

Chicago Transit Authority
Employees' Retirement Plan
Performance Summary

March 31, 2017

# **Total Fund Composite**

Market Value: \$1,758.2 Million and 100.0% of Fund

#### Ending March 31, 2017

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$1,758,213,188	-\$24,337,385	100.0%	100.0%	\$0
Total Fixed Income Composite		\$324,931,821	-\$28,603,062	18.5%	22.0%	-\$61,875,081
U.S. Fixed Income Composite		\$153,395,415	-\$163,431	8.7%	9.0%	-\$4,843,771
Baird Advisors	Core Fixed Income	\$50,812,718	-\$55,776	2.9%		
Chicago Equity Partners	Core Fixed Income	\$51,070,754	-\$70,048	2.9%		
Amalgatrust	Core Plus Fixed Income	\$51,511,944	-\$37,608	2.9%		
Stable Value Composite		\$25,963,965	-\$28,166,751	1.5%	5.0%	-\$61,946,694
Goode	Stable Value	\$25,963,965	-\$28,166,751	1.5%		
Bank Loans Composite		\$36,718,235	\$0	2.1%	2.0%	\$1,553,971
Symphony	Senior Secured Loans	\$36,718,235	\$0	2.1%		
Global Fixed Income Composite		\$108,854,205	-\$272,880	6.2%	6.0%	\$3,361,413
Franklin Templeton Global Bond	Global Fixed Income	\$55,690,881	-\$187,635	3.2%		
Logan Circle Partners EMD	EM Fixed Income	\$53,163,324	-\$85,245	3.0%		
Total Equity Composite		\$911,594,559	-\$1,917,340	51.8%	49.0%	\$50,070,096
U.S. Equity Composite		\$555,093,297	-\$1,203,977	31.6%	28.0%	\$62,793,604
Large Cap Equity Composite		\$354,969,513	-\$569,759	20.2%	18.0%	\$38,491,140
Edgar Lomax	Large-Cap Value	\$85,184,205	-\$198,184	4.8%		
Paradigm	Large-Cap Value	\$93,824,872	-\$208,246	5.3%		
Northern Trust S&P 500	Large-Cap Core	\$117,675,105	-\$1,451	6.7%		
Mid Cap Equity Composite		\$96,169,746	-\$306,183	5.5%	5.0%	\$8,259,086
Denali	Mid-Cap Value	\$62,779,971	-\$206,869	3.6%		
Nuveen	Mid-Cap Growth	\$33,389,774	-\$99,314	1.9%		
Small Cap Equity Composite		\$103,954,038	-\$328,035	5.9%	5.0%	\$16,043,378
Ariel	Small-Cap Value	\$62,492,709	-\$135,008	3.6%		
Channing	Small-Cap Value	\$40,504,423	-\$189,799	2.3%		
The Boston Company	Small-Cap Core	\$956,906	-\$3,228	0.1%		
Non-U.S. Equity Composite		\$356,501,262	-\$713,364	20.3%	21.0%	-\$12,723,507
Northern Trust ACWI ex US	Non-U.S. Large-Cap Core	\$52,653,004	-\$4,505	3.0%		
Brown Capital	Non-U.S. Large-Cap Core	\$91,945,629	-\$320,040	5.2%		
LSV	Non-U.S. Small-Cap Core	\$57,935,859	-\$256,266	3.3%		
Northern Trust Emerging Markets	Emerging Markets	\$46,815,097	-\$11,398	2.7%		
Victory Capital	EM Small-Cap	\$48,140,171	-\$83,861	2.7%		
Morgan Stanley Emerging Markets	Emerging Markets	\$59,011,501	-\$37,294	3.4%		
Cash Composite		\$54,773,496	\$41,341,734	3.1%	-	\$54,773,496

