

## Board of Trustees - Monthly Performance Report - December 31, 2021

Returns are provided by Callan LLC, are annualized for periods greater than one year, and are net of fees after 7/1/2020. Also see "Notes and References" below.

		(A)	(B)	(C)	(D)	(E)	( <b>F</b> )	( <b>G</b> )
	12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
				(6 Months)	(12 Months)	(12 Months)	(36 Months)	(60 Months)
1 TOTAL FUND ●	84,530,250,849	2.06%	3.15%	5.95%	18.72%	18.72%	15.51%	12.12%
2 Passive Index Benchmark¹ ●		3.07%	4.95%	4.24%	13.23%	13.23%	15.28%	10.78%
3 Performance Benchmark <sup>2</sup> ●		2.01%	3.80%	6.07%	17.21%	17.21%	15.09%	11.48%
4 Total Fund Return Objective <sup>3</sup>		0.70%	2.81%	5.02%	12.04%	12.04%	8.54%	7.92%
5 PUBLIC EQUITY	31,200,429,907	4.53%	4.92%	4.34%	20.53%	20.53%	21.16%	14.66%
6 MSCI ACWI IMI		3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
7 INTERNATIONAL EQUITY	8,172,269,254	4.07%	0.49%	<b>-2.16</b> %	8.18%	8.18%	14.84%	10.93%
8 MSCI ACWI IMI EX-US 9 GLOBAL EQUITY	11,876,120,902	4.15% <b>4.78</b> %	1.64% <b>5.37</b> %	-0.96% <b>5.00</b> %	8.53% <b>21.31</b> %	8.53% <b>21.31</b> %	13.62% <b>22.12%</b>	9.83% 1 <b>5.11%</b>
10 MSCI ACWI IMI	11/07 0/120/702	3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
11 DOMESTIC EQUITY	11,151,648,903	4.59%	7.87%	8.80%	30.40%	30.40%	25.26%	16.80%
12 RUSSELL 3000 INDEX		3.94%	9.28%	9.17%	25.66%	25.66%	25.79%	17.97%
FIVED INCOME	1//47 507 551	0.170/	0.140/	0.050/	0.450/	0.450/	E 000/	4.000/
13 FIXED INCOME	16,647,587,551	0.17%	0.16%	0.25%	-0.45%	-0.45%	5.83%	4.38%
14 FIXED INCOME BENCHMARK <sup>4</sup> 15 US FIXED INCOME AGGREGATE	4,952,044,670	0.10% <b>-0.20</b> %	0.1 <i>5</i> % <b>0.07</b> %	0.26% <b>0.13</b> %	-0.44% <b>-1.32</b> %	-0.44% -1.32%	5.06% 5.50%	3.83% 3.96%
16 BB AGGREGATE	7,752,077,070	-0.26%	0.01%	0.06%	-1.54%	-1.54%	4.79%	3.57%
17 US INVESTMENT GRADE CORPORATE	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
18 BB CORPORATE		-0.08%	0.23%	0.23%	-1.04%	-1.04%	7.59%	5.26%
19 NON US FIXED INCOME	1,378,728,731	-0.66%	-0.13%	-0.23%	-2.38%	-2.38%	2.92%	2.85%
20 BB GLOBAL TREASURY EX-US		-0.78%	0.06%	0.13%	-1.72%	-1.72%	3.06%	2.96%
21 GLOBAL HIGH YIELD	1,720,098,544	1.71%	0.61%	1.41%	4.98%	4.98%	8.24%	5.77%
22 BB US HIGH YIELD 2% ISSUER CAP 23 EMERGING MARKET DEBT	892,969,560	1.87% <b>1.63</b> %	0.69% -1. <b>81</b> %	1.59% <b>-3.72</b> %	5.26% <b>-5.48%</b>	5.26% <b>-5.48%</b>	8.81% <b>3.77</b> %	6.28% <b>3.48%</b>
EMP DE IGNA DIS	072,707,500	1.48%	-1.49%	-3.37%	-5.32%	-5.32%	4.03%	3.78%
24 EMD BENCHMARK 25 TIPS	845,738,825	0.35%	2.44%	4.49%	6.41%	6.41%	<b>8.37</b> %	5.38%
26 BB US TIPS	0.10% 00%20	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
27 FIXED INCOME CASH	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	
28 90 DAY T-BILLS		0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	
29 DOMESTIC STRUCTURED PRODUCTS	1,275,477,420	-0.12%	-0.29%	-0.22%	-1.12%	-1.12%		
30 BB US SECURITIZED		-0.09%	-0.39%	-0.30%	-1.04%	-1.04%		
31 ABSOLUTE RETURN	4,771,845,680	1.54%	0.51%	3.06%	5.57%	5.57%	6.86%	5.94%
32 HFRI TOTAL HFOF UNIVERSE		1.24%	0.52%	0.13%	10.26%	10.26%	10.84%	7.09%
33 RISK PARITY	821,409,389	2.20%	3.90%	4.51%	11.16%	11.16%		
34 HFRI RISK PARITY 12% VOL		3.10%	3.40%	3.28%	10.71%	10.71%		
35 TOTAL FUND CASH	2,122,508,428	0.01%	-0.02%	0.03%	0.13%	0.13%		
36 90 DAY T-BILLS	, ,,,,,,,	0.01%	0.01%	0.02%	0.05%	0.05%		
37 PRIVATE EQUITY & SPECIAL OPPS ●	16,187,867,751	N/A	4.27%	16.06%	53.85%	53.85%	26.96%	26.15%
