

# Hoffman Estates Fire Pension Fund

Quarterly Performance Report

September 30, 2021

## Hoffman Estates Fire Pension Fund

### Asset Allocation Compliance

As of September 30, 2021

	Target Allocation (%)	Asset Allocation (%)	Differences (%)	Asset Allocation (\$)	Target Rebalance (\$)
Cash & Cash Equivalents	2.00	1.26	-0.74	1,417,118.94	833,335.83
Fixed Income	33.00	31.42	-1.58	35,350,196.49	1,782,307.16
Equity	65.00	67.32	2.32	75,755,422.91	-2,615,642.99
<b>Hoffman Estates Fire Pension</b>	<b>100.00</b>	<b>100.00</b>	<b>0.00</b>	<b>112,522,738.34</b>	<b>-</b>

	Target Allocation (%)	Asset Allocation (%)	Differences (%)	Asset Allocation (\$)	Target Rebalance (\$)
Cash & Cash Equivalents	2.00	1.26	-0.74	1,417,118.94	833,335.83
Real Estate	3.00	2.27	-0.73	2,552,695.16	822,986.99
Emerging Market	3.00	2.74	-0.26	3,086,830.24	288,851.91
Mid Cap	4.00	4.57	0.57	5,138,856.13	-637,946.60
Small Cap	4.00	4.29	0.29	4,823,138.78	-322,229.25
International Equity	16.00	13.91	-2.09	15,654,527.48	2,349,110.65
Fixed Income	33.00	31.42	-1.58	35,350,196.49	1,782,307.16
Large Cap	35.00	39.55	4.55	44,499,375.12	-5,116,416.70
<b>Hoffman Estates Fire Pension</b>	<b>100.00</b>	<b>100.00</b>	<b>0.00</b>	<b>112,522,738.34</b>	<b>-</b>

## Hoffman Estates Fire Pension Fund

### Allocation by Asset Class

As of September 30, 2021

	Total Fund		Domestic Equity		International Equity		Domestic Fixed Income		Alternative Investment		Cash Equivalent	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
<b>Hoffman Estates Fire Pension</b>	<b>112,522,738</b>	<b>100.00</b>	<b>51,541,990</b>	<b>45.81</b>	<b>19,106,531</b>	<b>16.98</b>	<b>34,234,764</b>	<b>30.42</b>	<b>3,645,224</b>	<b>3.24</b>	<b>3,994,230</b>	<b>3.55</b>
Large Cap	44,499,375	39.55	41,951,767	94.27	365,173	0.82	-	-	1,092,529	2.46	1,089,907	2.45
Aristotle -Value Equity	17,091,543	15.19	15,217,353	89.03	365,173	2.14	-	-	801,270	4.69	707,747	4.14
Madison - LCC	9,544,795	8.48	8,871,436	92.95	-	-	-	-	291,258	3.05	382,101	4.00
T.Rowe Health & Sciences Fund (Schwab)	2,978,558	2.65	2,978,499	100.00	-	-	-	-	-	-	59	0.00
T.Rowe New American Growth	7,044,898	6.26	7,044,898	100.00	-	-	-	-	-	-	-	-
Vanguard S&P 500 (MF)	7,839,582	6.97	7,839,582	100.00	-	-	-	-	-	-	-	-
Mid Cap	5,138,856	4.57	5,138,856	100.00	-	-	-	-	-	-	-	-
Champlain Mid Cap	5,138,856	4.57	5,138,856	100.00	-	-	-	-	-	-	-	-
Small Cap	4,823,139	4.29	4,451,367	92.29	-	-	-	-	-	-	371,772	7.71
Kayne Anderson- Small Cap Core	4,823,139	4.29	4,451,367	92.29	-	-	-	-	-	-	371,772	7.71
Real Estate	2,552,695	2.27	-	-	-	-	-	-	2,552,695	100.00	-	-
Cohen & Steers REIT	2,552,695	2.27	-	-	-	-	-	-	2,552,695	100.00	-	-
International Equity	15,654,527	13.91	-	-	15,654,527	100.00	-	-	-	-	-	-
Invesco Intl SMID	5,677,159	5.05	-	-	5,677,159	100.00	-	-	-	-	-	-
Clearbridge Intl Growth	5,220,368	4.64	-	-	5,220,368	100.00	-	-	-	-	-	-
Oakmark International	2,943,794	2.62	-	-	2,943,794	100.00	-	-	-	-	-	-
Tweedy Browne Global Value	1,813,207	1.61	-	-	1,813,207	100.00	-	-	-	-	-	-
Emerging Market	3,086,830	2.74	-	-	3,086,830	100.00	-	-	-	-	-	-
Invesco Opp. DM	3,086,830	2.74	-	-	3,086,830	100.00	-	-	-	-	-	-
Fixed Income	35,350,196	31.42	-	-	-	-	34,234,764	96.84	-	-	1,115,433	3.16
Garcia Hamilton - Gov/Cred	16,649,752	14.80	-	-	-	-	16,041,755	96.35	-	-	607,997	3.65
Weaver- Intermediate	18,700,444	16.62	-	-	-	-	18,193,009	97.29	-	-	507,436	2.71
Cash & Cash Equivalents	1,417,119	1.26	-	-	-	-	-	-	-	-	1,417,119	100.00
Cash Management Account	172,175	0.15	-	-	-	-	-	-	-	-	172,175	100.00
IL Funds	1,244,944	1.11	-	-	-	-	-	-	-	-	1,244,944	100.00

## Hoffman Estates Fire Pension Fund

As of September 30, 2021

	1 Month	3 Month	YTD	1 Year	Since Inception	Inception Date
<b>Hoffman Estates Fire Pension</b>	<b>-3.34</b>	<b>-0.35</b>	<b>7.69</b>	<b>18.52</b>	<b>14.38</b>	<b>08/01/2019</b>
Custom Benchmark	-2.84	-0.25	8.50	19.31	12.47	
<b>US Equity</b>	<b>-4.56</b>	<b>0.29</b>	<b>15.69</b>	<b>32.52</b>	<b>30.11</b>	<b>08/01/2019</b>
Russell 3000	-4.49	-0.10	14.99	31.87	20.98	
<b>International Equity</b>	<b>-4.57</b>	<b>-0.98</b>	<b>6.24</b>	<b>24.68</b>	<b>15.03</b>	<b>11/01/2019</b>
MSCI EAFE	-2.83	-0.35	8.79	26.30	11.42	
<b>Fixed Income</b>	<b>-0.82</b>	<b>-0.08</b>	<b>-1.85</b>	<b>-0.93</b>	<b>2.59</b>	<b>09/01/2019</b>
BC Gov/Cr Intm	-0.58	0.02	-0.87	-0.40	2.60	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.

## Hoffman Estates Fire Pension Fund

As of September 30, 2021

	1 Month	3 Month	YTD	1 Year	Since Inception	Inception Date
<b>Hoffman Estates Fire Pension</b>	<b>-3.34</b>	<b>-0.35</b>	<b>7.69</b>	<b>18.52</b>	<b>14.38</b>	<b>08/01/2019</b>
Custom Benchmark	-2.84	-0.25	8.50	19.31	12.47	
<b>Madison - LCC</b>	<b>-4.48</b>	<b>0.82</b>	<b>16.04</b>	<b>29.01</b>	<b>20.22</b>	<b>10/01/2019</b>
S&P 500 Total Return	-4.65	0.58	15.92	30.00	22.32	
<b>Aristotle -Value Equity</b>	<b>-5.25</b>	<b>-0.84</b>	<b>16.91</b>	<b>35.71</b>	<b>21.27</b>	<b>10/01/2019</b>
Russell 1000 Value	-3.48	-0.78	16.13	35.01	13.22	
<b>T.Rowe New American Growth</b>	<b>-4.39</b>	<b>-0.47</b>	<b>14.11</b>	<b>31.95</b>	<b>33.72</b>	<b>12/01/2019</b>
Russell 1000 Gr	-5.60	1.16	14.30	27.32	30.47	
<b>Vanguard S&amp;P 500 (MF)</b>	<b>-4.66</b>	<b>0.57</b>	<b>15.84</b>	<b>29.91</b>	<b>20.32</b>	<b>12/01/2019</b>
S&P 500	-4.65	0.58	15.92	30.00	20.67	
<b>Champlain Mid Cap</b>	<b>-3.18</b>	<b>3.07</b>	<b>17.46</b>	<b>38.62</b>	<b>27.02</b>	<b>09/06/2019</b>
Russell Midcap	-4.12	-0.93	15.17	38.11	19.60	
<b>Kayne Anderson- Small Cap Core</b>	<b>-3.72</b>	<b>0.42</b>	<b>12.41</b>	<b>31.91</b>	<b>18.90</b>	<b>01/16/2020</b>
Russell 2000	-2.95	-4.36	12.41	47.68	18.51	
<b>T.Rowe Health &amp; Sciences Fund (Schwab)</b>	<b>-4.65</b>	<b>1.35</b>	<b>11.03</b>	<b>26.52</b>	<b>26.24</b>	<b>09/01/2019</b>
S&P 500	-4.65	0.58	15.92	30.00	22.40	
<b>Cohen &amp; Steers REIT</b>	<b>-5.43</b>	<b>1.57</b>	<b>22.98</b>	<b>35.92</b>	<b>10.65</b>	<b>09/01/2019</b>
FTSE NAREIT All Equity REITS	-5.92	0.23	21.63	31.53	8.13	
<b>Oakmark International</b>	<b>-2.69</b>	<b>-4.96</b>	<b>8.17</b>	<b>42.30</b>	<b>9.39</b>	<b>12/01/2019</b>
MSCI World Ex USA - USD	-2.80	-0.56	9.65	27.10	11.59	
<b>Invesco Intl SMID</b>	<b>-5.24</b>	<b>3.39</b>	<b>9.91</b>	<b>25.05</b>	<b>21.13</b>	<b>11/01/2019</b>
MSCI ACWI x USA SMID Net	-3.34	-0.94	9.48	28.94	14.63	
<b>Clearbridge Intl Growth</b>	<b>-5.34</b>	<b>-2.64</b>	<b>0.43</b>	<b>15.87</b>	<b>15.88</b>	<b>11/01/2019</b>
MSCI EAFE	-2.83	-0.35	8.79	26.30	11.42	
<b>Tweedy Browne Global Value</b>	<b>-3.21</b>	<b>-2.42</b>	<b>9.94</b>	<b>25.84</b>	<b>5.87</b>	<b>11/01/2019</b>
MSCI EAFE	-2.83	-0.35	8.79	26.30	11.42	

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As of September 30, 2021

	1 Month	3 Month	YTD	1 Year	Since Inception	Inception Date
<b>Invesco Opp. DM</b>	<b>-2.82</b>	<b>-9.19</b>	<b>-3.29</b>	<b>15.05</b>	<b>10.38</b>	<b>12/01/2019</b>
MSCI EM Net	-3.97	-8.09	-1.25	18.21	13.17	
<b>Garcia Hamilton - Gov/Cred</b>	<b>-1.12</b>	<b>-0.30</b>	<b>-2.88</b>	<b>-2.06</b>	<b>2.78</b>	<b>12/01/2019</b>
Barclays Govt/Credit Bond	-1.07	0.04	-1.93	-1.13	3.54	
<b>Weaver- Intermediate</b>	<b>-0.56</b>	<b>0.13</b>	<b>-0.81</b>	<b>0.22</b>	<b>3.01</b>	<b>09/01/2019</b>
BC Gov/Cr Intm	-0.58	0.02	-0.87	-0.40	2.60	

Returns for periods greater than one year are annualized.  
Returns are expressed as percentages.

