



Board of Trustees - Monthly Performance Report - July 31, 2018

All returns are annualized (for periods greater than one year), gross of fees (before fees) unless otherwise noted, and provided by Callan Associates, Inc.

	Market Values as of 7/31/2018*	(A)	(B)	(C)	(D)	(E)	(F)	(G)
		1 Month	FYTD	3 Months	CYTD	1 Year	3 Years	5 Years
1 TOTAL FUND •	66,209,719,828	1.31%	1.31%	1.85%	3.48%	10.09%	8.55%	8.62%
2 TOTAL FUND without FX Overlay •		1.30%	1.30%	1.85%	3.49%	10.10%	8.56%	8.62%
3 Passive Index Benchmark ¹ •		1.68%	1.68%	1.86%	1.44%	7.26%	6.83%	6.46%
4 Performance Benchmark ² •		1.25%	1.25%	1.51%	2.20%	7.71%	7.14%	7.19%
5 Total Fund Return Objective ³		0.41%	0.41%	1.79%	5.07%	7.95%	6.83%	6.53%
6 PUBLIC EQUITIES	27,687,262,038	2.55%	2.55%	2.05%	2.36%	11.19%	9.41%	9.05%
7 PUBLIC EQUITIES without FX Overlay	27,680,498,614	2.54%	2.54%	2.04%	2.37%	11.23%	9.42%	9.06%
8 MSCI ACWI IMI		2.77%	2.77%	2.56%	2.59%	11.17%	9.12%	9.14%
9 INTERNATIONAL EQUITIES	7,899,569,344	1.68%	1.68%	-3.36%	-2.54%	5.87%	7.57%	6.12%
10 MSCI ACWI IMI EX-US		2.15%	2.15%	-2.02%	-1.57%	6.17%	6.39%	5.92%
11 GLOBAL EQUITIES	11,198,545,123	2.97%	2.97%	3.52%	3.62%	11.89%	8.97%	9.49%
12 MSCI ACWI IMI		2.77%	2.77%	2.56%	2.59%	11.17%	9.12%	9.14%
13 DOMESTIC EQUITIES	8,581,984,607	2.75%	2.75%	5.77%	5.62%	15.68%	11.80%	12.70%
14 RUSSELL 3000 INDEX		3.32%	3.32%	6.93%	6.64%	16.39%	12.18%	12.83%
15 FIXED INCOME PLUS ^{††}	14,089,004,967	0.83%	0.83%	1.22%	-0.81%	0.89%		
16 PUBLIC INCOME BENCHMARK ^{††}		0.58%	0.58%	1.05%	-0.88%	0.57%		
17 US FIXED INCOME AGGREGATE	3,760,048,346	0.21%	0.21%	0.70%	-1.60%	-0.67%	1.80%	2.48%
18 BB AGGREGATE		0.02%	0.02%	0.61%	-1.59%	-0.80%	1.49%	2.25%
19 US INVESTMENT GRADE CORPORATE	3,665,101,050	1.13%	1.13%	1.06%	-2.46%	-0.39%	3.69%	4.23%
20 BB CORPORATE		0.83%	0.83%	0.78%	-2.47%	-0.73%	3.12%	3.51%
21 NON US FIXED INCOME	1,324,966,614	-0.02%	-0.02%	0.39%	1.32%	2.68%	2.93%	3.78%
22 BB GLOBAL TREASURY EX-US		-0.06%	-0.06%	0.45%	1.55%	3.03%	3.23%	4.01%
23 GLOBAL HIGH YIELD	1,470,736,008	1.26%	1.26%	1.77%	1.51%	2.53%	5.53%	4.89%
24 BB US HIGH YIELD 2% ISSUER CAP		1.09%	1.09%	1.47%	1.25%	2.60%	6.13%	5.35%
25 EMERGING MARKET DEBT	937,277,804	2.12%	2.12%	-3.50%	-3.83%	-1.25%	4.43%	2.47%
26 EMD BENCHMARK ⁵		2.22%	2.22%	-2.81%	-3.69%	-1.15%	4.49%	2.28%
27 TIPS	253,047,956	-0.43%	-0.43%	0.33%	-0.46%	1.11%	1.59%	1.23%
28 BB US TIPS		-0.48%	-0.48%	0.34%	-0.51%	1.17%	1.69%	1.43%
29 REITS ^{††}	1,399,108,115	0.89%	0.89%	5.81%	1.76%	4.75%	9.34%	7.45%
30 S&P GLOBAL REIT		0.80%	0.80%	5.31%	0.72%	3.03%	4.75%	6.34%
31 LISTED INFRASTRUCTURE [°]	671,156,806	2.18%	2.18%	3.06%	1.07%	4.27%	8.75%	
32 S&P GLOBAL LISTED INFRASTRUCTURE		1.75%	1.75%	1.58%	-1.89%	-0.64%	5.26%	
33 FIXED INCOME PLUS CASH	607,526,792	0.57%	0.57%	0.90%	1.40%	1.70%		
34 90 DAY T-BILLS		0.16%	0.16%	0.48%	0.97%	1.43%		
35 PRIVATE EQUITY & SPECIAL OPPORTUNITIES •	7,318,620,440	N/A	N/A	4.53%	16.82%	29.23%	17.69%	23.31%
36 PRIVATE EQUITY •	4,484,388,809	N/A	N/A	5.35%	13.64%	24.88%	19.64%	19.88%
37 PRIVATE EQUITY CUSTOM BENCHMARK ⁶ •		N/A	N/A	2.01%	8.14%	16.41%	7.67%	9.75%
38 SPECIAL OPPORTUNITIES •	2,834,231,630	N/A	N/A	3.39%	21.56%	35.87%	15.81%	
39 CAMBRIDGE PRIVATE EQUITY •		N/A	N/A	2.01%	8.14%	16.41%	12.03%	
40 REAL ESTATE • ^{††}	3,984,362,646	N/A	N/A	1.24%	3.81%	7.18%	8.75%	9.66%
41 NCREIF TOTAL INDEX •		N/A	N/A	1.13%	3.53%	6.50%	8.35%	9.79%
42 RE SEPARATE ACCTS & DIRECT RE FUNDS & CO-INVEST	3,974,470,155	N/A	N/A	1.24%	3.81%	7.18%	8.75%	9.66%
43	9,892,491							
44 INFRA. & PRIVATE INCOME • ^{††}	4,327,339,109	N/A	N/A	1.47%	6.59%	14.83%	13.16%	11.76%
45 INFRA. & INCOME OPPORTUNITIES ⁷ •		N/A	N/A	-2.45%	-1.32%	3.00%	4.62%	5.83%
46 INFRASTRUCTURE • [†]	2,324,582,200	N/A	N/A	1.99%	9.67%	20.57%	20.55%	16.23%
47 PRIVATE CREDIT •	1,189,865,529	N/A	N/A	0.67%	3.11%	7.47%	6.14%	6.85%
48 PRIVATE INCOME • [†]	812,891,380	N/A	N/A	0.07%	-4.39%	0.97%	7.90%	
49 ABSOLUTE RETURN	2,748,957,261	N/A	N/A	-0.64%	1.56%	5.84%	3.05%	3.37%
50 ABSOLUTE RETURN BENCHMARK ⁸		N/A	N/A	0.99%	1.35%	5.14%	5.78%	5.92%
51 ASSET ALLOCATION	6,054,367,174	0.85%	0.85%	0.45%	-0.41%	2.61%	2.50%	2.86%
52 ASSET ALLOCATION BENCHMARK ⁹		0.81%	0.81%	1.09%	1.72%	5.52%		
53 APF FI LIQUIDITY	335,763,335	-0.42%	-0.42%	0.55%	-1.58%	-1.43%		
54 APF ASSET ALLOCATION CASH	870,645,429	0.15%	0.15%	0.43%	0.86%	1.32%	0.66%	0.40%
55 90 DAY T-BILLS		0.16%	0.16%	0.48%	0.97%	1.43%	0.73%	0.45%
56 ASSET ALLOCATION CASH OVERLAY	2,340,289,292	2.04%	2.04%	2.04%				
57 Asset Allocation Overlay Benchmark		1.81%	1.81%	1.88%				
58 LEGACY ECIOs	2,507,669,118	0.11%	0.11%	-1.15%	-1.48%	3.21%	4.02%	5.16%
59 Performance Benchmark •		1.25%	1.25%	1.51%	2.20%	7.71%	7.14%	7.19%

