



**Annuity & Benefit Fund**

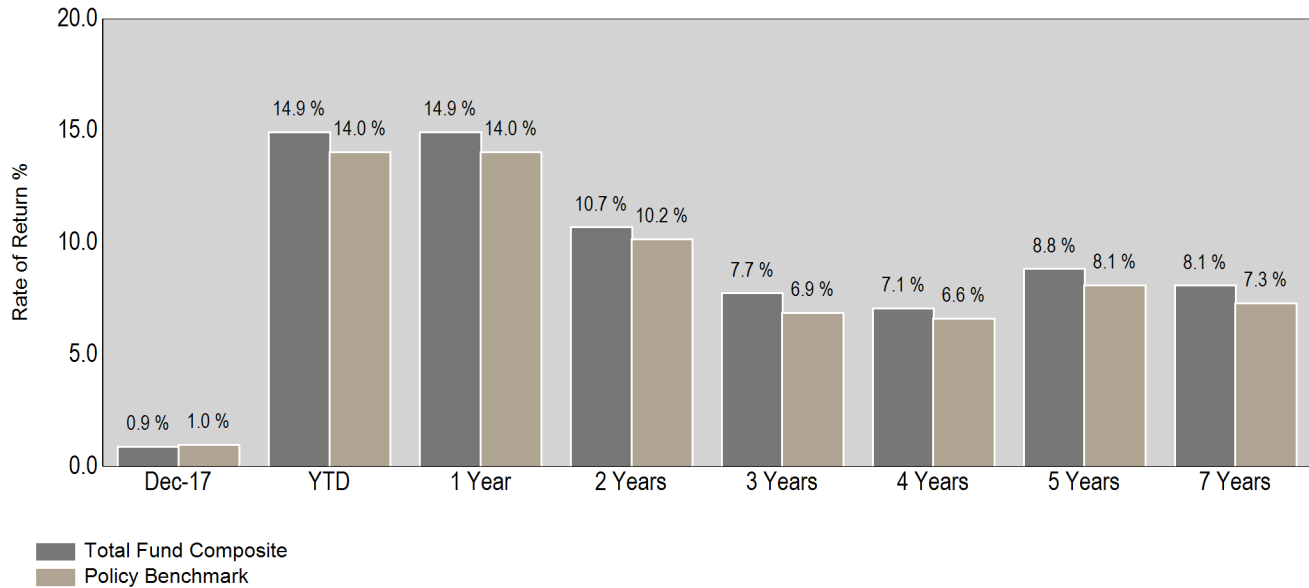
Municipal Employees'  
Annuity & Benefit Fund of Chicago

Monthly Update

**December 31, 2017**



**Return Summary**  
Ending December 31, 2017



**Return Summary YTD**

**Asset Allocation vs. Target**

	Total Return	Current	Current	Policy	Difference	%
Total Fund Composite	14.9%	\$1,024,747,557	23.9%	27.0%	-\$133,298,333	-3.1%
Fixed Income Composite	4.1%	\$1,150,854,083	26.8%	26.0%	\$35,698,780	0.8%
U.S. Equity Composite	19.8%	\$967,082,150	22.5%	22.0%	\$23,489,202	0.5%
International Equity Composite	32.1%	\$419,063,911	9.8%	10.0%	-\$9,841,975	-0.2%
Hedge Fund Composite	10.7%	\$431,268,037	10.1%	10.0%	\$2,362,151	0.1%
Real Estate Composite	5.4%	\$201,025,840	4.7%	5.0%	-\$13,427,103	-0.3%
Open-End Real Estate Comp	5.8%	\$95,017,277	2.2%	0.0%	\$95,017,277	2.2%
<b>Total</b>		<b>\$4,289,058,854</b>	<b>100.0%</b>	<b>100.0%</b>		

**Summary of Cash Flows**

	Last Month	Year-To-Date	One Year	Three Years	Five Years	Seven Years
Beginning Market Value	\$4,313,229,495.38	\$4,293,930,112.64	\$4,293,930,112.64	\$5,045,657,296.24	\$5,038,196,197.40	\$5,284,706,962.03
Net Cash Flow	-\$63,596,577.99	-\$622,625,930.83	-\$622,625,930.83	-\$1,797,144,054.90	-\$2,870,545,511.40	-\$3,767,000,758.56
Net Investment Change	\$39,425,937.08	\$617,754,672.66	\$617,754,672.66	\$1,040,545,613.13	\$2,121,408,168.47	\$2,771,352,651.00
<b>Ending Market Value</b>	<b>\$4,289,058,854.47</b>	<b>\$4,289,058,854.47</b>	<b>\$4,289,058,854.47</b>	<b>\$4,289,058,854.47</b>	<b>\$4,289,058,854.47</b>	<b>\$4,289,058,854.47</b>

