

Chicago Transit Authority
Employees' Retirement Plan
Performance Summary
June 30, 2019

Total Fund Composite

Market Value: \$1,820.9 Million and 100.0% of Fund

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	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$1,820,901,809	-\$26,384,782	100.0%	100.0%	\$0
Total Fixed Income Composite		\$319,170,575	-\$5,112,477	17.5%	17.0%	\$9,617,268
U.S. Fixed Income Composite		\$163,224,629	-\$142,381	9.0%	9.0%	-\$656,534
Rhumbline Core Bond Pooled Index Fund	Core Fixed Income	\$51,120,293	-\$3,125	2.8%		
Baird Advisors	Core Fixed Income	\$56,255,109	-\$60,548	3.1%		
Amalgatrust	Core Plus Fixed Income	\$55,849,226	-\$78,709	3.1%		
Stable Value Composite		\$9,382,865	-\$2,760,444	0.5%	0.0%	\$9,382,865
Goode	Stable Value	\$9,382,865	-\$2,760,444	0.5%		
Bank Loans Composite		\$39,491,960	\$0	2.2%	2.0%	\$3,073,924
Symphony	Senior Secured Loans	\$39,491,960	\$0	2.2%		
Global Fixed Income Composite		\$107,071,121	-\$2,209,651	5.9%	6.0%	-\$2,182,987
Franklin Templeton Global Bond	Global Fixed Income	\$52,314,964	-\$1,122,502	2.9%		
MetLife Investment Management EMD	EM Fixed Income	\$54,756,157	-\$1,087,150	3.0%		
Total Equity Composite		\$826,056,114	-\$32,690,958	45.4%	49.0%	-\$66,185,773
U.S. Equity Composite		\$496,780,916	-\$14,867,138	27.3%	28.0%	-\$13,071,590
Large Cap Equity Composite		\$319,951,232	-\$14,358,181	17.6%	18.0%	-\$7,811,093
Rhumbline Russell 1000 Value	Large-Cap Value	\$47,337,681	-\$3,125	2.6%		
Edgar Lomax	Large-Cap Value	\$71,188,212	-\$2,676,486	3.9%		
Paradigm	Large-Cap Value	\$76,392,924	-\$2,676,988	4.2%		
Northern Trust S&P 500	Large-Cap Core	\$125,032,416	-\$9,001,581	6.9%		
Mid Cap Equity Composite		\$92,183,955	-\$278,511	5.1%	5.0%	\$1,138,865
Denali	Mid-Cap Value	\$59,835,448	-\$198,482	3.3%		
Piedmont S&P 400 Index	Mid-Cap Core	\$32,348,507	\$32,350,000	1.8%		
Nuveen	Mid-Cap Growth	\$0	-\$32,430,028	0.0%		
Small Cap Equity Composite		\$84,645,729	-\$230,447	4.6%	5.0%	-\$6,399,362
Ariel	Small-Cap Value	\$44,380,141	-\$103,496	2.4%		
Channing	Small-Cap Value	\$25,309,673	-\$123,825	1.4%		
Rhumbline S&P 600	Small-Cap Core	\$14,955,915	-\$3,125	0.8%		
Non-U.S. Equity Composite		\$329,275,197	-\$17,823,820	18.1%	21.0%	-\$53,114,183
Northern Trust ACWI ex US	Non-U.S. Large-Cap Core	\$37,066,633	-\$8,503,532	2.0%		
Brown Capital	Non-U.S. Large-Cap Core	\$98,790,912	-\$332,507	5.4%		
LSV	Non-U.S. Small-Cap Core	\$47,832,441	-\$228,334	2.6%		
Northern Trust Emerging Markets	Emerging Markets	\$41,341,247	-\$8,540,823	2.3%		
ARGA Emerging Markets Equity	Emerging Markets	\$58,229,128	-\$137,956	3.2%		
J O Hambro EM Small Cap Fund	EM Small-Cap	\$46,014,836	-\$80,667	2.5%		

