Kern County Employees' Retirement Association

Investment Performance Review

Period Ending: March 31, 2021

Verus

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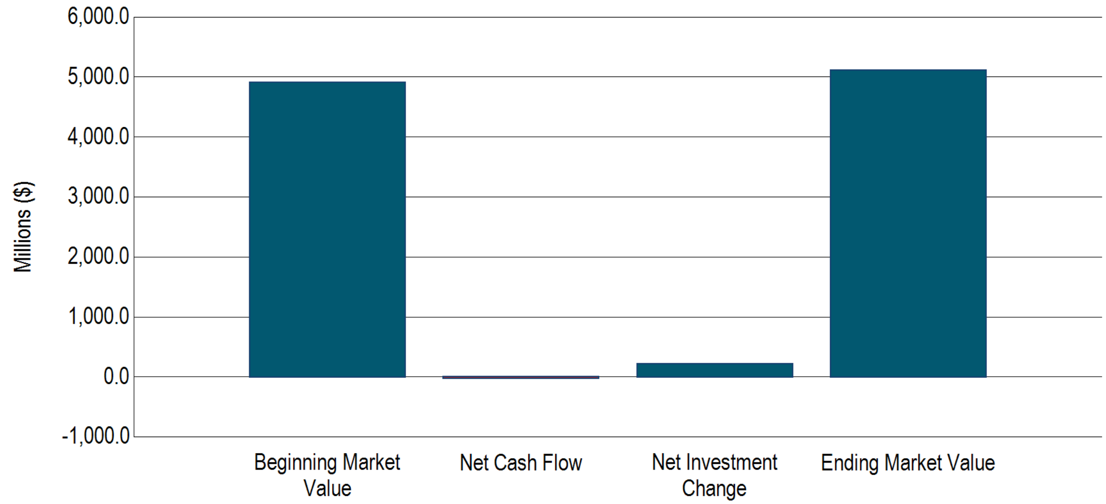
SEATTLE 206-622-3700
LOS ANGELES 310-297-1777
SAN FRANCISCO 415-362-3484
PITTSBURGH 412-784-6678

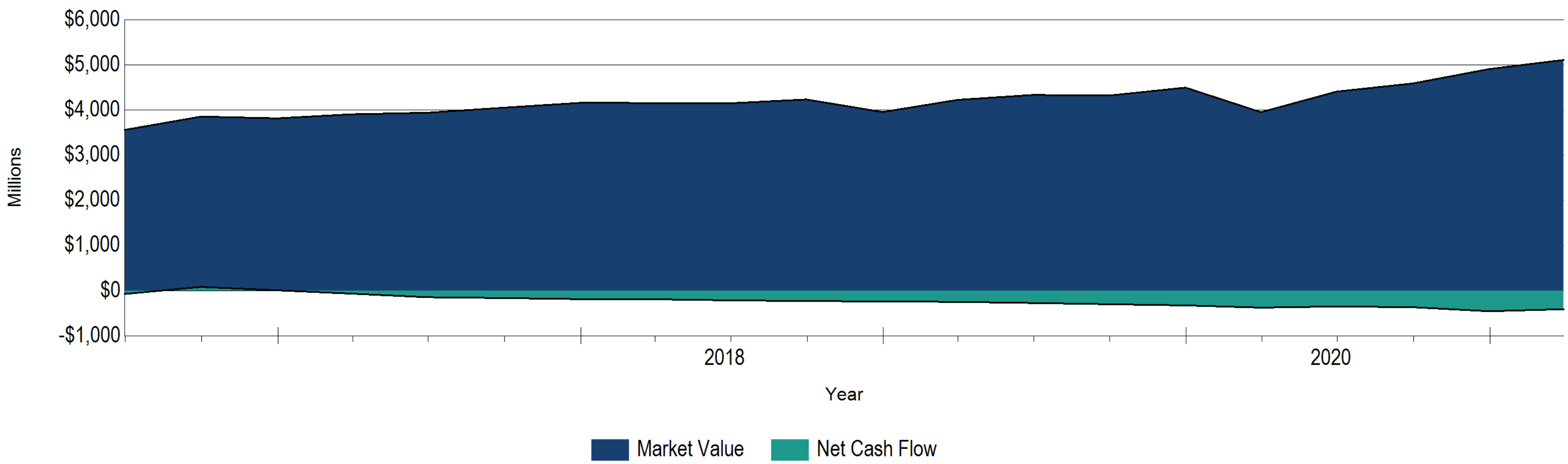
Portfolio Reconciliation

	Last Three Months
Beginning Market Value	$4,908,128,449
Net Cash Flow	-$17,313,234
Net Investment Change	$219,576,851
Ending Market Value	$5,110,392,066

Change in Market Value Last Three Months



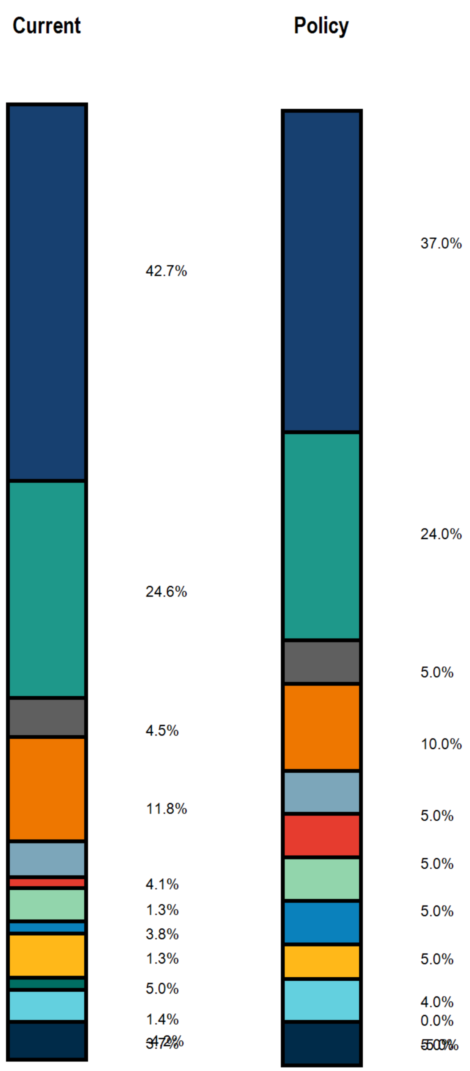
Market Value History



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

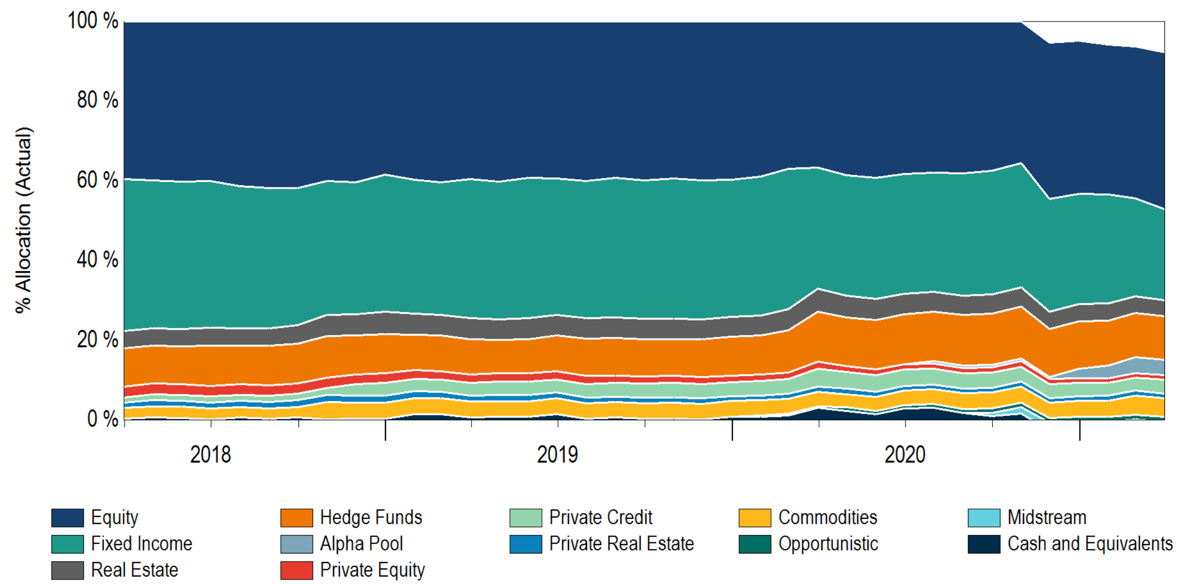
Asset Allocation vs. Policy

Period Ending: March 31, 2021



	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Equity	$2,182,995,386	42.7%	37.0%	$292,295,548	32.0% - 46.0%	Yes
Fixed Income	$1,258,781,429	24.6%	24.0%	$32,381,534	20.0% - 34.0%	Yes
Real Estate	$228,838,470	4.5%	5.0%	-$26,661,508	3.0% - 7.0%	Yes
Hedge Funds	$604,213,203	11.8%	10.0%	$93,213,247	5.0% - 15.0%	Yes
Alpha Pool	$208,222,252	4.1%	5.0%	-$47,277,726	0.0% - 7.0%	Yes
Private Equity	$64,966,530	1.3%	5.0%	-$190,533,448	0.0% - 10.0%	Yes
Private Credit	$194,201,116	3.8%	5.0%	-$61,298,862	0.0% - 10.0%	Yes
Private Real Estate	$67,446,982	1.3%	5.0%	-$188,052,996	0.0% - 10.0%	Yes
Commodities	$257,192,553	5.0%	4.0%	$52,792,571	2.0% - 6.0%	Yes
Opportunistic	$72,590,528	1.4%	0.0%	$72,590,528	0.0% - 10.0%	Yes
Midstream	$186,704,292	3.7%	5.0%	-$68,795,686	0.0% - 7.0%	Yes
Cash and Equivalents	-$216,153,179	-4.2%	-5.0%	$39,346,799	-7.0% - 5.0%	Yes
Total	**$5,109,999,561**	**100.0%**	**100.0%**			

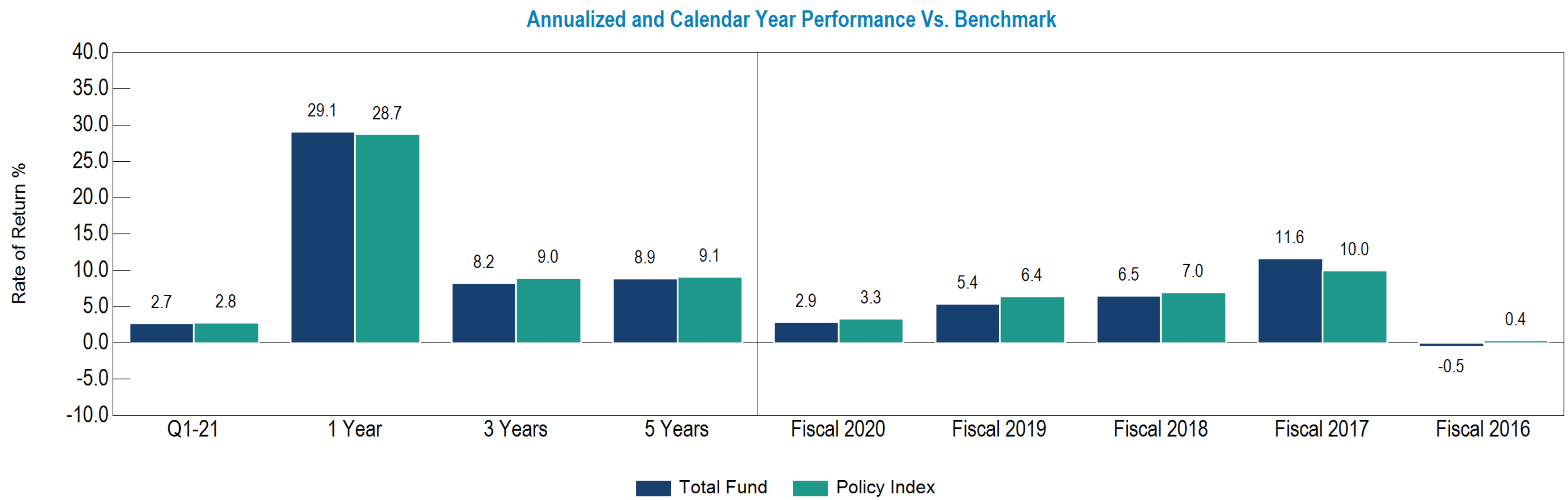
Asset Allocation History

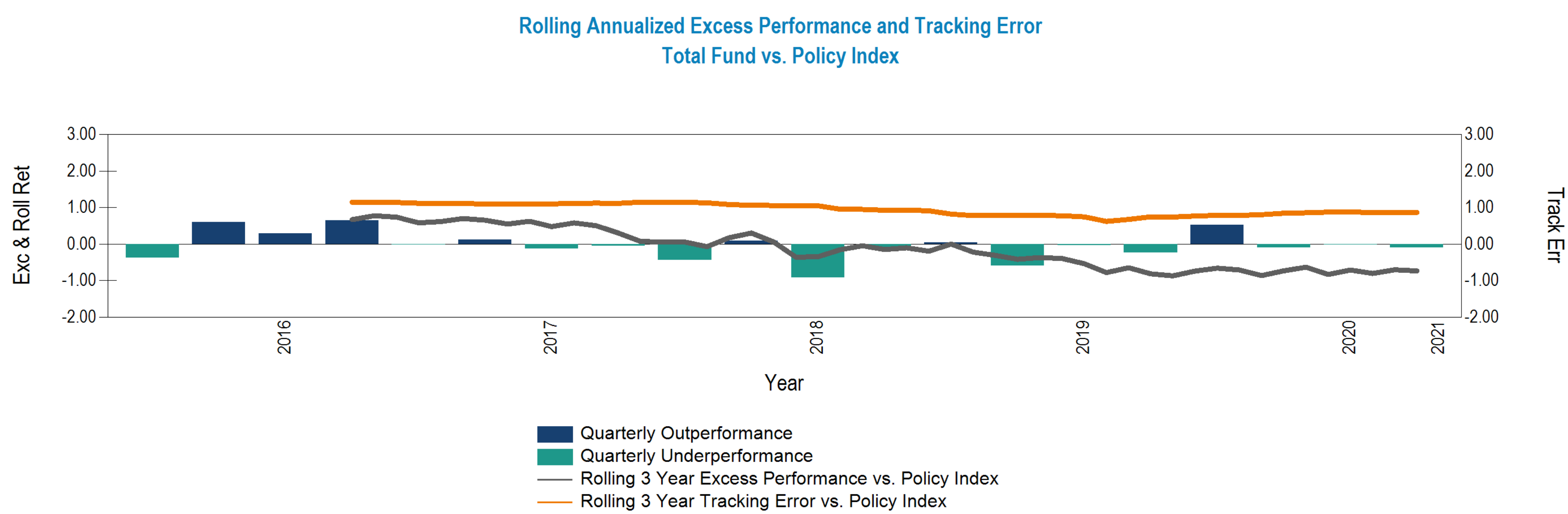


Market value does not include residual $392,504 in Fidelity International.

