Kern County Employees' Retirement Association

Investment Performance Review

Period Ending: September 30, 2023

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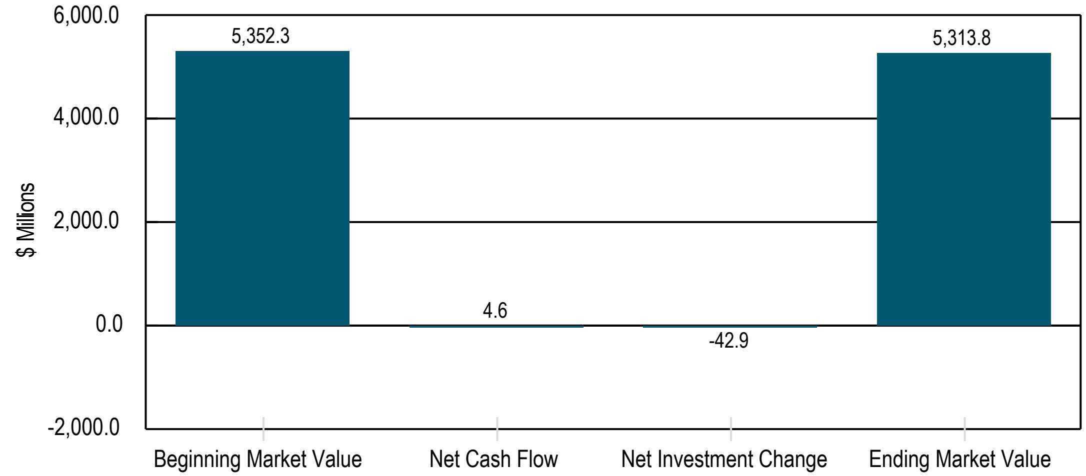
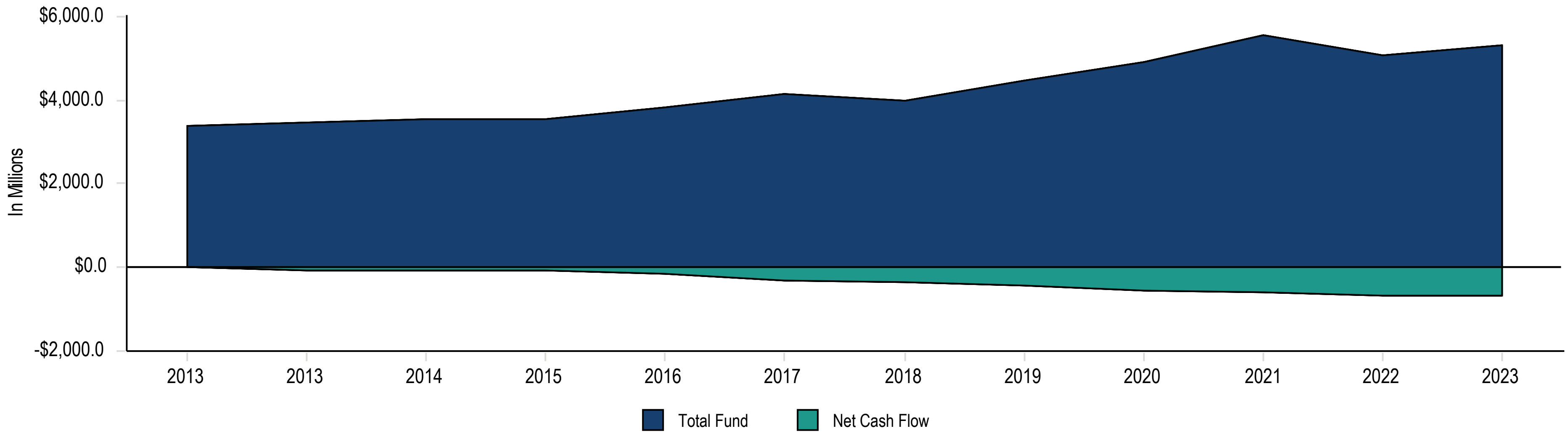
Portfolio Reconciliation

	Last Three Months
Beginning Market Value	$5,352,263,309
Net Cash Flows	$4,561,995
Net Investment Change	-$42,914,826
Ending Market Value	$5,313,750,006

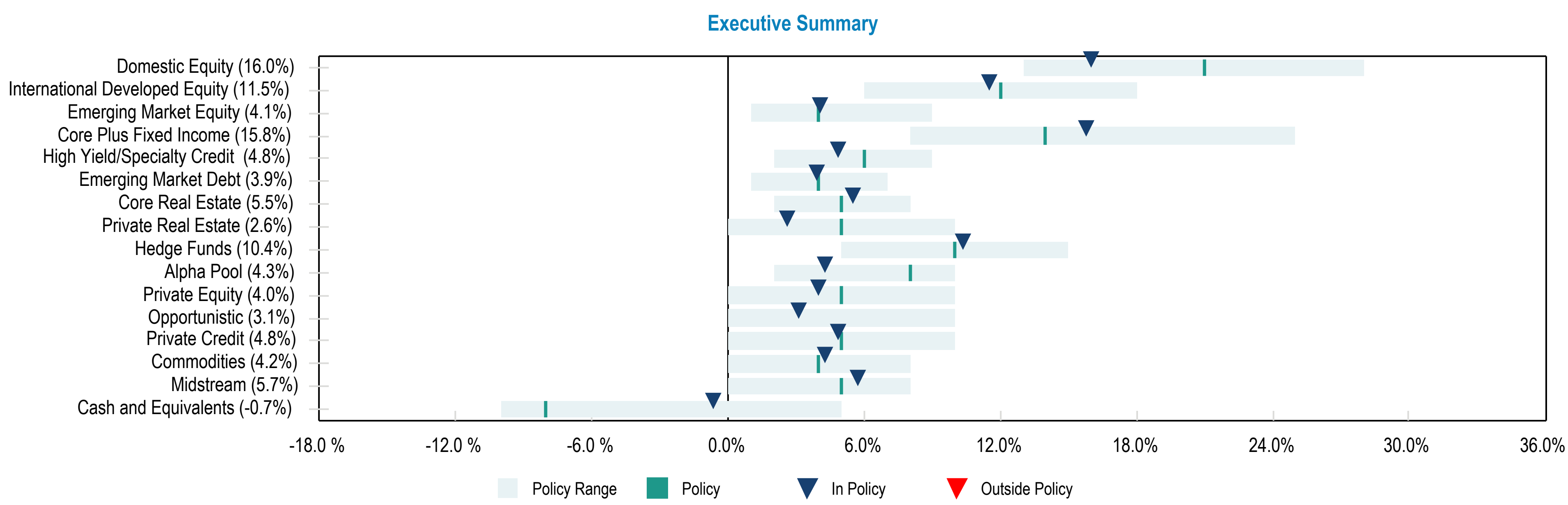
Change in Market Value Last Three Months

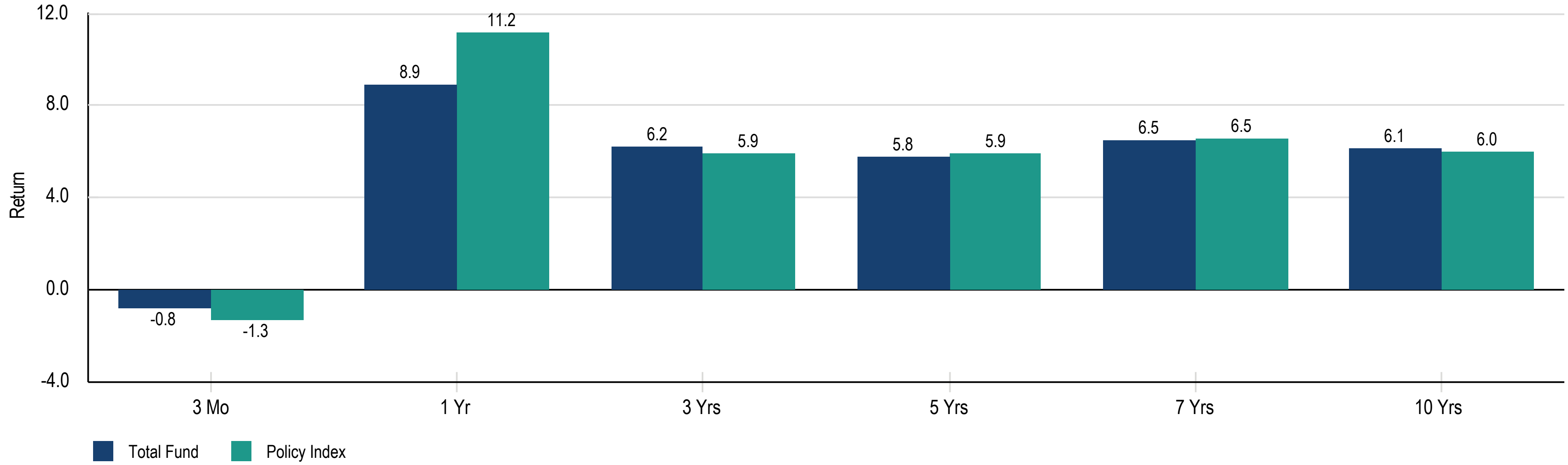


Market Value History



	Current Balance ($)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (%)	Policy Range (%)	Within IPS Range?
Equity	1,676,406,460	31.5	37.0	-5.5	26.0 - 48.0	Yes
Fixed Income	1,303,214,455	24.5	24.0	0.5	14.0 - 34.0	Yes
Core Real Estate	291,668,466	5.5	5.0	0.5	2.0 - 8.0	Yes
Hedge Funds	551,764,758	10.4	10.0	0.4	5.0 - 15.0	Yes
Alpha Pool	226,723,166	4.3	8.0	-3.7	2.0 - 10.0	Yes
Private Equity	212,742,776	4.0	5.0	-1.0	0.0 - 10.0	Yes
Private Credit	255,875,161	4.8	5.0	-0.2	0.0 - 10.0	Yes
Private Real Estate	136,887,189	2.6	5.0	-2.4	0.0 - 10.0	Yes
Commodities	225,499,850	4.2	4.0	0.2	0.0 - 8.0	Yes
Opportunistic	165,626,876	3.1	0.0	3.1	0.0 - 10.0	Yes
Midstream	302,860,943	5.7	5.0	0.7	0.0 - 8.0	Yes
Cash and Equivalents	-35,520,094	-0.7	-8.0	7.3	-10.0 - 5.0	Yes
Total	**5,313,750,006**	**100.0**	**100.0**	**0.0**		




12.0
8.0
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Return
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-1.3
3 Mo
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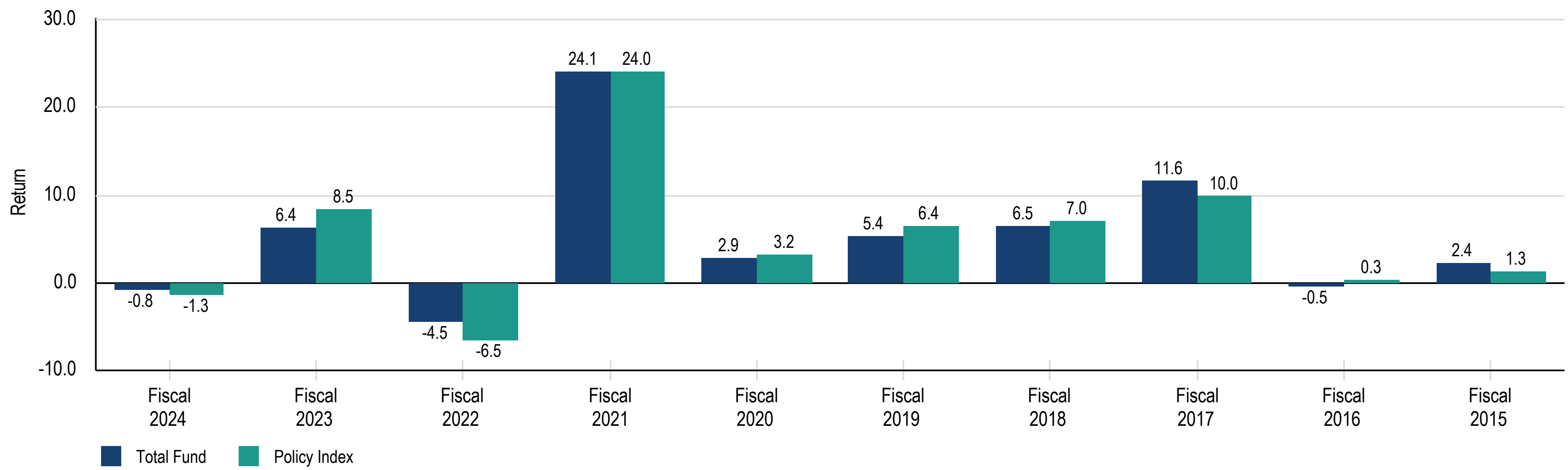
5 Yrs
7 Yrs
10 Yrs
Total Fund
Policy Index


30.0
20.0
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-10.0
Return
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24.0
6.4
8.5
2.9
3.2
5.4
6.4
6.5
7.0
11.6
10.0
0.3
2.4
1.3
-0.8
-1.3
-4.5
-6.5
-0.5
Fiscal 2024
Fiscal 2023
Fiscal 2022
Fiscal 2021
Fiscal 2020
Fiscal 2019
Fiscal 2018
Fiscal 2017
Fiscal 2016
Fiscal 2015
Total Fund
Policy Index

Executive Summary (Gross of Fees)

Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019
Total Fund	**5,313,750,006**	**100.0**	**-0.7**	**-0.7**	**9.2**	**6.5**	**6.1**	**6.5**	**6.7**	**-4.2**	**24.4**	**3.2**	**5.7**
Policy Index			*-1.3*	*-1.3*	*11.2*	*5.9*	*5.9*	*6.0*	*8.5*	*-6.5*	*24.0*	*3.2*	*6.4*
InvMetrics Public DB > $1B Rank			*11*	*11*	*72*	*37*	*33*	*52*	*75*	*32*	*88*	*20*	*63*
Equity	**1,676,406,460**	**31.5**	**-3.4**	**-3.4**	**20.2**	**7.8**	**6.5**	**8.4**	**15.9**	**-14.9**	**41.2**	**0.7**	**5.3**
MSCI AC World IMI (Net)			*-3.4*	*-3.4*	*20.2*	*6.9*	*6.1*	*7.4*	*16.1*	*-16.5*	*40.9*	*1.2*	*4.6*
Domestic Equity	849,318,739	16.0	-3.5	-3.5	19.6	10.0	9.1	-	17.8	-12.0	43.6	6.3	9.2
MSCI USA IMI			*-3.2*	*-3.2*	*20.7*	*9.6*	*9.3*	*-*	*19.2*	*-13.7*	*44.4*	*6.7*	*9.0*
International Developed Equity	610,522,260	11.5	-4.0	-4.0	22.7	6.4	3.7	-	17.2	-17.2	37.0	-5.5	-0.6
MSCI World ex U.S. IMI Index (Net)			*-4.0*	*-4.0*	*23.0*	*5.4*	*3.1*	*-*	*16.3*	*-17.7*	*34.8*	*-5.1*	*0.2*
Emerging Markets Equity	216,564,575	4.1	-1.0	-1.0	16.8	1.8	0.4	-	5.3	-21.4	40.6	-10.9	0.4
MSCI Emerging Markets IMI (Net)			*-2.1*	*-2.1*	*13.2*	*-0.3*	*1.3*	*-*	*3.2*	*-24.8*	*43.2*	*-4.0*	*0.5*
Fixed Income	**1,303,214,455**	**24.5**	**-2.4**	**-2.4**	**3.9**	**-3.2**	**1.1**	**2.0**	**3.1**	**-12.7**	**5.4**	**6.6**	**7.9**
Fixed Income Custom Benchmark			*-2.2*	*-2.2*	*3.6*	*-3.4*	*0.8*	*1.8*	*1.9*	*-11.6*	*4.0*	*5.2*	*8.4*
Core Plus Fixed Income	839,456,132	15.8	-3.3	-3.3	0.2	-5.4	0.3	-	-0.9	-11.2	1.0	9.5	8.0
Blmbg. U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-5.2*	*0.1*	*-*	*-0.9*	*-10.3*	*-0.3*	*8.7*	*7.9*
High Yield/ Specialty Credit	256,143,955	4.8	0.4	0.4	8.1	2.3	3.2	-	7.9	-9.5	13.6	0.0	7.5
ICE BofA U.S. High Yield Index			*0.5*	*0.5*	*10.2*	*1.8*	*2.8*	*-*	*8.9*	*-12.7*	*15.6*	*-1.1*	*7.6*
Emerging Market Debt	207,324,502	3.9	-2.3	-2.3	13.8	-2.0	0.4	-	11.7	-19.6	9.4	-1.2	8.5
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			*-2.7*	*-2.7*	*11.6*	*-3.6*	*-0.1*	*-*	*9.4*	*-20.2*	*7.1*	*-1.1*	*10.8*
Commodities	**225,499,850**	**4.2**	**7.6**	**7.6**	**8.4**	**17.4**	**8.2**	**1.1**	**-6.3**	**20.1**	**43.5**	**-10.7**	**-6.2**
Bloomberg Commodity Index Total Return			*4.7*	*4.7*	*-1.3*	*16.2*	*6.1*	*-0.7*	*-9.6*	*24.3*	*45.6*	*-17.4*	*-6.8*
Hedge Funds	**551,764,758**	**10.4**	**2.0**	**2.0**	**7.9**	**7.8**	**7.6**	**6.3**	**7.5**	**2.8**	**16.3**	**7.3**	**2.6**
75% 3 Month T-Bill +4% / 25% MSCI ACWI IMI			*0.9*	*0.9*	*11.7*	*6.3*	*6.3*	*6.0*	*10.1*	*-0.9*	*12.3*	*5.1*	*6.6*
Alpha Pool	**226,723,166**	**4.3**	**0.3**	**0.3**	**-1.3**	**3.9**	**-**	**-**	**-0.9**	**1.5**	**14.5**	**-**	**-**
3 Month T-Bill +4%			*2.3*	*2.3*	*8.7*	*5.8*	*-*	*-*	*7.7*	*4.2*	*4.1*	*-*	*-*
Midstream Energy	**302,860,943**	**5.7**	**6.2**	**6.2**	**21.5**	**30.3**	**-**	**-**	**20.1**	**9.6**	**-**	**-**	**-**
Alerian Midstream Energy Index			*2.5*	*2.5*	*16.1*	*29.4*	*-*	*-*	*12.2*	*11.4*	*-*	*-*	*-*
Core Real Estate	**291,668,466**	**5.5**	**-3.5**	**-3.5**	**-15.5**	**4.4**	**4.0**	**-**	**-11.9**	**25.6**	**6.6**	**2.3**	**6.1**
NCREIF ODCE			*-1.9*	*-1.9*	*-12.1*	*7.1*	*5.7*	*-*	*-10.0*	*29.5*	*8.0*	*2.2*	*6.4*
Private Real Estate	**136,887,189**	**2.6**	**-1.6**	**-1.6**	**3.0**	**18.0**	**10.9**	**12.6**	**8.0**	**31.3**	**12.1**	**4.4**	**9.0**
			-1.6	*-1.6*	*3.0*	*18.0*	*10.9*	*12.6*	*8.0*	*31.3*	*12.1*	*4.4*	*9.0*
Private Equity	**212,742,776**	**4.0**	**3.1**	**3.1**	**6.4**	**16.8**	**10.8**	**11.2**	**-0.5**	**23.0**	**41.7**	**-10.5**	**10.9**
			3.1	*3.1*	*6.4*	*16.8*	*10.8*	*11.2*	*-0.5*	*23.0*	*41.7*	*-10.5*	*10.9*
Private Credit	**255,875,161**	**4.8**	**3.1**	**3.1**	**7.2**	**4.2**	**4.8**	**-**	**2.8**	**1.2**	**4.8**	**5.5**	**9.7**
			3.1	*3.1*	*7.2*	*4.2*	*4.8*	*-*	*2.8*	*1.2*	*4.8*	*5.5*	*9.7*

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019
Opportunistic	**165,626,876**	**3.1**	**-0.9**	**-0.9**	**2.9**	**11.6**	**-**	**-**	**0.6**	**-5.4**	**59.9**	**-**	**-**
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*7.2*	*-*	*-*	*7.2*	*7.2*	*7.2*	*-*	*-*
Cash	**-35,520,094**	**-0.7**	**0.5**	**0.5**	**2.7**	**0.9**	**1.0**	**1.5**	**2.3**	**-0.2**	**0.1**	**1.0**	**2.0**
3 Month T-Bill			*1.3*	*1.3*	*4.5*	*1.7*	*1.7*	*1.1*	*3.6*	*0.2*	*0.1*	*1.6*	*2.3*

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

Performance and Attribution

Total Fund

Performance (Net of Fees)

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Inception	Inception Date
Total Fund	**5,313,750,006**	**100.0**	**-0.8**	**-0.8**	**8.9**	**6.2**	**5.8**	**6.1**	**6.4**	**-4.5**	**24.1**	**2.9**	**5.4**	**6.2**	**Jun-11**
Policy Index			*-1.3*	*-1.3*	*11.2*	*5.9*	*5.9*	*6.0*	*8.5*	*-6.5*	*24.0*	*3.2*	*6.4*	*6.1*	
Equity	**1,676,406,460**	**31.5**	**-3.4**	**-3.4**	**20.0**	**7.6**	**6.1**	**8.0**	**15.7**	**-15.1**	**40.7**	**0.3**	**4.8**	**8.3**	**Jun-11**
MSCI AC World IMI (Net)			*-3.4*	*-3.4*	*20.2*	*6.9*	*6.1*	*7.4*	*16.1*	*-16.5*	*40.9*	*1.2*	*4.6*	*7.5*	
Domestic Equity	**849,318,739**	**16.0**	**-3.6**	**-3.6**	**19.3**	**9.8**	**8.9**	**-**	**17.6**	**-12.2**	**43.2**	**6.0**	**8.8**	**10.5**	**Jul-14**
MSCI USA IMI			*-3.2*	*-3.2*	*20.7*	*9.6*	*9.3*	*-*	*19.2*	*-13.7*	*44.4*	*6.7*	*9.0*	*10.4*	
Equity Beta Exposure	85,644,900	1.6	-3.5	-3.5	21.0	9.7	-	-	19.2	-11.0	-	-	-	10.2	Aug-20
S&P 500 Index			*-3.3*	*-3.3*	*21.6*	*10.2*	*-*	*-*	*19.6*	*-10.6*	*-*	*-*	*-*	*10.7*	
Mellon DB SL Stock Index Fund	518,380,614	9.8	-3.3	-3.3	21.6	10.1	9.9	-	19.6	-10.6	40.8	7.5	10.4	11.0	Oct-17
S&P 500 Index			*-3.3*	*-3.3*	*21.6*	*10.2*	*9.9*	*-*	*19.6*	*-10.6*	*40.8*	*7.5*	*10.4*	*11.0*	
PIMCO StocksPLUS	112,716,197	2.1	-3.1	-3.1	21.8	9.1	9.4	11.8	18.8	-12.8	41.7	7.7	10.6	10.3	Jul-03
S&P 500 Index			*-3.3*	*-3.3*	*21.6*	*10.2*	*9.9*	*11.9*	*19.6*	*-10.6*	*40.8*	*7.5*	*10.4*	*9.6*	
AB US Small Cap Value Equity	82,918,002	1.6	-4.3	-4.3	5.2	13.5	2.0	-	4.3	-16.1	77.5	-19.4	-6.9	5.5	Jul-15
Russell 2000 Value Index			*-3.0*	*-3.0*	*7.8*	*13.3*	*2.6*	*-*	*6.0*	*-16.3*	*73.3*	*-17.5*	*-6.2*	*5.8*	
Geneva Capital Small Cap Growth	49,659,027	0.9	-6.2	-6.2	13.7	4.5	4.5	-	15.6	-22.1	37.6	9.3	8.6	9.0	Jul-15
Russell 2000 Growth Index			*-7.3*	*-7.3*	*9.6*	*1.1*	*1.6*	*-*	*18.5*	*-33.4*	*51.4*	*3.5*	*-0.5*	*5.3*	
International Developed Equity	**610,522,260**	**11.5**	**-4.0**	**-4.0**	**22.6**	**6.3**	**3.5**	**-**	**17.1**	**-17.3**	**36.7**	**-5.7**	**-0.9**	**3.7**	**Jul-14**
MSCI World ex U.S. IMI Index (Net)			*-4.0*	*-4.0*	*23.0*	*5.4*	*3.1*	*-*	*16.3*	*-17.7*	*34.8*	*-5.1*	*0.2*	*3.0*	
Mellon DB SL World ex-US Index Fund	505,255,789	9.5	-4.0	-4.0	24.5	7.1	4.2	-	17.9	-16.1	35.6	-5.5	-	4.0	Jul-18
MSCI World ex U.S. IMI Index (Net)			*-4.0*	*-4.0*	*23.0*	*5.4*	*3.1*	*-*	*16.3*	*-17.7*	*34.8*	*-5.1*	*0.2*	*3.0*	
Cevian Capital II	39,290,266	0.7	1.1	1.1	25.0	17.2	7.5	-	25.3	-8.2	46.8	-8.2	-5.0	7.4	Dec-14
MSCI Europe (Net)			*-5.0*	*-5.0*	*28.8*	*7.2*	*4.0*	*-*	*21.8*	*-17.6*	*35.1*	*-6.8*	*1.9*	*4.2*	
American Century Non-US Small Cap	65,976,206	1.2	-7.1	-7.1	8.7	-	-	-	7.9	-27.4	-	-	-	-6.1	Dec-20
MSCI World ex U.S. Small Cap Growth Index (Net)			*-5.9*	*-5.9*	*13.0*	*-*	*-*	*-*	*9.5*	*-28.6*	*-*	*-*	*-*	*-6.6*	
Emerging Markets Equity	**216,564,575**	**4.1**	**-1.1**	**-1.1**	**16.2**	**1.1**	**-0.4**	**-**	**4.6**	**-21.9**	**39.5**	**-11.8**	**-0.6**	**0.8**	**Jul-14**
MSCI Emerging Markets IMI (Net)			*-2.1*	*-2.1*	*13.2*	*-0.3*	*1.3*	*-*	*3.2*	*-24.8*	*43.2*	*-4.0*	*0.5*	*1.7*	
DFA Emerging Markets Value I	81,688,665	1.5	0.2	0.2	19.8	9.7	2.7	-	7.9	-12.9	47.6	-17.7	2.0	3.8	Mar-14
MSCI Emerging Markets Value (Net)			*-0.8*	*-0.8*	*16.0*	*4.4*	*0.4*	*-*	*4.1*	*-18.6*	*41.6*	*-15.7*	*5.0*	*1.7*	
AB Emerging Markets Strategic Core Equity Collective Trust	53,102,935	1.0	-0.1	-0.1	18.1	-2.2	-0.5	-	5.0	-25.2	33.6	-5.1	-2.6	2.2	Dec-16
MSCI Emerging Markets (Net)			*-2.9*	*-2.9*	*11.7*	*-1.7*	*0.6*	*-*	*1.7*	*-25.3*	*40.9*	*-3.4*	*1.2*	*4.0*	
Mellon Emerging Markets Stock Index Fund	81,772,975	1.5	-3.0	-3.0	11.6	-1.9	-	-	1.6	-25.5	41.1	-	-	1.0	Jun-20
MSCI Emerging Markets (Net)			*-2.9*	*-2.9*	*11.7*	*-1.7*	*-*	*-*	*1.7*	*-25.3*	*40.9*	*-*	*-*	*3.4*	
Fixed Income	**1,303,214,455**	**24.5**	**-2.5**	**-2.5**	**3.7**	**-3.5**	**0.9**	**1.7**	**2.9**	**-13.0**	**5.1**	**6.3**	**7.6**	**2.8**	**Jun-10**
Fixed Income Custom Benchmark			*-2.2*	*-2.2*	*3.6*	*-3.4*	*0.8*	*1.8*	*1.9*	*-11.6*	*4.0*	*5.2*	*8.4*	*2.6*	
Core Plus Fixed Income	**839,456,132**	**15.8**	**-3.3**	**-3.3**	**0.1**	**-5.5**	**0.1**	**-**	**-1.0**	**-11.4**	**0.8**	**9.3**	**7.9**	**1.0**	**Jul-14**
Bloomberg U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-5.2*	*0.1*	*-*	*-0.9*	*-10.3*	*-0.3*	*8.7*	*7.9*	*0.8*	
Fixed Income Beta Exposure	406,910,741	7.7	-3.3	-3.3	-1.4	-	-	-	-2.5	-	-	-	-	-2.6	Jun-22
Bloomberg U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-*	*-*	*-*	*-0.9*	*-*	*-*	*-*	*-*	*-4.3*	
Mellon DB SL Aggregate Bond Index Fund	155,840,026	2.9	-3.2	-3.2	0.7	-5.3	0.1	1.1	-0.9	-10.4	-0.4	8.8	7.9	1.6	Jan-11
Bloomberg U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-5.2*	*0.1*	*1.1*	*-0.9*	*-10.3*	*-0.3*	*8.7*	*7.9*	*1.7*	