# Total Fund Composite

Market Value: \$4,289.1 Million and 100.0% of Fund

Ending December 31, 2017

	Asset Class	Market Value 11/30/17 (\$)	Market Value 12/31/17 (\$)	% of Portfolio	Policy %
<b>Total Fund Composite</b>		<b>4,313,229,495</b>	<b>4,289,058,854</b>	<b>100.0</b>	<b>100.0</b>
<b>Fixed Income Composite</b>		<b>1,020,566,954</b>	<b>1,024,721,919</b>	<b>23.9</b>	<b>27.0</b>
Neuberger Berman	Core Plus Fixed Income	52,617,111	52,860,361	1.2	
LM Capital	Core Fixed Income	268,093,361	269,168,821	6.3	
UBS	Core Fixed Income	68,608,572	68,991,542	1.6	
Segall Bryant & Hamill	Int. Fixed Income	195,755,388	196,160,183	4.6	
MacKay Shields	High Yield Fixed Income	183,256,656	184,246,104	4.3	
Crescent High Income Fund	High Yield Fixed Income	55,950,466	56,068,550	1.3	
Symphony	Senior Secured Loans	196,285,401	197,226,360	4.6	
<b>U.S. Equity Composite</b>		<b>1,170,305,447</b>	<b>1,150,854,083</b>	<b>26.8</b>	<b>26.0</b>
<b>FIS Group U.S. Equity</b>		<b>72,601,331</b>	<b>72,264,554</b>	<b>1.7</b>	<b>--</b>
Great Lakes	Large-Cap Value	142,869,327	144,666,566	3.4	
RhumbLine S&P 500 Index	Large-Cap Core	459,252,345	464,176,774	10.8	
Rhumbline S&P 400 Growth	Mid-Cap Growth	271,729,490	246,580,209	5.7	
Ariel Investments	Smid-Cap Value	135,970,934	136,412,234	3.2	
Keeley	Small-Cap Value	87,673,149	86,685,751	2.0	
<b>International Equity Composite</b>		<b>944,487,923</b>	<b>967,082,150</b>	<b>22.5</b>	<b>22.0</b>
<b>FIS Group Non-U.S. Equity</b>		<b>81,605,657</b>	<b>83,570,834</b>	<b>1.9</b>	<b>--</b>
NTGI MSCI ACWI ex. U.S. Index Fund	Non-U.S. All-Cap Core	150,530,413	153,869,906	3.6	
LSV	Non-U.S. Large-Cap Value	125,840,495	127,984,153	3.0	
Cornerstone	Non-U.S. Large-Cap Core	102,629,504	105,553,076	2.5	
Walter Scott & Partners	Non-U.S. Large-Cap Growth	125,869,180	127,821,458	3.0	
NTGI Small Cap International Index	Non-U.S. Small-Cap Core	91,094,970	93,728,651	2.2	
Segall Bryant & Hamill	Non-U.S. Small-Cap Core	113,742,372	116,497,496	2.7	
William Blair	Emerging Markets	153,175,332	158,056,577	3.7	
<b>Hedge Fund Composite</b>		<b>417,533,943</b>	<b>419,063,911</b>	<b>9.8</b>	<b>10.0</b>
Rock Creek Georgetown Fund	Hedged Equity Hedge FoF	208,385,662	208,760,757	4.9	
K2 Long Short Fund	Hedged Equity Hedge FoF	106,055,826	106,494,033	2.5	
Parametric Defensive Equity	Defensive Equity	51,893,354	52,266,986	1.2	
Neuberger Berman S&P 500 PutWrite	Defensive Equity	51,199,101	51,542,135	1.2	

## Total Fund Composite

Market Value: \$4,289.1 Million and 100.0% of Fund

**Ending December 31, 2017**

Asset Class	Market Value 11/30/17 (\$)	Market Value 12/31/17 (\$)	% of Portfolio	Policy %
<b>Real Estate Composite</b>	<b>430,944,559</b>	<b>431,268,037</b>	<b>10.1</b>	<b>10.0</b>
<b>Open-End Real Estate Comp</b>	<b>346,875,839</b>	<b>351,299,195</b>	<b>8.2</b>	<b>--</b>
American Core Realty Fund, LLC	92,082,638	93,440,230	2.2	
AFL-CIO Building Investment Trust	121,761,611	123,502,802	2.9	
JPMorgan Strategic Property Fund	133,031,589	134,356,163	3.1	
<b>Closed-End Real Estate Composite</b>	<b>84,068,721</b>	<b>79,968,842</b>	<b>1.9</b>	<b>--</b>
<b>Private Equity Composite</b>	<b>208,520,326</b>	<b>201,025,840</b>	<b>4.7</b>	<b>5.0</b>
Fund of Funds Private Equity Composite	87,321,465	81,935,431	1.9	--
Direct Investment Private Equity Composite	121,198,861	119,090,409	2.8	--
<b>Cash Accounts</b>	<b>120,870,343</b>	<b>95,042,915</b>	<b>2.2</b>	<b>0.0</b>