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016
Total Fund	**5,110,392,066**	**2.7**	**16.8**	**29.4**	**8.5**	**9.3**	**7.6**	**3.2**	**5.7**	**6.8**	**12.1**	**0.2**
Policy Index		*2.8*	*16.9*	*28.7*	*9.0*	*9.1*	*7.0*	*3.3*	*6.4*	*7.0*	*10.0*	*0.4*
InvMetrics Public DB > $1B Gross Rank		*82*	*96*	*80*	*77*	*79*	*82*	*16*	*42*	*96*	*74*	*55*
Equity	**2,183,387,891**	**6.2**	**32.0**	**58.4**	**12.2**	**14.0**	**10.5**	**0.7**	**5.3**	**12.4**	**20.6**	**-2.1**
MSCI ACWI IMI GR		*5.2*	*31.9*	*58.3*	*12.5*	*13.8*	*9.7*	*1.7*	*5.1*	*11.7*	*19.6*	*-3.3*
Domesitc Equity	1,242,035,858	7.4	32.9	61.5	17.1	17.1	--	6.3	9.2	16.1	19.4	4.0
Russell 3000		*6.3*	*33.2*	*62.5*	*17.1*	*16.6*	--	*6.5*	*9.0*	*14.8*	*18.5*	*2.1*
International Developed Equity	640,573,282	4.8	29.1	51.2	6.4	9.9	--	-5.5	-0.6	9.1	23.1	-9.8
MSCI World ex USA GR		*4.2*	*26.8*	*46.5*	*6.9*	*9.5*	--	*-5.0*	*1.8*	*7.6*	*20.1*	*-9.4*
Emerging Markets Equity	300,778,222	4.5	34.6	57.0	3.1	9.4	--	-10.9	0.4	4.0	20.4	-5.3
MSCI Emerging Markets		*2.3*	*34.1*	*58.4*	*6.5*	*12.1*	--	*-3.4*	*1.2*	*8.2*	*23.7*	*-12.1*
Fixed Income	**1,258,781,429**	**-3.1**	**2.4**	**9.4**	**5.3**	**5.0**	**4.3**	**6.6**	**7.9**	**0.2**	**4.6**	**4.2**
Fixed Income Custom Benchmark		*-2.7*	*1.7*	*6.9*	*4.7*	*4.3*	*4.1*	*5.2*	*8.4*	*0.0*	*3.2*	*5.1*
Core Plus Fixed Income	686,542,205	-4.0	-1.4	3.5	5.2	3.9	--	9.5	8.0	0.0	1.4	5.7
BBgBarc US Aggregate TR		*-3.4*	*-2.1*	*0.7*	*4.7*	*3.1*	--	*8.7*	*7.9*	*-0.4*	*-0.3*	*6.0*
High Yield/ Specialty Credit	309,818,166	0.9	10.6	19.5	6.4	7.2	--	0.0	7.5	3.3	10.4	-2.7
ICE BofAML High Yield Master II		*0.9*	*12.5*	*23.3*	*6.5*	*7.9*	--	*-1.1*	*7.6*	*2.5*	*12.8*	*1.7*
Emerging Market Debt	262,262,747	-5.6	4.9	18.5	0.9	4.4	--	-1.2	8.5	-3.6	9.6	2.9
50 JPM EMBI Global Div/ 50 JPM GBI EM		*-4.5*	*4.3*	*14.3*	*1.5*	*4.2*	--	*-3.0*	*11.2*	*-1.8*	*6.5*	*5.5*
Commodities	**257,192,553**	**7.5**	**28.3**	**42.6**	**2.9**	**5.5**	**--**	**-10.7**	**-6.2**	**13.7**	**-3.1**	**-14.8**
Bloomberg Commodity Index TR USD		*6.9*	*28.5*	*35.0*	*-0.2*	*2.3*	--	*-17.4*	*-6.8*	*7.3*	*-6.5*	*-13.3*
Hedge Funds	**604,213,203**	**2.7**	**13.9**	**24.2**	**8.2**	**8.1**	**6.4**	**7.3**	**2.6**	**7.6**	**8.0**	**-3.1**
75% 90 Day TBills +4% / 25% MSCI ACWI		*1.9*	*9.5*	*15.4*	*7.5*	*7.5*	*6.1*	*5.1*	*6.6*	*7.0*	*8.1*	*2.5*
Alpha Pool	**208,222,252**	**3.7**	**12.6**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
91-Day TBills +4%		*1.0*	*3.0*	--	--	--	--	--	--	--	--	--
Midstream Energy	**186,704,292**	**15.2**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Alerian Midstream Index		*20.9*	--	--	--	--	--	--	--	--	--	--
Core Real Estate	**228,838,470**	**2.1**	**3.7**	**2.4**	**4.7**	**5.5**	**--**	**2.3**	**6.1**	**7.4**	**6.0**	**12.8**
NCREIF-ODCE		*2.1*	*3.9*	*2.3*	*4.9*	*6.2*	--	*2.2*	*6.4*	*8.4*	*7.9*	*11.8*

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016
Private Real Estate	67,446,982	5.5	9.0	7.5	7.4	7.4	11.1	4.4	9.0	5.4	6.4	16.7
Private Equity	64,966,530	1.7	24.0	10.0	7.9	8.6	9.9	-10.5	10.9	7.8	14.8	4.5
Private Credit	194,201,116	-0.7	-2.2	-3.8	5.1	6.9	--	5.9	9.7	9.3	10.2	--
Opportunistic	72,590,528	17.8	30.9	44.4	--	--	--	--	--	--	--	--
Assumed Rate of Return +3%		*2.5*	*7.7*	*10.4*	--	--	--	--	--	--	--	--
Cash	-216,153,179											


Annualized and Calendar Year Performance Vs. Benchmark
Rate of Return %
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
2.7
2.8
29.1
28.7
8.2
9.0
8.9
9.1
2.9
3.3
5.4
6.4
6.5
7.0
11.6
10.0
-0.5
0.4
Q1-21
1 Year
3 Years
5 Years
Fiscal 2020
Fiscal 2019
Fiscal 2018
Fiscal 2017
Fiscal 2016
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
2016
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: March 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Inception	Inception Date
Total Fund	**5,120,429,884**	**100.0**	**3.5**	**17.6**	**30.1**	**8.5**	**9.1**	**7.3**	**2.9**	**5.4**	**6.5**	**11.6**	**-0.5**	**7.3**	**Jun-11**
Policy Index			*3.0*	*17.2*	*29.1*	*9.1*	*9.2*	*7.0*	*3.3*	*6.4*	*7.0*	*10.0*	*0.4*	*7.1*	*Jun-11*
Equity	**2,183,387,891**	**42.6**	**6.1**	**31.7**	**57.9**	**11.7**	**13.5**	**10.1**	**0.3**	**4.8**	**11.8**	**20.1**	**-2.5**		
MSCI ACWI IMI GR			*5.2*	*31.9*	*58.3*	*12.5*	*13.8*	*9.7*	*1.7*	*5.1*	*11.7*	*19.6*	*-3.3*		
Domestic Equity	**1,242,035,858**	**24.3**	**7.3**	**32.7**	**61.1**	**16.7**	**16.7**	**--**	**6.0**	**8.8**	**15.5**	**18.9**	**3.6**		
Russell 3000			*6.3*	*33.2*	*62.5*	*17.1*	*16.6*	*--*	*6.5*	*9.0*	*14.8*	*18.5*	*2.1*		
Equity Beta Exposure	454,862,410	8.9	6.1	--	--	--	--	--	--	--	--	--	--	22.5	Jul-20
S&P 500			*6.2*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*22.8*	*Jul-20*
Mellon DB SL Stock Index	363,773,440	7.1	6.2	29.7	56.3	16.8	--	--	7.5	10.4	--	--	--	15.7	Oct-17
S&P 500			*6.2*	*29.7*	*56.4*	*16.8*	*--*	*--*	*7.5*	*10.4*	*--*	*--*	*--*	*15.7*	*Oct-17*
Mellon NSL Dynamic US Equity	106,003,446	2.1	5.0	26.5	51.0	17.5	17.6	--	10.9	12.1	16.1	18.0	9.8	14.9	Sep-14
S&P 500			*6.2*	*29.7*	*56.4*	*16.8*	*16.3*	*--*	*7.5*	*10.4*	*14.4*	*17.9*	*4.0*	*13.2*	*Sep-14*
PIMCO StocksPLUS	128,949,306	2.5	6.0	30.4	60.2	17.1	16.8	14.6	7.7	10.6	14.1	19.1	2.7	11.3	Jul-03
S&P 500			*6.2*	*29.7*	*56.4*	*16.8*	*16.3*	*13.9*	*7.5*	*10.4*	*14.4*	*17.9*	*4.0*	*10.4*	*Jul-03*
AB US Small Cap Value Equity	108,083,253	2.1	25.4	72.2	108.7	11.1	12.7	--	-19.4	-6.9	13.2	23.9	--	10.8	Jul-15
Russell 2000 Value			*21.2*	*65.7*	*97.1*	*11.6*	*13.6*	*--*	*-17.5*	*-6.2*	*13.1*	*24.9*	*--*	*10.5*	*Jul-15*
Geneva Capital Small Cap Growth	80,364,002	1.6	3.1	31.2	70.3	18.2	19.2	--	9.3	8.6	22.7	21.2	--	15.4	Jul-15
Russell 2000 Growth			*4.9*	*45.7*	*90.2*	*17.2*	*18.6*	*--*	*3.5*	*-0.5*	*21.9*	*24.4*	*--*	*12.9*	*Jul-15*
International Developed Equity	**640,573,282**	**12.5**	**4.7**	**28.9**	**50.8**	**6.1**	**9.5**	**--**	**-5.7**	**-0.9**	**8.7**	**22.6**	**-10.2**		
MSCI World ex USA IMI GR			*4.3*	*28.1*	*49.1*	*6.9*	*9.7*	*--*	*-4.7*	*0.7*	*8.3*	*20.3*	*-8.5*		
Mellon DB SL World ex-US Index	270,777,959	5.3	4.9	27.4	48.4	--	--	--	-5.5	--	--	--	--	7.3	Jul-18
MSCI World ex USA IMI GR			*4.3*	*28.1*	*49.1*	*--*	*--*	*--*	*-4.7*	*--*	*--*	*--*	*--*	*7.8*	*Jul-18*
BlackRock International Alpha Tilts	249,883,967	4.9	4.1	26.3	46.3	5.3	9.2	6.4	-6.8	0.4	7.9	24.4	-10.3	7.4	Sep-03
MSCI EAFE Gross			*3.6*	*26.1*	*45.2*	*6.5*	*9.4*	*6.0*	*-4.7*	*1.6*	*7.4*	*20.8*	*-9.7*	*7.3*	*Sep-03*
Cevian Capital II	33,298,052	0.7	14.9	44.7	73.4	9.9	10.9	--	-8.2	-5.0	2.9	32.9	-12.3	7.6	Dec-14
MSCI Europe			*4.1*	*25.8*	*44.9*	*5.6*	*8.2*	*--*	*-6.8*	*1.9*	*5.3*	*21.1*	*-11.2*	*5.6*	*Dec-14*
American Century Non-US Small Cap	86,220,800	1.7	2.4	--	--	--	--	--	--	--	--	--	--	7.8	Dec-20
MSCI World ex US Small Cap Growth			*2.0*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*9.0*	*Dec-20*

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Inception	Inception Date
Emerging Markets Equity	**300,778,222**	**5.9**	**4.3**	**33.8**	**55.7**	**2.1**	**8.3**	**--**	**-11.8**	**-0.6**	**2.9**	**19.3**	**-6.0**		
MSCI EM IMI GR			*2.9*	*35.8*	*61.6*	*6.7*	*12.2*	*--*	*-3.6*	*0.9*	*8.3*	*23.2*	*-11.8*		
DFA Emerging Markets Value I	80,991,640	1.6	8.1	37.8	63.1	1.6	9.6	--	-17.7	2.0	5.7	27.6	-11.7	4.9	Mar-14
MSCI Emerging Markets Value GR			*4.2*	*34.5*	*53.3*	*3.1*	*9.0*	*--*	*-15.3*	*5.6*	*4.8*	*22.1*	*-14.0*	*4.5*	*Mar-14*
AB Emerging Markets Strategic Core Equity	113,840,454	2.2	3.2	31.7	51.0	3.3	--	--	-5.1	-2.6	1.2	--	--	9.1	Nov-16
MSCI Emerging Markets Gross			*2.3*	*34.5*	*58.9*	*6.9*	*--*	*--*	*-3.0*	*1.6*	*8.6*	*--*	*--*	*13.2*	*Nov-16*
Mellon Emerging Markets Stock Index	105,946,128	2.1	2.3	34.2	--	--	--	--	--	--	--	--	--	33.8	Jun-20
MSCI Emerging Markets Gross			*2.3*	*34.5*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*44.4*	*Jun-20*
Fixed Income	**1,258,781,429**	**24.6**	**-2.9**	**2.4**	**9.3**	**5.1**	**4.8**	**4.0**	**6.3**	**7.6**	**-0.1**	**4.3**	**3.9**		
Fixed Income Custom Benchmark			*-2.7*	*1.7*	*6.9*	*4.7*	*4.3*	*4.1*	*5.2*	*8.4*	*0.0*	*3.2*	*5.1*		
Core Plus Fixed Income	**686,542,205**	**13.4**	**-3.7**	**-1.2**	**3.7**	**5.1**	**3.9**	**--**	**9.3**	**7.9**	**-0.2**	**1.3**	**5.6**		
BBgBarc US Aggregate TR			*-3.4*	*-2.1*	*0.7*	*4.7*	*3.1*	*--*	*8.7*	*7.9*	*-0.4*	*-0.3*	*6.0*		
Fixed Income Overlay	52,146,305	1.0	-5.2	--	--	--	--	--	--	--	--	--	--	-6.3	Aug-20
BBgBarc US Treasury 7-10 Yr TR			*-5.7*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*-7.5*	*Aug-20*
Mellon DB SL Aggregate Bond Index Fund	176,969,635	3.5	-3.4	-2.2	0.7	4.6	3.1	3.4	8.8	7.9	-0.4	-0.3	5.9	3.4	Jan-11
BBgBarc US Aggregate TR			*-3.4*	*-2.1*	*0.7*	*4.7*	*3.1*	*3.4*	*8.7*	*7.9*	*-0.4*	*-0.3*	*6.0*	*3.4*	*Jan-11*
PIMCO Core Plus	225,566,506	4.4	-3.3	-1.1	2.8	4.6	3.7	3.6	8.7	6.3	1.0	1.4	4.2	3.6	Jan-11
BBgBarc US Aggregate TR			*-3.4*	*-2.1*	*0.7*	*4.7*	*3.1*	*3.4*	*8.7*	*7.9*	*-0.4*	*-0.3*	*6.0*	*3.4*	*Jan-11*
Western Asset Core Plus	231,859,759	4.5	-3.9	0.4	8.2	5.8	4.9	4.6	9.3	9.4	-0.4	3.0	6.3	5.1	May-04
BBgBarc US Aggregate TR			*-3.4*	*-2.1*	*0.7*	*4.7*	*3.1*	*3.4*	*8.7*	*7.9*	*-0.4*	*-0.3*	*6.0*	*4.2*	*May-04*
High Yield/ Specialty Credit	**309,818,166**	**6.1**	**0.9**	**10.2**	**19.0**	**5.8**	**6.7**	**--**	**-0.5**	**7.0**	**2.8**	**9.9**	**-3.0**		
ICE BofAML High Yield Master II			*0.9*	*12.5*	*23.3*	*6.5*	*7.9*	*--*	*-1.1*	*7.6*	*2.5*	*12.8*	*1.7*		
Western Asset High Yield Fixed Income	181,447,938	3.5	1.1	13.0	23.5	6.6	7.7	6.3	-2.2	8.3	2.2	11.7	0.2	7.0	May-05
50% BBgBarc US HY Ba 2%/50% BBgBarc US HY B 2% CAP			*0.3*	*10.5*	*22.0*	*7.3*	*7.6*	*6.5*	*2.1*	*8.8*	*1.8*	*10.9*	*1.9*	*7.0*	*May-05*
TCW Securitized Opportunities	128,370,228	2.5	0.5	4.5	10.3	4.2	4.7	--	2.2	5.2	4.3	6.3	--	4.5	Feb-16
BBgBarc US HY 2% Issuer Cap			*0.9*	*12.3*	*23.6*	*6.8*	*8.0*	*--*	*0.0*	*7.5*	*2.6*	*12.7*	*--*	*8.8*	*Feb-16*