38 CAMBRIDGE PRIVATE EQUITY •	10.045.410.424	NI / A	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
39 PRIVATE EQUITY ● 40 CAMBRIDGE PRIVATE EQUITY ●	10,965,612,434	<b>N/A</b> N/A	<b>6.97%</b> 5.01%	<b>20.28%</b> 1 <i>7</i> .1 <i>7</i> %	<b>62.76%</b> 48.82%	<b>62.76%</b> 48.82%	<b>32.97%</b> 24.50%	<b>29.05</b> % 21.29%
41 SPECIAL OPPORTUNITIES •	5,113,908,437	N/A	<b>-0.44</b> %	8.31%	38.23%	38.23%	17.21%	20.63%
42 CAMBRIDGE PRIVATE EQUITY ●	0,110,200,10	N/A	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
43 IN-STATE EMERGING MANAGERS ●	108,346,880	N/A	-20.27%	8.50%	30.36%	30.36%		
CAMBRIDGE PRIVATE EQUITY ●		N/A	5.01%	17.17%	48.82%	48.82%		
AS DEAL POTATE O	4 400 040 007	NI / A	4 720/	0.150/	0.700/	0.700/	2 240/	2 240/
45 REAL ESTATE ◆	6,602,949,987	N/A	4.73%	9.15%	9.72%	9.72%	3.34%	3.34%
46 REAL ESTATE CUSTOM <sup>o</sup> ● 47 RE EQUITY INVESTMENTS ●	5,057,338,637	N/A	4.62% 5.06%	9.69% <b>7.47</b> %	15.77% <b>4.16</b> %	15.77% <b>4.16</b> %	8.58%	7.96%
48 NCREIF TOTAL INDEX •	J <sub>1</sub> UJ/ <sub>1</sub> JJO <sub>1</sub> UJ/	N/A N/A	5.23%	9.01%	12.15%	12.15%		
49 RE DEBT INVESTMENTS •	271,896,127	N/A	3.91%	<b>7.37</b> %	13.62%	13.62%	11.46%	
50 NCREIF TOTAL INDEX ●		N/A	5.23%	9.01%	12.15%	12.15%	6.72%	
51 <b>REITS</b> ●	1,273,715,223	N/A	3.89%	18.48%	40.73%	40.73%	10.89%	<b>7.41</b> %
52 MSCI US REIT ●		N/A	0.98%	13.09%	37.16%	37.16%	10.10%	6.84%
53 PRIVATE INCOME	6 175 652 157	NI/A	1 270/	7.08%	10 02%	10 020/	0.520/	11.420/
53 PRIVATE INCOME	6,175,652,157	N/A	1.37%		19.92%	19.92%	<b>9.52</b> %	11.42%
54 PRIVATE INCOME CUSTOM   55 INFRASTRUCTURE ●	2,774,727,976	N/A	2.19% <b>0.72</b> %	6.79% 6.66%	16.64% <b>24.00</b> %	16.64% <b>24.00</b> %	7.62% <b>9.89</b> %	7.63% 13.46%
56 CAMBRIDGE GLOBAL PVT INFRASTRUCTURE		N/A N/A	2.23%	6.20%	14.77%	14.77%	7.62%	8.07%
57 PRIVATE CREDIT ●	1,670,541,245	N/A	2.42%	8.57%	19.38%	19.38%	8.48%	8.77%
58 CAMBRIDGE PRIVATE CREDIT ●	·	N/A	2.12%	7.68%	19.47%	19.47%	7.53%	6.89%
59 INCOME OPPORTUNITIES •	1,730,382,936	N/A	1.48%	6.43%	14.79%	14.79%	9.85%	7.02%
60 PRIVATE INCOME CUSTOM <sup>7</sup> ●		N/A	2.19%	6.79%	16.64%	16.64%	7.62%	7.63%

		12/31/21 Market Value*	(A)	(B) 3 Months	(C)	(D)	(E)	(F) 3 Years	(G) 5 Years
61 <b>F</b>	PUBLIC EQUITY	31,200,429,907	4.53%	4.92%	4.34%	20.53%	20.53%	21.16%	14.66%
	ASCI ACWI IMI	01,200,121,101	3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
63	INTERNATIONAL EQUITY	8,172,269,254	4.07%	0.49%	-2.16%	8.18%	8.18%	14.84%	10.93%
64	MSCI ACWI IMI EX-US	004.047.770	4.15%	1.64%	-0.96%	8.53%	8.53%	13.62%	9.83%
65 66	Macquarie Emerging Markets JP Morgan Emerging Markets	224,346,678 371,892,341	3.33% 0.98%	1.39% -3.34%	-8.23% -9.24%	-0.74% -4.89%	-0.74% -4.89%	15.95% 15.09%	14.54% 13.66%
67	Mondrian Investment Partners	363,168,827	2.83%	-1.14%	-11.11%	-5.38%	-5.38%	9.32%	7.66%
68	SSGA MSCI Emerging Markets	143,517,194	1.87%	-1.39%	-9.26%	-2.43%	-2.43%	11.10%	9.86%
69	William Blair Emerging Markets	347,848,735	3.14%	-2.34%	-10.08%	-5.63%	-5.63%	16.53%	13.60%
70	MEASA Fund	107,992,593	-4.31%	-8.13%	-1.06%	20.04%	20.04%	10.79%	
71 72	MSCI Emerging Markets Index  DFA Emerging Markets Value	805,513,611	1.88% <b>4.39</b> %	-1.31% <b>-0.14%</b>	-9.30% <b>-2.99</b> %	-2.54% 1 <b>2.96</b> %	-2.54% 1 <b>2.96</b> %	10.94% <b>8.60</b> %	8.58%
73	MSCI Emerging Markets Value Index	003,313,011	3.55%	-0.41%	-5.46%	4.00%	4.00%	7.09%	7.03%
74	DFA Emerging Markets Small Cap	258,458,179	3.77%	0.87%	-2.60%	14.93%	14.93%	14.34%	10.46%
