Western States Office & Professional Employees Pension Fund

Investment Performance Review

Period Ending: September 30, 2023

Verus

VERUSINVESTMENTS.COM

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3rd quarter summary

THE ECONOMIC CLIMATE

— Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% QoQ annualized rate). The large uptick was driven by consumption, which continues to show resiliency. A combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown.

— The unemployment rate increased slightly during the quarter from 3.6% to 3.8%, though this appears to be due to more workers rejoining the labor force and seeking employment (a positive rather than negative development). The total size of the U.S. workforce grew by 580,000 in Q3.

PORTFOLIO IMPACTS

— The U.S. consumer has shown resiliency, with ongoing moderate spending activity. However, personal savings rates are nearly the lowest on record. We believe depressed savings activity without a commensurate surge in spending, and very poor sentiment, suggests high inflation is squeezing household budgets.

— The Cboe VIX implied volatility index remained below-average for most of the third quarter, before rising to 17.5 to end September. Market risk has been falling fairly consistently throughout the year, which may be at least partly attributed to the perception that certain risks, such as regional bank contagion and near-term recession, have eased.

THE INVESTMENT CLIMATE

— The 10-year U.S. Treasury yield increased during the quarter to 4.58%—a level not seen since 2007—likely supported by *higher for longer* interest rate expectations. This led to a flattening of the yield curve.

— U.S. headline inflation ticked up from 3.1% to 3.7% year-over-year. Core CPI (ex-food & energy) continued to fall from 4.9% to 4.1%. Shelter costs jumped unexpectedly in September showing the largest rise since May, and along with rising energy prices have generated concerns of renewed inflation. A material weakening of the job market and U.S. economy will likely be needed to bring inflation down to a 2% level.

ASSET ALLOCATION ISSUES

— Nearly all asset classes produced materially negative performance during the quarter, including global equities (-3.4%), U.S. core fixed income (-3.2%) and U.S. Treasuries (-3.1%). Highly correlated markets created difficulties for investors, as diversification produced limited value.

— U.S. investors continue to face a difficult environment for style factor investing. Over the past year, mega cap growth stocks have propelled the U.S. market higher, leading to dramatic outperformance of growth stocks and large cap stocks. However, value investing has delivered exceptional results in international developed markets, outperforming growth stocks by 11.5%.

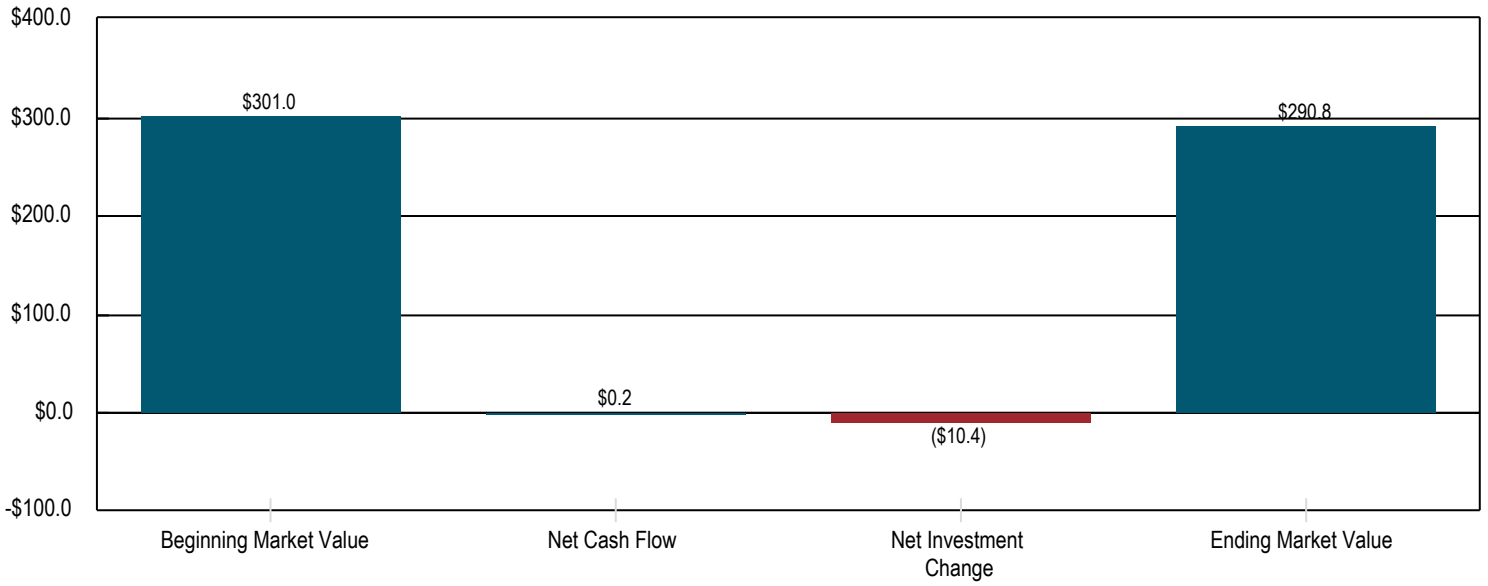
Nearly all asset classes produced materially negative performance during the quarter

A material weakening of the job market and/or U.S. economy will likely be needed to bring inflation down to a 2% level

Verus

Portfolio Reconciliation

	Last Three Months	Year-To-Date
Beginning Market Value	$300,965,661	$294,945,042
Net Cash Flow	$216,550	-$10,529,382
Net Investment Change	-$10,403,070	$6,363,480
Ending Market Value	**$290,779,140**	**$290,779,140**

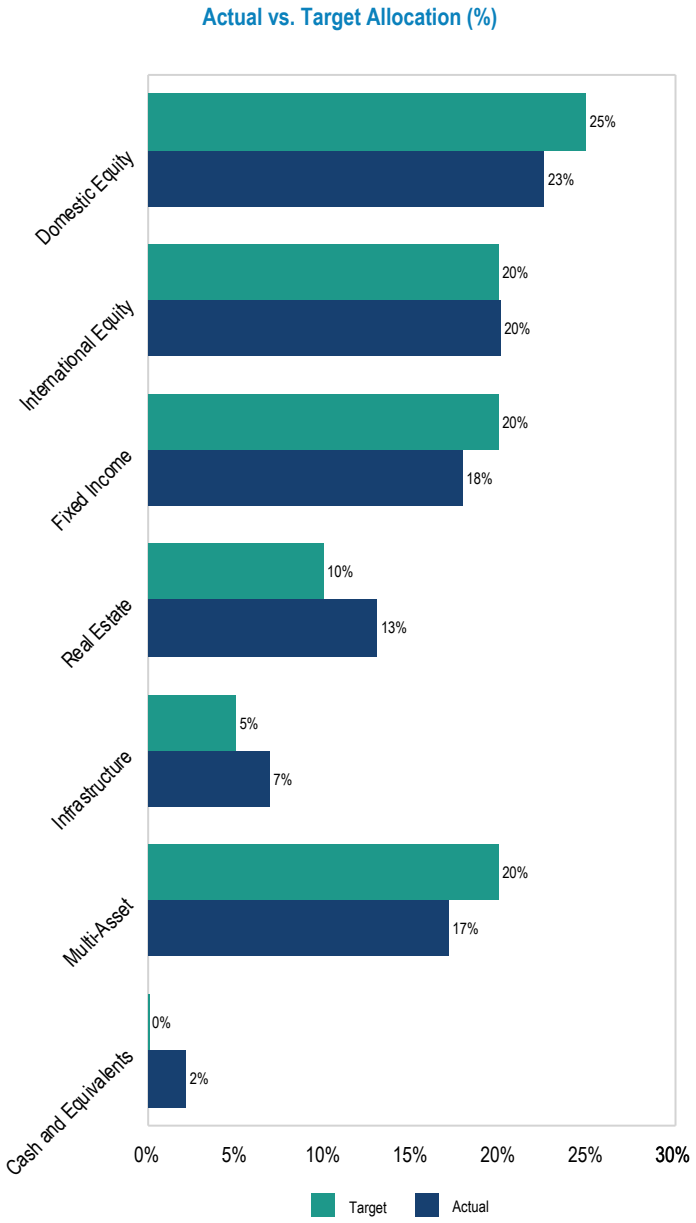


Contributions and withdrawals may include intra-account transfers between managers/funds. Total Fund does not include SFA Funds.