Executive Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Inception	Inception Date
Emerging Market Debt	**262,262,747**	**5.1**	**-5.6**	**4.7**	**18.2**	**0.5**	**3.9**	**--**	**-1.7**	**7.9**	**-4.2**	**8.9**	**2.3**		
50 JPM EMBI Global Div/ 50 JPM GBI EM			*-4.5*	*4.3*	*14.3*	*1.5*	*4.2*	--	*-3.0*	*11.2*	*-1.8*	*6.5*	*5.5*		
Stone Harbor Emerging Markets Debt	105,536,996	2.1	-5.5	5.1	20.7	0.4	3.6	--	-1.8	8.2	-3.1	6.3	4.6	1.1	Aug-12
50 JPM GBI-EM Global Div/ 40 JPM EMBI Global Div/ 10 JPM Corporate EM Bond Idx			*-5.2*	*3.5*	*14.8*	*1.9*	*4.2*	--	*-0.8*	*10.6*	*-1.7*	*6.3*	*5.5*	*2.4*	*Aug-12*
PIMCO EMD	156,725,751	3.1	-5.7	4.3	16.2	--	--	--	--	--	--	--	--	-0.1	Jan-20
50 JPM EMBI Global Div/ 50 JPM GBI EM			*-4.5*	*4.3*	*14.3*	--	--	--	--	--	--	--	--	*-2.2*	*Jan-20*
Commodities	**257,192,553**	**5.0**	**7.5**	**28.1**	**42.4**	**2.8**	**5.3**	**--**	**-10.9**	**-6.3**	**13.7**	**-3.5**	**-15.3**		
Bloomberg Commodity Index TR USD			*6.9*	*28.5*	*35.0*	*-0.2*	*2.3*	--	*-17.4*	*-6.8*	*7.3*	*-6.5*	*-13.3*		
Gresham MTAP Commodity	80,641,207	1.6	7.6	29.8	41.0	0.2	3.5	--	-16.3	-9.0	12.4	-3.8	-15.7	-4.1	Sep-13
Bloomberg Commodity Index TR USD			*6.9*	*28.5*	*35.0*	*-0.2*	*2.3*	--	*-17.4*	*-6.8*	*7.3*	*-6.5*	*-13.3*	*-4.7*	*Sep-13*
Wellington Commodities	176,551,346	3.4	7.4	26.9	43.3	4.6	6.9	--	-6.8	-4.6	15.0	-3.0	-13.7	-1.8	Sep-13
Bloomberg Commodity Index TR USD			*6.9*	*28.5*	*35.0*	*-0.2*	*2.3*	--	*-17.4*	*-6.8*	*7.3*	*-6.5*	*-13.3*	*-4.7*	*Sep-13*
Hedge Funds	**595,977,110**	**11.6**	**2.6**	**13.8**	**24.0**	**8.0**	**7.7**	**5.6**	**7.0**	**2.5**	**7.6**	**7.1**	**-4.7**		
75% 90 Day TBills +4% / 25% MSCI ACWI			*1.9*	*9.5*	*15.4*	*7.5*	*7.5*	*6.1*	*5.1*	*6.6*	*7.0*	*8.1*	*2.5*		
Aristeia International Limited	64,985,475	1.3	4.1	19.7	31.6	12.6	11.8	--	8.7	9.2	2.6	13.1	-1.7	5.8	May-14
Brevan Howard	68,031,574	1.3	2.2	7.5	6.0	16.2	9.1	--	20.5	12.7	7.8	1.0	-6.0	7.8	Nov-13
D.E. Shaw	52,478,719	1.0	7.6	14.8	23.9	14.9	12.7	--	15.6	11.5	11.3	8.0	11.6	12.9	Jul-13
HBK Fund II	53,615,235	1.0	2.4	9.3	20.0	4.7	5.8	--	1.5	5.5	3.0	6.7	-0.7	4.3	Nov-13
Hudson Bay	69,222,837	1.4	3.1	12.5	21.5	--	--	--	16.2	--	--	--	--	16.0	Jun-19
Indus Pacific Opportunities	37,332,971	0.7	1.0	28.1	53.9	7.2	10.2	--	15.8	-19.2	15.8	15.1	-8.3	9.3	Jun-14
Magnetar Structured Credit	13,174,095	0.3	11.7	32.0	46.3	12.1	11.2	--	-0.2	5.4	7.7	8.6	-2.4	8.7	May-14
Myriad Opportunities Offshore	49,393,634	1.0	8.2	26.3	33.9	1.5	--	--	-9.2	-8.4	10.4	8.2	--	5.0	May-16
Pharo Macro Fund LTD	54,254,272	1.1	-7.3	3.4	11.6	--	--	--	--	--	--	--	--	4.9	Dec-19
PIMCO Commodity Alpha	73,610,529	1.4	2.8	10.7	31.2	7.2	--	--	4.8	5.2	10.4	17.0	--	10.0	May-16
River Birch	1,274,458	0.0	0.0	-1.5	-12.9	-7.4	-1.7	--	-19.9	-0.5	2.8	9.6	--	-2.6	Aug-15
Sculptor Enhanced Domestic Partners	58,603,310	1.1	1.1	13.8	27.8	--	--	--	6.5	--	--	--	--	17.1	Mar-19
Alpha Pool	**208,266,519**	**4.1**	**3.7**	**12.6**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
91-Day T-Bill +4%			*1.0*	*3.0*	--	--	--	--	--	--	--	--	--		
Hudson Bay	53,469,155	1.0	3.1	--	--	--	--	--	--	--	--	--	--	10.8	Jul-20
Davidson Kempner	52,896,899	1.0	3.8	--	--	--	--	--	--	--	--	--	--	5.8	Dec-20
HBK Fund II	51,560,723	1.0	2.4	--	--	--	--	--	--	--	--	--	--	3.9	Dec-20
HBK Opportunities - SPAC Series	50,339,742	1.0	7.6	--	--	--	--	--	--	--	--	--	--	7.6	Dec-20

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Inception	Inception Date
Midstream Energy	**186,704,292**	**3.6**	**15.2**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
Alerian Midstream Index			*20.9*	*31.5*	*74.3*	--	--	--	--	--	--	--	--		
Harvest Midstream	109,662,392	2.1	17.3	--	--	--	--	--	--	--	--	--	--	39.2	Sep-20
Alerian Midstream Index			*20.9*	*31.5*	*74.3*	--	--	--	--	--	--	--	--	*29.9*	*Sep-20*
PIMCO Midstream	77,041,900	1.5	12.5	--	--	--	--	--	--	--	--	--	--	28.5	Oct-20
50/25/25 Alerian Midstream/ ICE BofA US Pipeline/ ICE BofA US HY Midstream			*9.5*	--	--	--	--	--	--	--	--	--	--	--	*Oct-20*
Core Real Estate	**228,838,470**	**4.5**	**1.9**	**3.1**	**1.6**	**4.1**	**5.0**	**--**	**1.4**	**5.9**	**7.4**	**5.6**	**11.8**		
NCREIF-ODCE			*2.1*	*3.9*	*2.3*	*4.9*	*6.2*	*9.7*	*2.2*	*6.4*	*8.4*	*7.9*	*11.8*		
ASB Real Estate	119,828,076	2.3	2.2	3.1	2.3	4.4	4.5	--	1.5	6.8	7.1	3.3	10.7	7.4	Sep-13
NCREIF-ODCE			*2.1*	*3.9*	*2.3*	*4.9*	*6.2*	*9.7*	*2.2*	*6.4*	*8.4*	*7.9*	*11.8*	*8.5*	*Sep-13*
J.P. Morgan Strategic Property	109,010,393	2.1	1.6	3.1	0.8	3.8	5.2	--	1.3	5.0	7.6	7.4	10.0	6.9	Jul-14
NCREIF-ODCE			*2.1*	*3.9*	*2.3*	*4.9*	*6.2*	*9.7*	*2.2*	*6.4*	*8.4*	*7.9*	*11.8*	*8.0*	*Jul-14*
Private Real Estate	**63,790,278**	**1.2**	**7.9**	**11.5**	**10.0**	**8.2**	**7.6**	**10.8**	**4.4**	**9.0**	**5.4**	**5.7**	**14.8**		
Private Equity	**68,011,902**	**1.3**	**10.7**	**35.0**	**19.8**	**11.0**	**10.2**	**10.4**	**-10.5**	**10.9**	**7.8**	**14.1**	**1.7**		
Private Credit	**209,704,168**	**4.1**	**2.3**	**1.9**	**-0.5**	**6.3**	**7.7**	**--**	**5.5**	**9.7**	**9.3**	**10.2**	**--**		
Opportunistic	**75,928,452**	**1.5**	**26.2**	**40.2**	**54.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
Assumed Rate of Return +3%			*2.5*	*7.7*	*10.4*	--	--	--	*10.4*	--	--	--	--		
DB Investors Fund IV	33,455,199	0.7	48.9	67.8	103.0	--	--	--	--	--	--	--	--	50.9	Jan-20
TAO Contingent	42,473,253	0.8	13.8	24.1	--	--	--	--	--	--	--	--	--	24.2	Apr-20
Cash	**-216,153,179**	**-4.2**	**0.0**	**0.1**	**0.2**	**1.4**	**2.0**	**--**	**1.0**	**2.0**	**3.2**	**2.7**	**2.2**		

			IRR Analysis as of IRR date									
Vintage Year	**Manager/Fund**	**Estimated Market Value as of 3/31/2021**	**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**
Private Equity												
2001	Abbott Capital PE IV*	$1,152,267	$50,000,000	$49,650,000	99%	$350,000	$85,714,140	$1,228,338	*1.73x*	*1.75x*	*11.0%*	12/31/19
2005	Abbott Capital PE V*	$11,842,608	$65,000,000	$62,790,000	97%	$2,210,000	$80,558,107		*1.28x*	*1.47x*	*6.8%*	06/30/20
2008	Abbott Capital PE VI*	$25,946,444	$50,000,000	$49,500,000	99%	$500,000	$56,196,969	$30,446,444	*1.14x*	*1.66x*	*12.4%*	09/30/20
2006	Pantheon Global III*	$1,354,661	$50,000,000	$47,300,000	95%	$2,700,000	$51,000,000	$1,901,933	*1.08x*	*1.11x*	*2.0%*	09/30/20
1998	Pantheon USA III*	$56,208	$7,500,000	$7,335,000	98%	$165,000	$8,197,500	$58,056	*1.12x*	*1.13x*	*1.9%*	09/30/20
2002	Pantheon USA V*	$442,588	$25,000,000	$24,350,000	97%	$650,000	$37,950,000	$442,247	*1.56x*	*1.58x*	*9.0%*	09/30/20
2004	Pantheon USA VI*	$1,053,125	$35,000,000	$33,075,000	95%	$1,925,000	$48,523,827	$2,606,012	*1.47x*	*1.50x*	*6.8%*	09/30/20
2006	Pantheon USA VII*	$13,553,859	$50,000,000	$46,600,000	93%	$3,400,000	$67,374,999	$14,470,410	*1.45x*	*1.74x*	*9.9%*	09/30/20
2020	Vista Equity Partners IV	$2,707,701	$25,000,000	$429,945	2%	$24,570,055						
2021	LGT Crown	$2,750,000		$2,750,000								
2021	Brighton Private Equity	$4,107,069		$4,107,069								
	Total Private Equity	**$64,966,530**	$357,500,000	$321,029,945	90%	$36,470,055	$435,515,542	$51,153,440	*1.36x*	*1.56x*		
	% of Portfolio (Market Value)	***1.3%***										

[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.

*Market Values are as of 9/30/2020 and accounts for all capital calls and distributions through 3/31/2021

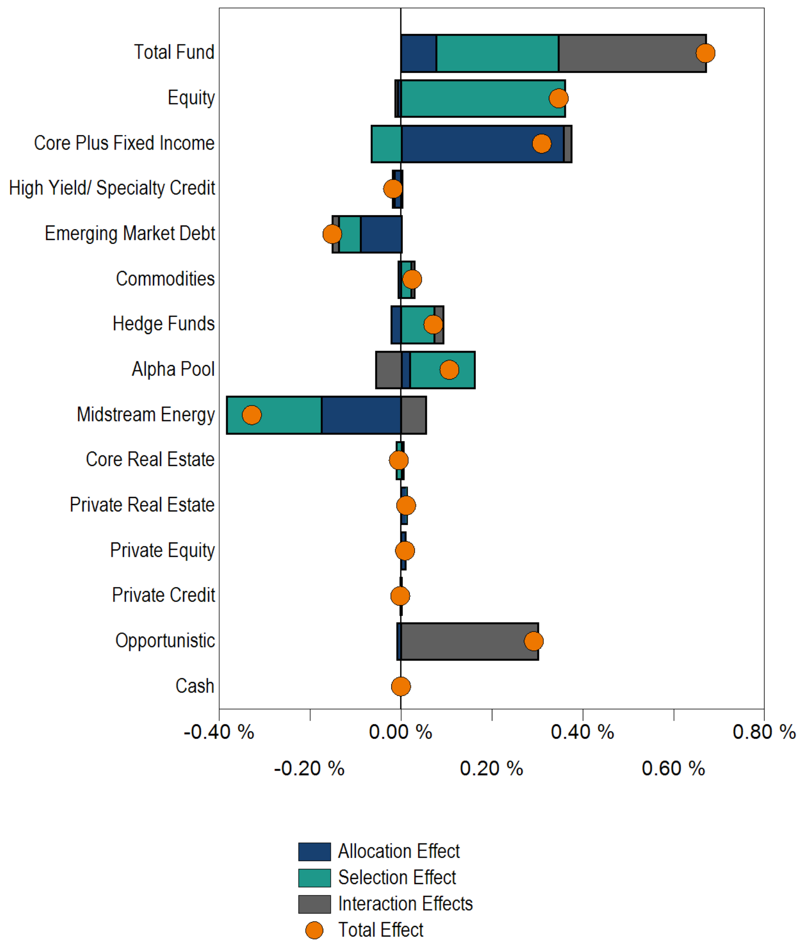
Vintage Year	Manager/Fund	Estimated Market Value 3/31/2021	IRR Analysis as of IRR date: Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[3]	IRR Date
Private Credit												
2015	Colony Distressed Credit IV**[4]	$53,248,126	$60,000,000	$70,783,873	118%	-$2,944,644	$24,003,132	$52,848,469	*0.34x*	*1.09x*	*2.0%*	3/31/20
2017	Brookfield Real Estate Finance Fund V**	$23,343,877	$50,000,000	$27,069,177	54%	$22,930,823	$11,989,931	$23,191,827	*0.44x*	*1.31x*	*8.9%*	9/30/20
2017	TSSP Adjacent Opportunities Partners**	$23,893,297	$50,000,000	$31,632,288	63%	$18,367,712	$14,217,245	$30,930,862	*0.45x*	*1.20x*	*8.0%*	3/31/20
2018	Magnetar Constellation*	$51,825,237	$60,000,000	$63,785,879	106%	-$3,785,879	$7,813,259	N/A	*0.12x*	*0.93x*	*N/A*	*N/A*
2019	H.I.G Bayside Loan Opportunity Fund V	$21,371,758	$60,000,000	$21,119,236	35%	$38,880,764	$1,930,727	N/A	*0.09x*	*1.10x*	*N/A*	*N/A*
2020	Blue Torch Credit Opportunities	$4,518,821	$20,000,000	$5,514,189	28%	$14,485,811	$1,094,200	N/A	*0.20x*	*1.02x*	*N/A*	*N/A*
2020	Fortress Credit Opportunities	$2,000,000										
2021	Fortress Lending Fund II	$14,000,000										
	Total Private Credit	**$194,201,116**	$300,000,000	$214,390,453	71%	$34,568,012	$58,023,566	$106,971,158	*0.27x*	*1.18x*		
	% of Portfolio (Market Value)	***3.8%***										

[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 figure is provided by its respective manager.
[4]$14,360,749 is recallable capital as of 6/30/2020.
*Market Values are as of 3/31/2020 and accounts for all capital calls and distributions through 3/31/2021
**Market Values are as of 12/31/2020 and accounts for all capital calls and distributions through 3/31/2021

Vintage Year	Manager/Fund	Estimated Market Value 3/31/2021	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*	$286,862	$60,000,000	$55,519,583	93%	$4,480,417	$81,296,679	$6,294,045	*1.46x*	*1.47x*	*13.6%*	12/31/20
2014	Invesco Real Estate IV*	$25,216,763	$50,000,000	$43,637,717	87%	$6,362,283	$32,639,138	$24,596,747	*0.75x*	*1.33x*	*12.3%*	12/31/20
2017	Landmark Real Estate Partners VIII**	$21,407,496	$60,000,000	$25,033,714	42%	$34,966,286	$15,256,042	$18,637,114	*0.61x*	*1.46x*	*13.6%*	09/30/20
2018	Long Wharf Real Estate Partners VI**	$12,135,861	$50,000,000	$9,276,513	19%	$40,723,487	$2,061,107	N/A	N/A	N/A	*N/A*	*N/A*
2020	Covenant Apartment Fund X	$8,400,000										
	Total Private Real Assets	**$67,446,982**	$220,000,000	$133,467,527	61%	$86,532,473	$131,252,966	$49,527,906	*0.98x*	*1.49x*		
	% of Portfolio (Market Value)	***1.3%***										

[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.
*Market Values are as of 12/31/2020 and accounts for all capital calls and distributions through 3/31/2021.
**Market Values are as of 9/30/2020 and accounts for all capital calls and distributions through 3/31/2021.

