

# City of Memphis

## Asset Allocation Comparison as of March 31, 2023

\$2,435,036

<u>Target Allocations</u>		<u>Current Managers &amp; Allocations</u>			<u>Difference</u>	<u>Range</u>	
<b>Equity</b>							
Large Cap Equity	20.00%	\$487,007 <sup>(000)</sup>	Barrow, Hanley (large cap value)	6.07%	\$147,905	1.00%	15%-25%
			Rhumbline Russell 1000 Growth (large cap growth)	3.35%	\$81,584		
			Winslow (large cap growth)	3.17%	\$77,166		
			Rhumbline S&P 500 (large cap core)	8.41%	\$204,795		
Mid/SMID Cap Equity	4.00%	\$97,401	Northern Trust (mid cap core)	2.15%	\$52,379	0.39%	0%-7%
			Capital Prospects SMID Cap*	2.24%	\$54,541		
Small Cap Equity	4.00%	\$97,401	Capital Prospects Small Cap Value*	2.40%	\$58,512	0.52%	0%-7%
			Conestoga (small cap growth)	1.20%	\$29,231		
			Nicholas (small cap growth)	0.92%	\$22,429		
<b>Domestic Equity</b>	<b>28.00%</b>	<b>\$681,810</b>	<b>Domestic Equity</b>	<b>29.92%</b>	<b>\$728,542</b>	<b>1.92%</b>	<b>18%-38%</b>
Developed International	15.00%	\$365,255	1607 Capital Partners	4.32%	\$105,079	0.63%	10%-20%
			Principal Global Investors	4.40%	\$107,027		
			Marathon Asset Mgmt	4.38%	\$106,564		
			Strategic Global Advisors	2.54%	\$61,832		
Emerging Markets	7.00%	\$170,453	Acadian	4.10%	\$99,925	0.44%	5%-12%
			JPMorgan	3.34%	\$81,339		
<b>International</b>	<b>22.00%</b>	<b>\$535,708</b>	<b>International</b>	<b>23.07%</b>	<b>\$561,767</b>	<b>1.07%</b>	<b>15%-30%</b>
<b>Equity Total</b>	<b>50.00%</b>	<b>\$1,217,518</b>	<b>Equity Total</b>	<b>52.99%</b>	<b>\$1,290,308</b>	<b>2.99%</b>	
<b>Fixed Income</b>							
Core Fixed Income	13.00%	\$316,555	PIMCO	3.88%	\$94,511	-1.00%	8%-18%
			Prudential Core Conserv Bond	3.74%	\$91,017		
			Barrow Hanley High Quality Core	1.30%	\$31,753		
			Garcia Hamilton Aggregate	3.08%	\$75,018		
Global Fixed Income	8.00%	\$194,803	Brandywine	8.26%	\$201,166	0.26%	3%-13%
Global High Yield	5.00%	\$121,752	Mackay Shields	4.94%	\$120,250	-0.06%	2%-10%
<b>Fixed Income Total</b>	<b>26.00%</b>	<b>\$633,109</b>	<b>Fixed Income Total</b>	<b>25.20%</b>	<b>\$613,715</b>	<b>-0.80%</b>	<b>18%-34%</b>

