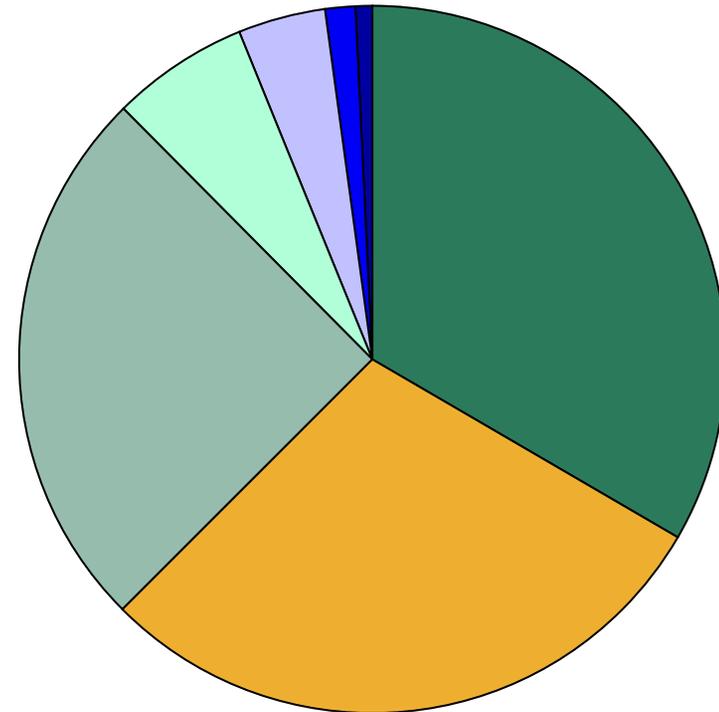
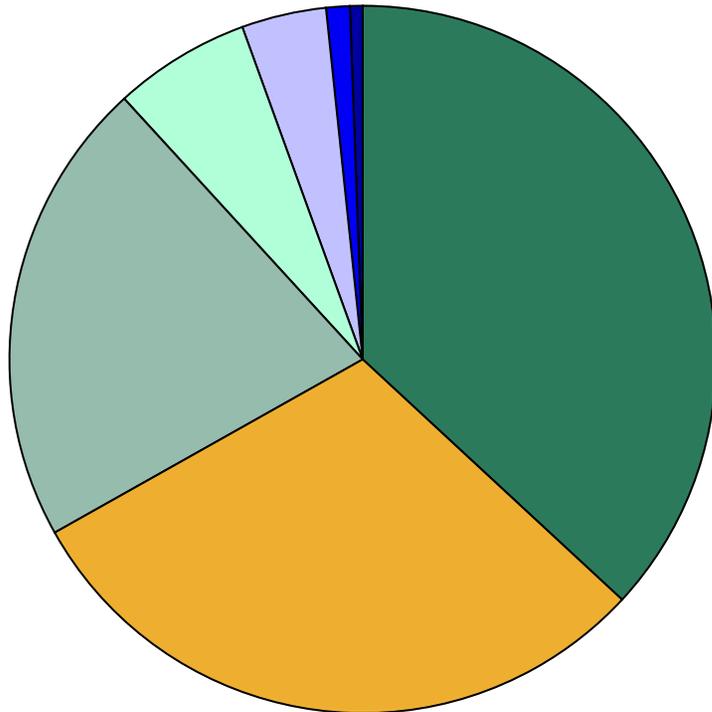


September 30, 2016 : \$2,156,012,991

December 31, 2016 : \$2,119,496,984



	Market Value (\$)	Allocation (%)
Fixed Income Composite	795,198,988	36.88
Domestic Equity Composite	646,246,503	29.97
International Equity Composite	460,114,407	21.34
Real Estate Composite	135,034,987	6.26
Hedge Fund Composite	83,495,247	3.87
Private Equity Composite	23,357,424	1.08
In House Cash	12,565,435	0.58