Policy Index: 37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual timeweighted Private Equity Returns, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill and actual weights and returns of private asset classes to nearest 1%. All data prior to 2Q 2011 has been provided by the investments managers. FY: 6/30. The Equity and Fixed Income Beta Exposure return includes overlay cash and an implied hurdle rate also applied to the Alpha pool.*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Inception	Inception Date
PIMCO Core Plus	159,560,189	3.0	-3.1	-3.1	1.1	-4.6	0.2	1.3	-0.7	-9.9	1.1	8.7	6.3	1.9	Feb-11
Bloomberg U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-5.2*	*0.1*	*1.1*	*-0.9*	*-10.3*	*-0.3*	*8.7*	*7.9*	*1.7*	
Western Asset Core Plus	117,145,176	2.2	-4.0	-4.0	1.5	-6.0	0.2	1.7	0.8	-14.5	2.4	9.3	9.4	3.4	Jun-04
Bloomberg U.S. Aggregate Index			*-3.2*	*-3.2*	*0.6*	*-5.2*	*0.1*	*1.1*	*-0.9*	*-10.3*	*-0.3*	*8.7*	*7.9*	*2.9*	
High Yield/ Specialty Credit	**256,143,955**	**4.8**	**0.3**	**0.3**	**7.7**	**1.8**	**2.7**	**-**	**7.5**	**-10.0**	**13.1**	**-0.5**	**7.0**	**2.5**	**Jul-14**
ICE BofA U.S. High Yield Index			*0.5*	*0.5*	*10.2*	*1.8*	*2.8*	*-*	*8.9*	*-12.7*	*15.6*	*-1.1*	*7.6*	*3.5*	
Western Asset High Yield Fixed Income	163,885,990	3.1	1.0	1.0	10.8	1.8	2.7	3.7	9.5	-14.1	16.5	-2.2	8.3	5.7	Jun-05
Bloomberg US HY Ba/B 2% Cap TR			*0.2*	*0.2*	*9.8*	*1.3*	*3.3*	*4.3*	*8.9*	*-12.4*	*13.4*	*2.1*	*8.8*	*5.9*	
TCW Securitized Opportunities	92,257,964	1.7	-1.0	-1.0	2.6	1.0	2.4	-	4.4	-4.0	6.4	2.2	5.2	3.1	Feb-16
Bloomberg U.S. High Yield - 2% Issuer Cap			*0.5*	*0.5*	*10.3*	*1.8*	*2.9*	*-*	*9.1*	*-12.8*	*15.3*	*0.0*	*7.5*	*5.6*	
Emerging Market Debt	**207,324,502**	**3.9**	**-2.4**	**-2.4**	**13.3**	**-2.4**	**-0.1**	**-**	**11.2**	**-19.9**	**9.1**	**-1.7**	**7.9**	**0.0**	**Jul-14**
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			*-2.7*	*-2.7*	*11.6*	*-3.6*	*-0.1*	*-*	*9.4*	*-20.2*	*7.1*	*-1.1*	*10.8*	*0.2*	
Stone Harbor Emerging Markets Debt Blend Portfolio	63,485,582	1.2	-1.7	-1.7	13.5	-2.6	0.2	0.2	10.8	-20.9	9.5	-1.8	8.2	-0.2	Aug-12
50 JPM GBI-EM Global Div/ 40 JPM EMBI Global Div/ 10 JPM Corporate EM Bond Idx			*-2.5*	*-2.5*	*11.4*	*-3.3*	*0.1*	*1.0*	*9.2*	*-19.5*	*7.2*	*-0.8*	*10.6*	*0.7*	
PIMCO EMD	143,838,920	2.7	-2.7	-2.7	13.3	-2.2	-	-	11.3	-19.2	8.7	-	-	-2.5	Feb-20
50 JPM EMBI Global Div / 50 JPM GBI EM Global Div			*-2.7*	*-2.7*	*11.6*	*-3.6*	*-*	*-*	*9.4*	*-20.2*	*7.1*	*-*	*-*	*-3.9*	
Commodities	**225,499,850**	**4.2**	**7.4**	**7.4**	**7.7**	**16.6**	**7.5**	**0.5**	**-7.0**	**19.4**	**42.5**	**-11.3**	**-6.7**	**0.3**	**Jul-13**
Bloomberg Commodity Index Total Return			*4.7*	*4.7*	*-1.3*	*16.2*	*6.1*	*-0.7*	*-9.6*	*24.3*	*45.6*	*-17.4*	*-6.8*	*-0.5*	
Gresham MTAP Commodity Builder Fund	50,660,377	1.0	5.0	5.0	-2.1	16.0	5.5	-	-11.5	24.7	46.8	-16.3	-9.0	-0.4	Oct-13
Bloomberg Commodity Index Total Return			*4.7*	*4.7*	*-1.3*	*16.2*	*6.1*	*-0.7*	*-9.6*	*24.3*	*45.6*	*-17.4*	*-6.8*	*-0.6*	
Wellington Commodities	174,839,473	3.3	8.0	8.0	11.5	16.7	8.8	1.2	-5.2	17.2	40.2	-7.5	-5.4	1.0	Sep-13
S&P GSCI Commodity Equal Weighted			*5.2*	*5.2*	*6.5*	*15.9*	*7.6*	*0.9*	*-6.0*	*19.0*	*40.9*	*-12.4*	*-3.5*	*0.9*	
Hedge Funds	**551,764,758**	**10.4**	**1.9**	**1.9**	**7.2**	**7.5**	**7.3**	**5.8**	**6.8**	**2.8**	**16.1**	**7.0**	**2.5**	**5.9**	**Sep-10**
75% 3 Month T-Bill +4% / 25% MSCI ACWI (net)			*0.9*	*0.9*	*11.8*	*6.4*	*6.3*	*6.0*	*10.2*	*-0.9*	*12.3*	*5.1*	*6.6*	*6.0*	
Aristeia International Limited	72,368,832	1.4	2.1	2.1	5.3	7.7	8.6	-	5.5	1.8	21.6	8.7	9.2	5.4	May-14
Brevan Howard Fund	55,576,582	1.0	2.3	2.3	-3.6	6.9	10.7	7.3	-1.0	15.2	6.1	20.5	12.7	7.3	Sep-13
D.E. Shaw Composite Fund	63,964,747	1.2	4.4	4.4	11.9	19.6	17.7	14.9	11.0	29.0	19.0	15.6	11.5	14.4	Jul-13
HBK Fund II	46,665,480	0.9	3.6	3.6	10.1	7.2	6.4	-	7.9	2.3	11.0	1.5	5.5	4.7	Nov-13
Hudson Bay Cap Structure Arbitrage Enhanced Fund	82,491,514	1.6	1.1	1.1	5.3	8.7	-	-	7.7	7.7	14.2	16.2	-	10.9	Jun-19
Indus Pacific Opportunities Fund	45,773,642	0.9	-1.3	-1.3	-2.6	3.3	4.7	-	-0.4	-8.2	38.0	15.8	-19.2	6.4	Jul-14
Pharo Macro Fund	61,980,585	1.2	-1.6	-1.6	1.3	-3.5	-	-	1.2	-11.1	3.5	-	-	-1.5	Dec-19
PIMCO Commodity Alpha Fund	73,834,671	1.4	3.4	3.4	25.6	13.6	10.2	-	18.3	8.6	14.2	4.8	5.2	11.2	Jun-16
Sculptor Domestic Partners II LP	49,108,706	0.9	2.6	2.6	12.5	-0.7	-	-	8.8	-19.9	16.8	6.5	-	5.4	Feb-19
Alpha Pool	**226,723,166**	**4.3**	**0.3**	**0.3**	**-1.3**	**3.9**	**-**	**-**	**-0.9**	**1.5**	**14.5**	**-**	**-**	**4.5**	**Jul-20**
3 Month T-Bill +4%			*2.3*	*2.3*	*8.7*	*5.8*	*-*	*-*	*7.7*	*4.2*	*4.1*	*-*	*-*	*5.6*	
Hudson Bay	63,718,148	1.2	-0.9	-0.9	-4.6	4.5	-	-	-1.1	6.7	-	-	-	5.2	Aug-20
Davidson Kempner Institutional Partners	56,590,746	1.1	0.0	0.0	-3.7	-	-	-	-4.1	-3.4	-	-	-	0.2	Dec-20
HBK Fund II	44,877,280	0.8	1.5	1.5	-0.3	-	-	-	-1.0	1.3	-	-	-	2.4	Dec-20
Garda Fixed Income Relative Value Opportunity Fund	61,536,992	1.2	1.0	1.0	4.1	-	-	-	3.6	-	-	-	-	4.9	Sep-21

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	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Inception	Inception Date
Midstream Energy	**302,860,943**	**5.7**	**6.1**	**6.1**	**20.7**	**29.8**	**-**	**-**	**19.3**	**9.3**	**-**	**-**	**-**	**27.7**	**Sep-20**
Alerian Midstream Energy Index			*2.5*	*2.5*	*16.1*	*29.4*	*-*	*-*	*12.2*	*11.4*	*-*	*-*	*-*	*23.9*	
Harvest Midstream	151,675,622	2.9	7.7	7.7	22.0	36.3	-	-	20.9	15.3	-	-	-	33.9	Aug-20
Alerian Midstream Energy Index			*2.5*	*2.5*	*16.1*	*29.4*	*-*	*-*	*12.2*	*11.4*	*-*	*-*	*-*	*23.2*	
PIMCO Midstream	151,185,321	2.8	4.4	4.4	19.4	-	-	-	16.9	2.2	-	-	-	22.1	Oct-20
50/25/25 Alerian Midstream/ ICE BofA US Pipeline/ ICE BofA US HY Midstream			*0.8*	*0.8*	*12.3*	*-*	*-*	*-*	*10.1*	*-0.7*	*-*	*-*	*-*	*-*	
Core Real Estate	**291,668,466**	**5.5**	**-3.7**	**-3.7**	**-16.0**	**3.7**	**3.3**	**-**	**-12.3**	**24.8**	**5.6**	**1.4**	**5.9**	**5.9**	**Oct-14**
NCREIF ODCE			*-1.9*	*-1.9*	*-12.1*	*7.1*	*5.7*	*-*	*-10.0*	*29.5*	*8.0*	*2.2*	*6.4*	*7.7*	
ASB Allegiance Real Estate Fund	157,896,152	3.0	-3.9	-3.9	-18.5	2.6	2.8	6.0	-13.3	23.0	5.4	1.5	6.8	6.0	Sep-13
NCREIF ODCE			*-1.9*	*-1.9*	*-12.1*	*7.1*	*5.7*	*8.2*	*-10.0*	*29.5*	*8.0*	*2.2*	*6.4*	*8.1*	
JPMCB Strategic Property Fund	133,772,313	2.5	-3.4	-3.4	-13.0	5.1	4.0	-	-11.4	27.9	5.9	1.3	5.0	6.3	Jul-14
NCREIF ODCE			*-1.9*	*-1.9*	*-12.1*	*7.1*	*5.7*	*-*	*-10.0*	*29.5*	*8.0*	*2.2*	*6.4*	*7.8*	
Private Real Estate	**136,887,189**	**2.6**	**-1.6**	**-1.6**	**2.8**	**18.0**	**10.9**	**12.2**	**7.9**	**31.3**	**12.1**	**4.4**	**9.0**	**12.1**	**Mar-11**
			-1.6	*-1.6*	*3.0*	*18.0*	*10.9*	*12.6*	*8.0*	*31.3*	*12.1*	*4.4*	*9.0*	*12.1*	
Private Equity	**212,742,776**	**4.0**	**3.1**	**3.1**	**6.4**	**16.8**	**10.8**	**10.7**	**-0.5**	**22.9**	**41.7**	**-10.5**	**10.9**	**10.7**	**Sep-10**
			3.1	*3.1*	*6.4*	*16.8*	*10.8*	*11.2*	*-0.5*	*23.0*	*41.7*	*-10.5*	*10.9*	*10.9*	
Private Credit	**255,875,161**	**4.8**	**3.1**	**3.1**	**7.6**	**4.3**	**4.9**	**-**	**3.2**	**1.2**	**4.8**	**5.5**	**9.7**	**-22.3**	**Dec-15**
			3.1	*3.1*	*7.2*	*4.2*	*4.8*	*-*	*2.8*	*1.2*	*4.8*	*5.5*	*9.7*	*7.1*	
Opportunistic	**165,626,876**	**3.1**	**-0.9**	**-0.9**	**2.9**	**11.6**	**-**	**-**	**0.6**	**-5.4**	**59.9**	**-**	**-**	**9.0**	**Jan-20**
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*7.2*	*-*	*-*	*7.2*	*7.2*	*7.2*	*-*	*-*	*7.2*	
River Birch International	5,505,020	0.1	7.8	7.8	47.0	-	-	-	45.1	-	-	-	-	53.9	Jun-22
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*-*	*-*	*-*	*7.2*	*-*	*-*	*-*	*-*	*7.2*	
DB Investors Fund IV	21,437,761	0.4	-8.4	-8.4	-5.1	-1.0	-	-	-8.3	-34.4	95.1	-	-	1.9	Dec-19
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*7.2*	*-*	*-*	*7.2*	*7.2*	*7.2*	*-*	*-*	*7.2*	
Sixth Street TAO Partners (D)	93,502,490	1.8	3.5	3.5	13.5	16.0	-	-	4.4	9.6	39.6	-	-	15.5	Mar-20
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*7.2*	*-*	*-*	*7.2*	*7.2*	*7.2*	*-*	*-*	*7.2*	
Aristeia Select Opportunities II	45,181,604	0.9	-6.6	-6.6	-14.6	-	-	-	-7.2	-	-	-	-	-4.2	Jul-21
Assumed Rate of Return +3%			*1.8*	*1.8*	*7.2*	*-*	*-*	*-*	*7.2*	*7.2*	*-*	*-*	*-*	*7.2*	
Cash	**-35,520,094**	**-0.7**	**0.5**	**0.5**	**2.6**	**0.8**	**1.0**	**1.5**	**2.2**	**-0.2**	**0.1**	**1.0**	**2.0**	**1.3**	**Apr-11**
3 Month T-Bill			*1.3*	*1.3*	*4.5*	*1.7*	*1.7*	*1.1*	*3.6*	*0.2*	*0.1*	*1.6*	*2.3*	*0.9*	

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Vintage Year	Manager/Fund	Estimated Market Value as of 9/30/2023	IRR Analysis as of IRR date: Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
Private Equity												
2008	Abbott Capital PE VI	$16,921,054	$50,000,000	$49,750,000	100%	$250,000	$79,095,564	$17,231,430	*1.59x*	*1.93x*	*12.8%*	03/31/23
2006	Pantheon Global III	$548,661	$50,000,000	$47,300,000	95%	$2,700,000	$52,000,000	$553,189	*1.10x*	*1.11x*	*1.9%*	06/30/23
1998	Pantheon USA III	$45,445	$7,500,000	$7,335,000	98%	$165,000	$8,197,500	$45,445	*1.12x*	*1.12x*	*1.9%*	06/30/23
2002	Pantheon USA V	$375,348	$25,000,000	$24,350,000	97%	$650,000	$37,950,000	$383,462	*1.56x*	*1.57x*	*9.0%*	06/30/23
2004	Pantheon USA VI	$330,050	$35,000,000	$33,075,000	95%	$1,925,000	$50,623,827	$335,737	*1.53x*	*1.54x*	*6.7%*	06/30/23
2006	Pantheon USA VII	$6,855,040	$50,000,000	$46,600,000	93%	$3,400,000	$80,624,998	$6,907,588	*1.73x*	*1.88x*	*10.1%*	06/30/23
2020	Vista Foundation Fund IV	$18,784,419	$25,000,000	$19,102,508	76%	$5,897,492	$30,252	$18,058,075	*0.00x*	*0.98x*	*28.2%*	06/30/23
2021	Crown Global Secondaries V Master S.C.Sp	$32,029,559	$50,000,000	$23,700,000	47%	$26,300,000	$1,550,000	$28,568,244	*0.07x*	*1.42x*	*27.8%*	06/30/23
2021	Brighton Park Capital Fund I	$36,863,716	$30,000,000	$28,783,190	96%	$1,216,810	$1,325,801	$36,029,946	*0.05x*	*1.33x*	*13.8%*	06/30/23
2021	Warren Equity Partners Fund III	$30,248,893	$32,500,000	$24,279,276	75%	$8,220,724	$508,290	$29,397,592	*0.02x*	*1.27x*	*15.4%*	06/30/23
2021	Peak Rock Capital Fund III	$13,544,451	$30,000,000	$12,295,016	41%	$17,704,984	$2,566,358	$13,544,451	*0.21x*	*1.31x*	*24.1%*	09/30/23
2021	Level Equity Growth Partners V	$6,864,460	$15,000,000	$6,715,768	45%	$8,284,232	$0	$6,864,460	*0.00x*	*1.02x*	*6.4%*	09/30/23
2021	Level Equity Opportunities Fund 2021	$5,898,520	$15,000,000	$5,529,385	37%	$9,470,615	$0	$5,898,520	*0.00x*	*1.07x*	*13.5%*	09/30/23
2022	Linden Capital Partners V LP	$12,638,351	$22,500,000	$12,011,178	53%	$10,488,822	$0	$7,984,801	N/A	N/A	*10.3%*	06/30/23
2022	Rubicon Technology Partners IV LP	$3,124,027	$30,000,000	$3,895,697	13%	$26,104,303	$0	$3,214,080	N/A	N/A	*-69.4%*	12/31/22
2022	OrbiMed Private Investments IX, LP	$1,129,757	$10,000,000	$1,200,000	12%	$8,800,000	$0	$1,129,757	N/A	N/A	*32.0%*	09/30/23
2022	Brighton Park Capital Fund II	$3,299,342	$30,000,000	$4,174,920	14%	$25,825,080	$0	$3,071,866	N/A	N/A	*-68.8%*	06/30/23
2022	Linden Co-Investment V LP	$4,159,884	$7,500,000	$7,499,177	100%	$823	$0	$3,910,712	N/A	N/A	*32.7%*	06/30/23
2022	Warren Equity Partners Fund IV	$11,784,379	$32,500,000	$7,612,883	23%	$24,887,117	$0	N/A	N/A	N/A	*N/A*	N/A
2023	WEP Co-Invest IV	$7,297,419	$10,000,000	$7,470,589	75%	$2,529,411	$173,170	N/A	N/A	N/A	*N/A*	N/A
2022	Accel-KKR Capital Partners VII	$0	$25,000,000	$0	0%	$25,000,000	$0	N/A	N/A	N/A	*N/A*	N/A
2023	LGT Crown Global Secondaries Fund VI	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	N/A	N/A	*N/A*	N/A
2023	Parthenon Investors VII	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	N/A	N/A	*N/A*	N/A
	Total Private Equity	**$212,742,776**	$642,500,000	$372,679,588	58%	$269,820,412	$314,645,761	$183,129,355	*0.84x*	*1.42x*		
	% of Portfolio (Market Value)	***4.0%***										

[1](DPI) is equal to (capital returned / capital called)

[2](TVPI) is equal to (market value + capital returned) / capital called

[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.