Attribution Effects
Last Three Months



Performance Attribution

	Quarter	Fiscal YTD
Wtd. Actual Return	3.60%	17.73%
Wtd. Index Return *	2.99%	17.14%
Excess Return	**0.61%**	**0.59%**
Selection Effect	0.27%	0.52%
Allocation Effect	0.08%	0.22%
Interaction Effect	0.32%	0.34%

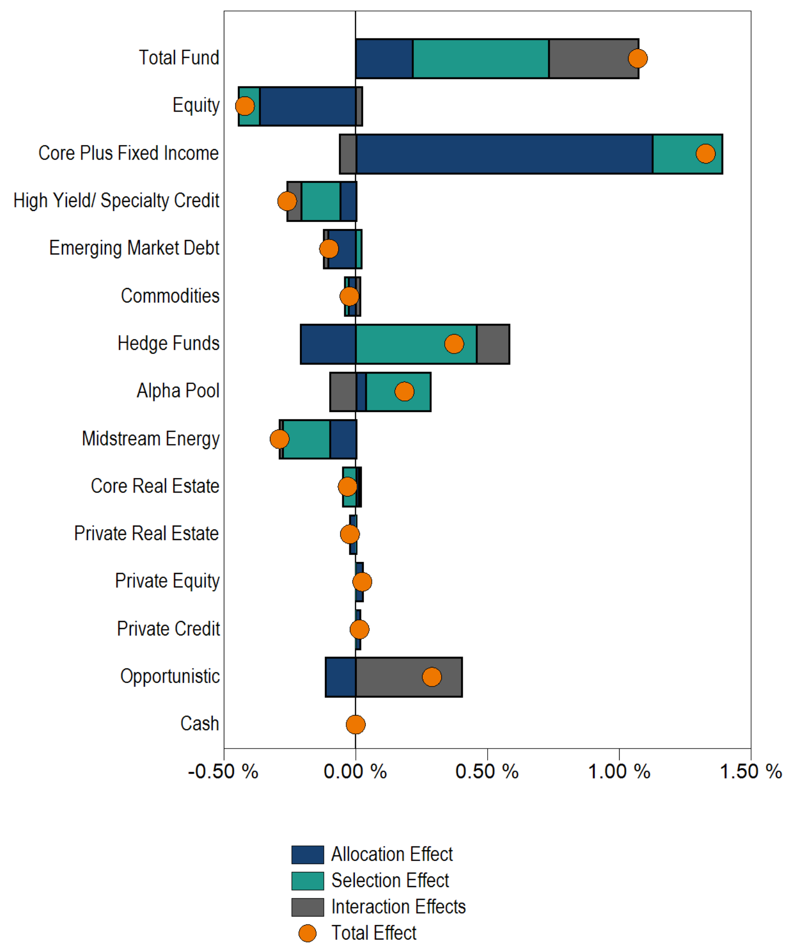
*Calculated from benchmark returns and weightings of each component.

Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	6.1%	5.2%	0.9%	0.4%	0.0%	0.0%	0.3%
Core Plus Fixed Income	-3.7%	-3.4%	-0.3%	-0.1%	0.4%	0.0%	0.3%
High Yield/ Specialty Credit	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-5.6%	-4.5%	-1.1%	0.0%	-0.1%	0.0%	-0.2%
Commodities	7.5%	6.9%	0.6%	0.0%	0.0%	0.0%	0.0%
Hedge Funds	2.6%	1.9%	0.7%	0.1%	0.0%	0.0%	0.1%
Alpha Pool	3.7%	1.0%	2.7%	0.1%	0.0%	-0.1%	0.1%
Midstream Energy	15.2%	20.9%	-5.6%	-0.2%	-0.2%	0.1%	-0.3%
Core Real Estate	1.9%	2.1%	-0.2%	0.0%	0.0%	0.0%	0.0%
Private Real Estate	7.9%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	10.7%	10.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Credit	2.3%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Opportunistic	26.2%	2.5%	23.7%	0.0%	0.0%	0.3%	0.3%
Cash	--	--	--	--	--	--	--
Total	**3.6%**	**3.0%**	**0.6%**	**0.3%**	**0.1%**	**0.3%**	**0.7%**

Weighted returns shown in attribution analysis may differ from actual returns.

Attribution Effects
Fiscal YTD



Performance Atrribution

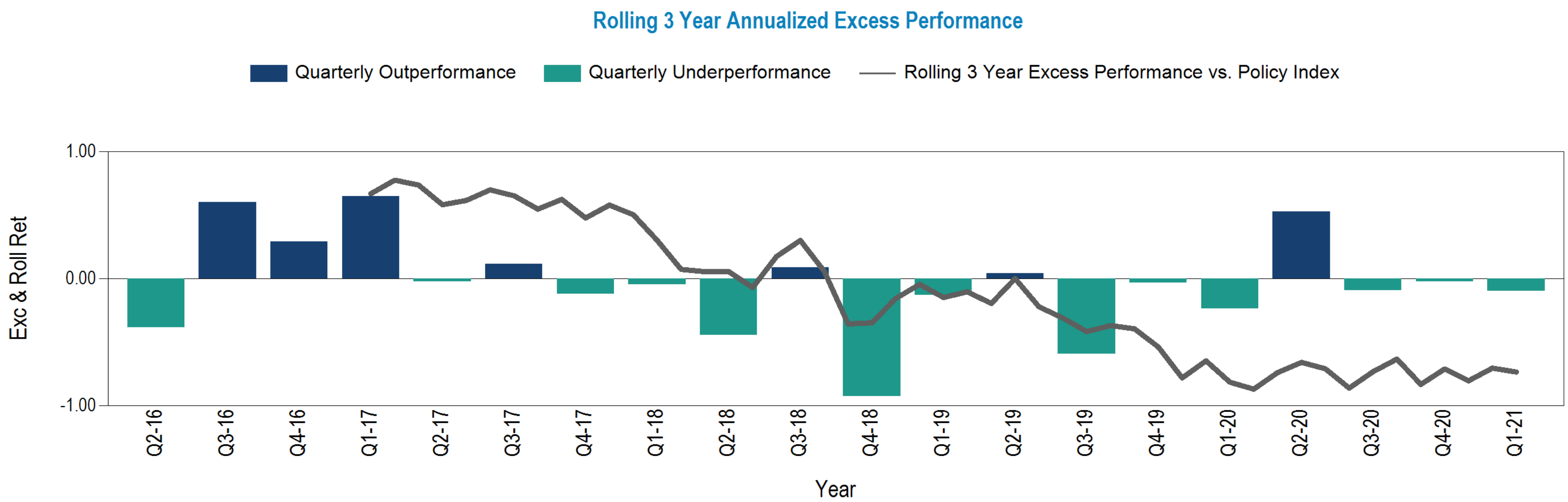
	Quarter	Fiscal YTD
Wtd. Actual Return	3.60%	17.73%
Wtd. Index Return *	2.99%	17.14%
Excess Return	**0.61%**	**0.59%**
Selection Effect	0.27%	0.52%
Allocation Effect	0.08%	0.22%
Interaction Effect	0.32%	0.34%

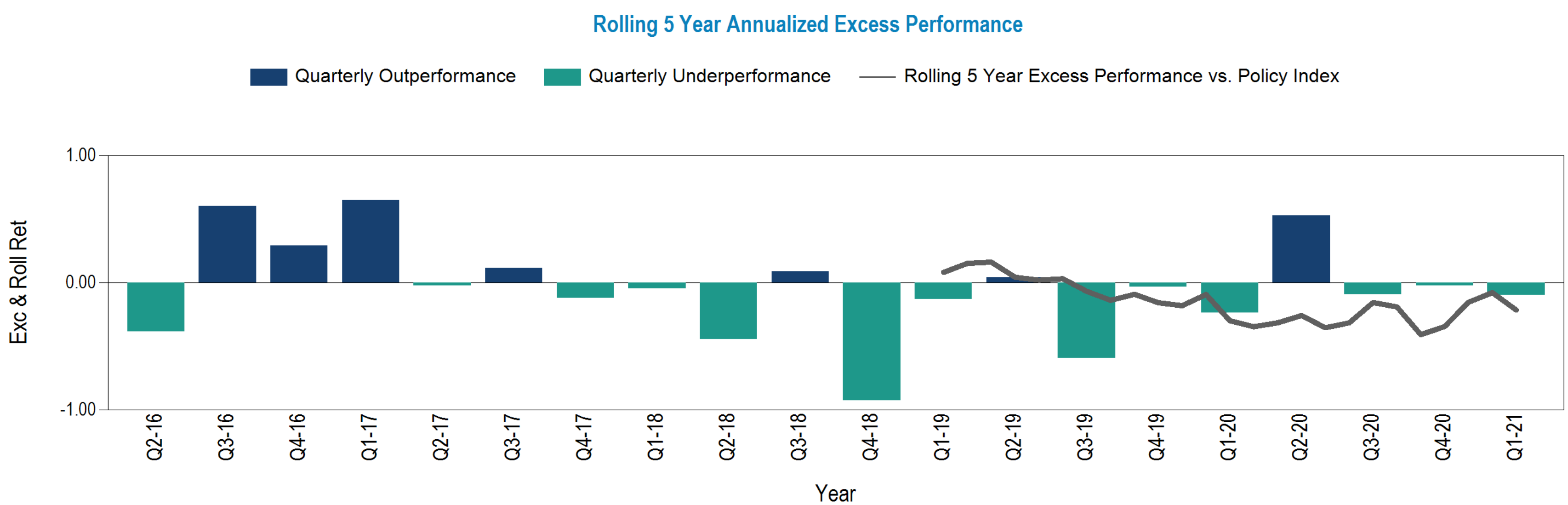
*Calculated from benchmark returns and weightings of each component.

Attribution Summary
Fiscal YTD

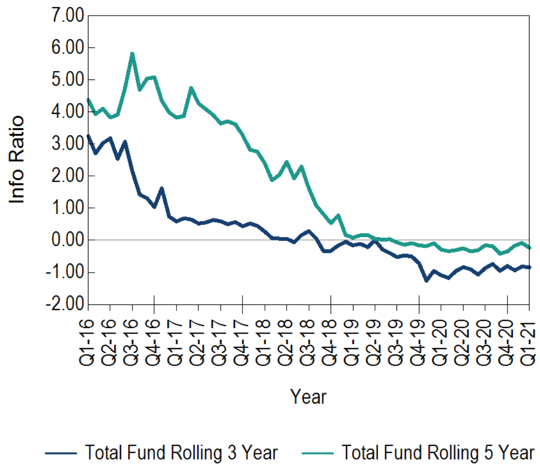
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Equity	31.7%	31.9%	-0.2%	-0.1%	-0.4%	0.0%	-0.4%
Core Plus Fixed Income	-1.2%	-2.1%	1.0%	0.3%	1.1%	-0.1%	1.3%
High Yield/ Specialty Credit	10.2%	12.5%	-2.3%	-0.1%	-0.1%	-0.1%	-0.3%
Emerging Market Debt	4.7%	4.3%	0.4%	0.0%	-0.1%	0.0%	-0.1%
Commodities	28.1%	28.5%	-0.4%	0.0%	0.0%	0.0%	0.0%
Hedge Funds	13.8%	9.5%	4.3%	0.5%	-0.2%	0.1%	0.4%
Alpha Pool	12.6%	3.0%	9.6%	0.2%	0.0%	-0.1%	0.2%
Midstream Energy	--	29.9%	--	-0.2%	-0.1%	0.0%	-0.3%
Core Real Estate	3.1%	3.9%	-0.9%	0.0%	0.0%	0.0%	0.0%
Private Real Estate	11.5%	11.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	35.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Credit	1.9%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Opportunistic	40.2%	7.7%	32.5%	0.0%	-0.1%	0.4%	0.3%
Cash	--	--	--	--	--	--	--
Total	**17.7%**	**17.1%**	**0.6%**	**0.5%**	**0.2%**	**0.3%**	**1.1%**

Weighted returns shown in attribution analysis may differ from actual returns.