# Investment Manager

# Annualized Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

	Ending December 31, 2017										Inception	
	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since	
<b>Total Fund Composite</b>	<b>0.9</b>	<b>3.2</b>	<b>14.9</b>	<b>10.7</b>	<b>7.7</b>	<b>7.1</b>	<b>8.8</b>	<b>8.1</b>	<b>5.3</b>	--		
Policy Benchmark	1.0	3.1	14.0	10.2	6.9	6.6	8.1	7.3	4.4	--		
Actuarial Rate	0.6	1.8	7.5	7.5	7.5	7.5	7.5	7.6	7.7	--		
<b>Fixed Income Composite</b>	<b>0.4</b>	<b>0.5</b>	<b>4.1</b>	<b>5.3</b>	<b>3.7</b>	<b>3.9</b>	<b>3.2</b>	<b>4.2</b>	<b>4.3</b>	--		
BBgBarc US Aggregate TR	0.5	0.4	3.5	3.1	2.2	3.2	2.1	3.2	4.0	--		
Neuberger Berman	0.5	0.4	3.5	3.1	2.3	3.2	2.2	3.4	4.3	4.9	May-01	
BBgBarc US Aggregate TR	0.5	0.4	3.5	3.1	2.2	3.2	2.1	3.2	4.0	4.7	May-01	
LM Capital	0.4	0.2	3.3	2.8	2.3	3.1	2.1	3.3	--	4.2	Mar-09	
BBgBarc US Aggregate TR	0.5	0.4	3.5	3.1	2.2	3.2	2.1	3.2	4.0	4.0	Mar-09	
UBS	0.6	0.7	4.2	3.3	2.2	3.1	2.1	3.3	--	3.2	Jul-10	
BBgBarc US Aggregate TR	0.5	0.4	3.5	3.1	2.2	3.2	2.1	3.2	4.0	3.0	Jul-10	
Segall Bryant & Hamill	0.2	-0.1	2.3	2.2	1.9	2.3	1.6	2.7	--	3.6	Apr-09	
BBgBarc US Govt/Credit Int TR	0.1	-0.2	2.1	2.1	1.8	2.1	1.5	2.4	3.3	3.2	Apr-09	
MacKay Shields	0.5	0.8	7.4	11.7	7.3	6.0	6.1	7.2	--	10.0	Apr-09	
BBgBarc US High Yield TR	0.3	0.5	7.5	12.2	6.4	5.4	5.8	7.0	8.0	11.0	Apr-09	
BarCap Ba High Yield	0.1	0.4	7.3	10.0	6.2	6.0	5.8	7.2	8.4	10.2	Apr-09	
Crescent High Income Fund	0.2	0.3	5.5	--	--	--	--	--	--	7.9	Jul-16	
50% BarCap HY / 50% CSFB Lev Loans	0.3	0.8	5.9	9.6	5.4	4.6	5.1	5.9	6.3	8.3	Jul-16	
Symphony	0.4	1.1	3.4	5.8	4.2	3.6	4.3	5.0	--	6.4	Aug-09	
Credit Suisse Leveraged Loans	0.4	1.2	4.2	7.0	4.5	3.9	4.3	4.7	4.6	6.0	Aug-09	
<b>U.S. Equity Composite</b>	<b>0.5</b>	<b>6.1</b>	<b>19.8</b>	<b>15.4</b>	<b>9.8</b>	<b>9.5</b>	<b>13.9</b>	<b>12.2</b>	<b>8.3</b>	--		
Wilshire 5000 Total Market	1.1	6.4	21.0	17.1	11.4	11.7	15.7	13.5	8.6	--		
S&P 500	1.1	6.6	21.8	16.8	11.4	12.0	15.8	13.8	8.5	--		
Russell 2000	-0.4	3.3	14.6	17.9	10.0	8.7	14.1	11.6	8.7	--		
<b>FIS Group U.S. Equity</b>	<b>-0.5</b>	<b>4.1</b>	<b>13.8</b>	<b>14.0</b>	<b>8.1</b>	<b>8.6</b>	<b>13.5</b>	<b>11.4</b>	<b>--</b>	<b>13.2</b>	<b>Jul-10</b>	
FIS Group U.S. Equity Benchmark	0.3	4.4	13.8	15.1	9.3	9.4	14.1	12.1	8.4	14.0	Jul-10	
Great Lakes	1.2	4.9	18.3	16.8	10.4	10.6	15.1	13.3	8.1	10.6	Mar-91	
Russell 1000 Value	1.5	5.3	13.7	15.5	8.7	9.8	14.0	12.5	7.1	10.3	Mar-91	
RhumbLine S&P 500 Index	1.1	6.6	21.6	16.6	11.4	11.9	15.7	13.8	--	10.7	Aug-08	
S&P 500	1.1	6.6	21.8	16.8	11.4	12.0	15.8	13.8	8.5	10.6	Aug-08	
Rhumbline S&P 400 Growth	-0.1	7.1	--	--	--	--	--	--	--	7.1	Sep-17	
S&P 400 MidCap Growth	-0.1	7.1	19.9	17.3	12.0	10.9	14.9	12.8	10.3	7.1	Sep-17	
Ariel Investments	0.3	8.0	17.1	15.0	8.8	9.9	15.9	12.5	9.7	12.8	Jun-84	
Russell 2500 Value	0.4	4.3	10.4	17.5	9.3	8.8	13.3	11.5	8.8	--	Jun-84	
Keeley	-1.2	1.7	6.5	13.1	5.8	4.7	10.5	10.6	6.9	11.6	Dec-92	
Keeley SCV Custom Benchmark	-1.0	2.0	7.8	19.2	9.5	8.2	13.0	10.8	7.4	10.9	Dec-92	