	Beginning Market Value	Contributions	Distributions	Net Transfers	Net Cash Flows	Net Investment Change	Ending Market Value
BlackRock Equity Index NL	$29,460,083	$0	$0	$0	$0	-$962,272	$28,497,811
INTECH US Adaptive Volatility	$29,300,227	$0	$0	$0	$0	-$1,399,252	$27,900,975
Vanguard Small Cap Index Ins	$8,853,189	$0	$0	$1,049,535	$1,049,535	-$488,022	$9,414,702
WCM Focused International Growth Fund, L.P.	$30,335,509	$0	$0	$0	$0	-$2,658,561	$27,676,948
Causeway International Value Ins	$31,840,278	$0	$0	$0	$0	-$1,083,557	$30,756,721
Loomis Sayles Core Plus	$54,171,570	$0	$0	$0	$0	-$2,051,189	$52,120,381
ASB Allegiance Real Estate	$24,082,839	$0	$0	$0	$0	-$999,040	$23,083,799
JPMorgan Special Situation Property	$16,079,765	$0	-$69,454	-$265,384	-$334,838	-$810,384	$14,934,542
IFM Global Infrastructure (US) LP	$13,009,900	$0	$0	-$113,850	-$113,850	$48,337	$12,944,386
JPMorgan IIF ERISA LP	$7,351,604	$0	$0	-$126,282	-$126,282	$54,866	$7,280,189
Invesco Balanced-Risk Allocation	$49,901,123	$0	$0	$0	$0	-$56,690	$49,844,433
US Bank Checking Account	$5,234,141	$2,554,343	-$42,903,705	$40,208,720	-$140,643	$0	$5,093,498
US Bank Clearing Account	$479,085	$36,331,755	-$35,905,109	$0	$426,647	$0	$905,732
IFM Cash	$305,082	$0	$0	-$191,231	-$191,231	$1,719	$115,570
JPMorgan IIF Erisa Cash	$457,111	$0	$0	-$249,218	-$249,218	$796	$208,689
JPMorgan Special Situation Cash	$73,454	$0	$0	-$72,870	-$72,870	$128	$711
WCM Cash	$30,702	$0	$0	-$30,700	-$30,700	$51	$52
Invesco - PBGC Funds	$290,219,941	$0	-$4,606	-$40,208,720	-$40,213,326	$3,320,172	$253,326,788
Total Fund	**$591,185,602**	**$38,886,098**	**-$78,882,874**	**$0**	**-$39,996,776**	**-$7,082,898**	**$544,105,928**

Loomis Sayles Full Discretion liquidated 3/21/2017. Loomis Sayles Core Plus funded 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated 9/1/2019. Vanguard Small Cap Index Ins replaced PanAgora US Small Cap Core Stock Selector on 4/14/2021.

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund ex PBGC	**290,779,140**	**100.0**	**-3.4**	**2.0**	**7.0**	**3.7**	**4.6**	**5.7**
Total Fund Policy Index			*-3.3*	*4.8*	*10.9*	*3.2*	*4.7*	*5.7*
Target Asset Allocation Policy Index			*-3.0*	*5.3*	*10.8*	*4.2*	*5.5*	*6.5*
Total Domestic Equity	**65,813,488**	**22.6**	**-4.1**	**8.3**	**16.5**	**7.6**	**6.7**	**9.8**
Dow Jones U.S. Total Stock Market Index			*-3.3*	*12.4*	*20.5*	*9.3*	*9.0*	*11.2*
Total International Equity	**58,433,669**	**20.1**	**-6.0**	**10.1**	**28.9**	**6.8**	**6.4**	**5.3**
Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)			*-3.5*	*5.3*	*20.2*	*3.8*	*2.6*	*3.5*
Total Fixed Income	**52,120,381**	**17.9**	**-3.9**	**-0.9**	**1.3**	**-4.3**	**0.9**	**2.2**
Total Fixed Income Benchmark (Bloomberg Aggregate)			*-3.2*	*-1.2*	*0.6*	*-5.2*	*0.1*	*1.1*
Total Real Estate	**38,018,342**	**13.1**	**-4.7**	**-14.8**	**-19.5**	**1.8**	**2.3**	**5.6**
NCREIF ODCE Net			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	*7.2*
Total Infrastructure	**20,224,575**	**7.0**	**0.5**	**4.8**	**10.5**	**9.3**	**8.2**	**7.6**
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*
Total Multi-Asset	**49,844,433**	**17.1**	**-0.2**	**2.3**	**5.8**	**2.7**	**3.6**	**4.3**
60% MSCI ACWI Net/40% FTSE WGBI			*-3.7*	*4.9*	*12.6*	*0.6*	*3.1*	*4.2*
Total Cash	**6,324,253**	**2.2**	**0.0**	**0.5**	**0.7**	**0.2**	**0.1**	**-1.0**



Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). Data prior to 3Q 2015 is from previous consultant.Total Fund does not include SFA Funds.

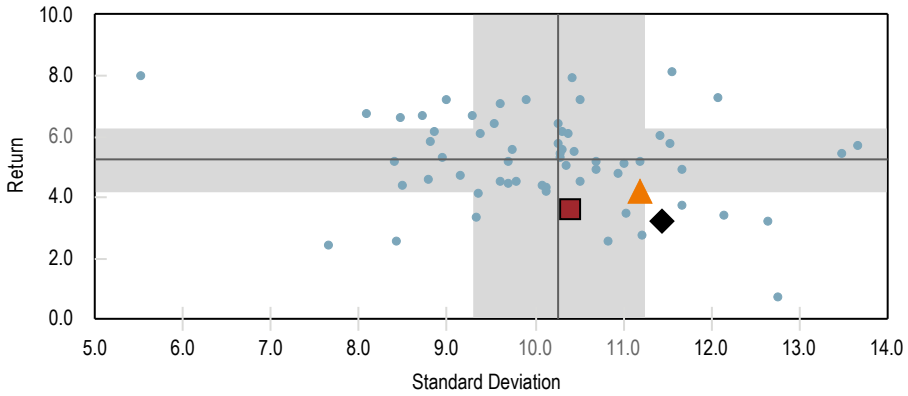
3 Year

	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	10.4	2.4	0.7	0.9	1.0	92.7	88.6	0.2	1.8	0.2
Total Fund Policy Index	*11.4*	*2.1*	*0.0*	*1.0*	*1.0*	*100.0*	*100.0*	-	*0.0*	*0.2*
Target Asset Allocation Policy Index	*11.2*	*3.1*	*1.0*	*1.0*	*1.0*	*100.4*	*94.2*	*1.2*	*0.8*	*0.3*