Vintage Year	Manager/Fund	Estimated Market Value 9/30/2023	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
			IRR Analysis as of IRR date									
Private Credit												
2015	DC Value Recovery Fund IV[4]	$18,893,391	$74,360,749	$73,340,099	99%	$1,020,650	$40,330,120	$18,526,925	*0.55x*	*0.81x*	*N/A*	6/30/23
2017	Sixth Street TAO Partners (B)	$41,877,567	$108,035,958	$84,519,175	78%	$23,516,783	$44,061,451	$41,404,117	*0.52x*	*1.02x*	*10.0%*	6/30/23
2017	Brookfield Real Estate Finance Fund V	$16,771,893	$50,000,000	$36,019,917	72%	$13,980,083	$27,359,025	$16,752,621	*0.76x*	*1.23x*	*6.8%*	6/30/23
2018	Magnetar Constellation Fund V	$26,896,537	$60,000,000	$56,445,318	94%	$3,554,682	$42,783,179	$28,113,131	*0.76x*	*1.23x*	*5.9%*	6/30/23
2019	H.I.G Bayside Loan Opportunity Fund V	$45,153,751	$60,000,000	$35,821,497	60%	$24,178,503	$13,437,805	$43,519,452	*0.38x*	*1.64x*	*19.0%*	9/30/23
2020	Blue Torch Credit Opportunities Fund II	$16,189,364	$20,000,000	$16,613,092	83%	$3,386,908	$4,252,640	$16,313,371	*0.26x*	*1.23x*	*13.9%*	6/30/23
2020	Fortress Credit Opportunites Fund V Expansion	$16,911,033	$40,000,000	$15,122,013	38%	$24,877,987	$468,590	$15,507,751	*0.03x*	*1.15x*	*21.2%*	6/30/23
2021	Fortress Lending Fund II	$28,165,127	$40,000,000	$33,337,851	83%	$6,662,149	$8,834,329	$28,566,610	*0.26x*	*1.11x*	*10.0%*	6/30/23
2022	Blue Torch Credit Opportunities Fund III	$5,094,132	$40,000,000	$7,199,891	18%	$32,800,109	$5,108,700	$7,764,429	*0.71x*	*1.42x*	*18.1%*	6/30/23
2022	Fortress Lending Fund III	$24,367,938	$40,000,000	$23,232,701	58%	$16,767,299	$2,948,334	$23,889,989	*0.13x*	*1.18x*	*11.8%*	6/30/23
2022	OrbiMed Royalty & Credit Opportunities IV	$5,262,466	$30,000,000	$5,983,980	20%	$24,016,020	$1,089,589	$5,262,466	*0.18x*	*1.06x*	*11.8%*	9/30/23
2023	Cerberus Business Finance V	$10,291,962	$30,000,000	$9,808,474	33%	$20,191,526	$0	$10,291,962	*0.00x*	*1.05x*	*13.6%*	9/30/23
2023	Ares Senior Direct Lending III	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	*N/A*	*N/A*	*N/A*	*N/A*
2023	Ares Pathfinder II	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	*N/A*	*N/A*	*N/A*	*N/A*
2023	Silver Point – Specialty Credit Fund III	$0	$30,000,000	$0	0%	$30,000,000	$0	$0	*N/A*	*N/A*	*N/A*	*N/A*
	Total Private Credit	**$255,875,161**	$562,396,707	$387,635,533	69%	$174,761,174	$190,673,763	$255,912,824	*0.49x*	*1.15x*		
	% of Portfolio (Market Value)	***4.8%***										

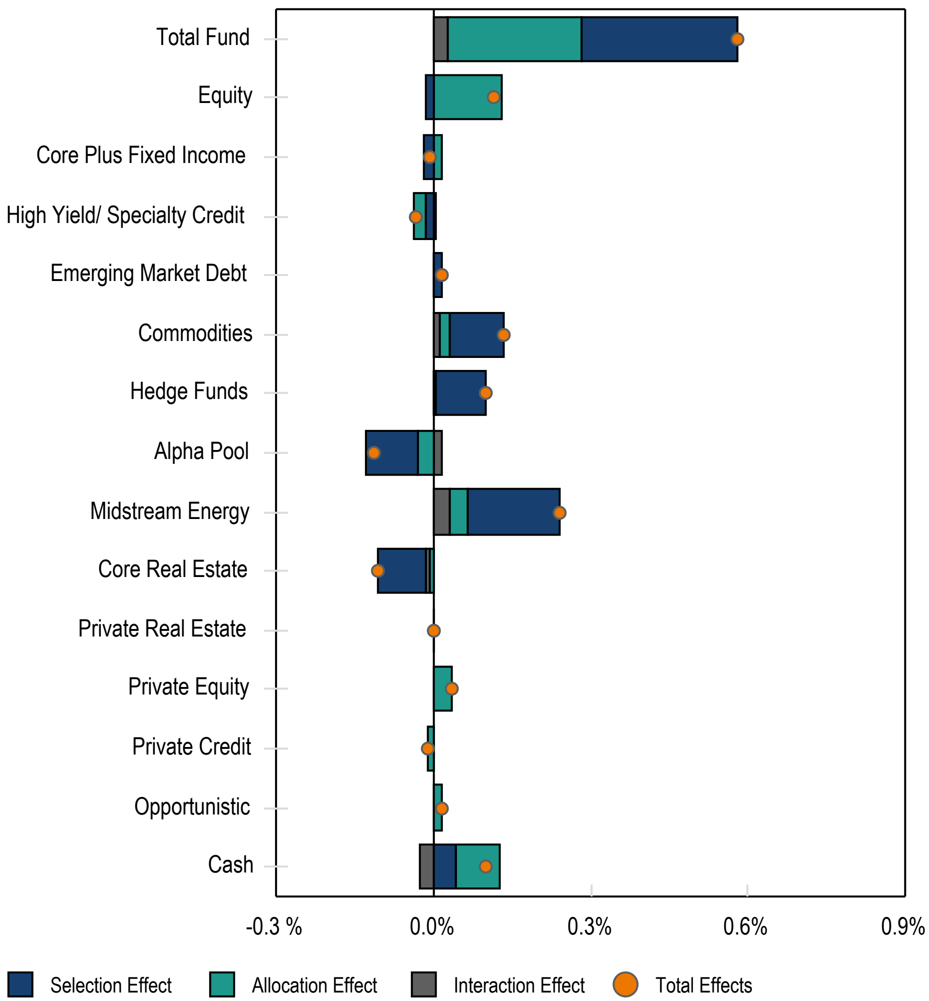
[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.
[4]Name changed from Colony Distressed Credit fund to DC Value Recovery Fund IV

			IRR Analysis as of IRR date									
Vintage Year	Manager/Fund	Estimated Market Value 9/30/2023	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
Private Real Estate												
2014	Invesco Real Estate Value-Add Fund IV	$930,593	$50,000,000	$43,637,717	87%	$6,362,283	$56,824,750	$930,593	*1.30x*	*1.32x*	*10.3%*	09/30/23
2017	Landmark Real Estate Partners VIII	$28,103,277	$60,000,000	$41,358,951	69%	$18,641,049	$25,196,880	$31,583,306	*0.61x*	*1.29x*	*17.0%*	06/30/23
2018	Long Wharf Real Estate Partners VI	$34,107,846	$50,000,000	$50,000,000	100%	$0	$24,281,467	$34,107,846	*0.49x*	*1.17x*	*17.9%*	09/30/23
2020	Covenant Apartment Fund X	$31,836,365	$30,000,000	$24,607,333	82%	$5,392,667	$6,567,324	$31,836,365	*0.27x*	*1.56x*	*17.6%*	09/30/23
2021	Singerman Real Estate Opportunity Fund IV	$12,316,089	$35,000,000	$10,946,250	31%	$24,053,750	$0	$8,944,617	*0.00x*	*1.13x*	*12.5%*	06/30/23
2022	LBA Logistics Value Fund IX, L.P.	$13,104,308	$40,000,000	$11,153,846	28%	$28,846,154	$0	$10,287,850	*0.00x*	*1.17x*	*-11.9%*	06/30/23
2022	Covenant Apartment Fund XI	$14,543,938	$30,000,000	$11,100,000	37%	$38,076,924	$3,112	N/A	N/A	N/A	N/A	N/A
2022	KSL Capital Partners VI	$1,944,774	$30,000,000	$2,752,026	9%	$27,247,974	$64,806	N/A	*N/A*	*N/A*	N/A	N/A
2022	Landmark Real Estate Partners IX	$0	$40,000,000	$0	0%	$40,000,000	$0	N/A	*N/A*	*N/A*	N/A	N/A
2023	Merit Hill V	$0	$30,000,000	$0	0%	$30,000,000	$0	N/A	*N/A*	*N/A*	N/A	N/A
	Total Private Real Estate	**$136,887,189**	$395,000,000	$195,556,123	50%	$218,620,801	$112,938,339	$117,690,577	*0.58x*	*1.28x*		
	% of Portfolio (Market Value)	***2.6%***										

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR is provided by the Fund manager and is reflective of the Fund IRR, rather than KCERA's specific IRR.

KSL Capital Partners VI funded in Q2

Attribution Effects
Last Three Months



Performance Attribution

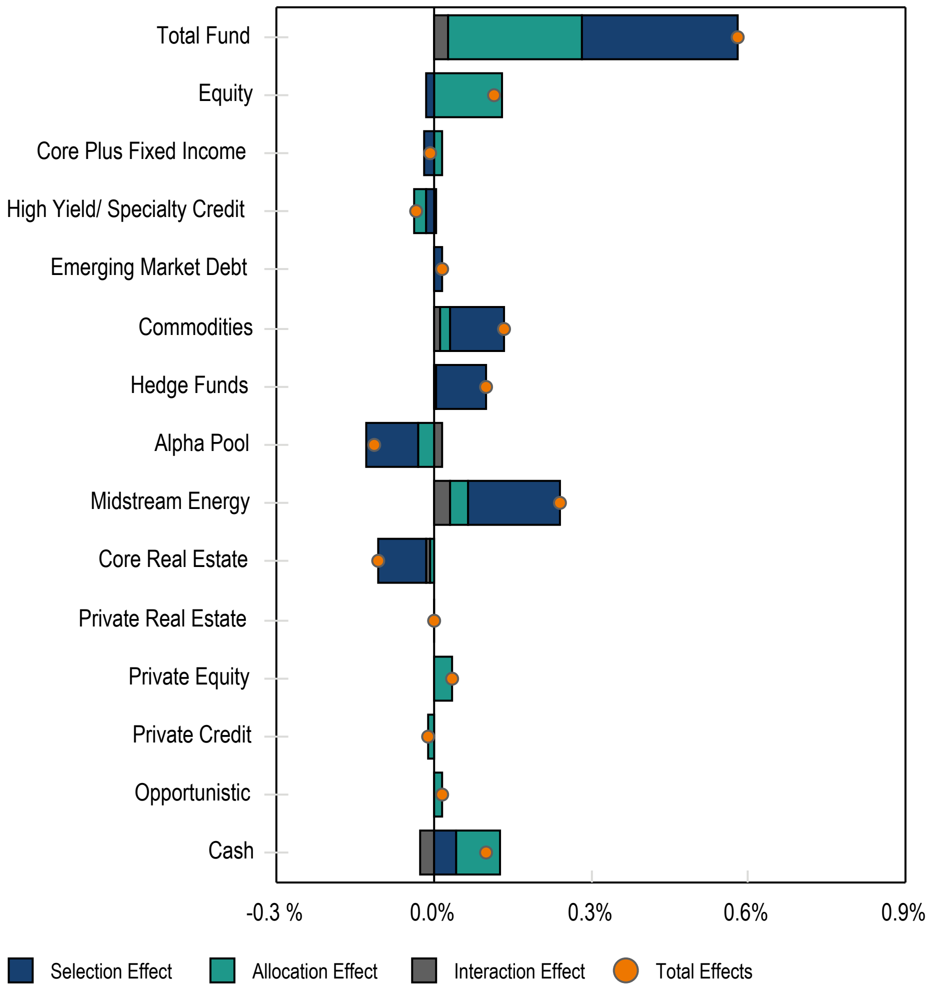
	Last Three Months
Wtd. Actual Return	-0.8
Wtd. Index Return	-1.3
Excess Return	**0.5**
Selection Effect	0.3
Allocation Effect	0.2
Interaction Effect	0.0

Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	-3.4	-3.4	0.0	0.0	0.1	0.0	0.1
Core Plus Fixed Income	-3.3	-3.2	-0.1	0.0	0.0	0.0	0.0
High Yield/ Specialty Credit	0.3	0.5	-0.3	0.0	0.0	0.0	0.0
Emerging Market Debt	-2.4	-2.7	0.4	0.0	0.0	0.0	0.0
Commodities	7.4	4.7	2.6	0.1	0.0	0.0	0.1
Hedge Funds	1.9	0.9	1.0	0.1	0.0	0.0	0.1
Alpha Pool	0.3	2.3	-2.0	-0.1	0.0	0.0	-0.1
Midstream Energy	6.1	2.5	3.6	0.2	0.0	0.0	0.2
Core Real Estate	-3.7	-1.9	-1.8	-0.1	0.0	0.0	-0.1
Private Real Estate	-1.6	-1.6	0.0	0.0	0.0	0.0	0.0
Private Equity	3.1	3.1	0.0	0.0	0.0	0.0	0.0
Private Credit	3.1	3.1	0.0	0.0	0.0	0.0	0.0
Opportunistic	-0.9	1.8	-2.7	0.0	0.0	0.0	0.0
Cash	0.5	1.3	-0.8	0.0	0.1	0.0	0.1
Total Fund	**-0.8**	**-1.3**	**0.5**	**0.3**	**0.2**	**0.0**	**0.5**

Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table. Wtd. Index Returns calculated from benchmark returns and weightings of each component. Selection Effect includes Other Effect in the Performance Attribution table.