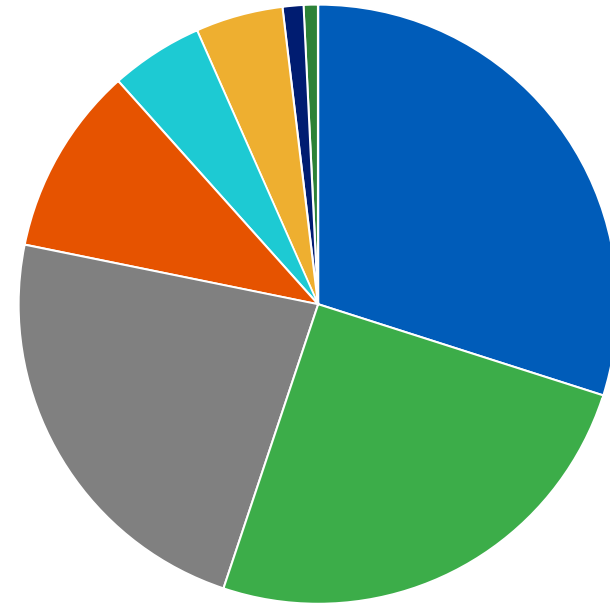
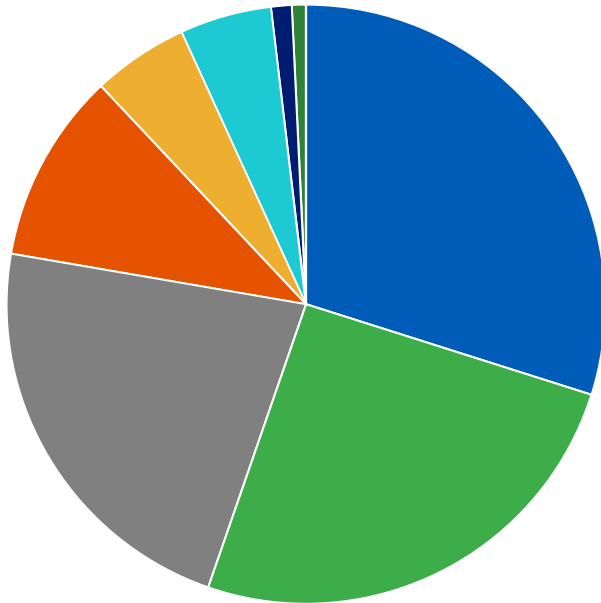
\* Emerging Managers

<u>Target Allocations</u>			<u>Current Managers &amp; Allocations</u>		<u>Difference</u>	<u>Range</u>
<b><u>Real Estate</u></b>						
Core/Value Add/REITs	10.00%	\$243,504	BlackRock US Core Property Fund	3.05%	\$74,351	
			RREEF REIT II	0.79%	\$19,291	
			Vanguard REIT Index	0.13%	\$3,270	
			TA Realty Core Property Fund	1.29%	\$31,473	
			Cornerstone (Barings) Real Estate Fund X <sup>1</sup>	0.01%	\$165 (Total Commitment \$10M, Total Drawn \$11.8M, Total Distributed \$15.6M)	
			Dune Real Estate Partners Fund IV	0.96%	\$23,398 (Total Commitment \$30M, Total Drawn \$15.6M, Total Distributed \$1.5M)	
			Green Cities III	0.54%	\$13,095 (Total Commitment \$20M, Total Drawn \$23.7M, Total Distributed \$10.7M)	
			Green Cities IV	0.64%	\$15,464 (Total Commitment \$20M, Total Drawn \$16.4, Total Distributed \$1.1M)	
			Green Cities V	0.00%	\$84 (Total Commitment \$20M, Total Drawn \$16.4, Total Distributed \$0.0M)	
			Long Wharf Real Estate Partners IV	0.04%	\$897 (Total Commitment \$20M, Total Drawn \$21.5M, Total Distributed \$29.6M)	
			Long Wharf Real Estate Partners Fund V	0.49%	\$11,948 (Total Commitment \$20M, Total Drawn \$20.0M, Total Distributed \$14.9M)	
			Long Wharf Real Estate Partners Fund VI	0.56%	\$13,618 (Total Commitment \$20M, Total Drawn \$18.6M, Total Distributed \$11.0M)	
			Long Wharf Real Estate Partners Fund VII	0.08%	\$1,868 (Total Commitment \$20M, Total Drawn \$18.6M, Total Distributed \$0.0M)	
			Mesirov Financial Real Estate Value Fund III	1.11%	\$26,972 (Total Commitment \$20M, Total Drawn \$22.3M, Total Distributed \$7.3M)	
			TA Realty Fund XI	0.49%	\$12,052 (Total Commitment \$20M, Total Drawn \$20.0M, Total Distributed \$21.7M)	
			<i>TA Realty Fund XIII (\$30M Commitment)</i>			
<b>Real Estate Total</b>	<b>10.00%</b>	<b>\$243,504</b>	<b>Real Estate Total</b>	<b>10.18%</b>	<b>\$247,947</b>	<b>0.18%</b>
						<b>5%-15%</b>
<b><u>Private Equity</u></b>						
