

# City of Memphis

## Asset Allocation Comparison as of June 30, 2021

\$2,807,522,598

Target Allocations		Current Managers & Allocations			Difference	Range	
<b>Equity</b>		(000)		(000)			
Large Cap Equity	20.00%	\$561,505	Barrow, Hanley (large cap value)	7.20%	\$202,125	3.39%	15%-25%
			Rhumblin Russell 1000 Growth (large cap growth)	3.17%	\$89,137		
			Winslow (large cap growth)	3.71%	\$104,296		
			Rhumblin S&P 500 (large cap core)	9.30%	\$261,013		
Mid/SMID Cap Equity	4.00%	\$112,301	Northern Trust (mid cap core)	2.29%	\$64,423	0.54%	0%-7%
			Capital Prospects SMID Cap*	2.24%	\$62,985		
Small Cap Equity	4.00%	\$112,301	Capital Prospects Small Cap Value*	2.05%	\$57,543	0.31%	0%-7%
			Conestoga (small cap growth)	1.15%	\$32,360		
			Nicholas (small cap growth)	1.11%	\$31,226		
<b>Domestic Equity</b>	<b>28.00%</b>	<b>\$786,106</b>	<b>Domestic Equity</b>	<b>32.24%</b>	<b>\$905,109</b>	<b>4.24%</b>	<b>18%-38%</b>
Developed International	15.00%	\$421,128	1607 Capital Partners	4.77%	\$133,833	1.64%	10%-20%
			Principal Global Investors	4.70%	\$131,921		
			Marathon Asset Mgmt	4.83%	\$135,479		
			Strategic Global Advisors	2.34%	\$65,823		
Emerging Markets	7.00%	\$196,527	Acadian	4.35%	\$122,068	1.65%	5%-12%
			JPMorgan	4.30%	\$120,839		
<b>International</b>	<b>22.00%</b>	<b>\$617,655</b>	<b>International</b>	<b>25.29%</b>	<b>\$709,963</b>	<b>3.29%</b>	<b>15%-30%</b>
<b>Equity Total</b>	<b>50.00%</b>	<b>\$1,403,761</b>	<b>Equity Total</b>	<b>57.53%</b>	<b>\$1,615,072</b>	<b>7.53%</b>	
<b>Fixed Income</b>							
Core Fixed Income	13.00%	\$364,978	PIMCO	3.62%	\$101,573	-1.46%	8%-18%
			Prudential Core Conserv Bond	3.98%	\$111,647		
			Smith Graham	3.94%	\$110,667		
Global Fixed Income	8.00%	\$224,602	Brandywine	8.59%	\$241,243	0.59%	3%-13%
Global High Yield	5.00%	\$140,376	Mackay Shields	5.62%	\$157,676	0.62%	2%-10%
<b>Fixed Income Total</b>	<b>26.00%</b>	<b>\$729,956</b>	<b>Fixed Income Total</b>	<b>25.75%</b>	<b>\$722,806</b>	<b>-0.25%</b>	<b>18%-34%</b>