Total Fund Composite

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	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Cash Composite		\$26,808,799	\$6,538,409	1.5%		\$26,808,799
Hedge Fund Composite		\$114,928,623	\$0	6.3%	7.0%	-\$12,534,503
Pluscios	Multi-Strat. Hedge FoF	\$41,449,207	\$0	2.3%		
Magnitude Capital	Multi-Strat. Hedge FoF	\$59,594,705	\$0	3.3%		
Graham Absolute Return	Hedged Equity Hedge FoF	\$12,862,635	\$0	0.7%		
Real Estate Composite		\$244,264,344	-\$1,873,295	13.4%	12.0%	\$25,756,127
Open-End Real Estate Composite		\$207,538,897	-\$1,384,775	11.4%		\$207,538,897
Heitman America Real Estate	Core Real Estate	\$40,309,905	-\$98,417	2.2%		
JPMorgan Strategic Property Fund	Core Real Estate	\$50,589,557	-\$465,198	2.8%		
PRISA I	Core Real Estate	\$48,894,252	-\$548,088	2.7%		
Rreef America II	Core Real Estate	\$16,029,070	-\$162,768	0.9%		
UBS Trumbull Property Fund	Core Real Estate	\$51,716,113	-\$110,304	2.8%		
Closed-End Real Estate Composite		\$36,725,447	-\$488,520	2.0%		\$36,725,447
Infrastructure Composite		\$94,231,805	-\$516,115	5.2%	5.0%	\$3,186,715
FlexShares STOXX Global Broad Infrastructure Index Fund	Publicly-Traded Infrastructure	\$49,857,498	-\$392,680	2.7%		
IFM Global Infrastructure L.P.	Core Infrastructure	\$44,374,307	-\$123,435	2.4%		
Private Equity Composite		\$195,441,549	\$7,269,654	10.7%	10.0%	\$13,351,368
Open-End Private Equity Composite		\$78,280,997	\$0	4.3%		\$78,280,997
Partners Group Private Equity Master Fund LLC	U.S. Divers. Private Equity	\$55,359,597	\$0	3.0%		
Partners Group Private Equity CIT	Private Equity Co- Investment	\$22,921,400	\$0	1.3%		

Annualized Performance (Net of Fees)

Market Value: \$1,820.9 Million and 100.0% of Fund

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	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	3.6%	2.4%	9.5%	5.4%	6.5%	8.1%	5.8%	5.3%	7.9%	7.9%	8.2%	Dec-90
Total Fund Policy Benchmark	3.6%	2.6%	10.0%	5.5%	6.3%	8.0%	6.0%	5.7%	8.3%	9.0%		Dec-90
Actuarial Rate	0.7%	2.0%	4.0%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	8.4%	8.5%	Dec-90
Total Fixed Income Composite	1.7%	2.8%	6.1%	7.1%	3.3%	3.3%	3.3%	2.8%	2.4%	3.2%	4.3%	Mar-00
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	5.0%	Mar-00
U.S. Fixed Income Composite	1.4%	3.2%	6.4%	8.1%	3.6%	2.3%	3.0%	2.7%	2.5%	3.7%	4.5%	Mar-00
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	5.0%	Mar-00
Rhumbline Core Bond Pooled Index Fund	1.3%	3.1%	6.2%	8.2%							6.4%	Mar-18
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	6.1%	Mar-18
Baird Advisors	1.4%	3.3%	6.5%	8.1%	3.9%	2.9%	3.7%	3.4%	3.3%		4.3%	Aug-09
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	3.7%	Aug-09
Amalgatrust	1.3%	3.2%	6.5%	7.9%	3.8%	2.5%					2.5%	Jun-16
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	2.3%	Jun-16
Stable Value Composite	0.1%	0.4%	0.8%	1.7%	1.7%	1.6%	1.5%	1.4%	1.3%	1.9%	2.9%	Jun-01
91 Day T-Bills	0.2%	0.6%	1.2%	2.3%	1.8%	1.4%	1.1%	0.9%	0.6%	0.5%	1.3%	Jun-01
Goode	0.1%	0.4%	0.8%	1.7%	1.7%	1.6%	1.5%	1.4%	1.6%	1.8%	2.7%	Dec-02
91 Day T-Bills	0.2%	0.6%	1.2%	2.3%	1.8%	1.4%	1.1%	0.9%	0.6%	0.5%	1.3%	Dec-02
Bank Loans Composite	0.1%	1.2%	5.1%	2.9%	3.4%						4.3%	Jul-16
CSFB Leveraged Loan	0.2%	1.6%	5.4%	4.1%	4.4%	5.4%	4.3%	3.9%	4.7%	6.3%	5.1%	Jul-16
Symphony	0.1%	1.2%	5.1%	2.9%	3.4%						4.3%	Jul-16
CSFB Leveraged Loan	0.2%	1.6%	5.4%	4.1%	4.4%	5.4%	4.3%	3.9%	4.7%	6.3%	5.1%	Jul-16
Global Fixed Income Composite	2.9%	3.0%	6.5%	7.7%	2.8%	4.6%					4.1%	Jul-15
BBgBarc Global Aggregate TR	2.2%	3.3%	5.6%	5.8%	3.6%	1.6%	3.4%	1.2%	1.6%	2.9%	3.4%	Jul-15
Franklin Templeton Global Bond	1.6%	1.7%	3.1%	6.2%	2.2%	4.0%					2.4%	Jul-15
BBgBarc Global Aggregate TR	2.2%	3.3%	5.6%	5.8%	3.6%	1.6%	3.4%	1.2%	1.6%	2.9%	3.4%	Jul-15
MetLife Investment Management EMD	4.1%	4.2%	9.9%	9.1%	3.2%	5.2%					5.8%	Jul-15
JP Morgan EMBI Global TR	3.0%	3.8%	10.6%	11.3%	4.2%	4.6%	6.0%	4.5%	4.9%	7.4%	6.1%	Jul-15