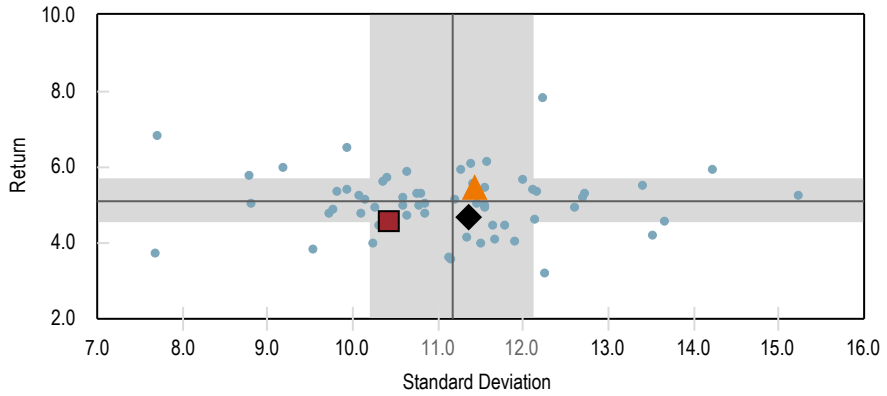
5 Year

	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	10.4	3.3	0.3	0.9	1.0	91.1	89.2	-0.1	1.8	0.3
Total Fund Policy Index	*11.4*	*3.5*	*0.0*	*1.0*	*1.0*	*100.0*	*100.0*	-	*0.0*	*0.3*
Target Asset Allocation Policy Index	*11.4*	*4.3*	*0.7*	*1.0*	*1.0*	*102.5*	*97.9*	*1.0*	*0.7*	*0.4*

3 Year



5 Year



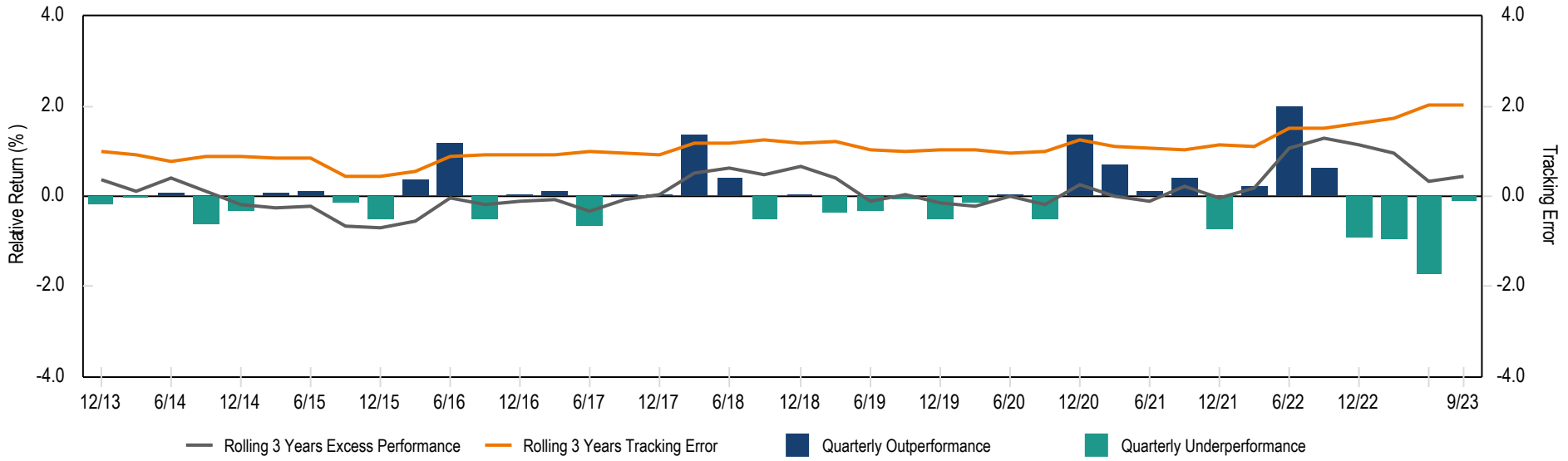
InvMetrics Taft Hartley DB $250mm- $1B Net

	Return	Standard Deviation
Total Fund	3.65	10.38
Total Fund Policy Index	3.20	11.43
Target Asset Allocation Policy Index	4.20	11.19
Median	5.25	10.27
Population	60	60

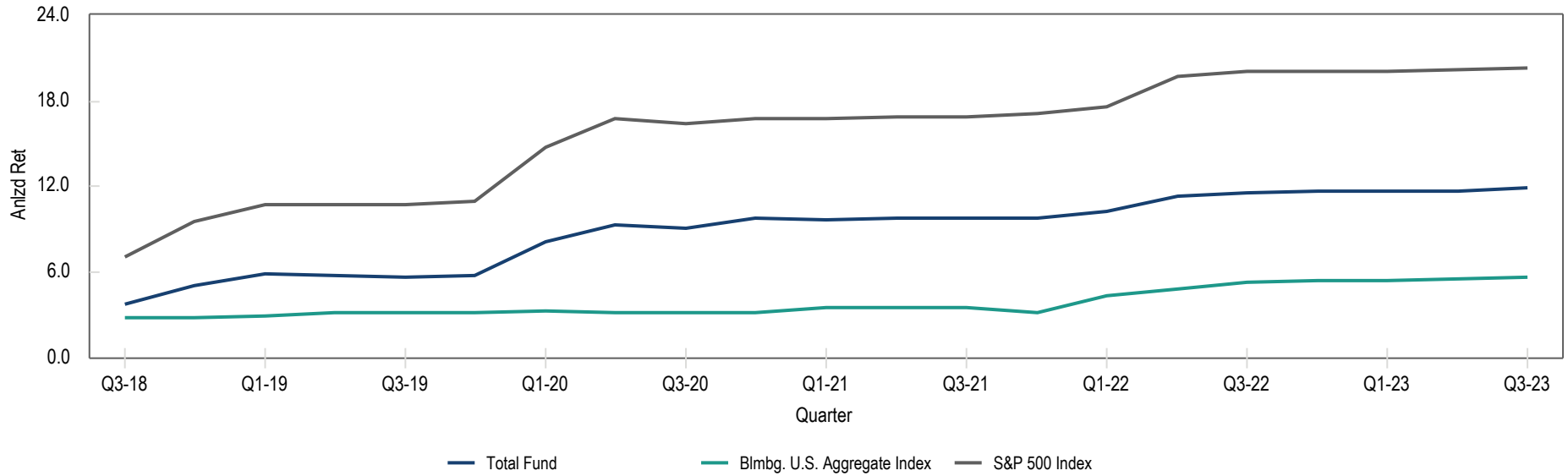
InvMetrics Taft Hartley DB $250mm- $1B Net

	Return	Standard Deviation
Total Fund	4.58	10.41
Total Fund Policy Index	4.68	11.37
Target Asset Allocation Policy Index	5.48	11.43
Median	5.11	11.16
Population	60	60