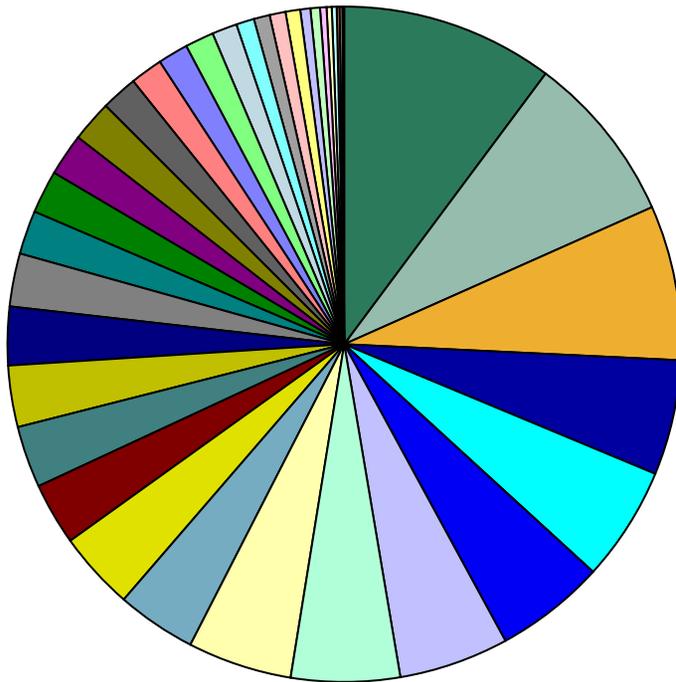
	Market Value (\$)	Allocation (%)
Fixed Income Composite	707,637,059	33.39
Domestic Equity Composite	617,345,164	29.13
International Equity Composite	530,717,346	25.04
Real Estate Composite	133,453,937	6.30
Hedge Fund Composite	84,753,107	4.00
Private Equity Composite	29,307,424	1.38
In House Cash	16,282,947	0.77

As of December 31, 2016

December 31, 2016 : \$2,119,496,984

Market Value (\$) **Allocation (%)**

Brandywine	216,213,090	10.20
Rhumblin S&P 500	172,614,994	8.14
Mackay Shields	156,951,408	7.41
1607 Capital Partners	116,907,433	5.52
Marathon Asset Mgmt	116,596,216	5.50
PIMCO	112,177,616	5.29
Smith Graham	111,762,855	5.27
Prudential Core Conserv Bond	110,532,090	5.22
Acadian EM Equity II	106,082,947	5.01
J.P. Morgan Global Emerging Markets Discovery Fund	80,692,741	3.81
Principal Global Investors	79,666,440	3.76
Barrow, Hanley	63,236,430	2.98
Winslow Capital Management	62,515,263	2.95
Herndon Capital Management	62,409,399	2.94
NTGI S&P 400	59,170,369	2.79
Navellier and Associates Inc.	53,903,597	2.54
Capital Prospects LLC	44,329,543	2.09
BlackRock Granite Property Fund	43,532,488	2.05
Grosvenor Institutional Partners, L.P.	42,831,378	2.02
Aetos	41,921,729	1.98
Nicholas Investment Partners	36,934,967	1.74
Paradigm Small Cap	33,022,451	1.56
Strategic Global Advisors	30,771,570	1.45
SouthernSun	29,208,150	1.38
Vanguard REIT Index Inv	25,450,197	1.20
Long Wharf Real Estate Partners IV, L.P.	18,301,579	0.86
In House Cash	16,282,947	0.77
Pantheon Global Secondary Fund V	16,212,444	0.76
RREEF REIT II	14,894,305	0.70
NB Crossroads Fund XXI	10,235,720	0.48
Gerding Edlen Green Cities III, L.P.	9,730,707	0.46
Cornerstone (Barings) Real Estate Advisers Fund X	6,632,008	0.31
Long Wharf RE Partners V, L.P.	5,202,086	0.25
TA Realty Fund XI	4,886,325	0.23
SSM Partners Fund V	2,859,260	0.13
Long Wharf Real Estate Partners	2,799,012	0.13
Cornerstone (Barings) Real Estate Advisers VIII	2,025,231	0.10



City of Memphis
Asset Allocation Comparison

Portfolio Value 12/31/16

\$2,119,496,984

Target Allocations

Equity

Large Cap Equity	17.00%	(000) \$360,314
Mid/SMID Cap Equity	5.00%	\$105,975
Small Cap Equity	5.00%	\$105,975
Domestic Equity	27.00%	\$572,264
Developed International	18.50%	\$392,107
Emerging Markets	8.50%	\$180,157
International	27.00%	\$572,264
Equity Total	54.00%	\$1,144,528