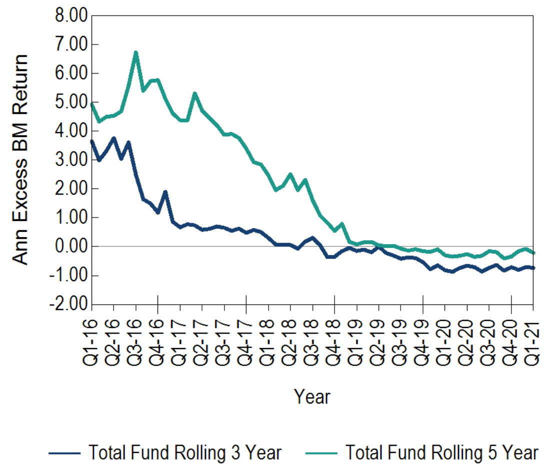

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Policy Index
1.00
0.00
-1.00
Exc & Roll Ret
Q2-16
Q3-16
Q4-16
Q1-17
Q2-17
Q3-17
Q4-17
Q1-18
Q2-18
Q3-18
Q4-18
Q1-19
Q2-19
Q3-19
Q4-19
Q1-20
Q2-20
Q3-20
Q4-20
Q1-21
Year


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
Q2-16
Q3-16
Q4-16
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
Year

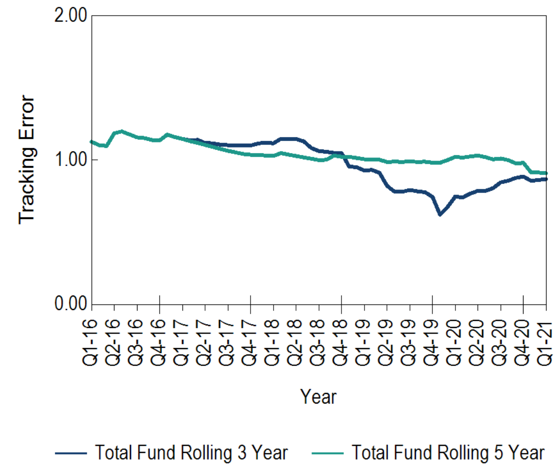
Rolling Information Ratio



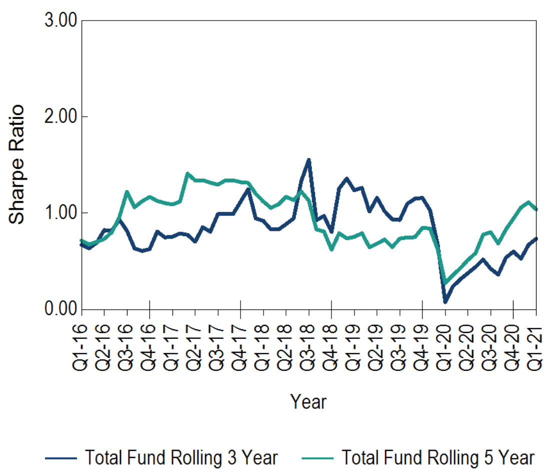
Rolling Annual Excess Benchmark Return



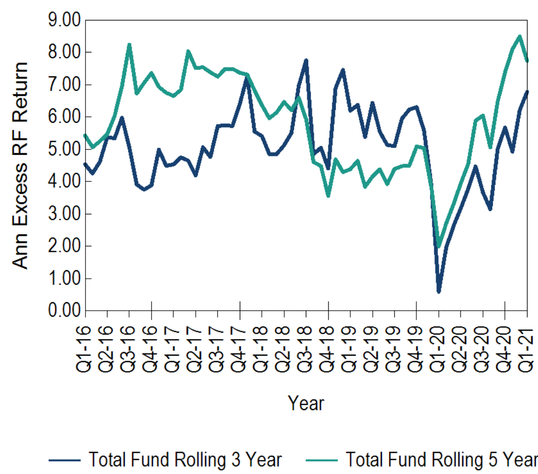
Rolling Tracking Error



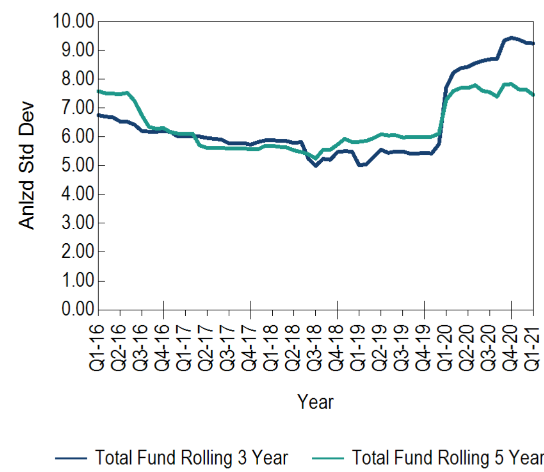
Rolling Sharpe Ratio



Rolling Annual Excess Risk Free Return



Rolling Annualized Standard Deviation

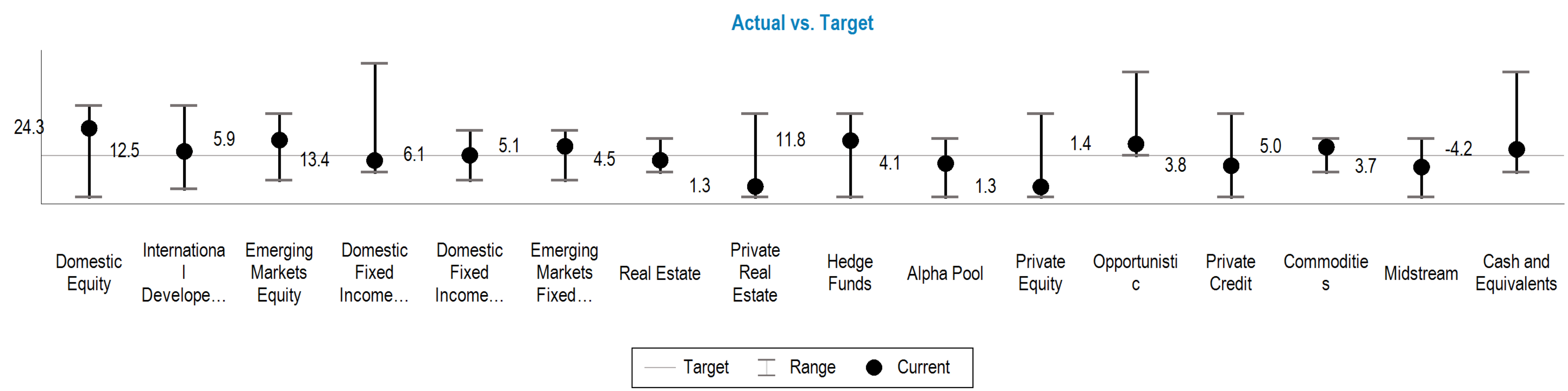


Asset Allocation

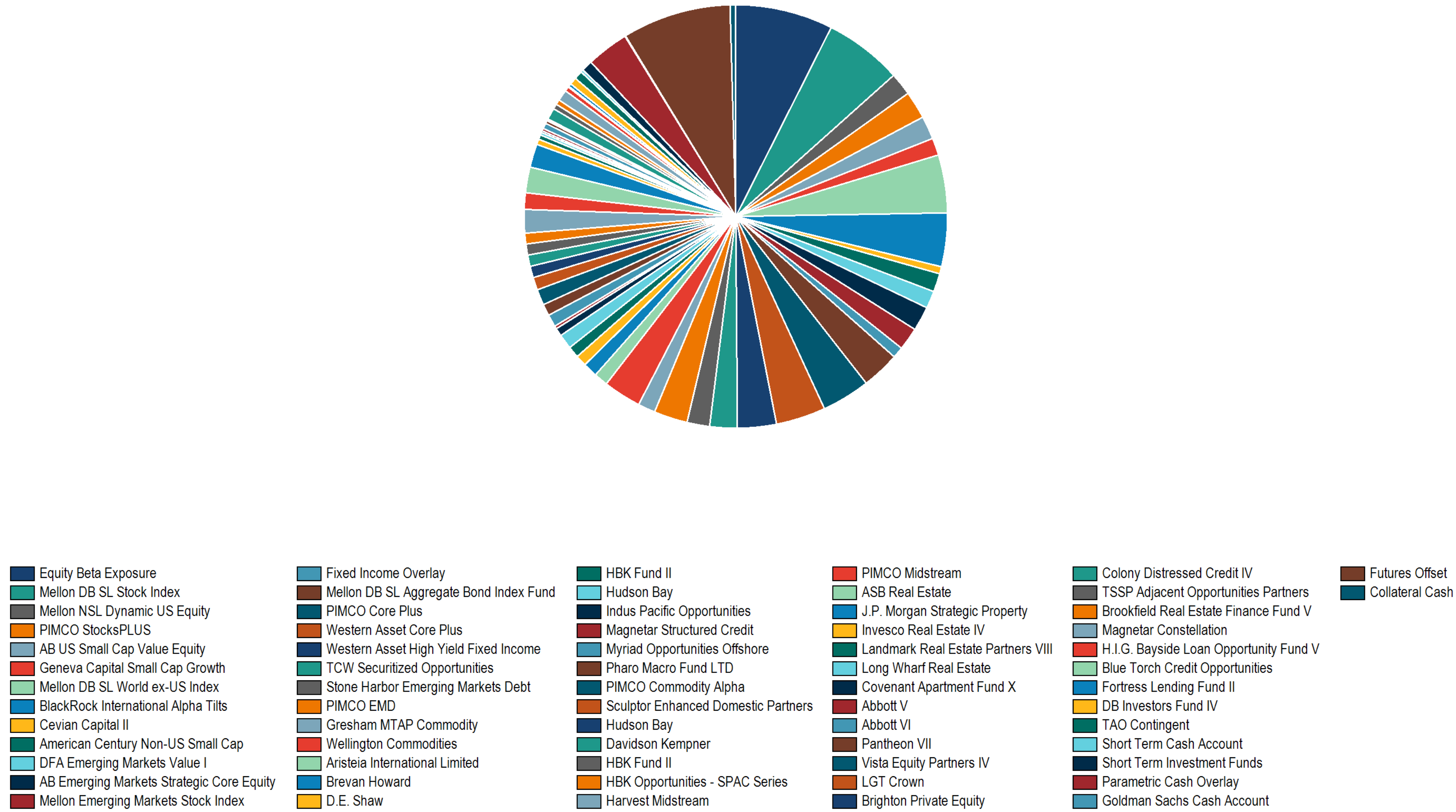
Total Fund
Sub-Asset Class Allocation

Period Ending: March 31, 2021

	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	$1,242,036,387	24.3%	21.0%	$168,936,479	16.0% - 27.0%	Yes
International Developed Equity	$640,180,777	12.5%	12.0%	$26,980,830	8.0% - 18.0%	Yes
Emerging Markets Equity	$300,778,222	5.9%	4.0%	$96,378,239	1.0% - 9.0%	Yes
Domestic Fixed Income Core Plus	$686,700,516	13.4%	14.0%	-$28,699,423	12.0% - 25.0%	Yes
Domestic Fixed Income High Yield	$309,818,166	6.1%	6.0%	$3,218,192	3.0% - 9.0%	Yes
Emerging Markets Fixed Income	$262,262,747	5.1%	4.0%	$57,862,764	1.0% - 7.0%	Yes
Real Estate	$228,838,470	4.5%	5.0%	-$26,661,508	3.0% - 7.0%	Yes
Private Real Estate	$67,446,982	1.3%	5.0%	-$188,052,996	0.0% - 10.0%	Yes
Hedge Funds	$604,213,203	11.8%	10.0%	$93,213,247	5.0% - 15.0%	Yes
Alpha Pool	$208,222,252	4.1%	5.0%	-$47,277,726	0.0% - 7.0%	Yes
Private Equity	$64,966,530	1.3%	5.0%	-$190,533,448	0.0% - 10.0%	Yes
Opportunistic	$72,590,528	1.4%	0.0%	$72,590,528	0.0% - 10.0%	Yes
Private Credit	$194,201,116	3.8%	5.0%	-$61,298,862	0.0% - 10.0%	Yes
Commodities	$257,192,553	5.0%	4.0%	$52,792,571	2.0% - 6.0%	Yes
Midstream	$186,704,292	3.7%	5.0%	-$68,795,686	0.0% - 7.0%	Yes
Cash and Equivalents	-$216,153,179	-4.2%	-5.0%	$39,346,799	-7.0% - 5.0%	Yes
Total	**$5,109,999,561**	**100.0%**	**100.0%**			



Current Allocation: by Manager



Correlation Matrix
3 Years Ending March 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	0.97	1.00	--	--	--	--	--	--	--	--	--	--	--
Fixed Income	0.76	0.72	0.70	0.72	1.00	--	--	--	--	--	--	--	--	--	--
Core Plus Fixed Income	0.24	0.19	0.18	0.18	0.80	1.00	--	--	--	--	--	--	--	--	--
High Yield/ Specialty Credit	0.97	0.96	0.95	0.95	0.80	0.30	1.00	--	--	--	--	--	--	--	--
Emerging Market Debt	0.87	0.84	0.79	0.85	0.92	0.54	0.86	1.00	--	--	--	--	--	--	--
Commodities	0.96	0.97	0.95	0.97	0.60	0.03	0.93	0.74	1.00	--	--	--	--	--	--
Hedge Funds	0.92	0.92	0.89	0.92	0.73	0.26	0.87	0.82	0.90	1.00	--	--	--	--	--
Core Real Estate	-0.40	-0.37	-0.37	-0.34	-0.68	-0.66	-0.45	-0.50	-0.30	-0.52	1.00	--	--	--	--
Private Real Estate	-0.19	-0.17	-0.18	-0.16	-0.39	-0.42	-0.34	-0.19	-0.22	-0.22	0.60	1.00	--	--	--
Private Equity	-0.05	-0.06	-0.09	-0.02	-0.25	-0.40	-0.02	-0.12	0.05	-0.13	0.35	0.11	1.00	--	--
Private Credit	-0.76	-0.77	-0.73	-0.77	-0.48	0.02	-0.75	-0.62	-0.85	-0.85	0.50	0.32	0.01	1.00	--
Policy Index	1.00	1.00	0.98	1.00	0.76	0.23	0.97	0.87	0.97	0.92	-0.39	-0.20	-0.03	-0.77	1.00

Cash Flows

Total Fund
Net Cash Flow - Three Months Ended

Period Ending: March 31, 2021

Equity

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
SGA Global Equity	$15	$0	-$15	$0	$0	--
Equity Beta Exposure	$346,389,120	$84,193,075	$0	$0	$24,280,215	$454,862,410
Mellon DB SL Stock Index	$342,596,715	$0	$0	-$26,286	$21,176,725	$363,773,440
Mellon NSL Dynamic US Equity	$100,857,263	$0	$0	-$127,843	$5,146,183	$106,003,446
PIMCO StocksPLUS	$121,704,055	$0	$0	-$155,410	$7,245,251	$128,949,306
AB US Small Cap Value Equity	$86,015,145	$0	-$2,948	-$211,207	$22,071,056	$108,083,253
Geneva Capital Small Cap Growth	$77,836,881	$0	-$174	-$149,942	$2,527,295	$80,364,002
Mellon DB SL World ex-US Index	$258,154,337	$0	$0	$0	$12,623,622	$270,777,959
BlackRock International Alpha Tilts	$239,784,190	$0	$0	-$256,868	$10,099,776	$249,883,967
Cevian Capital II	$28,969,604	$0	$0	$0	$4,328,447	$33,298,052
J.P. Morgan Fleming EAFE Plus Equity	$0	$0	$0	$0	$0	$0
Fidelity Non-US Small Cap Equity	$9,501,175	$0	-$9,075,337	-$545	-$33,333	$392,505
American Century Non-US Small Cap	$84,168,000	$0	$0	$0	$2,052,800	$86,220,800
DFA Emerging Markets Value I	$102,797,060	$0	-$30,000,000	-$117,987	$8,194,579	$80,991,640
AB Emerging Markets Strategic Core Equity	$109,885,506	$0	$0	-$414,639	$3,954,948	$113,840,454
Mellon Emerging Markets Stock Index	$75,580,948	$30,000,000	$0	$0	$365,180	$105,946,128
Transition Equity	$452	$0	$0	$0	$78	$529
Total	**$1,984,240,468**	**$114,193,075**	**-$39,078,474**	**-$1,460,727**	**$124,032,821**	**$2,183,387,891**

Fixed Income

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Fixed Income Overlay	$55,367,789	$0	-$331,901	$0	-$2,889,583	$52,146,305
Mellon DB SL Aggregate Bond Index Fund	$233,606,855	$0	-$50,000,000	-$16,052	-$6,637,220	$176,969,635
PIMCO Core Plus	$274,544,790	$0	-$40,001,029	-$183,273	-$8,977,255	$225,566,506
Western Asset Core Plus	$276,209,546	$0	-$30,000,000	-$129,685	-$14,349,787	$231,859,759
Western Asset High Yield Fixed Income	$243,388,434	$0	-$65,000,000	-$103,879	$3,059,504	$181,447,938
TCW Securitized Opportunities	$127,888,065	$0	$0	-$321,620	$482,163	$128,370,228
Stone Harbor Emerging Markets Debt	$86,543,544	$24,920,000	$0	-$149,133	-$5,926,549	$105,536,996
PIMCO EMD	$125,442,565	$40,000,000	$0	$0	-$8,716,814	$156,725,751
Transition Fixed Income	$164,210	$0	$0	$0	-$5,899	$158,311
Total	**$1,423,155,797**	**$64,920,000**	**-$185,332,930**	**-$903,641**	**-$43,961,438**	**$1,258,781,429**