¹ Passive Benchmark is a blended benchmark (60% MSCI All-Country World Index IMI; 20% BB Global Aggregate Index; 10% FTSE EPRA/NAREIT Rental Index; 10% US TIPS) from 9/30/2016 to date. Prior periods are described in Investment Policy.

² Performance Benchmark is a blended benchmark (39% MSCI ACWI IMI; 11% NCREIF Total Index (1Q Lagged); 12% Cambridge Private Equity (1Q Lagged); 6% BB US Corporate; 6% BB Aggregate; 5% HFRI Total HFOF Universe; 2% BB US High Yield 2% Issuer Cap; 3% BB US High Yield 2% Issuer Cap (1Q Lagged); 3% 90 Day T-Bills; 4% FTSE Developed Core Infrastructure TRI (1Q Lagged); 2% S&P Global REIT; 2% BB Global Treasury ex-US; 1% S&P Global Listed Infrastructure; 0.5% JPM EMBI Global Div; 0.5% JPM GBI-EM Global Div TRI; 1% BC US TIPS) from 6/30/2017 to date. Prior periods are described in Investment Policy.

³ Total Fund Return Objective is the Consumer Price Index (All Urban Consumers, U.S. City Average, All Items, Unadjusted Index) plus 5%.

⁴ Public Income Plus Benchmark is a blended benchmark (25% BB Aggregate; 25% BB US Corporate; 10% S&P Global REIT; 10% BB US High Yield 2% Issuer Cap; 10% BB Global Treasury ex-US; 5% S&P Global Listed Infrastructure; 5% BB US TIPS; 5% 90 Day T-Bills; 2.5% JPM EMBI Global Div; 2.5% JPM GBI-EM Global Div TRI) from 9/30/2016 to date.

⁵ EMD Benchmark is 50% JPM EMBI Global Diversified and 50% JPM GBI-EM Global Diversified.