As of September 30, 2021

	Sep-2021	Aug-2021	Jul-2021	Jun-2021	May-2021	Apr-2021	Mar-2021	Feb-2021	Jan-2021	Dec-2020	Nov-2020
<b>Hoffman Estates Fire Pension</b>											
Beginning Market Value	115,884,991	114,524,359	113,385,205	112,684,739	112,087,326	108,475,453	106,166,839	104,334,099	105,796,689	102,935,701	95,952,691
Net Contributions	516,313	-556,256	-528,424	-441,267	-358,303	-399,364	811,367	-158,401	-542,127	-450,805	-426,002
Income	141,251	101,898	119,937	144,020	138,947	83,333	157,562	88,706	110,832	1,801,114	106,202
Gain/Loss	-4,019,817	1,814,992	1,547,641	997,713	816,768	3,927,903	1,339,686	1,902,436	-1,031,296	1,510,680	7,302,810
Ending Market Value	112,522,738	115,884,991	114,524,359	113,385,205	112,684,739	112,087,326	108,475,453	106,166,839	104,334,099	105,796,689	102,935,701
<b>Aristotle -Value Equity</b>											
Beginning Market Value	18,037,550	17,559,049	17,256,561	17,127,542	16,901,296	16,185,362	15,604,470	14,675,956	14,672,815	14,041,271	12,616,475
Net Contributions	-	-21,566	-	-	-	-20,231	-	-18,339	-	-	-
Income	26,960	18,978	16,898	27,539	16,242	15,642	26,798	14,378	11,555	26,659	14,422
Gain/Loss	-972,966	481,089	285,589	101,481	210,005	720,523	554,093	932,476	-8,415	604,885	1,410,374
Ending Market Value	17,091,543	18,037,550	17,559,049	17,256,561	17,127,542	16,901,296	16,185,362	15,604,470	14,675,956	14,672,815	14,041,271
<b>Madison - LCC</b>											
Beginning Market Value	9,991,997	9,732,271	9,476,233	9,371,012	9,258,085	8,701,177	8,233,968	7,990,790	8,249,315	7,986,178	7,355,298
Net Contributions	-	-9,471	-	-	-	-8,697	-	-	-8,242	-	-
Income	9,055	4,619	5,226	8,971	3,405	5,452	8,610	6,085	24,565	6,832	3,906
Gain/Loss	-456,257	264,578	250,812	96,251	109,522	560,153	458,599	237,094	-274,849	256,306	626,973
Ending Market Value	9,544,795	9,991,997	9,732,271	9,476,233	9,371,012	9,258,085	8,701,177	8,233,968	7,990,790	8,249,315	7,986,178
<b>T.Rowe New American Growth</b>											
Beginning Market Value	7,368,365	7,238,256	7,078,329	6,828,049	6,856,058	6,424,167	6,407,903	6,088,953	6,173,886	5,891,360	5,266,424
Net Contributions	-	-1	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	827,281	-
Gain/Loss	-323,467	130,110	159,926	250,280	-28,010	431,892	16,264	318,949	-84,933	-544,755	624,935
Ending Market Value	7,044,898	7,368,365	7,238,256	7,078,329	6,828,049	6,856,058	6,424,167	6,407,903	6,088,953	6,173,886	5,891,360
<b>Vanguard S&amp;P 500 (MF)</b>											
Beginning Market Value	8,222,319	7,980,013	7,795,089	7,617,543	7,565,053	10,548,905	10,106,501	9,834,732	11,516,197	11,089,621	9,995,518
Net Contributions	-	-	-	-	-	-3,500,000	-	-	-1,600,000	-	-
Income	25,693	-	-	26,102	-	-	36,164	-	-	45,876	-
Gain/Loss	-408,431	242,307	184,924	151,444	52,490	516,147	406,240	271,770	-81,466	380,701	1,094,103
Ending Market Value	7,839,582	8,222,319	7,980,013	7,795,089	7,617,543	7,565,053	10,548,905	10,106,501	9,834,732	11,516,197	11,089,621
<b>Champlain Mid Cap</b>											
Beginning Market Value	5,307,456	5,121,652	4,985,740	4,791,334	4,827,462	4,536,714	4,467,897	4,350,910	4,374,995	4,128,287	3,713,814
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	188,043	-
Gain/Loss	-168,600	185,804	135,912	194,406	-36,129	290,749	68,816	116,988	-24,086	58,665	414,473
Ending Market Value	5,138,856	5,307,456	5,121,652	4,985,740	4,791,334	4,827,462	4,536,714	4,467,897	4,350,910	4,374,995	4,128,287

## As of September 30, 2021

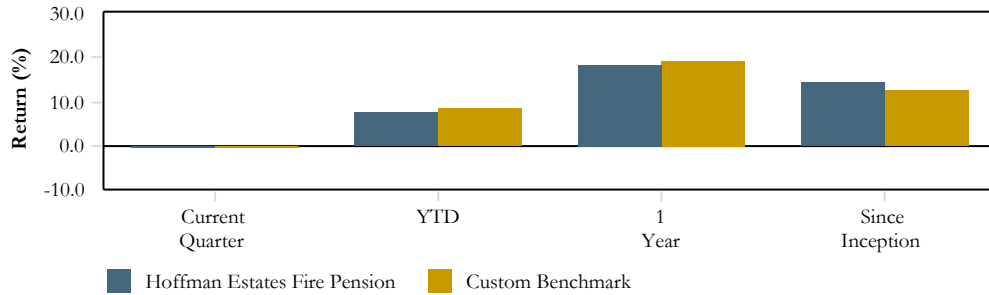
	Sep-2021	Aug-2021	Jul-2021	Jun-2021	May-2021	Apr-2021	Mar-2021	Feb-2021	Jan-2021	Dec-2020	Nov-2020
<b>Kayne Anderson- Small Cap Core</b>											
Beginning Market Value	5,009,465	4,939,127	4,812,518	4,808,642	4,750,231	4,592,437	4,424,040	4,243,727	4,315,850	4,097,382	3,654,992
Net Contributions	-	-9,625	-	-	-9,184	-	-	-8,632	-	-	-
Income	6,733	4,692	1,311	13,249	3,470	1,225	6,871	5,115	1,179	13,266	4,601
Gain/Loss	-193,059	75,271	125,298	-9,373	64,124	156,569	161,527	183,829	-73,301	205,201	437,789
Ending Market Value	4,823,139	5,009,465	4,939,127	4,812,518	4,808,642	4,750,231	4,592,437	4,424,040	4,243,727	4,315,850	4,097,382
<b>T.Rowe Health &amp; Sciences Fund (Schwab)</b>											
Beginning Market Value	3,123,924	2,998,847	2,938,946	2,782,940	2,808,172	2,675,770	2,696,119	2,745,439	2,682,553	2,620,867	2,328,767
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	181,330	-
Gain/Loss	-145,366	125,076	59,902	156,006	-25,232	132,402	-20,349	-49,320	62,886	-119,644	292,100
Ending Market Value	2,978,558	3,123,924	2,998,847	2,938,946	2,782,940	2,808,172	2,675,770	2,696,119	2,745,439	2,682,553	2,620,867
<b>Cohen &amp; Steers REIT</b>											
Beginning Market Value	2,699,349	2,624,866	2,513,142	2,446,886	2,439,211	2,240,954	2,131,695	2,059,110	2,075,664	1,993,690	1,827,758
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	11,301	-	-	9,977	-	-	9,933	-	-	25,895	-
Gain/Loss	-157,954	74,483	111,724	56,280	7,674	198,258	99,326	72,585	-16,554	56,079	165,931
Ending Market Value	2,552,695	2,699,349	2,624,866	2,513,142	2,446,886	2,439,211	2,240,954	2,131,695	2,059,110	2,075,664	1,993,690
<b>Tweedy Browne Global Value</b>											
Beginning Market Value	1,873,287	1,851,658	1,858,267	1,861,872	1,820,416	1,766,946	1,697,854	1,643,782	1,649,189	1,604,489	1,387,264
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	15,295	-
Gain/Loss	-60,080	21,629	-6,609	-3,605	41,455	53,471	69,092	54,072	-5,407	29,405	217,225
Ending Market Value	1,813,207	1,873,287	1,851,658	1,858,267	1,861,872	1,820,416	1,766,946	1,697,854	1,643,782	1,649,189	1,604,489
<b>Oakmark International</b>											
Beginning Market Value	3,025,247	3,038,823	3,097,302	3,193,374	3,048,221	2,968,857	2,900,979	2,676,461	2,721,365	2,543,289	2,010,538
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	14,674	-
Gain/Loss	-81,453	-13,576	-58,479	-96,073	145,153	79,364	67,877	224,518	-44,904	163,402	532,751
Ending Market Value	2,943,794	3,025,247	3,038,823	3,097,302	3,193,374	3,048,221	2,968,857	2,900,979	2,676,461	2,721,365	2,543,289
<b>Clearbridge Intl Growth</b>											
Beginning Market Value	5,514,807	5,395,502	5,361,851	5,389,383	5,235,663	5,019,231	5,192,836	5,109,475	5,198,189	4,888,739	4,351,229
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	8,524	-
Gain/Loss	-294,439	119,305	33,650	-27,532	153,720	216,432	-173,604	83,361	-88,714	300,926	537,509
Ending Market Value	5,220,368	5,514,807	5,395,502	5,361,851	5,389,383	5,235,663	5,019,231	5,192,836	5,109,475	5,198,189	4,888,739



## As of September 30, 2021

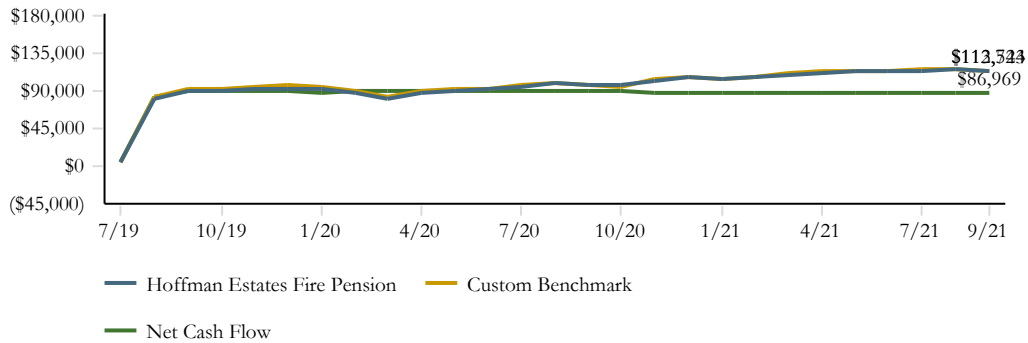
	Sep-2021	Aug-2021	Jul-2021	Jun-2021	May-2021	Apr-2021	Mar-2021	Feb-2021	Jan-2021	Dec-2020	Nov-2020
<b>Invesco Intl SMID</b>											
Beginning Market Value	5,990,939	5,787,076	5,491,146	5,385,926	5,287,283	5,007,324	4,944,380	5,052,418	5,165,153	4,873,573	4,435,159
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	389,462	-
Gain/Loss	-313,780	203,863	295,930	105,220	98,643	279,959	62,944	-108,038	-112,735	-97,882	438,414
Ending Market Value	5,677,159	5,990,939	5,787,076	5,491,146	5,385,926	5,287,283	5,007,324	4,944,380	5,052,418	5,165,153	4,873,573
<b>Invesco Opp. DM</b>											
Beginning Market Value	3,176,390	3,122,654	3,399,096	3,405,663	3,325,060	3,218,185	3,261,173	3,203,258	3,191,914	2,988,695	2,693,221
Net Contributions	-	-	-	-	-	-	-	-	-	-	-
Income	-	-	-	-	-	-	-	-	-	7,029	-
Gain/Loss	-89,560	53,736	-276,441	-6,568	80,604	106,875	-42,989	57,915	11,344	196,190	295,474
Ending Market Value	3,086,830	3,176,390	3,122,654	3,399,096	3,405,663	3,325,060	3,218,185	3,261,173	3,203,258	3,191,914	2,988,695
<b>Weaver- Intermediate</b>											
Beginning Market Value	18,805,452	18,828,972	18,682,891	18,671,022	18,623,146	16,548,601	16,655,266	16,794,801	16,035,894	15,990,907	15,867,159
Net Contributions	-	-	-6,881	-	-	1,993,796	-	-	793,994	-	-
Income	40,130	32,120	44,180	48,590	52,560	48,103	48,057	29,585	39,649	50,740	49,834
Gain/Loss	-145,138	-55,640	108,782	-36,721	-4,685	32,645	-154,721	-169,120	-74,736	-5,753	73,915
Ending Market Value	18,700,444	18,805,452	18,828,972	18,682,891	18,671,022	18,623,146	16,548,601	16,655,266	16,794,801	16,035,894	15,990,907
<b>Garcia Hamilton - Gov/Cred</b>											
Beginning Market Value	16,837,656	16,889,228	16,710,653	16,634,884	16,624,255	16,469,224	16,681,595	16,982,962	16,364,587	16,348,007	16,173,877
Net Contributions	-	-	-10,439	-	-	-10,276	-	-10,228	800,000	-10,462	-
Income	21,364	41,470	52,293	9,554	63,196	12,842	21,059	33,502	33,800	91	33,287
Gain/Loss	-209,268	-93,042	136,721	66,216	-52,567	152,464	-233,429	-324,641	-215,426	26,952	140,843
Ending Market Value	16,649,752	16,837,656	16,889,228	16,710,653	16,634,884	16,624,255	16,469,224	16,681,595	16,982,962	16,364,587	16,348,007
<b>Cash Management Account</b>											
Beginning Market Value	172,173	172,171	204,988	204,986	204,984	36,149	36,129	36,048	66,081	66,020	65,939
Net Contributions	-	1	-32,818	-	-	168,834	20	80	-30,034	61	80
Income	1	2	2	2	2	1	-	-	-	1	1
Gain/Loss	-	-	-	-	-	-	-	-	-	-	-
Ending Market Value	172,175	172,173	172,171	204,988	204,986	204,984	36,149	36,129	36,048	66,081	66,020
<b>IL Funds</b>											
Beginning Market Value	728,616	1,244,193	1,722,453	2,163,682	2,512,730	1,535,452	724,036	845,278	1,343,040	1,783,327	2,209,257
Net Contributions	516,313	-515,595	-478,285	-441,267	-349,119	977,209	811,347	-121,283	-497,845	-440,404	-426,082
Income	15	17	26	38	72	69	70	41	83	117	152
Gain/Loss	-	-	-	-	-	-	-	-	-	-	-
Ending Market Value	1,244,944	728,616	1,244,193	1,722,453	2,163,682	2,512,730	1,535,452	724,036	845,278	1,343,040	1,783,327

Portfolio Performance (%)