Attribution Effects
Fiscal YTD



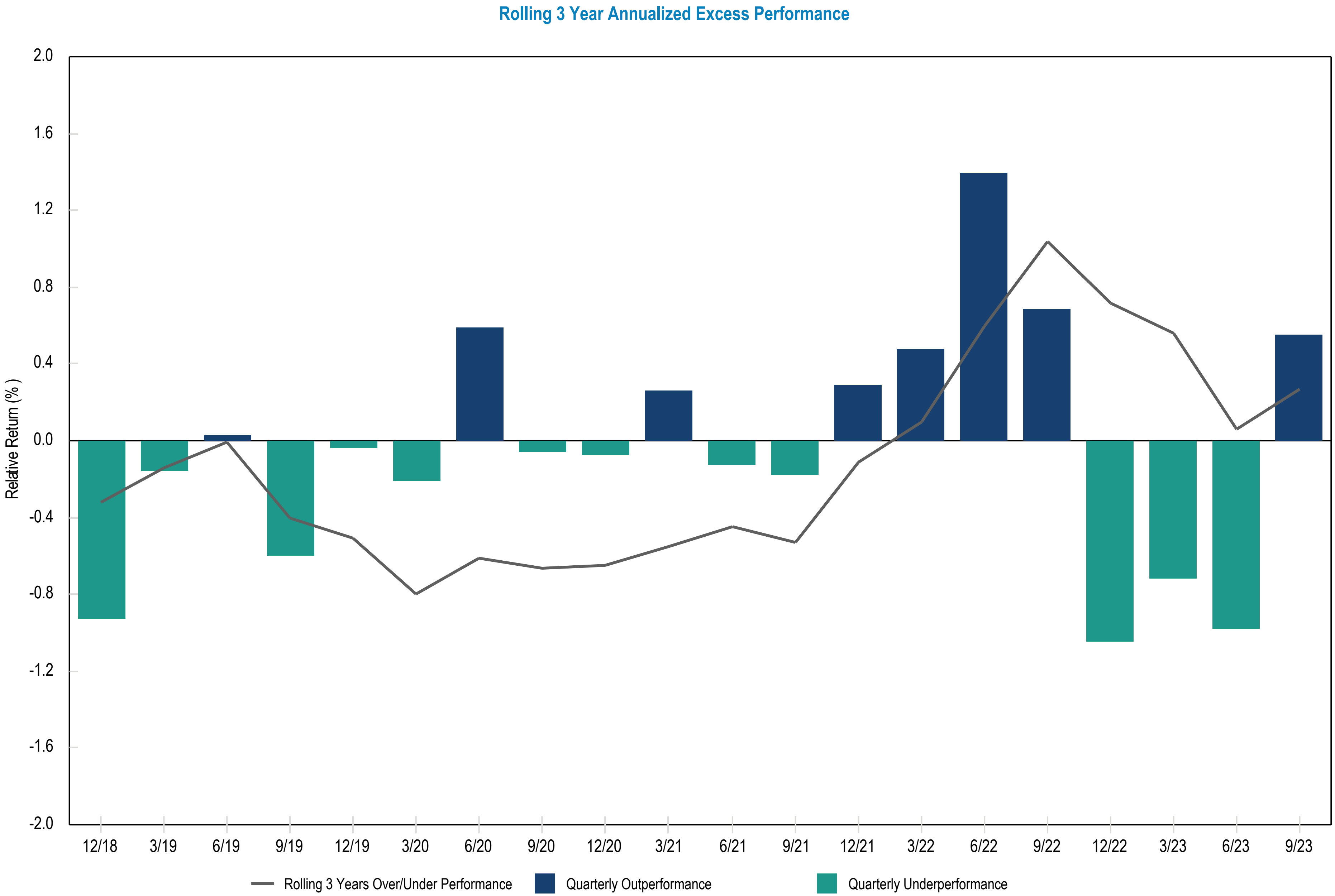
Performance Attribution

	Fiscal YTD
Wtd. Actual Return	-0.8
Wtd. Index Return	- 1.3
Excess Return	**0.5**
Selection Effect	0.3
Allocation Effect	0.3
Interaction Effect	0.0

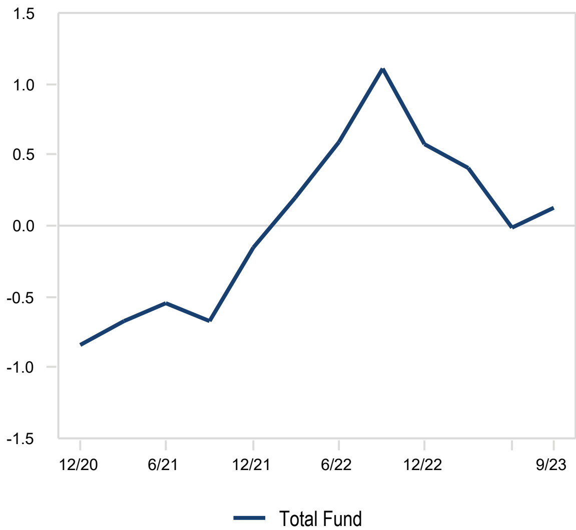
Attribution Summary
Fiscal YTD

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	-3.4	-3.4	0.0	0.0	0.1	0.0	0.1
Core Plus Fixed Income	-3.3	-3.2	-0.1	0.0	0.0	0.0	0.0
High Yield/ Specialty Credit	0.3	0.5	-0.3	0.0	0.0	0.0	0.0
Emerging Market Debt	-2.4	-2.7	0.4	0.0	0.0	0.0	0.0
Commodities	7.4	4.7	2.6	0.1	0.0	0.0	0.1
Hedge Funds	1.9	0.9	1.0	0.1	0.0	0.0	0.1
Alpha Pool	0.3	2.3	-2.0	-0.1	0.0	0.0	-0.1
Midstream Energy	6.1	2.5	3.6	0.2	0.0	0.0	0.2
Core Real Estate	-3.7	-1.9	-1.8	-0.1	0.0	0.0	-0.1
Private Real Estate	-1.6	-1.6	0.0	0.0	0.0	0.0	0.0
Private Equity	3.1	3.1	0.0	0.0	0.0	0.0	0.0
Private Credit	3.1	3.1	0.0	0.0	0.0	0.0	0.0
Opportunistic	-0.9	1.8	-2.7	0.0	0.0	0.0	0.0
Cash	0.5	1.3	-0.8	0.0	0.1	0.0	0.1
Total Fund	**-0.8**	**-1.3**	**0.5**	**0.3**	**0.2**	**0.0**	**0.5**

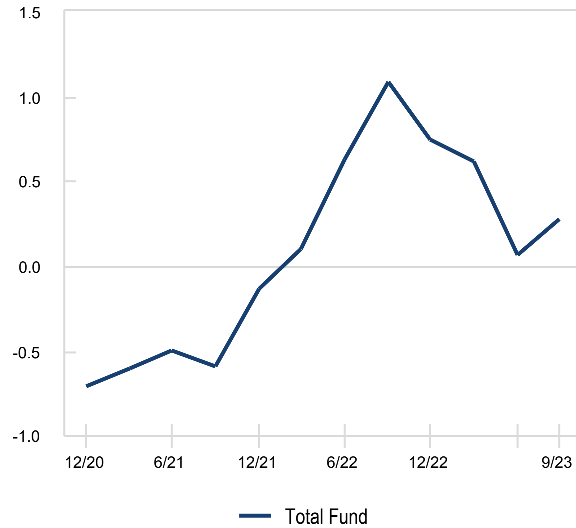
Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table. Wtd. Index Returns calculated from benchmark returns and weightings of each component. Selection Effect includes Other Effect in the Performance Attribution table.


Rolling 3 Year Annualized Excess Performance
Relative Return (%)
2.0
1.6
1.2
0.8
0.4
0.0
-0.4
-0.8
-1.2
-1.6
-2.0
12/18
3/19
6/19
9/19
12/19
3/20
6/20
9/20
12/20
3/21
6/21
9/21
12/21
3/22
6/22
9/22
12/22
3/23
6/23
9/23
Rolling 3 Years Over/Under Performance
Quarterly Outperformance
Quarterly Underperformance