⁶ Private Equity Custom Benchmark is 60% Russell 3000 (1Q Lagged) and 40% MSCI EAFE (1Q Lagged) through 9/30/2016 then Cambridge Private Equity (1Q Lagged)

⁷ Infrastructure, Private Credit and Income Opportunities Benchmark is a blended benchmark (60% FTSE Developed Core Infrastructure TRI (1Q Lagged); 40% BB US High Yield 2% Issuer Cap (1Q Lagged)) from 9/30/2016 to date.

⁸ Absolute Return Benchmark is LIBOR + 4% through 6/30/2013, LIBOR + 6% from 7/1/2013 through 6/30/2015, LIBOR + 5% from 7/1/2015 through 9/30/2016, and HFRI Total HFOF Universe thereafter.

⁹ Asset Allocation Benchmark is 40% 90 Day T-Bills and 60% Performance Benchmark.

¹⁰ Asset Allocation Overlay Benchmark is 33.33% 90 Day T-Bills and 66.67% Performance Benchmark from 9/30/2016 through 6/30/2018, and 40% 90 Day T-Bills and 60% Performance Benchmark thereafter.

* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial

• For investments within Private Equity and Growth Opportunities, Real Estate, and Infrastructure, Private Credit, and Income Opportunities asset classes, returns are lagged one (1) quarter. Composites that incorporate these investments as well as associated benchmarks are also lagged one (1) quarter.

° Public infrastructure investments are included with Infrastructure prior to 9/30/2016 and Fixed Income Plus thereafter.

† REITs are included with Real Estate prior to 9/30/2016 and Fixed Income Plus thereafter.

† American Homes 4 Rent became a public investment on 7/31/2013. It is included in Income Opportunities from inception to 7/31/2013, Real Estate from 8/1/2013 to 9/30/2016, and Fixed Income Plus from 10/1/2016 to date.