Rolling Annualized Excess Performance and Tracking Error



Rolling 5 Year Annualized Standard Deviation



Western States Office & Professional Employees Pension Fund

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Total Fund	**290,779,140**		**-3.4**	**2.0**	**7.0**	**3.7**	**4.6**	**5.7**	**-12.4**	**13.4**	**13.3**	**17.1**	**-3.3**	**7.1**	**Jan-90**
Total Fund Policy Index			*-3.3*	*4.8*	*10.9*	*3.2*	*4.7*	*5.7*	*-14.3*	*12.8*	*12.6*	*18.6*	*-4.5*	*6.4*	
Target Asset Allocation Policy Index			*-3.0*	*5.3*	*10.8*	*4.2*	*5.5*	*6.5*	*-13.5*	*13.9*	*13.9*	*19.1*	*-3.2*	*-*	
Domestic Equity	**65,813,488**														
BlackRock Equity Index NL	28,497,811		-3.3	13.1	21.6	10.1	9.9	11.9	-18.1	28.7	18.4	31.5	-4.4	12.2	May-10
S&P 500 Index			*-3.3*	*13.1*	*21.6*	*10.2*	*9.9*	*11.9*	*-18.1*	*28.7*	*18.4*	*31.5*	*-4.4*	*12.2*	
eV US Large Cap Core Equity Rank			*56*	*24*	*29*	*35*	*22*	*17*	*65*	*32*	*38*	*30*	*40*	*19*	
INTECH US Adaptive Volatility	27,900,975		-4.8	4.6	12.3	3.8	5.1	-	-16.2	19.4	14.0	23.4	-5.8	5.0	Sep-18
Russell 1000			*-3.1*	*13.0*	*21.2*	*9.5*	*9.6*	*11.6*	*-19.1*	*26.5*	*21.0*	*31.4*	*-4.8*	*9.5*	
eV US Large Cap Core Equity Rank			*89*	*79*	*88*	*96*	*96*	*-*	*48*	*92*	*61*	*91*	*58*	*96*	
Vanguard Small Cap Index Ins	9,414,702		-4.6	4.2	12.5	8.7	4.6	8.0	-17.6	17.7	19.1	27.4	-9.3	-5.1	May-21
Vanguard Spliced Small Cap Index			*-4.6*	*4.1*	*12.4*	*8.7*	*4.6*	*8.0*	*-17.6*	*17.7*	*19.1*	*27.3*	*-9.3*	*-5.1*	
eV US Small Cap Core Equity Rank			*51*	*49*	*53*	*73*	*51*	*49*	*58*	*84*	*36*	*27*	*31*	*66*	
International Equity	**58,433,669**														
WCM Focused International Growth Fund, L.P.	27,676,948		-8.8	4.5	17.6	1.0	6.8	-	-28.6	17.6	33.1	35.7	-7.4	9.1	Jul-16
MSCI AC World ex USA (Net)			*-3.8*	*5.3*	*20.4*	*3.7*	*2.6*	*3.3*	*-16.0*	*7.8*	*10.7*	*21.5*	*-14.2*	*5.5*	
eV ACWI ex-US All Cap Growth Eq Rank			*66*	*43*	*51*	*23*	*2*	*-*	*56*	*3*	*35*	*14*	*1*	*11*	
Causeway International Value Ins	30,756,721		-3.4	15.8	42.2	14.5	4.9	-	-6.8	9.1	5.4	20.1	-18.6	6.7	Jul-16
MSCI EAFE (Net)			*-4.1*	*7.1*	*25.6*	*5.8*	*3.2*	*3.8*	*-14.5*	*11.3*	*7.8*	*22.0*	*-13.8*	*6.0*	
Foreign Large Value Rank			*72*	*3*	*3*	*8*	*12*	*-*	*29*	*84*	*23*	*36*	*91*	*20*	
Fixed Income	**52,120,381**														
Loomis Sayles Core Plus	52,120,381		-3.9	-0.9	1.3	-4.3	0.9	-	-12.7	-1.1	11.3	9.4	-0.4	1.1	Apr-17
Blmbg. U.S. Aggregate Index			*-3.2*	*-1.2*	*0.6*	*-5.2*	*0.1*	*1.1*	*-13.0*	*-1.5*	*7.5*	*8.7*	*0.0*	*0.2*	
eV US Core Plus Fixed Inc Rank			*95*	*75*	*65*	*49*	*32*	*-*	*23*	*76*	*10*	*60*	*41*	*25*	

Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE Net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). August 2018 INTECH moved from managed to adaptive volatility product. Vanguard Small Cap Index Ins replaced PanAgora US Small Cap Core Stock Selector on 4/14/2021. Data prior to 3Q 2015 is from previous consultant. Total Fund does not include SFA Funds.

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Real Estate	**38,018,342**														
ASB Allegiance Real Estate	23,083,799		-4.1	-15.5	-19.1	2.1	2.2	-	9.6	13.8	1.4	3.1	6.0	4.3	Apr-15
NCREIF ODCE Net			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	*7.2*	*6.5*	*21.0*	*0.3*	*4.4*	*7.4*	*6.4*	
JPMorgan Special Situation Property	14,934,542		-5.5	-13.8	-20.1	1.5	2.3	-	-2.6	22.4	2.0	5.0	9.6	6.1	Jan-15
NCREIF ODCE Net			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	*7.2*	*6.5*	*21.0*	*0.3*	*4.4*	*7.4*	*6.6*	
Infrastructure	**20,224,575**														
IFM Global Infrastructure (US) LP	12,944,386		0.4	5.6	9.8	11.8	9.9	9.5	8.2	17.4	3.1	14.6	15.8	9.6	Feb-09
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*	*11.8*	*12.4*	*6.4*	*7.4*	*7.0*	*7.7*	
JPMorgan IIF ERISA LP	7,280,189		0.7	5.5	14.0	6.3	6.1	5.4	4.0	4.0	8.4	8.0	4.2	5.7	Oct-10
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*	*11.8*	*12.4*	*6.4*	*7.4*	*7.0*	*7.8*	
Multi-Asset	**49,844,433**														
Invesco Balanced-Risk Allocation	49,844,433		-0.2	2.3	5.8	2.7	3.6	4.2	-13.7	10.9	10.8	15.7	-5.8	6.2	Feb-10
60% MSCI ACWI Net/40% FTSE WGBI			*-3.7*	*4.9*	*12.6*	*0.6*	*3.1*	*4.2*	*-18.1*	*7.8*	*14.5*	*18.2*	*-5.8*	*5.1*	
FTSE 3-Month T-bill +6%			*2.9*	*8.4*	*11.0*	*7.9*	*7.8*	*7.2*	*7.6*	*6.0*	*6.6*	*8.4*	*8.0*	*6.9*	
eV Global Balanced Rank			*9*	*63*	*90*	*47*	*48*	*57*	*36*	*54*	*55*	*74*	*31*	*34*	
Cash and Equivalents	**6,324,253**														