Annualized Performance (Net of Fees)

Market Value: \$1,820.9 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 Equity Composite	6.3%	2.8%	15.0%	3.7%	6.8%	10.4%	6.5%	5.6%	10.0%	11.0%	4.9%	Mar-00
MSCI ACWI	6.5%	3.6%	16.2%	5.7%	8.2%	11.6%	7.6%	6.2%	9.9%	10.1%	4.2%	Mar-00
U.S. Equity Composite	6.9%	3.2%	17.0%	6.2%	9.1%	11.7%	8.0%	7.4%	11.9%	13.3%	5.9%	Mar-00
Russell 3000	7.0%	4.1%	18.7%	9.0%	11.8%	14.0%	10.9%	10.2%	13.8%	14.7%	5.9%	Mar-00
Large Cap Equity Composite	6.7%	3.7%	16.2%	9.1%	10.8%	11.9%	9.8%	8.9%	12.7%	13.5%	5.4%	Mar-00
Russell 1000	7.0%	4.2%	18.8%	10.0%	12.3%	14.1%	11.2%	10.5%	14.0%	14.8%	5.8%	Mar-00
Rhumbline Russell 1000 Value	7.2%	3.8%	16.2%	8.4%	-	-		-			7.7%	Mar-18
Russell 1000 Value	7.2%	3.8%	16.2%	8.5%	7.6%	10.2%	8.3%	7.5%	12.1%	13.2%	7.7%	Mar-18
Edgar Lomax	6.3%	2.9%	13.3%	11.5%	11.4%	11.8%	10.3%	9.0%	12.4%	14.3%	7.8%	Apr-00
S&P 500 Value	8.1%	4.0%	16.7%	8.7%	8.1%	10.6%	8.8%	7.9%	12.2%	13.1%	5.9%	Apr-00
Paradigm	6.4%	3.2%	15.2%	5.8%	8.9%	9.2%	7.8%	7.4%	12.4%	13.1%	7.1%	Apr-00
Russell 1000 Value	7.2%	3.8%	16.2%	8.5%	7.6%	10.2%	8.3%	7.5%	12.1%	13.2%	6.9%	Apr-00
Northern Trust S&P 500	7.0%	4.3%	18.6%	10.5%	12.4%	14.2%					11.3%	Jul-15
S&P 500	7.0%	4.3%	18.5%	10.4%	12.4%	14.2%	11.5%	10.7%	14.0%	14.7%	11.2%	Jul-15
Mid Cap Equity Composite	5.9%	3.3%	20.1%	6.6%	7.8%	11.8%	7.0%	6.9%	12.1%	13.1%	5.3%	Mar-00
Russell MidCap	6.9%	4.1%	21.3%	7.8%	10.1%	12.2%	9.1%	8.6%	13.4%	15.2%	8.4%	Mar-00
Denali	6.4%	3.1%	18.1%	6.2%	5.6%	10.6%	7.3%	7.0%	13.0%		13.0%	Oct-09
Russell MidCap Value	6.8%	3.2%	18.0%	3.7%	5.6%	8.9%	7.5%	6.7%	12.3%	14.6%	13.2%	Oct-09
Piedmont S&P 400 Index											-	Jun-19
S&P 400 MidCap	7.6%	3.0%	18.0%	1.4%	7.3%	10.9%	8.4%	8.0%	12.7%	14.6%		Jun-19
Nuveen	5.1%	3.7%	24.1%	7.3%	12.1%	14.2%	7.9%	8.4%	12.1%	14.7%	8.5%	Jun-97
Russell MidCap Growth	7.0%	5.4%	26.1%	13.9%	16.2%	16.5%	11.5%	11.1%	14.8%	16.0%	9.0%	Jun-97
Small Cap Equity Composite	8.3%	1.1%	16.6%	-4.5%	4.4%	11.0%	4.9%	4.5%	10.1%	13.1%	7.9%	Mar-00
Russell 2000	7.1%	2.1%	17.0%	-3.3%	6.6%	12.3%	7.2%	7.1%	11.6%	13.4%	7.1%	Mar-00
Ariel	8.8%	-0.1%	16.6%	-4.0%	5.2%	12.4%	5.4%	5.4%	10.8%	14.6%	13.3%	Jan-91
Russell 2000 Value	6.4%	1.4%	13.5%	-6.2%	3.0%	9.8%	6.6%	5.4%	10.3%	12.4%	11.4%	Jan-91
Channing	7.9%	2.8%	18.3%	-5.0%	2.6%	8.4%	4.9%	4.8%	11.5%		11.8%	Dec-09
Russell 2000 Value	6.4%	1.4%	13.5%	-6.2%	3.0%	9.8%	6.6%	5.4%	10.3%	12.4%	11.0%	Dec-09
Rhumbline S&P 600	7.4%	1.8%	13.6%	-5.0%							2.7%	Mar-18
S&P 600 SmallCap	7.4%	1.9%	13.7%	-4.9%	7.1%	12.0%	8.8%	8.4%	13.0%	15.0%	2.8%	Mar-18