# **Total Fund Composite**

Market Value: \$1,758.2 Million and 100.0% of Fund

#### Ending March 31, 2017

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Hedge Fund Composite		\$167,196,409	-\$29,892,810	9.5%	7.0%	\$44,121,486
BlackRock Multi Manager Partners	Hedged Equity Hedge FoF	\$7,006,992	-\$29,892,810	0.4%		
Graham Absolute Return	Hedged Equity Hedge FoF	\$12,095,254	\$0	0.7%		
Magnitude Capital	Multi-Strat. Hedge FoF	\$53,224,758	\$0	3.0%		
Pluscios	Multi-Strat. Hedge FoF	\$38,964,329	\$0	2.2%		
Aetos Multi Strategy Arbitrage Fund	Multi-Strat. Hedge Fund	\$9,685,716	\$0	0.6%		
Aetos Distressed Investment Strategies Fund	Distressed Debt Hedge Fund	\$31,275,290	\$0	1.8%		
Viking Global Investors	Long/Short Hedge Fund	\$11,337,513	\$0	0.6%		
Harbinger Capital Partners	Event Driven Hedge Fund	\$3,606,556		0.2%		
Real Estate Composite		\$229,229,843	-\$1,956,336	13.0%	12.0%	\$18,244,261
Open-End Real Estate Composite		\$174,827,231	-\$1,397,898	9.9%		\$174,827,231
Heitman America Real Estate	Core Real Estate	\$18,807,536	-\$48,491	1.1%		
JPMorgan Strategic Property Fund	Core Real Estate	\$47,400,579	-\$556,640	2.7%		
PRISA I	Core Real Estate	\$45,536,811	-\$502,947	2.6%		
Rreef America II	Core Real Estate	\$14,781,647	-\$159,370	0.8%		
JPMorgan Alternative Property Fund	Value-Added Real Estate	\$38,838	\$0	0.0%		
UBS Trumbull Property Fund	Core Real Estate	\$48,261,821	-\$130,450	2.7%		
Closed-End Real Estate Composite		\$54,402,612	-\$558,438	3.1%		\$54,402,612
Private Equity Composite		\$70,487,060	-\$3,309,571	4.0%	10.0%	-\$105,334,259

# Annualized Performance (Net of Fees)

Market Value: \$1,758.2 Million and 100.0% of Fund

				Е	inding N	/larch 3	1, 2017				Incep	otion
	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Total Fund Composite	0.9%	4.0%	4.0%	9.9%	4.0%	4.6%	6.9%	7.3%	7.5%	5.4%	8.3%	Dec-90
Total Fund Policy Benchmark	0.8%	4.2%	4.2%	9.9%	4.4%	5.5%	7.6%	8.1%	8.2%	5.2%		Dec-90
Actuarial Rate	0.7%	2.0%	2.0%	8.3%	8.3%	8.3%	8.3%	8.4%	8.4%	8.4%	8.5%	Dec-90
Total Fixed Income Composite	0.4%	2.0%	2.0%	4.2%	2.5%	2.5%	1.9%	2.1%	2.8%	3.5%	4.4%	Mar-00
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	5.1%	Mar-00
U.S. Fixed Income Composite	-0.1%	0.9%	0.9%	0.0%	0.9%	2.2%	1.7%	2.2%	3.3%	4.0%	4.5%	Mar-00