75	MSCI Emerging Markets Small Cap Index		4.21%	1.33%	-0.86%	18.75%	18.75%	16.46%	11.47%
76 	Trustbridge Emerging Markets	154,544,544	-3.95%	<b>-7.12</b> %	-22.26%	-23.01%	-23.01%	11.22%	13.71%
<i>77</i> 78	MSCI China Index ND Wells Capital	133,616,399	-3.15% <b>1.79</b> %	-6.06% <b>0.60</b> %	-23.13% <b>-11.44%</b>	-21.72% <b>-7.88</b> %	-21.72% <b>-7.88</b> %	7.76% 16.96%	9.36% <b>14.91%</b>
79	MSCI China All Shares Idx (USD Net Div)	133,010,377	-1.52%	-2.53%	-15.53%	-12.91%	-12.91%	14.66%	8.08%
80	Mellon MSCI World ex-USA	172,409,849	5.08%	3.18%	2.55%	13.01%	13.01%	13.90%	9.70%
81	DFA International Large Cap	629,038,276	5.41%	2.58%	1.98%	14.30%	14.30%	13.14%	9.19%
82	MSCI World ex US		5.08%	3.14%	2.46%	12.62%	12.62%	14.07%	9.63%
83	DFA International Small Cap Value	615,077,655	<b>6.32</b> %	1.12%	<b>2.39%</b> 0.84%	<b>17.12%</b> 13.27%	17.12%	12.81%	<b>7.36</b> %
84 85	MSCI World ex-USA Small Cap Value Index  DFA International Small Company	481,893,465	5.37% <b>4.96</b> %	0.72% <b>1.44%</b>	0.84% <b>2.21</b> %	14.92%	13.27% <b>14.92</b> %	12.59% <b>16.01</b> %	8.30% 1 <b>0.67</b> %
86	SSGA International Developed Small Cap	411,990,935	4.23%	0.35%	1.21%	11.24%	11.24%	16.56%	11.33%
87	MSCI World ex-USA Small Cap Index		4.24%	0.39%	1.11%	11.14%	11.14%	16.27%	11.03%
88	Acadian Asset Mgmt	447,128,061	6.65%	3.39%	3.92%	19.73%	19.73%	11.75%	10.34%
89	MSCI World ex US Value		6.05%	1.91%	0.81%	13.26%	13.26%	8.66%	5.69%
90	LSV International Large Cap	918,781,724	5.55% 5.27%	1.31%	-0.14%	13.29%	13.29%	9.76%	7.31%
91 92	Schroders International Large Cap  MSCI All Country World ex-USA Value Index	744,465,017	<b>5.27</b> % 5.32%	<b>2.69</b> % 1.24%	<b>-0.19%</b> -1.11%	<b>14.11%</b> 10.46%	<b>14.11%</b> 10.46%	<b>11.46%</b> 8.24%	<b>7.97%</b> 6.00%
93	Johnston International Large Cap	408,503,810	2.01%	-3.39%	-2.28%	1.51%	1.51%	23.14%	17.60%
94	JP Morgan International Large Cap	432,081,360	3.14%	4.05%	4.33%	11.42%	11.42%	24.63%	16.41%
95	MSCI World ex-USA Growth Index		4.15%	4.27%	4.02%	11.57%	11.57%	19.11%	13.37%
96	GLOBAL EQUITY	11,876,120,902	4.78%	5.37%	5.00%	21.31%	21.31%	22.12%	15.11%
97	MSCI ACWI IMI	1 166 570 004	3.97% <b>5.49</b> %	6.10%	4.92%	18.22% 18.28%	18.22%	20.20%	14.12%
98 99	AQR Global Equity SSGA MSCI World	1,166,579,004 186,322,035	4.32%	7.66% 7.85%	5.73% 7.92%	22.22%	18.28% 22.22%	17.81% 21.99%	12.17% 15.38%
100	CDAM Global Equity	648,133,780	4.61%	6.06%	10.21%	27.67%	27.67%	23.83%	10.00 /0
101	MSCI World Index	, ,	4.27%	7.77%	7.76%	21.82%	21.82%	21.70%	15.03%
102	SSGA Russell Fundamental Developed Lrg Co	1,478,035,760	5.94%	5.58%	4.68%	23.21%	23.21%	17.81%	12.11%
103	Russell Fundamental Dvlpd Lrg Co Index		6.01%	5.64%	4.82%	23.77%	23.77%	18.06%	12.29%
104	Lazard Asset Management	1,080,703,291	4.59%	4.94%	5.06%	17.74%	17.74%	18.36%	12.72%
105 106	McKinley Capital Management RBA Global Equity	420,066,273 483,749,451	2.95% 4.89%	6.57% 7.20%	6.50% 5.51%	20.14% 19.41%	20.14% 19.41%	28.54% 20.88%	18.94%
107	WCM Global Equity	506,485,745	2.40%	6.45%	7.30%	16.08%	16.08%	30.47%	
108	MSCI All-Country World Index	, ,	4.00%	6.68%	5.55%	18.54%	18.54%	20.38%	14.40%
109	APF Tactical Tilts	2,324,136,167	4.17%	3.99%	3.31%	22.79%	22.79%	26.27%	16.76%
110	SSGA MSCI ACWI IMI	701,759,116	3.96%	6.10%	4.98%	18.37%	18.37%	20.33%	14.32%
111	APF Global Equities	148,663,478	2.87%	3.18%	2.08%	18.48%	18.48%	16.86%	
112 113	Arrowstreet Global Equity  Longview Global Equity	1,469,765,261 1,261,719,736	4.62% 6.69%	4.85% 4.32%	4.05% 5.74%	22.15% 21.00%	22.15% 21.00%	22.66% 16.50%	