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	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Non-U.S. Equity Comp	osite 5.6%	2.3%	12.2%	0.3%	3.5%	8.6%	4.1%	2.3%	6.1%	5.8%	3.6%	Mar-00
MSCI ACWI ex USA	6.0%	3.0%	13.6%	1.3%	4.2%	9.4%	4.1%	2.2%	6.4%	6.5%	3.6%	Mar-00
Northern Trust ACWI	ex US 6.0%	3.1%	13.8%	1.5%	4.5%	9.7%					6.8%	Aug-15
MSCI ACWI exUS	IMI 5.9%	3.0%	13.7%	0.8%	4.4%	9.7%	4.6%	2.7%	7.0%	7.2%	7.1%	Aug-15
Brown Capital	5.0%	4.6%	16.2%	2.5%	5.1%	8.0%	4.7%	3.6%	9.7%		7.0%	Nov-09
MSCI EAFE	5.9%	3.7%	14.0%	1.1%	3.9%	9.1%	3.9%	2.2%	7.3%	6.9%	5.2%	Nov-09
LSV	5.1%	2.3%	9.3%	-7.6%	-0.9%	10.1%					5.9%	Jul-15
MSCI EAFE Small	Cap 4.2%	1.7%	12.5%	-6.3%	2.6%	9.1%	5.7%	4.4%	9.9%	9.7%	5.6%	Jul-15
Northern Trust Emerg	ing Markets 6.5%	0.7%	10.7%	1.3%	4.4%	10.5%	4.3%				3.3%	Nov-14
MSCI Emerging Ma	arkets 6.2%	0.6%	10.6%	1.2%	4.6%	10.7%	4.5%	2.5%	4.2%	5.8%	3.5%	Nov-14
ARGA Emerging Mark	kets Equity 6.1%	2.0%	10.9%	8.1%							3.2%	Oct-17
MSCI Emerging Ma	arkets 6.2%	0.6%	10.6%	1.2%	4.6%	10.7%	4.5%	2.5%	4.2%	5.8%	-1.2%	Oct-17
MSCI Emerging Ma	arkets Value 5.3%	1.0%	8.9%	5.0%	4.7%	10.0%	3.3%	1.0%	2.5%	4.6%	0.3%	Oct-17
J O Hambro EM Sma	II Cap Fund 5.3%	-0.8%	9.4%								4.6%	Nov-18
MSCI Emerging Ma Cap	arkets Small 3.9%	-1.0%	6.7%	-5.1%	0.1%	5.5%	0.6%	0.5%	3.7%	5.9%	5.0%	Nov-18