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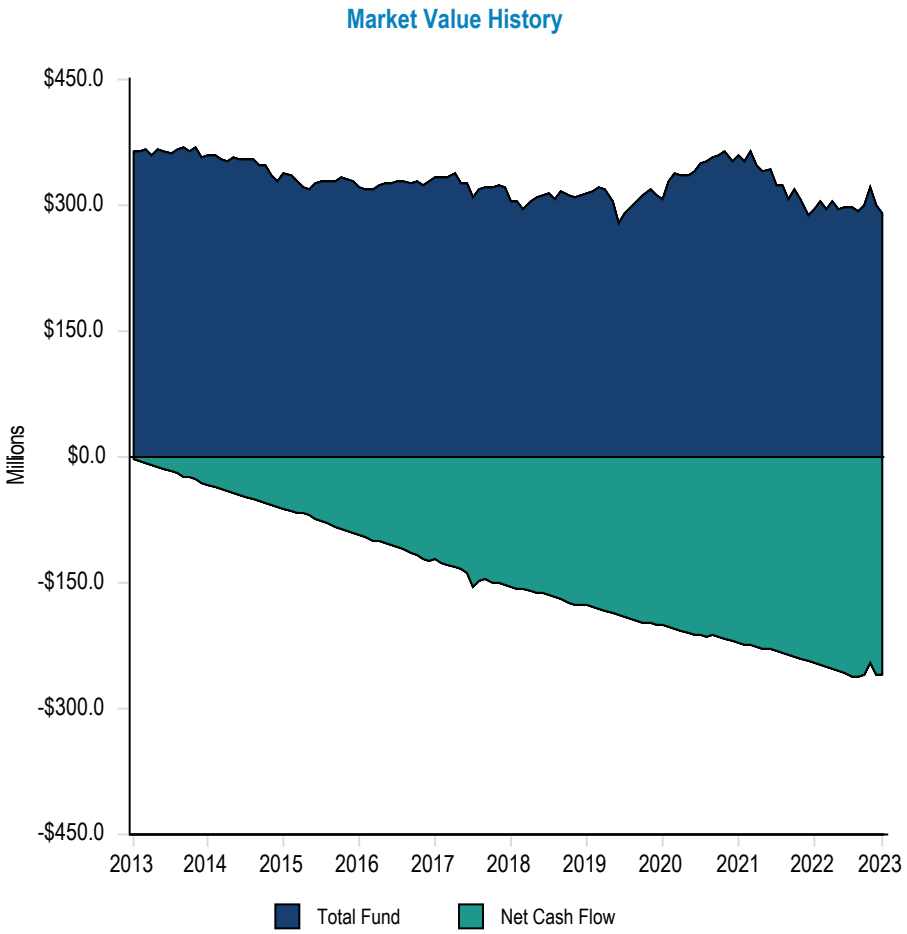
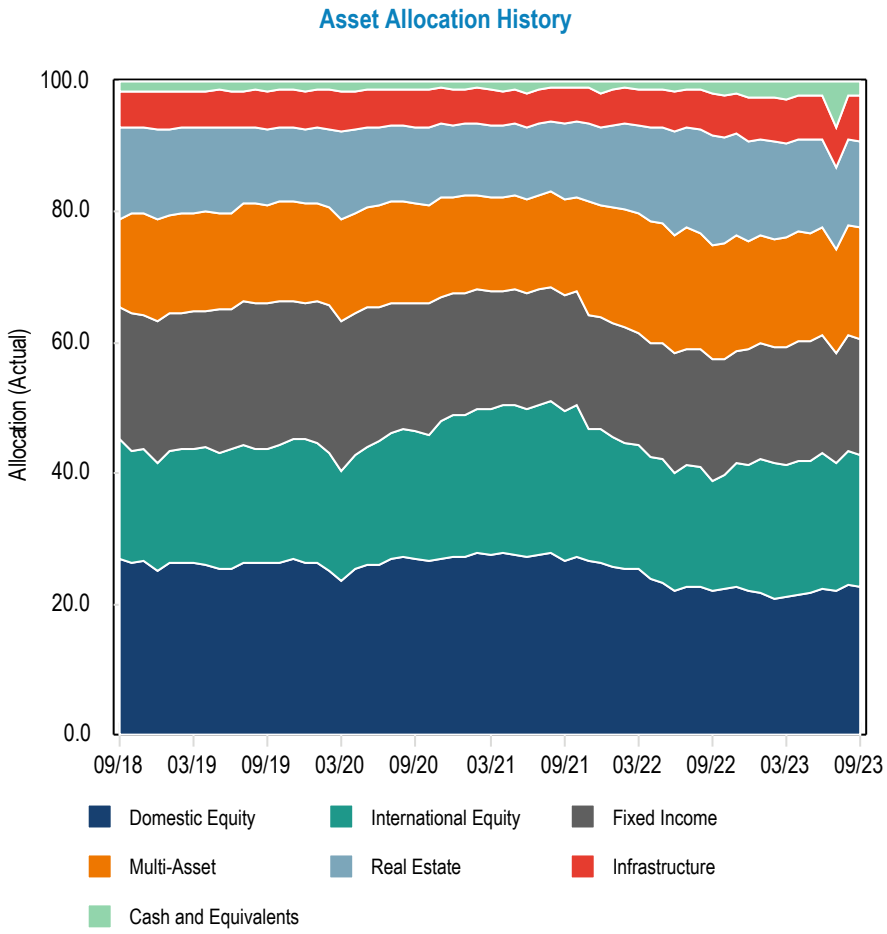
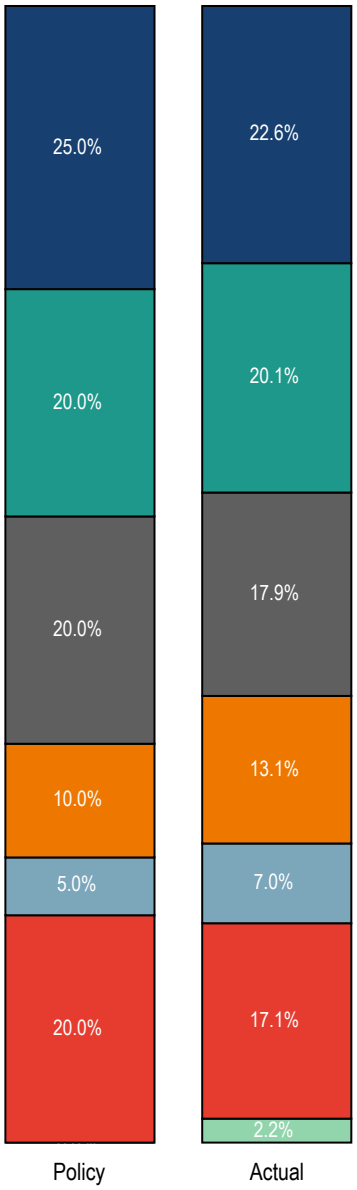
	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
PBGC	**253,326,788**		**1.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.1**	**May-23**
Invesco - PBGC Funds	253,326,788		1.2	-	-	-	-	-	-	-	-	-	-	2.1	May-23
90 Day U.S. Treasury Bill			*1.3*	*3.6*	*4.5*	*1.7*	*1.7*	*1.1*	*1.5*	*0.0*	*0.7*	*2.3*	*1.9*	*2.2*	

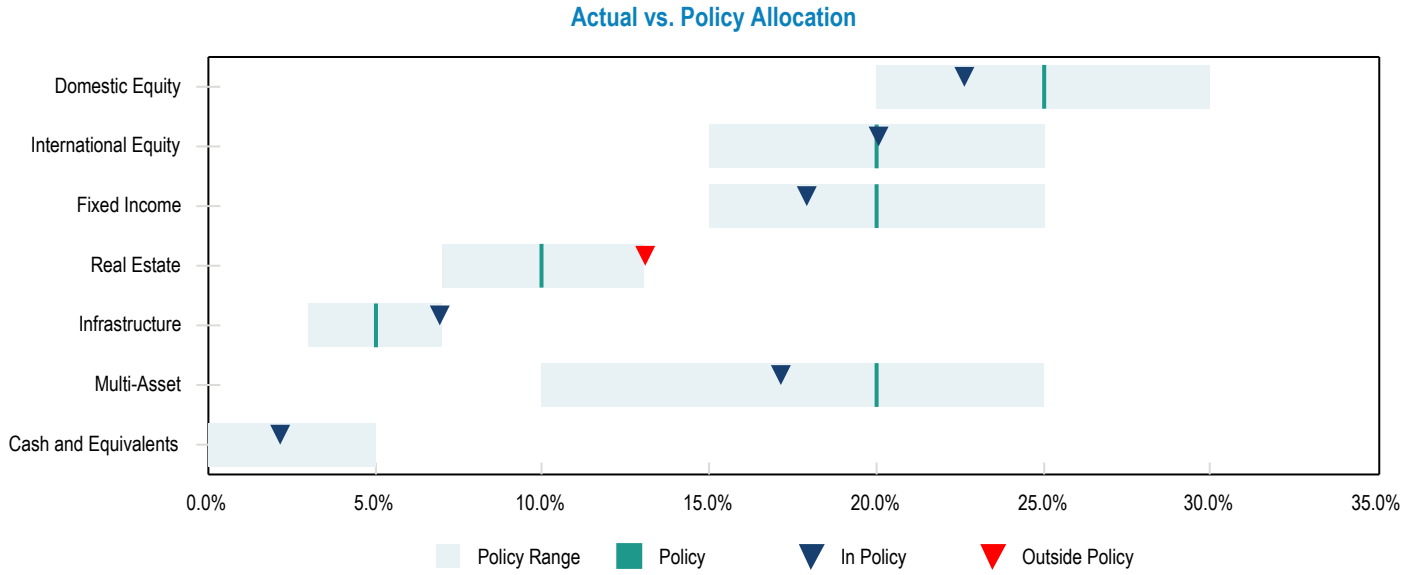
PBGC funded 5/24/2023.