114	MSCI All-Country World IMI	1,201,111,100	3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
115	DOMESTIC EQUITY	11,151,648,903	4.59%	7.87%	8.80%	30.40%	30.40%	25.26%	16.80%
116	RUSSELL 3000 INDEX		3.94%	9.28%	9.17%	25.66%	25.66%	25.79%	17.97%
117	Mellon S&P 500	1,927,442,685	4.48%	10.98%	11.56%	28.47%	28.47%	26.49%	18.71%
118 119	S&P 500 Index  Mellon FTSE RAFI US Large Cap	1,154,302,739	4.48% <b>5.92</b> %	11.03% <b>8.95</b> %	11.67% <b>8.11</b> %	28.71% <b>32.04</b> %	28.71% <b>32.04</b> %	26.07% <b>22.20</b> %	18.47% <b>14.27</b> %
120	FTSE RAFI US 1000 Index	1,134,302,739	5.94%	8.96%	8.12%	31.60%	31.60%	22.07%	14.19%
121	AGI - Large Cap	671,252,923	0.55%	9.07%	10.49%	24.96%	24.96%	37.56%	25.66%
122	SSGA Large Cap	507,283,655	2.55%	9.54%	8.83%	25.60%	25.60%	33.09%	24.52%
123	DSM - Large Cap	821,532,781	1.62%	5.66%	3.86%	22.01%	22.01%	30.20%	24.30%
124	CastleArk - Large Cap	231,696,035	2.87% 7.12%	12.63%	12.61%	29.69% 34.60%	29.69% 34.60%	33.43% 20.09%	24.88% 12.83%
125 126	APF SPDR Yield APF SPDR Momentum	566,464,659 289,077,240	7.12% 5.05%	7.86% 8.64%	6.82% 8.24%	34.69% 26.56%	34.69% 26.56%	20.09% 20.94%	12.83% 13.42%
127	APF SPDR Low Vol	507,058,928	7.44%	10.91%	10.58%	28.85%	28.85%	21.51%	14.95%
128	APF R1000 Low Vol	9,992,862							
129	Russell 1000 Growth Index		2.11%	11.64%	12.93%	27.60%	27.60%	34.08%	25.32%
130	Russell 1000 Index	700 704 105	4.05%	9.78%	10.01%	26.45%	26.45%	26.21%	18.43%
131 132	Lyrical - Large Cap SKBA - Large Cap	789,794,195 346,698,408	6.48% 6.38%	7.22% 5.53%	5.76% 4.29%	28.65% 21.93%	28.65% 21.93%	22.26% 15.56%	11.35% 10.62%
133	LSV - Large Cap Value	827,841,973	6.30%	6.16%	3.84%	26.53%	26.53%	17.00%	10.48%
134	APF Domestic Equity	481,656,561	4.68%	5.91%	6.58%	34.56%	34.56%		
135	APF R1000V Low Vol	9,990,141							
136	Russell 1000 Value Index		6.31%	7.77%	6.93%	25.16%	25.16%	17.64%	11.16%
137	Mellon S&P 400	19,754,132	5.08%	8.02%	6.13%	<b>24.30</b> %	24.30%	21.73%	13.12%
138	S&P 400 Index	321,866,683	5.08% <b>2.66</b> %	8.00% <b>3.83%</b>	6.09% <b>5.48</b> %	24.76% <b>23.41</b> %	24.76% <b>23.41</b> %	21.41% <b>29.67</b> %	13.09% <b>18.41%</b>
139 140	Jennison Associates LLC Russell 2000 Index	321,000,083	2.23%	3.83% 2.14%	-2.31%	14.82%	14.82%	29.67 % 20.02%	1 <b>8.4</b> 1% 12.02%
141	RBC Asset Mgmt	215,444,724	4.52%	8.79%	8.98%	26.18%	26.18%	26.95%	16.97%
142	Eagle Asset Mgmt	205,961,434	1.63%	-0.77%	-3.34%	1.67%	1.67%	23.33%	18.25%
143	Russell 2000 Growth Index		0.44%	0.01%	-5.64%	2.83%	2.83%	21.17%	14.53%
144	Russell 2000 Index	·	2.23%	2.14%	-2.31%	14.82%	14.82%	20.02%	12.02%
145	T Rowe Price	375,776,256 624,389,712	3.89% 5.28%	5.84% 5.14%	5.85% 4.68%	23.15% 29.57%	23.15% 29.57%	19.71%	11.25% 9.57%
146 147	Pzena Investment Mgmt Russell 2000 Value Index	624,389,712	<b>5.28%</b> 4.08%	<b>5.14%</b> 4.36%	<b>4.68%</b> 1.24%	<b>29.57</b> % 28.27%	<b>29.57</b> % 28.27%	<b>18.19</b> % 17.99%	<b>8.57</b> % 9.07%
148	Russell 2000 Index		2.23%	2.14%	-2.31%	14.82%	14.82%	20.02%	12.02%
149	APF US Tactical Tilts	246,370,180	5.07%	6.40%					
150	Russell 3000 Index		3.94%	9.28%					

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
1 FI	XED INCOME	16,647,587,551	0.17%	0.16%	0.25%	-0.45%	-0.45%	5.83%	4.38%
	XED INCOME BENCHMARK <sup>4</sup>		0.10%	0.15%	0.26%	-0.44%	-0.44%	5.06%	3.83%
53	US FIXED INCOME AGGREGATE	4,952,044,670	-0.20%	0.07%	0.13%	-1.32%	-1.32%	5.50%	3.96%
54	BB AGGREGATE	1,202,011,010	-0.26%	0.01%	0.06%	-1.54%	-1.54%	4.79%	3.57%