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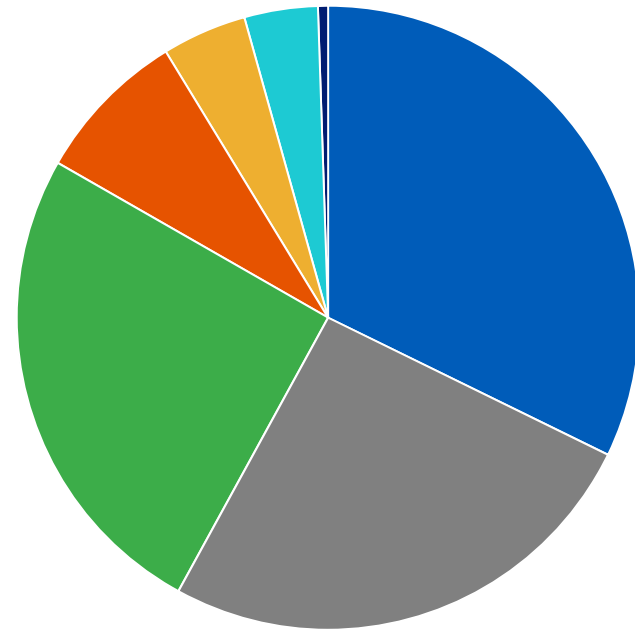
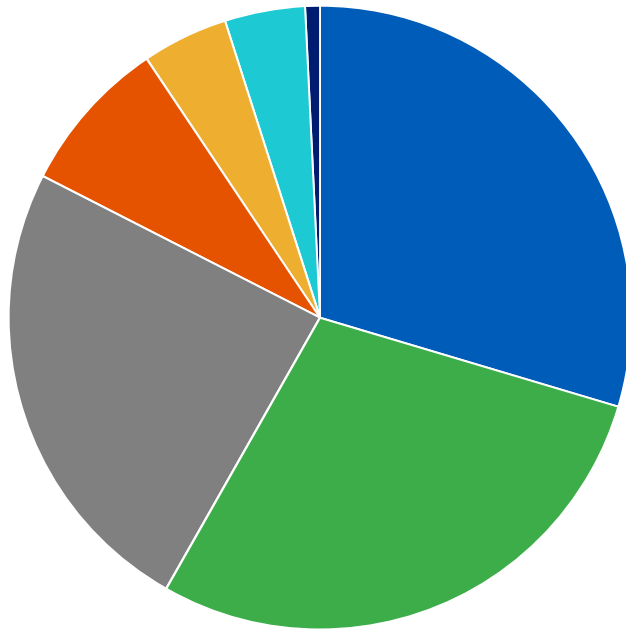
## Asset Allocation Comparison as of June 30, 2021