Commodities

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Gresham MTAP Commodity	$74,923,521	$0	$0	-$99,965	$5,717,686	$80,641,207
Wellington Commodities	$132,325,630	$35,000,000	$0	$0	$9,225,716	$176,551,346
Total	**$207,249,151**	**$35,000,000**	**$0**	**-$99,965**	**$14,943,402**	**$257,192,553**

Hedge Funds

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Aristeia International Limited	$62,413,409	$0	$0	$0	$2,572,065	$64,985,475
Brevan Howard	$66,573,858	$0	$0	$0	$930,188	$67,504,046
D.E. Shaw	$48,792,111	$0	$0	$0	$2,900,352	$51,692,463
HBK Fund II	$52,365,631	$0	$0	$0	$1,249,604	$53,615,235
Hudson Bay	$87,135,832	$0	-$20,000,000	$0	$2,087,005	$69,222,837
Indus Pacific Opportunities	$36,953,720	$0	$0	$0	$379,252	$37,332,971
Magnetar Structured Credit	$11,797,167	$0	$0	$0	$1,930,139	$13,727,305
Myriad Opportunities Offshore	$60,325,691	$0	-$6,930,112	$0	$4,287,222	$57,682,801
Pharo Macro Fund LTD	$58,502,733	$0	$0	$0	-$4,248,462	$54,254,272
PIMCO Commodity Alpha	$71,604,795	$0	$0	-$271,577	$2,005,733	$73,610,529
River Birch	$1,274,458	$0	$0	$0	$0	$1,274,458
Sculptor Enhanced Domestic Partners	$57,984,842	$0	$0	$0	$1,325,968	$59,310,810
Systematica Trend Following Fund	$0	$0	$0	$0	$0	$0
Total	**$615,724,248**	**$0**	**-$26,930,112**	**-$271,577**	**$15,419,067**	**$604,213,203**

Alpha Pool

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Hudson Bay	$26,857,108	$25,000,000	$0	$0	$1,612,047	$53,469,155
Davidson Kempner	$50,970,740	$0	$0	$0	$1,881,892	$52,852,632
HBK Fund II	$25,359,003	$25,000,000	$0	$0	$1,201,720	$51,560,723
HBK Opportunities - SPAC Series	$20,000,000	$30,000,000	$0	$0	$339,742	$50,339,742
Total	**$123,186,851**	**$80,000,000**	**$0**	**$0**	**$5,035,401**	**$208,222,252**

Midstream Energy

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Harvest Midstream	$52,032,278	$45,000,000	$0	$0	$12,630,114	$109,662,392
PIMCO Midstream	$49,931,356	$20,000,000	$0	$0	$7,110,544	$77,041,900
Total	**$101,963,634**	**$65,000,000**	**$0**	**$0**	**$19,740,658**	**$186,704,292**

Core Real Estate

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
ASB Real Estate	$117,006,539	$237,178	$0	-$237,178	$2,584,360	$119,828,076
J.P. Morgan Strategic Property	$107,262,836	$0	$0	-$240,146	$1,747,557	$109,010,393
Total	**$224,269,375**	**$237,178**	**$0**	**-$477,324**	**$4,331,917**	**$228,838,470**

Private Real Estate

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Invesco Real Estate III	$286,862	$0	$0	$0	$0	$286,862
Invesco Real Estate IV	$23,891,820	$0	$0	$0	$1,324,943	$25,216,763
Landmark Real Estate Partners VIII	$21,407,496	$0	$0	$0	$0	$21,407,496
Long Wharf Real Estate	$8,049,293	$2,001,982	$0	$0	$2,084,586	$12,135,861
Covenant Apartment Fund X	$8,400,000	$0	$0	$0	$0	$8,400,000
Total	**$62,035,471**	**$2,001,982**	**$0**	**$0**	**$3,409,529**	**$67,446,982**

Private Equity

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Abbott IV	$1,152,267	$0	$0	$0	$0	$1,152,267
Abbott V	$11,842,608	$0	$0	$0	$0	$11,842,608
Abbott VI	$24,704,160	$3,242,284	-$2,000,000	$0	$0	$25,946,444
Pantheon Secondary III	$1,401,933	$0	$0	$0	-$47,272	$1,354,661
Pantheon III	$58,056	$0	$0	$0	-$1,848	$56,208
Pantheon V	$442,247	$0	$0	$0	$341	$442,588
Pantheon VI	$2,426,012	$0	-$1,540,000	$0	$167,113	$1,053,125
Pantheon VII	$14,299,965	$0	-$1,650,001	$0	$903,895	$13,553,859
Vista Equity Partners IV	$429,945	$2,277,756	$0	$0	$0	$2,707,701
LGT Crown	--	$2,750,000	$0	$0	$0	$2,750,000
Brighton Private Equity	--	$4,107,069	$0	$0	$0	$4,107,069
Total	**$56,757,193**	**$12,377,109**	**-$5,190,001**	**$0**	**$1,022,229**	**$64,966,530**

Private Credit

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Colony Distressed Credit IV	$52,848,469	$2,556,226	$0	$0	-$2,156,569	$53,248,126
TSSP Adjacent Opportunities Partners	$31,512,511	$0	-$7,619,214	$0	$0	$23,893,297
Brookfield Real Estate Finance Fund V	$25,154,938	$0	-$1,811,061	$0	$0	$23,343,877
Magnetar Constellation	$52,327,882	$0	-$1,452,208	$0	$949,563	$51,825,237
H.I.G. Bayside Loan Opportunity Fund V	$7,752,522	$13,619,236	$0	$0	$0	$21,371,758
Blue Torch Credit Opportunities	$2,016,397	$2,441,627	$0	$0	$60,797	$4,518,821
Fortress Credit Opportunites	$2,000,000	$0	$0	$0	$0	$2,000,000
Fortress Lending Fund II	--	$14,000,000	$0	$0	$0	$14,000,000
Total	**$173,612,718**	**$32,617,089**	**-$10,882,483**	**$0**	**-$1,146,209**	**$194,201,116**

Opportunistic

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
DB Investors Fund IV	$22,467,047	$0	$0	$0	$10,988,152	$33,455,199
TAO Contingent	$39,135,329	$0	$0	$0	$0	$39,135,329
Total	**$61,602,376**	**$0**	**$0**	**$0**	**$10,988,152**	**$72,590,528**

Cash

	Beginning Market Value	Contributions	Withdrawals	Fees	Net Investment Change	Ending Market Value
Short Term Cash Account	$0	$12,883,838	-$663,943	$0	$0	$12,219,894
Short Term Investment Funds	$67,094,317	$275,006,654	-$290,681,834	$0	$15,727	$51,434,863
Parametric Cash Overlay	$181,174,703	$101,803,591	-$85,804,662	$0	$49,428	$197,223,060
Goldman Sachs Cash Account	$6,559,056	$8,969,358	-$12,210,695	$0	$0	$3,317,718
Futures Offset	-$401,756,909	$4,676,679	-$109,928,485	$0	$0	-$507,008,715
Collateral Cash	$21,260,000	$5,400,000	$0	$0	$0	$26,660,000
Total	**-$125,668,833**	**$408,740,120**	**-$499,289,620**	**$0**	**$65,154**	**-$216,153,179**

Portfolio Reconciliation

	Quarter-To-Date	Fiscal Year-To-Date	One Year	Three Years	Five Years	Ten Years
Beginning Market Value	$4,908,128,449	$4,408,240,184	$3,952,891,620	$4,157,096,657	$3,560,759,759	$2,367,257,361
Contributions	$815,086,553	$2,761,776,499	$3,242,119,179	$5,901,825,830	$8,373,817,925	$12,257,412,147
Withdrawals	-$766,703,619	-$2,812,718,229	-$3,263,138,476	-$6,082,041,039	-$8,713,641,135	-$12,137,872,572
Fees	-$3,213,234	-$9,652,773	-$12,918,351	-$38,379,489	-$70,246,610	-$100,940,343
Net Cash Flow	$48,382,934	-$50,941,730	-$21,019,297	-$180,215,209	-$339,823,210	$119,539,576
Net Investment Change	$153,880,683	$753,093,612	$1,178,519,744	$1,133,510,619	$1,889,455,517	$2,623,595,130
Ending Market Value	$5,110,392,066	$5,110,392,066	$5,110,392,066	$5,110,392,066	$5,110,392,066	$5,110,392,066
Net Change	$202,263,617	$702,151,882	$1,157,500,446	$953,295,410	$1,549,632,307	$2,743,134,706

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	-0.06%	1.00	0.99	8.23%	-0.85	-0.73%	0.87%	0.73	6.78%	9.24%	0.95	95.43%	100.87%
Equity	-0.06%	1.00	1.00	11.75%	-0.82	-0.73%	0.88%	0.56	10.39%	18.46%	0.77	98.17%	101.13%
Domestic Equity	-0.03%	1.00	1.00	16.72%	-0.37	-0.40%	1.08%	0.79	15.36%	19.42%	1.07	100.36%	101.66%
International Developed Equity	-0.06%	1.00	1.00	6.14%	-0.63	-0.80%	1.28%	0.26	4.78%	18.39%	0.45	98.76%	101.82%
Fixed Income	-0.01%	1.08	0.98	4.99%	0.34	0.27%	0.79%	0.73	3.64%	4.95%	1.08	106.63%	105.95%
Core Plus Fixed Income	0.00%	1.07	0.91	5.01%	0.28	0.35%	1.24%	0.91	3.65%	3.99%	2.40	113.51%	118.54%
High Yield/ Specialty Credit	0.04%	0.81	0.98	5.85%	-0.32	-0.68%	2.13%	0.58	4.49%	7.80%	0.45	77.00%	73.85%
Emerging Market Debt	-0.09%	1.07	0.95	0.47%	-0.38	-1.05%	2.75%	-0.07	-0.89%	12.43%	0.04	101.89%	107.79%
Commodities	0.26%	0.98	0.89	2.81%	0.59	3.01%	5.15%	0.09	1.45%	15.32%	0.28	113.21%	96.20%
Hedge Funds	0.12%	0.88	0.51	8.04%	0.14	0.54%	3.87%	1.22	6.68%	5.47%	1.56	89.23%	55.77%
Core Real Estate	0.11%	0.58	0.72	4.13%	-0.49	-0.75%	1.53%	1.46	2.77%	1.90%	2.92	58.74%	75.26%

Total Fund
Risk Return Statistics: Last Three Years

Period Ending: March 31, 2021

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	11.75	12.47
Total Return	39.54	42.27
Annualized Excess Return Over Risk Free	10.39	11.11
Annualized Excess Return	-0.73	0.00
RISK SUMMARY STATISTICS		
Beta	1.00	1.00
Upside Deviation	10.81	11.02
Downside Deviation	15.29	14.91
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	18.46	18.41
Alpha	-0.06	0.00
Sharpe Ratio	0.56	0.60
Excess Return Over Market / Risk	-0.04	0.00
Tracking Error	0.88	0.00
Information Ratio	-0.82	--
CORRELATION STATISTICS		
R-Squared	1.00	1.00
Correlation	1.00	1.00

Last Three Years	Core Plus Fixed Income	BBgBarc 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	5.01	4.65
Total Return	15.78	14.62
Annualized Excess Return Over Risk Free	3.65	3.30
Annualized Excess Return	0.35	0.00
RISK SUMMARY STATISTICS		
Beta	1.07	1.00
Upside Deviation	2.66	2.63
Downside Deviation	2.08	1.51
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	3.99	3.56
Alpha	0.00	0.00
Sharpe Ratio	0.91	0.93
Excess Return Over Market / Risk	0.09	0.00
Tracking Error	1.24	0.00
Information Ratio	0.28	--
CORRELATION STATISTICS		
R-Squared	0.91	1.00
Correlation	0.95	1.00

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	5.85	6.53
Total Return	18.59	20.89
Annualized Excess Return Over Risk Free	4.49	5.17
Annualized Excess Return	-0.68	0.00
RISK SUMMARY STATISTICS		
Beta	0.81	1.00
Upside Deviation	3.82	5.23
Downside Deviation	12.92	13.08
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	7.80	9.46
Alpha	0.04	0.00
Sharpe Ratio	0.58	0.55
Excess Return Over Market / Risk	-0.09	0.00
Tracking Error	2.13	0.00
Information Ratio	-0.32	--
CORRELATION STATISTICS		
R-Squared	0.98	1.00
Correlation	0.99	1.00

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	0.47	1.52
Total Return	1.42	4.62
Annualized Excess Return Over Risk Free	-0.89	0.16
Annualized Excess Return	-1.05	0.00
RISK SUMMARY STATISTICS		
Beta	1.07	1.00
Upside Deviation	6.66	5.99
Downside Deviation	11.75	10.41
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	12.43	11.38
Alpha	-0.09	0.00
Sharpe Ratio	-0.07	0.01
Excess Return Over Market / Risk	-0.08	0.00
Tracking Error	2.75	0.00
Information Ratio	-0.38	--
CORRELATION STATISTICS		
R-Squared	0.95	1.00
Correlation	0.98	1.00

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	8.05	6.76
Minimum Return	-12.62	-12.81
Annualized Return	2.81	-0.20
Total Return	8.67	-0.60
Annualized Excess Return Over Risk Free	1.45	-1.56
Annualized Excess Return	3.01	0.00
RISK SUMMARY STATISTICS		
Beta	0.98	1.00
Upside Deviation	8.46	6.61
Downside Deviation	9.95	10.83
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	15.32	14.69
Alpha	0.26	0.00
Sharpe Ratio	0.09	-0.11
Excess Return Over Market / Risk	0.20	0.00
Tracking Error	5.15	0.00
Information Ratio	0.59	--
CORRELATION STATISTICS		
R-Squared	0.89	1.00
Correlation	0.94	1.00

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	8.04	7.50
Total Return	26.10	24.22
Annualized Excess Return Over Risk Free	6.68	6.14
Annualized Excess Return	0.54	0.00
RISK SUMMARY STATISTICS		
Beta	0.88	1.00
Upside Deviation	3.44	2.72
Downside Deviation	5.17	3.15
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	5.47	4.41
Alpha	0.12	0.00
Sharpe Ratio	1.22	1.39
Excess Return Over Market / Risk	0.10	0.00
Tracking Error	3.87	0.00
Information Ratio	0.14	--
CORRELATION STATISTICS		
R-Squared	0.51	1.00
Correlation	0.71	1.00