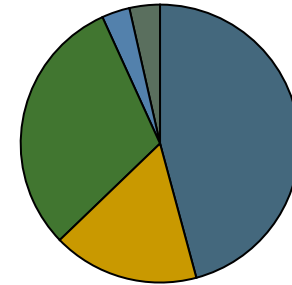
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Hoffman Estates Fire Pension	-0.35	7.69	18.52	14.38	08/01/2019
Custom Benchmark	-0.25	8.50	19.31	12.47	08/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Hoffman Estates Fire Pension					08/01/2019
Beginning Market Value	113,385	105,797	97,220	4,232	
Net Contributions	-478	-1,398	-2,534	82,738	
Fees/Expenses	-91	-258	-334	-593	
Income	363	1,086	3,101	5,852	
Gain/Loss	-657	7,296	15,070	20,295	
Ending Market Value	112,523	112,523	112,523	112,523	



Asset Allocation (\$000)

September 30, 2021 : \$112,523

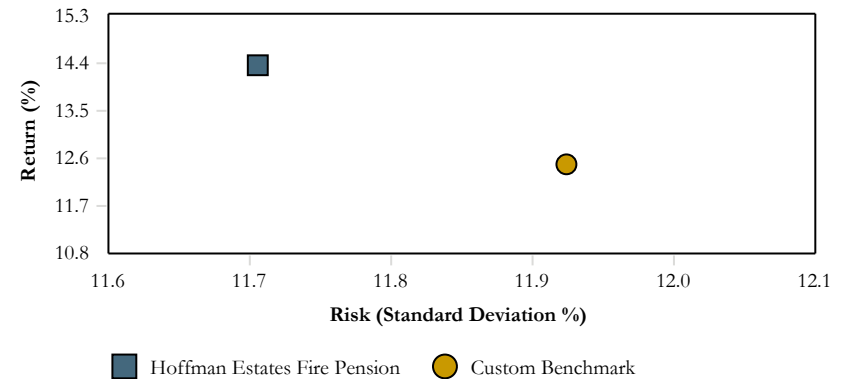


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	51,541.99	45.81
International Equity	19,106.53	16.98
Domestic Fixed Income	34,234.76	30.42
Alternative Investment	3,645.22	3.24
Cash Equivalent	3,994.23	3.55

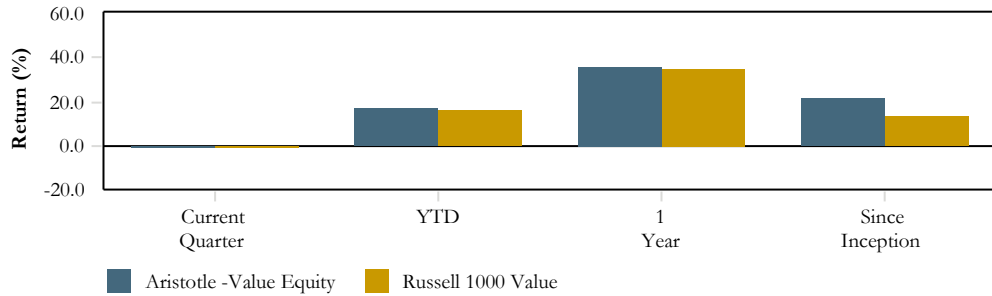
Portfolio Characteristics vs. Custom Benchmark Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Hoffman Estates Fire Pension	0.97	2.11	0.97	1.15	08/01/2019

Risk/Return Analysis Since 08/19

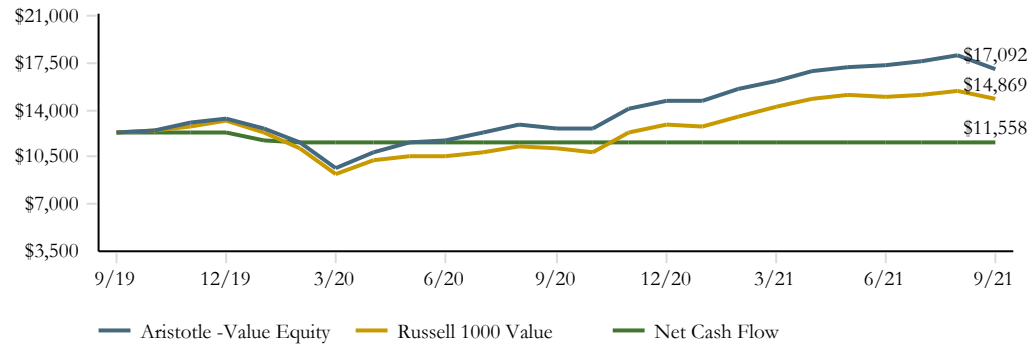


Portfolio Performance (%)



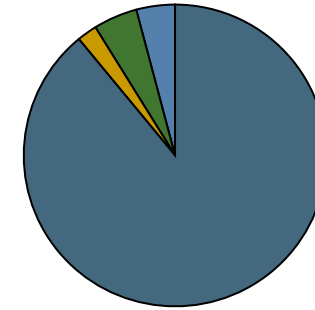
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Aristotle -Value Equity	-0.84	16.91	35.71	21.27	10/01/2019
Russell 1000 Value	-0.78	16.13	35.01	13.24	10/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Aristotle -Value Equity					10/01/2019
Beginning Market Value	17,257	14,673	12,656	12,286	
Net Contributions	5	14	18	-561	
Fees/Expenses	-27	-75	-94	-168	
Income	63	175	231	432	
Gain/Loss	-206	2,304	4,281	5,101	
Ending Market Value	17,092	17,092	17,092	17,092	



Asset Allocation (\$000)

September 30, 2021 : \$17,092

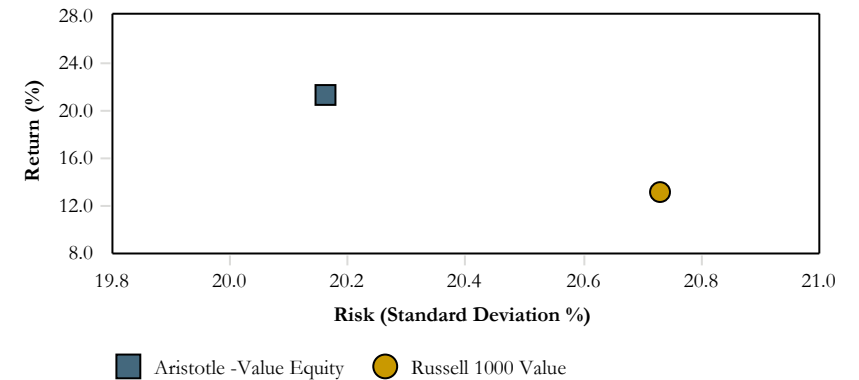


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	15,217.35	89.03
International Equity	365.17	2.14
Alternative Investment	801.27	4.69
Cash Equivalent	707.75	4.14

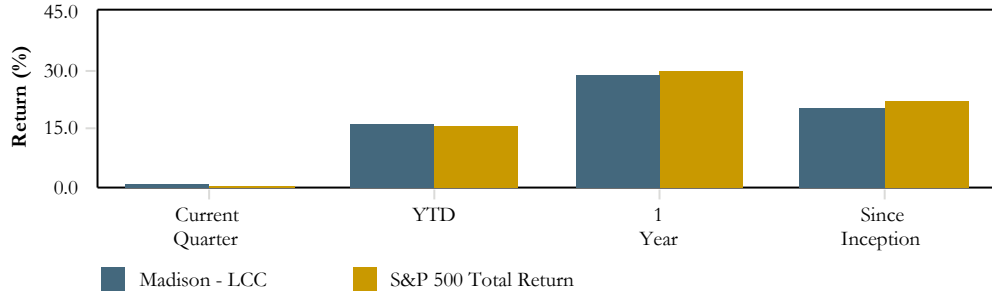
Portfolio Characteristics vs. Russell 1000 Value

	Beta	Alpha	R-Squared	Sharpe Ratio	Since Inception Date
Aristotle -Value Equity	0.95	7.78	0.96	1.04	10/01/2019

Risk/Return Analysis Since 10/19

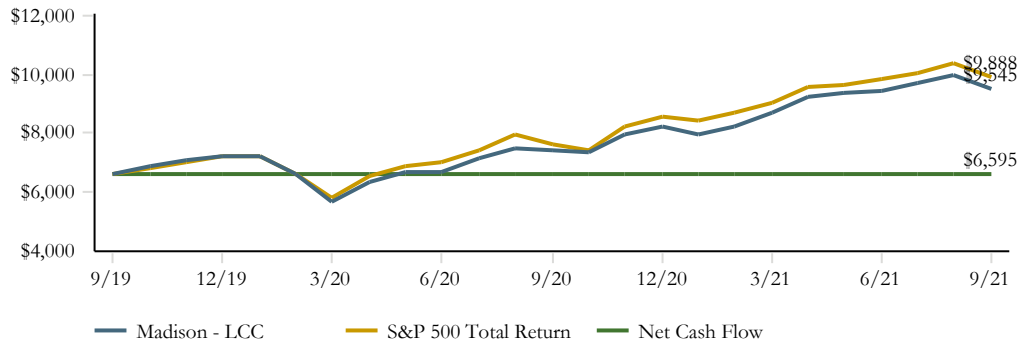


**Portfolio Performance (%)**



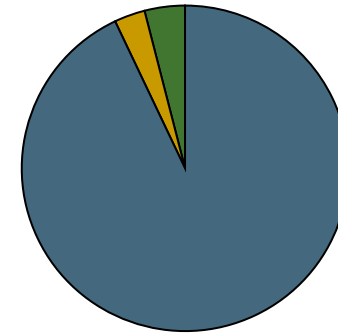
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Madison - LCC	0.82	16.04	29.01	20.22	10/01/2019
S&P 500 Total Return	0.58	15.92	30.00	22.35	10/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Madison - LCC					10/01/2019
Beginning Market Value	9,476	8,249	7,427	6,655	
Net Contributions	3	8	10	18	
Fees/Expenses	-12	-34	-44	-78	
Income	19	76	93	175	
Gain/Loss	59	1,246	2,059	2,775	
Ending Market Value	9,545	9,545	9,545	9,545	



**Asset Allocation (\$000)**

September 30, 2021 : \$9,545

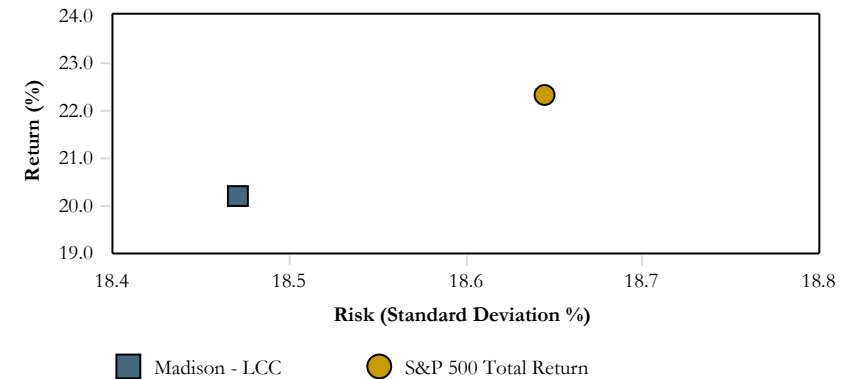


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	8,871.44	92.95
Alternative Investment	291.26	3.05
Cash Equivalent	382.10	4.00

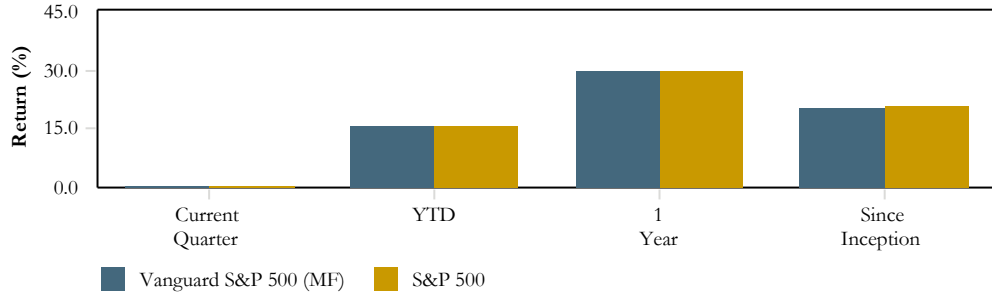
**Portfolio Characteristics vs. S&P 500 Total Return Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Madison - LCC	0.96	-0.83	0.93	1.07	10/01/2019