55	APF Fixed Income - Aggregate	4,952,044,670	-0.20%	0.07%	0.13%	-1.32%	-1.32%	5.50%	3.96%
6	US INVESTMENT GRADE CORPORATE	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
57	BB CORPORATE	,,	-0.08%	0.23%	0.23%	-1.04%	-1.04%	7.59%	5.26%
8	APF Corporate Bonds	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
59	NON US FIXED INCOME	1,378,728,731	-0.66%	-0.13%	-0.23%	-2.38%	-2.38%	2.92%	2.85%
0	BB GLOBAL TREASURY EX-US		-0.78%	0.06%	0.13%	-1.72%	-1.72%	3.06%	2.96%
1	Rogge Global Partners	304,318,126	-0.79%	-0.18%	-0.17%	-2.11%	-2.11%	3.23%	3.05%
2	APF Global Government Bonds	1,074,410,605	-0.62%	-0.12%	-0.25%	-2.46%	-2.46%	2.80%	2.86%
3	GLOBAL HIGH YIELD	1,720,098,544	1.71%	0.61%	1.41%	4.98%	4.98%	8.24%	5.77%
4	BB US HIGH YIELD 2% ISSUER CAP		1.87%	0.69%	1.59%	5.26%	5.26%	8.81%	6.28%
5	Oaktree High Yield	732,030,644	1.26%	0.15%	1.05%	4.61%	4.61%	8.62%	5.79%
6	APF High Yield	489,611,458	2.32%	1.06%	1.83%	5.06%	5.06%	<b>7.36</b> %	
7	Capital Guardian High Yield	498,456,441	1.77%	0.84%	1.53%	5.31%	5.31%	8.01%	5.85%
8	EMERGING MARKET DEBT	892,969,560	1.63%	-1.81%	-3.72%	-5.48%	-5.48%	3.77%	3.48%
59	EMD BENCHMARK <sup>5</sup>		1.48%	-1.49%	-3.37%	-5.32%	-5.32%	4.03%	3.78%
0	Ninety One EMD BL	193,160,810	1.63%	-2.12%	-4.53%	-5.65%	-5.65%		
1	PGIM EMD BL	338,609,503	1.44%	-1.83%	-3.44%	-5.44%	-5.44%		
2	EMD Benchmark <sup>5</sup>		1.48%	-1.49%	-3.37%	-5.32%	-5.32%		
3	Payden EMD HC	185,309,915	1.92%	-1.17%	-1.95%	-2.13%	-3.32 % -2.13%		
4	JPM EMBI Global Diversified	100,007,710	1.40%	-0.44%	-1.14%	-1.80%	-1.80%		
5	Colchester EMD LC	175,885,691	1.69%	<b>-2.12</b> %	- <b>5.21</b> %	<b>-8.72</b> %	<b>-8.72</b> %		
6	JPM GBI-EM Global Diversified	17 3,003,071	1.56%	-2.53%	-5.56%	-8.75%	-8.75%		
7	TIPS	845,738,825	0.35%	2.44%	4.49%	6.41%	6.41%	8.37%	5.38%
8	BB US TIPS	0 13,7 00,023	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
7	APF TIPS	845,738,825	0.35%	2.44%	4.51%	6.49%	6.49%	8.74%	5.56%
0	BB US TIPS	0.10), 00,020	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
1	FIXED INCOME CASH	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	0.0.70
2	90 DAY T-BILLS	,	0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	
3	APF Fixed Income Cash	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	
4	DOMESTIC STRUCTURED PRODUCTS	1,275,477,420	-0.12%	-0.29%	-0.22%	-1.12%	-1.12%	11017	
35	BB US SECURITIZED	3,2. 3, 3. 7, 3.23	-0.09%	-0.39%	-0.30%	-1.04%	-1.04%		
6	APF Dom Struc Prod	1,275,477,420	-0.12%	-0.29%	-0.22%	-1.12%	-1.12%		
	BSOLUTE RETURN	4,771,845,680	1.54%	0.51%	3.06%	5.57%	5.57%	6.86%	5.94%
88 H	FRI TOTAL HFOF UNIVERSE		1.24%	0.52%	0.13%	10.26%	10.26%	10.84%	7.09%
9 R	ISK PARITY	821,409,389	2.20%	3.90%	4.51%	11.16%	11.16%		
	FRI RISK PARITY 12% VOL	0_1,102,002	3.10%	3.40%	3.28%	10.71%	10.71%		
91	PanAgora	430,413,513	1.53%	2.71%	2.68%	8.87%	8.87%		
2	Bridgewater All Weather	390,995,876	2.93%	5.22%	6.56%	13.79%	13.79%		
	OTAL FUND CASH	2,122,508,428	0.01%	-0.02%	0.03%	0.13%	0.13%		
4 9	0 DAY T-BILLS		0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	1.14%
5	APF Internal Cash	1,748,716,170	0.00%	0.01%	0.02%	0.07%	0.07%		
	APF Operating Cash	373,792,258	0.06%	0.11%	0.14%	0.56%	0.56%	1.02%	1.13%

			(A)	(B)	(C)	(D)	(E)	( <b>F</b> )	(G)
	12	2/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
PR	IVATE EQUITY & SPECIAL OPPS •	16,187,867,751	N/A	4.27%	16.06%	53.85%	53.85%	26.96%	26.15%
	AMBRIDGE PRIVATE EQUITY ●	2, 2, ,, 2	,	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	PRIVATE EQUITY ●	10,965,612,434	N/A	6.97%	20.28%	62.76%	62.76%	32.97%	29.05%