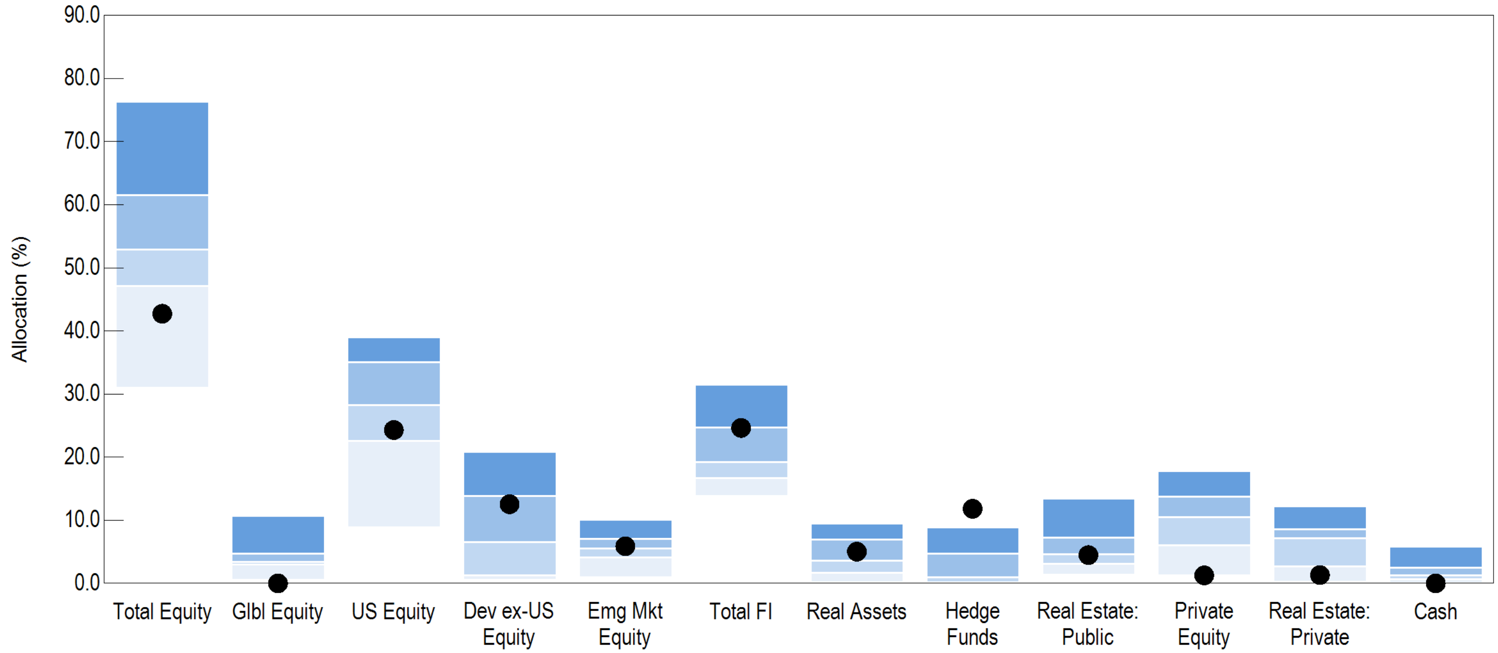
Last Three Years

	Core Real Estate	NCREIF-ODCE
RETURN SUMMARY STATISTICS		
Number of Periods	36	36
Maximum Return	1.48	2.09
Minimum Return	-1.17	-1.55
Annualized Return	4.13	4.88
Total Return	12.91	15.36
Annualized Excess Return Over Risk Free	2.77	3.52
Annualized Excess Return	-0.75	0.00
RISK SUMMARY STATISTICS		
Beta	0.58	1.00
Upside Deviation	1.61	1.80
Downside Deviation	1.41	--
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	1.90	2.78
Alpha	0.11	0.00
Sharpe Ratio	1.46	1.27
Excess Return Over Market / Risk	-0.39	0.00
Tracking Error	1.53	0.00
Information Ratio	-0.49	--
CORRELATION STATISTICS		
R-Squared	0.72	1.00
Correlation	0.85	1.00

91 Day T-Bills used as risk-free proxy

Peer Comparison

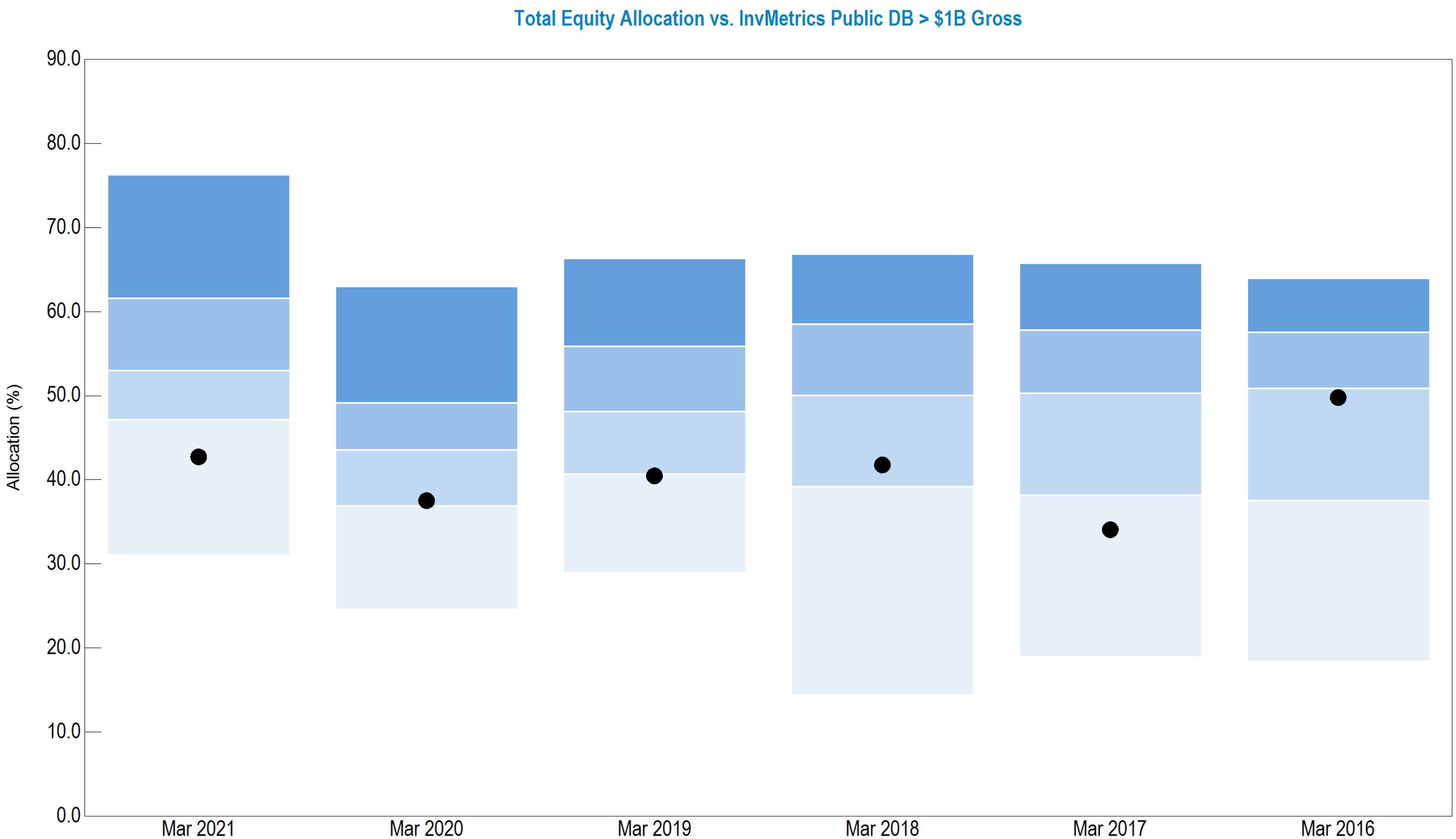
Total Plan Allocation vs. InvMetrics Public DB > $1B Gross
As of March 31, 2021

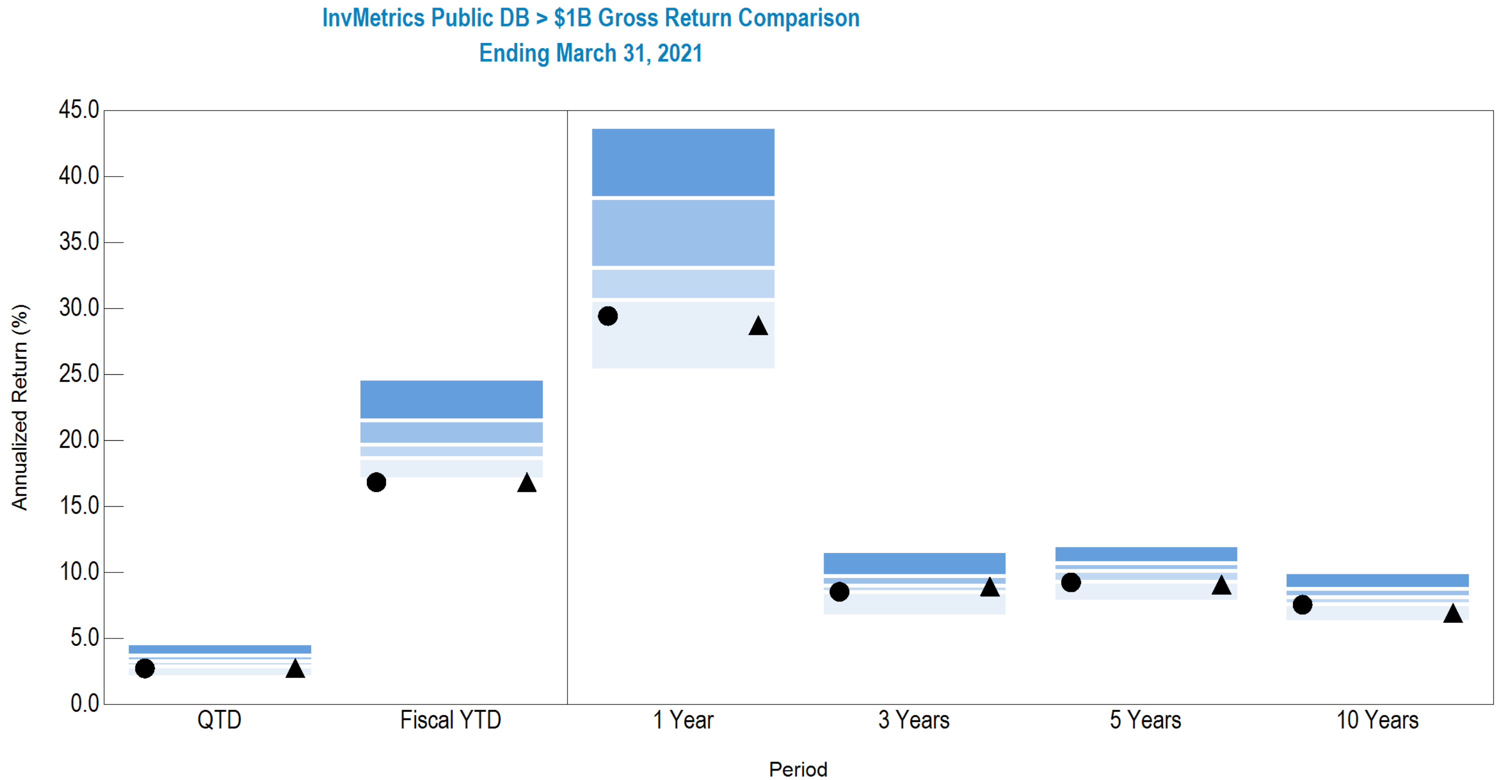


Allocation (Rank)

	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	76.3	10.7	39.0	20.8	10.1	31.5	9.5	8.8	13.4	17.8	12.2	5.8	--
25th Percentile	61.6	4.8	35.1	13.9	7.2	24.8	7.0	4.8	7.4	13.8	8.6	2.6	--
Median	53.0	3.5	28.4	6.6	5.6	19.4	3.8	1.1	4.7	10.6	7.3	1.4	--
75th Percentile	47.2	3.1	22.7	1.4	4.2	16.8	1.8	0.3	3.2	6.2	2.8	0.8	--
95th Percentile	31.1	0.7	9.0	0.7	1.0	13.9	0.3	0.0	1.5	1.4	0.4	0.1	--
# of Portfolios	26	10	17	12	18	26	11	15	7	20	18	26	-- --
● **Total Fund**	42.7 (88)	0.0 (99)	24.3 (63)	12.5 (36)	5.9 (44)	24.6 (29)	5.0 (41)	11.8 (1)	4.5 (54)	1.3 (96)	1.3 (85)	0.0 (99)	--

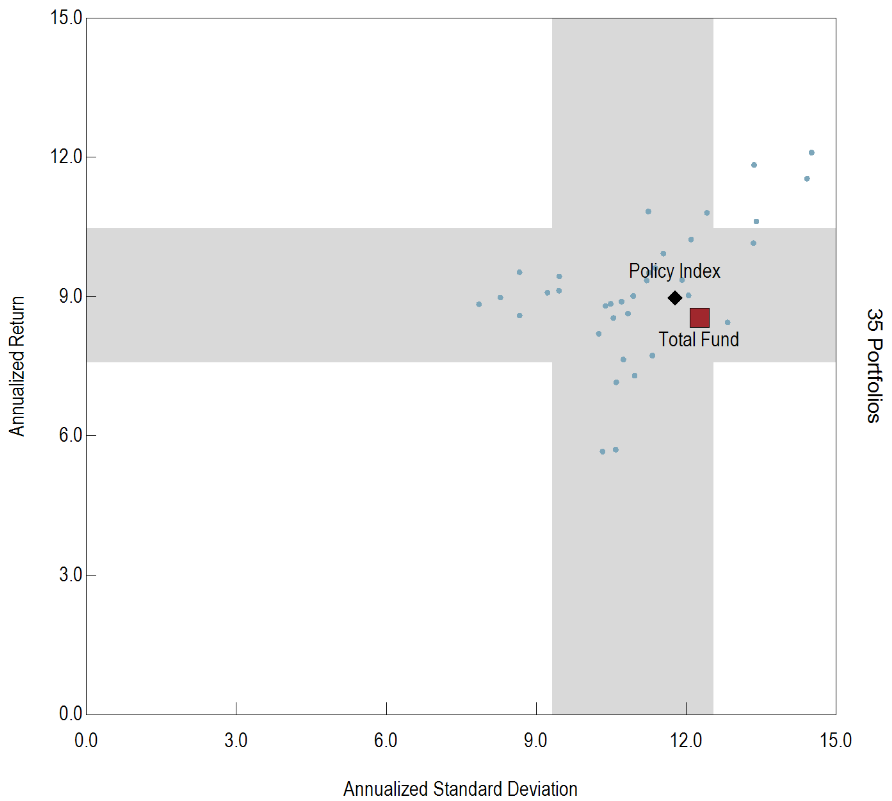
Private Credit allocation of 3.7% not included in the above chart. Opportunistic and midstream allocations not included in chart.