Market Value History
$450.0
$300.0
$150.0
$0.0
-$150.0
-$300.0
-$450.0
Millions
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Total Fund
Net Cash Flow


Asset Allocation History
100.0
80.0
60.0
40.0
20.0
0.0
Allocation (Actual)
09/18
03/19
09/19
03/20
09/20
03/21
09/21
03/22
09/22
03/23
09/23
Domestic Equity
International Equity
Fixed Income
Multi-Asset
Real Estate
Infrastructure
Cash and Equivalents



	Current Balance ($)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	65,813,488	22.6	25.0	-2.4	20.0 - 30.0	Yes
International Equity	58,433,669	20.1	20.0	0.1	15.0 - 25.0	Yes
Fixed Income	52,120,381	17.9	20.0	-2.1	15.0 - 25.0	Yes
Real Estate	38,018,342	13.1	10.0	3.1	7.0 - 13.0	No
Infrastructure	20,224,575	7.0	5.0	2.0	3.0 - 7.0	Yes
Multi-Asset	49,844,433	17.1	20.0	-2.9	10.0 - 25.0	Yes
Cash and Equivalents	6,324,253	2.2	0.0	2.2	0.0 - 5.0	Yes
Total	**290,779,140**	**100.0**	**100.0**	**0.0**		



Total Fund does not include SFA Funds.

Name	Asset Class	Fee Schedule	Market Value	% of Portfolio	Estimated Fee Value	Estimated Fee (%)
BlackRock Equity Index NL	Domestic Equity	0.03 % of Assets	$28,497,811	5.2	$8,549	0.0
INTECH US Adaptive Volatility	Domestic Equity	0.40 % of Assets	$27,900,975	5.13	$111,604	0.40
Vanguard Small Cap Index Ins	Domestic Equity	0.04 % of Assets	$9,414,702	1.7	$3,766	0.0
WCM Focused International Growth Fund, L.P.	International Equity	0.75 % of Assets	$27,676,948	5.09	$207,577	0.75
Causeway International Value Ins	International Equity	0.88 % of Assets	$30,756,721	5.65	$270,659	0.88
Loomis Sayles Core Plus	Fixed Income	0.35 % of First $20 M 0.25 % Thereafter	$52,120,381	9.58	$150,301	0.29
ASB Allegiance Real Estate	Real Estate	1.00 % of Assets	$23,083,799	4.24	$230,838	1.00
JPMorgan Special Situation Property	Real Estate	1.60 % of Assets	$14,934,542	2.74	$238,953	1.60
IFM Global Infrastructure (US) LP	Infrastructure	0.77 % of Assets	$12,944,386	2.38	$99,672	0.77
JPMorgan IIF ERISA LP	Infrastructure	1.25 % of First $50 M 1.15 % of Next $50 M 1.05 % Thereafter	$7,280,189	1.34	$91,002	1.25
Invesco Balanced-Risk Allocation	Multi-Asset	0.38 % of First $250 M 0.35 % of Next $500 M 0.33 % of Next $250 M 0.30 % Thereafter	$49,844,433	9.16	$186,917	0.38
Invesco - PBGC Funds	Cash and Equivalents		$253,326,788	46.56	$506,654	0.20
Total Fund			**$544,105,928**	**100.00**	**$2,106,491**	**0.39**

Total Fund includes cash amount of $6,324,252.99.

Fund Name	Asset Class	Overall Status	Outperformed Index (3yrs)	Outperformed Median Rank (3yrs)	Outperformed Index (5yrs)	Outperformed Median Rank (5 yrs)	Concern	Index Fund Tracking Error exeeds .25% of Benchmark (1 yr)
BlackRock Equity Index NL	Domestic Equity		-	-	-	-	-	✔
INTECH US Adaptive Volatility	Domestic Equity		⚑	⚑	⚑	⚑	-	-
Vanguard Small Cap Index Ins	Domestic Equity		-	-	-	-	-	✔
WCM Focused International Growth Fund, L.P.	International Equity		⚑	✔	✔	✔	-	-
Causeway International Value Ins	International Equity		✔	✔	✔	✔	-	-
Loomis Sayles Core Plus	Fixed Income		✔	✔	✔	✔	-	-
ASB Allegiance Real Estate	Real Estate		⚑	-	⚑	-	-	-
JPMorgan Special Situation Property	Real Estate		⚑	-	⚑	-	-	-
IFM Global Infrastructure (US) LP	Infrastructure		✔	-	✔	-	-	-
JPMorgan IIF ERISA LP	Infrastructure		⚑	-	⚑	-	-	-
Invesco Balanced-Risk Allocation	Multi-Asset		✔	✔	✔	✔	-	-