Private Equity	5.00%	\$121,752	Neuberger Berman Crossroads XXI	2.34%	\$57,055 (Total Commitment \$50M, Total Drawn \$36.5M, Total Distributed \$25.3M)	
			Neuberger Berman Crossroads XXIV	0.07%	\$1,689 (Total Commitment \$40M, Total Drawn \$36.5M, Total Distributed \$25.3M)	
			Pantheon Global Secondary Fund V	1.39%	\$33,843 (Total Commitment \$50M, Total Drawn \$38.7M, Total Distributed \$29.9M)	
			Siguler Guff Small Buyout Opportunities Fund V	0.16%	\$3,891 (Total Commitment \$20M, Total Drawn \$2.3M, Total Distributed \$0.0M)	
			SSM Growth Equity Fund II*	0.31%	\$7,624 (Total Commitment \$10M, Total Drawn \$9.5, Total Distributed \$5.3M)	
			SSM Growth Equity Fund III*	0.72%	\$17,554 (Total Commitment \$10M, Total Drawn \$10.7, Total Distributed \$0.8M)	
<b>Private Equity Total</b>	<b>5.00%</b>	<b>\$121,752</b>		<b>5.00%</b>	<b>\$121,656</b>	<b>0.00%</b>
						<b>3%-7%</b>
<b><u>Private Credit</u></b>						
	5.00%		Brightwood Capital Fund V	0.18%	\$4,457 (Total Commitment \$10M, Total Drawn \$4.0, Total Distributed \$0.0M)	
			Churchill Middle Market Senior Loan Fund III	0.25%	\$6,103 (Total Commitment \$10M, Total Drawn \$11.3, Total Distributed \$5.5M)	
			Neuberger Berman Private Debt Fund IV	0.69%	\$16,842 (Total Commitment \$30M, Total Drawn \$15.0, Total Distributed \$1.4M)	
<b>Private Credit Total</b>	<b>5.00%</b>	<b>\$121,752</b>		<b>1.13%</b>	<b>\$27,402</b>	<b>-3.87%</b>
						<b>3%-7%</b>
<b><u>Hedge Fund of Funds</u></b>						
	4.00%		Aetos	2.29%	\$55,676	
			Grosvenor	1.94%	\$47,224	
			Preserver, LP*	0.50%	\$12,138	
<b>Hedge Fund of Funds Total</b>	<b>4.00%</b>	<b>\$97,401</b>		<b>4.72%</b>	<b>\$115,037</b>	<b>0.72%</b>
						<b>2%-6%</b>
Internal Account	0.00%	\$0	Internal Account	0.78%	\$18,971	
<b>Cash</b>	<b>0.00%</b>	<b>\$0</b>	<b>Cash</b>	<b>0.78%</b>	<b>\$18,971</b>	<b>0.78%</b>
						<b>0%-5%</b>
<b>Total</b>	<b>100%</b>	<b>\$2,435,036</b>	<b>Total</b>	<b>100%</b>	<b>\$2,435,036</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 Advisers."