## Investment Manager

## Annualized Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

	Ending December 31, 2017										Inception	
	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since	
<b>International Equity Composite</b>	<b>2.4</b>	<b>5.3</b>	<b>32.1</b>	<b>16.5</b>	<b>10.3</b>	<b>6.8</b>	<b>8.9</b>	<b>6.6</b>	<b>4.9</b>	--	--	
MSCI ACWI ex USA	2.2	5.0	27.2	15.3	7.8	4.8	6.8	4.9	1.8	--	--	
MSCI EAFE	1.6	4.2	25.0	12.4	7.8	4.5	7.9	6.0	1.9	--	--	
<b>FIS Group Non-U.S. Equity</b>	<b>2.4</b>	<b>5.4</b>	<b>29.4</b>	<b>11.5</b>	<b>8.9</b>	<b>5.2</b>	<b>8.9</b>	--	--	<b>9.9</b>	<b>Aug-12</b>	
FIS Group Non-U.S. Equity Benchmark	2.6	5.6	29.2	15.2	9.1	5.5	8.4	--	--	9.7	Aug-12	
NTGI MSCI ACWI ex. U.S. Index Fund	2.2	5.0	27.6	15.6	8.2	5.1	7.1	5.2	--	9.2	Oct-08	
MSCI ACWI ex USA	2.2	5.0	27.2	15.3	7.8	4.8	6.8	4.9	1.8	8.9	Oct-08	
LSV	1.7	3.6	25.6	15.6	11.4	6.3	9.9	7.5	3.3	6.4	Apr-05	
MSCI EAFE Value	1.5	3.2	21.4	12.9	6.4	3.3	6.9	5.4	1.1	4.8	Apr-05	
Cornerstone	2.8	6.6	32.5	12.2	10.6	7.7	9.8	7.5	4.8	7.4	Nov-04	
MSCI EAFE	1.6	4.2	25.0	12.4	7.8	4.5	7.9	6.0	1.9	5.5	Nov-04	
Walter Scott & Partners	1.5	5.0	27.3	15.5	10.2	6.7	7.7	6.5	4.1	7.2	Nov-04	
MSCI EAFE	1.6	4.2	25.0	12.4	7.8	4.5	7.9	6.0	1.9	5.5	Nov-04	
MSCI EAFE Growth	1.7	5.2	28.9	11.8	9.2	5.6	8.8	6.6	2.7	6.2	Nov-04	
NTGI Small Cap International Index	2.9	5.7	31.0	16.9	13.0	8.1	11.4	8.0	--	13.8	Oct-08	
MSCI World ex USA Small Cap	2.9	5.8	31.0	16.9	13.0	8.1	11.4	7.8	5.2	13.6	Oct-08	
Segall Bryant & Hamill	2.4	4.2	33.1	--	--	--	--	--	--	23.4	Sep-16	
MSCI EAFE Small Cap	2.7	6.1	33.0	16.6	14.2	9.1	12.9	9.2	5.8	22.8	Sep-16	
William Blair	3.1	6.9	49.8	23.5	9.4	8.6	7.7	5.7	2.2	9.2	Jul-05	
MSCI Emerging Markets IMI	3.6	7.7	36.8	22.6	9.0	6.2	4.5	2.5	1.9	8.0	Jul-05	
<b>Hedge Fund Composite</b>	<b>0.4</b>	<b>1.4</b>	<b>10.7</b>	<b>4.6</b>	<b>4.2</b>	<b>4.5</b>	<b>7.0</b>	<b>5.6</b>	--	--	--	
HFRX Equity Hedge Index	1.0	2.7	10.0	4.9	2.4	2.2	3.9	0.4	-0.6	--	--	
Rock Creek Georgetown Fund	0.2	1.0	11.2	5.0	4.9	5.0	7.4	6.0	--	6.2	Jan-09	
HFRX Equity Hedge Index	1.0	2.7	10.0	4.9	2.4	2.2	3.9	0.4	-0.6	2.7	Jan-09	
K2 Long Short Fund	0.4	1.2	8.5	3.4	3.1	3.7	6.4	4.9	--	5.2	Jan-09	
HFRX Equity Hedge Index	1.0	2.7	10.0	4.9	2.4	2.2	3.9	0.4	-0.6	2.7	Jan-09	
Parametric Defensive Equity	0.7	3.0	--	--	--	--	--	--	--	4.5	Jul-17	
50% S&P 500/50% 91 Day T-Bill	0.6	3.4	10.9	8.5	5.9	6.1	7.9	6.9	4.6	4.8	Jul-17	
Neuberger Berman S&P 500 PutWrite	0.7	2.3	--	--	--	--	--	--	--	3.1	Aug-17	
CBOE Put Write Index	0.4	2.3	10.8	9.3	8.3	7.8	8.7	8.3	6.2	3.1	Aug-17	

# Investment Manager

# Annualized Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

	Ending December 31, 2017										Inception	
	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since	
<b>Real Estate Composite</b>	1.1	1.2	5.4	6.5	9.0	9.7	10.2	10.8	3.2	--	--	
<i>NFI</i>	0.0	0.0	5.1	6.5	8.7	9.5	9.8	10.5	5.9	--	--	
<b>Open-End Real Estate Comp</b>	1.3	1.5	5.8	6.6	9.2	9.8	10.4	11.1	3.8	--	--	
<i>NFI</i>	0.0	0.0	4.7	6.3	8.8	9.4	10.1	10.7	3.9	--	--	
American Core Realty Fund, LLC	1.5	1.5	7.1	6.6	9.1	9.5	9.8	10.5	3.6	6.3	Nov-03	
<i>NFI</i>	0.0	0.0	4.7	6.3	8.8	9.4	10.1	10.7	3.9	7.1	Nov-03	
AFL-CIO Building Investment Trust	1.4	1.4	4.4	5.6	8.4	9.3	9.4	10.0	4.0	6.3	Jun-02	
<i>NFI</i>	0.0	0.0	4.7	6.3	8.8	9.4	10.1	10.7	3.9	7.1	Jun-02	
JPMorgan Strategic Property Fund	1.0	1.6	6.3	6.8	9.2	9.4	10.5	11.2	4.6	8.0	Jun-02	
<i>NFI</i>	0.0	0.0	4.7	6.3	8.8	9.4	10.1	10.7	3.9	7.1	Jun-02	