Fixed Income

Core Fixed Income	12.00%	\$254,340
Global Fixed Income	10.00%	\$211,950
Global High Yield	6.00%	\$127,170
Fixed Income Total	28.00%	\$593,459

Real Estate

Core/Value Add/REITs	10.00%	\$211,950
Real Estate Total	10.00%	\$211,950

Private Equity

Secondary	2.00%	
Diversified FoF	2.00%	
Private Equity Total	4.00%	\$84,780

Hedge Fund of Funds

	4.00%	
Hedge Fund of Funds Total	4.00%	\$84,780

Internal Account

	0.00%	\$0
Cash	0.00%	\$0

Total	100%	\$2,119,497
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Current Managers & Allocations

Barrow, Hanley (large cap value)	2.98%	(000) \$63,236
Herndon Capital (large cap value)	2.94%	\$62,409
Navellier and Associates (large cap growth)	2.54%	\$53,904
Winslow (large cap growth)	2.95%	\$62,515
Rhumbline S&P 500 (large cap core)	8.14%	\$172,615
Northern Trust (mid cap core)	2.79%	\$59,170
Capital Prospects SMID Cap*	2.09%	\$44,330
SouthernSun (small cap value)	1.38%	\$29,208
Paradigm (small cap growth)	1.56%	\$33,022
Nicholas (small cap growth)	1.74%	\$36,935
Domestic Equity	29.13%	\$617,345
1607 Capital Partners	5.52%	\$116,907
Principal Global Investors	3.76%	\$79,666
Marathon Asset Mgmt	5.50%	\$116,596
Strategic Global Advisors	1.45%	\$30,772
Acadian	5.01%	\$106,083
JPMorgan	3.81%	\$80,693
International	25.04%	\$530,717
Equity Total	54.17%	\$1,148,063

Fixed Income

PIMCO	5.29%	\$112,178
Prudential Core Conserv Bond	5.22%	\$110,532
Smith Graham	5.27%	\$111,763
Brandywine	10.20%	\$216,213
Mackay Shields	7.41%	\$156,951
Fixed Income Total	33.39%	\$707,637

Real Estate

BlackRock Granite Property Fund	2.05%	\$43,532
RREEF REIT II	0.70%	\$14,894
Vanguard REIT Index	1.20%	\$25,450
Long Wharf Real Estate Partners	0.13%	\$2,799 (Total Commitment \$35M, Total Drawn \$31.9M, Total Distributed \$39.1M)
Long Wharf Real Estate Partners IV	0.86%	\$18,302 (Total Commitment \$20M, Total Drawn \$20.0M, Total Distributed \$7.9M)
Long Wharf Real Estate Partners Fund V	0.25%	\$5,202 (Total Commitment \$20M, Total Drawn \$5.5M, Total Distributed \$0.2M)
Cornerstone (Barings) Real Estate Fund VIII ¹	0.10%	\$2,025 (Total Commitment \$10M, Total Drawn \$11.0M, Total Distributed \$13.0M)
Cornerstone (Barings) Real Estate Fund X ¹	0.31%	\$6,632 (Total Commitment \$10M, Total Drawn \$6.4M, Total Distributed \$0.5M)
Gerding Edlen Green Cities III	0.46%	\$9,731 (Total Commitment \$20M, Total Drawn \$13.7M, Total Distributed \$4.1M)
TA Realty Fund XI	0.23%	\$4,886 (Total Commitment \$20M, Total Drawn \$5.0M, Total Distributed \$0.0M)
Real Estate Total	6.30%	\$133,454

Private Equity

Pantheon Global Secondary Fund V	0.76%	\$16,212 (Total Commitment \$50M, Total Drawn \$13.5M, Total Distributed \$0.0M)
SSM Partners V*	0.13%	\$2,859 (Total Commitment \$10M, Total Drawn \$2.8, Total Distributed \$0.0M)
Neuberger Berman Crossroads XXI	0.48%	\$10,236 (Total Commitment \$50M, Total Drawn \$10.5M, Total Distributed \$0.0M)
Private Equity Total	1.38%	\$29,307

Hedge Fund of Funds

Aetos	1.98%	\$41,922
Grovesnor	2.02%	\$42,831
Hedge Fund of Funds Total	4.00%	\$84,753