		(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 7/31/2018*		Returns as of 7/31/2018					
			1 Month	FYTD	3 Months	CYTD	1 Year	3 Years	5 Years
60	PUBLIC EQUITIES	27,687,262,038	2.55%	2.55%	2.05%	2.36%	11.19%	9.41%	9.05%
61	PUBLIC EQUITIES without FX Overlay	27,680,498,614	2.54%	2.54%	2.04%	2.37%	11.23%	9.42%	9.06%
62	MSCI ACWI IMI		2.77%	2.77%	2.56%	2.59%	11.17%	9.12%	9.14%
63	INTERNATIONAL EQUITIES	7,899,569,344	1.68%	1.68%	-3.36%	-2.54%	5.87%	7.57%	6.12%
64	MSCI ACWI IMI EX-US		2.15%	2.15%	-2.02%	-1.57%	6.17%	6.39%	5.92%
65	Macquarie Emerging Markets	193,537,937	3.22%	3.22%	-2.81%	-1.59%	6.06%	13.12%	
66	JP Morgan Emerging Markets	398,922,110	2.86%	2.86%	-2.14%	-2.43%	8.05%	12.24%	
67	Mandrian Investment Partners	529,890,968	1.94%	1.94%	-7.71%	-7.47%	-1.76%	4.76%	2.34%
68	SSGA MSCI Emerging Markets	116,532,306	2.27%	2.27%	-5.46%	-4.48%	4.60%	8.82%	5.30%
69	William Blair Emerging Markets	396,749,547	1.35%	1.35%	-4.41%	-5.16%	4.83%	8.27%	
70	MEASA Fund	89,686,946	0.68%	0.68%	-10.47%				
71	MSCI Emerging Markets Index		2.20%	2.20%	-5.52%	-4.61%	4.36%	8.94%	5.25%
72	DFA Emerging Markets Value	483,864,581	3.76%	3.76%	-6.18%	-2.70%	5.39%		
73	MSCI Emerging Markets Value Index		4.05%	4.05%	-6.08%	-3.72%	3.04%		
74	DFA Emerging Markets Small Cap	149,419,866	1.02%	1.02%	-8.08%	-7.97%	2.41%		
75	MSCI Emerging Markets Small Cap Index		1.22%	1.22%	-7.38%	-7.33%	3.24%		
76	Trustbridge Emerging Markets	260,000,090	-4.84%	-4.84%	-6.36%	-0.59%	20.50%		
77	MSCI All China Net Total Return Index		-2.45%	-2.45%	-10.18%	-13.09%	-4.98%		
78	Wells Capital	163,789,972	-1.95%	-1.95%	-5.83%	-3.75%	14.67%		
79	MSCI All China Net Total Return Index		-2.45%	-2.45%	-10.18%	-13.09%	-4.98%		
80	Mellon MSCI World ex-USA	572,355,723	2.46%	2.46%	-0.51%	-0.14%	6.75%	5.48%	5.94%
81	DFA International Large Cap	562,273,229	2.47%	2.47%	-1.54%	-0.67%	7.56%	6.37%	6.24%
82	Int'l Passive/Quasi-Passive Custom ¹		2.46%	2.46%	-0.59%	-0.38%	6.50%	5.16%	5.64%
83	DFA International Small Cap Value	423,625,116	1.33%	1.33%	-4.13%	-4.18%	3.69%	8.88%	9.44%
84	MSCI World ex-USA Small Cap Value Index		1.19%	1.19%	-3.22%	-2.77%	5.49%	8.67%	7.89%
85	DFA International Small Company	430,510,012	0.68%	0.68%	-2.18%	-1.49%	7.13%	10.31%	9.57%
86	SSGA International Developed Small Cap	423,545,352	0.58%	0.58%	-1.76%	-0.66%	9.00%	9.96%	9.39%
87	MSCI World ex-USA Small Cap Index		0.57%	0.57%	-1.87%	-0.88%	8.68%	9.71%	9.08%
88	Acadian Asset Mgmt	528,751,173	2.19%	2.19%	-2.30%	-0.30%	9.55%	9.47%	8.19%
89	MSCI Custom Benchmark ²		2.78%	2.78%	-2.27%	-1.87%	4.08%	5.07%	5.59%
90	LSV International Large Cap	570,572,006	3.02%	3.02%	-4.06%	-2.46%	5.03%	6.32%	
91	Schroders International Large Cap	621,144,109	3.27%	3.27%	-1.93%	-0.74%	5.45%	7.92%	
92	MSCI All Country World ex-USA Value Index		3.10%	3.10%	-3.25%	-2.35%	3.82%	4.86%	
93	Johnston International Large Cap	398,911,618	-0.34%	-0.34%	-0.96%	0.98%	10.61%	10.10%	
94	JP Morgan International Large Cap	585,162,144	1.39%	1.39%	0.59%	-0.17%	7.64%	7.85%	
95	MSCI World ex-USA Growth Index		2.14%	2.14%	1.05%	1.07%	8.91%	5.94%	
96	GLOBAL EQUITIES	11,198,545,123	2.97%	2.97%	3.52%	3.62%	11.89%	8.97%	9.49%
97	MSCI ACWI IMI		2.77%	2.77%	2.56%	2.59%	11.17%	9.12%	9.14%
98	AQR Global Equity	1,582,466,275	2.68%	2.68%	0.78%	1.59%	10.77%	10.19%	10.28%
99	SSGA MSCI World	187,750,514	3.14%	3.14%	3.77%	3.74%	12.20%	9.42%	
100	CDAM Global Equity	305,229,756	3.82%	3.82%	3.27%	-1.08%			