**Risk/Return Analysis Since 10/19**

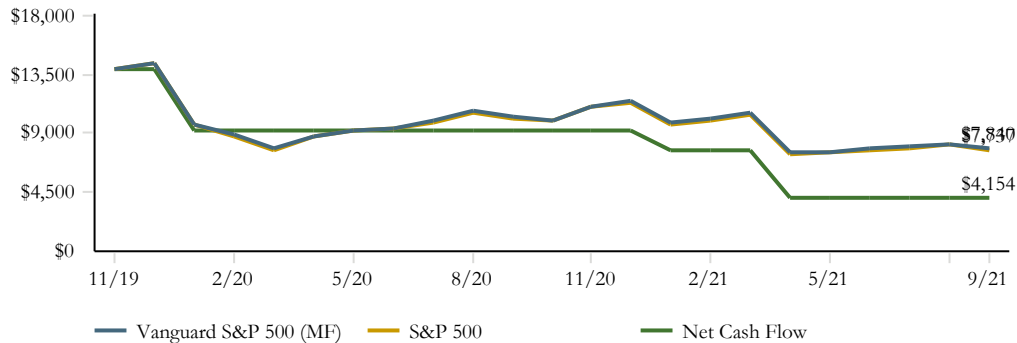


**Portfolio Performance (%)**



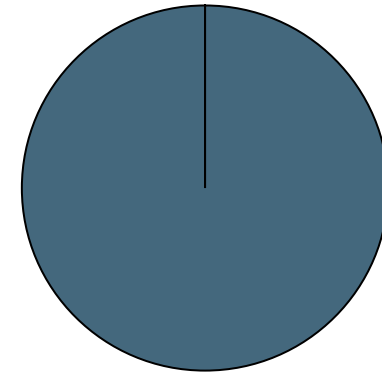
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Vanguard S&P 500 (MF)	0.57	15.84	29.91	20.32	12/01/2019
S&P 500	0.58	15.92	30.00	20.67	12/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Vanguard S&P 500 (MF)					12/01/2019
Beginning Market Value	7,795	11,516	10,269	13,955	
Net Contributions	2	-5,091	-5,088	-9,778	
Fees/Expenses	-2	-9	-12	-23	
Income	26	88	134	330	
Gain/Loss	19	1,335	2,537	3,356	
Ending Market Value	7,840	7,840	7,840	7,840	



**Asset Allocation (\$000)**

September 30, 2021 : \$7,840

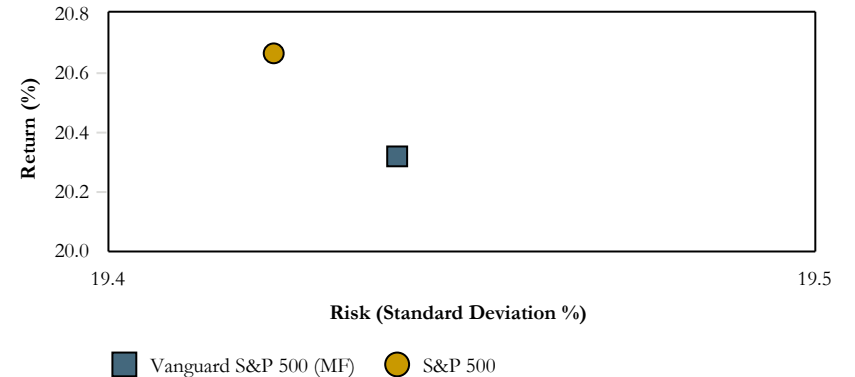


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	7,839.58	100.00

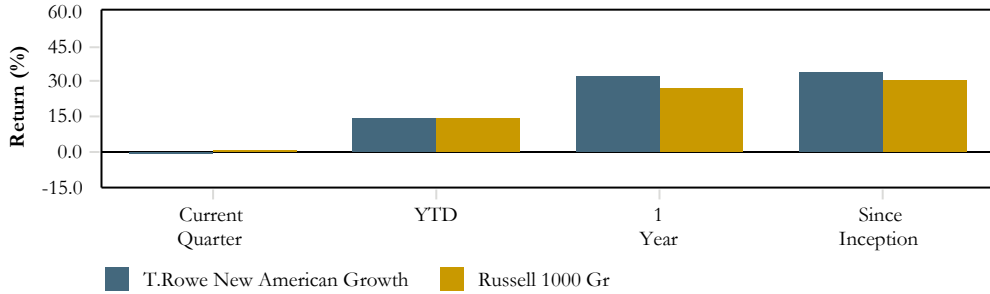
**Portfolio Characteristics vs. S&P 500 Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Vanguard S&P 500 (MF)	1.00	-0.31	1.00	1.03	12/01/2019

**Risk/Return Analysis Since 12/19**

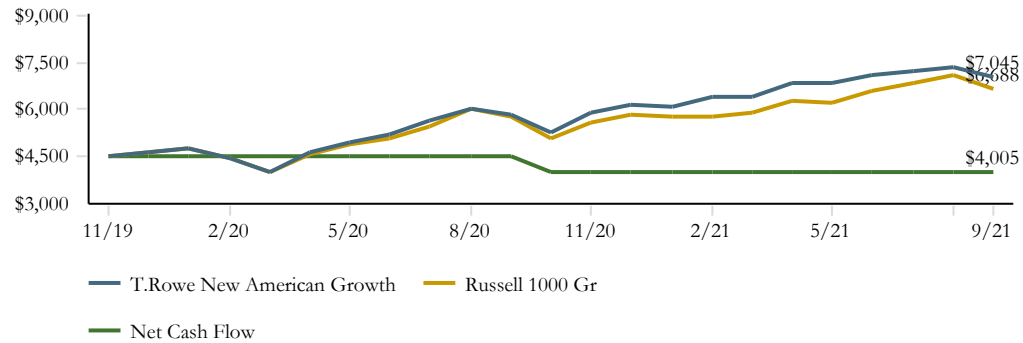


Portfolio Performance (%)



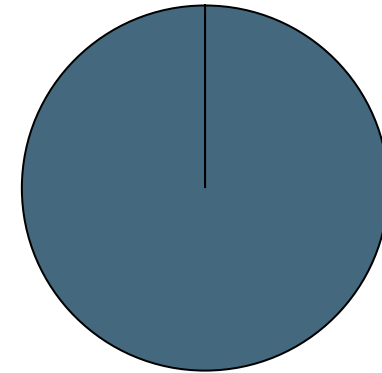
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
T.Rowe New American Growth	-0.47	14.11	31.95	33.72	12/01/2019
Russell 1000 Gr	1.16	14.30	27.32	30.57	12/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
T.Rowe New American Growth					12/01/2019
Beginning Market Value	7,078	6,174	5,817	4,505	
Net Contributions	2	6	-492	-490	
Fees/Expenses	-2	-6	-8	-10	
Income	-	-	827	1,136	
Gain/Loss	-33	871	901	1,904	
Ending Market Value	7,045	7,045	7,045	7,045	



Asset Allocation (\$000)

September 30, 2021 : \$7,045

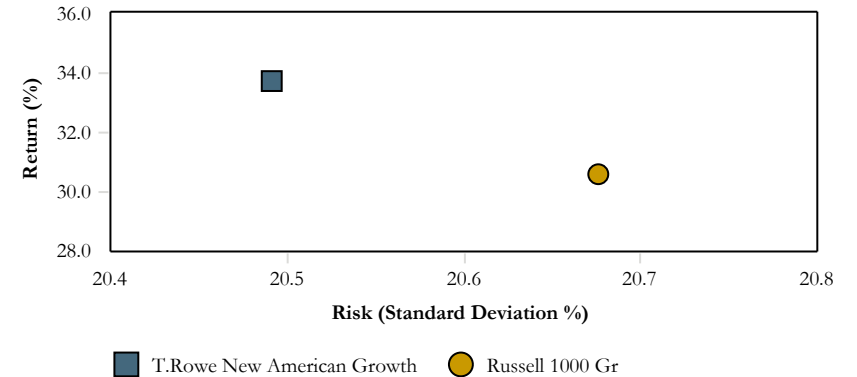


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	7,044.90	100.00

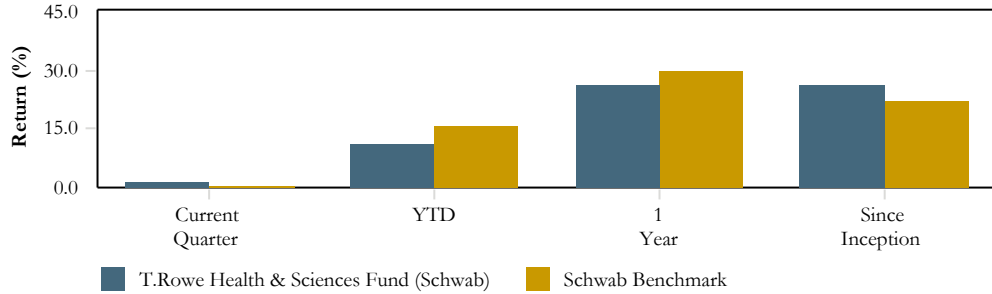
Portfolio Characteristics vs. Russell 1000 Gr Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
T.Rowe New American Growth	0.95	3.95	0.92	1.51	12/01/2019

Risk/Return Analysis Since 12/19

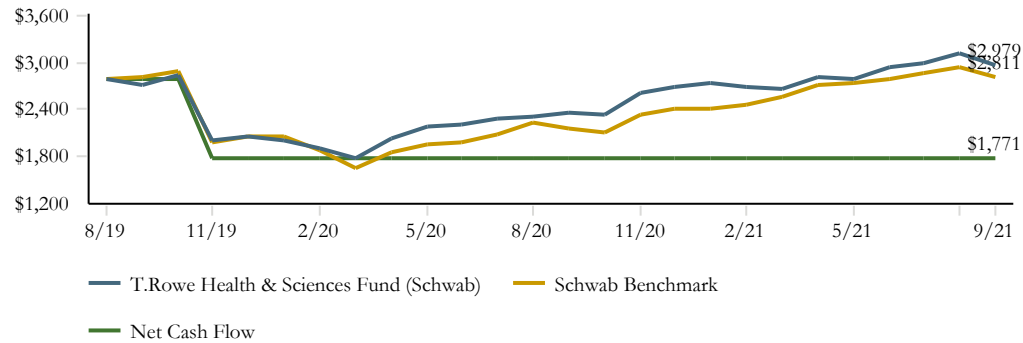


**Portfolio Performance (%)**



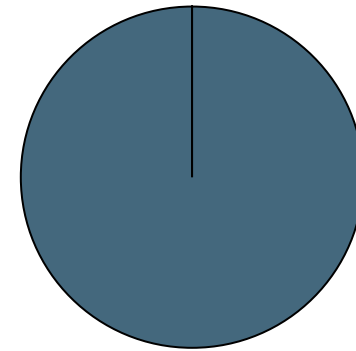
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
T.Rowe Health & Sciences Fund (Schwab)	1.35	11.03	26.52	26.24	09/01/2019
Schwab Benchmark	0.58	15.92	30.00	22.40	09/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
T.Rowe Health & Sciences Fund (Schwab)					09/01/2019
Beginning Market Value	2,939	2,683	2,354	2,795	
Net Contributions	-	-	-	-1,024	
Fees/Expenses	-	-	-	-	
Income	-	-	181	303	
Gain/Loss	40	296	443	904	
Ending Market Value	2,979	2,979	2,979	2,979	



**Asset Allocation (\$000)**

September 30, 2021 : \$2,979

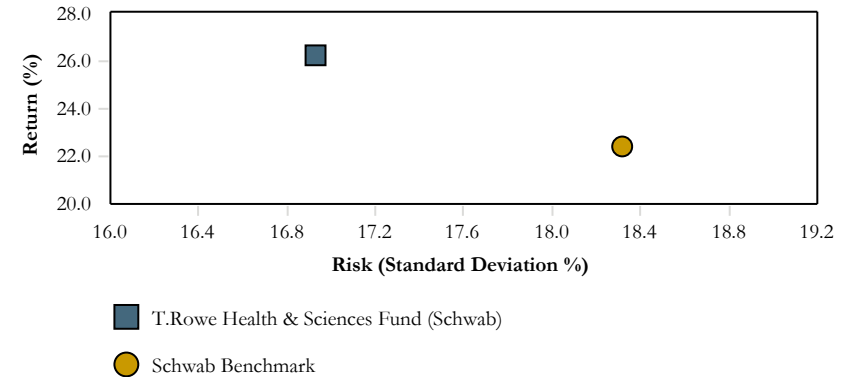


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	2,978.50	100.00
Cash Equivalent	0.06	0.00

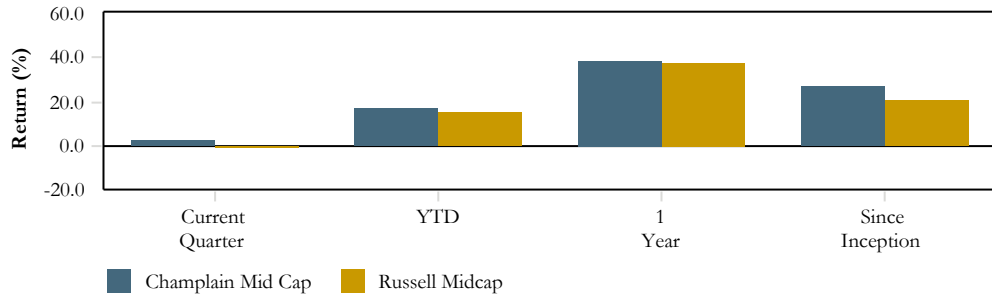
**Portfolio Characteristics vs. Schwab Benchmark Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
T.Rowe Health & Sciences Fund (Schwab)	0.76	8.45	0.68	1.43	09/01/2019