	CAMBRIDGE PRIVATE EQUITY •		,	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	Pathway Capital Mgmt - Direct PE	5,218,103,672	N/A	10.03%	26.47%	63.61%	63.61%	35.09%	31.51%
	HarbourVest Legacy	1,383,191,827	N/A	-4.47%	-0.28%	62.17%	62.17%	38.61%	35.06%
	Pathway Capital Mgmt - PE	4,009,441,439	N/A	7.82%	22.86%	61.67%	61.67%	30.92%	<b>27.36</b> %
	BlackRock Co-investment Funds	259,532,316	N/A	5.03%	10.15%	49.41%	49.41%	21.45%	24.33%
	Ara Fund I	51,487,487	N/A	33.24%	46.65%	99.76%	99.76%		
	Ara Fund II	6,950,092	N/A	-1.31%					
	TPG Growth V	22,502,202	N/A						
	Arctos Sports I	13,966,060	N/A						
	SPECIAL OPPORTUNITIES •	5,113,908,437	N/A	-0.44%	8.31%	38.23%	38.23%	17.21%	20.63%
	CAMBRIDGE PRIVATE EQUITY ●		·	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	IN-STATE EMERGING MANAGERS ●	108,346,880	N/A	-20.27%	8.50%	30.36%	30.36%		
	CAMBRIDGE PRIVATE EQUITY ●		,	5.01%	17.17%	48.82%	48.82%		
	Barings AK	34,779,110	N/A	0.00%	5.16%	0.00%	0.00%		
	McKinley AK	73,567,770	N/A	-27.80%	4.15%	33.78%	33.78%		
E	AL ESTATE ●	6,602,949,987	N/A	4.73%	9.15%	9.72%	9.72%	3.34%	3.34%
E	AL ESTATE CUSTOM <sup>6</sup> ●			4.62%	9.69%	15.77%	15.77%	8.58%	7.96%
	RE EQUITY INVESTMENTS ●	5,057,338,637	N/A	5.06%	7.47%	4.16%	4.16%		
	NCREIF TOTAL INDEX •		,	5.23%	9.01%	12.15%	12.15%		
	RE EQUITY SEPARATE ACCTS & DIRECTS ●	3,953,936,247	N/A	4.60%	6.49%	1.98%	1.98%	-0.83%	0.83%
	L&B Realty Advisors	1,751,550,832	N/A	1.82%	3.83%	-3.60%	-3.60%	-1.41%	0.74%
	Sentinel Real Estate	508,877,151	N/A	2.64%	5.20%	7.67%	7.67%	4.49%	1.03%
	LaSalle - United Kingdom	101,734,507	N/A	69.30%	34.33%	-402.18%	-402.18%	-36.31%	-21.75%
	Lincoln Industrial	250,365,576	N/A	12.46%	33.86%	56.00%	56.00%	24.09%	20.69%
	CB Richard Ellis - Europe	132,709,768	N/A	-1.25%	1.13%	-2.13%	-2.13%	-1.64%	5.55%
	CS Capital	451,103,329	N/A	3.28%	4.89%	6.25%	6.25%	12.76%	13.23%
	Heitman Direct	610,386,361	N/A	0.64%	-1.27%	-1.37%	-1.37%	1 = 11 0 70	10.20 70
	APF RE Direct	147,208,722	N/A	6.78%	8.41%	7,0	70		
	RE EQUITY DEVELOPMENT	118,257,003	N/A	J. 70	<b>3111</b> / <b>0</b>				
	Greystar Dev	118,257,003	N/A						
	RE EQUITY FUNDS & CO-INVESTS	985,145,387	N/A	7.73%	13.19%	27.62%	27.62%	10.30%	
	HIG Europe RE II	61,295,680	N/A	4.49%	11.15%	34.06%	34.06%	21.22%	
	Harbert Europe RE V	78,401,207	N/A	3.49%	14.98%	24.14%	24.14%	3.33%	
	Brookfield RE III	239,715,837	N/A	4.81%	6.85%	21.16%	21.16%	5.55 /0	
	Realterm Log Inc	241,123,958	N/A	12.82%	22.02%	21110 /0	2111070		
	Clarion Gables	312,955,908	N/A	9.45%	14.81%				
	CG Riverwalk	25,247,075	N/A	7.10 /0	1 1.01 /0				
	CG Union Market	26,405,721	N/A						
	RE DEBT INVESTMENTS •	271,896,127	N/A	3.91%	7.37%	13.62%	13.62%	11.46%	
	NCREIF TOTAL INDEX •	27 1/070/127	N/A	5.23%	9.01%	12.15%	12.15%	6.72%	
	RE DEBT SEPARATE ACCTS ●	188,858,495	N/A	3.14%	6.21%	9.99%	9.99%	7.69%	
	Heitman Capital	67,441,082	N/A	4.47%	7.31%	10.49%	10.49%	7.85%	
	Mesa West	121,417,413	N/A	2.38%	5.67%	10.77/0	10.77/0	7.00/0	
	RE DEBT FUNDS & CO-INVESTS ●	83,037,632	N/A	4.39%	8.05%	15.05%	15.05%		
	KAROD	83,037,632	N/A	4.39%	8.05%	15.05%	15.05%		
	REITS •	1,273,715,223	N/A	3.89%	18.48%	40.74%	40.74%	10.89%	7.41%
	MSCI US REIT ●	1,27 3,7 13,223	N/A	0.98%	13.09%	37.16%	37.16%	10.10%	6.84%
	AEW Dom RE Securities	1,160,545,416	NI / A	0.98% <b>3.70</b> %	18.28%	40.72%	40.72%	10.10%	0.04%
			N/A	3.7070	10.2070	TU./ Z 70	TU./ Z 70		
3	Mellon MSCI US REIT	113,160,630	N/A						