Target Allocations		Current Managers & Allocations		Difference	Range
<b>Real Estate</b>					
Core/Value Add/REITs	10.00%	\$280,752	BlackRock US Core Property Fund	2.28%	\$64,103
			RREEF REIT II	0.60%	\$16,906
			Vanguard REIT Index	0.59%	\$16,557
			TA Realty Core Property Fund	0.86%	\$24,205
			Long Wharf Real Estate Partners IV	0.05%	\$1,364 (Total Commitment \$20M, Total Drawn \$21.5M, Total Distributed \$29.5M)
			Long Wharf Real Estate Partners Fund V	0.49%	\$13,877 (Total Commitment \$20M, Total Drawn \$20.0M, Total Distributed \$11.6M)
			Long Wharf Real Estate Partners Fund VI	0.19%	\$5,249 (Total Commitment \$20M, Total Drawn \$7.6M, Total Distributed \$3.3M)
			Cornerstone (Barings) Real Estate Fund X <sup>1</sup>	0.23%	\$6,410 (Total Commitment \$10M, Total Drawn \$8.3M, Total Distributed \$4.8M)
			Gerding Edlen Green Cities III	0.76%	\$21,356 (Total Commitment \$20M, Total Drawn \$23.6M, Total Distributed \$6.6M)
			Gerding Edlen Green Cities IV	0.23%	\$6,389 (Total Commitment \$20M, Total Drawn \$7.3, Total Distributed \$0.5M)
			TA Realty Fund XI	0.71%	\$19,955 (Total Commitment \$20M, Total Drawn \$20.0M, Total Distributed \$8.1M)
			Mesirov Financial Real Estate Value Fund III	0.76%	\$21,427 (Total Commitment \$20M, Total Drawn \$20.7M, Total Distributed \$1.9M)
			Dune Real Estate Partners Fund IV	0.24%	\$6,706 (Total Commitment \$30M, Total Drawn \$10.6M, Total Distributed \$0.5M)
<b>Real Estate Total</b>	<b>10.00%</b>	<b>\$280,752</b>	<b>Real Estate Total</b>	<b>8.00%</b>	<b>\$224,503</b>
				<b>-2.00%</b>	<b>5%-15%</b>
<b>Private Equity</b>					
Secondary	2.50%		Pantheon Global Secondary Fund V	1.27%	\$35,730 (Total Commitment \$50M, Total Drawn \$37.2M, Total Distributed \$20.3M)
Direct Private Equity			SSM Growth Equity Fund II*	0.19%	\$5,267 (Total Commitment \$10M, Total Drawn \$8.9, Total Distributed \$5.3M)
			SSM Growth Equity Fund III*	0.27%	\$7,680 (Total Commitment \$10M, Total Drawn \$7.7, Total Distributed \$0.8M)
Diversified FoF	2.50%		Neuberger Berman Crossroads XXI	2.08%	\$58,490 (Total Commitment \$50M, Total Drawn \$36.5M, Total Distributed \$7.4M)
<b>Private Equity Total</b>	<b>5.00%</b>	<b>\$140,376</b>		<b>3.82%</b>	<b>\$107,167</b>
				<b>-1.18%</b>	<b>3%-7%</b>
<b>Private Credit</b>					
	5.00%		Brightwood Capital Fund V - \$10M		
			Churchill Middle Market Senior Loan Fund III - \$10M		
			Neuberger Berman Private Debt Fund IV - \$30M		
<b>Private Credit Total</b>	<b>5.00%</b>	<b>\$140,376</b>		<b>0.00%</b>	<b>\$0</b>
				<b>-5.00%</b>	<b>3%-7%</b>
<b>Hedge Fund of Funds</b>					
	4.00%		Aetos	1.93%	\$54,046
			Grosvenor	2.04%	\$57,214
			Preserver, LP*	0.43%	\$11,944
<b>Hedge Fund of Funds Total</b>	<b>4.00%</b>	<b>\$112,301</b>		<b>4.39%</b>	<b>\$123,204</b>
				<b>0.39%</b>	<b>2%-6%</b>
Internal Account	0.00%	\$0	Internal Account	0.53%	\$14,770
<b>Cash</b>	<b>0.00%</b>	<b>\$0</b>	<b>Cash</b>	<b>0.53%</b>	<b>\$14,770</b>
				<b>0.53%</b>	<b>0%-5%</b>
<b>Total</b>	<b>100%</b>	<b>\$2,807,523</b>	<b>Total</b>	<b>100%</b>	<b>\$2,807,523</b>