**Risk/Return Analysis Since 09/19**

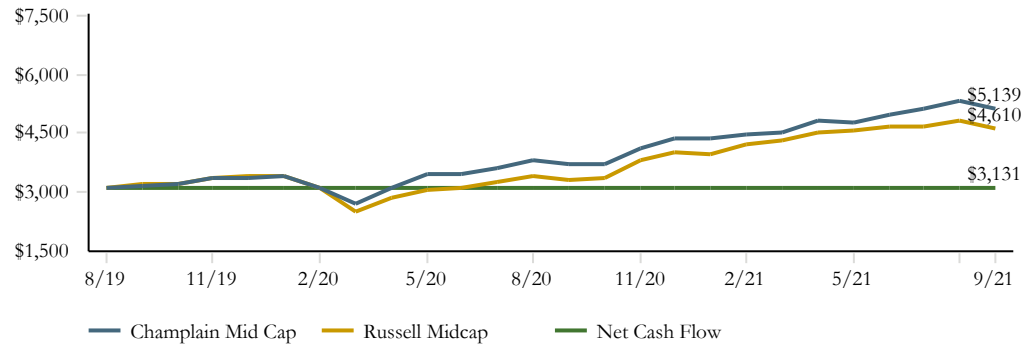


Portfolio Performance (%)



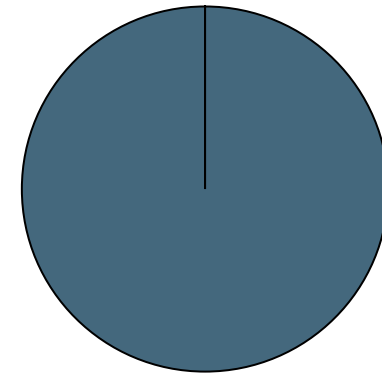
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Champlain Mid Cap	3.07	17.46	38.62	27.02	09/06/2019
Russell Midcap	-0.93	15.17	38.11	20.54	09/06/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Champlain Mid Cap					09/06/2019
Beginning Market Value	4,986	4,375	3,707	3,131	
Net Contributions	2	4	5	9	
Fees/Expenses	-2	-4	-5	-9	
Income	-	-	188	318	
Gain/Loss	153	764	1,244	1,689	
Ending Market Value	5,139	5,139	5,139	5,139	



Asset Allocation (\$000)

September 30, 2021 : \$5,139

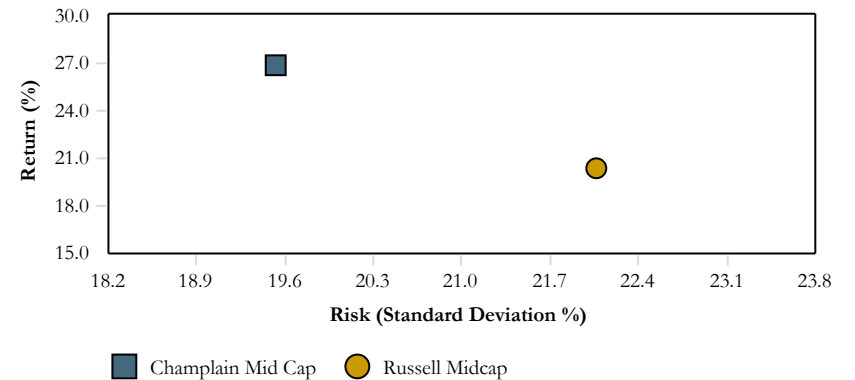


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	5,138.86	100.00

Portfolio Characteristics vs. Russell Midcap Since Inception

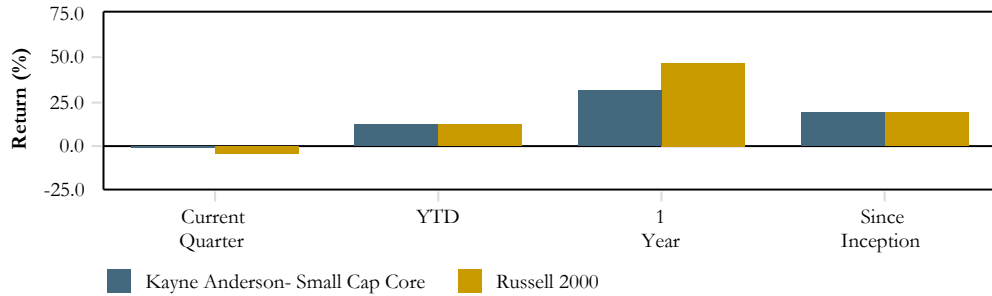
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Champlain Mid Cap	0.83	8.48	0.89	1.29	09/06/2019

Risk/Return Analysis Since 09/19



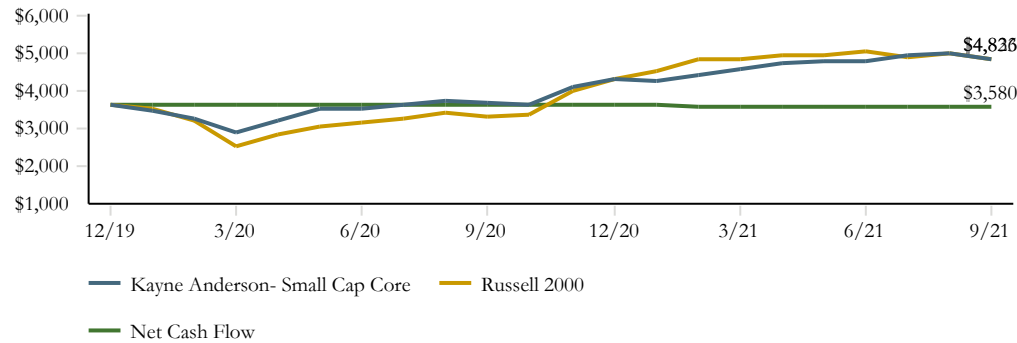


**Portfolio Performance (%)**



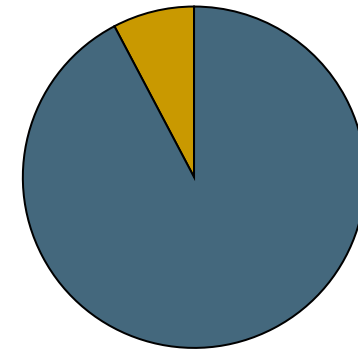
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Kayne Anderson- Small Cap Core	0.42	12.41	31.91	18.90	01/16/2020
Russell 2000	-4.36	12.41	47.68	19.11	01/16/2020

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Kayne Anderson- Small Cap Core					01/16/2020
Beginning Market Value	4,813	4,316	3,685	3,627	
Net Contributions	1	4	5	7	
Fees/Expenses	-11	-32	-40	-54	
Income	13	44	63	98	
Gain/Loss	8	491	1,110	1,144	
Ending Market Value	4,823	4,823	4,823	4,823	



**Asset Allocation (\$000)**

September 30, 2021 : \$4,823

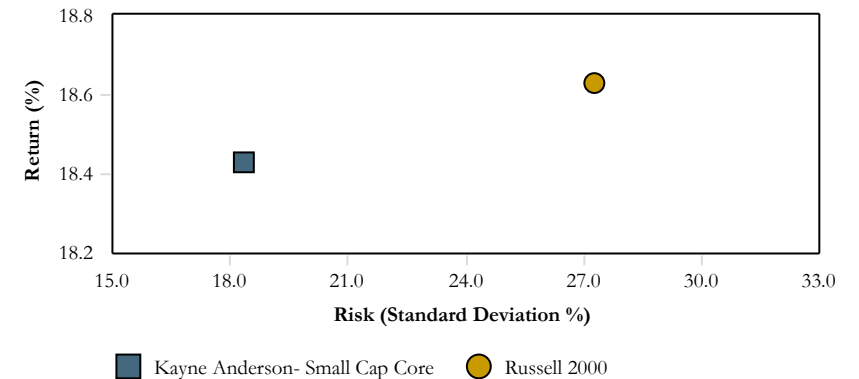


Segments	Market Value (\$000)	Allocation (%)
Domestic Equity	4,451.37	92.29
Cash Equivalent	371.77	7.71

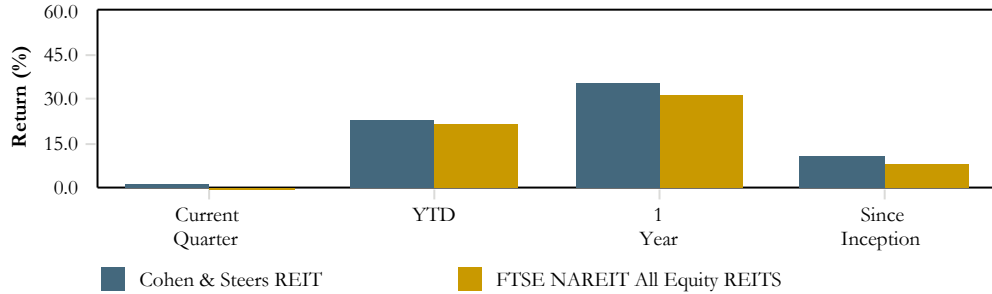
**Portfolio Characteristics vs. Russell 2000 Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Kayne Anderson- Small Cap Core	0.60	6.34	0.78	1.00	01/16/2020

**Risk/Return Analysis Since 01/20**

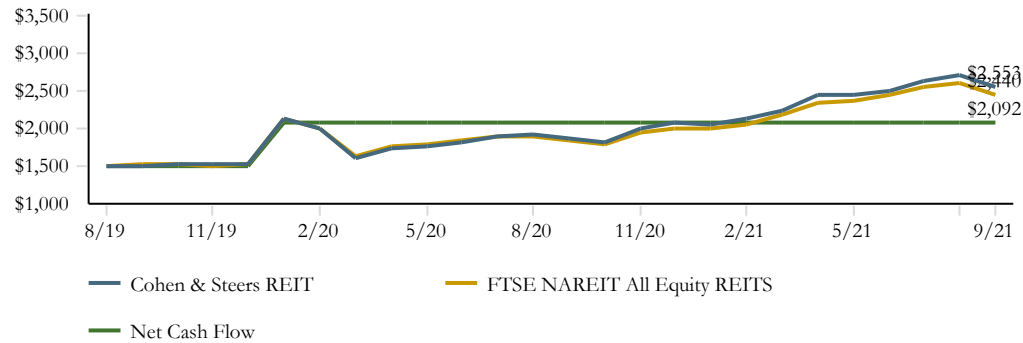


Portfolio Performance (%)



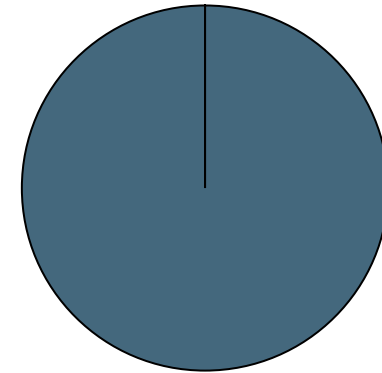
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Cohen & Steers REIT	1.57	22.98	35.92	10.65	09/01/2019
FTSE NAREIT All Equity REITS	0.23	21.63	31.53	8.14	09/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Cohen & Steers REIT					09/01/2019
Beginning Market Value	2,513	2,076	1,878	1,493	
Net Contributions	1	2	3	604	
Fees/Expenses	-1	-2	-3	-5	
Income	11	31	57	190	
Gain/Loss	28	446	618	271	
Ending Market Value	2,553	2,553	2,553	2,553	



Asset Allocation (\$000)

September 30, 2021 : \$2,553

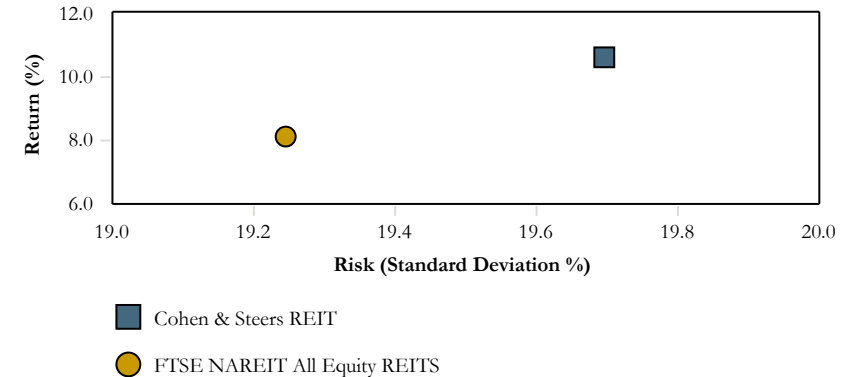


Segments	Market Value (\$000)	Allocation (%)
Alternative Investment	2,552.70	100.00

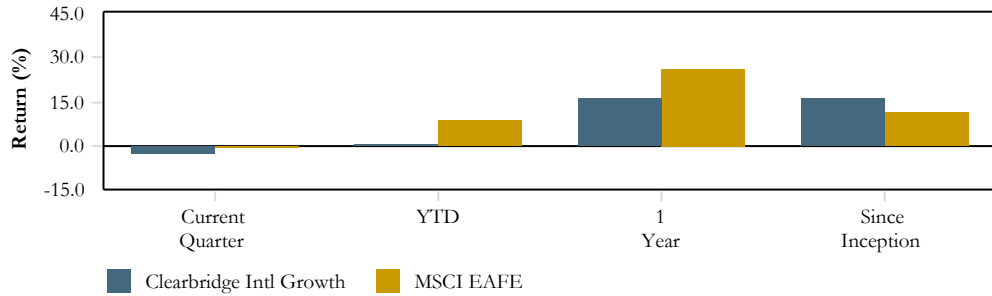
Portfolio Characteristics vs. FTSE NAREIT All Equity REITS