## Investment Manager

## Calendar Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

Ending December 31, 2017

	YTD	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Total Fund Composite</b>	<b>14.9</b>	<b>14.9</b>	<b>6.6</b>	<b>2.1</b>	<b>5.1</b>	<b>16.1</b>	<b>12.8</b>	<b>0.1</b>	<b>14.2</b>	<b>19.6</b>	<b>-28.6</b>
Policy Benchmark	14.0	14.0	6.4	0.6	5.8	14.3	11.4	-0.4	12.8	13.2	-26.7
Actuarial Rate	7.5	7.5	7.5	7.5	7.5	7.5	7.5	8.0	8.0	8.0	8.0
<b>Fixed Income Composite</b>	<b>4.1</b>	<b>4.1</b>	<b>6.5</b>	<b>0.6</b>	<b>4.3</b>	<b>0.4</b>	<b>7.0</b>	<b>6.7</b>	<b>8.0</b>	<b>10.6</b>	<b>-4.6</b>
BBgBarc US Aggregate TR	3.5	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9	5.2
Neuberger Berman	3.5	3.5	2.8	0.6	6.2	-2.0	5.4	7.6	8.7	13.0	-1.7
BBgBarc US Aggregate TR	3.5	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9	5.2
LM Capital	3.3	3.3	2.2	1.5	5.5	-1.7	5.3	7.3	6.2	--	--
BBgBarc US Aggregate TR	3.5	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9	5.2
UBS	4.2	4.2	2.5	-0.1	5.9	-1.9	5.4	7.3	--	--	--
BBgBarc US Aggregate TR	3.5	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9	5.2
Segall Bryant & Hamill	2.3	2.3	2.1	1.3	3.4	-0.8	4.7	6.3	6.7	--	--
BBgBarc US Govt/Credit Int TR	2.1	2.1	2.1	1.1	3.1	-0.9	3.9	5.8	5.9	5.2	5.1
MacKay Shields	7.4	7.4	16.2	-1.0	2.1	6.4	13.9	6.6	12.4	--	--
BBgBarc US High Yield TR	7.5	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1	58.2	-26.2
BarCap Ba High Yield	7.3	7.3	12.8	-1.0	5.4	5.1	14.6	6.8	14.6	46.1	-17.5
Crescent High Income Fund	5.5	5.5	--	--	--	--	--	--	--	--	--
50% BarCap HY / 50% CSFB Lev Loans	5.9	5.9	13.5	-2.4	2.3	6.8	12.6	3.4	12.5	51.5	-27.3
Symphony	3.4	3.4	8.2	1.2	1.8	7.2	9.7	3.8	11.7	--	--
Credit Suisse Leveraged Loans	4.2	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0	44.9	-28.8
<b>U.S. Equity Composite</b>	<b>19.8</b>	<b>19.8</b>	<b>11.3</b>	<b>-0.7</b>	<b>8.6</b>	<b>33.6</b>	<b>16.2</b>	<b>0.4</b>	<b>20.5</b>	<b>34.2</b>	<b>-38.7</b>
Wilshire 5000 Total Market	21.0	21.0	13.4	0.7	12.7	33.1	16.1	1.0	17.2	28.3	-37.2
S&P 500	21.8	21.8	12.0	1.4	13.7	32.4	16.0	2.1	15.1	26.5	-37.0
Russell 2000	14.6	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2	26.9	27.2	-33.8
<b>FIS Group U.S. Equity</b>	<b>13.8</b>	<b>13.8</b>	<b>14.1</b>	<b>-2.7</b>	<b>10.0</b>	<b>35.3</b>	<b>13.4</b>	<b>-0.5</b>	<b>19.7</b>	<b>33.4</b>	<b>--</b>
FIS Group U.S. Equity Benchmark	13.8	13.8	16.5	-1.6	9.8	35.2	16.8	-1.3	21.4	28.0	-35.6
Great Lakes	18.3	18.3	15.4	-1.4	11.4	34.9	13.5	4.8	17.7	22.5	-37.2
Russell 1000 Value	13.7	13.7	17.3	-3.8	13.5	32.5	17.5	0.4	15.5	19.7	-36.8
RhumbLine S&P 500 Index	21.6	21.6	11.8	1.6	13.6	32.3	16.3	2.4	14.8	26.6	--
S&P 500	21.8	21.8	12.0	1.4	13.7	32.4	16.0	2.1	15.1	26.5	-37.0
Rhumblin S&P 400 Growth	--	--	--	--	--	--	--	--	--	--	--
S&P 400 MidCap Growth	19.9	19.9	14.8	2.0	7.6	32.8	17.3	-0.9	30.6	41.1	-37.6
Ariel Investments	17.1	17.1	12.9	-2.5	13.2	43.5	20.0	-9.3	26.1	65.7	-46.8
Russell 2500 Value	10.4	10.4	25.2	-5.5	7.1	33.3	19.2	-3.4	24.8	27.7	-32.0
Keeley	6.5	6.5	20.2	-7.6	1.5	37.3	28.2	-3.9	26.8	38.3	-45.1
Keeley SCV Custom Benchmark	7.8	7.8	31.7	-7.5	4.2	34.5	18.0	-5.5	24.5	29.2	-38.4