Total Equity Allocation vs. InvMetrics Public DB > $1B Gross
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Allocation (%)
Mar 2021
Mar 2020
Mar 2019
Mar 2018
Mar 2017
Mar 2016



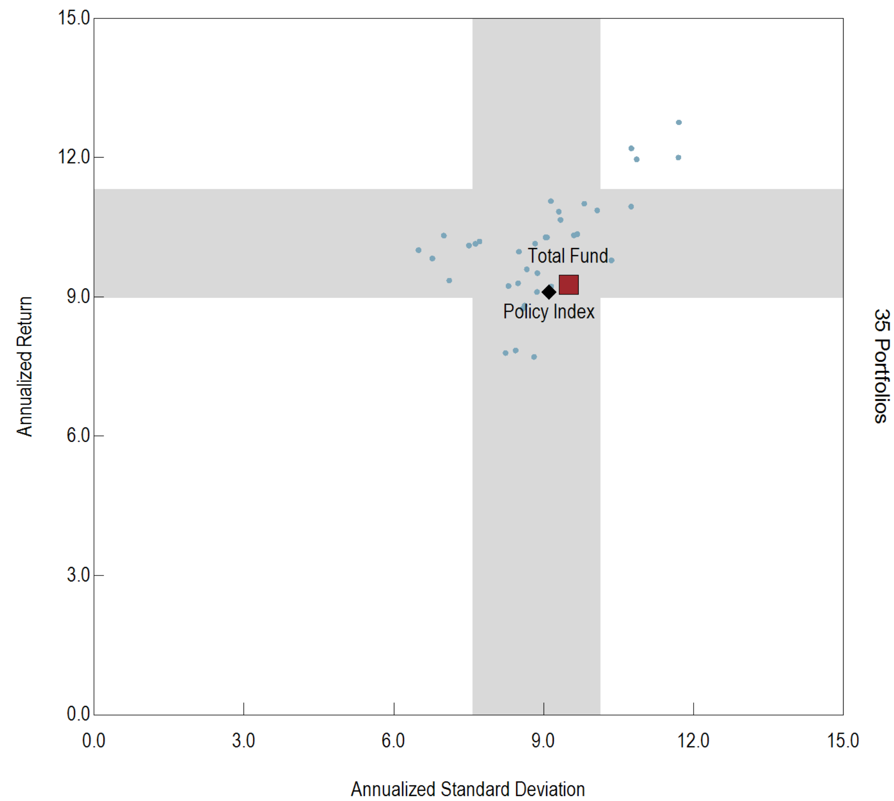
	Return (Rank)											
5th Percentile	4.6		24.7		43.7		11.6		12.1		10.0	
25th Percentile	3.7		21.6		38.4		9.8		10.7		8.8	
Median	3.3		19.7		33.1		9.0		10.1		8.2	
75th Percentile	2.9		18.7		30.7		8.6		9.3		7.6	
95th Percentile	2.1		17.1		25.3		6.7		7.8		6.3	
# of Portfolios	35		35		35		35		35		33	
● Total Fund	2.7	(82)	16.8	(96)	29.4	(80)	8.5	(77)	9.3	(79)	7.6	(82)
▲ Policy Index	2.8	(80)	16.9	(96)	28.7	(84)	9.0	(57)	9.1	(86)	7.0	(91)

Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2021



■ Total Fund
◆ Policy Index
□ 68% Confidence Interval
● InvMetrics Public DB > $1B Gross

Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2021



■ 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		$454,862,410		
Mellon DB SL Stock Index	0.03% of Assets	$363,773,440	$109,132	0.03%
Mellon NSL Dynamic US Equity	0.50% of Assets	$106,003,446	$530,017	0.50%
PIMCO StocksPLUS	0.50% of Assets	$128,949,306	$644,747	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	$108,083,253	$910,624	0.84%
Geneva Capital Small Cap Growth	0.75% of Assets	$80,364,002	$602,730	0.75%
Mellon DB SL World ex-US Index		$270,777,959		
BlackRock International Alpha Tilts	0.45% of First 100.0 Mil, 0.40% Thereafter	$249,883,967	$1,049,536	0.42%
Cevian Capital II	Performance-based 1.50 and 18.00	$33,298,052	$712,793	2.14%
American Century Non-US Small Cap		$86,220,800		
DFA Emerging Markets Value I	0.54% of Assets	$80,991,640	$437,355	0.54%
AB Emerging Markets Strategic Core Equity	1.45% of Assets	$113,840,454	$1,650,687	1.45%
Mellon Emerging Markets Stock Index	0.05% of Assets	$105,946,128	$52,973	0.05%
Fixed Income Overlay		$52,146,305		
Mellon DB SL Aggregate Bond Index Fund	0.05% of First 50.0 Mil, 0.04% of Next 50.0 Mil, 0.02% Thereafter	$176,969,635	$60,394	0.03%
PIMCO Core Plus	0.50% of First 25.0 Mil, 0.38% of Next 25.0 Mil, 0.25% Thereafter	$225,566,506	$657,666	0.29%
Western Asset Core Plus	0.30% of First 100.0 Mil, 0.15% Thereafter	$231,859,759	$497,790	0.21%
Western Asset High Yield Fixed Income	0.20% of Assets	$181,447,938	$362,896	0.20%
TCW Securitized Opportunities	1.00% of Assets	$128,370,228	$1,283,702	1.00%

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
Stone Harbor Emerging Markets Debt	0.60% of First 100.0 Mil, 0.55% Thereafter	$105,536,996	$630,453	0.60%
PIMCO EMD	0.05% of Assets	$156,725,751	$78,363	0.05%
Gresham MTAP Commodity	0.75% of Assets	$80,641,207	$604,809	0.75%
Wellington Commodities	0.75% of Assets	$176,551,346	$1,324,135	0.75%
Aristeia International Limited	Performance-based 1.00 and 20.00	$64,985,475	$649,855	1.00%
Brevan Howard	Performance-based 2.00 and 20.00	$67,504,046	$1,350,081	2.00%
D.E. Shaw	Performance-based 2.50 and 25.00	$51,692,463	$1,292,312	2.50%
HBK Fund II	Performance-based 1.50 and 20.00	$53,615,235	$804,229	1.50%
Hudson Bay		$69,222,837		
Indus Pacific Opportunities	Performance-based 1.50 and 20.00	$37,332,971	$559,995	1.50%
Magnetar Structured Credit	Performance-based 1.50 and 20.00	$13,727,305	$205,910	1.50%
Myriad Opportunities Offshore	Performance-based 2.00 and 20.00	$57,682,801	$1,153,656	2.00%
Pharo Macro Fund LTD		$54,254,272		
PIMCO Commodity Alpha	Performance-based 1.70 and 20.00	$73,610,529	$1,251,379	1.70%
River Birch	Performance-based 1.50 and 20.00	$1,274,458	$19,117	1.50%
Sculptor Enhanced Domestic Partners		$59,310,810		
Hudson Bay		$53,469,155		
Davidson Kempner		$52,852,632		
HBK Fund II		$51,560,723		
HBK Opportunities - SPAC Series		$50,339,742		
Harvest Midstream		$109,662,392		
PIMCO Midstream		$77,041,900		
ASB Real Estate	1.25% of First 5.0 Mil, 1.00% of Next 10.0 Mil, 0.75% Thereafter	$119,828,076	$948,711	0.79%
J.P. Morgan Strategic Property	1.00% of Assets	$109,010,393	$1,090,104	1.00%

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
Invesco Real Estate III	1.50% of Assets	$286,862	$4,303	1.50%
Invesco Real Estate IV	1.50% of Assets	$25,216,763	$378,251	1.50%
Landmark Real Estate Partners VIII	777,717 Annually	$21,407,496	$777,717	3.63%
Long Wharf Real Estate	1.50% of Assets	$12,135,861	$182,038	1.50%
Covenant Apartment Fund X		$8,400,000		
Abbott IV	330,000 Annually	$1,152,267	$330,000	28.64%
Abbott V	545,000 Annually	$11,842,608	$545,000	4.60%
Abbott VI	1.00% of First 25.0 Mil, 0.90% Thereafter	$25,946,444	$258,518	1.00%
Pantheon Secondary III	73,114 Quarterly	$1,354,661	$292,456	21.59%
Pantheon III	0 Annually	$56,208	$0	0.00%
Pantheon V	16,345 Quarterly	$442,588	$65,380	14.77%
Pantheon VI	149,262 Annually	$1,053,125	$149,262	14.17%
Pantheon VII	303,750 Annually	$13,553,859	$303,750	2.24%
Vista Equity Partners IV		$2,707,701		
LGT Crown		$2,750,000		
Brighton Private Equity		$4,107,069		
Colony Distressed Credit IV	0.38% of Assets	$53,248,126	$199,680	0.38%
TSSP Adjacent Opportunities Partners	1.35% of Assets	$23,893,297	$322,560	1.35%
Magnetar Constellation	Performance-based 1.50 and 17.50	$51,825,237	$777,379	1.50%
H.I.G. Bayside Loan Opportunity Fund V		$21,371,758		
Blue Torch Credit Opportunities		$4,518,821		
Fortress Credit Opportunites		$2,000,000		
Fortress Lending Fund II		$14,000,000		
DB Investors Fund IV		$33,455,199		
TAO Contingent		$39,135,329		
Short Term Cash Account		$12,219,894		
Short Term Investment Funds		$51,434,863		
Parametric Cash Overlay		$197,223,060		

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: March 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	--	--	--	--	--	--	--	--	--
Mellon DB SL Stock Index	Domestic Equity	No Issues	--	--	--	--	--	--	--	--	✓
Mellon NSL Dynamic US Equity	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	--	--	--	--	--	--	--	--	⚑
BlackRock International Alpha Tilts	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	--	--	--	--	--	--	--	--	--
Fixed Income Overlay	Domestic Fixed Income Core Plus	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	✓	✓	✓	✓	⚑	✓	✓	✓	--

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.

Total Fund
Watch List (Gross of Fees)

Period Ending: March 31, 2021

Name	Allocation Group	Status	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6	Rule 7	Rule 8	Rule 9
TCW Securitized Opportunities	Domestic Fixed Income High Yield	No Issues	✓	✓	⚐	✓	⚐	✓	⚐	--	--
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	✓	✓	✓	✓	✓	✓	✓	--	--
Harvest Midstream	Midstream	No Issues	--	--	--	--	--	--	--	--	--
PIMCO Midstream	Midstream	No Issues	--	--	--	--	--	--	--	--	--
ASB Real Estate	Real Estate	No Issues	--	--	✓	--	✓	--	⚐	--	--
J.P. Morgan Strategic Property	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 Q1	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1	2018 Q4	2018 Q3	2018 Q2
Total Fund	**2.7**	**8.8**	**4.4**	**10.7**	**-11.3**	**4.6**	**0.2**	**3.1**	**6.8**	**-6.4**	**2.3**	**0.3**
Policy Index	*2.8*	*8.8*	*4.5*	*10.2*	*-11.1*	*4.6*	*0.8*	*3.0*	*7.0*	*-5.5*	*2.2*	*0.7*

	2018 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4	2015 Q3	2015 Q2
Total Fund	**-0.1**	**3.0**	**3.2**	**2.7**	**4.2**	**0.8**	**3.5**	**1.9**	**1.1**	**2.2**	**-5.4**	**0.7**
Policy Index	*-0.1*	*3.2*	*3.1*	*2.8*	*3.5*	*0.5*	*2.9*	*2.2*	*1.8*	*1.4*	*-4.9*	*0.4*

	2015 Q1	2014 Q4	2014 Q3	2014 Q2	2014 Q1	2013 Q4	2013 Q3	2013 Q2	2013 Q1	2012 Q4	2012 Q3	2012 Q2
Total Fund	**2.4**	**0.8**	**-1.5**	**3.6**	**2.1**	**4.1**	**4.4**	**-0.6**	**4.4**	**2.2**	**4.2**	**-1.4**
Policy Index	*2.0*	*0.4*	*-1.4*	*3.4*	*2.4*	*3.8*	*4.4*	*-0.5*	*3.4*	*1.5*	*4.1*	*-1.0*

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
AB Emerging Markets Strategic Core	11/3/2016	Northern Trust
AB US Small Cap Value Equity	7/7/2015	Northern Trust
Abbott Capital PE IV	7/13/2001	Abbott Capital
Abbott Capital PE V	5/25/2005	Abbott Capital
Abbott Capital PE VI	3/31/2008	Abbott Capital
Aristeia International Limited	5/1/2014	Northern Trust
ASB Real Estate	9/30/2013	ASB
BlackRock International Alpha Tilts	9/30/2003	BlackRock
Blue Torch Credit Opportunities	7/24/2020	Blue Torch
Brevan Howard	11/1/2013	Northern Trust
Brookfield Real Estate Finance Fund V	12/18/2017	Northern Trust
Cevian Capital II	12/30/2014	Northern Trust
Colony Distressed Debt IV	12/28/2015	Colony
D.E. Shaw	6/30/2013	Northern Trust
DFA Emerging Markets Value I	3/7/2014	Northern Trust
DP Investors	1/30/2020	Northern Trust
Gresham MTAP Commodity	9/3/2013	Gresham
Harvest Midstream	9/28/2020	Harvest Midstream
HBK Fund II	11/1/2013	Northern Trust
Henderson Smallcap Growth	7/22/2015	Northern Trust
H.I.G Bayside Loan Opportunities Fund V	7/24/2019	H.I.G. Capital
Hudson Bay	6/7/2019	Northern Trust
Indus Pacific Opportunities	6/30/2014	Northern Trust
Invesco Real Estate III	6/30/2013	Invesco
Invesco Real Estate IV	12/18/2015	Invesco
J.P. Morgan Fleming EAFE Plus Equity	11/5/2003	Northern Trust
J.P. Morgan Strategic Property	7/2/2014	J.P. Morgan
Landmark Real Estate Partners VIII	4/29/2018	Landmark
Long Wharf Real Estate	6/27/2019	Long Wharf
Magnetar Structured Credit	5/1/2014	Northern Trust
Mellon Aggregate Bond Index Fund	1/14/2011	Mellon

Manager	Fund Incepted	Data Source
Mellon Dynamic US Equity Fund	9/23/2014	Mellon
Mellon EB DV Stock Index	10/18/2017	Mellon
Mellon EB DV World ex-US Index	8/1/2018	Mellon
Myriad Opportunities Offshore	5/19/2016	Northern Trust
OZ Domestic Partners II	6/30/2013	Northern Trust
Pantheon Global III		Pantheon
Pantheon USA III		Pantheon
Pantheon USA V		Pantheon
Pantheon USA VI		Pantheon
Pantheon USA VII		Pantheon
Parametric Overlay/ Cap Efficiency Program	7/31/2020	Parametric
PMF LTD	12/27/2019	Northern Trust
PIMCO Commodity Alpha	5/4/2016	PIMCO
PIMCO Core Plus	1/21/2011	Northern Trust
PIMCO EMD		Northern Trust
PIMCO StocksPLUS	7/14/2003	PIMCO
Fidelity Non-US Small Cap Equity	6/10/2008	Northern Trust
River Birch	8/3/2015	Northern Trust
Short Term Cash Account		Northern Trust
Short Term Investment Funds		Northern Trust
Stone Harbor Emerging Markets Debt	8/8/2012	Stone Harbor
Systematica Trend Following Fund		Northern Trust
TCW Securitized Opportunities	2/3/2016	TCW
Transition Equity		Northern Trust
Transition Fixed Income		Northern Trust
TSSP Adjacent Opportunities Partners	11/17/2017	TPG Sixth Street
Vista Equity Partners	7/24/2020	Vista Equity
Wellington Commodities	9/10/2013	Wellington
Western Asset Core Plus	5/31/2004	Northern Trust
Western Asset High Yield Fixed income	5/31/2005	Northern Trust
Western Asset Core Plus	5/31/2004	Northern Trust

Policy & Custom Index Composition

Policy Index: 1/1/2021-Present	37% MSCI ACWI IMI, 14% BBgBarc 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% BBgBarc US Aggregate, 4% Alerian Midstream, 1% BBgBarc
Policy Index: 7/1/2020-12/31/2020	37% MSCI ACWI IMI, 14% BBgBarc 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% BBgBarc US Aggregate, 1% Alerian Midstream, 4% BBgBarc
Policy Index: 4/1/2020-6/30/2020	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 1/1/2020-3/31/2020	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 10/1/2019-12/31/2019	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 7/1/2019-9/30/2019	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 4/1/2019-6/30/2019	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 1/1/2019-3/31/2019	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 10/1/2018-12/31/2018	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 10/1/2018-12/31/2018	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 7/1/2018-9/30/2018	37% MSCI ACWI IMI, 19% BBgBarc 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% BBgBarc US Aggregate*.
Policy Index: 1/1/2017- 6/30/2018	19% Russell 3000 Index, 18% MSCI ACWI ex US, 29% BBgBarc 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% BBgBarc 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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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management, (c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

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