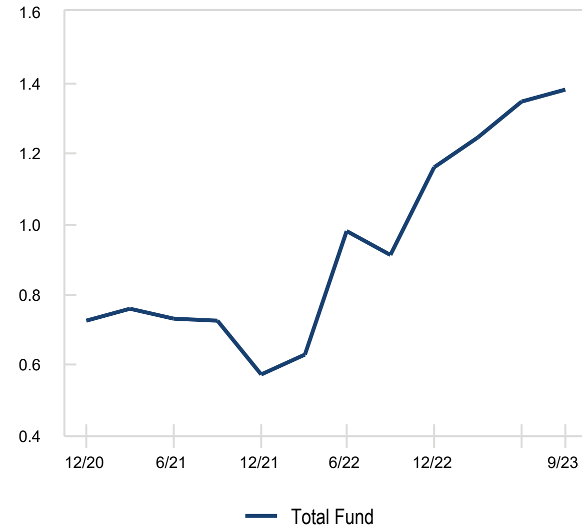
Rolling Information Ratio



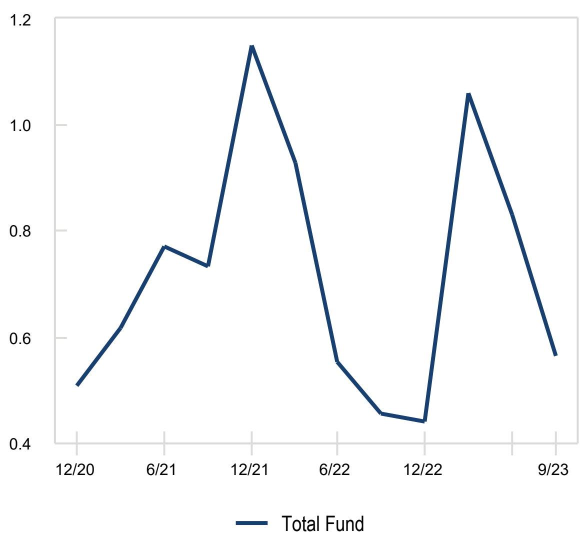
Rolling Annual Excess Benchmark Return



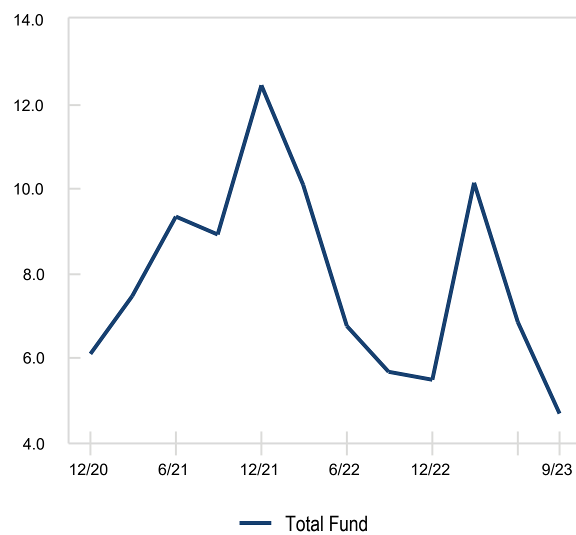
Rolling Tracking Error



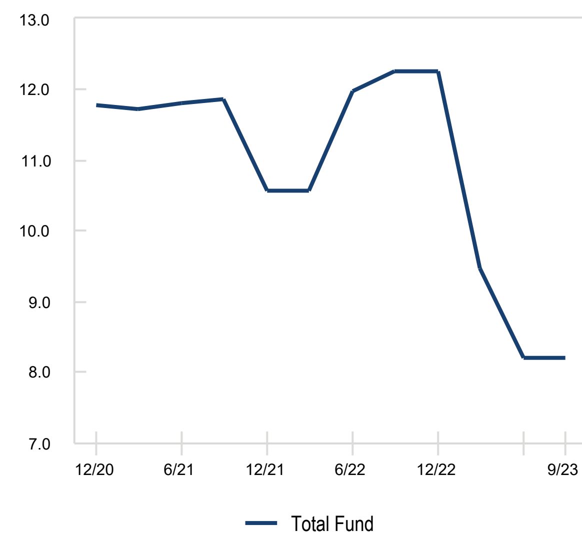
Rolling Sharpe Ratio



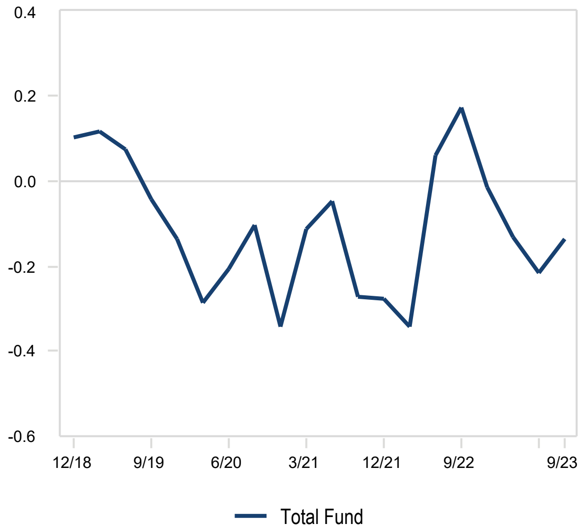
Rolling Annual Excess Risk Free Return



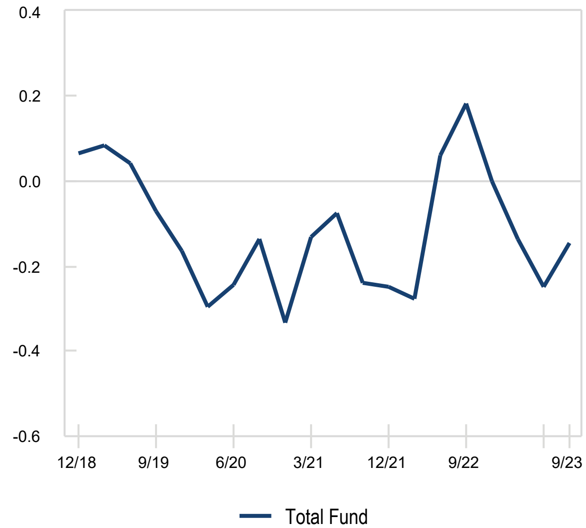
Rolling Annualized Standard Deviation



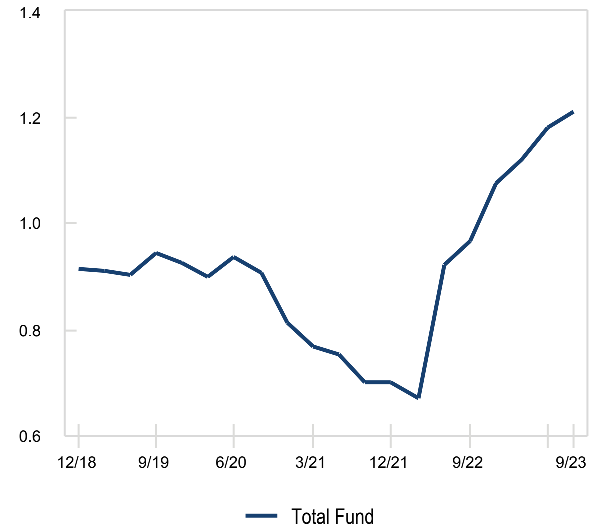
Rolling Information Ratio



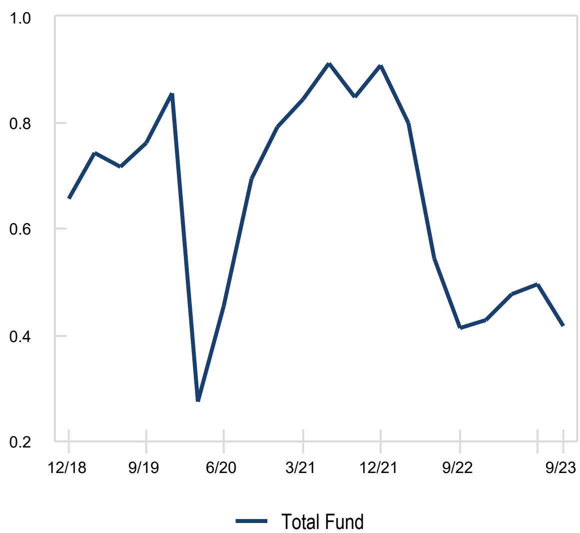
Rolling Annual Excess Benchmark Return



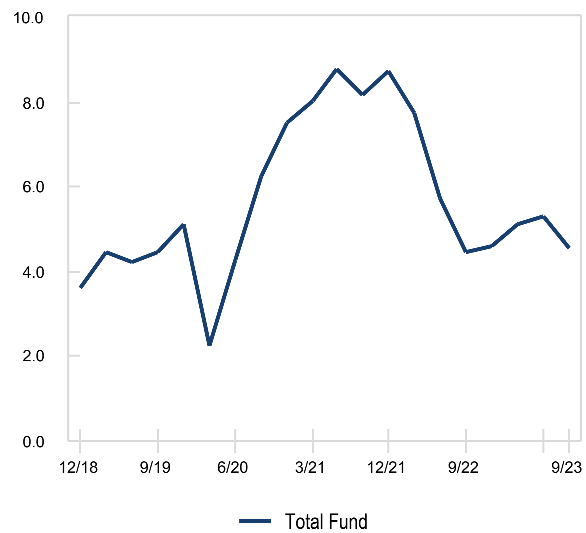
Rolling Tracking Error



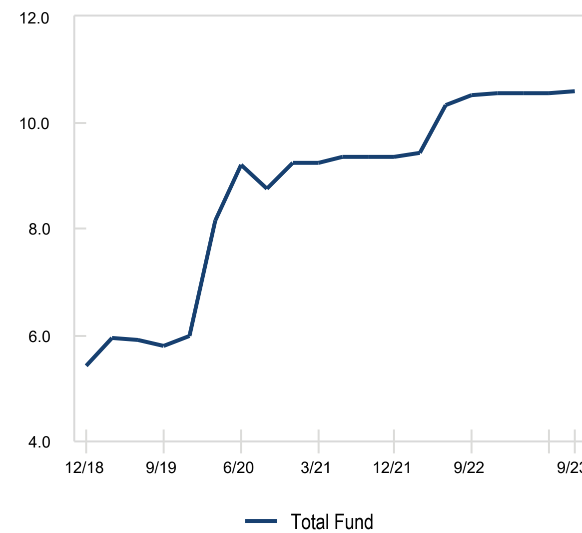
Rolling Sharpe Ratio



Rolling Annual Excess Risk Free Return



Rolling Annualized Standard Deviation



Cash Flows

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Equity	**1,735,774,667**	**971,631**	**-570,566**	**-95,177**	**-523,500**	**-59,150,595**	**1,676,406,460**
Equity Beta Exposure	88,867,350	971,631	-570,281		-523,500	-3,100,300	85,644,900
Mellon DB SL Stock Index Fund	535,890,546					-17,509,932	518,380,614
PIMCO StocksPLUS	116,372,909					-3,656,713	112,716,197
AB US Small Cap Value Equity	86,479,259		-89			-3,561,169	82,918,002
Geneva Capital Small Cap Growth	52,889,523		-196	-95,177		-3,135,123	49,659,027
Mellon DB SL World ex-US Index Fund	526,402,690					-21,146,901	505,255,789
Cevian Capital II	38,875,436					414,830	39,290,266
American Century Non-US Small Cap	70,988,728					-5,012,522	65,976,206
DFA Emerging Markets Value I	81,560,166					128,499	81,688,665
AB Emerging Markets Strategic Core Equity Collective Trust	53,147,634					-44,699	53,102,935
Mellon Emerging Markets Stock Index Fund	84,299,588					-2,526,612	81,772,975
Transition Equity	837					49	886
Fixed Income	**1,340,709,034**	**6,577,057**	**-535,307**	**-38,809**	**-10,437,800**	**-33,059,720**	**1,303,214,455**
Fixed Income Beta Exposure	418,880,253	6,577,024	-535,107		-4,036,800	-13,974,629	406,910,741
Mellon DB SL Aggregate Bond Index Fund	161,044,998					-5,204,973	155,840,026
PIMCO Core Plus	164,488,299					-4,928,110	159,560,189
Western Asset Core Plus	121,905,098					-4,759,922	117,145,176
Western Asset High Yield Fixed Income	165,365,884		-200		-3,135,880	1,656,186	163,885,990
TCW Securitized Opportunities	95,423,493			-38,809	-2,238,615	-888,105	92,257,964
Stone Harbor Emerging Markets Debt Blend Portfolio	65,594,366				-1,021,731	-1,087,053	63,485,582
PIMCO EMD	147,704,166					-3,865,246	143,838,920
Transition Fixed Income	302,477	33			-4,774	-7,869	289,867
Commodities	**228,214,624**				**-20,000,000**	**17,285,226**	**225,499,850**
Gresham MTAP Commodity Builder Fund	48,242,779					2,417,598	50,660,377
Wellington Commodities	179,971,845				-20,000,000	14,867,628	174,839,473
Hedge Funds	**541,710,718**	**63,064**			**-63,064**	**10,054,040**	**551,764,758**
Aristeia International Limited	70,900,266					1,468,566	72,368,832
Brevan Howard Fund	54,344,819	63,064			-63,064	1,231,763	55,576,582
D.E. Shaw Composite Fund	61,264,742					2,700,005	63,964,747
HBK Fund II	45,043,642					1,621,838	46,665,480
Hudson Bay Cap Structure Arbitrage Enhanced Fund	81,574,491					917,023	82,491,514
Indus Pacific Opportunities Fund	46,377,701					-604,059	45,773,642

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Pharo Macro Fund	62,959,707					-979,122	61,980,585
PIMCO Commodity Alpha Fund	71,393,658					2,441,013	73,834,671
Sculptor Domestic Partners II LP	47,851,693					1,257,013	49,108,706
Alpha Pool	**221,475,636**				**4,560,300**	**687,229**	**226,723,166**
Hudson Bay	63,009,820				1,289,489	-581,161	63,718,148
Davidson Kempner Institutional Partners	55,433,498				1,131,837	25,411	56,590,746
HBK Fund II	43,317,590				901,209	658,481	44,877,280
Garda Fixed Income Relative Value Opportunity Fund	59,714,728				1,237,765	584,498	61,536,992
Midstream Energy	**308,467,836**				**-24,783,634**	**19,176,741**	**302,860,943**
Harvest Midstream	156,842,353				-17,531,655	12,364,924	151,675,622
PIMCO Midstream	151,625,483				-7,251,979	6,811,817	151,185,321
Core Real Estate	**305,434,791**		**-302,126**		**-2,732,607**	**-10,731,592**	**291,668,466**
ASB Allegiance Real Estate Fund	165,428,514				-1,094,178	-6,438,183	157,896,152
JPMCB Strategic Property Fund	140,006,277		-302,126		-1,638,429	-4,293,409	133,772,313
Private Real Estate	**132,005,447**				**9,948,651**	**-5,066,910**	**136,887,189**
Invesco Real Estate Value-Add Fund IV	945,682					-15,089	930,593
Landmark Real Estate Partners VIII	31,583,306				-1,216,100	-2,263,929	28,103,277
Long Wharf Real Estate	34,525,266				-792,864	375,444	34,107,846
Covenant Apartment Fund X	33,947,463				413,657	-2,524,755	31,836,365
Singerman Real Estate Opportunity Fund IV	8,944,617				2,931,250	440,222	12,316,089
LBA Logistics Value Fund IX, L.P.	10,287,850				3,076,923	-260,466	13,104,308
Covenant Apartment Fund XI, LP	9,819,829				4,800,000	-75,891	14,543,938
KSL Capital Partners VI	1,951,434				735,786	-742,446	1,944,774
Private Equity	**187,538,440**				**19,306,347**	**5,897,989**	**212,742,776**
Abbott VI	17,490,181				-1,000,000	430,873	16,921,054
Pantheon Secondary III	553,189					-4,528	548,661
Pantheon III	45,445						45,445
Pantheon V	383,462					-8,114	375,348
Pantheon VI	335,737					-5,687	330,050
Pantheon VII	6,907,588				-199,999	147,451	6,855,040
Vista Foundation Fund IV	18,058,075				348,937	377,407	18,784,419

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Crown Global Secondaries V Master S.C.Sp	28,568,244				2,450,000	1,011,315	32,029,559
Brighton Park Capital Fund I	36,029,946				361,249	472,521	36,863,716
Warren Equity Partners Fund III	29,397,592					851,301	30,248,893
Peak Rock Capital Fund III	11,921,302				430,532	1,192,617	13,544,451
Level Equity Growth Partners V	6,697,065					167,395	6,864,460
Level Equity Opportunities Fund 2021	5,529,388					369,132	5,898,520
Linden Capital Partners V LP	7,984,801				4,125,395	528,156	12,638,351
Rubicon Technology Partners IV L.P.	3,277,938					-153,911	3,124,027
OrbiMed Private Investments IX, LP	320,186				700,000	109,571	1,129,757
Brighton Park Capital Fund II, L.P	3,071,866					227,476	3,299,342
Linden Co-Investment V LP	3,910,712					249,172	4,159,884
Warren Equity Partners Fund IV	7,055,723				4,792,814	-64,158	11,784,379
WEP IV TS Co-Investment, L.P.					7,297,419		7,297,419
Private Credit	**246,629,415**				**1,616,232**	**7,629,514**	**255,875,161**
DC Value Recovery Fund IV	18,526,925					366,466	18,893,391
Sixth Street TAO Partners (B)	41,404,117				-781,879	1,255,329	41,877,567
Brookfield Real Estate Finance Fund V	16,752,621					19,272	16,771,893
Magnetar Constellation Fund V	28,113,131				-1,199,650	-16,944	26,896,537
H.I.G. Bayside Loan Opportunity Fund V	43,519,452				-651,218	2,285,517	45,153,751
Blue Torch Credit Opportunities Fund II	16,313,371				-600,000	475,993	16,189,364
Fortress Credit Opportunites Fund V Expansion	15,507,751				1,153,303	249,979	16,911,033
Fortress Lending Fund II	28,566,610				-1,709,403	1,307,920	28,165,127
Blue Torch Credit Opportunities Fund III	7,764,429				-3,024,772	354,475	5,094,132
Fortress Lending Fund III	23,889,989				-772,522	1,250,471	24,367,938
OrbiMed Royalty & Credit Opportunities IV	6,271,019				-1,089,589	81,036	5,262,466
Cerberus Business Finance V					10,291,962		10,291,962
Opportunistic	**167,584,245**				**-403,929**	**-1,553,441**	**165,626,876**
DB Investors Fund IV	23,394,069					-1,956,308	21,437,761
Sixth Street TAO Partners (D)	90,733,476				-403,929	3,172,943	93,502,490
Aristeia Select Opportunities II	48,350,031					-3,168,426	45,181,604
River Birch International - Opportunistic Investment	5,106,669					398,351	5,505,020

	Estimated Beginning Market Value	Contributions	Withdrawals	Fees	Net Transfers	Net Investment Change	Estimated Ending Market Value
Cash	**-63,281,544**	**141,860,831**	**-143,502,589**	**-26,486**	**23,513,003**	**5,916,691**	**-35,520,094**
Short Term Investment Funds	182,318,015	1,260	-16,194,233	-26,486	-26,486,997	2,130,785	141,742,344
Parametric Cash Overlay	79,367,664	47,442,615	-69,927,449				56,882,831
Goldman Sachs Cash Account	2,432,554	59,008,427	-49,832,252				11,608,728
Futures Offset	-507,747,603	21,648,529	-7,548,655			1,092,088	-492,555,641
Collateral Cash		13,760,000					13,760,000
BlackRock Short Duration Fund	180,347,826				50,000,000	2,693,818	233,041,644

Portfolio Reconciliation

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Beginning Market Value	5,352,263,309	5,352,263,309	4,901,023,930	4,580,444,416	4,263,323,052	3,394,442,211
Contributions	323,669,196	323,669,196	1,873,624,881	9,838,878,329	12,916,660,282	18,769,640,184
Withdrawals	-319,107,201	-319,107,201	-1,908,636,535	-10,041,362,472	-13,255,829,976	-19,463,651,328
Fees	-160,472	-160,472	-766,348	-29,889,531	-57,108,168	-126,954,706
Net Cash Flows	4,561,995	4,561,995	-35,011,654	-202,484,143	-339,169,694	-694,011,144
Net Investment Change	-43,075,298	-43,075,298	447,737,729	935,789,733	1,389,596,648	2,613,318,938
Ending Market Value	5,313,750,006	5,313,750,006	5,313,750,006	5,313,750,006	5,313,750,006	5,313,750,006
Net Change $	-38,513,304	-38,513,304	412,726,076	733,305,590	1,050,426,954	1,919,307,795

Contribution and withdrawals include transfers in and out of accounts. Ending market value is net of fees. Market value and flows do not include the Short Term Cash Account balance.

Risk Metrics

Correlation Matrix
3 Years Ending September 30, 2023

	A	B	C	D	E	F	G	H	I	J	K	L
A	1.00											
B	0.98	1.00										
C	0.95	0.98	1.00									
D	0.96	0.97	0.90	1.00								
E	0.80	0.80	0.68	0.81	1.00							
F	0.82	0.82	0.76	0.81	0.79	1.00						
G	0.69	0.70	0.65	0.68	0.67	0.96	1.00					
H	0.88	0.86	0.83	0.83	0.70	0.88	0.76	1.00				
I	0.81	0.81	0.72	0.83	0.87	0.91	0.78	0.78	1.00			
J	0.64	0.54	0.47	0.57	0.52	0.32	0.17	0.44	0.41	1.00		
K	0.52	0.49	0.45	0.52	0.40	0.24	0.08	0.43	0.35	0.44	1.00	
L	-0.06	-0.12	-0.06	-0.15	-0.22	-0.26	-0.22	-0.20	-0.31	0.06	-0.01	1.00

A = Total Fund
B = Equity
C = Domestic Equity
D = International Developed Equity
E = Emerging Markets Equity
F = Fixed Income
G = Core Plus Fixed Income
H = High Yield/ Specialty Credit
I = Emerging Market Debt
J = Commodities
K = Hedge Funds
L = Core Real Estate

Low Interaction
Moderate Interation
Moderate to High Interation
High Interaction

	Alpha	Beta	R-Squared	Return	Information Ratio	Excess Performance	Tracking Error	Sharpe Ratio	Excess Return	Standard Deviation	Sortino Ratio	Up Capture	Down Capture
Total Fund	1.0	0.9	1.0	6.2	0.1	0.3	1.6	0.5	4.7	8.5	0.9	91.0	84.4
Equity	0.7	1.0	1.0	7.6	0.6	0.7	1.0	0.4	7.0	16.7	0.7	100.5	97.9
Domestic Equity	0.2	1.0	1.0	9.8	0.1	0.2	1.1	0.5	9.3	17.9	0.8	99.4	98.3
International Developed Equity	0.9	1.0	1.0	6.3	0.8	0.9	1.0	0.3	6.0	17.6	0.5	101.0	97.7
Emerging Markets Equity	1.3	0.9	1.0	1.1	0.5	1.4	2.5	0.0	0.7	16.3	0.1	95.0	89.1
Fixed Income	-0.1	1.0	1.0	-3.5	-0.1	-0.1	0.8	-0.8	-5.0	6.5	-0.9	104.1	103.8
Core Plus Fixed Income	-0.2	1.0	1.0	-5.5	-0.5	-0.3	0.6	-1.1	-7.1	6.2	-1.3	103.0	104.3
High Yield/ Specialty Credit	0.4	0.7	0.9	1.8	-0.1	-0.1	2.5	0.0	0.3	6.1	0.1	73.2	69.0
Emerging Market Debt	1.4	1.0	1.0	-2.4	1.4	1.2	1.0	-0.3	-3.5	10.5	-0.4	107.4	97.6
Commodities	2.1	0.9	0.9	16.6	0.0	0.4	5.4	1.0	14.9	14.9	1.6	90.0	77.5
Hedge Funds	5.4	0.3	0.2	7.5	0.3	1.1	3.9	1.8	5.6	2.9	5.4	61.7	-38.1
Core Real Estate	-1.0	0.7	0.8	3.7	-0.8	-3.4	4.1	0.3	2.2	6.6	0.5	73.9	110.0
Private Real Estate	0.0	1.0	1.0	18.0	-1.0	0.0	0.0	1.9	15.2	7.8	11.3	99.8	100.0
Private Equity	0.0	1.0	1.0	16.8	-0.6	0.0	0.0	1.5	14.4	9.7	5.8	100.0	100.3
Private Credit	0.2	1.0	1.0	4.3	0.7	0.1	0.2	0.7	2.6	3.7	1.6	99.9	93.2