101	MSCI World Index		3.12%	3.12%	3.72%	3.57%	11.88%	8.95%	9.49%
102	SSGA Russell Fundamental Developed Lrg C	1,667,849,532	3.11%	3.11%	2.45%	2.34%	11.52%	9.16%	9.26%
103	Russell Fundamental Dvlpd Lrg Co Index		3.14%	3.14%	2.53%	2.42%	11.77%	9.36%	9.42%
104	Lazard Asset Management ⁴	1,225,550,877	2.94%	2.94%	1.47%	2.31%	9.89%	7.56%	9.11%
105	McKinley Capital Management	600,649,581	2.08%	2.08%	1.01%	3.27%	11.71%	8.58%	10.48%
106	RBA Global Equity	313,609,259	2.98%	2.98%	3.58%	3.55%			
107	WCM Global Equity	424,435,267	2.22%	2.22%	4.81%	6.71%			
108	MSCI All-Country World Index		3.02%	3.02%	2.59%	2.57%	10.97%	8.95%	9.04%
109	APF Tactical Tilts	2,953,756,778	2.58%	2.58%	3.32%	2.68%	10.35%	6.03%	
110	SSGA MSCI ACWI IMI	171,634,998	2.81%	2.81%	2.68%	2.78%	11.46%		
111	APF Global Equities	104,834,009	2.74%	2.74%	2.62%	2.33%			
112	Arrowstreet Global Equity	827,254,372	3.29%	3.29%	3.22%	3.86%			
113	Longview Global Equity	833,592,978	5.12%	5.12%	6.30%				
114	MSCI All-Country World IMI		2.77%	2.77%	2.56%	2.59%	11.17%	9.12%	
115	DOMESTIC EQUITIES	8,581,984,607	2.75%	2.75%	5.77%	5.62%	15.68%	11.80%	12.70%
116	RUSSELL 3000 INDEX		3.32%	3.32%	6.93%	6.64%	16.39%	12.18%	12.83%
117	Mellon S&P 500	1,004,067,747	3.72%	3.72%	6.87%	6.47%	16.30%	12.37%	13.09%
118	S&P 500 Index		3.72%	3.72%	6.87%	6.47%	16.24%	12.52%	13.12%
119	Mellon FTSE RAFI US Large Cap	667,242,298	3.63%	3.63%	5.75%	4.01%	13.70%	11.30%	11.50%
120	FTSE RAFI US 1000 Index		3.63%	3.63%	5.75%	4.01%	13.69%	11.28%	11.55%
121	AGI - Large Cap	933,545,170	2.08%	2.08%	5.98%	7.96%	19.80%	13.12%	15.41%
122	SSGA Large Cap	239,806,838	3.38%	3.38%	8.80%	9.69%	16.55%	12.53%	14.94%
123	DSM - Large Cap	722,377,964	1.06%	1.06%	5.14%	7.98%	16.93%	12.89%	16.20%
124	CastleArk - Large Cap	348,952,052	1.17%	1.17%	6.09%	12.51%	27.40%	15.45%	14.70%
125	APF SPDR Yield	411,913,321	1.96%	1.96%	5.99%	4.64%	14.07%		
126	APF SPDR Momentum	425,209,008	2.80%	2.80%	4.98%	3.91%	14.72%		
127	APF SPDR Low Vol	426,067,610	2.85%	2.85%	6.07%	4.54%	13.17%		
128	Russell 1000 Growth Index		2.94%	2.94%	8.48%	10.40%	22.84%	14.81%	15.83%
129	Russell 1000 Index		3.45%	3.45%	6.78%	6.40%	16.19%	12.20%	12.96%
130	Lyrical - Large Cap	677,883,080	4.25%	4.25%	1.54%	-3.30%	3.99%	8.32%	11.66%
131	SKBA - Large Cap	374,247,849	2.98%	2.98%	3.41%	3.49%	16.72%	12.88%	11.17%
132	LSV - Large Cap Value	907,315,763	3.83%	3.83%	3.45%	1.69%	13.18%		
133	Russell 1000 Value Index		3.96%	3.96%	4.83%	2.20%	9.54%	9.51%	10.04%
134	Mellon S&P 400	183,902,784	1.76%	1.76%	6.40%	5.30%	14.49%	11.51%	11.75%
135	S&P 400 Index		1.76%	1.76%	6.41%	5.31%	14.50%	11.49%	11.73%
136	Jennison Associates LLC	301,080,071	-0.30%	-0.30%	6.52%	9.42%	19.03%	10.18%	12.42%
137	Russell 2000 Index		1.74%	1.74%	8.69%	9.54%	18.73%	12.04%	11.33%
138	RBC Asset Mgmt	182,221,279	2.26%	2.26%	11.31%	14.61%	22.69%	12.42%	11.74%
139	Eagle Asset Mgmt	212,637,893	2.81%	2.81%	11.53%	15.16%	26.85%	13.60%	13.51%
140	Russell 2000 Growth Index		1.72%	1.72%	8.97%	11.58%	22.91%	11.08%	12.38%
141	Russell 2000 Index		1.74%	1.74%	8.69%	9.54%	18.73%	12.04%	11.33%
142	T Rowe Price	193,642,202	2.56%	2.56%	7.63%	6.72%	16.95%	15.14%	11.63%
143	Pzena Investment Mgmt	209,516,713	2.74%	2.74%	12.20%	13.46%	21.49%	15.24%	13.53%
144	Russell 2000 Value Index		1.77%	1.77%	8.34%	7.31%	14.37%	12.92%	10.19%
145	Russell 2000 Index		1.74%	1.74%	8.69%	9.54%	18.73%	12.04%	11.33%
146	AGI Structured Alpha	160,354,965	4.09%	4.09%	8.00%	6.92%	17.83%		
147	S&P 500 Index		3.72%	3.72%	6.87%	6.47%	16.24%		