# Investment Manager

# Calendar Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

Ending December 31, 2017

	YTD	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>International Equity Composite</b>	<b>32.1</b>	<b>32.1</b>	<b>2.6</b>	<b>-1.1</b>	<b>-2.9</b>	<b>17.6</b>	<b>18.3</b>	<b>-13.8</b>	<b>15.3</b>	<b>41.6</b>	<b>-36.6</b>
MSCI ACWI ex USA	27.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7	11.2	41.4	-45.5
MSCI EAFE	25.0	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8	-43.4
<b>FIS Group Non-U.S. Equity</b>	<b>29.4</b>	<b>29.4</b>	<b>-3.8</b>	<b>3.8</b>	<b>-5.1</b>	<b>25.2</b>	--	--	--	--	--
FIS Group Non-U.S. Equity Benchmark	29.2	29.2	2.7	-2.2	-4.6	20.5	--	--	--	--	--
NTGI MSCI ACWI ex. U.S. Index Fund	27.6	27.6	4.8	-5.3	-3.7	15.6	17.1	-13.5	11.3	41.6	--
MSCI ACWI ex USA	27.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7	11.2	41.4	-45.5
LSV	25.6	25.6	6.3	3.4	-7.6	25.8	17.2	-12.0	12.0	34.5	-44.4
MSCI EAFE Value	21.4	21.4	5.0	-5.7	-5.4	23.0	17.7	-12.2	3.2	34.2	-44.1
Cornerstone	32.5	32.5	-5.1	7.6	-0.6	18.6	19.1	-12.9	5.4	21.3	-24.8
MSCI EAFE	25.0	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8	-43.4
Walter Scott & Partners	27.3	27.3	4.8	0.5	-3.1	11.5	20.2	-10.5	11.3	29.5	-33.1
MSCI EAFE	25.0	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8	-43.4
MSCI EAFE Growth	28.9	28.9	-3.0	4.1	-4.4	22.5	16.9	-12.1	12.2	29.4	-42.7
NTGI Small Cap International Index	31.0	31.0	4.3	5.5	-5.2	25.6	17.7	-15.2	24.4	50.9	--
MSCI World ex USA Small Cap	31.0	31.0	4.3	5.5	-5.3	25.6	17.5	-15.8	24.5	50.8	-48.0
Segall Bryant & Hamill	33.1	33.1	--	--	--	--	--	--	--	--	--
MSCI EAFE Small Cap	33.0	33.0	2.2	9.6	-4.9	29.3	20.0	-15.9	22.0	46.8	-47.0
William Blair	49.8	49.8	1.8	-14.0	6.2	4.1	22.1	-16.8	23.9	79.0	-62.1
MSCI Emerging Markets IMI	36.8	36.8	9.9	-13.9	-1.8	-2.2	18.7	-19.5	19.9	82.4	-53.8
<b>Hedge Fund Composite</b>	<b>10.7</b>	<b>10.7</b>	<b>-1.1</b>	<b>3.4</b>	<b>5.4</b>	<b>17.6</b>	<b>9.3</b>	<b>-4.7</b>	<b>5.3</b>	--	--
HFRX Equity Hedge Index	10.0	10.0	0.1	-2.3	1.4	11.1	4.8	-19.1	8.9	13.1	-25.5
Rock Creek Georgetown Fund	11.2	11.2	-0.9	4.8	5.2	17.6	9.8	-4.0	6.0	--	--
HFRX Equity Hedge Index	10.0	10.0	0.1	-2.3	1.4	11.1	4.8	-19.1	8.9	13.1	-25.5
K2 Long Short Fund	8.5	8.5	-1.5	2.5	5.5	17.6	8.8	-5.5	4.5	--	--
HFRX Equity Hedge Index	10.0	10.0	0.1	-2.3	1.4	11.1	4.8	-19.1	8.9	13.1	-25.5
Parametric Defensive Equity	--	--	--	--	--	--	--	--	--	--	--
50% S&P 500/50% 91 Day T-Bill	10.9	10.9	6.1	0.9	6.7	15.3	7.9	1.4	7.8	13.3	-19.4
Neuberger Berman S&P 500 PutWrite	--	--	--	--	--	--	--	--	--	--	--
CBOE Put Write Index	10.8	10.8	7.8	6.4	6.4	12.3	8.1	6.2	9.0	31.5	-26.8

## Investment Manager

## Calendar Performance (Net of Fees)

Market Value: \$4,289.1 Million and 100.0% of Fund

Ending December 31, 2017

	YTD	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Real Estate Composite</b>	<b>5.4</b>	<b>5.4</b>	<b>7.6</b>	<b>14.2</b>	<b>11.7</b>	<b>12.4</b>	<b>9.3</b>	<b>15.3</b>	<b>16.9</b>	<b>-31.8</b>	<b>-16.2</b>
<i>NPI</i>	5.1	5.1	8.0	13.3	11.8	11.0	10.5	14.3	13.1	-16.9	-6.5
<b>Open-End Real Estate Comp</b>	<b>5.8</b>	<b>5.8</b>	<b>7.4</b>	<b>14.6</b>	<b>11.5</b>	<b>12.7</b>	<b>10.7</b>	<b>15.0</b>	<b>14.8</b>	<b>-31.6</b>	<b>-11.1</b>
<i>NFI</i>	4.7	4.7	7.8	13.9	11.5	12.9	9.8	15.0	15.3	-30.4	-10.7
American Core Realty Fund, LLC	7.1	7.1	6.1	14.3	10.6	11.3	10.2	13.8	10.0	-30.8	-6.3
<i>NFI</i>	4.7	4.7	7.8	13.9	11.5	12.9	9.8	15.0	15.3	-30.4	-10.7
AFL-CIO Building Investment Trust	4.4	4.4	6.8	14.3	12.0	9.7	10.8	12.5	13.0	-25.5	-10.1
<i>NFI</i>	4.7	4.7	7.8	13.9	11.5	12.9	9.8	15.0	15.3	-30.4	-10.7
JPMorgan Strategic Property Fund	6.3	6.3	7.3	14.1	10.1	14.8	11.0	14.9	13.0	-27.1	-9.0
<i>NFI</i>	4.7	4.7	7.8	13.9	11.5	12.9	9.8	15.0	15.3	-30.4	-10.7