Internal Account

	0.77%	\$16,283
Cash	0.77%	\$16,283

Total	100%	\$2,119,497
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*Emerging Managers

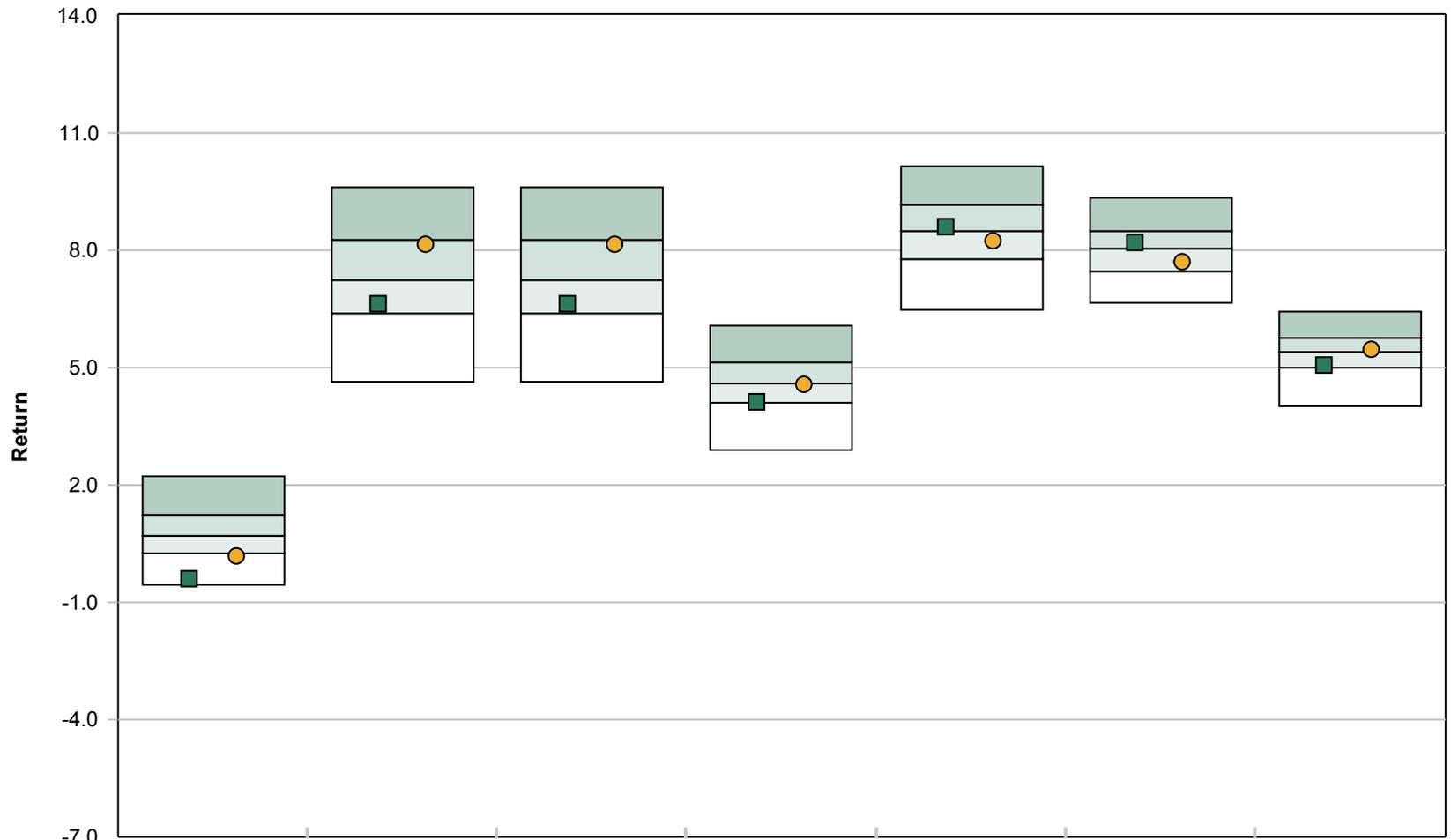
¹ Cornerstone Real Estate Advisers now operates under the investment adviser name "Barings Real Estate Advisers," however; all predecessor funds retain the name Cornerstone. All new products open to new investors will operate under the name "Barings Real Estate Advisers" moving forward.