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	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	0.8%	1.6%	5.1%	1.4%	3.4%	4.0%	2.0%	2.5%	3.4%	3.5%	4.0%	Dec-05
HFRI FOF: Conservative Index	0.7%	1.5%	4.7%	2.1%	3.1%	3.8%	2.0%	2.1%	3.5%	3.1%	2.2%	Dec-05
Pluscios	0.8%	-0.2%	4.4%	-2.1%	2.8%	4.1%	1.0%	1.2%	3.4%	4.7%	5.8%	Feb-09
HFRI FOF: Conservative Index	0.7%	1.5%	4.7%	2.1%	3.1%	3.8%	2.0%	2.1%	3.5%	3.1%	3.4%	Feb-09
Magnitude Capital	0.6%	2.4%	5.3%	3.8%	5.6%	5.0%	3.5%	4.6%	5.1%	6.2%	5.6%	Jan-06
HFRI FOF: Conservative Index	0.7%	1.5%	4.7%	2.1%	3.1%	3.8%	2.0%	2.1%	3.5%	3.1%	2.2%	Jan-06
Graham Absolute Return	1.9%	4.3%	7.8%	4.1%	5.4%	4.5%	3.3%	5.9%			4.7%	Dec-13
HFRI Fund of Funds Composite Index	1.6%	1.5%	6.2%	1.2%	3.1%	4.2%	1.7%	2.2%	3.7%	3.2%	2.4%	Dec-13
Real Estate Composite	-0.5%	-0.4%	0.5%	4.1%	5.6%	6.0%	7.2%	8.3%	9.6%	8.2%	6.7%	Dec-81
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%		Dec-81
CPI +5%	0.4%	2.0%	4.5%	6.7%	7.4%	7.1%	6.9%	6.5%	6.7%	6.8%		Dec-81
Open-End Real Estate Composite	-0.6%	-0.5%	0.4%	3.5%	5.4%	5.6%	6.9%	8.2%			9.3%	Apr-13
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	9.5%	Apr-13
Heitman America Real Estate	-0.6%	-0.6%	0.7%	3.3%	5.4%	5.8%	7.2%	8.2%		-	9.2%	Jan-13
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	9.5%	Jan-13
JPMorgan Strategic Property Fund	0.3%	0.9%	1.1%	4.3%	6.0%	6.0%	7.0%	8.0%				Oct-00
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	7.0%	Oct-00
PRISA I	1.2%	1.2%	2.9%	6.7%	7.2%	7.0%	8.2%	9.2%	9.8%	9.5%	6.8%	Jan-01
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	6.9%	Jan-01
Rreef America II	1.6%	1.6%	3.2%	6.5%	7.1%	7.1%	8.2%	9.5%	10.4%	10.0%	7.3%	Oct-00
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	7.0%	Oct-00
UBS Trumbull Property Fund	-3.9%	-3.9%	-3.4%	-0.8%	2.9%	3.4%					4.5%	Oct-15
NFI	0.3%	0.8%	2.0%	5.5%	6.5%	6.6%	7.6%	8.8%	9.5%	8.9%	7.2%	Oct-15
Closed-End Real Estate Composite	0.4%	0.4%	1.2%	7.8%	6.7%	7.5%	8.4%	9.1%	-		10.7%	Apr-13
NPI	0.5%	1.5%	3.3%	6.5%	6.8%	6.9%	7.8%	8.8%	9.4%	9.2%	9.3%	Apr-13
Infrastructure Composite	4.1%	3.9%	12.4%	15.1%	9.5%						10.2%	Apr-17
Dow Jones Brookfield Global Infrastructure Index	3.8%	4.3%	20.7%	12.7%	7.5%	7.6%	6.5%	4.4%	9.0%	12.1%	7.9%	Apr-17
FlexShares STOXX Global Broad Infrastructure Index Fund	4.3%	3.9%	18.1%	14.3%	7.2%						8.1%	Apr-17
Dow Jones Brookfield Global Infrastructure Index	3.8%	4.3%	20.7%	12.7%	7.5%	7.6%	6.5%	4.4%	9.0%	12.1%	7.9%	Apr-17
IFM Global Infrastructure L.P.	3.9%	3.8%	6.6%	16.4%							19.0%	Mar-18
BBgBarc US Aggregate TR	1.3%	3.1%	6.1%	7.9%	3.7%	2.3%	3.2%	2.9%	2.6%	3.9%	6.2%	Mar-18
CPI +4%	0.3%	1.8%	4.0%	5.7%	6.3%	6.1%	5.9%	5.5%	5.6%	5.8%	6.2%	Mar-18