¹ Int'l Passive/Quasi-Passive Custom Benchmark is MSCI EAFE through 5/26/10 then MSCI World ex US thereafter.

² MSCI Custom Blend benchmark is MSCI EAFE TRI through 2/28/11, MSCI World ex-USA TRI through 4/30/2016, then MSCI World ex-USA Value TRI thereafter.

³ MSCI World ex-USA/MSCI EAFE benchmark is MSCI EAFE TRI through 2/28/11 then MSCI World ex-USA TRI thereafter.

⁴ Lazard global equity accounts' annual fees do not include fees paid on imbedded mutual fund positions.

* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial Statements.

		(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 7/31/2018*		Returns as of 7/31/2018					
			1 Month	FYTD	3 Months	CYTD	1 Year	3 Years	5 Years
148	FIXED INCOME PLUS $\diamond \uparrow \ddagger$	14,089,004,967	0.83%	0.83%	1.22%	-0.81%	0.89%		
149	PUBLIC INCOME BENCHMARK ¹		0.58%	0.58%	1.05%	-0.88%	0.57%		
150	US FIXED INCOME AGGREGATE	3,760,048,346	0.21%	0.21%	0.70%	-1.60%	-0.67%	1.80%	2.48%
151	BB AGGREGATE		0.02%	0.02%	0.61%	-1.59%	-0.80%	1.49%	2.25%
152	APF Fixed Income - Aggregate	3,760,048,346	0.21%	0.21%	0.70%	-1.60%	-0.67%	1.80%	2.48%
153	US INVESTMENT GRADE CORPORATE	3,665,101,050	1.13%	1.13%	1.06%	-2.46%	-0.39%	3.69%	4.23%
154	BB CORPORATE		0.83%	0.83%	0.78%	-2.47%	-0.73%	3.12%	3.51%
155	APF Corporate Bonds	3,665,101,050	1.13%	1.13%	1.06%	-2.46%	-0.39%	3.69%	4.23%
156	NON US FIXED INCOME	1,324,966,614	-0.02%	-0.02%	0.39%	1.32%	2.68%	2.93%	3.78%
157	BB GLOBAL TREASURY EX-US		-0.06%	-0.06%	0.45%	1.55%	3.03%	3.23%	4.01%
158	Rogge Global Partners	351,920,185	-0.03%	-0.03%	0.37%	1.38%	2.92%	3.16%	3.87%
159	APF Global Government Bonds	973,046,429	-0.02%	-0.02%	0.54%	1.39%	2.67%	2.87%	3.75%
160	GLOBAL HIGH YIELD	1,470,736,008	1.26%	1.26%	1.77%	1.51%	2.53%	5.53%	4.89%
161	BB US HIGH YIELD 2% ISSUER CAP		1.09%	1.09%	1.47%	1.25%	2.60%	6.13%	5.35%
162	Oaktree High Yield	588,158,127	1.02%	1.02%	1.23%	0.70%	1.63%	4.66%	4.24%
162	Capital Guardian High Yield	413,525,853	1.38%	1.38%	2.62%	2.97%	4.34%	7.80%	6.56%
163	APF High Yield	469,052,028	1.45%	1.45%	1.72%	1.17%	1.89%		
164	BB US High Yield 2% Issuer Cap Index		1.09%	1.09%	1.47%	1.25%	2.60%	6.13%	5.35%
165	HY Fixed Income Custom Blend ¹		1.09%	1.09%	1.47%	1.25%	2.60%	6.13%	5.61%
169	EMERGING MARKET DEBT	937,277,804	2.12%	2.12%	-3.50%	-3.83%	-1.25%	4.43%	2.47%
170	EMD BENCHMARK ²		2.22%	2.22%	-2.81%	-3.69%	-1.15%	4.49%	2.28%
171	Capital Guardian HY EM Gov't	640,568,421	2.04%	2.04%	-3.67%	-3.63%	-0.99%	4.52%	2.52%
172	HY Emerging Markets Benchmark ³		2.22%	2.22%	-2.81%	-3.69%	-1.15%	4.54%	2.05%
173	APF Emerging Market Debt	296,709,382	2.29%	2.29%	-3.59%	-5.22%			
174	BB EMD Hard Currency AGG		1.58%	1.58%	-0.23%	-2.37%			
175	TIPS	253,047,956	-0.43%	-0.43%	0.33%	-0.46%	1.11%	1.59%	1.23%
176	BB US TIPS		-0.48%	-0.48%	0.34%	-0.51%	1.17%	1.69%	1.43%
177	APF TIPS	126,163,941	-0.49%	-0.49%	0.36%	-0.49%	1.22%	1.79%	1.46%
178	BB U.S. TIPS		-0.48%	-0.48%	0.34%	-0.51%	1.17%	1.69%	1.43%
179	Alaska Permanent Capital Mgmt	126,884,016	-0.37%	-0.37%	0.35%	-0.11%	0.59%	1.38%	0.99%
180	BB U.S. TIPS 1-10 Year Index		-0.39%	-0.39%	0.36%	-0.18%	0.55%	1.39%	0.95%
181	REITS $\uparrow \ddagger$	1,399,108,115	0.89%	0.89%	5.81%	1.76%	4.75%	9.34%	7.45%
182	S&P GLOBAL REIT		0.80%	0.80%	5.31%	0.72%	3.03%	4.75%	6.34%
183	AEV Global RE Securities	541,070,495	0.99%	0.99%	5.91%	2.43%	6.45%	6.82%	8.50%
184	American Homes 4 Rent $\uparrow$	37,015,733	-0.19%	-0.19%	9.84%	1.86%	-2.87%	9.34%	6.45%
185	MSCI US REIT Index		0.72%	0.72%	9.31%	1.92%	3.00%	6.36%	8.24%
186	REIT Benchmark ⁴		0.95%	0.95%	5.65%	1.90%	5.33%	6.18%	7.75%
187	SSGA REITS	821,021,887	0.87%	0.87%	5.57%	1.32%	4.02%		
188	S&P GLOBAL REIT		0.80%	0.80%	5.31%	0.72%	3.03%		
189	LISTED INFRASTRUCTURE $\diamond$	671,156,806	2.18%	2.18%	3.06%	1.07%	4.27%	8.75%	
190	S&P GLOBAL LISTED INFRASTRUCTURE		1.75%	1.75%	1.58%	-1.89%	-0.64%	5.26%	
191	Lazard Listed Infrastructure	198,062,900	2.40%	2.40%	3.32%	3.26%	7.51%	13.19%	
192	FTSE Core Developed Infrastructure (Hedged)		2.63%	2.63%	6.80%	5.13%	8.77%	8.24%	
193	Cohen & Steers Listed Infrastructure	146,533,054	2.73%	2.73%	5.29%	3.72%	8.93%	8.07%	
194	FTSE Core Developed Infrastructure Custom		3.42%	3.42%	4.98%	3.11%	6.43%	8.07%	
195	SSGA Listed Infrastructure	326,550,031	1.80%	1.80%	1.93%	-1.34%	0.21%		
196	S&P Global Listed Infrastructure		1.75%	1.75%	1.58%	-1.89%	-0.64%		
166	FIXED INCOME PLUS CASH	607,526,792	0.57%	0.57%	0.90%	1.40%	1.70%		
167	90 DAY T-BILLS		0.16%	0.16%	0.48%	0.97%	1.43%		
168	APF Fixed Income Plus Cash	607,526,792	0.57%	0.57%	0.90%	1.40%	1.70%		
197	ABSOLUTE RETURN	2,748,957,261	N/A	N/A	-0.64%	1.56%	5.84%	3.05%	3.37%
198	ABSOLUTE RETURN BENCHMARK		N/A	N/A	0.99%	1.35%	5.14%	5.78%	5.92%
199	ASSET ALLOCATION	6,054,367,174	0.85%	0.85%	0.45%	-0.41%	2.61%	2.50%	2.86%
200	ASSET ALLOCATION BENCHMARK		0.81%	0.81%	1.09%	1.72%	5.52%		
201	APF FI LIQUIDITY	335,763,335	-0.42%	-0.42%	0.55%	-1.58%	-1.43%		
202	APF ASSET ALLOCATION CASH	870,645,429	0.15%	0.15%	0.43%	0.86%	1.32%	0.66%	0.40%
203	90 DAY T-BILLS		0.16%	0.16%	0.48%	0.97%	1.43%	0.73%	0.45%
204	ASSET ALLOCATION CASH OVERLAY	2,340,289,292	2.04%	2.04%	2.04%				
205	Asset Allocation Overlay Benchmark		1.81%	1.81%	1.88%				
206	LEGACY ECIOS	2,507,669,118	0.11%	0.11%	-1.15%	-1.48%	3.21%	4.02%	5.16%
207	Performance Benchmark $\bullet$		1.25%	1.25%	1.51%	2.20%	7.71%	7.14%	7.19%
208	Bridgewater	856,340,513	-0.28%	-0.28%	1.16%	1.64%	7.07%	4.01%	5.87%
209	AQR	825,509,431	-0.76%	-0.76%	-4.95%	-5.17%	-0.23%	5.04%	6.42%
210	Goldman Sachs	825,819,174	1.41%	1.41%	0.49%	-0.80%	2.91%	3.05%	4.52%
211	CPI + 5%		0.41%	0.41%	1.79%	5.07%	7.95%	6.83%	6.53%