Data not available for time periods less than 3 years (Alpha Pool, Midstream, & Opportunistic added in 2020)

Risk Return Statistics: Last Three Years

3 Years

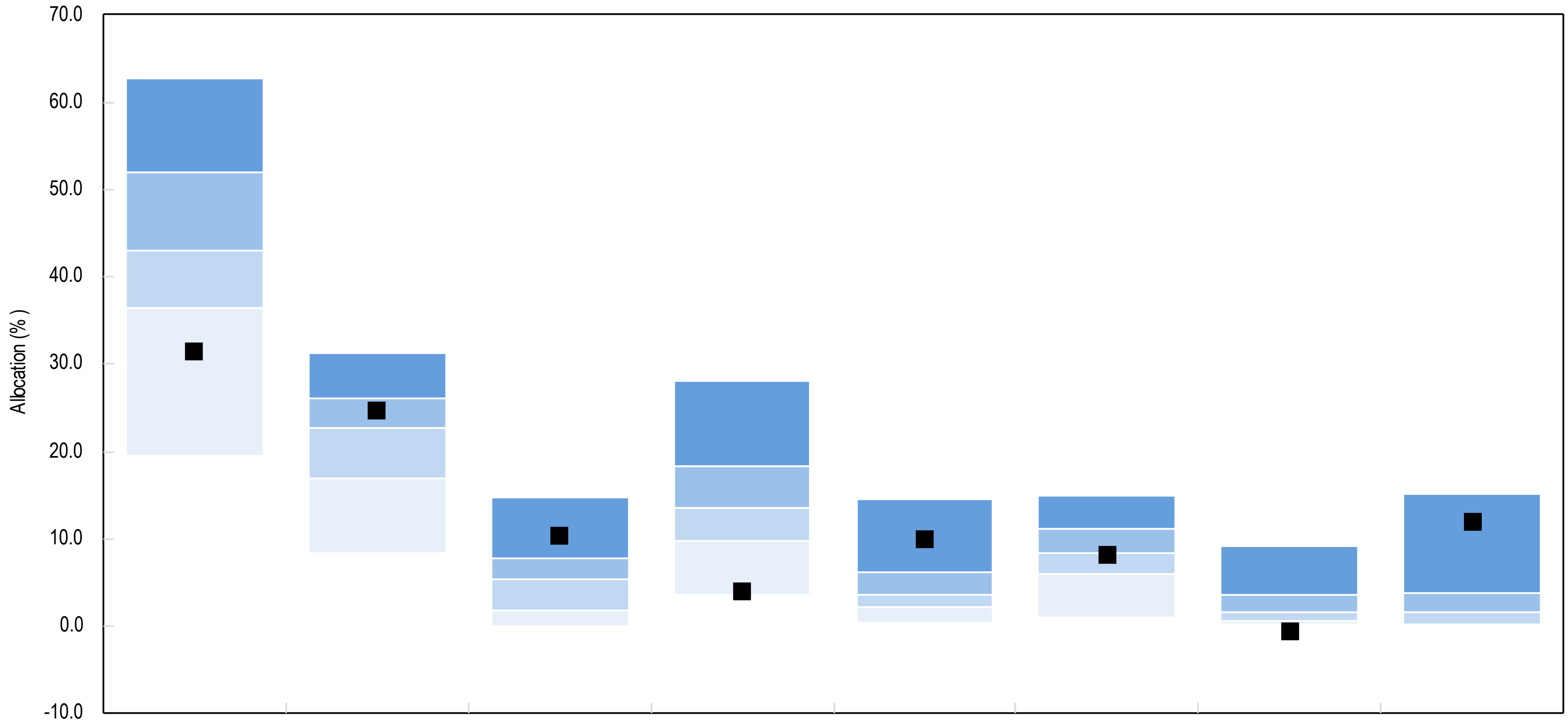
	Equity	MSCI AC World IMI (Net)	Core Plus Fixed Income	Bloomberg U.S. Aggregate Index	High Yield/ Specialty Credit	ICE BofA U.S. High Yield Index	Emerging Market Debt	50 JPM EMBI Global Div/ 50 JPM GBI EM Global Div	Commodities	Bloomberg Commodity Index Total Return	Hedge Funds	75% 3 Month T-Bill +4% / 25% MSCI ACWI (net)	Core Real Estate	NCREIF ODCE-monthly
RETURN SUMMARY STATISTICS														
Up Market Periods	21	21	13	13	23	23	16	16	23	23	23	23	32	32
Down Market Periods	15	15	23	23	13	13	20	20	13	13	13	13	4	4
Maximum Return	12.43	12.66	3.41	3.68	4.80	6.02	7.56	7.35	7.67	8.78	3.26	3.34	5.39	7.97
Minimum Return	-9.42	-9.65	-4.27	-4.32	-5.04	-6.81	-5.99	-5.81	-8.90	-10.77	-0.75	-1.96	-3.77	-4.97
Return	7.55	6.88	-5.50	-5.21	1.76	1.82	-2.38	-3.61	16.64	16.23	7.45	6.38	3.71	7.13
Excess Return	7.01	6.42	-7.14	-6.84	0.25	0.44	-3.54	-4.84	14.91	14.70	5.56	4.60	2.17	5.61
Excess Performance	0.67	0.00	-0.29	0.00	-0.05	0.00	1.23	0.00	0.41	0.00	1.07	0.00	-3.42	0.00
RISK SUMMARY STATISTICS														
Beta	0.98	1.00	1.01	1.00	0.75	1.00	1.03	1.00	0.89	1.00	0.32	1.00	0.67	1.00
Upside Risk	13.26	13.27	3.64	3.64	4.54	5.70	7.12	6.66	12.89	13.04	3.50	4.11	5.23	8.29
Downside Risk	10.51	10.85	5.30	5.13	4.18	5.67	7.78	7.70	8.84	10.03	0.81	2.08	4.12	3.89
RISK/RETURN SUMMARY STATISTICS														
Standard Deviation	16.74	16.98	6.23	6.12	6.15	8.01	10.53	10.15	14.88	15.75	2.93	4.23	6.56	8.92
Alpha	0.72	0.00	-0.23	0.00	0.36	0.00	1.42	0.00	2.07	0.00	5.37	0.00	-0.99	0.00
Sharpe Ratio	0.42	0.38	-1.15	-1.12	0.04	0.05	-0.34	-0.48	0.99	0.92	1.83	1.09	0.31	0.61
Excess Risk	16.77	17.01	6.22	6.10	6.14	8.00	10.44	10.05	15.02	15.94	3.04	4.22	6.99	9.22
Tracking Error	1.02	0.00	0.61	0.00	2.51	0.00	0.95	0.00	5.37	0.00	3.87	0.00	4.09	0.00
Information Ratio	0.57	-	-0.49	-	-0.07	-	1.37	-	0.04	-	0.25	-	-0.84	-
CORRELATION STATISTICS														
R-Squared	1.00	1.00	0.99	1.00	0.94	1.00	0.99	1.00	0.88	1.00	0.21	1.00	0.82	1.00
Actual Correlation	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.94	1.00	0.46	1.00	0.90	1.00

	2 Yrs			
	Midstream Energy	Alerian Midstream Energy Index	Opportunistic	Assumed Rate of Return +3%
RETURN SUMMARY STATISTICS				
Up Market Periods	13	13	24	24
Down Market Periods	11	11	0	0
Maximum Return	11.14	11.05	5.19	0.58
Minimum Return	-11.84	-12.21	-4.04	0.58
Return	17.82	13.89	-2.60	7.25
Excess Return	15.74	12.90	-4.81	4.52
Excess Performance	3.93	0.00	-9.85	0.00
RISK SUMMARY STATISTICS				
Beta	0.85	1.00	-	-
Upside Risk	15.49	17.03	1.66	2.03
Downside Risk	11.46	13.81	5.69	0.00
RISK/RETURN SUMMARY STATISTICS				
Standard Deviation	18.53	21.47	8.06	0.00
Alpha	5.33	0.00	-	-
Sharpe Ratio	0.85	0.60	-0.60	7.43
Excess Risk	18.62	21.58	8.07	0.61
Tracking Error	4.91	0.00	8.06	0.00
Information Ratio	0.58	-	-1.16	-
CORRELATION STATISTICS				
R-Squared	0.96	1.00	-	-
Actual Correlation	0.98	1.00	-	-

Data for unavailable for positions held for less than two years.

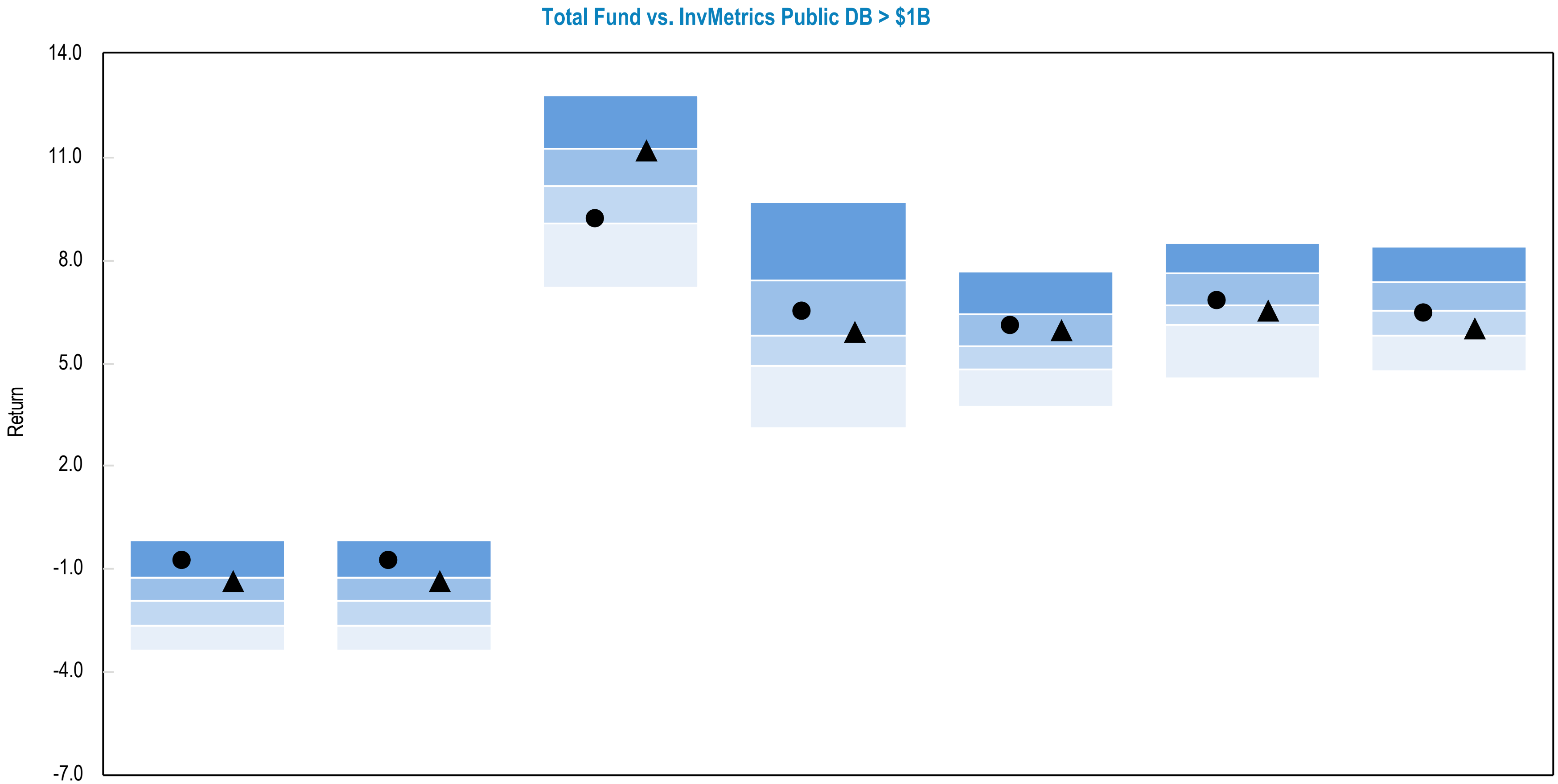
Peer Comparison

Total Plan Allocation vs. InvMetrics Public DB > $1B
As of September 30, 2023

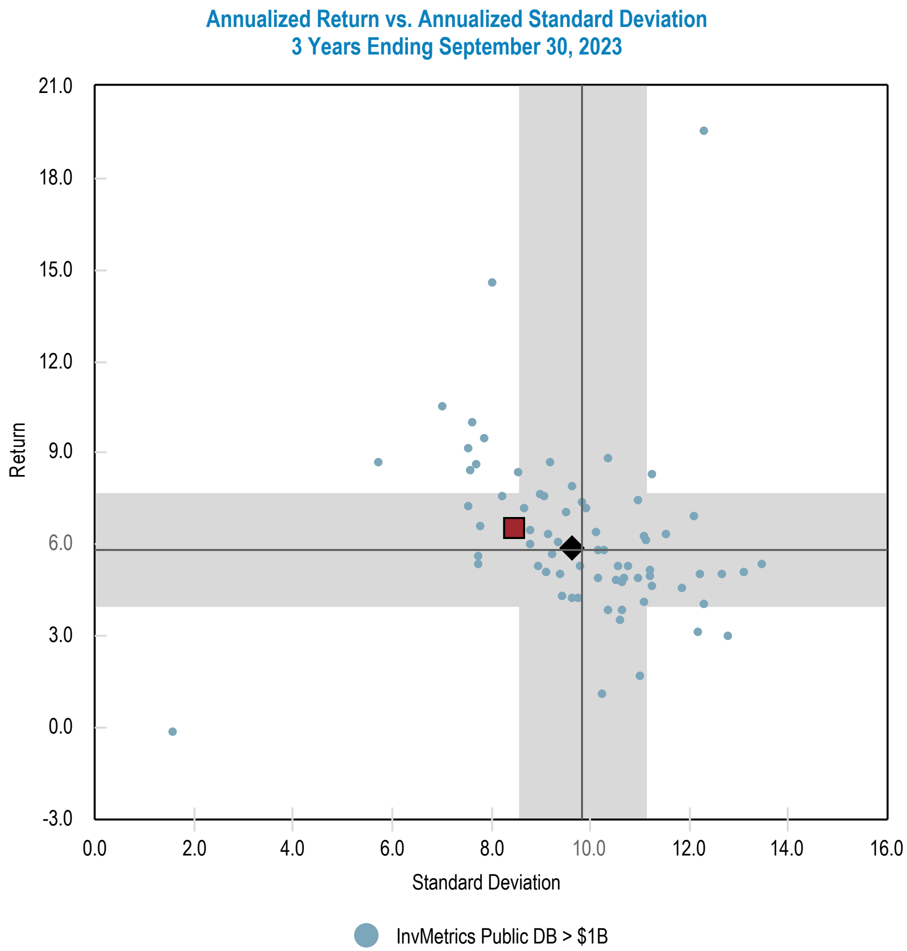


	Total Equity	Total Fixed Income	Hedge Funds	Private Equity	Real Assets/Commod	Real Estate - Private	Cash & Equivalents	Other
■ Total Fund	31.5 (86)	24.7 (34)	10.4 (15)	4.0 (94)	9.9 (15)	8.1 (56)	-0.7	12.0 (7)
5th Percentile	62.8	31.3	14.8	28.1	14.6	14.8	9.2	15.1
1st Quartile	52.1	26.2	7.7	18.3	6.1	11.2	3.6	3.8
Median	43.0	22.8	5.4	13.5	3.6	8.5	1.5	1.6
3rd Quartile	36.4	16.9	1.9	9.8	2.3	6.1	0.5	0.3
95th Percentile	19.6	8.3	0.1	3.6	0.4	0.9	0.1	0.1
Population	80	84	37	60	47	57	69	15

