	-2.3%	3.4%						4.7%	Jul-15
JP Morgan EMBI Global TR	-1.0%	-3.5%	-5.2%	-2.4%	1.5%	4.3%	2.8%	4.4%	4.9%	6.5%	4.3%	Jul-15
Total Equity Composite	-1.2%	-0.6%	-1.3%	10.0%	13.9%	7.4%	6.1%	9.5%	8.8%	7.0%	5.0%	Mar-00
MSCI ACWI	-0.5%	0.5%	-0.4%	10.7%	14.7%	8.2%	6.3%	9.4%	8.0%	5.8%	4.1%	Mar-00
U.S. Equity Composite	0.2%	2.5%	1.0%	12.2%	14.6%	8.6%	7.6%	11.1%	10.9%	9.0%	5.8%	Mar-00
Russell 3000	0.7%	3.9%	3.2%	14.8%	16.6%	11.6%	10.5%	13.3%	13.0%	10.2%	5.7%	Mar-00
Large Cap Equity Composite	0.3%	2.4%	0.4%	12.5%	13.4%	10.0%	8.8%	11.9%	11.9%	9.1%	5.2%	Mar-00
Russell 1000	0.6%	3.6%	2.9%	14.5%	16.3%	11.6%	10.6%	13.4%	13.1%	10.2%	5.5%	Mar-00
Rhumbline Russell 1000 Value	0.2%	1.2%									1.2%	Mar-18
Russell 1000 Value	0.2%	1.2%	-1.7%	6.8%	11.1%	8.3%	7.2%	10.3%	11.3%	8.5%	1.2%	Mar-18

Annualized Performance (Net of Fees)