	Beta	Alpha	R-Squared	Sharpe Ratio	Incept Date
Cohen & Steers REIT	1.02	2.27	0.99	0.59	09/01/20

Risk/Return Analysis Since 09/19

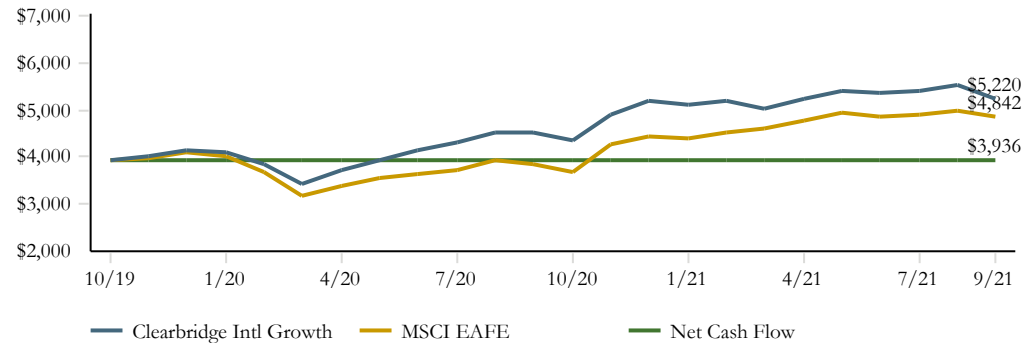


Portfolio Performance (%)



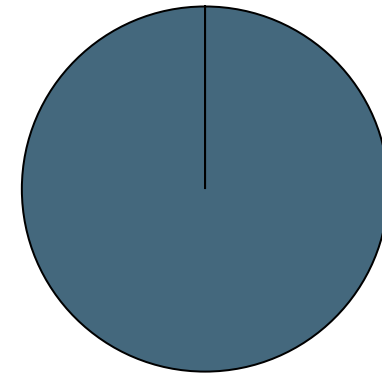
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Clearbridge Intl Growth	-2.64	0.43	15.87	15.88	11/01/2019
MSCI EAFE	-0.35	8.79	26.30	11.42	11/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Clearbridge Intl Growth					11/01/2019
Beginning Market Value	5,362	5,198	4,505	3,936	
Net Contributions	2	5	6	10	
Fees/Expenses	-2	-5	-6	-10	
Income	-	-	9	22	
Gain/Loss	-141	22	706	1,263	
Ending Market Value	5,220	5,220	5,220	5,220	



Asset Allocation (\$000)

September 30, 2021 : \$5,220

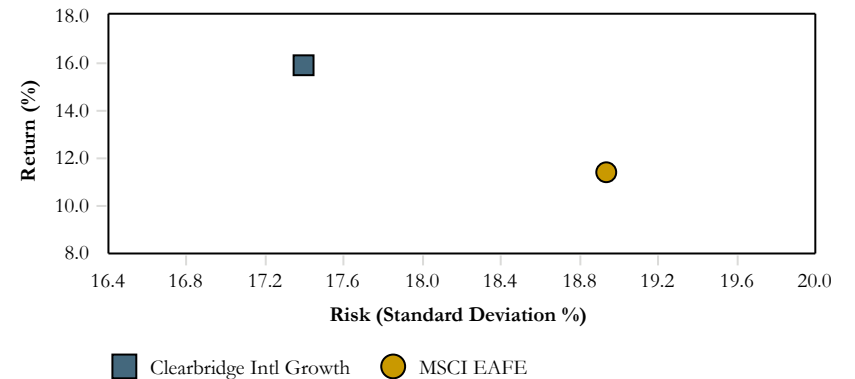


Segments	Market Value (\$000)	Allocation (%)
International Equity	5,220.37	100.00

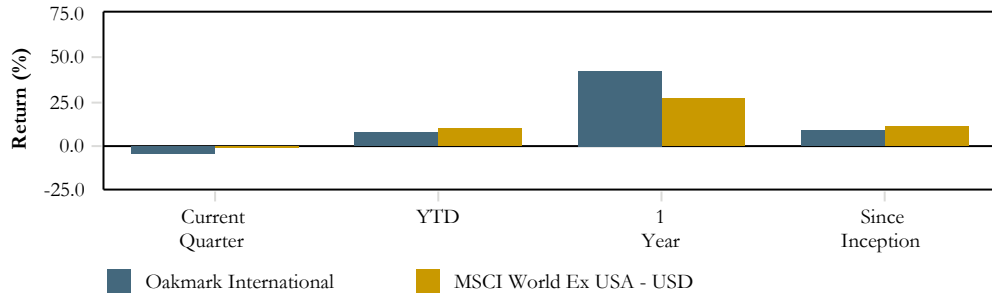
Portfolio Characteristics vs. MSCI EAFE Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Clearbridge Intl Growth	0.86	5.62	0.87	0.91	11/01/2019

Risk/Return Analysis Since 11/19

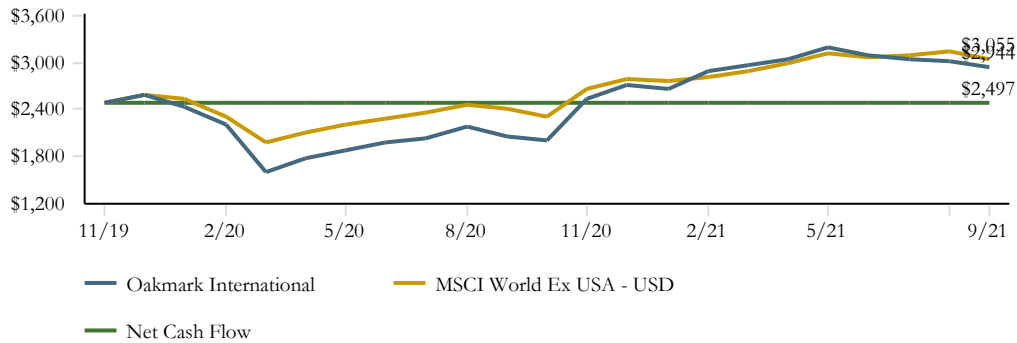


**Portfolio Performance (%)**



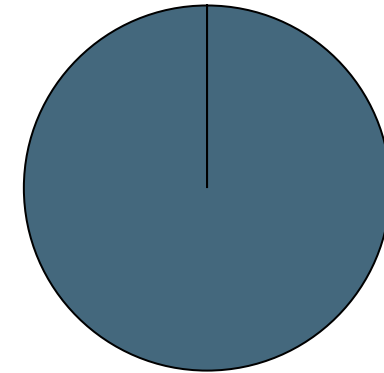
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Oakmark International	-4.96	8.17	42.30	9.39	12/01/2019
MSCI World Ex USA - USD	-0.56	9.65	27.10	11.62	12/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Oakmark International					12/01/2019
Beginning Market Value	3,097	2,721	2,069	2,497	
Net Contributions	1	3	3	4	
Fees/Expenses	-1	-3	-3	-4	
Income	-	-	15	66	
Gain/Loss	-154	222	860	381	
Ending Market Value	2,944	2,944	2,944	2,944	



**Asset Allocation (\$000)**

September 30, 2021 : \$2,944

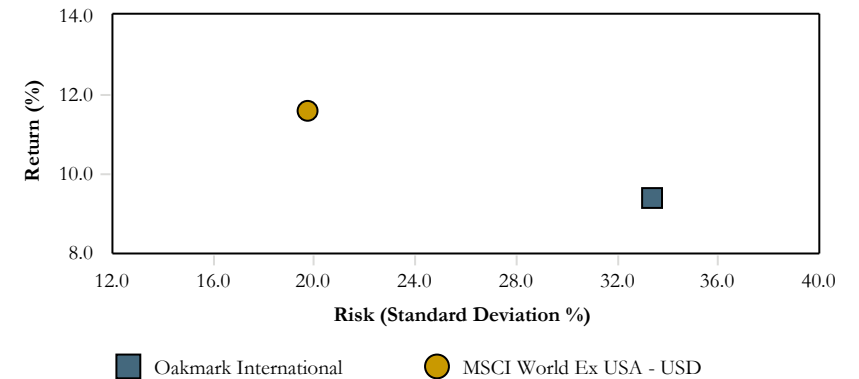


Segments	Market Value (\$000)	Allocation (%)
International Equity	2,943.79	100.00

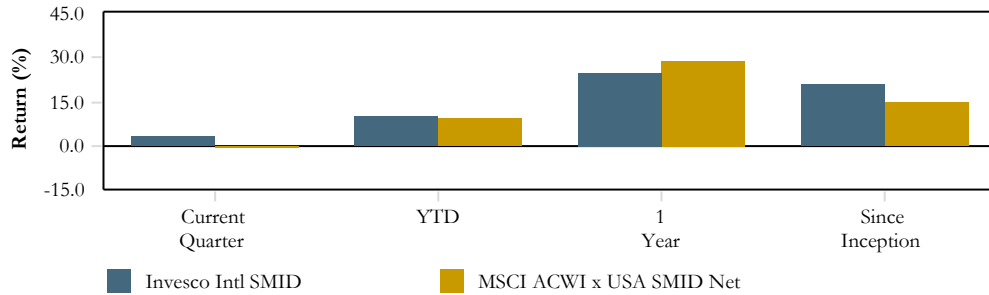
**Portfolio Characteristics vs. MSCI World Ex USA - USD Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Oakmark International	1.63	-6.27	0.93	0.43	12/01/2019

**Risk/Return Analysis Since 12/19**

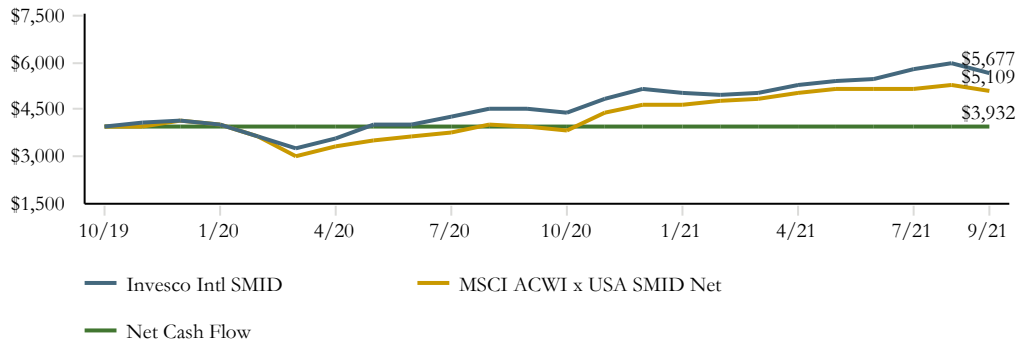


**Portfolio Performance (%)**



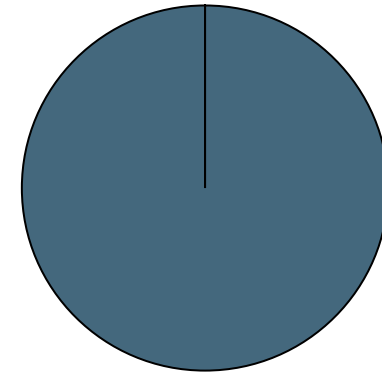
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Invesco Intl SMID	3.39	9.91	25.05	21.13	11/01/2019
MSCI ACWI x USA SMID Net	-0.94	9.48	28.94	14.64	11/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Invesco Intl SMID					11/01/2019
Beginning Market Value	5,491	5,165	4,540	3,932	
Net Contributions	2	5	6	9	
Fees/Expenses	-2	-5	-6	-9	
Income	-	-	389	585	
Gain/Loss	186	512	748	1,160	
Ending Market Value	5,677	5,677	5,677	5,677	



**Asset Allocation (\$000)**

September 30, 2021 : \$5,677

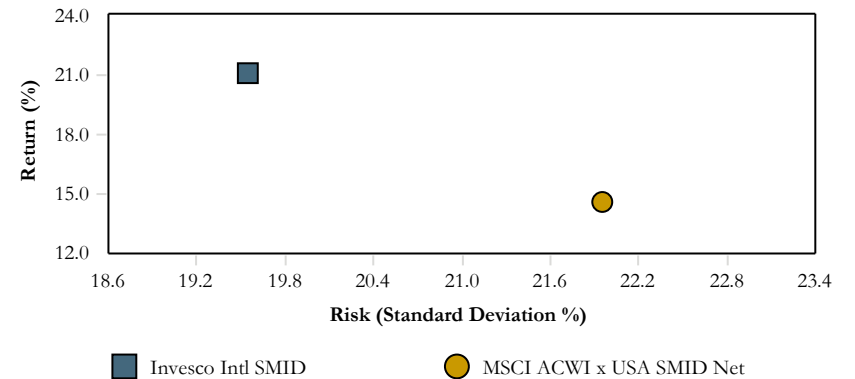


Segments	Market Value (\$000)	Allocation (%)
International Equity	5,677.16	100.00