<sup>1</sup> 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 Adviser

March 31, 2021 : \$2,677,557,985

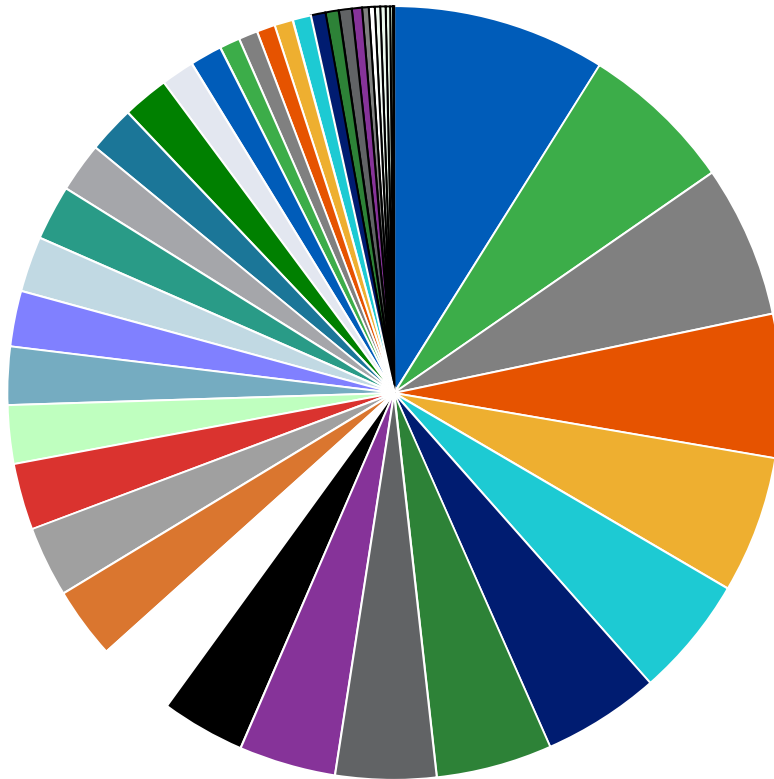
June 30, 2021 : \$2,807,522,598



	Market Value (\$)	Allocation (%)
Domestic Equity Composite	792,892,533	29.6
International Equity Composite	766,165,374	28.6
Fixed Income Composite	650,002,264	24.3
Total Real Estate Composite	216,697,053	8.1
Hedge Fund Composite	119,526,148	4.5
Private Equity Composite	111,743,470	4.2
In House Cash	20,531,143	0.8

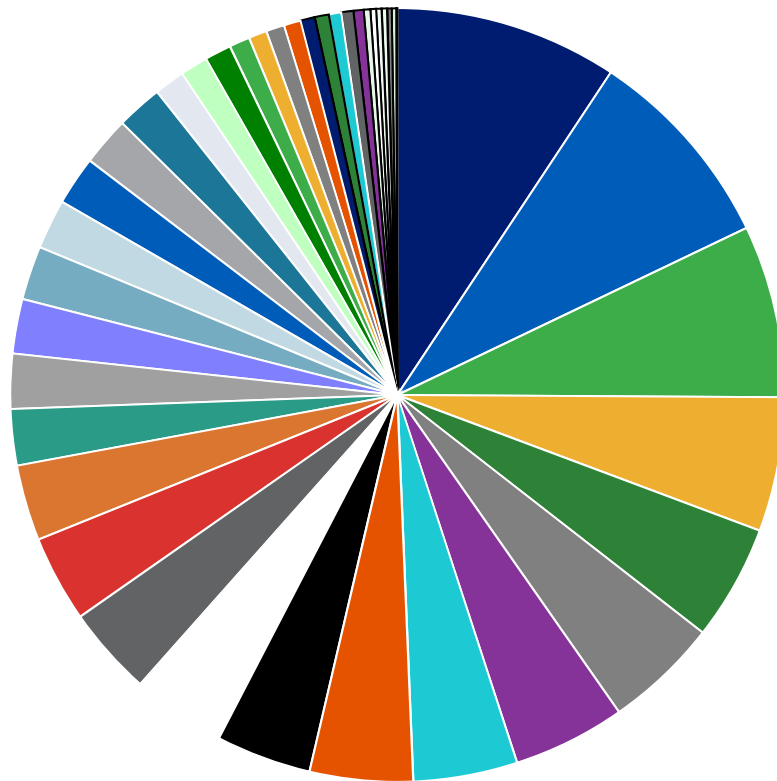
	Market Value (\$)	Allocation (%)
Domestic Equity Composite	905,108,727	32.2
Fixed Income Composite	722,806,278	25.7
International Equity Composite	709,963,208	25.3
Total Real Estate Composite	224,502,865	8.0
Hedge Fund Composite	123,204,244	4.4
Private Equity Composite	107,167,369	3.8
In House Cash	14,769,907	0.5

March 31, 2021 : \$2,677,557,985



	Market Value (\$)	Allocation (%)
Brandywine	238,544,291	8.9
Barrow, Hanley	172,398,240	6.4
1607 Capital Partners	170,268,834	6.4
J.P. Morgan Global Emerging Markets Discovery Fund	160,583,187	6.0
Mackay Shields	153,275,762	5.7
Acadian EM Equity II	135,388,130	5.1
Rhumline S&P 500	131,330,711	4.9
Marathon Asset Mgmt	129,866,840	4.9
Winslow Capital Management	112,665,410	4.2
Principal Global Investors	108,284,856	4.0
Prudential Core Conserv Bond	93,636,992	3.5
Smith Graham	90,057,231	3.4
Rhumline Russell 1000 Growth	79,644,010	3.0
NTGI S&P 400	78,918,250	2.9
PIMCO	74,487,988	2.8
Conestoga Capital Advisors	65,518,008	2.4
Capital Prospects SMID	64,826,256	2.4
BlackRock US Core Property Fund	62,333,401	2.3
NB Crossroads Fund XXI	62,107,743	2.3
Strategic Global Advisors	61,773,527	2.3
Grosvenor Institutional Partners, L.P.	55,380,899	2.1
Aetos	52,664,851	2.0
Nicholas Investment Partners	51,712,282	1.9
Pantheon Global Secondary Fund V	37,230,069	1.4
Capital Prospects Small Cap Value	35,879,366	1.3
TA Realty Core Property Fund	22,990,167	0.9
Gerding Edlen Green Cities III, L.P.	21,254,595	0.8
TA Realty Fund XI	20,751,303	0.8
Mesirow Real Estate Value Fund III, L.P.	20,692,903	0.8
In House Cash	20,531,143	0.8
RREEF REIT II	16,446,984	0.6
Vanguard REIT Index Inv	14,826,153	0.6
Long Wharf RE Partners V, L.P.	14,275,839	0.5
Preserver, L.P.	11,480,399	0.4
SSM Partners Growth Equity II L.P.	7,301,007	0.3
Dune Real Estate Fund IV	6,705,974	0.3
Cornerstone (Barings) Real Estate Advisers Fund X	6,225,624	0.2
Gerding Edlen Green Cities IV, L.P.	5,716,123	0.2
SSM Partners Growth Equity III, L.P.	5,104,651	0.2
Long Wharf RE Partners VI, L.P.	2,988,048	0.1
Long Wharf Real Estate Partners IV, L.P.	1,489,937	0.1