			(A)	(B)	(C)	(D)	(E)	( <b>F</b> )	( <b>G</b> )
		12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
PRIVATE INCOM	<b></b> •	6,175,652,157	N/A	1.37%	7.08%	19.92%	19.92%	9.52%	11.42%
PRIVATE INCOME	CUSTOM <sup>7</sup> ●			2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
INFRASTRUCT	URE ●	2,774,727,976	N/A	0.72%	6.66%	24.00%	24.00%	9.89%	13.46%
	SLOBAL PVT INFRA •			2.23%	6.20%	14.77%	14.77%	7.62%	8.07%
	IFRASTRUCTURE	2,501,187,890	N/A	0.69%	6.70%	24.89%	24.89%		
	E GLOBAL PVT INFRA ●		A1/A	2.23%	6.20%	14.77%	14.77%	0.440/	0.040/
GIP II	IED	106,384,903	N/A	3.78%	8.76%	20.45%	20.45%	3.64%	8.94%
Gateway LS Powe		53,769,827 171,211,557	N/A N/A	-3.52% -0.80%	5.14% 1.24%	12.07% 7.81%	12.07% 7.81%	-4.50% 14.16%	0.05% 21.61%
LS Powe North Ho		32,092,316	N/A N/A	1.69%	8.31%	6.15%	6.15%	-8.42%	1.40%
GIP III	AAGII	267,019,357	N/A	2.58%	5.35%	18.80%	18.80%	3.88%	6.08%
GIP III C	anarv	110,258,585	N/A	-0.63%	5.69%	60.40%	60.40%	4.84%	13.57%
CIM Fun		283,788,900	N/A	3.47%	7.70%	23.89%	23.89%	16.07%	
	Energy 4	57,047,471	N/A	0.60%	3.58%	7.68%	7.68%	14.19%	
	III Zenith	198,408,587	N/A	2.84%	3.16%	17.28%	17.28%	22.89%	
IFR Enca	p FM IV	5,897,057	N/A	3.77%	5.41%	11.08%	11.08%	8.89%	
IFR Infra	red V	57,364,932	N/A	-0.39%	5.25%	10.62%	10.62%	1.25%	
IFR NHIF	P II Bison	44,816,687	N/A	-0.01%	-0.02%	-0.07%	-0.07%	<b>-7.59</b> %	
	III Stetson	15,855,031	N/A	N/A	N/A	N/A	N/A	N/A	
IFR EFM		6,012,868	N/A	3.47%	3.68%	17.58%	17.58%	19.17%	
	aven India	34,294,305	N/A	11.99%	15.26%	19.26%	19.26%		
	Infrastructure III	114,192,526	N/A	6.27%	6.84%	8.96%	8.96%		
	gy Spec VIII	23,460,027	N/A	0.84%	-4.31%	<b>-4.06%</b>	<b>-4.06%</b>		
LS Powe		88,196,669	N/A	-0.11%	24.14%	72.12%	72.12%		
IFR LS PO		181,586,356	N/A	-19.74%	4.85%	202.31%	202.31%		
IFR EQT IFR Meri		153,862,476 18,399,272	N/A N/A	3.92% 112.53%	9.86% 134.61%	21.91% 113.90%	21.91% 113.90%		
	IV Co-Invest	51,314,512	N/A N/A	-0.25%	2.11%	38.97%	38.97%		
	pertree VIII	73,320,177	N/A	4.20%	22.64%	26.34%	26.34%		
IFR NHIF		111,961,672	N/A	4.46%	6.94%	20.67%	20.67%		
IFR GIP		87,712,316	N/A	-1.23%	-5.38%	20.01 70	20.01 /0		
	Teemo II	22,431,125	N/A	-3.26%	0.0070				
Encap E1		18,645,309	N/A	-1.76%					
IFR Digit		33,490,978	N/A	13.42%					
IFR EQT	Infra V	13,482,583	N/A						
IFR NHIF	P III Tele	42,731,956	N/A						
IFR Actis	s <b>V</b>	167,428	N/A						
IFR HIG	Infra	1,472,857	N/A						
	RASTRUCTURE •	273,540,085	N/A	0.98%	6.16%	16.14%	16.14%	6.41%	<b>7.22</b> %
	AL LISTED INFRASTRUCTURE			1.29%	3.44%	22.13%	22.13%	5.78%	5.02%
	isted Infrastructure	273,540,085	N/A	1.05%	6.24%	16.22%	16.22%	8.67%	10.66%
	e Developed Infra (Hedged	•	NI/A	-0.53%	2.00%	13.71%	13.71%	9.43%	9.49%
PRIVATE CREE		1,670,541,245	N/A	2.42%	8.57%	19.38%	19.38%	8.48%	8.77%
	RIVATE CREDIT •	205 475 274	NI/A	2.12% <b>5.94</b> %	7.68%	19.47% <b>19.97</b> %	19.47% <b>19.97</b> %	7.53%	6.89% <b>5.37</b> %
	edit Opportunities Fund lezzanine Debt	205,675,276 10,430,389	N/A N/A	2.60%	16.74% 8.61%	22.96%	22.96%	3.72% 15.24%	11.51%
Crestline O		104,446,129	N/A	1.05%	7.13%	8.41%	8.41%	8.23%	9.53%
	apital Mgmt - Direct PC	959,240,040	N/A	2.67%	8.50%	21.48%	21.48%	12.64%	11.21%
•	Mezzanine Debt	22,553,271	N/A	3.33%	9.01%	16.05%	16.05%	11.54%	11121 /0
Aurelius II	1022411110 5081	233,100,519	N/A	-0.84%	5.21%	20.05%	20.05%	5.82%	
Crestline SL	FII	60,707,671	N/A	2.03%	6.44%	17.28%	17.28%	0.02/0	
CL Opps Fu		40,216,109	N/A	2.48%	5.29%	17.15%	17.15%		
Ares SSG S		4,237,733	N/A						
Crestline SL	F III	16,023,698	N/A						