Legend For Overall Status

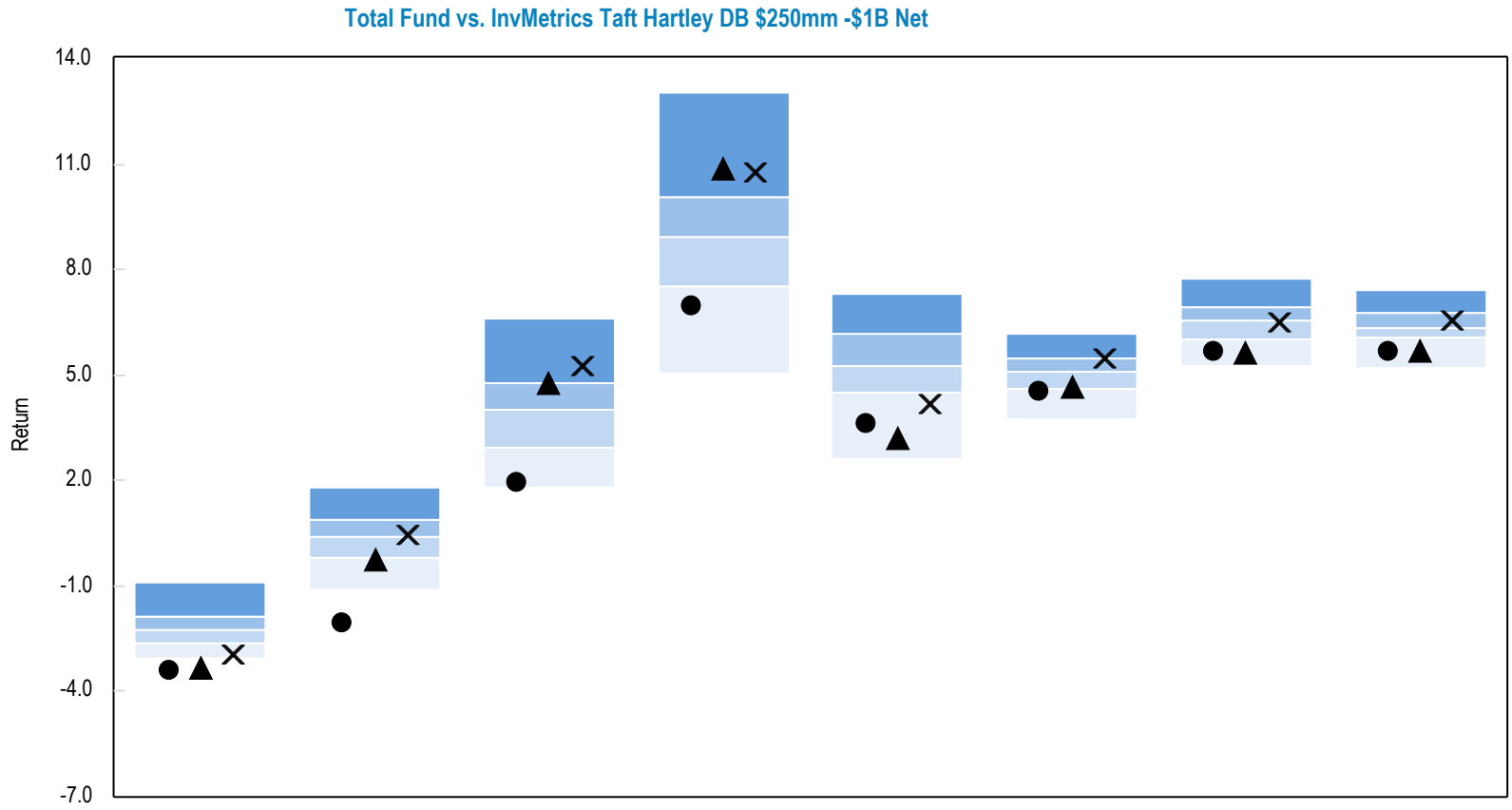
No Issues
Watch
Terminate

Legend for Standards

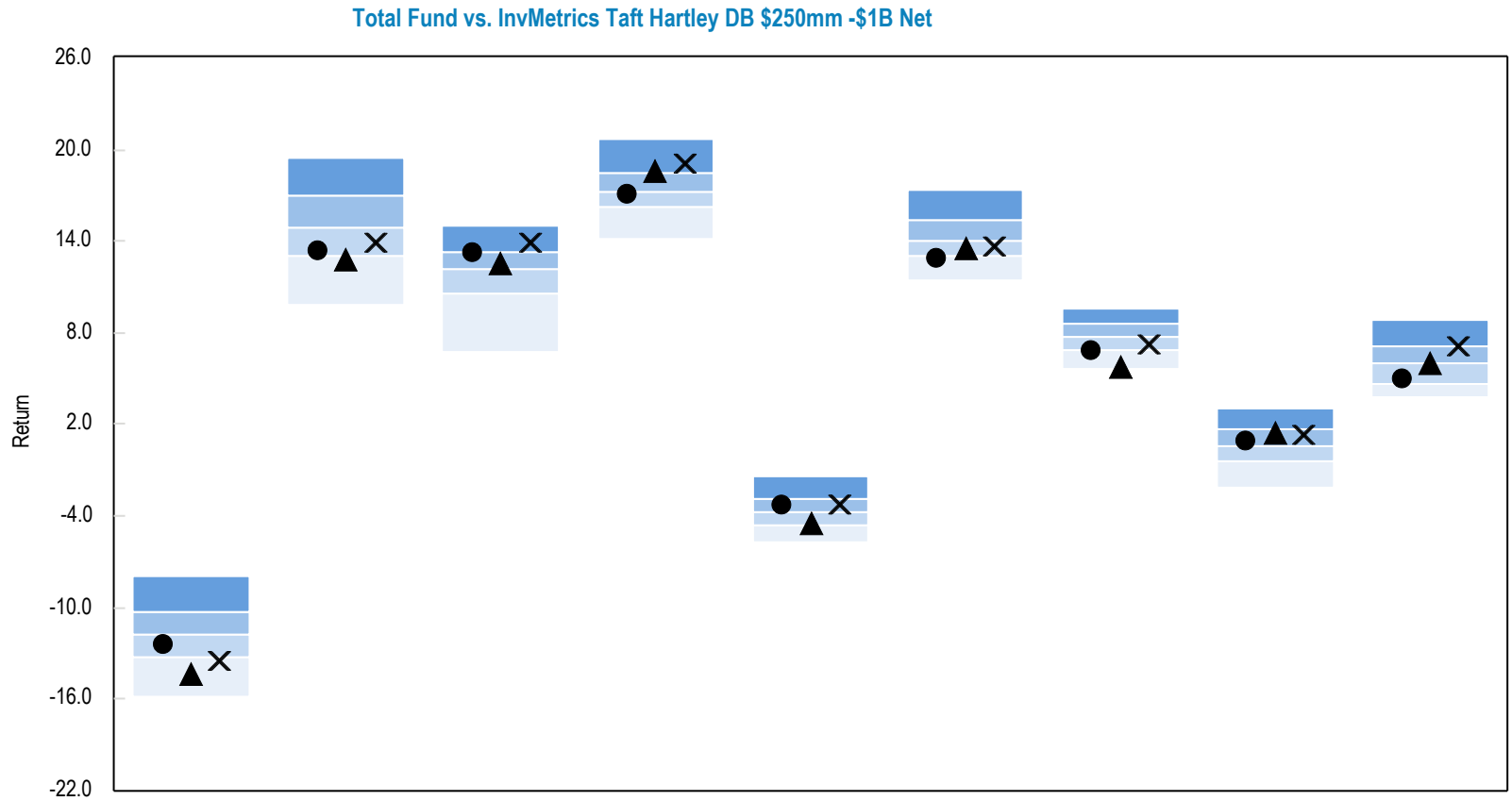
Pass ✓
Fail ⚑

Legend for Concern

Provisional	P
Restricted	R
No Issues	--



	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	7 Years	10 Years
● Total Fund	-3.40 (99)	-2.02 (100)	1.98 (91)	6.97 (81)	3.65 (86)	4.58 (77)	5.68 (89)	5.68 (88)
▲ Total Fund Policy Index	-3.31 (99)	-0.26 (77)	4.76 (25)	10.86 (17)	3.20 (92)	4.68 (74)	5.63 (89)	5.70 (88)
× Target Asset Allocation Policy Index	-2.96 (94)	0.47 (48)	5.28 (16)	10.76 (17)	4.20 (83)	5.48 (26)	6.49 (51)	6.55 (36)
5th Percentile	-0.91	1.80	6.63	13.03	7.32	6.17	7.74	7.42
1st Quartile	-1.86	0.87	4.75	10.06	6.18	5.48	6.95	6.77
Median	-2.24	0.37	4.02	8.91	5.25	5.11	6.57	6.33
3rd Quartile	-2.63	-0.20	2.92	7.53	4.48	4.63	6.00	6.04
95th Percentile	-3.06	-1.11	1.80	5.05	2.58	3.73	5.25	5.21
Population	68	66	65	64	60	60	57	56