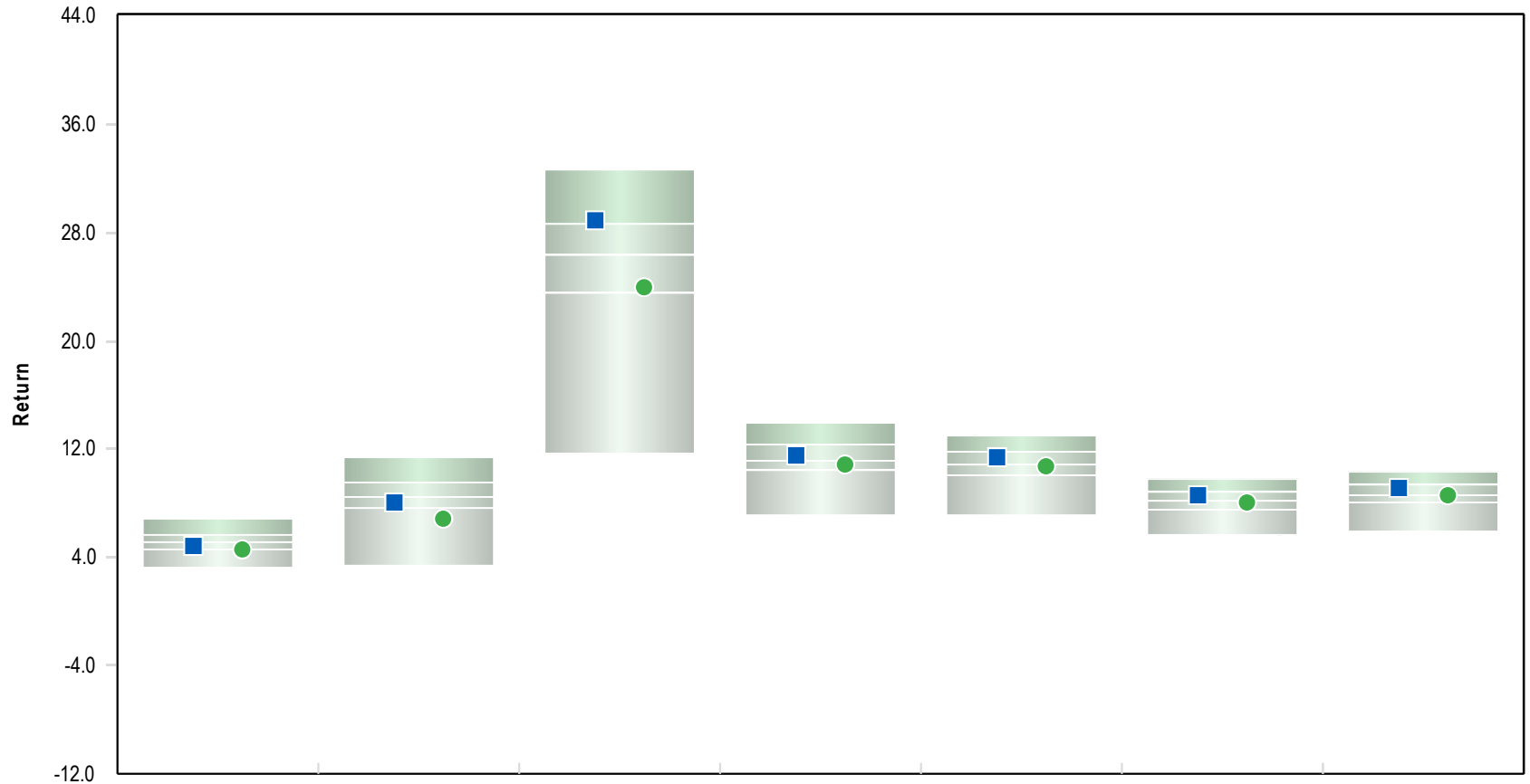
June 30, 2021 : \$2,807,522,598



	Market Value (\$)	Allocation (%)
Rhumblin S&P 500	261,012,961	9.3
Brandywine	241,243,483	8.6
Barrow, Hanley	202,124,717	7.2
Mackay Shields	157,675,531	5.6
Marathon Asset Mgmt	135,478,615	4.8
1607 Capital Partners	133,833,231	4.8
Principal Global Investors	131,920,915	4.7
Acadian EM Equity II	122,068,247	4.3
J.P. Morgan Global Emerging Markets Discovery Fund	120,838,974	4.3
Prudential Core Conserv Bond	111,647,005	4.0
Smith Graham	110,666,956	3.9
Winslow Capital Management	104,295,659	3.7
PIMCO	101,573,303	3.6
Rhumblin Russell 1000 Growth	89,136,995	3.2
Strategic Global Advisors	65,823,226	2.3
NTGI S&P 400	64,423,078	2.3
BlackRock US Core Property Fund	64,102,764	2.3
Capital Prospects SMID	62,985,113	2.2
NB Crossroads Fund XXI	58,489,939	2.1
Capital Prospects Small Cap Value	57,543,302	2.0
Grosvenor Institutional Partners, L.P.	57,214,231	2.0
Aetos	54,046,427	1.9
Pantheon Global Secondary Fund V	35,730,069	1.3
Conestoga Capital Advisors	32,360,442	1.2
Nicholas Investment Partners	31,226,459	1.1
TA Realty Core Property Fund	24,205,088	0.9
Mesirov Real Estate Value Fund III, L.P.	21,426,640	0.8
Gerding Edlen Green Cities III, L.P.	21,355,550	0.8
TA Realty Fund XI	19,954,895	0.7
RREEF REIT II	16,906,369	0.6
Vanguard REIT Index Inv	16,556,813	0.6
In House Cash	14,769,907	0.5
Long Wharf RE Partners V, L.P.	13,876,639	0.5
Preserver, L.P.	11,943,586	0.4
SSM Partners Growth Equity III, LP	7,680,446	0.3
Dune Real Estate Fund IV	6,705,974	0.2
Cornerstone (Barings) Real Estate Advisers Fund X	6,409,823	0.2
Gerding Edlen Green Cities IV, L.P.	6,388,918	0.2
SSM Partners Growth Equity II L.P.	5,266,915	0.2
Long Wharf RE Partners VI, L.P.	5,249,305	0.2
Long Wharf Real Estate Partners IV, L.P.	1,364,089	0.0