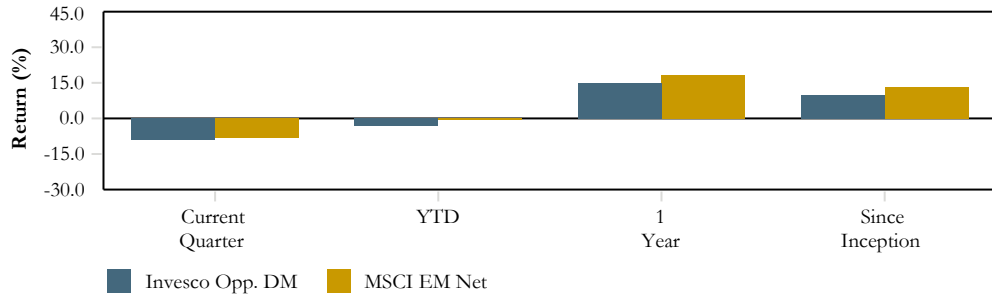
**Portfolio Characteristics vs. MSCI ACWI x USA SMID Net Since**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Invesco Intl SMID	0.79	8.68	0.79	1.06	11/01/2019

**Risk/Return Analysis Since 11/19**

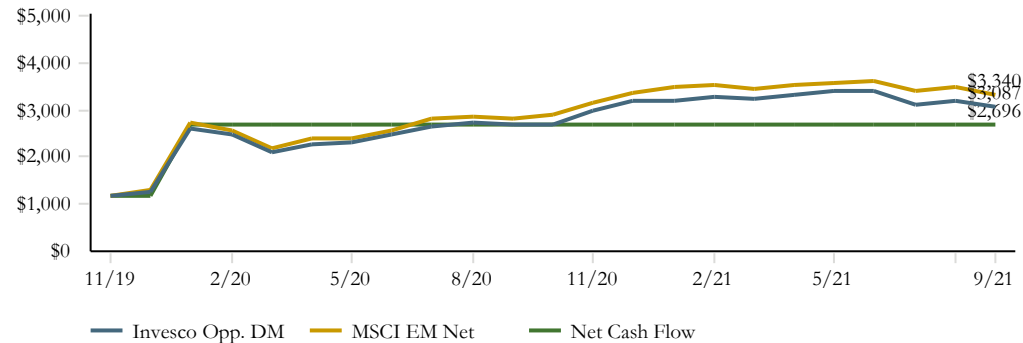


**Portfolio Performance (%)**



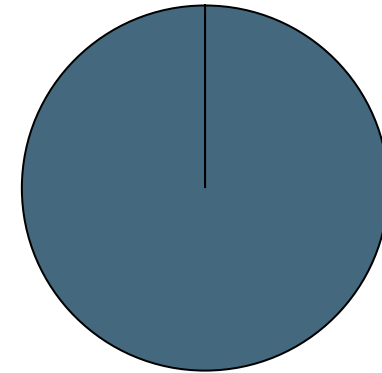
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Invesco Opp. DM	-9.19	-3.29	15.05	10.38	12/01/2019
MSCI EM Net	-8.09	-1.25	18.21	13.21	12/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Invesco Opp. DM					12/01/2019
Beginning Market Value	3,399	3,192	2,683	1,196	
Net Contributions	1	3	4	1,506	
Fees/Expenses	-1	-3	-4	-6	
Income	-	-	7	37	
Gain/Loss	-312	-105	397	353	
Ending Market Value	3,087	3,087	3,087	3,087	



**Asset Allocation (\$000)**

September 30, 2021 : \$3,087

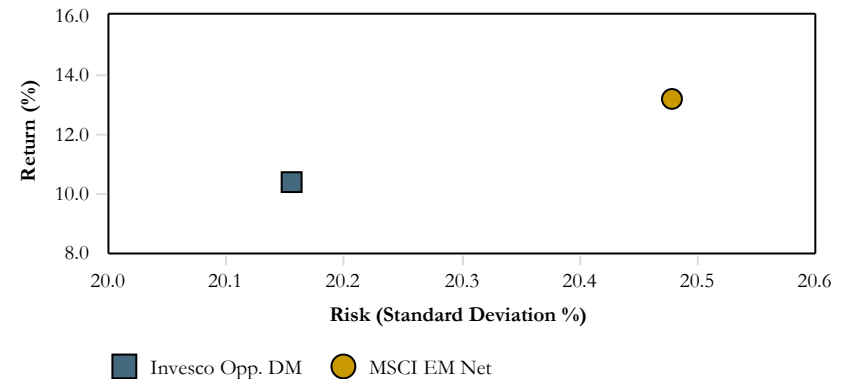


Segments	Market Value (\$000)	Allocation (%)
International Equity	3,086.83	100.00

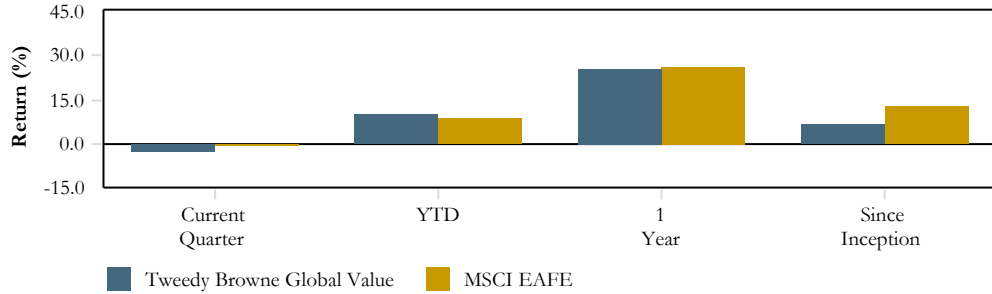
**Portfolio Characteristics vs. MSCI EM Net Since Inception**

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Invesco Opp. DM	0.96	-2.02	0.95	0.57	12/01/2019

**Risk/Return Analysis Since 12/19**

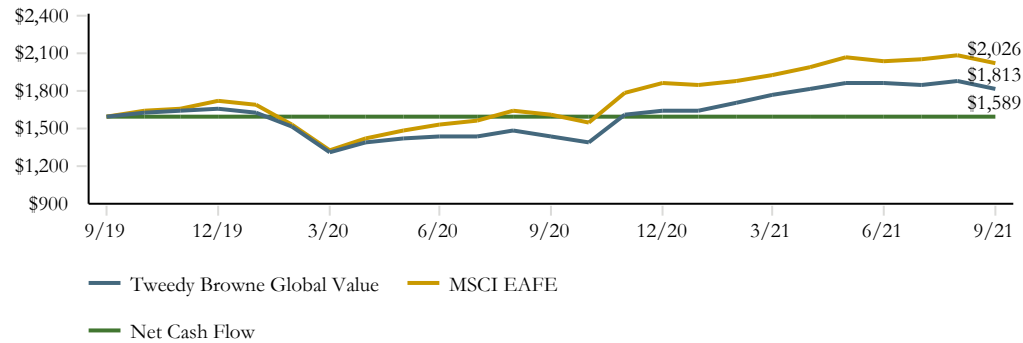


Portfolio Performance (%)



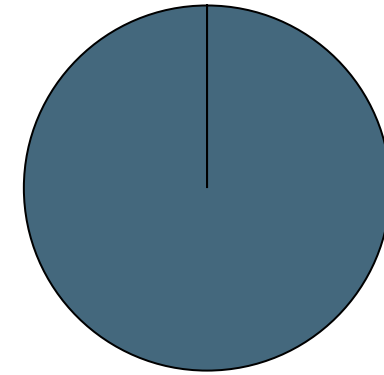
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Tweedy Browne Global Value	-2.42	9.94	25.84	6.85	10/07/2019
MSCI EAFE	-0.35	8.79	26.30	13.00	10/07/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Tweedy Browne Global Value					10/07/2019
Beginning Market Value	1,858	1,649	1,441	1,590	
Net Contributions	1	2	2	3	
Fees/Expenses	-1	-2	-2	-4	
Income	-	-	15	46	
Gain/Loss	-45	164	357	178	
Ending Market Value	1,813	1,813	1,813	1,813	



Asset Allocation (\$000)

September 30, 2021 : \$1,813

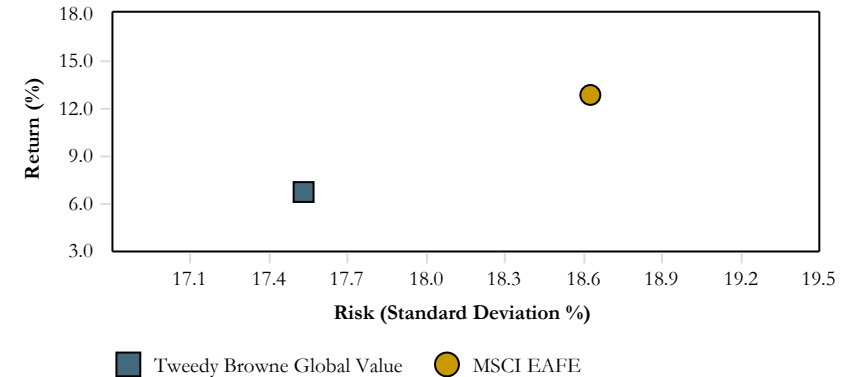


Segments	Market Value (\$000)	Allocation (%)
International Equity	1,813.21	100.00

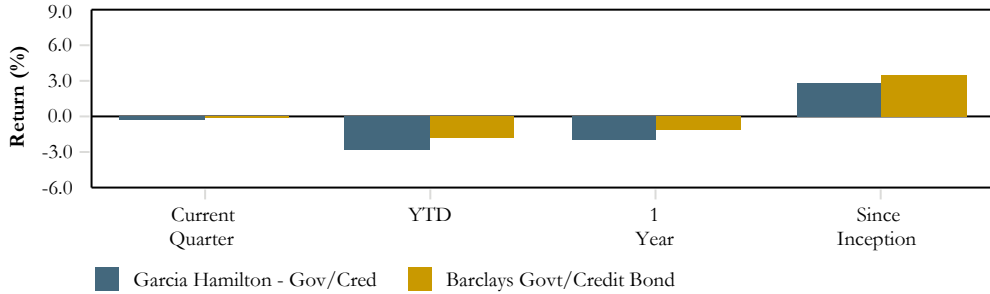
Portfolio Characteristics vs. MSCI EAFE Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Tweedy Browne Global Value	0.92	-4.56	0.95	0.43	10/07/2019

Risk/Return Analysis Since 10/19

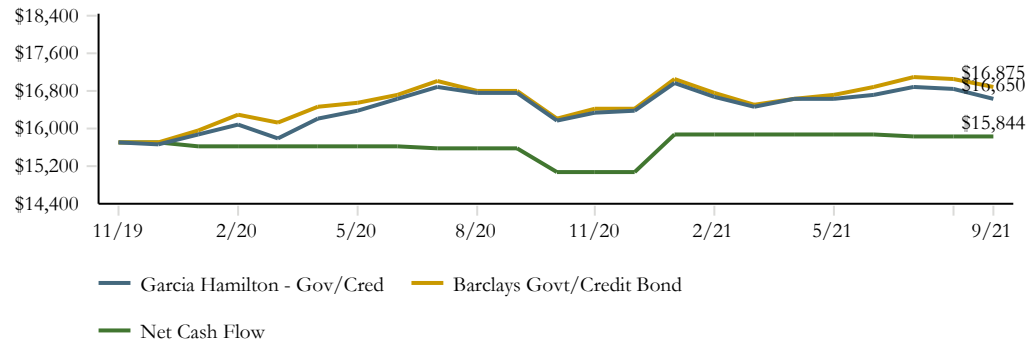


**Portfolio Performance (%)**



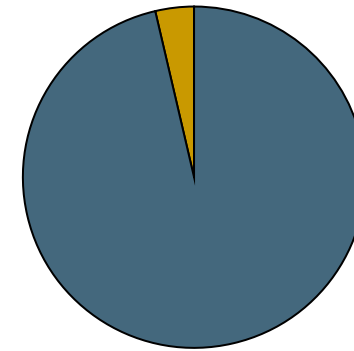
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Garcia Hamilton - Gov/Cred	-0.30	-2.88	-2.06	2.78	12/01/2019
Barclays Govt/Credit Bond	0.04	-1.93	-1.13	3.56	12/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Garcia Hamilton - Gov/Cred					12/01/2019
Beginning Market Value	16,711	16,365	16,738	15,716	
Net Contributions	5	815	320	229	
Fees/Expenses	-15	-46	-61	-102	
Income	115	289	359	675	
Gain/Loss	-166	-773	-707	131	
Ending Market Value	16,650	16,650	16,650	16,650	



**Asset Allocation (\$000)**

September 30, 2021 : \$16,650

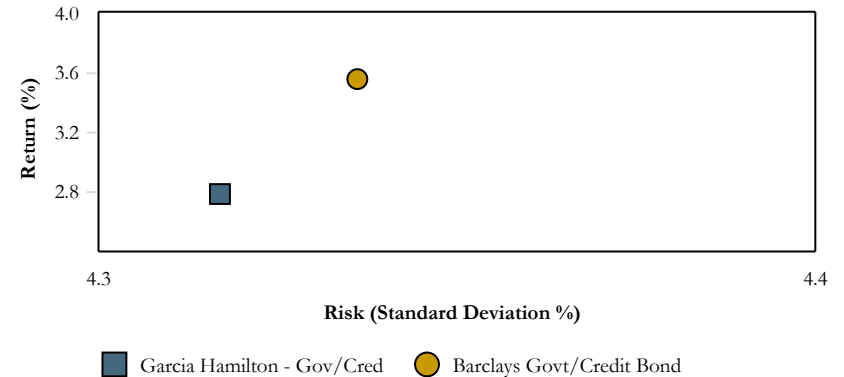


Segments	Market Value (\$000)	Allocation (%)
Domestic Fixed Income	16,041.76	96.35
Cash Equivalent	608.00	3.65