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	5.1%	Mar-00
Baird Advisors	0.0%	1.2%	1.2%	1.9%	1.9%	3.4%	2.6%	3.2%	4.3%		4.4%	Aug-09
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	3.6%	Aug-09
Chicago Equity Partners	-0.1%	0.7%	0.7%	-1.3%	0.3%	2.0%	1.2%	1.6%	3.0%		3.1%	Aug-09
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	3.6%	Aug-09
Amalgatrust	-0.1%	0.8%	0.8%								-1.6%	Jun-16
BBgBarc US Aggregate TR	-0.1%	0.8%	0.8%	0.4%	1.2%	2.7%	2.0%	2.3%	3.5%	4.3%	-1.7%	Jun-16
Stable Value Composite	0.1%	0.4%	0.4%	1.2%	1.2%	1.2%	0.9%	1.2%	1.7%	2.2%	3.1%	Jun-01
Ryan Labs 3Yr GIC	0.1%	0.3%	0.3%	1.4%	1.3%	1.2%	1.2%	1.2%	1.6%	2.5%	3.2%	Jun-01
Goode	0.1%	0.4%	0.4%	1.2%	1.2%	1.2%	1.3%	1.5%	1.7%	2.3%	2.8%	Dec-02
Ryan Labs 3Yr GIC	0.1%	0.3%	0.3%	1.4%	1.3%	1.2%	1.2%	1.2%	1.6%	2.5%	2.9%	Dec-02
Bank Loans Composite	-0.1%	1.1%	1.1%								4.9%	Jul-16
CSFB Leveraged Loan	0.1%	1.2%	1.2%	9.7%	4.2%	3.7%	4.1%	4.9%	5.0%	4.2%	5.2%	Jul-16
Symphony	-0.1%	1.1%	1.1%	-		-		-	-		4.9%	Jul-16
CSFB Leveraged Loan	0.1%	1.2%	1.2%	9.7%	4.2%	3.7%	4.1%	4.9%	5.0%	4.2%	5.2%	Jul-16
Global Fixed Income Composite	1.4%	4.6%	4.6%	11.0%	-	-	-	-	-		6.0%	Jul-15
BBgBarc Global Aggregate TR	0.2%	1.8%	1.8%	-1.9%	1.3%	-0.4%	0.2%	0.4%	2.0%	3.3%	2.1%	Jul-15
Franklin Templeton Global Bond	1.8%	4.0%	4.0%	9.7%							3.9%	Jul-15
BBgBarc Global Aggregate TR	0.2%	1.8%	1.8%	-1.9%	1.3%	-0.4%	0.2%	0.4%	2.0%	3.3%	2.1%	Jul-15
Logan Circle Partners EMD	0.9%	5.2%	5.2%	12.3%		-		-	-		8.2%	Jul-15
JP Morgan EMBI Global TR	0.3%	3.9%	3.9%	8.8%	6.6%	5.7%	4.0%	5.2%	6.8%	6.9%	7.9%	Jul-15
Total Equity Composite	0.8%	6.0%	6.0%	14.9%	4.2%	4.7%	8.5%	9.3%	9.2%	4.8%	4.6%	Mar-00
MSCI ACWI	1.2%	6.9%	6.9%	15.0%	4.9%	5.1%	7.8%	8.4%	7.8%	4.0%	3.5%	Mar-00
U.S. Equity Composite	-0.4%	4.2%	4.2%	17.4%	5.6%	6.7%	11.0%	11.6%	11.6%	6.8%	5.4%	Mar-00
Russell 3000	0.1%	5.7%	5.7%	18.1%	8.5%	9.8%	12.8%	13.2%	12.9%	7.5%	5.1%	Mar-00
Large Cap Equity Composite	-0.4%	4.7%	4.7%	15.3%	6.8%	8.2%	11.9%	12.1%	11.9%	6.7%	4.7%	Mar-00
Russell 1000	0.1%	6.0%	6.0%	17.4%	8.6%	10.0%	13.0%	13.3%	13.0%	7.6%	4.9%	Mar-00
Edgar Lomax	-1.1%	3.6%	3.6%	16.2%	8.1%	8.6%	12.0%	12.2%	12.4%	6.4%	7.4%	Apr-00
S&P 500 Value	-1.2%	3.3%	3.3%	18.7%	8.8%	8.9%	11.7%	12.7%	11.9%	5.7%	5.6%	Apr-00

### Annualized Performance (Net of Fees)

Market Value: \$1,758.2 Million and 100.0% of Fund

				Е	inding N	/larch 3	1, 2017				Incep	tion
	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Paradigm	-0.9%	2.6%	2.6%	12.7%	5.4%	7.3%	11.3%	12.7%	12.0%	6.2%	6.9%	Apr-00
Russell 1000 Value	-1.0%	3.3%	3.3%	19.2%	8.3%	8.7%	11.8%	13.1%	12.2%	5.9%	6.9%	Apr-00
Northern Trust S&P 500	0.1%	6.1%	6.1%	17.2%					-	-	9.8%	Jul-15
S&P 500	0.1%	6.1%	6.1%	17.2%	9.2%	10.4%	13.1%	13.3%	12.9%	7.5%	9.6%	Jul-15
Mid Cap Equity Composite	-0.7%	4.5%	4.5%	19.0%	5.1%	7.0%	12.0%	12.0%	11.7%	6.6%	5.0%	Mar-00
Russell MidCap	-0.2%	5.1%	5.1%	17.0%	6.0%	8.5%	12.1%	13.1%	13.2%	7.9%	8.2%	Mar-00
Denali	-1.3%	3.0%	3.0%	21.4%	8.5%	9.6%	13.9%	15.3%	13.3%		15.6%	Oct-09
Russell MidCap Value	-0.7%	3.8%	3.8%	19.8%	7.6%	8.9%	12.3%	14.1%	13.4%	7.5%	15.6%	Oct-09
Nuveen	0.4%	7.5%	7.5%	14.9%	1.5%	5.3%	10.6%	9.9%	12.2%	7.6%	7.9%	Jun-97
Russell MidCap Growth	0.6%	6.9%	6.9%	14.1%	4.2%	7.9%	11.8%	12.0%	12.8%	8.1%	8.1%	Jun-97
Small Cap Equity Composite	-0.1%	2.1%	2.1%	25.3%	5.7%	5.2%	9.8%	11.4%	11.8%	7.5%	8.4%	Mar-00
Russell 2000	0.1%	2.5%	2.5%	26.2%	6.7%	7.2%	11.4%	12.4%	12.3%	7.1%	7.1%	Mar-00
Ariel	0.5%	3.5%	3.5%	23.8%	4.7%	6.9%	9.8%	11.8%	11.1%	13.1%	14.0%	Jan-91
Russell 2000 Value	-0.8%	-0.1%	-0.1%	29.4%	9.3%	7.6%	11.2%	12.5%	11.6%	6.1%	12.1%	Jan-91
Channing	-1.1%	0.0%	0.0%	28.0%	7.4%	7.3%	11.9%	14.2%	12.8%		15.0%	Dec-09
Russell 2000 Value	-0.8%	-0.1%	-0.1%	29.4%	9.3%	7.6%	11.2%	12.5%	11.6%	6.1%	13.6%	Dec-09
The Boston Company	0.8%	3.0%	3.0%	22.9%	5.6%	5.5%	11.3%	12.0%	11.9%	7.0%	9.3%	Dec-98
Russell 2000	0.1%	2.5%	2.5%	26.2%	6.7%	7.2%	11.4%	12.4%	12.3%	7.1%	8.2%	Dec-98
Non-U.S. Equity Composite	2.7%	9.0%	9.0%	10.9%	1.7%	0.4%	3.2%	4.0%	3.7%	-0.3%	3.2%	Mar-00
MSCI ACWI ex USA	2.5%	7.9%	7.9%	13.1%	1.4%	0.6%	3.4%	4.4%	3.8%	1.4%	3.2%	Mar-00
Northern Trust ACWI ex US	2.6%	7.9%	7.9%	13.5%				-	-	-	7.1%	Aug-15
MSCI ACWI exUS IMI	2.6%	8.1%	8.1%	13.5%	2.4%	1.3%	4.1%	5.1%	4.6%	2.0%	7.6%	Aug-15
Brown Capital	2.7%	7.9%	7.9%	2.4%	0.7%	0.8%	6.4%	8.4%	6.1%		6.7%	Nov-09
MSCI EAFE	2.8%	7.2%	7.2%	11.7%	1.2%	0.5%	4.5%	5.8%	4.7%	1.1%	4.8%	Nov-09
LSV	2.3%	9.5%	9.5%	19.7%							9.9%	Jul-15
MSCI EAFE Small Cap	2.0%	8.0%	8.0%	11.0%	7.0%	3.6%	8.2%	9.2%	8.3%	3.0%	5.2%	Jul-15
Northern Trust Emerging Markets	2.5%	11.5%	11.5%	17.1%	1.4%						0.1%	Nov-14
MSCI Emerging Markets	2.5%	11.4%	11.4%	17.2%	1.5%	1.2%	0.5%	0.8%	1.7%	2.7%	0.2%	Nov-14
Victory Capital	3.0%	6.7%	6.7%								-3.4%	Jun-16
MSCI Emerging Markets Small Cap	2.6%	13.0%	13.0%	14.5%	2.0%	1.7%	1.3%	2.9%	2.4%	3.9%	14.0%	Jun-16
Morgan Stanley Emerging Markets	3.2%	11.5%	11.5%	14.5%							4.7%	Jul-15
MSCI Emerging Markets	2.5%	11.4%	11.4%	17.2%	1.5%	1.2%	0.5%	0.8%	1.7%	2.7%	5.9%	Jul-15