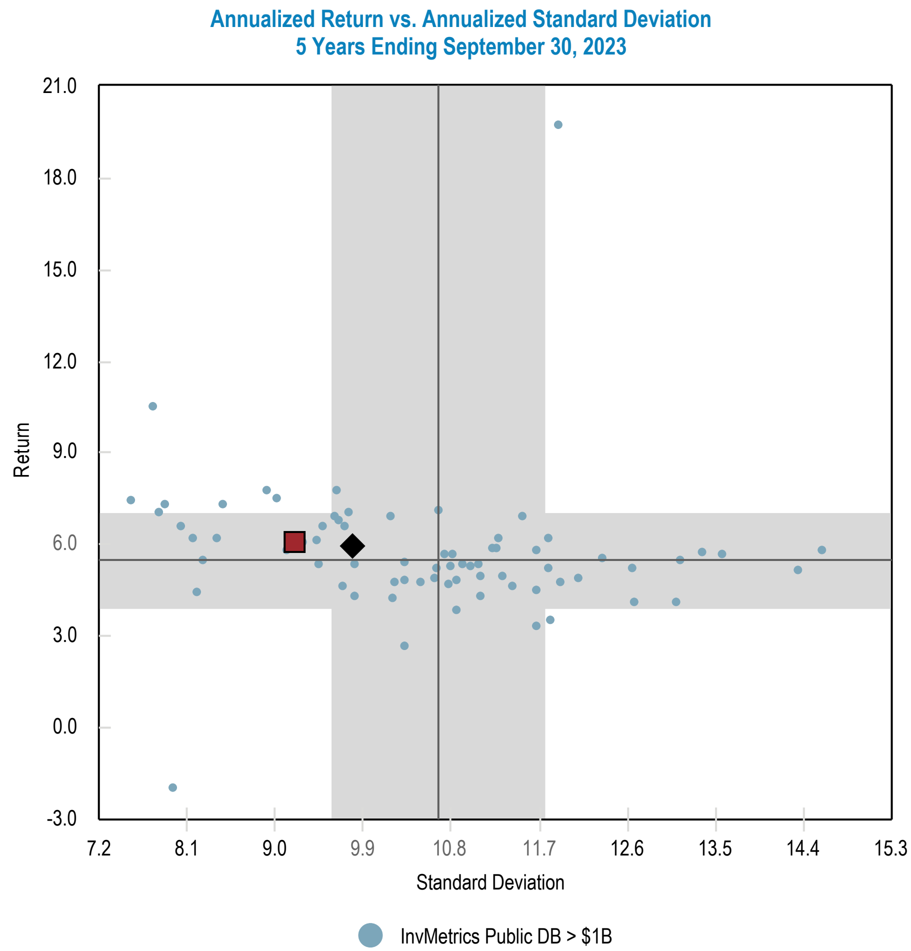
Parentheses contain percentile rankings. Other contains Alpha Pool, Opportunistic, and Private Credit. Real Estate contains Private and Core Real Estate. Real Assets contain Commodities and Midstream.



	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
● Total Fund	-0.7 (11)	-0.7 (11)	9.2 (72)	6.5 (37)	6.1 (33)	6.9 (46)	6.5 (52)
▲ Policy Index	-1.3 (27)	-1.3 (27)	11.2 (27)	5.9 (50)	5.9 (35)	6.5 (55)	6.0 (71)
5th Percentile	-0.2	-0.2	12.8	9.7	7.7	8.5	8.4
1st Quartile	-1.3	-1.3	11.3	7.4	6.4	7.6	7.4
Median	-1.9	-1.9	10.2	5.8	5.5	6.7	6.5
3rd Quartile	-2.6	-2.6	9.1	4.9	4.8	6.1	5.8
95th Percentile	-3.4	-3.4	7.2	3.1	3.7	4.6	4.8
Population	90	90	82	73	71	70	65



	Return	Standard Deviation
Total Fund	6.52	8.47
Policy Index	5.92	9.64
Median	5.82	9.85
Population	73	73



	Return	Standard Deviation
Total Fund	6.12	9.20
Policy Index	5.94	9.79
Median	5.49	10.67
Population	71	71

Other

	2023 Q3	2023 Q2	2023 Q1	2022 Q4	2022 Q3	2022 Q2	2022 Q1	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4
Total Fund	**-0.8**	**1.9**	**3.1**	**4.5**	**-3.1**	**-7.5**	**-0.8**	**3.6**	**0.5**	**5.5**	**3.5**	**8.8**
Policy Index	*-1.3*	*2.9*	*3.8*	*5.5*	*-3.8*	*-8.9*	*-1.3*	*3.3*	*0.7*	*5.7*	*3.3*	*8.8*

	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4
Total Fund	**4.4**	**10.7**	**-11.3**	**4.6**	**0.2**	**3.1**	**6.8**	**-6.4**	**2.3**	**0.3**	**-0.1**	**3.0**
Policy Index	*4.5*	*10.1*	*-11.1*	*4.6*	*0.8*	*3.0*	*7.0*	*-5.5*	*2.2*	*0.7*	*-0.1*	*3.2*

	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4	2015 Q3	2015 Q2	2015 Q1	2014 Q4
Total Fund	**3.2**	**2.7**	**4.2**	**0.8**	**3.5**	**1.9**	**1.1**	**2.2**	**-5.4**	**0.7**	**2.4**	**0.8**
Policy Index	*3.1*	*2.8*	*3.5*	*0.5*	*2.9*	*2.2*	*1.8*	*1.4*	*-4.9*	*0.4*	*2.0*	*0.4*

Performance Return Calculations

Performance is calculated using a Time Weighted Rates of Return (TWRR) methodology. Monthly returns are linked geometrically and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Investment Fund or Strategy	Fund Incepted	Data Source	Investment Fund or Strategy	Fund Incepted	Data Source
AB Emerging Markets Strategic Core	11/3/2016	Northern Trust	Linden Co-Investment V LP	6/30/2022	Linden
AB US Small Cap Value Equity	7/7/2015	Northern Trust	Long Wharf Real Estate	6/27/2019	Long Wharf
Abbott Capital PE VI	3/31/2008	Abbott Capital	Magnetar Constellation	11/14/2018	Magnetar
American Century Non-US Small Cap	12/15/2020	American Century	Mellon Aggregate Bond Index Fund	1/14/2011	Mellon
Aristeia International Limited	5/1/2014	Northern Trust	Mellon EB DV Stock Index	10/18/2017	Mellon
ASB Real Estate	9/30/2013	ASB	Mellon EB DV World ex-US Index	8/1/2018	Mellon
Barclays Capital Aggregate Rebalancing Overlay	6/15/2022	Parametric	Myriad Opportunities Offshore	5/19/2016	Northern Trust
BlackRock Short Duration Fund	9/8/2021	BlackRock	OrbiMed Royalty & Credit Opportunities	9/12/2022	OrbiMed
Blue Torch Credit Opportunities	7/24/2020	Blue Torch	Pantheon Global III	6/30/2000	Pantheon
Brevan Howard	11/1/2013	Northern Trust	Pantheon USA III	3/31/2007	Pantheon
Brighton Private Equity	3/28/2021	Brighton	Pantheon USA V	6/30/2005	Pantheon
Brighton Park Capital Fund II, L.P	9/30/2022	Brighton	Pantheon USA VI	3/31/2005	Pantheon
Brookfield Real Estate Finance Fund V	12/18/2017	Northern Trust	Pantheon USA VII	3/31/2005	Pantheon
Cerberus Business Finance V	8/25/2023	Cerberus	Parametric Overlay/ Cap Efficiency Program	7/31/2020	Parametric
Cevian Capital II	12/30/2014	Northern Trust	Peak Rock Capital Fund III	7/13/2021	Peak Rock
DC Value Recovery fund IV	12/28/2015	Colony	PIMCO Commodity Alpha	5/4/2016	PIMCO
Covenant Apartment Fund X	10/29/2020	Covenant	PIMCO Core Plus	1/21/2011	Northern Trust
DB Investors Fund IV	1/29/2020	DB	PIMCO EMD	2/29/2020	Northern Trust
D.E. Shaw	6/30/2013	Northern Trust	PIMCO Midstream	10/9/2020	PIMCO
DFA Emerging Markets Value I	3/7/2014	Northern Trust	PIMCO StocksPLUS	7/14/2003	PIMCO
Fortress Credit Opportunities	12/17/2020	Fortress	Fidelity Non-US Small Cap Equity	6/10/2008	Northern Trust
Fortress Lending Fund II	3/15/2021	Fortress	River Birch	8/3/2015	Northern Trust
Garda Fixed Income Relative Value Opp	9/30/2021	Garda	Rubicon Technology Partners IV LP	11/30/2022	Rubicon
Geneva Capital Small Cap Growth	7/22/2015	Geneva	Singerman Real Estate Opportunity Fund IV	10/27/2021	Singerman
Gresham MTAP Commodity	9/3/2013	Gresham	Sculptor Enhanced Domestic Partners	3/26/2019	Sculptor
Harvest Midstream	9/28/2020	Harvest Midstream	Short Term Cash Account	12/31/2000	Northern Trust
HBK Fund II	11/1/2013	Northern Trust	Short Term Investment Funds	6/30/2000	Northern Trust
Henderson Smallcap Growth	7/22/2015	Northern Trust	Stone Harbor Emerging Markets Debt	8/8/2012	Stone Harbor
H.I.G Bayside Loan Opportunities Fund V	7/24/2019	H.I.G. Capital	TAO Contingent	4/16/2020	TPG Sixth Street
Hudson Bay	6/7/2019	Northern Trust	TCW Securitized Opportunities	2/3/2016	TCW
Indus Pacific Opportunities	6/30/2014	Northern Trust	Transition Equity	9/30/2010	Northern Trust
Invesco Real Estate III	6/30/2013	Invesco	Transition Fixed Income	9/30/2010	Northern Trust
Invesco Real Estate IV	12/18/2015	Invesco	TSSP Adjacent Opportunities Partners	11/17/2017	TPG Sixth Street
J.P. Morgan Strategic Property	7/2/2014	J.P. Morgan	Vista Equity Partners	7/24/2020	Vista Equity
KSL Capital Partners VI	4/26/2023	KSL Capital	Warren Equity III	4/1/2021	Warren
Landmark Real Estate Partners VIII	4/29/2018	Landmark	Warren Equity IV	1/1/2023	Warren
LBA Logistics Value Fund IX, L.P.	2/22/2022	LBA	Wellington Alternative Investments	2/9/2023	Wellington
Level Equity Growth Partners V	11/1/2021	Level Equity	WEP IV TS Co-Investment, L.P.	8/14/2023	Wellington
Level Equity Opportunities Fund 2021	11/1/2021	Level Equity	Western Asset Core Plus	5/31/2004	Northern Trust
LGT Crown	2/1/2021	LGT	Western Asset High Yield Fixed income	5/31/2005	Northern Trust
Linden Capital Partners V LP	7/19/2022	Linden			

Policy & Custom Index Composition	
Policy Index: 4/1/2022-Present	37% MSCI ACWI IMI (Net), 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets Global Diversified, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +4%, 2.5% MSCI ACWI (Net), 8% 91 Day T-Bill + 4%, 5% NCREIF-ODCE Gross Monthly, 5% actual time-weighted Private Equity Returns*, 5% actual time-weighted Private Credit Returns*, 5% actual time-weighted Private Real Estate Returns*, 5% Alerian Midstream, 0% Assumed Rate of Return +3%, -8% 3-Month T-bill.
Policy Index: 7/1/2021-4/1/2022	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 1% Bloomberg US Aggregate*, 4% Bloomberg US Aggregate, 5% Alerian Midstream, 5% 3-Month T-bill +400bps, 91 Day T-Bills, -5% 3-Month T-bill.
Policy Index: 1/1/2021-6/30/2021	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 4% MSCI ACWI*, 1% Bloomberg US Aggregate*, 4% Bloomberg US Aggregate, 5% Alerian Midstream, 5% 3-Month T-bill +400bps, 91 Day T-Bills, -5% 3-Month T-bill.
Policy Index: 7/1/2020-12/31/2020	37% MSCI ACWI IMI, 14% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 4% MSCI ACWI*, 5% Bloomberg US Aggregate, 1% Alerian Midstream, 4% Bloomberg US Aggregate
Policy Index: 4/1/2020-6/30/2020	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 1% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 1/1/2020-3/31/2020	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 10/1/2019-12/31/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 7/1/2019-9/30/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 4% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 4/1/2019-6/30/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 1/1/2019-3/31/2019	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 3% actual time-weighted Private Credit Returns*, 2% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 5% Bloomberg US Aggregate*.
Policy Index: 10/1/2018-12/31/2018	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 2% actual time-weighted Private Equity Returns*, 2% actual time-weighted Private Credit Returns*, 2% actual time-weighted Private Real Estate Returns*, 3% MSCI ACWI*, 6% Bloomberg US Aggregate*.
Policy Index: 7/1/2018-9/30/2018	37% MSCI ACWI IMI, 19% Bloomberg US Aggregate, 6% Ice BofA ML High Yield Master II Index, 2% JPM Emerging Markets Bond Index Global Diversified, 2% JPM Government Bond Index-Emerging Markets, 4% Bloomberg Commodity Index, 7.5% 3-Month T-bill +400bps, 2.5% MSCI ACWI, 5% NCREIF-ODCE, 3% actual time-weighted Private Equity Returns*, 2% actual time-weighted Private Credit Returns*, 1% actual time-weighted Private Real Estate Returns*, 2% MSCI ACWI*, 7% Bloomberg US Aggregate*.
Policy Index: 1/1/2017- 6/30/2018	19% Russell 3000 Index, 18% MSCI ACWI ex US, 29% Bloomberg US Aggregate, 10% NCREIF-ODCE, 4% Bloomberg Commodity Index, 7.5% 91-day T-bills + 400bps, 2.5% MSCI ACWI, 5% Russell 3000 Index + 300 bps, 5% ICE BofA ML High Yield + 200 bps.
Policy Index: 4/1/2014-12/31/2016	23% Russell 3000 Index, 29% Bloomberg US Aggregate, 22% MSCI ACWI ex US,

Other Disclosures

*Private Asset actual weights, rounded to 1%, and actual time-weighted returns of Private Equity, Private Credit, Private Real Estate used in policy with the difference in weight versus target allocated to private market's public market "equivalent". Private Equity to Global Equity, Private Credit and Private Real Estate to Core Plus.

All data prior to 2Q 2011 has been provided by the investment managers.

Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment manager fees will be included in the gross of fee return calculation. Fiscal year end: 6/30.

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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