¹ HY Fixed Income Custom Blend is BB Global High Yield Corporate Index through 7/31/2016 then BB US High Yield 2% Issuer Cap Index thereafter.

² EMD Benchmark is 50% JPM EMBI Global Diversified and 50% JPM GBI-EM Global Diversified.

³ HY Emerging Markets Benchmark is 50% JP Morgan Emerging Markets Bond Index Global and 50% JP Morgan Government Bond Index-Emerging Markets Global Diversified.

⁴ REIT Benchmark is UBS Global Real Estate Investors Index through 12/31/2014 then FTSE EPRA/NAREIT Developed Rental Index thereafter.

* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial Statements.

• For investments within Private Equity and Growth Opportunities, Real Estate, and Infrastructure, Private Credit, and Income Opportunities asset classes, returns are lagged one (1) quarter.

Composites that incorporate these investments as well as associated benchmarks are also lagged one (1) quarter.

$\diamond$ Public Infrastructure investments are included with Infrastructure prior to 9/30/2016 and Fixed Income Plus thereafter.

$\uparrow$ REITs are included with Real Estate prior to 9/30/2016 and Fixed Income Plus thereafter.

$\ddagger$ American Homes 4 Rent became a public investment on 7/31/2013. It is included in Income Opportunities from inception to 7/31/2013, Real Estate from 8/1/2013 to 9/30/2016, and Fixed