### Annualized Performance (Net of Fees)

Market Value: \$1,758.2 Million and 100.0% of Fund

#### Ending March 31, 2017 Inception YTD 3 Yrs 1 Mo 3 Mo 1 Yr 2 Yrs 4 Yrs 5 Yrs 7 Yrs 10 Yrs Return Since **Hedge Fund Composite** 0.6% 1.8% 1.8% 4.9% 0.5% 2.3% 3.3% 3.0% 2.1% 3.2% 4.2% Dec-05 HFRI FOF: Conservative Index 1.1% 0.3% 1.2% 1.2% 5.3% 0.8% 1.8% 2.8% 3.2% 2.6% 2.0% Dec-05 BlackRock Multi Manager Partners 0.1% 0.4% 0.4% 0.3% -3.0% -0.9% 1.8% 2.6% 2.6% 1.6% Jan-08 HFRI FOF: Conservative Index 0.3% 1.2% 1.2% 5.3% 0.8% 1.8% 2.8% 3.2% 2.6% 1.1% 0.9% Jan-08 HFRX Equity Hedge Index 0.7% 2.7% 2.7% 5.9% -0.9% 0.2% 1.9% 2.7% 0.6% -1.1% -1.0% Jan-08 Graham Absolute Return 0.3% -3.4% -3.4% 7.2% 1.4% 8.0% 6.0% Dec-13 HFRI Fund of Funds Composite Index 0.4% 2.4% 2.4% 6.2% 0.1% 1.8% 2.8% 3.2% 2.5% 1.2% 1.8% Dec-13 Magnitude Capital 1.4% 2.8% 2.8% 2.0% 1.7% 4.1% 4.2% 4.8% 5.3% 4.7% 5.7% Jan-06 HFRI FOF: Conservative Index 0.3% 1.2% 1.2% 5.3% 0.8% 1.8% 2.8% 3.2% 2.6% 1.1% 2.0% Jan-06 -0.9% **Pluscios** -0.2% 2.1% 2.1% 7.3% 0.4% 2.3% 3.1% 3.1% 6.7% Feb-09 HFRI FOF: Conservative Index 0.3% 1.2% 1.2% 5.3% 0.8% 1.8% 2.8% 3.2% 2.6% 1.1% 3.5% Feb-09 Aetos Multi Strategy Arbitrage Fund 0.6% 2.6% 2.6% 8.0% 1.6% 1.4% 2.3% Apr-13 8.1% HFRI RV: Multi-Strategy Index 0.3% 1.8% 1.8% 3.4% 3.6% 4.2% 4.9% 4.7% 3.7% 3.9% Apr-13 Aetos Distressed Investment Strategies -0.3% 2.1% 2.1% 11.2% 2.5% 2.2% 4.2% Apr-13 HFRI ED: Distressed/Restructuring 0.1% 2.6% 2.6% 20.1% 3.8% 1.4% 4.0% 5.1% 5.0% 3.7% 3.7% Apr-13 Index 4.2% 4.2% Viking Global Investors 2.7% 9.7% 2.0% 7.1% 6.8% Dec-13 HFRI Equity Hedge (Total) Index 0.9% 3.9% 3.9% 11.5% 3.0% 4.7% 4.9% 4.2% 3.0% 3.1% 3.1% Dec-13

0.7%

2.7%

2.7%

5.9%

-0.9%

0.2%

1.9%

2.7%

0.6%

-1.1%

0.6%

Dec-13

HFRX Equity Hedge Index

### Annualized Performance (Net of Fees)

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				E	inding I	March 3	1, 2017				Incep	otion
	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Real Estate Composite	1.2%	1.2%	1.2%	7.0%	9.8%	11.0%	11.8%	11.4%	11.8%	2.7%	6.8%	Dec-81
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%		Dec-81
CPI +5%	0.5%	2.2%	2.2%	7.5%	6.7%	6.1%	6.2%	6.3%	6.7%	6.8%		Dec-81
Open-End Real Estate Composite	1.0%	1.0%	1.0%	6.4%	9.7%	10.6%	11.4%		-		11.4%	Apr-13
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	11.3%	Apr-13
Heitman America Real Estate	1.1%	1.1%	1.1%	7.7%	10.5%	10.7%	11.4%				11.3%	Jan-13
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	11.2%	Jan-13
JPMorgan Strategic Property Fund	0.7%	0.7%	0.7%	6.3%	9.0%	9.9%	10.8%	11.0%	12.2%	5.2%	7.8%	Oct-00
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	7.1%	Oct-00
PRISA I	1.3%	1.3%	1.3%	7.1%	10.2%	11.2%	11.6%	11.0%	13.4%	4.2%	6.8%	Jan-01
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	7.0%	Jan-01
Rreef America II	1.2%	1.2%	1.2%	7.6%	10.3%	11.3%	12.2%	11.8%	13.3%	4.9%	7.4%	Oct-00
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	7.1%	Oct-00
JPMorgan Alternative Property Fund	1.0%	1.0%	1.0%	3.2%	2.9%	-8.3%	-6.1%	-1.3%	3.3%	-4.6%	-4.3%	Dec-06
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	5.0%	Dec-06
UBS Trumbull Property Fund	0.9%	0.9%	0.9%	5.1%					-		6.5%	Oct-15
NFI	0.5%	1.5%	1.5%	7.4%	10.0%	10.8%	11.3%	10.9%	12.4%	4.6%	8.4%	Oct-15
Closed-End Real Estate Composite	1.9%	1.9%	1.9%	8.9%	10.2%	12.0%	13.1%				13.1%	Apr-13