Market Value: \$1,823.1 Million and 100.0% of Fund

							•	,				
	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Edgar Lomax	0.2%	2.1%	-1.8%	11.4%	12.0%	10.0%	8.4%	11.5%	11.8%	9.4%	7.6%	Apr-00
S&P 500 Value	0.6%	1.4%	-2.2%	7.6%	11.6%	8.8%	7.7%	10.4%	11.3%	8.4%	5.8%	Apr-00
Paradigm	0.0%	1.9%	0.3%	12.0%	10.9%	8.5%	7.8%	11.0%	12.0%	8.7%	7.2%	Apr-00
Russell 1000 Value	0.2%	1.2%	-1.7%	6.8%	11.1%	8.3%	7.2%	10.3%	11.3%	8.5%	6.8%	Apr-00
Northern Trust S&P 500	0.6%	3.4%	2.6%	14.4%	16.1%						11.6%	Jul-15
S&P 500	0.6%	3.4%	2.6%	14.4%	16.1%	11.9%	10.8%	13.4%	13.2%	10.2%	11.5%	Jul-15
Mid Cap Equity Composite	-0.9%	0.0%	-0.6%	9.1%	14.4%	7.1%	7.0%	11.3%	9.9%	8.0%	5.2%	Mar-00
Russell MidCap	0.7%	2.8%	2.3%	12.3%	14.4%	9.6%	8.8%	12.2%	11.9%	10.2%	8.5%	Mar-00
Denali	-0.9%	-1.4%	-4.0%	4.9%	12.8%	7.6%	7.2%	11.7%	11.8%		13.9%	Oct-09
Russell MidCap Value	0.8%	2.4%	-0.2%	7.6%	11.7%	8.8%	7.5%	11.3%	11.7%	10.1%	14.3%	Oct-09
Nuveen	-0.8%	2.6%	6.0%	17.0%	17.8%	8.1%	8.7%	12.7%	10.8%	10.0%	8.5%	Jun-97
Russell MidCap Growth	0.4%	3.2%	5.4%	18.5%	17.8%	10.7%	10.4%	13.4%	12.2%	10.5%	8.7%	Jun-97
Small Cap Equity Composite	0.8%	5.0%	4.6%	14.1%	19.7%	8.2%	6.8%	10.2%	10.3%	10.6%	8.6%	Mar-00
Russell 2000	0.7%	7.8%	7.7%	17.6%	21.0%	11.0%	9.8%	12.5%	11.8%	10.6%	7.7%	Mar-00
Ariel	1.1%	4.2%	5.0%	15.3%	21.6%	8.7%	7.9%	11.4%	10.4%	17.5%	14.0%	Jan-91
Russell 2000 Value	0.6%	8.3%	5.4%	13.1%	18.8%	11.2%	8.5%	11.2%	11.1%	9.9%	12.1%	Jan-91
Channing	0.0%	4.4%	2.9%	10.8%	15.9%	8.4%	7.4%	11.1%	11.3%		13.9%	Dec-09
Russell 2000 Value	0.6%	8.3%	5.4%	13.1%	18.8%	11.2%	8.5%	11.2%	11.1%	9.9%	13.2%	Dec-09
Rhumbline S&P 600	1.1%	8.8%									8.8%	Mar-18
S&P 600 SmallCap	1.1%	8.8%	9.4%	20.5%	21.5%	13.8%	12.0%	14.6%	14.0%	12.2%	8.8%	Mar-18
Non-U.S. Equity Composite	-3.3%	-4.9%	-4.6%	6.8%	13.0%	5.4%	2.8%	6.0%	3.9%	1.7%	3.8%	Mar-00
MSCI ACWI ex USA	-1.9%	-2.6%	-3.8%	7.3%	13.7%	5.1%	2.4%	6.0%	3.8%	2.5%	3.7%	Mar-00
Northern Trust ACWI ex US	-1.7%	-2.9%	-3.3%	7.6%	14.0%						8.8%	Aug-15
MSCI ACWI exUS IMI	-2.0%	-2.4%	-3.3%	8.2%	14.4%	5.9%	3.2%	6.9%	4.5%	3.4%	9.4%	Aug-15
Brown Capital	-0.7%	1.6%	-0.1%	7.8%	10.8%	5.4%	3.8%	8.2%	7.0%		7.5%	Nov-09
MSCI EAFE	-1.2%	-1.2%	-2.7%	6.8%	13.4%	4.9%	2.5%	6.4%	4.9%	2.8%	5.6%	Nov-09
LSV	-4.3%	-5.3%	-6.3%	6.4%	20.2%						11.0%	Jul-15
MSCI EAFE Small Cap	-1.9%	-1.6%	-1.3%	12.4%	17.7%	10.1%	7.3%	11.3%	8.4%	6.8%	10.1%	Jul-15
Northern Trust Emerging Markets	-4.2%	-8.9%	-7.0%	7.6%	15.3%	5.3%					3.8%	Nov-14
MSCI Emerging Markets	-4.2%	-8.0%	-6.7%	8.2%	15.7%	5.6%	2.8%	5.0%	1.4%	2.3%	4.1%	Nov-14
ARGA Emerging Markets Equity	-5.3%	-8.4%	-6.7%								-2.5%	Oct-17
MSCI Emerging Markets	-4.2%	-8.0%	-6.7%	8.2%	15.7%	5.6%	2.8%	5.0%	1.4%	2.3%	-3.1%	Oct-17
Northern Trust Emerging Markets Small Cap	-6.3%	-9.0%									-9.1%	Jan-18
MSCI Emerging Markets Small Cap	-6.6%	-8.6%	-8.5%	5.6%	11.2%	2.5%	2.0%	4.3%	1.4%	4.4%	-13.5%	Jan-18

Annualized Performance (Net of Fees)

Market Value: \$1,823.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Hedge Fund Composite	0.1%	0.9%	2.7%	5.5%	5.4%	2.2%	2.8%	3.8%	2.2%	1.0%	4.3%	Dec-05
HFRI FOF: Conservative Index	0.0%	1.1%	1.7%	4.2%	4.7%	1.9%	2.1%	3.0%	2.7%	1.2%	2.2%	Dec-05
Graham Absolute Return	0.1%	2.6%	6.0%	6.6%	4.8%	3.1%	6.3%				4.8%	Dec-13
HFRI Fund of Funds Composite Index	-0.5%	0.5%	0.7%	5.2%	5.8%	1.9%	2.4%	3.5%	2.8%	1.4%	2.6%	Dec-13
Magnitude Capital	-0.3%	0.5%	3.2%	7.3%	5.6%	3.4%	4.7%	4.9%	4.9%	4.4%	5.7%	Jan-06
HFRI FOF: Conservative Index	0.0%	1.1%	1.7%	4.2%	4.7%	1.9%	2.1%	3.0%	2.7%	1.2%	2.2%	Jan-06
Pluscios	0.7%	3.0%	5.1%	7.9%	7.4%	2.0%	2.1%	3.4%	3.3%		6.7%	Feb-09
HFRI FOF: Conservative Index	0.0%	1.1%	1.7%	4.2%	4.7%	1.9%	2.1%	3.0%	2.7%	1.2%	3.5%	Feb-09