# FIS Group Composite

# Annualized Performance (Net of Fees)

Market Value: \$156.0 Million and 3.6% of Fund

## Ending December 31, 2017

## Inception

	Market Value	% of Portfolio	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	10 Yrs	Return	Since
<b>FIS Group Composite</b>	<b>156,034,938</b>	<b>100.0</b>	<b>1.0</b>	<b>4.7</b>	<b>20.2</b>	<b>14.7</b>	<b>9.2</b>	<b>8.6</b>	<b>13.0</b>	--	<b>13.1</b>	<b>Jul-10</b>
<i>FIS Group Dynamic Benchmark</i>			1.5	5.0	20.9	16.9	10.3	9.4	13.3	8.1	13.7	Jul-10
<b>FIS Group U.S. Equity</b>	<b>72,264,554</b>	<b>46.3</b>	<b>-0.5</b>	<b>4.1</b>	<b>13.8</b>	<b>14.0</b>	<b>8.1</b>	<b>8.6</b>	<b>13.5</b>	--	<b>13.2</b>	<b>Jul-10</b>
<i>FIS Group U.S. Equity Benchmark</i>			0.3	4.4	13.8	15.1	9.3	9.4	14.1	8.4	14.0	Jul-10
Edgar Lomax	11,750,888	7.5	1.2	7.3	19.3	18.5	10.1	11.5	15.7	--	14.7	Oct-11
<i>Russell 1000 Value</i>			1.5	5.3	13.7	15.5	8.7	9.8	14.0	7.1	14.5	Oct-11
Oakbrook Investment	27,953,759	17.9	0.6	5.9	20.4	18.0	11.6	12.5	16.9	--	16.7	Aug-12
<i>Russell MidCap</i>			0.9	6.1	18.5	16.1	9.6	10.5	15.0	9.1	15.0	Aug-12
Channing	16,906,089	10.8	-2.6	2.5	7.2	17.8	9.9	8.7	14.3	--	10.8	Aug-08
<i>Russell 2000 Value</i>			-1.0	2.0	7.8	19.2	9.5	8.2	13.0	8.2	8.9	Aug-08
Bowling	15,653,818	10.0	-1.2	1.1	--	--	--	--	--	--	10.2	Jan-17
<i>Russell 2000</i>			-0.4	3.3	14.6	17.9	10.0	8.7	14.1	8.7	14.2	Jan-17
<b>FIS Group Non-U.S. Equity</b>	<b>83,570,834</b>	<b>53.6</b>	<b>2.4</b>	<b>5.4</b>	<b>29.4</b>	<b>11.5</b>	<b>8.9</b>	<b>5.2</b>	<b>8.9</b>	--	<b>9.9</b>	<b>Aug-12</b>
<i>FIS Group Non-U.S. Equity Benchmark</i>			2.6	5.6	29.2	15.2	9.1	5.5	8.4	--	9.7	Aug-12
Martin	15,462,551	9.9	0.0	2.4	--	--	--	--	--	--	19.8	Jan-17
<i>MSCI EAFE</i>			1.6	4.2	25.0	12.4	7.8	4.5	7.9	1.9	21.5	Jan-17
Alpha Architect	19,044,051	12.2	2.9	6.0	--	--	--	--	--	--	19.7	Apr-17
<i>MSCI EAFE</i>			1.6	4.2	25.0	12.4	7.8	4.5	7.9	1.9	13.7	Apr-17
Strategic Global	24,997,235	16.0	2.3	6.2	--	--	--	--	--	--	33.5	Jan-17
<i>MSCI World ex USA Small Cap</i>			2.9	5.8	31.0	16.9	13.0	8.1	11.4	5.2	26.5	Jan-17
Ativo	24,051,477	15.4	3.7	6.0	--	--	--	--	--	--	28.3	Jan-17
<i>MSCI Emerging Markets</i>			3.6	7.4	37.3	23.5	9.1	6.2	4.3	1.7	30.2	Jan-17

\* The FIS Group Dynamic Benchmark is updated monthly account benchmark weightings from the beginning of each month.

# FIS Group Composite

# Calendar Performance (Net of Fees)

Market Value: \$156.0 Million and 3.6% of Fund

Ending December 31, 2017

	Market Value	% of Portfolio	2017	2016	2015	2014	2013	2012
<b>FIS Group Composite</b>	<b>156,034,938</b>	<b>100.0</b>	<b>20.2</b>	<b>9.5</b>	<b>-1.0</b>	<b>6.7</b>	<b>32.6</b>	<b>15.4</b>
<i>FIS Group Dynamic Benchmark</i>			20.9	13.1	-1.9	6.6	30.3	18.5
<b>FIS Group U.S. Equity</b>	<b>72,264,554</b>	<b>46.3</b>	<b>13.8</b>	<b>14.1</b>	<b>-2.7</b>	<b>10.0</b>	<b>35.3</b>	<b>13.4</b>
<i>FIS Group U.S. Equity Benchmark</i>			13.8	16.5	-1.6	9.8	35.2	16.8
Edgar Lomax	11,750,888	7.5	19.3	17.7	-5.0	15.9	33.7	8.1
<i>Russell 1000 Value</i>			13.7	17.3	-3.8	13.5	32.5	17.5
Oakbrook Investment	27,953,759	17.9	20.4	15.6	-0.2	15.1	36.3	--
<i>Russell MidCap</i>			18.5	13.8	-2.4	13.2	34.8	17.3
Channing	16,906,089	10.8	7.2	29.5	-4.4	5.4	39.6	23.6
<i>Russell 2000 Value</i>			7.8	31.7	-7.5	4.2	34.5	18.0
Bowling	15,653,818	10.0	--	--	--	--	--	--
<i>Russell 2000</i>			14.6	21.3	-4.4	4.9	38.8	16.3
<b>FIS Group Non-U.S. Equity</b>	<b>83,570,834</b>	<b>53.6</b>	<b>29.4</b>	<b>-3.8</b>	<b>3.8</b>	<b>-5.1</b>	<b>25.2</b>	<b>--</b>
<i>FIS Group Non-U.S. Equity Benchmark</i>			29.2	2.7	-2.2	-4.6	20.5	--
Martin	15,462,551	9.9	--	--	--	--	--	--
<i>MSCI EAFE</i>			25.0	1.0	-0.8	-4.9	22.8	17.3
Alpha Architect	19,044,051	12.2	--	--	--	--	--	--
<i>MSCI EAFE</i>			25.0	1.0	-0.8	-4.9	22.8	17.3
Strategic Global	24,997,235	16.0	--	--	--	--	--	--
<i>MSCI World ex USA Small Cap</i>			31.0	4.3	5.5	-5.3	25.6	17.5
Ativo	24,051,477	15.4	--	--	--	--	--	--
<i>MSCI Emerging Markets</i>			37.3	11.2	-14.9	-2.2	-2.6	18.2

\* The FIS Group Dynamic Benchmark is updated monthly account benchmark weightings from the beginning of each month.