INCOME OPPO	ORTUNITIES •	1,730,382,936	N/A	1.48%	6.43%	14.79%	14.79%	9.85%	<b>7.02</b> %
PRIVATE INCO	ME CUSTOM <sup>7</sup> ●			2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
American F	lomes 4 Rent II	167,010,782	N/A	6.16%	18.15%	28.48%	28.48%	12.37%	7.08%
Twin Creek		104,967,126	N/A	0.70%	1.39%	1.01%	1.01%	-0.34%	-0.88%
INC Athyric	ım III	14,361,745	N/A	-2.26%	-0.86%	4.96%	4.96%	7.57%	
INC Broadri	ver III	73,636,435	N/A	1.30%	4.08%	7.95%	7.95%	1.99%	
APF ADAC		1,035,174,727	N/A	1.38%	6.09%	11.36%	11.36%	8.09%	
Activate Ca	pital	82,180,142	N/A	-11.87%	-0.90%	38.52%	38.52%		
INC OCM P	ower Opps V	62,292,209	N/A	3.34%	-2.71%	-1.16%	-1.16%		
TSSP Agricu	ulture	22,239,659	N/A	-1.16%	13.09%	13.47%	13.47%		
Sprott Lend	<u> </u>	52,982,939	N/A	1.23%	3.84%	9.00%	9.00%		
Whitehorse	-	33,054,345	N/A	14.58%	29.24%				
_	rse Colnvest	44,486,871	N/A	3.55%	6.54%				
INC Viva 3		28,037,760	N/A	6.68%	8.04%				
INC Incline	A 11	9,928,318	N/A	8.51%					

		NOTES and REFERENCES
* Market Values	2021, consisting of:	lues represent total fund holdings consistent with Financial Statements as of December 31,
	99.13%	Alaska Permanent Fund
	0.87%	Alaska Mental Health Trust
All Benchmarks	contract (where app	by name reflect the current applicable benchmark per Investment Policy or by manager licable). Benchmark returns greater than one month may include different or additional uring the periods referenced. These can be found in the previous Investment Policies and Reports.
All Returns	All returns are provious of July 1, 2020.	ded by Callan LLC, are annualized for periods greater than one year, and are net of fees
Lagged Returns		n the following asset classes, returns are lagged one quarter. Composites that incorporate d benchmarks associated are also lagged one quarter.
		Real Estate Private Equity and Special Opportunities Private Income
1 Passive Benchmark	60%	MSCI All-Country World Index IMI
09/30/2016 to date	20%	BB Global Aggregate Index
	10% 10%	FTSE EPRA/NAREIT Rental Index US TIPs
2 Performance Benchmark	38.0%	MSCI ACWI IMI
07/01/2021 to date	16.0%	Cambridge Private Equity (1 Q Lagged)
	6.8%	NCREIF Total Index (1 Q Lagged)
	6.0%	HFRI Total HFOF Universe
	5.5%	BB US Corporate
	5.5%	BB US Aggregate
	5.4%	Cambridge Global Private Infrastructure (1 Q Lagged)
	3.6%	Cambridge Private Credit (1 Q Lagged)
	3.0%	90 Day T-Bills
	2.0% 2.0%	BB US High Yield 2% Issuer Cap BB Global Treasury ex-US Hedged
	2.0%	BB US Securitized
	1.0%	BB US TIPS
	1.2%	MSCI US REIT (1 Q Lagged)
	1.0%	HFRI Risk Parity 12% Vol
	0.5%	JPM EMBI Global Diversified
	0.5%	JPM GBI-EM Global Diversified TRI
3 Total Fund Return Objective	100%	Consumer Price Index (All Urban Consumers, U.S. City Average, All Items, Unadjusted Index) plus 5%
4 Fixed Income Benchmark	27.5%	BB US Aggregate
07/01/2020 to date	27.5%	BB US Corporate
	10.0%	BB US Securitized
	10.0%	BB US High Yield 2% Issuer Cap
	10.0% 5.0%	BB Global Treasure ex-US Hedged BB US TIPs
	5.0%	90 Day T-Bills
	2.5%	JPM EMBI Global Diversified
	2.5%	JPM GBI-EM Global Diversified
5 EMD Benchmark	E00/	JPM EMBI Global Diversified
09/30/2016 to date	50% 50%	JPM GBI-EM Global Diversified
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6 Real Estate Custom Benchmark 07/01/2020 to date	85% 1 <i>5</i> %	NCREIF Property (1 Q Lagged) MSCI US REIT (1 Q Lagged)
7 Private Income Custom Benchmark	60%	Cambridge Global Private Infrastructure (1 Q Lagged)
07/01/2020 to date	40%	Cambridge Private Credit (1 Q Lagged)