0.5%

1.6%

1.6%

7.3%

9.5% 10.6% 10.7%

10.7% 11.8%

6.7%

10.7% Apr-13

NPI

## Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Average <sup>2</sup>
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% \$111,625	0.26%
Core Fixed Income	Chicago Equity Partners	0.30% on the first \$25 million 0.25% on the next \$75 million 0.20% on the Balance	0.27% \$140,177	0.26%
Core Plus Fixed Income	Amalgatrust	0.30% on the first \$25 million 0.285% on the next \$25 million 0.20% on the Balance	0.29% \$149,274	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% \$51,928	0.20%
EM Fixed Income	Logan Circle Partners EMD	0.65% on the Balance	0.65% \$345,562	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% \$255,487	0.35%
Senior Secured Loans	Symphony	0.50% on the Balance	0.50% \$183,591	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	0.48% \$405,645	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	0.45% \$425,299	0.51%
Small-Cap Core	The Boston Company	0.70% on the first \$50 million 0.60% on the next \$50 million 0.50% on the Balance	0.70% \$6,698	0.88%
Large-Cap Core	Northern Trust S&P 500	0.005% on the Balance	0.01% \$5,884	0.05%
Large-Cap Growth	Decatur	0.60% on the first \$50 million 0.40% on the next \$25 million 0.35% on the Balance	0.57% \$333,141	0.53%
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% \$445,570	0.65%
Mid-Cap Growth	Nuveen	0.65% on the first \$25 million 0.50% on the next \$25 million 0.40% on the Balance	0.61% \$204,449	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	0.45% \$279,971	0.82%

## Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Average <sup>2</sup>
Small-Cap Value	Channing	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	0.96% \$389,540	0.96%
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% \$647,647	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	0.93% \$538,487	0.85%
Emerging Markets	Morgan Stanley Emerging Markets	0.85% on the Balance	0.85% \$501,598	0.90%
Emerging Markets	Northern Trust Emerging Markets	0.10% on the Balance	0.10% \$46,815	0.95%
Hedged Equity Hedge FoF	BlackRock Multi Manager Partners	1.00% on the Balance	1.00% \$70,070	1.00%
Long/Short Hedge Fund	Viking Global Investors	1.50% on the Balance Plus 20% Incentive Fee	1.50% \$170,063	1.69%
Hedged Equity Hedge FoF	Graham Absolute Return	2.00% on the Balance Plus 25% performance fee	2.00% \$241,905	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% \$532,248	1.00%
Multi-Strat. Hedge FoF	Pluscios	1.10% on the Balance Plus 10% Incentive Fee, above 91-Day T-Bill Hurdle	1.10% \$428,608	1.00%



### Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Average <sup>2</sup>
W 18 00 1 1 1 1 5 1		4.000/ 11 7 1	4.000/	4.000/
Multi-Strat. Hedge Fund	Aetos Multi Strategy Arbitrage Fund	1.00% on the Balance	1.00% \$96,857	1.69%
Distressed Debt Hedge Fund	Aetos Distressed Investment Strategies Fund	1.00% on the Balance	1.00% \$312,753	1.69%
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	1.05% \$198,075	1.01%
Core Real Estate	JPMorgan Strategic Property Fund	1.00% on the Balance	1.00% \$474,006	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% \$295,721	1.01%
Core Real Estate	Rreef America II	0.95% on the Balance	0.95% \$140,426	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% \$411,160	1.01%
Non-U.S. Large-Cap Core	Northern Trust ACWI ex US	0.035% on the Balance	0.04% \$18,429	0.75%
EM Small-Cap	Viking Global Investors	0.70% on the Balance	0.70% \$336,981	1.25%
Total Investment Management Fo	ees		0.52% \$9,202,386	0.62%

<sup>&</sup>lt;sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End for Open-Ended accounts only.

<sup>&</sup>lt;sup>2</sup> Source: 2016 Marquette Associates Investment Management Fee Study.