	<u>Performance (%)</u>								
	<u>1 Quarter</u>	<u>Year To Date</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>7 Years</u>	<u>10 Years</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Fund Composite</b>	<b>4.82</b>	<b>8.01</b>	<b>28.86</b>	<b>11.55</b>	<b>11.38</b>	<b>8.55</b>	<b>9.12</b>	<b>9.75</b>	<b>10/01/1982</b>
<i>Policy Index</i>	4.53	6.89	23.96	10.92	10.70	8.11	8.60	10.08	
<b>In House Cash</b>	<b>0.01</b>	<b>0.02</b>	<b>0.00</b>	<b>1.18</b>	<b>1.03</b>	<b>0.80</b>	<b>0.62</b>	<b>3.96</b>	<b>10/01/1982</b>
<i>90 Day U.S. Treasury Bill</i>	0.00	0.02	0.09	1.34	1.16	0.85	0.61	3.73	
<b>Domestic Equity Composite</b>	<b>7.33</b>	<b>15.47</b>	<b>47.67</b>	<b>18.09</b>	<b>18.19</b>	<b>13.17</b>	<b>14.00</b>	<b>12.48</b>	<b>10/01/1982</b>
<i>Russell 3000 Index</i>	8.24	15.11	44.16	18.73	17.89	13.95	14.70	12.28	
<i>Domestic Equity Index</i>	7.21	15.32	46.84	17.45	17.29	13.42	14.32	N/A	
<b>Fixed Income Composite</b>	<b>1.91</b>	<b>0.12</b>	<b>7.69</b>	<b>6.35</b>	<b>4.75</b>	<b>4.35</b>	<b>4.61</b>	<b>7.44</b>	<b>10/01/1982</b>
<i>Fixed Income Index</i>	1.82	-0.89	4.18	5.36	3.76	3.52	4.01	7.27	
<b>International Equity Composite</b>	<b>6.68</b>	<b>9.80</b>	<b>42.30</b>	<b>12.32</b>	<b>13.83</b>	<b>8.21</b>	<b>8.50</b>	<b>6.06</b>	<b>01/01/1990</b>
<i>International Equity Index</i>	5.14	8.44	35.18	9.30	11.18	5.53	5.74	5.62	
<b>Hedge Fund Composite</b>	<b>3.08</b>	<b>4.00</b>	<b>17.29</b>	<b>6.33</b>	<b>6.50</b>	<b>N/A</b>	<b>N/A</b>	<b>6.60</b>	<b>04/01/2016</b>
<i>90-Day T-Bill+ 5%</i>	1.23	2.49	5.10	6.41	6.22	5.90	5.64	6.18	
<i>HFRI FOF: Conservative Index</i>	1.82	5.48	14.62	5.20	4.99	3.43	3.44	4.85	
<b>Core Private Real Estate Composite</b>	<b>4.70</b>	<b>8.26</b>	<b>11.81</b>	<b>7.44</b>	<b>7.04</b>	<b>8.96</b>	<b>9.74</b>	<b>8.30</b>	<b>09/01/1999</b>
<i>NCREIF Property Index</i>	0.00	1.72	3.65	4.27	5.38	7.18	8.41	8.41	