As of December 31, 2016

	Performance (%)								
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Fund Composite	-0.40	6.62	6.62	4.10	8.60	8.19	5.02	9.48	10/01/1982
Policy Index	0.19	8.13	8.13	4.54	8.22	7.67	5.45	9.97	
In House Cash	0.06	0.35	0.35	0.21	0.19	0.26	1.02	4.34	10/01/1982
90 Day U.S. Treasury Bill	0.07	0.25	0.25	0.11	0.09	0.10	0.77	4.05	
Domestic Equity Composite	3.51	10.04	10.04	5.74	13.26	12.05	6.58	11.75	10/01/1982
Russell 3000 Index	4.21	12.74	12.74	8.43	14.67	12.92	7.07	11.56	
Fixed Income Composite	-2.82	5.14	5.14	3.17	3.53	4.72	4.31	7.68	10/01/1982
Blmbg. Barc. U.S. Aggregate	-2.98	2.65	2.65	3.03	2.23	3.63	4.34	7.54	
International Equity Composite	-2.12	3.30	3.30	0.56	8.12	5.64	2.32	4.76	01/01/1990
MSCI EAFE (Net)	-0.71	1.00	1.00	-1.60	6.53	3.81	0.75	3.99	
Hedge Fund Composite	1.51	N/A	N/A	N/A	N/A	N/A	N/A	6.32	04/01/2016
90-Day T-Bill+ 5%	1.29	5.27	5.27	5.11	5.09	5.10	5.81	3.93	
Real Estate Composite	0.85	7.79	7.79	14.98	13.86	15.23	5.33	10.46	07/01/1996
NCREIF Property Index	1.73	7.97	7.97	11.02	10.92	11.70	6.93	9.82	

As of December 31, 2016

	Performance (%)									
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Total Fund Composite	0.25	5.55	17.71	13.75	0.72	14.05	22.23	-28.95	8.34	13.62
Policy Index	-0.19	5.86	15.19	12.79	0.77	12.11	19.76	-22.15	8.69	12.80
In House Cash	0.18	0.11	0.11	0.20	0.54	0.36	0.34	2.85	5.26	4.90
90 Day U.S. Treasury Bill	0.03	0.04	0.05	0.08	0.08	0.13	0.17	2.10	4.91	4.76
Domestic Equity Composite	-1.26	8.80	35.55	16.30	0.65	18.23	28.67	-38.44	7.64	16.84
Russell 3000 Index	0.48	12.56	33.55	16.42	1.03	16.93	28.34	-37.31	5.14	15.72
Fixed Income Composite	-0.23	4.70	0.13	8.15	6.69	8.81	18.96	-12.34	5.92	5.55
Blmbg. Barc. U.S. Aggregate	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	5.24	6.97	4.34
International Equity Composite	-0.50	-1.08	20.79	20.28	-12.77	13.91	36.19	-44.94	14.29	22.04
MSCI EAFE (Net)	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78	-43.38	11.17	26.34
Hedge Fund Composite	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
90-Day T-Bill+ 5%	5.03	5.04	5.05	5.08	5.09	5.14	5.17	7.20	10.16	10.00
Real Estate Composite	15.74	21.84	10.64	13.79	13.89	23.78	-24.17	-18.10	0.29	27.85
NCREIF Property Index	13.33	11.82	10.98	10.54	14.26	13.11	-16.85	-6.46	15.85	16.60



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Fund Composite	-0.40 (93)	6.62 (69)	6.62 (69)	4.10 (74)	8.60 (49)	8.19 (41)	5.02 (75)
● Policy Index	0.19 (80)	8.13 (30)	8.13 (30)	4.54 (53)	8.22 (65)	7.67 (69)	5.45 (48)
5th Percentile	2.24	9.60	9.60	6.07	10.16	9.36	6.43
1st Quartile	1.25	8.29	8.29	5.15	9.18	8.47	5.77
Median	0.72	7.23	7.23	4.61	8.51	8.06	5.41
3rd Quartile	0.25	6.37	6.37	4.08	7.79	7.44	5.00
95th Percentile	-0.57	4.64	4.64	2.91	6.47	6.65	4.00

Parentheses contain percentile rankings.
Calculation based on quarterly periodicity.