**Portfolio Characteristics vs. Barclays Govt/Credit Bond Since Inception**

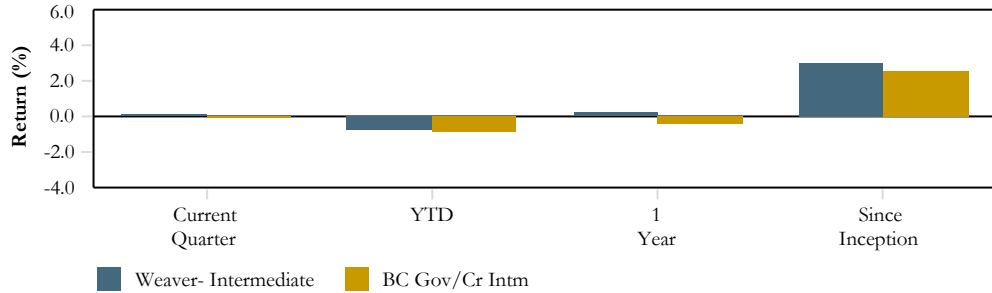
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Garcia Hamilton - Gov/Cred	0.95	-0.56	0.90	0.57	12/01/2019

**Risk/Return Analysis Since 12/19**



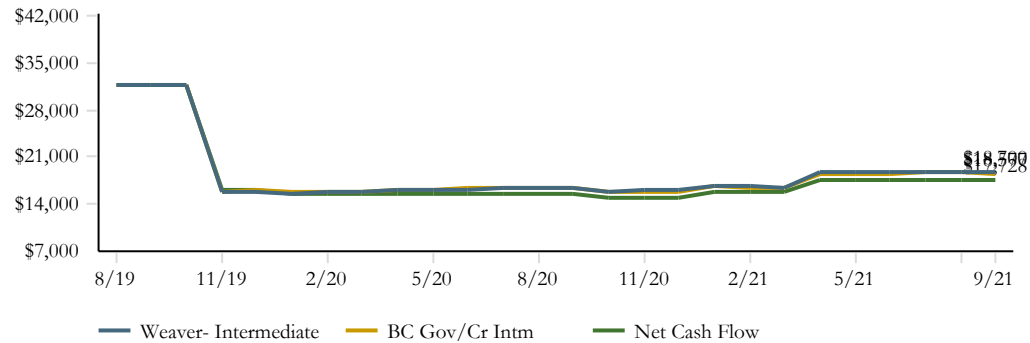


Portfolio Performance (%)



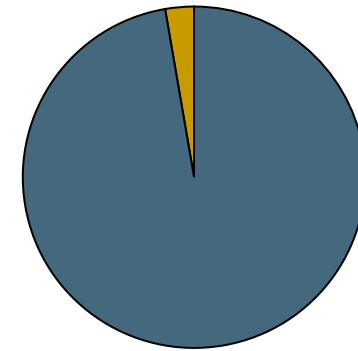
	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Weaver- Intermediate	0.13	-0.81	0.22	3.01	09/01/2019
BC Gov/Cr Intm	0.02	-0.87	-0.40	2.61	09/01/2019

	Current Quarter	YTD	1 Year	Since Inception	Inception Date
Weaver- Intermediate					09/01/2019
Beginning Market Value	18,683	16,036	16,406	31,744	
Net Contributions	6	2,815	2,291	-13,922	
Fees/Expenses	-13	-34	-46	-95	
Income	116	383	532	1,232	
Gain/Loss	-92	-499	-483	-259	
Ending Market Value	18,700	18,700	18,700	18,700	



Asset Allocation (\$000)

September 30, 2021 : \$18,700

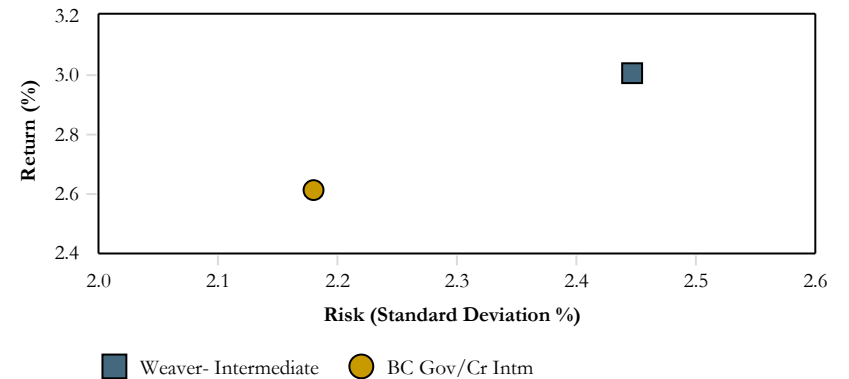


Segments	Market Value (\$000)	Allocation (%)
Domestic Fixed Income	18,193.01	97.29
Cash Equivalent	507.44	2.71

Portfolio Characteristics vs. BC Gov/Cr Intm Since Inception

	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Weaver- Intermediate	1.08	0.17	0.93	0.98	09/01/2019

Risk/Return Analysis Since 09/19



**Hoffman Estates Fire Pension Fund**  
**Hoffman Estates Fire Pension**  
**Since Inception Ending September 30, 2021**

	January	February	March	April	May	June	July	August	September	October	November	December	Year
2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.29	0.93	1.73	2.17	1.61	N/A
2020	-0.25	-4.44	-9.15	7.83	4.22	1.82	3.74	3.16	-1.41	-1.03	7.74	3.21	15.07
2021	-0.91	1.87	1.40	3.63	0.85	1.02	1.43	1.64	-3.34	N/A	N/A	N/A	N/A

As of September 30, 2021

Passive Portfolios	Weight (%)	Passive Portfolios	Weight (%)
<b>Custom Benchmark : Aug-2019</b>		<b>Schwab Benchmark : Sep-2019</b>	
S&P 500	35.00	S&P 500	65.00
S&P 400 MidCap Net	4.00	MSCI US Small Growth	35.00
S&P 600 SC	4.00		
FTSE NAREIT All Equity REITS	3.00	<b>Schwab Benchmark : Dec-2019</b>	
MSCI EAFE	16.00	S&P 500	100.00
MSCI EM Net	3.00	MSCI US Small Growth	0.00
BC Gov/Cr Intm	33.00		
90 Day T-Bill	2.00		

# Performance Appendix

Performance Data below is net of fees. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Account Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Aristotle -Value Equity	-0.99	16.38	34.89	--	--	--	20.54	10/01/2019
Cash Management Account	0.00	0.01	0.01	--	--	--	6.00	08/01/2019
Champlain Mid Cap	3.04	17.36	38.45	--	--	--	26.70	09/06/2019
Clearbridge Intl Growth	-2.67	0.34	15.73	--	--	--	15.76	11/01/2019
Cohen & Steers REIT	1.54	22.87	35.77	--	--	--	10.52	09/01/2019
Garcia Hamilton - Gov/Cred	-0.39	-3.14	-2.43	--	--	--	2.44	12/01/2019
IL Funds	0.01	0.03	0.06	--	--	--	3.67	07/01/2019
Invesco Intl SMID	3.36	9.82	24.91	--	--	--	21.00	11/01/2019
Invesco Opp. DM	-9.21	-3.38	14.91	--	--	--	10.25	12/01/2019
Kayne Anderson- Small Cap Core	0.19	11.66	30.73	--	--	--	17.56	01/16/2020
Madison - LCC	0.69	15.60	28.36	--	--	--	19.62	10/01/2019
Oakmark International	-4.99	8.08	42.14	--	--	--	9.28	12/01/2019
T.Rowe Health & Sciences Fund (Schwab)	1.35	11.03	26.52	--	--	--	26.24	09/01/2019
T.Rowe New American Growth	-0.50	14.01	31.79	--	--	--	33.60	12/01/2019
Tweedy Browne Global Value	-2.45	9.85	25.69	--	--	--	5.75	11/01/2019
Vanguard S&P 500 (MF)	0.54	15.74	29.76	--	--	--	20.18	12/01/2019
Weaver- Intermediate	0.06	-1.00	-0.05	--	--	--	2.75	09/01/2019

All performance above are Time Weighted(TWR) performance

## Glossary of Terms

**Active Contribution Return:** The gain or loss percentage of an investment relative to the performance of the investment benchmark.

**Active Exposure:** The percentage difference in weight of the portfolio compared to its policy benchmark.

**Active Return:** Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

**Actual Correlation:** A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

**Alpha:** A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

**Best Quarter:** The highest quarterly return for a certain time period.

**Beta:** A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

**Consistency:** The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Core:** Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

**Cumulative Selection Return (Cumulative Return):** Cumulative investment performance over a specified period of time.

**Distribution Rate:** The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains,

and/or return of capital.

**Down Market Capture:** The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

**Downside Risk:** A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

**Downside Semi Deviation:** A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

**Drawdown:** A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

**Excess over Benchmark:** The percentage gain or loss of an investment relative to the investment's benchmark.

**Excess Return:** Arithmetic difference between the manager's return and the risk-free return over a specified time period.

**Growth:** A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

**Growth of Dollar:** The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

**Investment Decision Process (IDP):** A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

**Information Ratio:** Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

**Jensen's Alpha:** The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha..

**Kurtosis:** A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

**Maximum Drawdown:** The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley

(length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

**Modern Portfolio Theory (MPT):** An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

**Mutual Fund (MF):** An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

**Peer Group:** A combination of funds that share the same investment style combined as a group for comparison purposes.

**Peer/ Plan Sponsor Universe:** A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

**Performance Ineligible Assets:** Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained by us. Common examples of these include life insurance, some annuities and some assets held externally.

**Performance Statistics:** A generic term for various measures of investment performance measurement terms.

**Portfolio Characteristics:** A generic term for various measures of investment portfolio characteristics.

**Preferred Return:** A term used in the private equity (PE) world, and also referred to as a "Hurdle Rate." It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or "carry."

**Ratio of Cumulative Wealth:** A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

**Regression Based Analysis:** A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables

**Residual Correlation:** Within returns-based style analysis, residual correlation refers to the portion of a strategy's return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

**Return:** A rate of investment performance for the specified period.

**Rolling Percentile Ranking:** A measure of an investment portfolio's ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

**R-Squared:** The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**SA/CF (Separate Account/Comingled Fund):** Represents an acronym for Separate Account and Comingled Fund investment vehicles.

**Sector Benchmark:** A market index that serves as a proxy for a sector within an asset class.

**Sharpe Ratio:** Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance results in.

**Standard Deviation:** A statistical measure of the range of a portfolio's performance; the variability of a return around its average return over a specified time period.

**Total Fund Benchmark:** The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

**Total Fund Composite:** The aggregate of multiple portfolios within an asset pool or household.

**Tracking Error:** A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

**Treynor Ratio:** A ratio that divides the excess return (above the risk free rate) by the portfolio's beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

**Up Market Capture:** The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

**Upside Semi Deviation:** A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

**Value:** A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

**Worst Quarter:** The lowest rolling quarterly return for a certain time period.

## Information Disclosures

*Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, and dividends, interest and income. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Past performance is not a guarantee of future results.*

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*Benchmark indices and blends included in this material are for informational purposes only, are provided solely as a comparison tool and may not reflect the underlying composition and/or investment objective(s) associated with the account(s). Indices are unmanaged and not available for direct investment. Index returns do not take into account fees or other charges. Such fees and charges would reduce performance.*

*The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your*

*Financial Advisor or visit the funds' company website.*

*Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.*

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities'** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **Master Limited Partnerships** (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

**Mortgage backed securities** also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

**Tax managed funds** may not meet their objective of being tax-efficient.

**Real estate** investments are subject to special risks, including interest rate and property value fluctuations,

as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as “junk bonds”, are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer’s creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor’s, Moody’s and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch’s classification (the equivalent of Aaa and C, respectively, by Moody(s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody’s) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as “NR”.

“**Alpha tilt strategies** comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance.”

**Custom Account Index:** The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

## Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a client’s investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

<https://www.invmetrics.com/style-peer-groups>

## Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low

statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

## Alternatives

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Traditional alternative investment vehicles are illiquid and usually are not valued daily. The estimated

valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

Traditional alternative investment vehicles often are speculative and include a high degree of risk. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: • Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; • Lack of liquidity in that there may be no secondary market for a fund; • Volatility of returns; • Restrictions on transferring interests in a fund; • Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; • Absence of information regarding valuations and pricing; • Complex tax structures and delays in tax reporting; • Less regulation and higher fees than mutual funds; and • Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

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For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of \$100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client's portfolio at the end of the three year period would be approximately \$115,762.50 without the fees and \$107,372.63 with the fees. Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) <<http://www.morganstanley.com/ADV>> or from your Financial Advisor/Private Wealth Advisor.

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### Money Market Funds

You could lose money in Money Market Funds. Although MMFs classified as government funds (i.e., MMFs that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., MMFs open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee they will do so. The price of other MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A MMF investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency.