Kern County Employees' Retirement Association

Investment Performance Review

Period Ending: December 31, 2021

Verus

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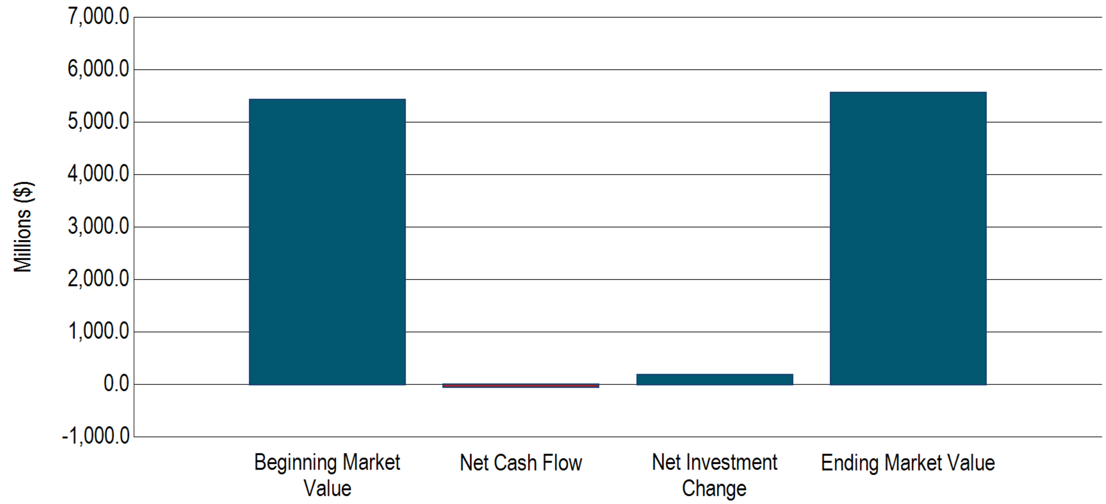
SEATTLE 206-622-3700
LOS ANGELES 310-297-1777
SAN FRANCISCO 415-362-3484
PITTSBURGH 412-784-6678

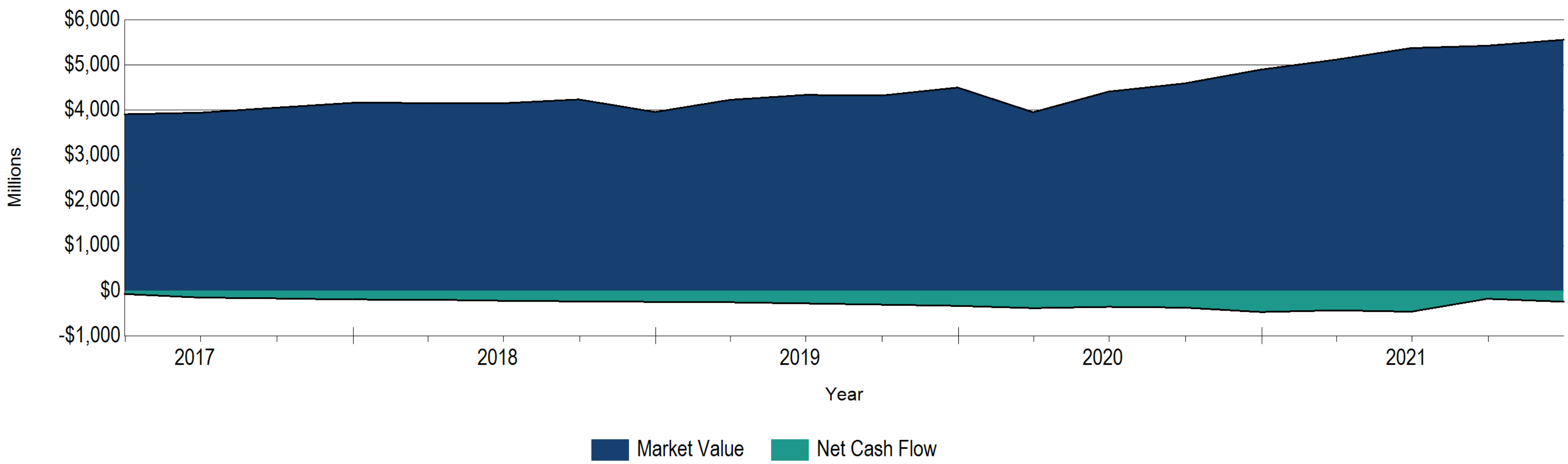
Portfolio Reconciliation

	Last Three Months
Beginning Market Value	$5,425,448,232
Net Cash Flow	-$62,775,747
Net Investment Change	$194,767,448
Ending Market Value	$5,557,439,932

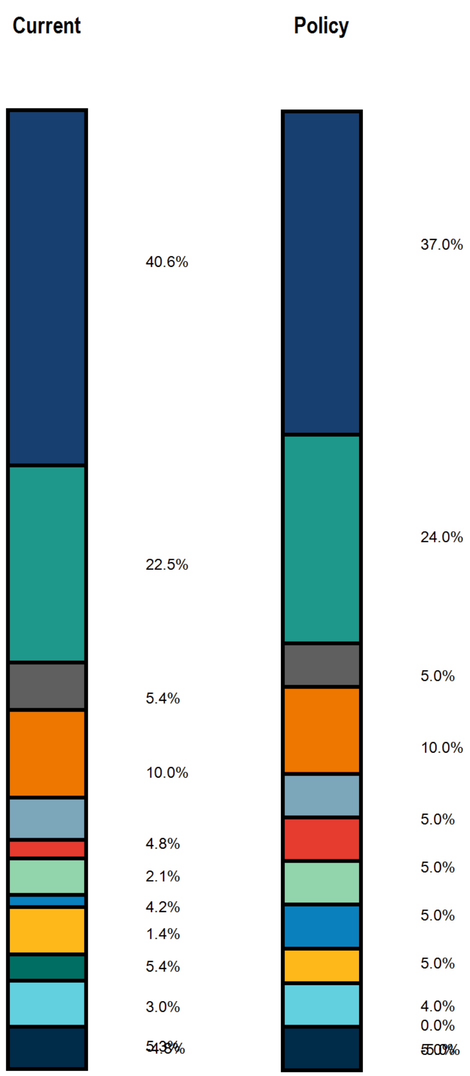
Change in Market Value Last Three Months



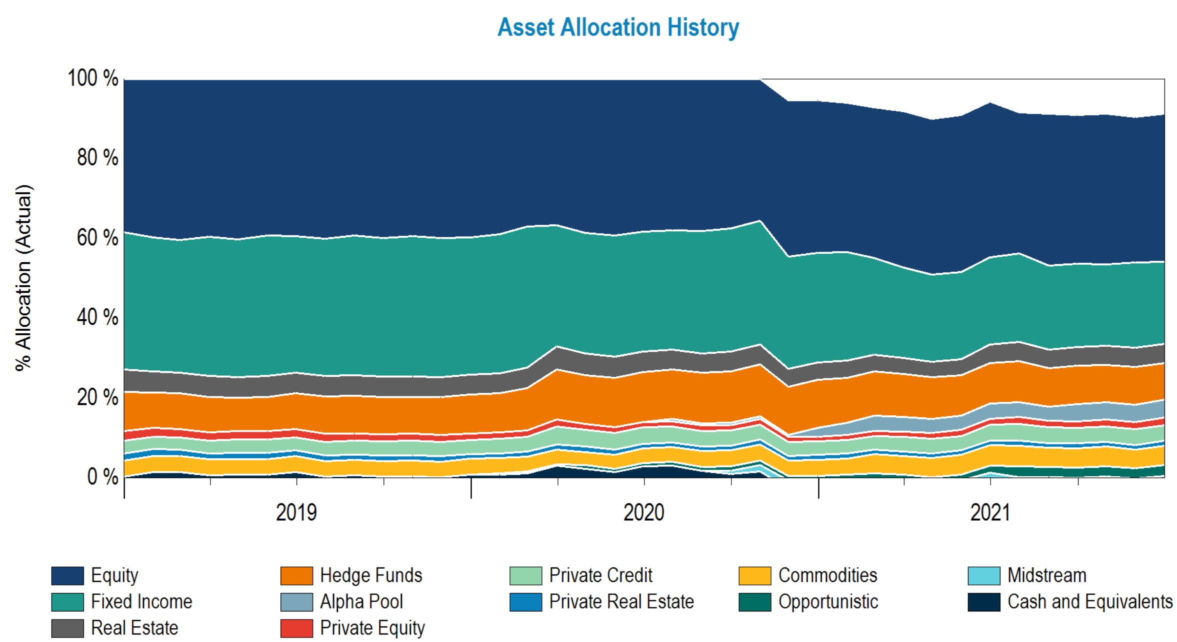
Market Value History



Contributions and withdrawals may include intra-account transfers between managers/funds. The Kern County Property Fund was removed at the beginning of 1Q 2016.



	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Equity	$2,256,356,252	40.6%	37.0%	$200,238,986	32.0% - 46.0%	Yes
Fixed Income	$1,252,600,835	22.5%	24.0%	-$81,096,851	20.0% - 34.0%	Yes
Real Estate	$301,476,904	5.4%	5.0%	$23,623,220	3.0% - 7.0%	Yes
Hedge Funds	$557,581,161	10.0%	10.0%	$1,873,792	5.0% - 15.0%	Yes
Alpha Pool	$266,445,048	4.8%	5.0%	-$11,408,637	0.0% - 7.0%	Yes
Private Equity	$117,844,408	2.1%	5.0%	-$160,009,277	0.0% - 10.0%	Yes
Private Credit	$234,880,412	4.2%	5.0%	-$42,973,273	0.0% - 10.0%	Yes
Private Real Estate	$77,223,017	1.4%	5.0%	-$200,630,668	0.0% - 10.0%	Yes
Commodities	$300,071,302	5.4%	4.0%	$77,788,354	2.0% - 6.0%	Yes
Opportunistic	$166,466,006	3.0%	0.0%	$166,466,006	0.0% - 10.0%	Yes
Midstream	$293,368,210	5.3%	5.0%	$15,514,525	0.0% - 7.0%	Yes
Cash and Equivalents	-$267,239,863	-4.8%	-5.0%	$10,613,822	-7.0% - 5.0%	Yes
Total	**$5,557,073,691**	**100.0%**	**100.0%**			



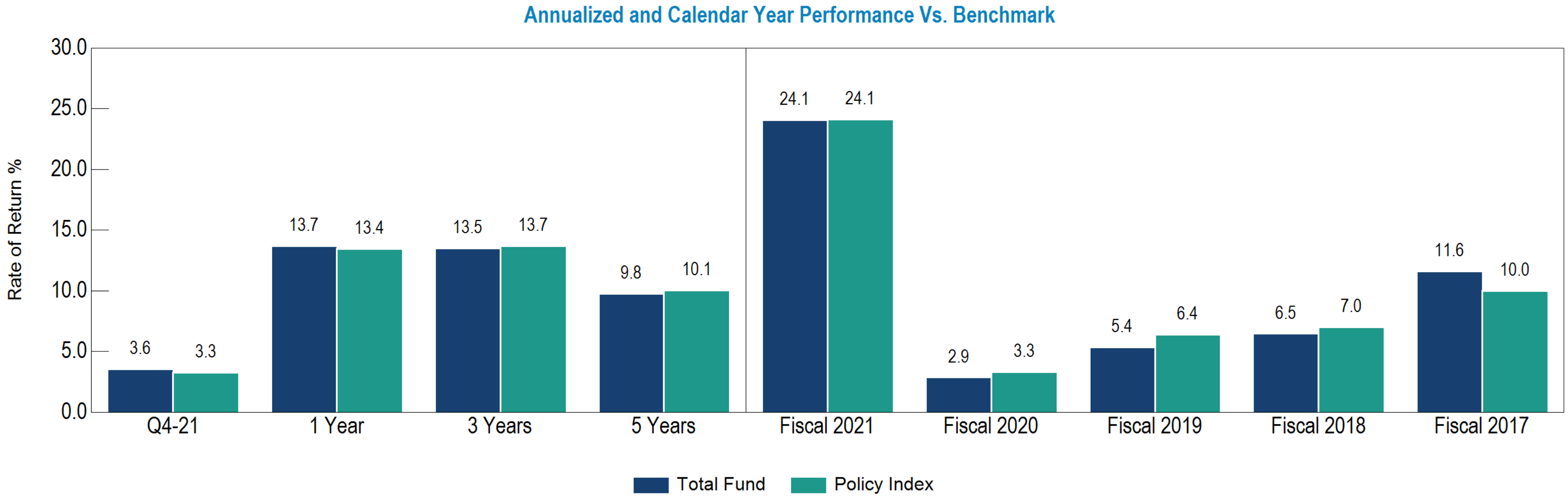
Market value does not include residual $366,241 in Fidelity International.

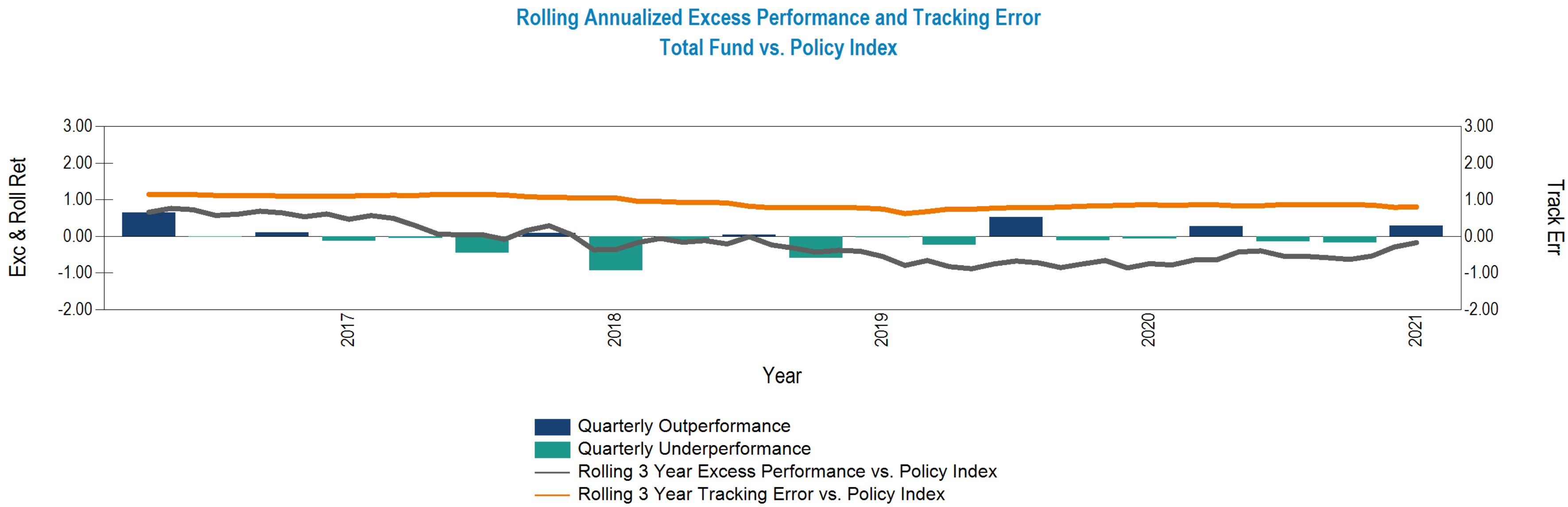
Total Fund
Executive Summary (Gross of Fees)

Period Ending: December 31, 2021

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017
Total Fund	**5,557,439,932**	**3.6**	**4.2**	**14.0**	**13.8**	**10.1**	**9.0**	**24.4**	**3.2**	**5.7**	**6.8**	**12.1**
Policy Index		*3.3*	*4.0*	*13.4*	*13.7*	*10.1*	*8.3*	*24.1*	*3.3*	*6.4*	*7.0*	*10.0*
InvMetrics Public DB > $1B Gross Rank		*75*	*62*	*55*	*74*	*81*	*84*	*89*	*16*	*42*	*96*	*74*
Equity	**2,256,722,493**	**6.8**	**5.8**	**20.2**	**20.8**	**14.9**	**13.2**	**41.2**	**0.7**	**5.3**	**12.4**	**20.6**
MSCI ACWI IMI GR		*6.2*	*5.1*	*18.7*	*20.8*	*14.7*	*12.4*	*41.5*	*1.7*	*5.1*	*11.7*	*19.6*
Domestic Equity	1,254,277,887	10.2	10.7	28.4	26.5	18.6	--	43.6	6.3	9.2	16.1	19.4
Russell 3000		*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*--*	*44.2*	*6.5*	*9.0*	*14.8*	*18.5*
International Developed Equity	708,891,613	3.3	3.0	14.4	15.4	10.9	--	37.0	-5.5	-0.6	9.1	23.1
MSCI World ex USA GR		*3.2*	*2.6*	*13.2*	*14.6*	*10.2*	*--*	*34.2*	*-5.0*	*1.8*	*7.6*	*20.1*
Emerging Markets Equity	293,552,275	1.2	-6.5	2.1	8.4	7.8	--	40.6	-10.9	0.4	4.0	20.4
MSCI Emerging Markets		*-1.3*	*-9.3*	*-2.5*	*10.9*	*9.9*	*--*	*40.9*	*-3.4*	*1.2*	*8.2*	*23.7*
Fixed Income	**1,252,600,835**	**-0.2**	**-0.2**	**-0.5**	**6.3**	**4.7**	**3.9**	**5.4**	**6.6**	**7.9**	**0.2**	**4.6**
Fixed Income Custom Benchmark		*0.1*	*0.1*	*-0.2*	*5.6*	*4.3*	*3.8*	*4.1*	*5.2*	*8.4*	*0.0*	*3.2*
Core Plus Fixed Income	665,636,615	-0.1	0.1	-1.5	5.6	4.3	--	1.0	9.5	8.0	0.0	1.4
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-0.3*	*8.7*	*7.9*	*-0.4*	*-0.3*
High Yield/ Specialty Credit	323,459,509	0.8	1.9	5.8	7.9	6.0	--	13.6	0.0	7.5	3.3	10.4
ICE BofAML High Yield Master II		*0.7*	*1.6*	*5.4*	*8.6*	*6.1*	*--*	*15.6*	*-1.1*	*7.6*	*2.5*	*12.8*
Emerging Market Debt	263,388,651	-1.7	-3.5	-5.0	4.5	3.2	--	9.4	-1.2	8.5	-3.6	9.6
50 JPM EMBI Global Div/ 50 JPM GBI EM		*-0.6*	*-1.7*	*-2.2*	*4.4*	*4.2*	*--*	*8.7*	*-3.0*	*11.2*	*-1.8*	*6.5*
Commodities	**300,071,302**	**1.9**	**4.4**	**25.6**	**13.0**	**6.5**	**--**	**43.5**	**-10.7**	**-6.2**	**13.7**	**-3.1**
Bloomberg Commodity Index TR USD		*-1.6*	*4.9*	*27.1*	*9.9*	*3.7*	*--*	*45.6*	*-17.4*	*-6.8*	*7.3*	*-6.5*
Hedge Funds	**557,581,161**	**0.8**	**2.2**	**7.1**	**10.0**	**7.7**	**7.1**	**16.3**	**7.3**	**2.6**	**7.6**	**8.0**
75% 90 Day TBills +4% / 25% MSCI ACWI		*2.4*	*3.0*	*7.7*	*9.0*	*7.7*	*6.7*	*12.3*	*5.1*	*6.6*	*7.0*	*8.1*
Alpha Pool	**266,445,048**	**0.8**	**1.5**	**6.8**	**--**	**--**	**--**	**14.5**	**--**	**--**	**--**	**--**
91-Day T-Bill +4%		*1.0*	*2.0*	*4.0*	*--*	*--*	*--*	*4.1*	*--*	*--*	*--*	*--*
Midstream Energy	**293,368,210**	**1.3**	**1.0**	**34.8**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Alerian Midstream Index		*-0.4*	*-1.6*	*38.4*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
Core Real Estate	**301,476,904**	**5.7**	**11.9**	**17.4**	**7.8**	**7.3**	**--**	**6.6**	**2.3**	**6.1**	**7.4**	**5.8**
NCREIF-ODCE		*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	*--*	*8.0*	*2.2*	*6.4*	*8.4*	*7.9*

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017
Private Real Estate	**77,223,017**	**10.6**	**17.9**	**27.9**	**11.7**	**9.2**	**13.2**	**12.1**	**4.4**	**9.0**	**5.4**	**6.4**
Private Equity	**117,844,408**	**6.5**	**16.8**	**35.8**	**14.9**	**13.9**	**12.3**	**41.7**	**-10.5**	**10.9**	**7.8**	**14.8**
Private Credit	**234,880,412**	**-2.5**	**0.7**	**5.9**	**5.1**	**7.2**	**--**	**4.8**	**5.5**	**9.7**	**9.3**	**10.2**
Opportunistic	**166,466,006**	**6.8**	**6.1**	**51.0**	**--**	**--**	**--**	**59.9**	**--**	**--**	**--**	**--**
Assumed Rate of Return +3%		*2.5*	*5.1*	*10.4*	*--*	*--*	*--*	*10.4*	*--*	*--*	*--*	*--*
Cash	**-267,239,863**											


Annualized and Calendar Year Performance Vs. Benchmark
Rate of Return %
30.0
25.0
20.0
15.0
10.0
5.0
0.0
3.6
3.3
13.7
13.4
13.5
13.7
9.8
10.1
24.1
24.1
2.9
3.3
5.4
6.4
6.5
7.0
11.6
10.0
Q4-21
1 Year
3 Years
5 Years
Fiscal 2021
Fiscal 2020
Fiscal 2019
Fiscal 2018
Fiscal 2017
Total Fund
Policy Index


Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Policy Index
Exc & Roll Ret
Track Err
3.00
2.00
1.00
0.00
-1.00
-2.00
2017
2018
2019
2020
2021
Year
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Policy Index
Rolling 3 Year Tracking Error vs. Policy Index

Performance and Attribution

Total Fund
Performance (Net of Fees)

Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Inception	Inception Date
Total Fund	**5,557,439,932**	**100.0**	**3.6**	**4.1**	**13.7**	**13.5**	**9.8**	**8.6**	**24.1**	**2.9**	**5.4**	**6.5**	**11.6**	**7.7**	**Jun-11**
Policy Index			*3.3*	*4.0*	*13.4*	*13.7*	*10.1*	*8.3*	*24.1*	*3.3*	*6.4*	*7.0*	*10.0*	*7.5*	*Jun-11*
Equity	**2,256,722,493**	**40.6**	**6.8**	**5.7**	**19.9**	**20.4**	**14.4**	**12.8**	**40.7**	**0.3**	**4.8**	**11.8**	**20.1**		
MSCI ACWI IMI GR			*6.2*	*5.1*	*18.7*	*20.8*	*14.7*	*12.4*	*41.5*	*1.7*	*5.1*	*11.7*	*19.6*		
Domestic Equity	**1,254,277,887**	**22.6**	**10.2**	**10.6**	**28.1**	**26.2**	**18.2**	**--**	**43.2**	**6.0**	**8.8**	**15.5**	**18.9**		
Russell 3000			*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*--*	*44.2*	*6.5*	*9.0*	*14.8*	*18.5*		
Equity Beta Exposure	586,960,975	10.6	11.0	11.5	28.1	--	--	--	--	--	--	--	--	31.9	Jul-20
S&P 500			*11.0*	*11.7*	*28.7*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*32.4*	*Jul-20*
Russell 2000 Overlay	28,707,840	0.5	4.3	--	--	--	--	--	--	--	--	--	--	4.3	Sep-21
Russell 2000			*2.1*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*2.1*	*Sep-21*
Mellon DB SL Stock Index	350,801,307	6.3	11.0	11.7	28.7	26.0	--	--	40.8	7.5	10.4	--	--	18.0	Oct-17
S&P 500			*11.0*	*11.7*	*28.7*	*26.1*	*--*	*--*	*40.8*	*7.5*	*10.4*	*--*	*--*	*18.0*	*Oct-17*
PIMCO StocksPLUS	125,028,886	2.2	10.8	11.4	28.2	26.7	18.6	17.5	41.7	7.7	10.6	14.1	19.1	12.0	Jul-03
S&P 500			*11.0*	*11.7*	*28.7*	*26.1*	*18.5*	*16.6*	*40.8*	*7.5*	*10.4*	*14.4*	*17.9*	*11.1*	*Jul-03*
AB US Small Cap Value Equity	102,353,305	1.8	5.4	4.9	35.6	19.9	9.6	--	77.5	-19.4	-6.9	13.2	23.9	10.8	Jul-15
Russell 2000 Value			*4.4*	*1.2*	*28.3*	*18.0*	*9.1*	*--*	*73.3*	*-17.5*	*-6.2*	*13.1*	*24.9*	*10.2*	*Jul-15*
Geneva Capital Small Cap Growth	60,425,575	1.1	6.0	4.0	12.4	24.3	18.5	--	37.6	9.3	8.6	22.7	21.2	15.1	Jul-15
Russell 2000 Growth			*0.0*	*-5.6*	*2.8*	*21.2*	*14.5*	*--*	*51.4*	*3.5*	*-0.5*	*21.9*	*24.4*	*10.9*	*Jul-15*
International Developed Equity	**708,891,613**	**12.8**	**3.3**	**2.9**	**14.2**	**15.1**	**10.6**	**--**	**36.7**	**-5.7**	**-0.9**	**8.7**	**22.6**		
MSCI World ex USA IMI NR			*2.7*	*2.3*	*12.4*	*14.4*	*9.8*	*--*	*34.8*	*-5.1*	*0.2*	*7.7*	*19.7*		
Mellon DB SL World ex-US Index	576,312,450	10.4	3.4	2.6	14.5	15.1	--	--	35.6	-5.5	--	--	--	8.4	Jul-18
MSCI World ex USA IMI GR			*2.8*	*2.4*	*12.9*	*14.9*	*--*	*--*	*35.4*	*-4.7*	*--*	*--*	*--*	*8.5*	*Jul-18*
Cevian Capital II	35,807,322	0.6	6.1	6.0	23.6	16.4	9.1	--	46.8	-8.2	-5.0	2.9	32.9	7.9	Dec-14
MSCI Europe			*5.7*	*4.0*	*16.3*	*14.9*	*10.1*	*--*	*35.1*	*-6.8*	*1.9*	*5.3*	*21.1*	*6.6*	*Dec-14*
American Century Non-US Small Cap	96,405,600	1.7	1.6	4.5	14.5	--	--	--	--	--	--	--	--	18.8	Dec-20
MSCI World ex US Small Cap Growth			*0.1*	*1.4*	*8.8*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*14.9*	*Dec-20*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Inception	Inception Date
Emerging Markets Equity	**293,552,275**	**5.3**	**1.0**	**-6.8**	**1.4**	**7.5**	**6.8**	**--**	**39.5**	**-11.8**	**-0.6**	**2.9**	**19.3**		
MSCI EM IMI GR			*-0.9*	*-8.1*	*0.1*	*12.0*	*10.4*	*--*	*43.7*	*-3.6*	*0.9*	*8.3*	*23.2*		
DFA Emerging Markets Value I	84,198,233	1.5	0.4	-2.9	12.4	8.2	8.3	--	47.6	-17.7	2.0	5.7	27.6	4.9	Mar-14
MSCI Emerging Markets Value GR			*-0.3*	*-5.2*	*4.5*	*7.6*	*7.5*	*--*	*42.2*	*-15.3*	*5.6*	*4.8*	*22.1*	*4.1*	*Mar-14*
AB Emerging Markets Strategic Core Equity	108,256,998	1.9	3.8	-7.3	-2.9	8.7	6.6	--	33.6	-5.1	-2.6	1.2	--	6.4	Nov-16
MSCI Emerging Markets Gross			*-1.2*	*-9.1*	*-2.2*	*11.3*	*10.3*	*--*	*41.4*	*-3.0*	*1.6*	*8.6*	*--*	*10.1*	*Nov-16*
Mellon Emerging Markets Stock Index	101,097,044	1.8	-1.3	-9.2	-2.4	--	--	--	41.1	--	--	--	--	16.7	Jun-20
MSCI Emerging Markets Gross			*-1.2*	*-9.1*	*-2.2*	*--*	*--*	*--*	*41.4*	*--*	*--*	*--*	*--*	*22.5*	*Jun-20*
Fixed Income	**1,252,600,835**	**22.5**	**-0.3**	**-0.4**	**-0.7**	**6.1**	**4.5**	**3.7**	**5.1**	**6.3**	**7.6**	**-0.1**	**4.3**		
Fixed Income Custom Benchmark			*0.1*	*0.1*	*-0.2*	*5.6*	*4.3*	*3.8*	*4.1*	*5.2*	*8.4*	*0.0*	*3.2*		
Core Plus Fixed Income	**665,636,615**	**12.0**	**-0.1**	**0.0**	**-1.7**	**5.5**	**4.1**	**--**	**0.8**	**9.3**	**7.9**	**-0.2**	**1.3**		
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-0.3*	*8.7*	*7.9*	*-0.4*	*-0.3*		
Mellon DB SL Aggregate Bond Index Fund	225,377,240	4.1	-0.1	0.0	-1.7	4.7	3.5	2.9	-0.4	8.8	7.9	-0.4	-0.3	3.3	Jan-11
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-0.3*	*8.7*	*7.9*	*-0.4*	*-0.3*	*3.3*	*Jan-11*
PIMCO Core Plus	211,833,662	3.8	0.0	0.2	-1.0	5.0	3.9	3.2	1.1	8.7	6.3	1.0	1.4	3.5	Jan-11
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-0.3*	*8.7*	*7.9*	*-0.4*	*-0.3*	*3.3*	*Jan-11*
Western Asset Core Plus	228,425,712	4.1	-0.2	0.0	-2.0	6.5	4.9	4.3	2.4	9.3	9.4	-0.4	3.0	5.0	May-04
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-0.3*	*8.7*	*7.9*	*-0.4*	*-0.3*	*4.1*	*May-04*
High Yield/ Specialty Credit	**323,459,509**	**5.8**	**0.7**	**1.7**	**5.2**	**7.4**	**5.5**	**--**	**13.1**	**-0.5**	**7.0**	**2.8**	**9.9**		
ICE BofAML High Yield Master II			*0.7*	*1.6*	*5.4*	*8.6*	*6.1*	*--*	*15.6*	*-1.1*	*7.6*	*2.5*	*12.8*		
Western Asset High Yield Fixed Income	190,741,578	3.4	0.9	1.7	6.1	8.8	6.0	6.6	16.5	-2.2	8.3	2.2	11.7	7.0	May-05
50% Bloomberg US HY Ba 2%/50% Bloomberg US HY B 2% CAP			*0.8*	*1.7*	*4.6*	*9.1*	*6.4*	*6.7*	*13.4*	*2.1*	*8.8*	*1.8*	*10.9*	*6.9*	*May-05*
TCW Securitized Opportunities	132,717,932	2.4	0.5	1.5	3.9	4.6	4.6	--	6.4	2.2	5.2	4.3	6.3	4.5	Feb-16
Bloomberg US HY 2% Issuer Cap			*0.7*	*1.6*	*5.3*	*8.8*	*6.3*	*--*	*15.3*	*0.0*	*7.5*	*2.6*	*12.7*	*8.4*	*Feb-16*
Emerging Market Debt	**263,388,651**	**4.7**	**-1.8**	**-3.6**	**-5.2**	**4.1**	**2.8**	**--**	**9.1**	**-1.7**	**7.9**	**-4.2**	**8.9**		
50 JPM EMBI Global Div/ 50 JPM GBI EM			*-0.6*	*-1.7*	*-2.2*	*4.4*	*4.2*	*--*	*8.7*	*-3.0*	*11.2*	*-1.8*	*6.5*		
Stone Harbor Emerging Markets Debt	106,209,436	1.9	-1.8	-3.4	-4.9	4.6	3.3	--	9.5	-1.8	8.2	-3.1	6.3	1.1	Aug-12
50 JPM GBI-EM Global Div/ 40 JPM EMBI Global Div/ 10 JPM Corporate EM Bond Idx			*-1.5*	*-3.3*	*-5.1*	*4.1*	*3.9*	*--*	*7.2*	*-0.8*	*10.6*	*-1.7*	*6.3*	*2.2*	*Aug-12*
PIMCO EMD	157,179,215	2.8	-1.8	-3.8	-5.4	--	--	--	8.7	--	--	--	--	0.1	Jan-20
50 JPM EMBI Global Div/ 50 JPM GBI EM			*-0.6*	*-1.7*	*-2.2*	*--*	*--*	*--*	*8.7*	*--*	*--*	*--*	*--*	*-0.1*	*Jan-20*

Total Fund

Executive Summary (Net of Fees)

Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Inception	Inception Date
Commodities	**300,071,302**	**5.4**	**1.7**	**4.1**	**24.8**	**12.3**	**6.0**	**--**	**42.5**	**-11.3**	**-6.7**	**13.3**	**-3.7**		
Bloomberg Commodity Index TR USD			*-1.6*	*4.9*	*27.1*	*9.9*	*3.7*	*--*	*45.6*	*-17.4*	*-6.8*	*7.3*	*-6.5*		
Gresham MTAP Commodity	93,802,946	1.7	-1.6	2.9	25.2	10.1	4.4	--	46.8	-16.3	-9.0	12.4	-3.8	-1.9	Sep-13
Bloomberg Commodity Index TR USD			*-1.6*	*4.9*	*27.1*	*9.9*	*3.7*	*--*	*45.6*	*-17.4*	*-6.8*	*7.3*	*-6.5*	*-2.3*	*Sep-13*
Wellington Commodities	206,268,356	3.7	3.2	4.6	24.6	13.9	7.0	--	40.2	-7.5	-5.4	14.2	-3.3	-0.2	Sep-13
S&P GSCI Commodity Equal Weighted			*3.7*	*5.5*	*25.3*	*12.1*	*7.1*	*--*	*40.9*	*-12.4*	*-3.5*	*12.6*	*-2.3*	*-0.3*	*Sep-13*
Hedge Funds	**557,581,161**	**10.0**	**0.8**	**2.1**	**6.9**	**9.8**	**7.6**	**6.4**	**16.1**	**7.0**	**2.5**	**7.6**	**7.1**		
75% 90 Day TBills +4% / 25% MSCI ACWI			*2.4*	*3.0*	*7.7*	*9.0*	*7.7*	*6.7*	*12.3*	*5.1*	*6.6*	*7.0*	*8.1*		
Aristeia International Limited	67,577,644	1.2	1.7	2.3	8.3	12.0	9.7	--	21.6	8.7	9.2	2.6	13.1	5.7	May-14
Brevan Howard	68,109,600	1.2	0.6	1.3	2.2	12.5	8.6	--	6.1	20.5	12.7	7.8	1.0	7.1	Nov-13
D.E. Shaw	59,670,684	1.1	4.9	9.7	22.3	18.2	14.3	--	19.0	15.6	11.5	11.3	8.0	13.4	Jul-13
HBK Fund II	57,300,333	1.0	3.1	5.2	9.4	7.2	5.8	--	11.0	1.5	5.5	3.0	6.7	4.7	Nov-13
Hudson Bay	73,262,598	1.3	2.0	4.2	9.1	--	--	--	14.2	16.2	--	--	--	13.6	Jun-19
Indus Pacific Opportunities	37,466,384	0.7	-7.1	-6.8	1.4	16.7	9.5	--	38.0	15.8	-19.2	15.8	15.1	8.4	Jun-14
Magnetar Structured Credit	10,874,643	0.2	3.0	2.7	19.9	13.3	10.5	--	38.1	-0.2	5.4	7.7	8.6	8.8	May-14
Myriad Opportunities Offshore	1,175,290	0.0	-35.1	-37.2	-29.7	-10.2	-4.7	--	30.6	-9.2	-8.4	10.4	8.2	-3.3	May-16
Pharo Macro Fund LTD	63,709,761	1.1	-2.8	-3.7	-10.6	--	--	--	3.5	--	--	--	--	1.3	Dec-19
PIMCO Commodity Alpha	64,665,216	1.2	7.8	11.0	17.7	11.4	10.2	--	14.2	4.8	5.2	10.4	17.0	11.3	May-16
River Birch	839,041	0.0	1.1	0.2	1.1	-7.2	-3.8	--	-0.7	-19.9	-0.5	2.8	9.6	-2.1	Aug-15
Sculptor Enhanced Domestic Partners	52,929,967	1.0	-5.6	-4.0	-0.4	--	--	--	16.8	6.5	--	--	--	11.7	Mar-19
Alpha Pool	**266,445,048**	**4.8**	**0.8**	**1.5**	**6.8**	**--**	**--**	**--**	**14.5**	**--**	**--**	**--**	**--**		
91-Day T-Bill +4%			*1.0*	*2.0*	*4.0*	*--*	*--*	*--*	*4.1*	*--*	*--*	*--*	*--*		
Hudson Bay	56,589,550	1.0	1.8	3.8	8.4	--	--	--	--	--	--	--	--	11.5	Jul-20
Davidson Kempner	54,564,532	1.0	-0.1	-0.4	6.3	--	--	--	--	--	--	--	--	7.6	Dec-20
HBK Fund II	55,104,610	1.0	2.9	4.8	8.7	--	--	--	--	--	--	--	--	9.3	Dec-20
HBK Opportunities - SPAC Series	50,536,171	0.9	-0.1	-0.8	7.3	--	--	--	--	--	--	--	--	6.8	Dec-20
Garda Fixed Income Relative Value Opportunity Fund	49,650,185	0.9	-0.9	-0.9	--	--	--	--	--	--	--	--	--	-0.9	Sep-21

Total Fund
Executive Summary (Net of Fees)
Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Inception	Inception Date
Midstream Energy	**293,368,210**	**5.3**	**1.3**	**1.0**	**34.8**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
Alerian Midstream Index			*-0.4*	*-1.6*	*38.4*	--	--	--	--	--	--	--	--		
Harvest Midstream	161,784,382	2.9	1.5	1.2	40.2	--	--	--	--	--	--	--	--	46.6	Sep-20
Alerian Midstream Index			*-0.4*	*-1.6*	*38.4*	--	--	--	--	--	--	--	--	*34.7*	*Sep-20*
PIMCO Midstream	131,583,828	2.4	1.2	0.9	28.3	--	--	--	--	--	--	--	--	35.9	Oct-20
50/25/25 Alerian Midstream/ ICE BofA US Pipeline/ ICE BofA US HY Midstream			*0.3*	*0.1*	*21.1*	--	--	--	--	--	--	--	--	--	*Oct-20*
Core Real Estate	**301,476,904**	**5.4**	**5.5**	**11.5**	**16.5**	**6.9**	**6.8**	**--**	**5.6**	**1.4**	**5.9**	**7.4**	**5.3**		
NCREIF-ODCE			*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	--	*8.0*	*2.2*	*6.4*	*8.4*	*7.9*		
ASB Real Estate	172,835,315	3.1	3.8	9.0	14.0	6.4	6.2	--	5.4	1.5	6.8	7.1	3.3	8.1	Sep-13
NCREIF-ODCE			*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	--	*8.0*	*2.2*	*6.4*	*8.4*	*7.9*	*10.1*	*Sep-13*
J.P. Morgan Strategic Property	128,641,589	2.3	7.9	14.9	19.9	7.7	7.6	--	5.9	1.3	5.0	7.6	7.4	8.6	Jul-14
NCREIF-ODCE			*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	--	*8.0*	*2.2*	*6.4*	*8.4*	*7.9*	*9.8*	*Jul-14*
Private Real Estate	**77,223,017**	**1.4**	**10.6**	**17.9**	**27.9**	**11.7**	**9.2**	**12.6**	**12.1**	**4.4**	**9.0**	**5.4**	**5.7**		
Private Real Estate Benchmark			*10.6*	*17.9*	*27.9*	*11.7*	*9.2*	*12.6*	*12.1*	*4.4*	*9.0*	*5.4*	*5.7*		
Private Equity	**117,844,408**	**2.1**	**6.5**	**16.8**	**35.8**	**14.9**	**13.9**	**11.9**	**41.7**	**-10.5**	**10.9**	**7.8**	**14.1**		
Private Equity Benchmark			*6.5*	*16.8*	*35.8*	*14.9*	*13.9*	*11.9*	*41.7*	*-10.5*	*10.9*	*7.8*	*14.1*		
Private Credit	**234,880,412**	**4.2**	**-2.5**	**0.7**	**5.9**	**5.1**	**7.2**	**--**	**4.8**	**5.5**	**9.7**	**9.3**	**10.2**		
Private Credit Benchmark			*-2.5*	*0.7*	*5.9*	*5.1*	*7.2*	--	*4.8*	*5.5*	*9.7*	*9.3*	*10.2*		
Opportunistic	**166,466,006**	**3.0**	**6.8**	**6.1**	**51.0**	**--**	**--**	**--**	**59.9**	**--**	**--**	**--**	**--**		
Assumed Rate of Return +3%			*2.5*	*5.1*	*10.4*	--	--	--	*10.4*	--	--	--	--		
DB Investors Fund IV	43,892,738	0.8	11.0	12.9	95.4	--	--	--	95.1	--	--	--	--	48.1	Jan-20
TAO Contingent	70,762,776	1.3	4.2	3.9	30.4	--	--	--	39.6	--	--	--	--	23.7	Apr-20
Aristeia Select Opportunities II	51,810,492	0.9	7.0	3.6	--	--	--	--	--	--	--	--	--	3.6	Jul-21
Assumed Rate of Return +3%			*2.5*	*5.1*	--	--	--	--	--	--	--	--	--	*5.1*	*Jul-21*
Cash	**-267,239,863**	**-4.8**	**0.0**	**0.0**	**0.0**	**0.7**	**1.6**	**--**	**0.1**	**1.0**	**2.0**	**3.2**	**2.7**		

Vintage Year	Manager/Fund	Estimated Market Value as of 12/31/2021	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 Equity												
2001	Abbott Capital PE IV	$1,156,229	$50,000,000	$49,650,000	99%	$350,000	$85,714,140	$1,104,670	*1.73x*	*1.75x*	*11.0%*	12/31/20
2005	Abbott Capital PE V	$4,656,643	$65,000,000	$62,790,000	97%	$2,210,000	$89,361,494	$5,280,775	*1.42x*	*1.50x*	*6.9%*	09/30/21
2008	Abbott Capital PE VI	$26,208,334	$50,000,000	$49,750,000	100%	$250,000	$72,850,074	$28,869,137	*1.46x*	*1.99x*	*13.9%*	09/30/21
2006	Pantheon Global III	$1,087,500	$50,000,000	$47,300,000	95%	$2,700,000	$51,500,000	$1,087,500	*1.09x*	*1.11x*	*1.9%*	09/30/21
1998	Pantheon USA III	$52,823	$7,500,000	$7,335,000	98%	$165,000	$8,197,500	$52,823	*1.12x*	*1.12x*	*1.9%*	09/30/21
2002	Pantheon USA V	$429,727	$25,000,000	$24,350,000	97%	$650,000	$37,950,000	$429,727	*1.56x*	*1.58x*	*9.0%*	09/30/21
2004	Pantheon USA VI	$860,950	$35,000,000	$33,075,000	95%	$1,925,000	$50,203,827	$860,950	*1.52x*	*1.54x*	*6.8%*	09/30/21
2006	Pantheon USA VII	$10,606,938	$50,000,000	$46,600,000	93%	$3,400,000	$76,925,001	$12,556,938	*1.65x*	*1.88x*	*10.3%*	09/30/21
2020	Vista Equity Partners IV	$9,379,623	$25,000,000	$9,835,795	39%	$15,164,205	$0	N/A	N/A	N/A	*30.8%*	09/30/21
2021	LGT Crown	$16,630,053	$50,000,000	$13,250,000	27%	$36,750,000	$0	N/A	N/A	N/A	N/A	N/A
2021	Brighton Private Equity	$24,592,195	$30,000,000	$19,943,402	66%	$10,056,598	$1,167,799	N/A	*0.06x*	*1.29x*	N/A	N/A
2021	Warren Equity	$14,452,892	$32,500,000	$14,911,186	46%	$17,588,814	$508,290	N/A	*0.03x*	*1.00x*	N/A	N/A
2021	Peak Rock Capital Fund III	$6,020,541	$30,000,000	$6,245,219	21%	$23,754,781	$0	N/A	N/A	N/A	N/A	N/A
2021	Level Equity Growth Partners V	$1,688,471	$15,000,000	$1,688,471	11%	$13,311,529	$0	N/A	N/A	N/A	N/A	N/A
2021	Level Equity Opportunities Fund 2021	$21,489	$15,000,000	$21,489	0%	$14,978,511	$0	N/A	N/A	N/A	N/A	N/A
	Total Private Equity	**$117,844,408**	$530,000,000	$386,745,562	73%	$143,254,438	$474,378,126	$50,242,520	*1.23x*	*1.53x*		
	% of Portfolio (Market Value)	***2.1%***										

[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 figure is provided by its respective manager.

Vintage Year	Manager/Fund	Estimated Market Value 12/31/2021	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	Colony Distressed Credit IV*[4]	$43,189,865	$60,000,000	$73,340,099	122%	-$5,500,870	$24,003,132	$51,535,333	*0.33x*	*0.92x*	*1.0%*	6/30/21
2017	Brookfield Real Estate Finance Fund V	$22,575,965	$50,000,000	$35,545,586	71%	$14,454,414	$21,702,372	$23,191,827	*0.61x*	*1.25x*	*8.1%*	9/30/21
2017	TSSP Adjacent Opportunities Partners	$38,088,624	$50,000,000	$64,060,356	128%	-$14,060,356	$35,322,200	$36,662,874	*0.55x*	*1.15x*	*11.2%*	9/30/21
2018	Magnetar Constellation	$37,670,607	$60,000,000	$64,905,493	108%	-$4,905,493	$34,067,238	N/A	*0.52x*	*1.11x*	*N/A*	*N/A*
2019	H.I.G Bayside Loan Opportunity Fund V	$37,253,822	$60,000,000	$24,496,503	41%	$35,503,497	$5,260,705	N/A	*0.21x*	*1.74x*	*N/A*	*N/A*
2020	Blue Torch Credit Opportunities	$14,092,264	$20,000,000	$14,605,427	73%	$5,394,573	$1,360,813	N/A	*0.09x*	*1.06x*	*N/A*	*N/A*
2020	Fortress Credit Opportunities	$11,178,043	$40,000,000	$10,851,947	27%	$29,148,053	$468,590	N/A	*0.04x*	*1.07x*	*N/A*	*N/A*
2021	Fortress Lending Fund II	$30,831,222	$40,000,000	$30,137,851	75%	$9,862,149	$797,187	N/A	*0.03x*	*1.05x*	*N/A*	*N/A*
	Total Private Credit	**$234,880,412**	$300,000,000	$262,348,037	87%	-$10,012,305	$115,094,942	$111,390,034	*0.44x*	*1.33x*		
	% of Portfolio (Market Value)	***4.2%***										

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

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

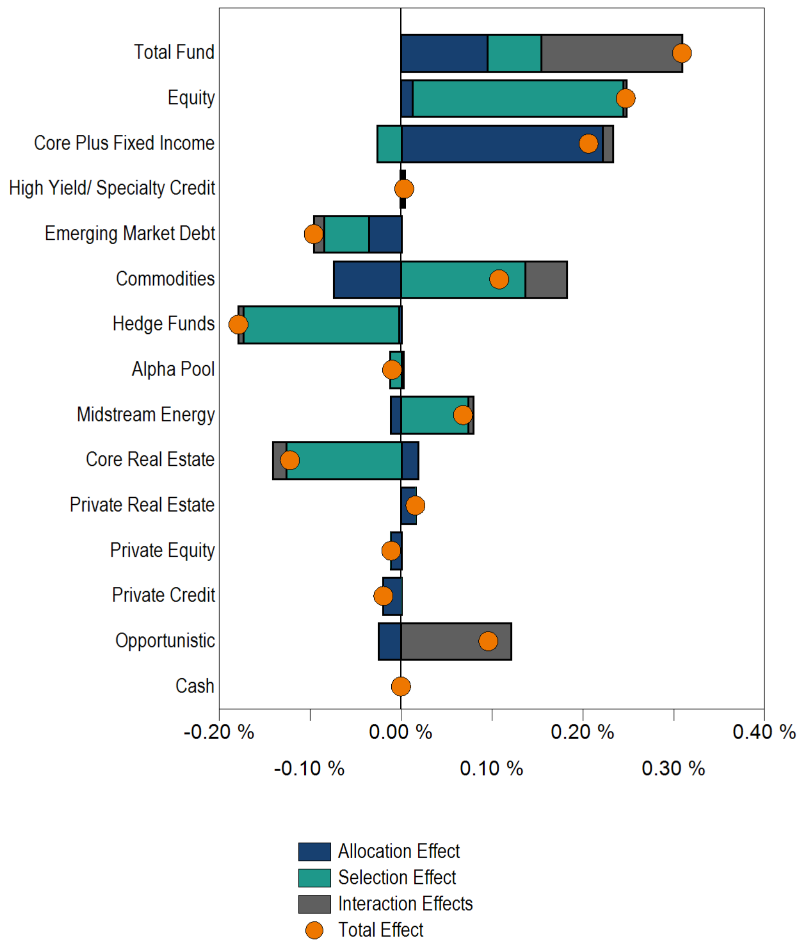
[3]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.

[4]$14,360,749 is recallable capital as of 6/30/2020.

Vintage Year	Manager/Fund	Estimated Market Value 12/31/2021	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 Real Estate												
2012	Invesco Real Estate III	$277,169	$60,000,000	$55,519,583	93%	$4,480,417	$81,296,679	$286,862	*1.46x*	*1.47x*	*13.6%*	12/31/20
2014	Invesco Real Estate IV	$7,764,801	$50,000,000	$43,637,717	87%	$6,362,283	$51,606,600	$24,596,747	*1.18x*	*1.36x*	*12.3%*	12/31/20
2017	Landmark Real Estate Partners VIII	$25,796,483	$60,000,000	$31,768,833	53%	$28,231,167	$15,272,018	$18,637,114	*0.48x*	*1.29x*	*16.4%*	09/30/21
2018	Long Wharf Real Estate Partners VI	$22,780,498	$50,000,000	$26,243,805	52%	$23,756,195	$9,712,587	$16,608,184	*0.37x*	*1.24x*	*24.3%*	09/30/21
2020	Covenant Apartment Fund X	$18,845,316	$30,000,000	$14,400,000	48%	$15,600,000	$138,381	N/A	*0.01x*	*1.32x*	N/A	N/A
2021	Singerman Real Estate Opportunity Fund IV	$1,758,750	$35,000,000	$1,758,750	5%	$33,241,250	$0	N/A	N/A	N/A	N/A	N/A
	Total Private Real Assets	**$77,223,017**	$285,000,000	$173,328,688	61%	$111,671,312	$158,026,265	$60,128,907	*0.91x*	*1.36x*		
	% of Portfolio (Market Value)	***1.4%***										

[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 figure is provided by its respective manager.

Attribution Effects
Last Three Months



Performance Attribution

	Quarter	Fiscal YTD
Wtd. Actual Return	3.57%	4.16%
Wtd. Index Return *	3.27%	3.97%
Excess Return	**0.29%**	**0.19%**
Selection Effect	0.06%	-0.05%
Allocation Effect	0.10%	0.27%
Interaction Effect	0.15%	-0.01%

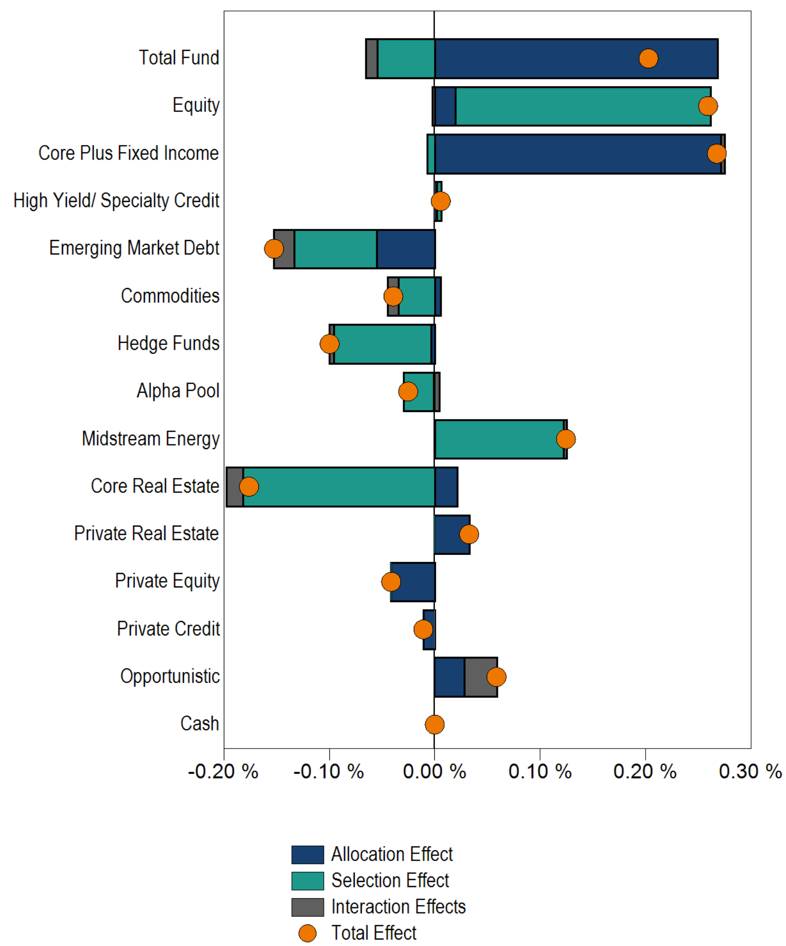
*Calculated from benchmark returns and weightings of each component.

Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	6.8%	6.2%	0.6%	0.2%	0.0%	0.0%	0.2%
Core Plus Fixed Income	-0.1%	0.0%	-0.1%	0.0%	0.2%	0.0%	0.2%
High Yield/ Specialty Credit	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-1.8%	-0.6%	-1.2%	0.0%	0.0%	0.0%	-0.1%
Commodities	1.7%	-1.6%	3.2%	0.1%	-0.1%	0.0%	0.1%
Hedge Funds	0.8%	2.4%	-1.7%	-0.2%	0.0%	0.0%	-0.2%
Alpha Pool	0.8%	1.0%	-0.2%	0.0%	0.0%	0.0%	0.0%
Midstream Energy	1.3%	-0.4%	1.7%	0.1%	0.0%	0.0%	0.1%
Core Real Estate	5.5%	8.0%	-2.4%	-0.1%	0.0%	0.0%	-0.1%
Private Real Estate	10.6%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	6.5%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Credit	-2.5%	-2.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Opportunistic	6.8%	2.5%	4.3%	0.0%	0.0%	0.1%	0.1%
Cash	--	--	--	--	--	--	--
Total	**3.6%**	**3.3%**	**0.3%**	**0.1%**	**0.1%**	**0.2%**	**0.3%**

Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table.

Attribution Effects
Fiscal YTD



Performance Attribution

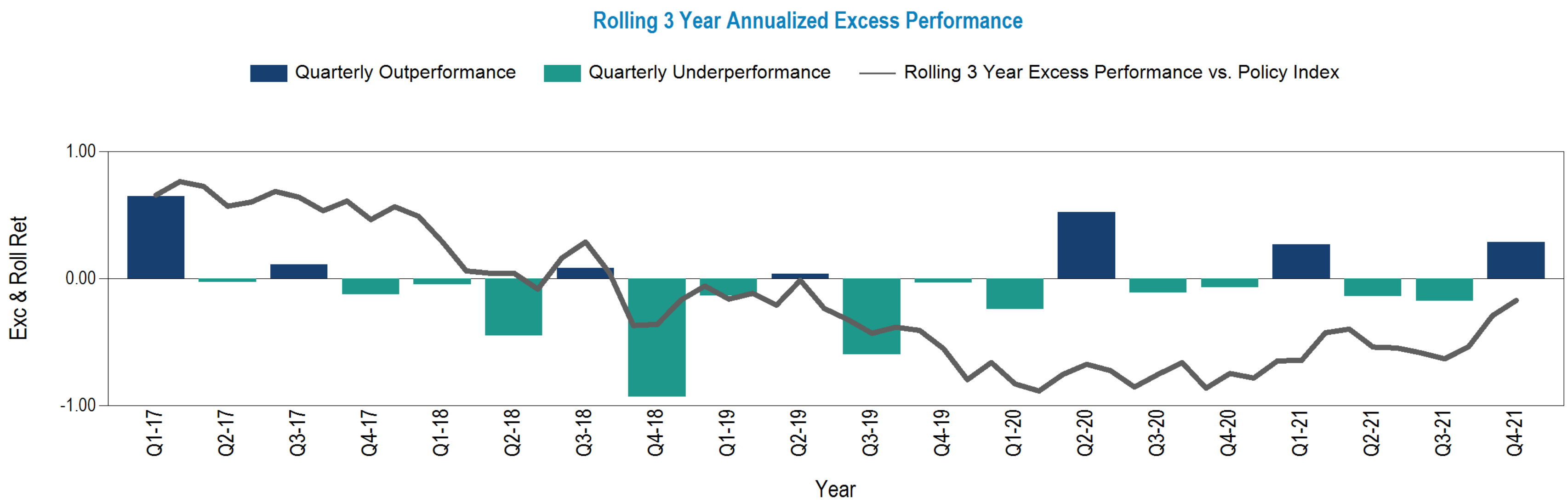
	Quarter	Fiscal YTD
Wtd. Actual Return	3.57%	4.16%
Wtd. Index Return *	3.27%	3.97%
Excess Return	**0.29%**	**0.19%**
Selection Effect	0.06%	-0.05%
Allocation Effect	0.10%	0.27%
Interaction Effect	0.15%	-0.01%

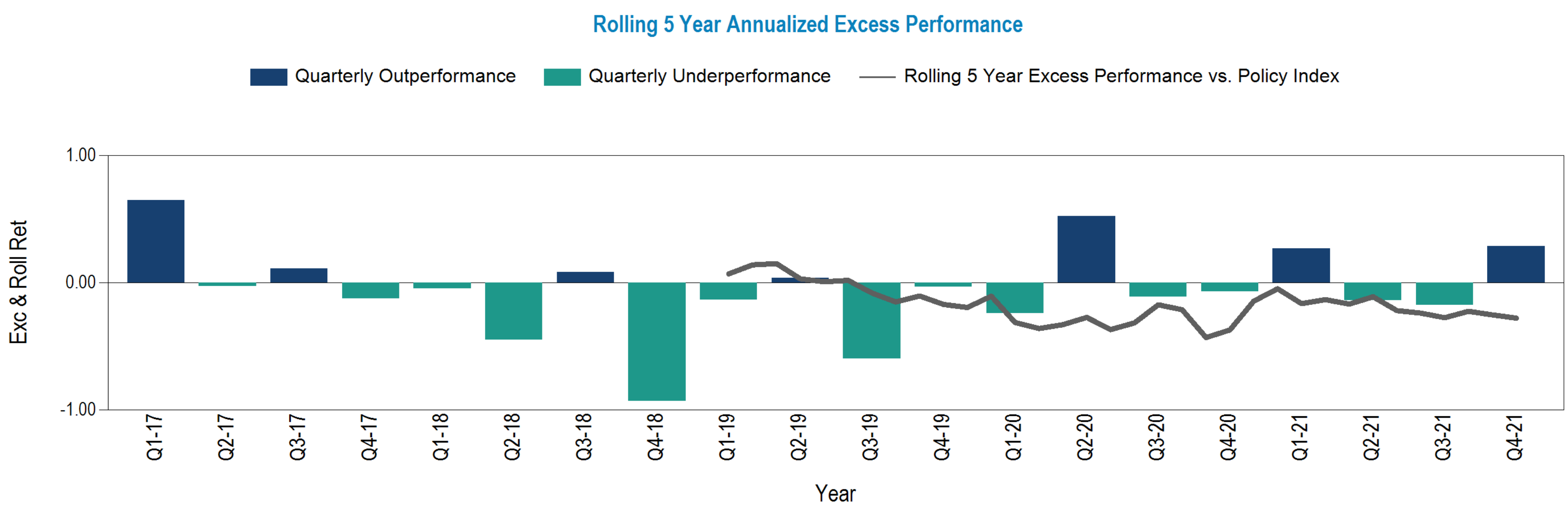
*Calculated from benchmark returns and weightings of each component.

Attribution Summary
Fiscal YTD

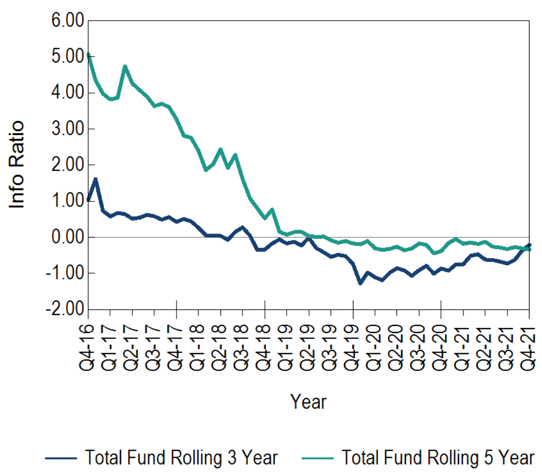
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	5.7%	5.1%	0.6%	0.2%	0.0%	0.0%	0.3%
Core Plus Fixed Income	0.0%	0.1%	0.0%	0.0%	0.3%	0.0%	0.3%
High Yield/ Specialty Credit	1.7%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-3.6%	-1.7%	-1.9%	-0.1%	-0.1%	0.0%	-0.2%
Commodities	4.1%	4.9%	-0.9%	0.0%	0.0%	0.0%	0.0%
Hedge Funds	2.1%	3.0%	-0.9%	-0.1%	0.0%	0.0%	-0.1%
Alpha Pool	1.5%	2.0%	-0.5%	0.0%	0.0%	0.0%	0.0%
Midstream Energy	1.0%	-1.6%	2.6%	0.1%	0.0%	0.0%	0.1%
Core Real Estate	11.5%	15.1%	-3.6%	-0.2%	0.0%	0.0%	-0.2%
Private Real Estate	17.9%	17.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	16.8%	16.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Credit	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Opportunistic	6.1%	5.1%	1.0%	0.0%	0.0%	0.0%	0.1%
Cash	--	--	--	--	--	--	--
Total	**4.2%**	**4.0%**	**0.2%**	**-0.1%**	**0.3%**	**0.0%**	**0.2%**

Weighted returns shown in attribution analysis may differ from actual returns. Negative cash allocation unable to be shown in Attribution Summary table.

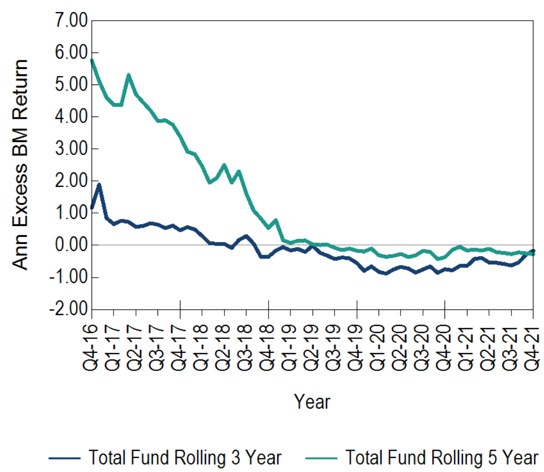

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Policy Index
1.00
0.00
-1.00
Exc & Roll Ret
Q1-17
Q2-17
Q3-17
Q4-17
Q1-18
Q2-18
Q3-18
Q4-18
Q1-19
Q2-19
Q3-19
Q4-19
Q1-20
Q2-20
Q3-20
Q4-20
Q1-21
Q2-21
Q3-21
Q4-21
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Policy Index
1.00
0.00
-1.00
Exc & Roll Ret
Q1-17
Q2-17
Q3-17
Q4-17
Q1-18
Q2-18
Q3-18
Q4-18
Q1-19
Q2-19
Q3-19
Q4-19
Q1-20
Q2-20
Q3-20
Q4-20
Q1-21
Q2-21
Q3-21
Q4-21
Year

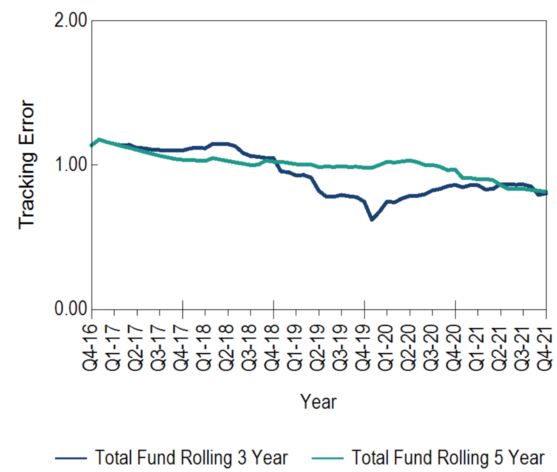
Rolling Information Ratio



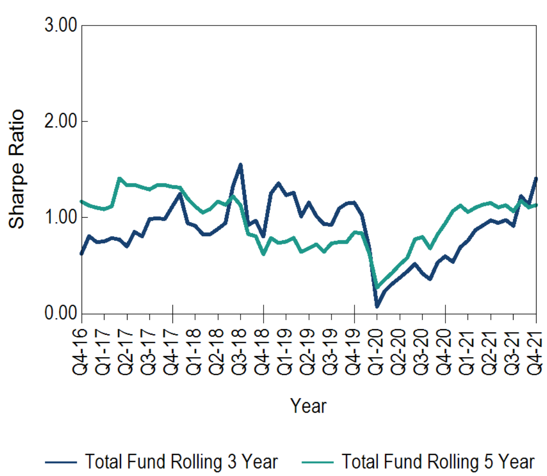
Rolling Annual Excess Benchmark Return



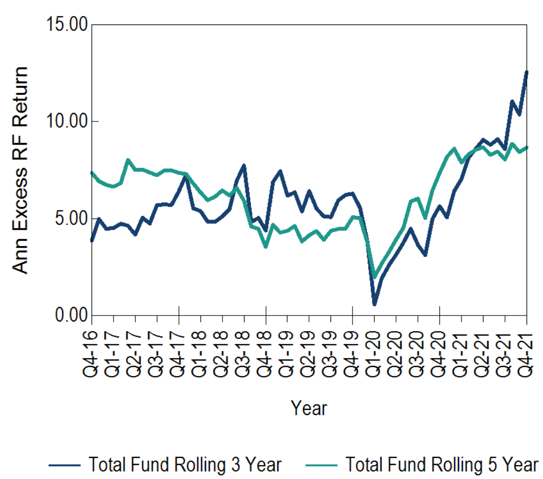
Rolling Tracking Error



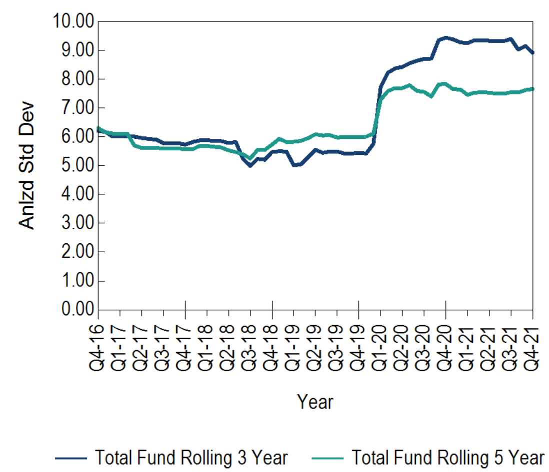
Rolling Sharpe Ratio



Rolling Annual Excess Risk Free Return

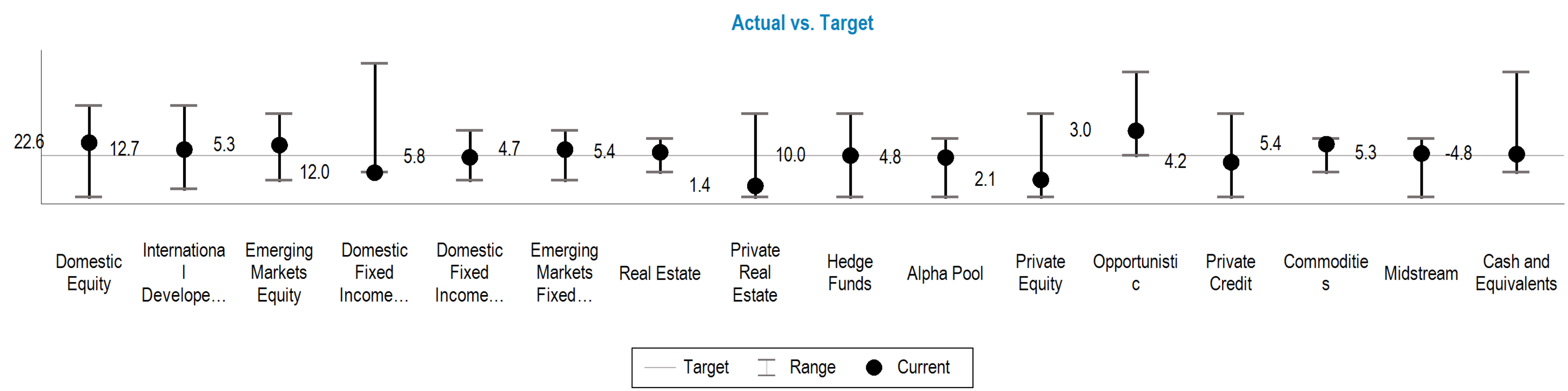


Rolling Annualized Standard Deviation



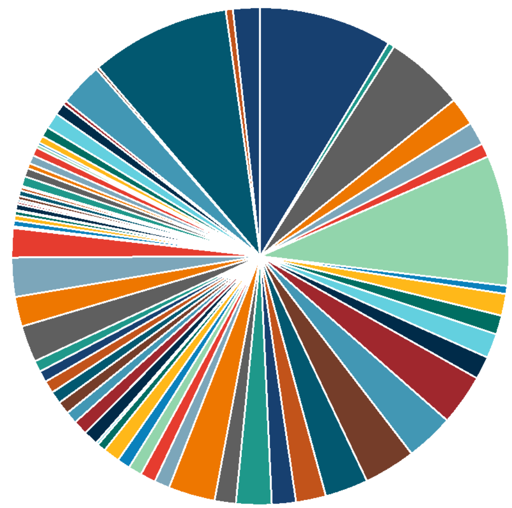
Asset Allocation

	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	$1,254,278,604	22.6%	21.0%	$87,293,129	16.0% - 27.0%	Yes
International Developed Equity	$708,525,372	12.7%	12.0%	$41,676,529	8.0% - 18.0%	Yes
Emerging Markets Equity	$293,552,275	5.3%	4.0%	$71,269,328	1.0% - 9.0%	Yes
Domestic Fixed Income Core Plus	$665,752,674	12.0%	14.0%	-$112,237,643	12.0% - 25.0%	Yes
Domestic Fixed Income High Yield	$323,459,509	5.8%	6.0%	-$9,964,912	3.0% - 9.0%	Yes
Emerging Markets Fixed Income	$263,388,651	4.7%	4.0%	$41,105,704	1.0% - 7.0%	Yes
Real Estate	$301,476,904	5.4%	5.0%	$23,623,220	3.0% - 7.0%	Yes
Private Real Estate	$77,223,017	1.4%	5.0%	-$200,630,668	0.0% - 10.0%	Yes
Hedge Funds	$557,581,161	10.0%	10.0%	$1,873,792	5.0% - 15.0%	Yes
Alpha Pool	$266,445,048	4.8%	5.0%	-$11,408,637	0.0% - 7.0%	Yes
Private Equity	$117,844,408	2.1%	5.0%	-$160,009,277	0.0% - 10.0%	Yes
Opportunistic	$166,466,006	3.0%	0.0%	$166,466,006	0.0% - 10.0%	Yes
Private Credit	$234,880,412	4.2%	5.0%	-$42,973,273	0.0% - 10.0%	Yes
Commodities	$300,071,302	5.4%	4.0%	$77,788,354	2.0% - 6.0%	Yes
Midstream	$293,368,210	5.3%	5.0%	$15,514,525	0.0% - 7.0%	Yes
Cash and Equivalents	-$267,239,863	-4.8%	-5.0%	$10,613,822	-7.0% - 5.0%	Yes
Total	**$5,557,073,691**	**100.0%**	**100.0%**			



Market value does not include residual $366,241 in Fidelity International.

Current Allocation: by Manager



Correlation Matrix
3 Years Ending December 31, 2021

	Total Fund	Equity	Domestic Equity	International Developed Equity	Fixed Income	Core Plus Fixed Income	High Yield/ Specialty Credit	Emerging Market Debt	Commodities	Hedge Funds	Core Real Estate	Private Real Estate	Private Equity	Private Credit	Policy Index
Total Fund	1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Equity	1.00	1.00	--	--	--	--	--	--	--	--	--	--	--	--	--
Domestic Equity	0.99	0.99	1.00	--	--	--	--	--	--	--	--	--	--	--	--
International Developed Equity	0.99	0.99	0.98	1.00	--	--	--	--	--	--	--	--	--	--	--
Fixed Income	0.75	0.73	0.72	0.72	1.00	--	--	--	--	--	--	--	--	--	--
Core Plus Fixed Income	0.23	0.21	0.21	0.19	0.81	1.00	--	--	--	--	--	--	--	--	--
High Yield/ Specialty Credit	0.96	0.96	0.95	0.96	0.81	0.33	1.00	--	--	--	--	--	--	--	--
Emerging Market Debt	0.92	0.91	0.89	0.92	0.92	0.54	0.92	1.00	--	--	--	--	--	--	--
Commodities	0.95	0.93	0.92	0.94	0.60	0.04	0.91	0.82	1.00	--	--	--	--	--	--
Hedge Funds	0.90	0.90	0.88	0.90	0.73	0.27	0.87	0.88	0.83	1.00	--	--	--	--	--
Core Real Estate	-0.21	-0.22	-0.19	-0.20	-0.50	-0.50	-0.29	-0.34	-0.09	-0.38	1.00	--	--	--	--
Private Real Estate	-0.21	-0.19	-0.18	-0.19	-0.57	-0.60	-0.38	-0.38	-0.19	-0.27	0.71	1.00	--	--	--
Private Equity	-0.07	-0.09	-0.12	-0.04	-0.48	-0.70	-0.08	-0.29	0.15	-0.15	0.49	0.33	1.00	--	--
Private Credit	-0.68	-0.73	-0.76	-0.66	-0.51	-0.18	-0.65	-0.59	-0.55	-0.66	0.15	0.09	0.14	1.00	--
Policy Index	1.00	0.99	0.98	0.99	0.76	0.24	0.97	0.93	0.95	0.89	-0.22	-0.23	-0.06	-0.67	1.00

Cash Flows

Total Fund
Net Cash Flow - Three Months Ended

Period Ending: December 31, 2021

Equity

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Equity Beta Exposure	$562,575,475	$0	-$35,865,158	$0	$60,250,658	$586,960,975
Russell 2000 Overlay	$24,759,000	$7,999,352	-$4,964,956	$0	$914,444	$28,707,840
Mellon DB SL Stock Index	$366,460,521	$0	-$55,000,000	-$27,458	$39,340,786	$350,801,307
PIMCO StocksPLUS	$140,882,168	$0	-$28,000,000	-$152,149	$12,146,718	$125,028,886
AB US Small Cap Value Equity	$96,921,866	$0	$0	-$212,493	$5,431,439	$102,353,305
Geneva Capital Small Cap Growth	$56,880,277	$0	$0	-$111,498	$3,545,299	$60,425,575
Mellon DB SL World ex-US Index	$557,571,932	$0	$0	$0	$18,740,518	$576,312,450
Cevian Capital II	$33,755,044	$0	$0	$0	$2,052,278	$35,807,322
Fidelity Non-US Small Cap Equity	$368,510	$0	$0	-$367	-$2,269	$366,241
American Century Non-US Small Cap	$94,869,600	$0	$0	-$77,394	$1,536,000	$96,405,600
DFA Emerging Markets Value I	$83,838,459	$0	$0	-$111,952	$359,774	$84,198,233
AB Emerging Markets Strategic Core Equity	$103,914,311	$0	$0	-$385,123	$4,342,688	$108,256,998
Mellon Emerging Markets Stock Index	$102,432,650	$0	$0	$0	-$1,335,606	$101,097,044
Transition Equity	$676	$0	$0	$0	$40	$717
Total	**$2,225,230,489**	**$7,999,352**	**-$123,830,113**	**-$1,078,433**	**$147,322,765**	**$2,256,722,493**

Fixed Income

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Mellon DB SL Aggregate Bond Index Fund	$180,317,091	$45,000,000	$0	-$16,780	$60,148	$225,377,240
PIMCO Core Plus	$231,285,732	$0	-$20,000,000	-$164,030	$547,931	$211,833,662
Western Asset Core Plus	$238,690,914	$0	-$10,000,000	-$125,500	-$265,202	$228,425,712
Western Asset High Yield Fixed Income	$188,997,933	$0	$0	-$94,458	$1,743,644	$190,741,578
TCW Securitized Opportunities	$132,112,556	$0	$0	-$331,245	$605,376	$132,717,932
Stone Harbor Emerging Markets Debt	$108,178,756	$0	$0	-$158,383	-$1,969,320	$106,209,436
PIMCO EMD	$160,064,084	$0	$0	-$19,593	-$2,884,869	$157,179,215
Transition Fixed Income	$151,254	$0	-$33,748	$0	-$1,446	$116,059
Total	**$1,239,798,321**	**$45,000,000**	**-$30,033,748**	**-$909,989**	**-$2,163,738**	**$1,252,600,835**

Commodities

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Gresham MTAP Commodity	$95,296,585	$0	$0	-$119,601	-$1,493,640	$93,802,946
Wellington Commodities	$199,421,799	$0	$0	-$379,267	$6,846,558	$206,268,356
Total	**$294,718,384**	**$0**	**$0**	**-$498,868**	**$5,352,918**	**$300,071,302**

Hedge Funds

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Aristeia International Limited	$66,436,489	$0	$0	$0	$1,141,154	$67,577,644
Brevan Howard	$67,698,310	$27,973	$0	$0	$383,318	$68,109,600
D.E. Shaw	$56,908,903	$0	$0	$0	$2,761,781	$59,670,684
HBK Fund II	$55,572,116	$0	$0	$0	$1,728,217	$57,300,333
Hudson Bay	$71,799,464	$0	$0	$0	$1,463,134	$73,262,598
Indus Pacific Opportunities	$40,338,968	$0	$0	$0	-$2,872,584	$37,466,384
Magnetar Structured Credit	$10,557,042	$0	$0	$0	$317,601	$10,874,643
Myriad Opportunities Offshore	$17,445,148	$430,928	-$16,331,163	$0	-$369,623	$1,175,290
Pharo Macro Fund LTD	$65,533,137	$0	$0	$0	-$1,823,376	$63,709,761
PIMCO Commodity Alpha	$60,002,012	$0	$0	-$286,905	$4,663,204	$64,665,216
River Birch	$830,168	$0	$0	$0	$8,873	$839,041
Sculptor Enhanced Domestic Partners	$56,097,202	$0	$0	$0	-$3,167,235	$52,929,967
Total	**$569,218,960**	**$458,901**	**-$16,331,163**	**-$286,905**	**$4,234,463**	**$557,581,161**

Alpha Pool

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Hudson Bay	$55,459,395	$118,270	$0	$0	$1,011,885	$56,589,550
Davidson Kempner	$54,479,157	$114,389	$0	$0	-$29,014	$54,564,532
HBK Fund II	$53,442,617	$114,663	$0	$0	$1,547,330	$55,104,610
HBK Opportunities - SPAC Series	$50,487,960	$106,400	$0	$0	-$58,189	$50,536,171
Garda Fixed Income Relative Value Opportunity Fund	$50,000,000	$101,393	$0	$0	-$451,208	$49,650,185
Total	**$263,869,129**	**$555,114**	**$0**	**$0**	**$2,020,805**	**$266,445,048**

Midstream Energy

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Harvest Midstream	$144,247,048	$15,000,000	$0	$0	$2,537,334	$161,784,382
PIMCO Midstream	$129,873,102	$0	$0	-$149,509	$1,710,726	$131,583,828
Total	**$274,120,150**	**$15,000,000**	**$0**	**-$149,509**	**$4,248,060**	**$293,368,210**

Core Real Estate

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
ASB Real Estate	$166,125,474	$0	$0	-$328,179	$6,709,841	$172,835,315
J.P. Morgan Strategic Property	$119,212,945	$0	$0	-$238,925	$9,428,643	$128,641,589
Total	**$285,338,420**	**$0**	**$0**	**-$567,104**	**$16,138,484**	**$301,476,904**

Private Real Estate

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Invesco Real Estate III	$278,732	$0	$0	$0	-$1,563	$277,169
Invesco Real Estate IV	$23,422,694	$0	-$16,114,965	$0	$457,072	$7,764,801
Landmark Real Estate Partners VIII	$19,044,856	$2,993,386	$0	$0	$3,758,241	$25,796,483
Long Wharf Real Estate	$16,608,184	$7,849,355	-$3,964,321	$0	$2,287,280	$22,780,498
Covenant Apartment Fund X	$15,378,573	$3,300,000	-$138,381	$0	$305,124	$18,845,316
Singerman Real Estate Opportunity Fund IV	$0	$1,758,750	$0	$0	$0	$1,758,750
Total	**$74,733,039**	**$15,901,491**	**-$20,217,667**	**$0**	**$6,806,153**	**$77,223,017**

Total Fund
Net Cash Flow - Three Months Ended

Period Ending: December 31, 2021

Private Equity

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Abbott IV	$1,114,514	$0	$0	$0	$41,715	$1,156,229
Abbott V	$5,315,079	$0	-$624,132	$0	-$34,304	$4,656,643
Abbott VI	$27,764,944	$0	-$2,660,803	$0	$1,104,193	$26,208,334
Pantheon Secondary III	$1,326,168	$0	$0	$0	-$238,668	$1,087,500
Pantheon III	$53,934	$0	$0	$0	-$1,111	$52,823
Pantheon V	$436,219	$0	$0	$0	-$6,492	$429,727
Pantheon VI	$982,303	$0	$0	$0	-$121,353	$860,950
Pantheon VII	$12,090,447	$0	-$1,950,000	$0	$466,491	$10,606,938
Vista Equity Partners IV	$9,102,279	$0	$0	$0	$277,344	$9,379,623
LGT Crown	$9,827,603	$5,750,000	$0	$0	$1,052,450	$16,630,053
Brighton Private Equity	$14,669,252	$6,797,615	$0	$0	$3,125,328	$24,592,195
Warren Equity	$6,020,389	$8,181,283	-$508,290	$0	$759,510	$14,452,892
Peak Rock Capital Fund III	$4,477,089	$1,626,059	$0	$0	-$82,607	$6,020,541
Level Equity Growth Partners V	--	$1,688,471	$0	$0	$0	$1,688,471
Level Equity Opportunities Fund 2021	--	$21,489	$0	$0	$0	$21,489
Total	**$93,180,220**	**$24,064,917**	**-$5,743,226**	**$0**	**$6,342,496**	**$117,844,408**

Private Credit

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Colony Distressed Credit IV	$50,998,021	$0	$0	$0	-$7,808,156	$43,189,865
TSSP Adjacent Opportunities Partners	$39,054,581	$527,600	-$868,051	$0	-$625,506	$38,088,624
Brookfield Real Estate Finance Fund V	$25,199,984	$0	-$3,069,630	$0	$445,611	$22,575,965
Magnetar Constellation	$41,901,809	$0	-$3,418,001	$0	-$813,201	$37,670,607
H.I.G. Bayside Loan Opportunity Fund V	$33,295,474	$3,377,267	-$998,284	$0	$1,579,364	$37,253,822
Blue Torch Credit Opportunities	$11,026,050	$2,779,843	-$169,880	$0	$456,251	$14,092,264
Fortress Credit Opportunites	$6,434,771	$4,851,947	-$468,590	$0	$359,916	$11,178,043
Fortress Lending Fund II	$23,234,456	$6,937,851	$0	$0	$658,915	$30,831,222
Total	**$231,145,146**	**$18,474,508**	**-$8,992,436**	**$0**	**-$5,746,806**	**$234,880,412**

Opportunistic

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
DB Investors Fund IV	$39,529,437	$0	$0	$0	$4,363,301	$43,892,738
TAO Contingent	$57,903,485	$10,384,854	$0	$0	$2,474,437	$70,762,776
Aristeia Select Opportunities II	$48,428,765	$0	$0	$0	$3,381,727	$51,810,492
Total	**$145,861,687**	**$10,384,854**	**$0**	**$0**	**$10,219,465**	**$166,466,006**

Cash

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Short Term Cash Account	$1,165,075	$894,685	-$2,059,759	$0	$0	$1
Short Term Investment Funds	$26,174,727	$168,042,972	-$176,848,890	$0	$5,945	$17,374,754
Parametric Cash Overlay	$133,681,691	$170,988,313	-$112,336,883	$0	$20,483	$192,353,604
Goldman Sachs Cash Account	$23,708,558	$130,081,293	-$166,407,922	$0	$0	-$12,618,071
Futures Offset	-$587,334,475	$9,606,705	-$37,941,045	$0	$0	-$615,668,815
Collateral Cash	$30,888,000	$2,260,000	-$1,746,000	$0	$0	$31,402,000
BlackRock Short Duration Fund	$99,950,711	$20,000,000	$0	-$67,415	-$34,046	$119,916,665
Total	**-$271,765,714**	**$501,873,968**	**-$497,340,499**	**-$67,415**	**-$7,618**	**-$267,239,863**

Portfolio Reconciliation

	Quarter-To-Date	Fiscal Year-To-Date	One Year	Three Years	Five Years	Ten Years
Beginning Market Value	$5,425,448,232	$5,373,108,431	$4,897,452,956	$3,956,327,591	$3,817,360,019	$2,538,858,548
Contributions	$639,713,105	$2,009,004,196	$3,552,846,688	$7,846,225,450	$10,305,916,878	$14,720,165,960
Withdrawals	-$702,488,853	-$1,781,747,669	-$3,310,790,314	-$7,801,466,189	-$10,484,330,565	-$14,510,485,636
Fees	-$3,558,223	-$6,987,595	-$14,410,821	-$42,097,528	-$67,171,516	-$114,539,034
Net Cash Flow	-$62,775,747	$227,256,528	$242,056,374	$44,759,261	-$178,413,686	$209,680,325
Net Investment Change	$194,767,448	-$42,925,026	$417,930,602	$1,556,353,081	$1,918,493,599	$2,808,901,059
Ending Market Value	$5,557,439,932	$5,557,439,932	$5,557,439,932	$5,557,439,932	$5,557,439,932	$5,557,439,932
Net Change	$131,991,700	$184,331,501	$659,986,976	$1,601,112,342	$1,740,079,913	$3,018,581,384

Contribution and withdrawals include tranfers 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.

Asset Class Details

	Alpha	Beta	R-Squared	Anlzd Return	Information Ratio	Ann Excess BM Return	Tracking Error	Sharpe Ratio	Ann Excess RF Return	Anlzd Standard Deviation	Sortino Ratio	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund	-0.01%	1.00	0.99	13.51%	-0.21	-0.17%	0.80%	1.41	12.55%	8.91%	1.55	98.87%	99.77%
Equity	-0.02%	1.00	1.00	20.38%	-0.42	-0.39%	0.93%	1.12	19.53%	17.48%	1.39	98.14%	99.62%
Domestic Equity	0.05%	0.99	1.00	26.16%	0.36	0.37%	1.04%	1.41	25.31%	17.96%	1.79	100.04%	98.47%
International Developed Equity	0.05%	1.01	1.00	15.14%	0.82	0.76%	0.92%	0.80	14.29%	17.83%	1.08	103.85%	100.47%
Fixed Income	-0.01%	1.09	0.98	6.06%	0.51	0.43%	0.84%	1.06	5.21%	4.93%	1.23	109.63%	109.36%
Core Plus Fixed Income	0.02%	1.08	0.90	5.46%	0.55	0.67%	1.23%	1.20	4.61%	3.85%	2.44	116.83%	116.55%
High Yield/ Specialty Credit	0.03%	0.82	0.97	7.40%	-0.56	-1.17%	2.10%	0.86	6.55%	7.67%	0.47	77.29%	73.88%
Emerging Market Debt	-0.05%	1.08	0.96	4.14%	-0.12	-0.30%	2.46%	0.28	3.29%	11.70%	0.34	106.16%	108.46%
Commodities	0.20%	0.99	0.91	12.27%	0.52	2.41%	4.66%	0.72	11.42%	15.92%	1.03	106.15%	95.15%
Hedge Funds	0.12%	0.93	0.57	9.85%	0.25	0.85%	3.46%	1.72	9.00%	5.23%	1.58	96.89%	60.96%
Core Real Estate	0.20%	0.48	0.79	6.92%	-0.62	-2.28%	3.68%	1.76	6.08%	3.45%	4.90	50.76%	74.88%

Last Three Years

	Equity	MSCI ACWI IMI GR
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	12.43	12.70
Minimum Return	-14.74	-14.33
Annualized Return	20.38	20.77
Total Return	74.45	76.17
Annualized Excess Return Over Risk Free	19.53	19.93
Annualized Excess Return	-0.39	0.00
RISK SUMMARY STATISTICS		
Beta	1.00	1.00
Upside Deviation	10.07	10.28
Downside Deviation	14.65	14.44
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	17.48	17.52
Alpha	-0.02	0.00
Sharpe Ratio	1.12	1.14
Excess Return Over Market / Risk	-0.02	0.00
Tracking Error	0.93	0.00
Information Ratio	-0.42	--
CORRELATION STATISTICS		
R-Squared	1.00	1.00
Correlation	1.00	1.00

Market Proxy: MSCI ACWI IMI GR
Risk-Free Proxy: 91 Day T-Bills

Last Three Years

	Core Plus Fixed Income	Bloomberg US Aggregate TR
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	2.64	2.59
Minimum Return	-1.93	-1.44
Annualized Return	5.46	4.79
Total Return	17.30	15.07
Annualized Excess Return Over Risk Free	4.61	3.94
Annualized Excess Return	0.67	0.00
RISK SUMMARY STATISTICS		
Beta	1.08	1.00
Upside Deviation	2.54	2.53
Downside Deviation	2.24	1.58
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	3.85	3.40
Alpha	0.02	0.00
Sharpe Ratio	1.20	1.16
Excess Return Over Market / Risk	0.17	0.00
Tracking Error	1.23	0.00
Information Ratio	0.55	--
CORRELATION STATISTICS		
R-Squared	0.90	1.00
Correlation	0.95	1.00

Market Proxy: Bloomberg US Aggregate TR

Last Three Years

	High Yield/ Specialty Credit	ICE BofAML High Yield Master II
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	3.61	4.78
Minimum Return	-10.52	-11.76
Annualized Return	7.40	8.57
Total Return	23.89	27.98
Annualized Excess Return Over Risk Free	6.55	7.72
Annualized Excess Return	-1.17	0.00
RISK SUMMARY STATISTICS		
Beta	0.82	1.00
Upside Deviation	3.76	5.15
Downside Deviation	15.67	15.28
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	7.67	9.27
Alpha	0.03	0.00
Sharpe Ratio	0.86	0.83
Excess Return Over Market / Risk	-0.15	0.00
Tracking Error	2.10	0.00
Information Ratio	-0.56	--
CORRELATION STATISTICS		
R-Squared	0.97	1.00
Correlation	0.99	1.00

Market Proxy: ICE BofAML High Yield Master II
Risk-Free Proxy: 91 Day T-Bills

Last Three Years

	Emerging Market Debt	50 JPM EMBI Global Div/ 50 JPM GBI EM
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	6.74	5.49
Minimum Return	-13.80	-12.61
Annualized Return	4.14	4.44
Total Return	12.94	13.92
Annualized Excess Return Over Risk Free	3.29	3.59
Annualized Excess Return	-0.30	0.00
RISK SUMMARY STATISTICS		
Beta	1.08	1.00
Upside Deviation	6.37	5.95
Downside Deviation	12.35	10.60
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	11.70	10.65
Alpha	-0.05	0.00
Sharpe Ratio	0.28	0.34
Excess Return Over Market / Risk	-0.03	0.00
Tracking Error	2.46	0.00
Information Ratio	-0.12	--
CORRELATION STATISTICS		
R-Squared	0.96	1.00
Correlation	0.98	1.00

Market Proxy: 50 JPM EMBI Global Div/ 50 JPM GBI EM
Risk-Free Proxy: 91 Day T-Bills

91 Day T-Bills used as risk-free proxy

Last Three Years

	Commodities	Bloomberg Commodity Index TR USD
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	8.01	8.29
Minimum Return	-12.65	-12.81
Annualized Return	12.27	9.86
Total Return	41.52	32.61
Annualized Excess Return Over Risk Free	11.42	9.02
Annualized Excess Return	2.41	0.00
RISK SUMMARY STATISTICS		
Beta	0.99	1.00
Upside Deviation	8.56	7.00
Downside Deviation	11.89	12.35
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	15.92	15.45
Alpha	0.20	0.00
Sharpe Ratio	0.72	0.58
Excess Return Over Market / Risk	0.15	0.00
Tracking Error	4.66	0.00
Information Ratio	0.52	--
CORRELATION STATISTICS		
R-Squared	0.91	1.00
Correlation	0.96	1.00

Market Proxy: Bloomberg Commodity Index TR USD

Last Three Years

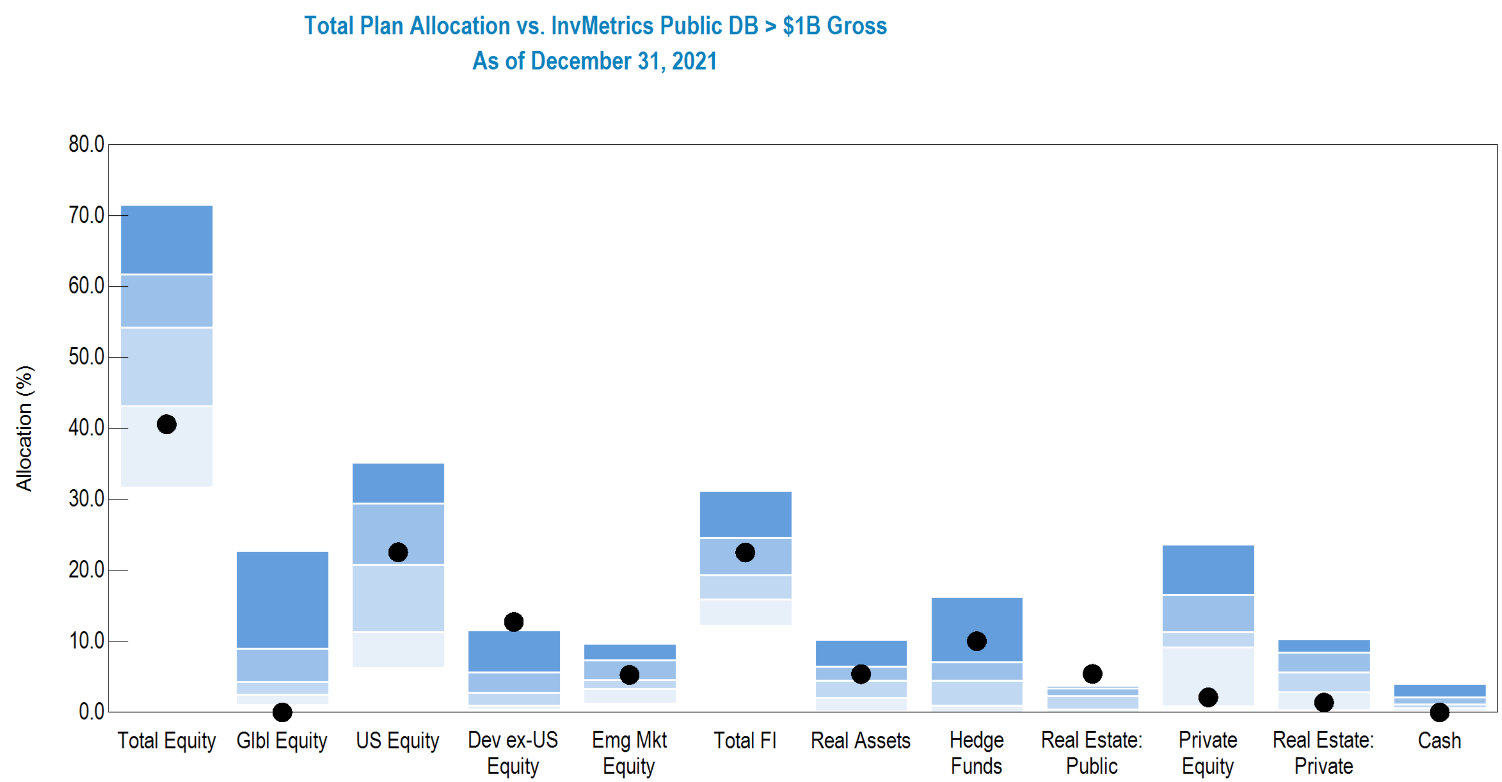
	Hedge Funds	75% 90 Day TBills +4% / 25% MSCI ACWI
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	3.99	3.34
Minimum Return	-5.24	-3.02
Annualized Return	9.85	9.00
Total Return	32.55	29.50
Annualized Excess Return Over Risk Free	9.00	8.15
Annualized Excess Return	0.85	0.00
RISK SUMMARY STATISTICS		
Beta	0.93	1.00
Upside Deviation	3.30	2.61
Downside Deviation	6.25	3.28
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	5.23	4.23
Alpha	0.12	0.00
Sharpe Ratio	1.72	1.93
Excess Return Over Market / Risk	0.16	0.00
Tracking Error	3.46	0.00
Information Ratio	0.25	--
CORRELATION STATISTICS		
R-Squared	0.57	1.00
Correlation	0.75	1.00

Last Three Years

	Core Real Estate	NCREIF-ODCE
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	4.24	7.97
Minimum Return	-1.17	-1.56
Annualized Return	6.92	9.20
Total Return	22.24	30.22
Annualized Excess Return Over Risk Free	6.08	8.35
Annualized Excess Return	-2.28	0.00
RISK SUMMARY STATISTICS		
Beta	0.48	1.00
Upside Deviation	3.42	8.67
Downside Deviation	1.41	--
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	3.45	6.40
Alpha	0.20	0.00
Sharpe Ratio	1.76	1.31
Excess Return Over Market / Risk	-0.66	0.00
Tracking Error	3.68	0.00
Information Ratio	-0.62	--
CORRELATION STATISTICS		
R-Squared	0.79	1.00
Correlation	0.89	1.00

91 Day T-Bills used as risk-free proxy

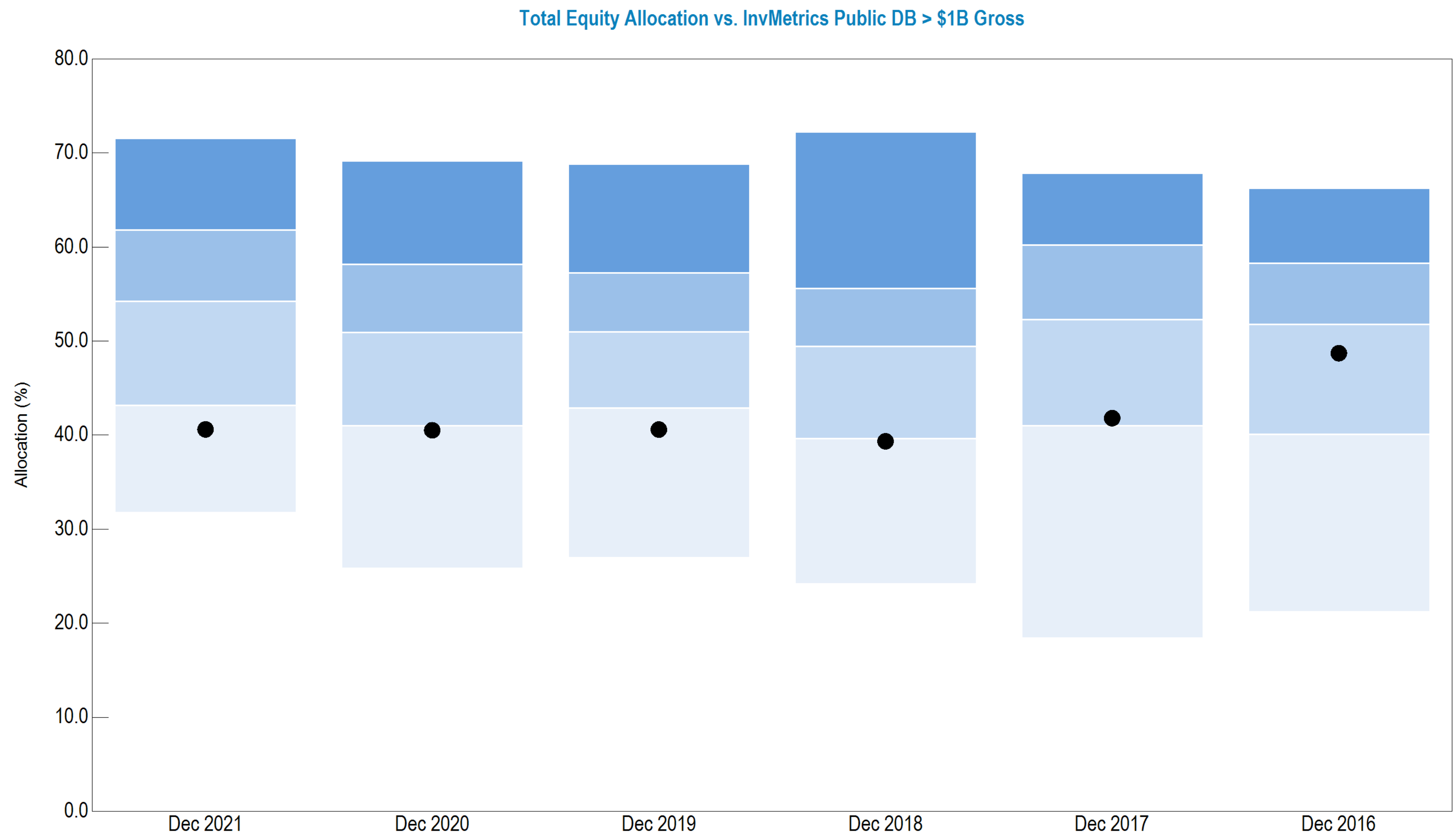
Peer Comparison

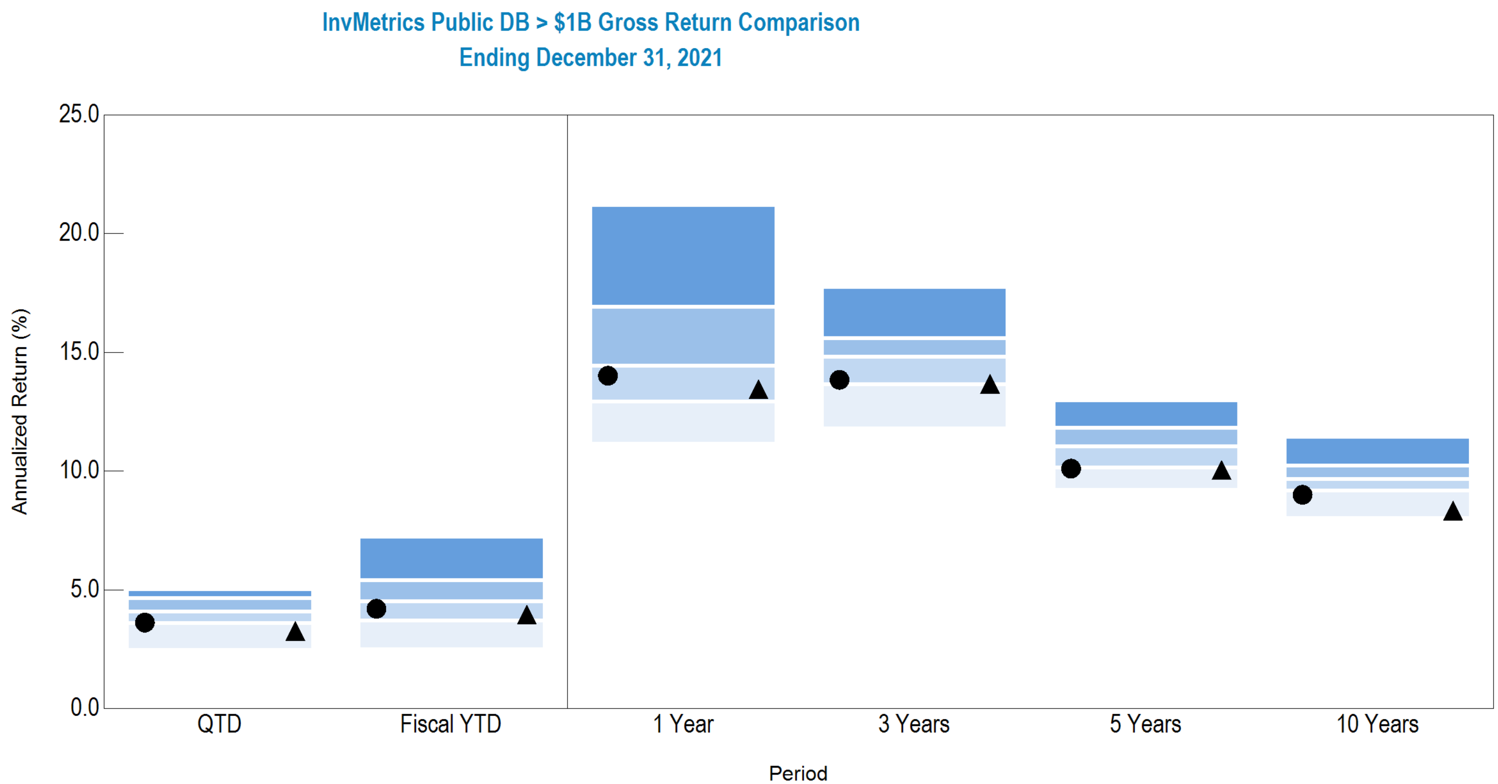


Allocation (Rank)

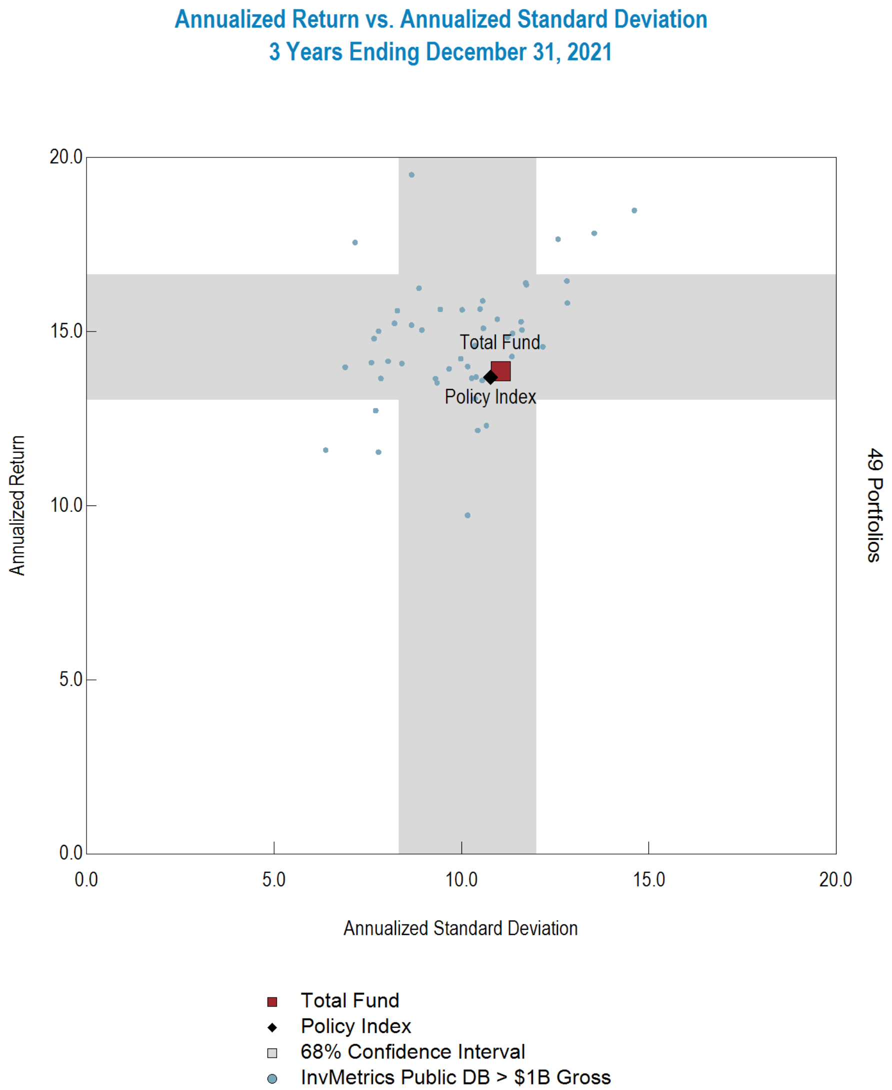
	Total Equity	Glbl Equity	US Equity	Dev ex-US Equity	Emg Mkt Equity	Total FI	Real Assets	Hedge Funds	Real Estate: Public	Private Equity	Real Estate: Private	Cash	
5th Percentile	71.6	22.7	35.2	11.6	9.7	31.2	10.2	16.2	3.8	23.7	10.3	4.0	--
25th Percentile	61.9	9.0	29.5	5.7	7.4	24.7	6.6	7.1	3.5	16.6	8.6	2.3	--
Median	54.3	4.4	20.9	2.9	4.6	19.4	4.5	4.6	2.4	11.4	5.7	1.2	--
75th Percentile	43.2	2.6	11.4	1.0	3.4	16.0	2.1	1.0	0.5	9.2	3.0	0.7	--
95th Percentile	31.8	1.1	6.4	0.5	1.3	12.3	0.2	0.0	0.0	0.9	0.4	0.2	--
# of Portfolios	31	14	23	15	25	31	20	20	9	25	27	31	-- --
● **Total Fund**	40.6 (80)	0.0 (99)	22.6 (48)	12.8 (3)	5.3 (47)	22.5 (36)	5.4 (38)	10.0 (11)	5.4 (1)	2.1 (93)	1.4 (86)	0.0 (99)	--

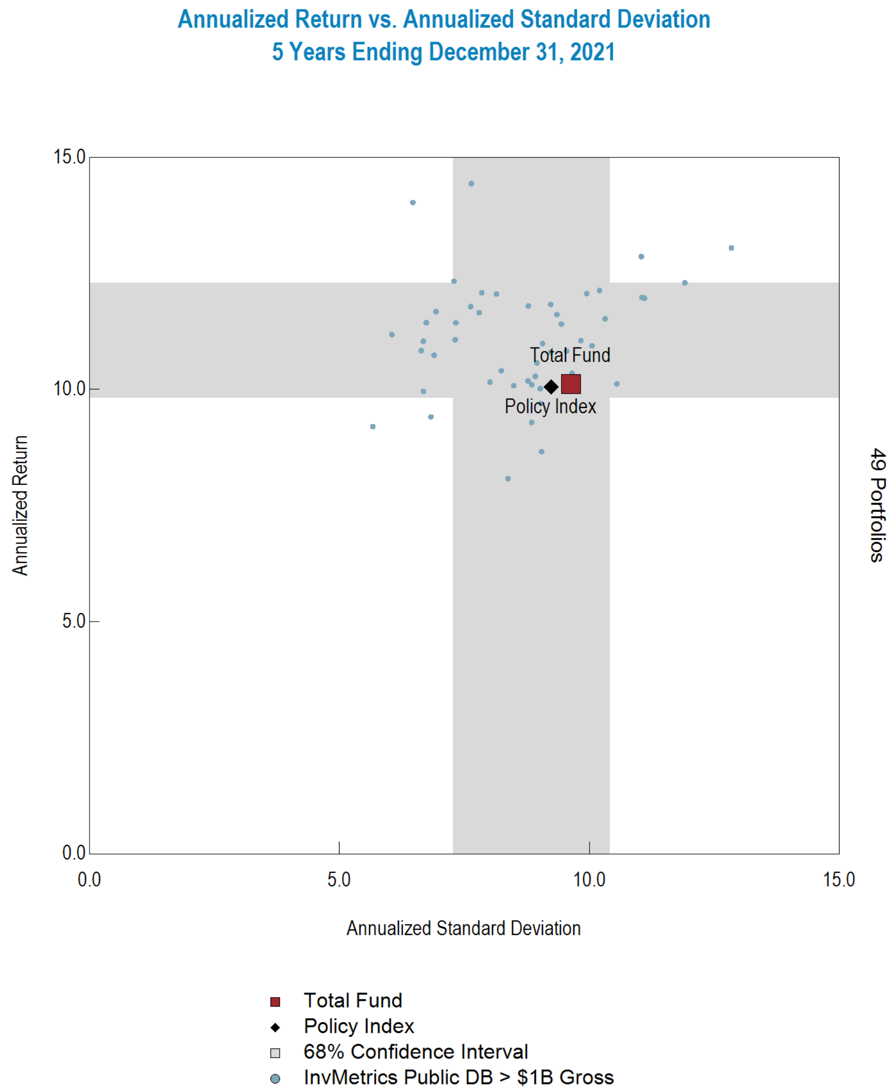
Private Credit allocation of 3.7% not included in the above chart. Opportunistic and midstream allocations not included in chart.


Total Equity Allocation vs. InvMetrics Public DB > $1B Gross
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Allocation (%)
Dec 2021
Dec 2020
Dec 2019
Dec 2018
Dec 2017
Dec 2016



Return (Rank)	QTD		Fiscal YTD		1 Year		3 Years		5 Years		10 Years	
5th Percentile	5.0		7.2		21.2		17.7		13.0		11.4	
25th Percentile	4.7		5.4		16.9		15.6		11.8		10.2	
Median	4.1		4.5		14.5		14.8		11.0		9.7	
75th Percentile	3.6		3.7		12.9		13.7		10.2		9.2	
95th Percentile	2.5		2.5		11.2		11.8		9.2		8.0	
# of Portfolios	50		49		49		49		49		47	
● Total Fund	3.6	(75)	4.2	(62)	14.0	(55)	13.8	(74)	10.1	(81)	9.0	(84)
▲ Policy Index	3.3	(79)	4.0	(69)	13.4	(65)	13.7	(76)	10.1	(85)	8.3	(94)


Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2021
Total Fund
Policy Index
Annualized Return
Annualized Standard Deviation
49 Portfolios
20.0
15.0
10.0
5.0
0.0
0.0
5.0
10.0
15.0
20.0
Total Fund
Policy Index
68% Confidence Interval
InvMetrics Public DB > $1B Gross


Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 2021
Total Fund
Policy Index
Annualized Return
Annualized Standard Deviation
49 Portfolios
15.0
10.0
5.0
0.0
0.0
5.0
10.0
15.0
Total Fund
Policy Index
68% Confidence Interval
InvMetrics Public DB > $1B Gross

Other

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Equity Beta Exposure		$586,960,975		
Russell 2000 Overlay		$28,707,840		
Mellon DB SL Stock Index	0.03% of Assets	$350,801,307	$105,240	0.03%
PIMCO StocksPLUS	0.50% of Assets	$125,028,886	$625,144	0.50%
AB US Small Cap Value Equity	1.00% of First 25.0 Mil, 0.90% of Next 25.0 Mil, 0.75% Thereafter	$102,353,305	$867,650	0.85%
Geneva Capital Small Cap Growth	0.75% of Assets	$60,425,575	$453,192	0.75%
Mellon DB SL World ex-US Index		$576,312,450		
Cevian Capital II	Performance-based 1.50 and 18.00	$35,807,322	$537,110	1.50%
American Century Non-US Small Cap	0.32% of Assets	$96,405,600	$308,498	0.32%
DFA Emerging Markets Value I	0.54% of Assets	$84,198,233	$454,670	0.54%
AB Emerging Markets Strategic Core Equity	1.45% of Assets	$108,256,998	$1,569,726	1.45%
Mellon Emerging Markets Stock Index	0.05% of Assets	$101,097,044	$50,549	0.05%
Mellon DB SL Aggregate Bond Index Fund	0.05% of First 50.0 Mil, 0.04% of Next 50.0 Mil, 0.02% Thereafter	$225,377,240	$70,075	0.03%
PIMCO Core Plus	0.50% of First 25.0 Mil, 0.38% of Next 25.0 Mil, 0.25% Thereafter	$211,833,662	$623,334	0.29%
Western Asset Core Plus	0.30% of First 100.0 Mil, 0.15% Thereafter	$228,425,712	$492,639	0.22%
Western Asset High Yield Fixed Income	0.20% of Assets	$190,741,578	$381,483	0.20%
TCW Securitized Opportunities	1.00% of Assets	$132,717,932	$1,327,179	1.00%
Stone Harbor Emerging Markets Debt	0.60% of First 100.0 Mil, 0.55% Thereafter	$106,209,436	$634,152	0.60%
PIMCO EMD	0.05% of Assets	$157,179,215	$78,590	0.05%
Gresham MTAP Commodity	0.75% of Assets	$93,802,946	$703,522	0.75%
Wellington Commodities	0.75% of Assets	$206,268,356	$1,547,013	0.75%
Aristeia International Limited	Performance-based 1.00 and 20.00	$67,577,644	$675,776	1.00%
Brevan Howard	Performance-based 2.00 and 20.00	$68,109,600	$1,372,708	2.02%
D.E. Shaw	Performance-based 2.50 and 25.00	$59,670,684	$1,491,767	2.50%
HBK Fund II	Performance-based 1.50 and 20.00	$57,300,333	$936,625	1.63%

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Hudson Bay		$73,262,598		
Indus Pacific Opportunities	Performance-based 1.50 and 20.00	$37,466,384	$561,996	1.50%
Magnetar Structured Credit	Performance-based 1.50 and 20.00	$10,874,643	$163,120	1.50%
Myriad Opportunities Offshore	Performance-based 2.00 and 20.00	$1,175,290	$23,506	2.00%
Pharo Macro Fund LTD		$63,709,761		
PIMCO Commodity Alpha	Performance-based 1.70 and 20.00	$64,665,216	$1,170,951	1.81%
River Birch	Performance-based 1.50 and 20.00	$839,041	$13,684	1.63%
Sculptor Enhanced Domestic Partners		$52,929,967		
Hudson Bay		$56,589,550		
Davidson Kempner		$54,564,532		
HBK Fund II		$55,104,610		
HBK Opportunities - SPAC Series		$50,536,171		
Garda Fixed Income Relative Value Opportunity Fund		$49,650,185		
Harvest Midstream		$161,784,382		
PIMCO Midstream	0.69% of Assets	$131,583,828	$907,928	0.69%
ASB Real Estate	1.25% of First 5.0 Mil, 1.00% of Next 10.0 Mil, 0.75% Thereafter	$172,835,315	$1,346,265	0.78%
J.P. Morgan Strategic Property	1.00% of Assets	$128,641,589	$1,286,416	1.00%
Invesco Real Estate III	1.50% of Assets	$277,169	$4,158	1.50%
Invesco Real Estate IV	1.50% of Assets	$7,764,801	$116,472	1.50%
Landmark Real Estate Partners VIII	777,717 Annually	$25,796,483	$777,717	3.01%
Long Wharf Real Estate	1.50% of Assets	$22,780,498	$341,707	1.50%
Covenant Apartment Fund X		$18,845,316		
Singerman Real Estate Opportunity Fund IV	1.50% of Assets	$1,758,750	$26,381	1.50%
Abbott IV	330,000 Annually	$1,156,229	$330,000	28.54%
Abbott V	545,000 Annually	$4,656,643	$545,000	11.70%
Abbott VI	1.00% of First 25.0 Mil, 0.90% Thereafter	$26,208,334	$260,875	1.00%
Pantheon Secondary III	73,114 Quarterly	$1,087,500	$292,456	26.89%
Pantheon III	0 Annually	$52,823	$0	0.00%
Pantheon V	16,345 Quarterly	$429,727	$65,380	15.21%

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Pantheon VI	149,262 Annually	$860,950	$149,262	17.34%
Pantheon VII	303,750 Annually	$10,606,938	$303,750	2.86%
Vista Equity Partners IV		$9,379,623		
LGT Crown		$16,630,053		
Brighton Private Equity		$24,592,195		
Warren Equity		$14,452,892		
Peak Rock Capital Fund III		$6,020,541		
Level Equity Growth Partners V	2.50% of Assets	$1,688,471	$42,212	2.50%
Level Equity Opportunities Fund 2021	1.00% of Assets	$21,489	$215	1.00%
Colony Distressed Credit IV	0.38% of Assets	$43,189,865	$161,962	0.38%
TSSP Adjacent Opportunities Partners	1.35% of Assets	$38,088,624	$514,196	1.35%
Magnetar Constellation	Performance-based 1.50 and 17.50	$37,670,607	$565,059	1.50%
H.I.G. Bayside Loan Opportunity Fund V		$37,253,822		
Blue Torch Credit Opportunities		$14,092,264		
Fortress Credit Opportunites		$11,178,043		
Fortress Lending Fund II		$30,831,222		
DB Investors Fund IV		$43,892,738		
TAO Contingent		$70,762,776		
Aristeia Select Opportunities II		$51,810,492		
Short Term Cash Account		$1		
Short Term Investment Funds		$17,374,754		
Parametric Cash Overlay		$192,353,604		
Goldman Sachs Cash Account		-$12,618,071		
Futures Offset		-$615,668,815		
Collateral Cash		$31,402,000		
BlackRock Short Duration Fund	0.23% of First 100.0 Mil, 0.20% of Next 150.0 Mil, 0.18% Thereafter	$119,916,665	$269,833	0.23%
Total		**$5,534,380,950**	**$25,547,143**	**0.46%**

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Total Fund
Watch List (Gross of Fees)

Period Ending: December 31, 2021

Name	Allocation Group	Status	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6	Rule 7	Rule 8	Rule 9
Equity Beta Exposure	Domestic Equity	No Issues	--	--	--	--	--	--	--	--	✓
Russell 2000 Overlay	Domestic Equity	No Issues	--	--	--	--	--	--	--	--	--
Mellon DB SL Stock Index	Domestic Equity	No Issues	--	--	--	--	--	--	--	--	✓
PIMCO StocksPLUS	Domestic Equity	No Issues	✓	✓	✓	✓	✓	✓	✓	--	--
AB US Small Cap Value Equity	Domestic Equity	No Issues	✓	✓	✓	✓	✓	⚑	✓	--	--
Geneva Capital Small Cap Growth	Domestic Equity	No Issues	✓	✓	✓	⚑	✓	⚑	✓	--	--
Mellon DB SL World ex-US Index	International Developed Equity	No Issues	--	--	--	--	--	--	--	--	⚑
American Century Non-US Small Cap	International Developed Equity	No Issues	✓	✓	✓	--	--	--	--	--	--
DFA Emerging Markets Value I	Emerging Markets Equity	No Issues	✓	✓	✓	⚑	✓	⚑	✓	--	--
AB Emerging Markets Strategic Core Equity	Emerging Markets Equity	No Issues	✓	✓	✓	⚑	⚑	⚑	⚑	⚑	--
Mellon Emerging Markets Stock Index	Emerging Markets Equity	No Issues	--	--	--	--	--	--	--	--	✓
Mellon DB SL Aggregate Bond Index Fund	Domestic Fixed Income Core Plus	No Issues	--	--	--	--	--	--	--	--	✓
PIMCO Core Plus	Domestic Fixed Income Core Plus	No Issues	✓	⚑	✓	⚑	✓	⚑	✓	--	--
Western Asset Core Plus	Domestic Fixed Income Core Plus	No Issues	✓	⚑	⚑	✓	✓	✓	✓	--	--
Western Asset High Yield Fixed Income	Domestic Fixed Income High Yield	No Issues	✓	✓	✓	✓	⚑	✓	⚑	--	--
TCW Securitized Opportunities	Domestic Fixed Income High Yield	No Issues	✓	✓	⚑	✓	⚑	✓	⚑	--	--

Rule 1 - Manager has outperformed the 10th percentile in the appropriate style universe for the one year period.
Rule 2 - Manager has underperformed the 75th percentile in the appropriate style universe for the one year period.
Rule 3 - Manager has underperformed the benchmark index for the one year period.
Rule 4 - Manager has underperformed the 50th percentile in the appropriate style universe for the three year period.
Rule 5 - Manager has underperformed the benchmark index for the three year period.
Rule 6 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.
Rule 7 - Manager has underperformed the benchmark index for the five year period.
Rule 8 - Fund experiences non-performance related issues including personnel turnover, changes in investment philosophy or drift, excessive asset growth, change in ownership and any other reason that raises concern.
Rule 9 - Index Fund Tracking Error exceeds 0.25% of the appropriate benchmark over the one year period.

Name	Allocation Group	Status	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6	Rule 7	Rule 8	Rule 9
Stone Harbor Emerging Markets Debt	Emerging Markets Fixed Income	No Issues	✓	✓	✓	⚐	✓	⚐	✓	⚐	--
PIMCO EMD	Emerging Markets Fixed Income	No Issues	✓	⚐	⚐	--	--	--	--	--	--
Gresham MTAP Commodity	Commodities	Watch	✓	⚐	⚐	⚐	✓	⚐	✓	--	--
Wellington Commodities	Commodities	No Issues	✓	⚐	✓	✓	✓	✓	✓	--	--
Garda Fixed Income Relative Value Opportunity Fund	Alpha Pool	No Issues	--	--	--	--	--	--	--	--	--
Harvest Midstream	Midstream	No Issues	✓	✓	✓	--	--	--	--	--	--
PIMCO Midstream	Midstream	No Issues	--	--	--	--	--	--	--	--	⚐
ASB Real Estate	Real Estate	No Issues	--	--	⚐	--	⚐	--	⚐	--	--

Rule 1 - Manager has outperformed the 10th percentile in the appropriate style universe for the one year period.
Rule 2 - Manager has underperformed the 75th percentile in the appropriate style universe for the one year period.
Rule 3 - Manager has underperformed the benchmark index for the one year period.
Rule 4 - Manager has underperformed the 50th percentile in the appropriate style universe for the three year period.
Rule 5 - Manager has underperformed the benchmark index for the three year period.
Rule 6 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.
Rule 7 - Manager has underperformed the benchmark index for the five year period.
Rule 8 - Fund experiences non-performance related issues including personnel turnover, changes in investment philosophy or drift, excessive asset growth, change in ownership and any other reason that raises concern.
Rule 9 - Index Fund Tracking Error exceeds 0.25% of the appropriate benchmark over the one year period.

	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1
Total Fund	**3.6**	**0.5**	**5.5**	**3.5**	**8.8**	**4.4**	**10.7**	**-11.3**	**4.6**	**0.2**	**3.1**	**6.8**
Policy Index	*3.3*	*0.7*	*5.7*	*3.3*	*8.8*	*4.5*	*10.1*	*-11.1*	*4.6*	*0.8*	*3.0*	*7.0*

	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1
Total Fund	**-6.4**	**2.3**	**0.3**	**-0.1**	**3.0**	**3.2**	**2.7**	**4.2**	**0.8**	**3.5**	**1.9**	**1.0**
Policy Index	*-5.5*	*2.2*	*0.7*	*-0.1*	*3.2*	*3.1*	*2.8*	*3.5*	*0.5*	*2.9*	*2.2*	*1.8*

	2015 Q4	2015 Q3	2015 Q2	2015 Q1	2014 Q4	2014 Q3	2014 Q2	2014 Q1	2013 Q4	2013 Q3	2013 Q2	2013 Q1
Total Fund	**2.2**	**-5.4**	**0.7**	**2.4**	**0.8**	**-1.5**	**3.6**	**2.1**	**4.1**	**4.4**	**-0.6**	**4.4**
Policy Index	*1.4*	*-4.9*	*0.4*	*2.0*	*0.4*	*-1.4*	*3.4*	*2.4*	*3.8*	*4.4*	*-0.5*	*3.4*

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

Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
AB Emerging Markets Strategic Core	11/3/2016	Northern Trust	Long Wharf Real Estate	6/27/2019	Long Wharf
AB US Small Cap Value Equity	7/7/2015	Northern Trust	Magnetar Constellation	11/14/2018	Magnetar
Abbott Capital PE IV	7/13/2001	Abbott Capital	Magnetar Structured Credit	5/1/2014	Magnetar
Abbott Capital PE V	5/25/2005	Abbott Capital	Mellon Aggregate Bond Index Fund	1/14/2011	Mellon
Abbott Capital PE VI	3/31/2008	Abbott Capital	Mellon EB DV Stock Index	10/18/2017	Mellon
American Century Non-US Small Cap	12/15/2020	American Century	Mellon EB DV World ex-US Index	8/1/2018	Mellon
Aristeia International Limited	5/1/2014	Northern Trust	Myriad Opportunities Offshore	5/19/2016	Northern Trust
ASB Real Estate	9/30/2013	ASB	Pantheon Global III		Pantheon
BlackRock Short Duration Fund	9/8/2021	BlackRock	Pantheon USA III		Pantheon
Blue Torch Credit Opportunities	7/24/2020	Blue Torch	Pantheon USA V		Pantheon
Brevan Howard	11/1/2013	Northern Trust	Pantheon USA VI		Pantheon
Brighton Private Equity	3/28/2021	Brighton	Pantheon USA VII		Pantheon
Brookfield Real Estate Finance Fund V	12/18/2017	Northern Trust	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
Colony Distressed Debt 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		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	Singerman Real Estate Opportunity Fund IV	10/27/2021	Singerman
Geneva Capital Small Cap Growth	7/22/2015	Geneva	Sculptor Enhanced Domestic Partners	3/26/2019	Sculptor
Gresham MTAP Commodity	9/3/2013	Gresham	Short Term Cash Account		Northern Trust
Harvest Midstream	9/28/2020	Harvest Midstream	Short Term Investment Funds		Northern Trust
HBK Fund II	11/1/2013	Northern Trust	Stone Harbor Emerging Markets Debt	8/8/2012	Stone Harbor
Henderson Smallcap Growth	7/22/2015	Northern Trust	TAO Contingent	4/16/2020	TPG Sixth Street
H.I.G Bayside Loan Opportunities Fund V	7/24/2019	H.I.G. Capital	TCW Securitized Opportunities	2/3/2016	TCW
Hudson Bay	6/7/2019	Northern Trust	Transition Equity		Northern Trust
Indus Pacific Opportunities	6/30/2014	Northern Trust	Transition Fixed Income		Northern Trust
Invesco Real Estate III	6/30/2013	Invesco	TSSP Adjacent Opportunities Partners	11/17/2017	TPG Sixth Street
Invesco Real Estate IV	12/18/2015	Invesco	Vista Equity Partners	7/24/2020	Vista Equity
J.P. Morgan Strategic Property	7/2/2014	J.P. Morgan	Warren Equity	4/1/2021	Warren
Landmark Real Estate Partners VIII	4/29/2018	Landmark	Wellington Commodities	9/10/2013	Wellington
Level Equity Growth Partners V	11/1/2021	Level Equity	Western Asset Core Plus	5/31/2004	Northern Trust
Level Equity Opportunities Fund 2021	11/1/2021	Level Equity	Western Asset High Yield Fixed income	5/31/2005	Northern Trust
LGT Crown	2/1/2021	LGT			

Policy & Custom Index Composition

Policy Index: 7/1/2021-Present	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
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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