		(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 7/31/2018*	Returns as of 7/31/2018						
			FYTD	3 Months	CYTD	1 Year	3 Years	5 Years	
212	PRIVATE EQUITY & SPECIAL OPPORTUNITIES •	7,318,620,440	31.74%	11.25%	16.50%	31.74%	13.86%	23.03%	
213	CAMBRIDGE PRIVATE EQUITY •		18.27%	3.03%	8.14%	18.27%	12.66%	13.81%	
214	PRIVATE EQUITY •	4,484,388,809	26.64%	8.04%	13.11%	26.64%	19.23%	19.05%	
215	PRIVATE EQUITY CUSTOM BENCHMARK •		0.00%	2.01%	8.14%	16.41%	7.67%	9.75%	
216	Pathway Capital Mgmt - Direct PE	988,637,684	40.02%	10.78%	18.32%	40.02%	23.38%	20.38%	Various
217	Rapid Partners LP	77,332,472	-8.23%	1.74%	-8.95%	-8.23%			Net
218	Kelso Hammer LP	31,308,563	13.25%	0.62%	5.89%	13.25%			Gross
219	HarbourVest Legacy	1,078,000,357	31.82%	8.90%	15.19%	31.82%	23.17%	20.09%	Net
220	Pathway Capital Mgmt - PE	2,097,930,680	22.02%	7.31%	11.70%	22.02%	16.18%	17.53%	Net
221	BlackRock Co-investment Funds	211,179,053	30.56%	4.71%	8.95%	30.56%	6.51%		Net
222	SPECIAL OPPORTUNITIES •	2,834,231,630	39.63%	16.04%	21.56%	39.63%	6.75%		Net
223	CAMBRIDGE PRIVATE EQUITY •		18.27%	3.03%	8.14%	18.27%	12.66%		
224	REAL ESTATE • † ‡	3,984,362,646	6.60%	1.78%	3.61%	6.60%	8.83%	9.75%	
225	NCREIF TOTAL INDEX •		7.12%	1.70%	3.53%	7.12%	8.72%	10.00%	
226	RE SEPARATE ACCTS & DIRECT	3,974,470,155	6.60%	1.78%	3.61%	6.60%	8.83%	9.75%	Net
226	L&B Realty Advisors	2,103,175,715	4.62%	0.68%	1.78%	4.62%	9.80%	11.27%	Net
227	Sentinel Real Estate	922,318,497	1.31%	2.52%	3.93%	1.31%	6.85%	8.25%	Net
228	LaSalle Investment Mgmt-United Kingdom	235,926,821	23.73%	2.91%	8.24%	23.73%	-9.99%		Net
229	Lincoln Industrial	96,237,490	19.83%	2.60%	9.78%	19.83%	15.15%		Net
230	CB Richard Ellis - Europe	173,799,963	24.86%	4.69%	9.27%	24.86%	26.41%		Net
231	CS Capital	443,011,669	12.20%	1.43%	6.59%	12.20%			Net
232	RE FUNDS & CO-INVEST	9,892,491							Net
233	HIG EUROPE RE II	9,892,491							Net
234	INFRA. & PRIVATE INCOME • † ‡	4,327,339,109	16.67%	2.20%	6.59%	16.67%	13.80%	12.02%	
235	INFRA. & INCOME OPPORTUNITIES •		4.49%	-2.67%	-1.32%	4.49%	5.20%	6.65%	
236	INFRASTRUCTURE • †	2,324,582,200	22.87%	3.01%	9.67%	22.87%	21.49%	16.35%	Net
237	FTSE DEVELOPED CORE INFRA. TRI •		4.85%	-3.91%	-2.01%	4.85%	5.08%	7.63%	
238	GIP	181,917,701	44.67%	0.62%	4.59%	44.67%	42.49%	35.09%	Net
239	GIP II	382,421,435	16.67%	2.92%	6.69%	16.67%	16.96%	20.78%	Net
240	Gateway IFR	278,289,556	19.28%	2.09%	7.27%	19.28%	12.49%	0.62%	Net
241	G Sachs	239,858,096	41.00%	8.69%	25.84%	41.00%	26.13%	21.31%	Net
242	EQT II	38,080,887	30.07%	1.77%	6.52%	30.07%	34.52%		Net
243	GIP II Co-Invest 2	92,914,816	19.42%	5.05%	10.38%	19.42%	26.04%		Net
244	ACTIS Energy 3	47,851,237	8.91%	-1.28%	2.65%	8.91%	35.74%		Net
245	LS Power III	139,446,169	28.23%	0.63%	6.18%	28.23%	21.52%		Net
246	North Haven	146,915,715	31.24%	1.82%	4.49%	31.24%	13.54%		Net
247	Twin Creeks Timber	89,173,093	-5.83%	-0.77%	-0.04%	-5.83%			Net
248	GIP III	325,464,651	-9.84%	-0.28%	1.03%	-9.84%			Net
249	GIP III Canary	106,638,048	12.06%	3.49%	9.21%	12.06%			Net
250	CIM Fund II	66,622,298	0.54%	0.31%	-0.41%	0.54%			Net
251	IFR ACTIS Energy 4	21,306,913	-47.82%	3.58%	N/A	N/A			Net
252	IFR Meridiam III	376,455	N/A	N/A					Net
253	IFR GIP III Zenith	100,538,658							Net
254	IFR ENCAP FM IV	830,758							Net
255	IFR INFRARED V	16,135,715							Net
256	IFR NHIP II Bison	49,800,000							Net
257	FTSE Core Developed Infrastructure TRI		4.85%	-3.91%	-2.01%	4.85%	5.08%	7.63%	
258	PRIVATE CREDIT •	1,189,865,529	8.79%	0.97%	3.11%	8.79%	6.47%	7.20%	Net
259	BB US HIGH YIELD 2% ISSUER CAP •		3.78%	-0.86%	-0.39%	3.78%	5.18%	5.00%	
260	PRIVATE INCOME • † ‡	812,891,380	1.73%	0.16%	-4.46%	1.73%	7.67%		Net
261	American Homes 4 Rent II	167,875,174	0.93%	0.50%	-5.49%	0.93%	7.39%		Net
262	Athyrium III	7,915,312	N/A	1.26%					Net
263	Generate Capital	84,888,444	N/A	-0.11%					Net
264	Broadriver III	3,359,321							Net
264	APF ADAC	533,853,128							Net
265	Generate Capital II	15,000,000							Net

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† Public infrastructure investments are included with Infrastructure prior to 9/30/2016 and Fixed Income Plus thereafter.

‡ REITs are included with Real Estate prior to 9/30/2016 and Fixed Income Plus thereafter.

‡ American Homes 4 Rent became a public investment on 7/31/2013. It is included in Income Opportunities from inception to 7/31/2013, Real Estate from 8/1/2013 to 9/30/2016, and Fixed