	<u>Performance (%)</u>									
	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
<b>Total Fund Composite</b>	<b>15.06</b>	<b>18.86</b>	<b>-5.39</b>	<b>18.36</b>	<b>6.76</b>	<b>0.24</b>	<b>5.49</b>	<b>17.71</b>	<b>13.75</b>	<b>0.72</b>
<i>Policy Index</i>	12.73	18.81	-4.51	16.68	8.04	-0.19	5.86	15.19	12.79	0.77
<b>In House Cash</b>	<b>0.26</b>	<b>2.12</b>	<b>1.93</b>	<b>0.67</b>	<b>0.35</b>	<b>0.18</b>	<b>0.11</b>	<b>0.11</b>	<b>0.20</b>	<b>0.54</b>
<i>90 Day U.S. Treasury Bill</i>	0.67	2.28	1.87	0.86	0.25	0.03	0.04	0.05	0.08	0.08
<b>Domestic Equity Composite</b>	<b>22.41</b>	<b>30.07</b>	<b>-5.88</b>	<b>22.62</b>	<b>10.04</b>	<b>-1.26</b>	<b>8.80</b>	<b>35.55</b>	<b>16.30</b>	<b>0.65</b>
<i>Russell 3000 Index</i>	20.89	31.02	-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03
<i>Domestic Equity Index</i>	20.08	29.94	-6.47	20.20	13.76	0.19	11.60	34.04	16.47	0.73
<b>Fixed Income Composite</b>	<b>9.51</b>	<b>9.88</b>	<b>-0.98</b>	<b>6.94</b>	<b>5.14</b>	<b>-0.23</b>	<b>4.70</b>	<b>0.13</b>	<b>8.15</b>	<b>6.69</b>
<i>Fixed Income Index</i>	7.78	9.24	-0.91	5.50	4.83	-0.86	4.89	0.39	6.87	6.39
<b>International Equity Composite</b>	<b>17.83</b>	<b>24.67</b>	<b>-15.52</b>	<b>33.29</b>	<b>3.30</b>	<b>-0.50</b>	<b>-1.08</b>	<b>20.79</b>	<b>20.28</b>	<b>-12.77</b>
<i>International Equity Index</i>	11.18	20.95	-13.99	28.77	3.16	-4.06	-4.13	16.58	17.70	-13.18
<b>Hedge Fund Composite</b>	<b>11.20</b>	<b>7.95</b>	<b>-1.55</b>	<b>6.72</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>90-Day T-Bill+ 5%</i>	5.70	7.39	6.97	5.90	5.27	5.03	5.04	5.05	5.08	5.09
<i>HFRI FOF: Conservative Index</i>	6.47	6.30	-0.87	4.12	1.89	0.37	3.14	7.70	4.22	-3.55
<b>Core Private Real Estate Composite</b>	<b>2.52</b>	<b>10.16</b>	<b>4.91</b>	<b>7.75</b>	<b>8.50</b>	<b>11.92</b>	<b>20.06</b>	<b>7.12</b>	<b>14.60</b>	<b>13.01</b>
<i>NCREIF Property Index</i>	1.60	6.42	6.72	6.96	7.97	13.33	11.82	10.98	10.54	14.26



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Fund Composite	4.82 (67)	8.01 (66)	28.86 (24)	11.55 (42)	11.38 (35)	8.55 (36)	9.12 (33)
● Policy Index	4.53 (78)	6.89 (87)	23.96 (72)	10.92 (57)	10.70 (55)	8.11 (52)	8.60 (50)
5th Percentile	6.82	11.43	32.67	13.99	13.06	9.79	10.36
1st Quartile	5.67	9.51	28.64	12.34	11.78	8.90	9.33
Median	5.14	8.48	26.37	11.16	10.80	8.13	8.59
3rd Quartile	4.59	7.60	23.59	10.41	10.03	7.49	8.06
95th Percentile	3.20	3.35	11.71	7.10	7.06	5.70	5.93

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.