Annualized Performance (Net of Fees)

Market Value: \$1,820.9 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
ı	Private Equity Composite	2.6%	3.5%	7.4%	10.1%	12.0%	11.6%	8.9%	9.7%	8.8%	9.8%	6.3%	Dec-07
	Cambridge Associates All PE	1.3%	4.0%	8.9%	11.4%	14.6%	15.1%	12.0%	11.5%	13.4%	14.1%	9.3%	Dec-07
ı	Open-End Private Equity Composite	1.8%	3.9%	9.1%	11.3%							10.7%	Dec-17
	MSCI World	6.6%	4.0%	17.0%	6.3%	8.7%	11.8%	7.9%	6.6%	10.6%	10.7%	4.5%	Dec-17
	Partners Group Private Equity Master Fund LLC	2.2%	3.7%	9.1%	11.2%						-	11.1%	Dec-17
	MSCI World	6.6%	4.0%	17.0%	6.3%	8.7%	11.8%	7.9%	6.6%	10.6%	10.7%	4.5%	Dec-17
	Partners Group Private Equity CIT	1.0%	4.5%	9.1%	11.7%			-	-			9.5%	Dec-17
	MSCI World	6.6%	4.0%	17.0%	6.3%	8.7%	11.8%	7.9%	6.6%	10.6%	10.7%	4.5%	Dec-17

Fee Schedule

Market Value: \$1,820.9 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Median ²
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% \$157,948	0.30%
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% \$122,510	0.26%
Core Fixed Income	Rhumbline Core Bond Pooled Index Fund	0.0175% on the Balance	0.02% \$8,946	0.06%
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	0.47% \$243,334	0.34%
Stable Value	Goode	0.20% on the first \$50 million 0.15% on the next \$50 million 0.10% on the Balance	0.20% \$18,766	0.34%
EM Fixed Income	MetLife Investment Management EMD	0.65% on the Balance	0.65% \$355,915	0.60%
Senior Secured Loans	Symphony	0.50% on the Balance	0.50% \$197,460	0.50%
Total Investment Managemen	nt Fees		0.35% \$1,104,879	0.34%

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

 $^{^{\}rm 2}$ Source: 2019 Marquette Associates Investment Management Fee Study.

Fee Schedule

Market Value: \$1,820.9 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Median ²
Large-Cap Core	Northern Trust S&P 500	0.005% on the Balance	0.01% \$6,252	0.03%
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	0.50% \$354,753	0.50%
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% \$355,572	0.50%
Large-Cap Value	Rhumbline Russell 1000 Value	0.0175% on the Balance	0.02% \$8,284	0.06%
Mid-Cap Value	Denali	0.75% on the first \$25 million 0.70% on the next \$25 million 0.65% on the Balance	0.71% \$426,430	0.64%
Small-Cap Value	Ariel	0.60% on the first \$10 million 0.50% on the next \$10 million 0.40% on the Balance	0.47% \$207,521	0.90%
Small-Cap Value	Channing	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	1.00% \$252,787	0.90%
Small-Cap Core	Rhumbline S&P 600	0.0175% on the Balance	0.02% \$2,617	0.05%
Total Investment Manager	nent Fees		0.32% \$1,614,216	0.37%

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

² Source: 2019 Marquette Associates Investment Management Fee Study.

Fee Schedule

Market Value: \$1,820.9 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee $^{\mathrm{1}}$	Industry Median ²
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 \$150 million 0.45% on the Balance	0.70% \$692,141	0.58%
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	0.95% \$455,492	0.90%
Non-U.S. Large-Cap Core	Northern Trust ACWI ex US	0.035% on the Balance	0.04% \$12,973	0.10%
Emerging Markets	Northern Trust Emerging Markets	0.10% on the Balance	0.10% \$41,341	0.20%
Emerging Markets	ARGA Emerging Markets Equity	0.97% on the Balance	0.97% \$564,823	0.85%
EM Small-Cap	J O Hambro EM Small Cap Fund	0.70% on the Balance Plus 15% Performance Fee, Capped at 0.95%	0.70% \$322,104	1.18%
Total Investment Management Fo	ees		0.63% \$2,088,874	0.66%

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

² Source: 2019 Marquette Associates Investment Management Fee Study.