# Annuity & Benefit Fund

# Inception Performance (Net of Fees)

Ending December 31, 2017

Asset Class	Benchmark	Manager	From	Performance		Difference
				Manager	Benchmark	
SMID-Cap Value Equity	Custom Benchmark <sup>1</sup>	Ariel	July-84	12.8%	11.8%	1.0%
Large-Cap Value Equity	Russell 1000 Value	Great Lakes	April-91	10.6%	10.3%	0.3%
Small-Cap Value Equity	Custom Benchmark	Keeley	January-93	11.6%	10.9%	0.7%
Enhanced Index Fixed Income	BarCap Aggregate	Neuberger Berman	June-01	4.9%	4.7%	0.2%
International Growth Equity	MSCI EAFE	Cornerstone	December-04	7.4%	5.5%	1.9%
International Growth Equity	MSCI EAFE	Walter Scott	December-04	7.2%	5.5%	1.7%
International Value Equity	MSCI EAFE Value	LSV	May-05	6.4%	4.8%	1.6%
Int'l Emerging Core Equity	MSCI EM	William Blair	August-05	9.2%	8.0%	1.2%
Large-Cap Core Equity	S&P 500	Rhumblin	September-08	10.7%	10.6%	0.1%
International Core Equity	MSCI ACWI ex. U.S.	NTGI ACWI ex. U.S.	November-08	9.2%	8.9%	0.3%
Int'l Small-Cap Equity	MSCI Small-Cap International	MSCI World Ex USA Small Cap	November-08	13.8%	13.6%	0.2%
Hedged Equity Fund of Funds	HFRX Hedged Equity	K2 Advisors	February-09	5.2%	2.7%	2.5%
Hedged Equity Fund of Funds	HFRX Hedged Equity	Rock Creek	February-09	6.2%	2.7%	3.5%
Core Fixed Income	BarCap Aggregate	LM Capital	April-09	4.2%	4.0%	0.2%
Fixed Income - Intermediate	BarCap Int. Gov/Credit	Segall, Bryant, & Hamill	May-09	3.6%	3.2%	0.4%
Fixed Income - High Yield	BarCap High Yield	MacKay Shields	May-09	10.0%	11.0%	-1.0%
Fixed Income - Senior Loan	CSFB Leveraged Loan	Symphony	September-09	6.4%	6.0%	0.4%
Core Fixed Income	BarCap Aggregate	UBS	August-10	3.2%	3.0%	0.2%
Opportunistic Fixed Income	50% BarCap HY/50% CSFB LL	Crescent Capital	July-16	7.9%	8.3%	-0.4%
Int'l Small-Cap Equity	MSCI EAFE Small Cap	Segall, Bryant, & Hamill	September-16	23.4%	22.8%	0.6%
Defensive Equity	50% S&P 500/50% 91 Day T-Bill	Parametric	July-17	4.5%	4.8%	-0.3%
Defensive Equity	CBOE S&P 500 Putwrite Index	Neuberger Berman	August-17	3.1%	3.1%	0.0%
Mid-Cap Growth Equity	S&P 400 Growth	Rhumblin	September-17	7.1%	7.1%	0.0%

<sup>1</sup> Ariel Custom Benchmark is Russell 2500 Value, and prior to March 2002, the Russell 2000 Value.

Market Value: \$4,289.1 Million and 100.0% of Fund

**RISK RETURN STATISTICS**

January 01, 2013 Through December 31, 2017

Total Fund Composite

Policy Benchmark

**RETURN SUMMARY STATISTICS**

Number of Periods	60	60
Maximum Return	4.34	4.22
Minimum Return	-3.39	-3.51
Annualized Return	8.82	8.11
Total Return	52.63	47.66
Annualized Excess Return Over Risk Free	8.56	7.84
Annualized Excess Return	0.72	0.00

**RISK SUMMARY STATISTICS**

Beta	1.01	1.00
Upside Deviation	3.58	3.47
Downside Deviation	3.60	3.32

**RISK/RETURN SUMMARY STATISTICS**

Annualized Standard Deviation	5.40	5.24
Alpha	0.05	0.00
Sharpe Ratio	1.59	1.50
Excess Return Over Market / Risk	0.13	0.00
Tracking Error	1.03	0.00
Information Ratio	0.70	--

**CORRELATION STATISTICS**

R-Squared	0.96	1.00
Correlation	0.98	1.00

Market Proxy: Policy Benchmark

Risk-Free Proxy: 91 Day T-Bills

- The Policy Benchmark is 27% BarCap Aggregate, 26% Wilshire 5000, 22% MSCI ACWI ex-US, 10% HFRX Hedged Equity, 10% NCREIF Property Index, 5% Venture Economics Private Equity Index. Prior to September 2013, the Policy Benchmark is 25% BarCap Aggregate, 25% Wilshire 5000, 20% MSCI ACWI ex-US, 10% HFRX Hedged Equity, 10% NCREIF Property Index, 10% Venture Economics Private Equity Index. Prior to February 2009, the Policy Benchmark is 25% BarCap Aggregate, 55% Wilshire 5000, 10% MSCI ACWI ex-US, 6% NCREIF Property Index, 4% Venture Economics Private Equity Index.

- All Data is to be considered preliminary until the release of the final quarterly report.

- Closed End Real Estate and Private Equity Composites may not include current performance, due to reporting cycle limitations.