December 31, 2022 : \$2,373,536,823

March 31, 2023 : \$2,435,035,992

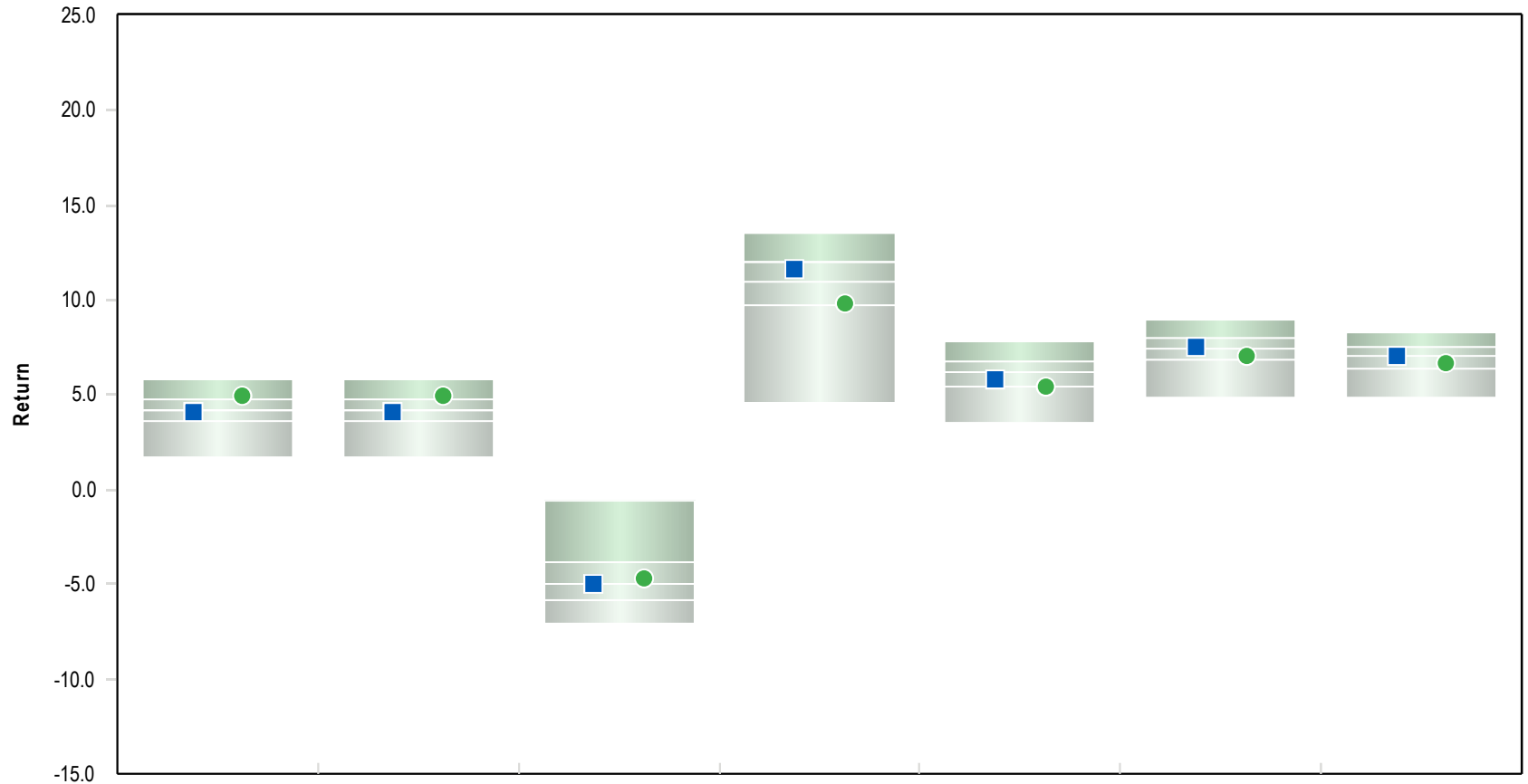


	Market Value (\$)	Allocation (%)
Domestic Equity Composite	709,417,747	29.9
Fixed Income Composite	603,051,146	25.4
International Equity Composite	531,896,734	22.4
Total Real Estate Composite	244,001,317	10.3
Hedge Fund Composite	123,100,934	5.2
Private Equity Composite	117,530,653	5.0
Private Debt Composite	26,324,805	1.1
In House Cash	18,213,487	0.8

	Market Value (\$)	Allocation (%)
Domestic Equity Composite	728,541,723	29.9
Fixed Income Composite	613,714,571	25.2
International Equity Composite	561,766,771	23.1
Total Real Estate Composite	247,947,122	10.2
Private Equity Composite	121,656,146	5.0
Hedge Fund Composite	115,036,849	4.7
Private Debt Composite	27,402,105	1.1
In House Cash	18,970,704	0.8