Annualized Performance (Net of Fees)

Market Value: \$1,823.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Estate Composite	1.0%	1.2%	2.9%	7.2%	6.9%	8.2%	9.4%	10.5%	10.4%	2.5%	6.8%	Dec-81
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%		Dec-81
CPI +5%	0.6%	2.2%	4.7%	8.0%	7.4%	6.9%	6.5%	6.6%	6.7%	6.5%		Dec-81
Open-End Real Estate Composite	1.4%	1.7%	3.7%	7.4%	6.7%	8.0%	9.3%	10.0%		-	10.3%	Apr-13
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	10.3%	Apr-13
Heitman America Real Estate	1.9%	1.9%	3.8%	7.6%	7.1%	8.5%	9.4%	10.0%			10.3%	Jan-13
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	10.3%	Jan-13
JPMorgan Strategic Property Fund	0.6%	1.7%	3.7%	7.7%	6.9%	7.9%	9.0%	9.8%	10.4%	4.8%	7.8%	Oct-00
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	7.1%	Oct-00
PRISA I	1.6%	1.6%	3.8%	7.6%	7.1%	8.7%	9.8%	10.4%	10.6%	3.8%	6.8%	Jan-01
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	7.0%	Jan-01
Rreef America II	1.9%	1.9%	4.1%	7.8%	7.5%	8.8%	10.2%	10.8%	10.8%	4.8%	7.4%	Oct-00
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	7.1%	Oct-00
UBS Trumbull Property Fund	1.6%	1.6%	3.2%	6.8%	5.6%						6.4%	Oct-15
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	7.8%	Oct-15
JPMorgan Alternative Property Fund	-0.4%	-0.4%	0.8%	8.2%	7.4%	5.7%	-5.2%	-3.0%	2.7%	-4.8%	-3.1%	Dec-06
NFI	0.6%	1.8%	3.8%	7.5%	7.2%	8.4%	9.6%	10.0%	10.4%	4.3%	5.2%	Dec-06
Closed-End Real Estate Composite	-1.0%	-1.0%	-0.4%	5.7%	7.3%	8.6%	9.4%	11.3%		-	11.3%	Apr-13
NPI	0.6%	1.8%	3.5%	7.2%	7.1%	8.3%	9.4%	9.8%	10.2%	6.2%	9.9%	Apr-13
Infrastructure Composite	1.1%	0.7%	-1.2%	4.2%	-		-	-			6.1%	Apr-17
Dow Jones Brookfield Global Infrastructure Index	2.7%	4.2%	-1.3%	2.5%	5.2%	4.5%	2.4%	7.1%	8.3%	7.6%	4.0%	Apr-17
FlexShares STOXX Global Broad Infrastructure Index Fund	0.4%	0.4%	-4.6%	0.6%						-	3.0%	Apr-17
Dow Jones Brookfield Global Infrastructure Index	2.7%	4.2%	-1.3%	2.5%	5.2%	4.5%	2.4%	7.1%	8.3%	7.6%	4.0%	Apr-17
IFM Global Infrastructure L.P.	1.9%	1.0%									8.4%	Mar-18
BBgBarc US Aggregate TR	-0.1%	-0.2%	-1.6%	-0.4%	-0.4%	1.7%	1.8%	2.3%	2.6%	3.7%	0.5%	Mar-18



Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Fixed Income	Baird Advisors	0.22% on the first \$50 million 0.20% on the next \$50 million 0.15% on the Balance	0.22% \$120,200	0.26%
Core Fixed Income	Rhumbline Core Bond Pooled Index Fund	0.0175% on the Balance	0.02% \$8,796	0.06%
Core Plus Fixed Income	Amalgatrust	0.30% on the first \$25 million 0.285% on the next \$25 million 0.20% on the Balance	0.28% \$157,737	0.26%
Stable Value	Goode	0.20% on the first \$50 million 0.15% on the next \$50 million 0.10% on the Balance	0.20% \$39,349	0.20%
EM Fixed Income	Logan Circle Partners EMD	0.65% on the Balance	0.65% \$360,099	0.65%
Global Fixed Income	Franklin Templeton Global Bond	0.47% on the first \$50 million 0.36% on the next \$50 million 0.30% on the Balance	0.46% \$247,383	0.35%
Senior Secured Loans	Symphony	0.50% on the Balance	0.50% \$190,731	0.50%
Large-Cap Value	Edgar Lomax	0.54% on the first \$50 million 0.40% on the next \$25 million 0.35% on the next \$25 million 0.30% on the Balance	0.51% \$329,145	0.51%
Large-Cap Value	Paradigm	0.50% on the first \$50 million 0.40% on the next \$50 million 0.30% on the next \$50 million 0.20% on the Balance	0.47% \$343,331	0.51%
Small-Cap Core	The Boston Company	0.0175% on the Balance	0.02% \$2,533	0.07%
Large-Cap Core	Northern Trust S&P 500	0.005% on the Balance	0.01% \$6,388	0.05%
Mid-Cap Value	Denali	0.75% on the first \$25 million 0.70% on the next \$25 million 0.65% on the Balance	0.72% \$408,522	0.65%

Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Mid-Cap Growth	Nuveen	0.65% on the first \$25 million 0.50% on the next \$25 million 0.40% on the Balance	0.63% \$184,140	0.79%
Small-Cap Value	Ariel	0.60% on the first \$10 million 0.50% on the next \$10 million 0.40% on the Balance	0.46% \$230,947	0.82%
Small-Cap Value	Channing	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	0.99% \$280,357	0.96%
Large-Cap Value	Rhumbline Russell 1000 Value	0.0175% on the Balance	0.02% \$8,392	0.06%
Non-U.S. Large-Cap Core	Brown Capital	0.75% on the first \$50 million 0.65% on the next \$50 million 0.55% on the next \$50 million 0.50% on the next \$50 million 0.45% on the Balance	0.70% \$666,231	0.60%
Non-U.S. Small-Cap Core	LSV	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	0.94% \$512,597	0.85%
EM Small-Cap	Northern Trust Emerging Markets Small Cap	0.15% on the Balance	0.15% \$81,671	1.25%
Emerging Markets	Northern Trust Emerging Markets	0.10% on the Balance	0.10% \$86,919	0.90%
Core Infrastructure	IFM Global Infrastructure L.P.	0.77% on commitment Plus 10.0% Performance Fee over 8%	0.77% \$331,100	0.76%
Hedged Equity Hedge FoF	Graham Absolute Return	2.00% on the Balance Plus 25% performance fee	2.00% \$240,755	1.69%
Multi-Strat. Hedge FoF	Magnitude Capital	1.00% on the Balance Plus 10% Performance Fee, above high watermark Plus 15-30 bps Administration Fee	1.00% \$571,000	1.00%
Multi-Strat. Hedge FoF	Pluscios	1.10% on the Balance Plus 10% Incentive Fee, above 91-Day T-Bill Hurdle	1.10% \$452,180	1.00%



Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Real Estate	Heitman America Real Estate	1.10% on the first \$10 million 1.00% on the next \$15 million 0.90% on the next \$25 million 0.80% on the next \$50 million 0.70% on the Balance	0.99% \$379,908	1.01%
Core Real Estate	JPMorgan Strategic Property Fund	1.00% on the Balance	1.00% \$494,065	1.01%
Core Real Estate	PRISA I	0.75% on the first \$10 million 0.65% on the next \$15 million 0.60% on the next \$25 million 0.55% on the next \$50 million 0.50% on the Balance Plus 6% Performance Fee Maximum Total Fee of 1.15%	0.65% \$304,876	1.01%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$146,005	1.01%
Core Real Estate	UBS Trumbull Property Fund	0.955% on the first \$10,000,000 0.825% on the next \$15,000,000 0.805% on the next \$25,000,000 0.79% on the Balance	0.85% \$435,543	1.01%
Non-U.S. Large-Cap Core	Northern Trust ACWI ex US	0.035% on the Balance	0.04% \$18,058	0.75%
Publicly-Traded Infrastructure	FlexShares STOXX Global Broad Infrastructure Index	0.47% on the Balance	0.47% \$240,672	0.94%
Total Investment Management Fed	es		0.43% \$7,921,554	0.55%

¹ Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End for Open-Ended accounts only.

² Source: 2016 Marquette Associates Investment Management Fee Study.