	<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>4.08</b>	<b>4.08</b>	<b>-4.96</b>	<b>11.61</b>	<b>5.81</b>	<b>7.50</b>	<b>7.07</b>	<b>9.18</b>	<b>10/01/1982</b>
<i>Policy Index</i>	5.00	5.00	-4.67	9.81	5.45	7.10	6.65	9.49	
<b>In House Cash</b>	<b>1.13</b>	<b>1.13</b>	<b>2.61</b>	<b>0.90</b>	<b>1.33</b>	<b>1.12</b>	<b>0.83</b>	<b>3.85</b>	<b>10/01/1982</b>
<i>90 Day U.S. Treasury Bill</i>	1.07	1.07	2.50	0.89	1.41	1.20	0.86	3.63	
<b>Domestic Equity Composite</b>	<b>5.39</b>	<b>5.39</b>	<b>-7.30</b>	<b>20.15</b>	<b>10.35</b>	<b>12.14</b>	<b>11.17</b>	<b>11.76</b>	<b>10/01/1982</b>
<i>Russell 3000 Index</i>	7.18	7.18	-8.58	18.48	10.45	11.99	11.73	11.56	
<i>Domestic Equity Index</i>	6.46	6.46	-8.36	18.55	9.36	11.28	11.10	N/A	
<b>Fixed Income Composite</b>	<b>3.47</b>	<b>3.47</b>	<b>-4.95</b>	<b>1.49</b>	<b>1.47</b>	<b>2.30</b>	<b>2.41</b>	<b>6.85</b>	<b>10/01/1982</b>
<i>Fixed Income Index</i>	3.18	3.18	-5.56	-1.08	0.60	1.39	1.65	6.63	
<b>International Equity Composite</b>	<b>7.76</b>	<b>7.76</b>	<b>-5.85</b>	<b>13.00</b>	<b>3.02</b>	<b>7.06</b>	<b>5.99</b>	<b>5.22</b>	<b>01/01/1990</b>
<i>International Equity Index</i>	7.03	7.03	-4.28	11.49	2.23	5.85	4.32	4.93	
<b>Hedge Fund Composite</b>	<b>1.71</b>	<b>1.71</b>	<b>1.77</b>	<b>8.60</b>	<b>4.37</b>	<b>5.15</b>	<b>N/A</b>	<b>5.15</b>	<b>04/01/2016</b>
<i>90-Day T-Bill+ 5%</i>	2.31	2.31	7.63	5.93	6.48	6.27	5.90	6.27	
<i>HFRI FOF: Conservative Index</i>	0.79	0.79	0.72	7.59	3.91	4.04	3.43	4.04	
<b>Core Private Real Estate Composite</b>	<b>-3.77</b>	<b>-3.77</b>	<b>-4.50</b>	<b>9.56</b>	<b>8.42</b>	<b>7.84</b>	<b>9.28</b>	<b>8.37</b>	<b>09/01/1999</b>
<i>NCREIF Property Index</i>	-1.81	-1.81	-1.63	7.15	6.71	6.85	8.34	8.59	

	<u>Performance (%)</u>									
	<u>2022</u>	<u>2021</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>
<b>Total Fund Composite</b>	<b>-12.93</b>	<b>13.57</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>
<i>Policy Index</i>	-12.94	11.35	12.73	18.81	-4.51	16.68	8.04	-0.19	5.86	15.19
<b>In House Cash</b>	<b>1.50</b>	<b>0.04</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>
<i>90 Day U.S. Treasury Bill</i>	1.46	0.05	0.67	2.28	1.87	0.86	0.25	0.03	0.04	0.05
<b>Domestic Equity Composite</b>	<b>-17.48</b>	<b>25.47</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>
<i>Russell 3000 Index</i>	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74	0.48	12.56	33.55
<i>Domestic Equity Index</i>	-18.82	23.52	20.08	29.94	-6.47	20.20	13.76	0.19	11.60	34.04
<b>Fixed Income Composite</b>	<b>-11.71</b>	<b>-0.36</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>
<i>Fixed Income Index</i>	-13.63	-1.25	7.78	9.24	-0.91	5.50	4.83	-0.86	4.89	0.39
<b>International Equity Composite</b>	<b>-20.51</b>	<b>9.15</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>
<i>International Equity Index</i>	-16.14	6.88	11.18	20.94	-13.98	28.77	3.16	-4.06	-4.13	16.58
<b>Hedge Fund Composite</b>	<b>-3.41</b>	<b>7.59</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>
<i>90-Day T-Bill+ 5%</i>	6.53	5.05	5.70	7.39	6.97	5.90	5.27	5.03	5.04	5.05
<i>HFRI FOF: Conservative Index</i>	0.08	7.62	6.47	6.30	-0.87	4.12	1.89	0.37	3.14	7.70
<b>Core Private Real Estate Composite</b>	<b>5.06</b>	<b>25.04</b>	<b>2.55</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>
<i>NCREIF Property Index</i>	5.51	17.70	1.60	6.42	6.72	6.96	7.97	13.33	11.82	10.98



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Fund Composite	4.08 (57)	4.08 (57)	-4.96 (51)	11.61 (34)	5.81 (64)	7.50 (47)	7.07 (49)
● Policy Index	5.00 (19)	5.00 (19)	-4.67 (45)	9.81 (74)	5.45 (75)	7.10 (66)	6.65 (68)
5th Percentile	5.81	5.81	-0.59	13.51	7.79	8.92	8.31
1st Quartile	4.76	4.76	-3.86	12.00	6.75	8.03	7.56
Median	4.17	4.17	-4.96	10.97	6.18	7.46	7.06
3rd Quartile	3.65	3.65	-5.83	9.76	5.42	6.88	6.38
95th Percentile	1.73	1.73	-7.10	4.57	3.56	4.90	4.83

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.