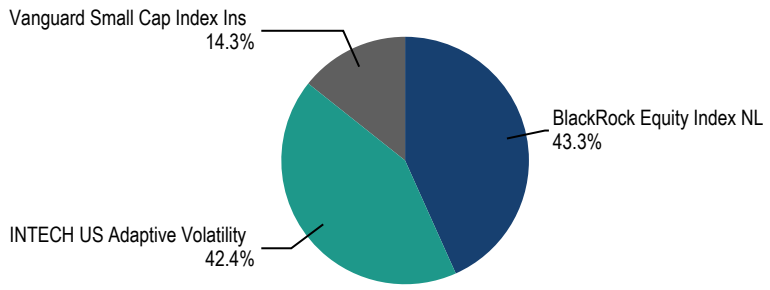


	2022	2021	2020	2019	2018	2017	2016	2015	2014
● Total Fund	-12.39 (64)	13.41 (73)	13.25 (27)	17.13 (53)	-3.28 (40)	12.93 (80)	6.93 (71)	0.94 (40)	5.06 (69)
▲ Total Fund Policy Index	-14.32 (84)	12.82 (78)	12.57 (41)	18.58 (25)	-4.52 (69)	13.48 (65)	5.76 (94)	1.41 (30)	6.05 (49)
× Target Asset Allocation Policy Index	-13.53 (79)	13.89 (67)	13.90 (15)	19.13 (17)	-3.20 (38)	13.71 (60)	7.20 (67)	1.32 (32)	7.11 (27)
5th Percentile	-7.97	19.45	15.07	20.74	-1.37	17.38	9.62	3.01	8.81
1st Quartile	-10.23	17.04	13.30	18.45	-2.88	15.36	8.56	1.71	7.12
Median	-11.71	14.87	12.12	17.19	-3.73	14.08	7.71	0.64	6.03
3rd Quartile	-13.29	13.08	10.59	16.24	-4.65	13.01	6.88	-0.36	4.68
95th Percentile	-15.86	9.83	6.76	14.18	-5.68	11.48	5.66	-2.10	3.84
Population	117	125	137	121	103	114	106	106	104

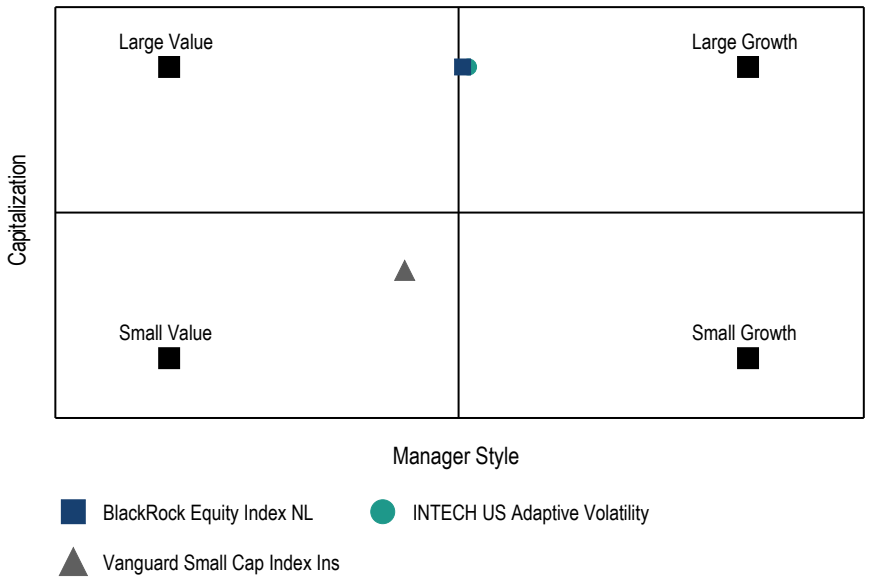
Total Domestic Equity

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total Domestic Equity	**65,813,488**	**100.0**	**-4.1**	**8.3**	**16.5**	**7.6**	**6.7**	**9.8**	**-17.3**	**23.6**	**15.9**	**27.2**	**-5.9**
Dow Jones U.S. Total Stock Market Index			*-3.3*	*12.4*	*20.5*	*9.3*	*9.0*	*11.2*	*-19.5*	*25.7*	*20.8*	*30.9*	*-5.3*
Domestic Equity	**65,813,488**	**100.0**											
BlackRock Equity Index NL	28,497,811	43.3	-3.3	13.1	21.6	10.1	9.9	11.9	-18.1	28.7	18.4	31.5	-4.4
S&P 500 Index			*-3.3*	*13.1*	*21.6*	*10.2*	*9.9*	*11.9*	*-18.1*	*28.7*	*18.4*	*31.5*	*-4.4*
eV US Large Cap Core Equity Rank			*56*	*24*	*29*	*35*	*22*	*17*	*65*	*32*	*38*	*30*	*40*
INTECH US Adaptive Volatility	27,900,975	42.4	-4.8	4.6	12.3	3.8	5.1	-	-16.2	19.4	14.0	23.4	-5.8
Russell 1000			*-3.1*	*13.0*	*21.2*	*9.5*	*9.6*	*11.6*	*-19.1*	*26.5*	*21.0*	*31.4*	*-4.8*
eV US Large Cap Core Equity Rank			*89*	*79*	*88*	*96*	*96*	-	*48*	*92*	*61*	*91*	*58*
Vanguard Small Cap Index Ins	9,414,702	14.3	-4.6	4.2	12.5	8.7	4.6	8.0	-17.6	17.7	19.1	27.4	-9.3
Vanguard Spliced Small Cap Index			*-4.6*	*4.1*	*12.4*	*8.7*	*4.6*	*8.0*	*-17.6*	*17.7*	*19.1*	*27.3*	*-9.3*
eV US Small Cap Core Equity Rank			*54*	*52*	*55*	*78*	*65*	*71*	*59*	*85*	*39*	*35*	*36*

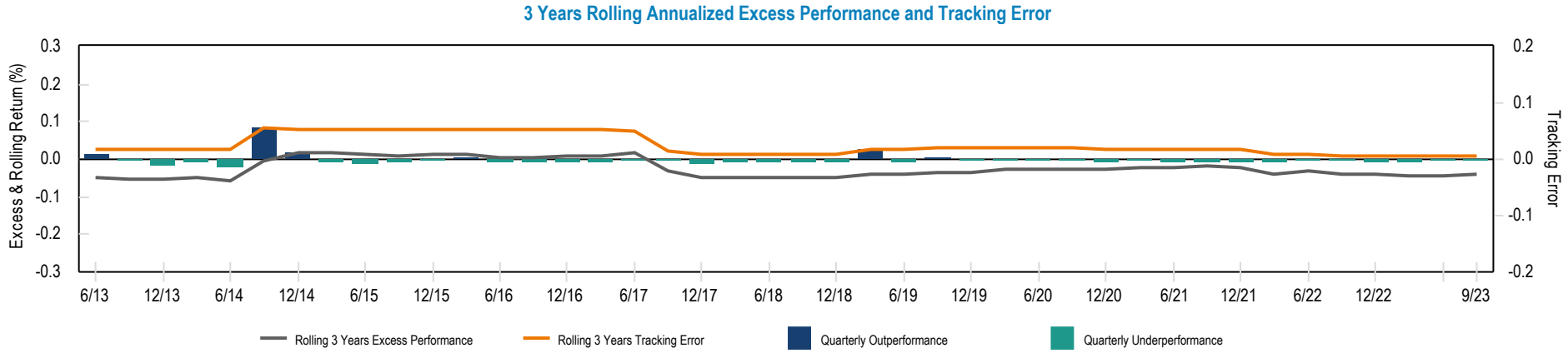
Total Domestic Equity
Current Allocation

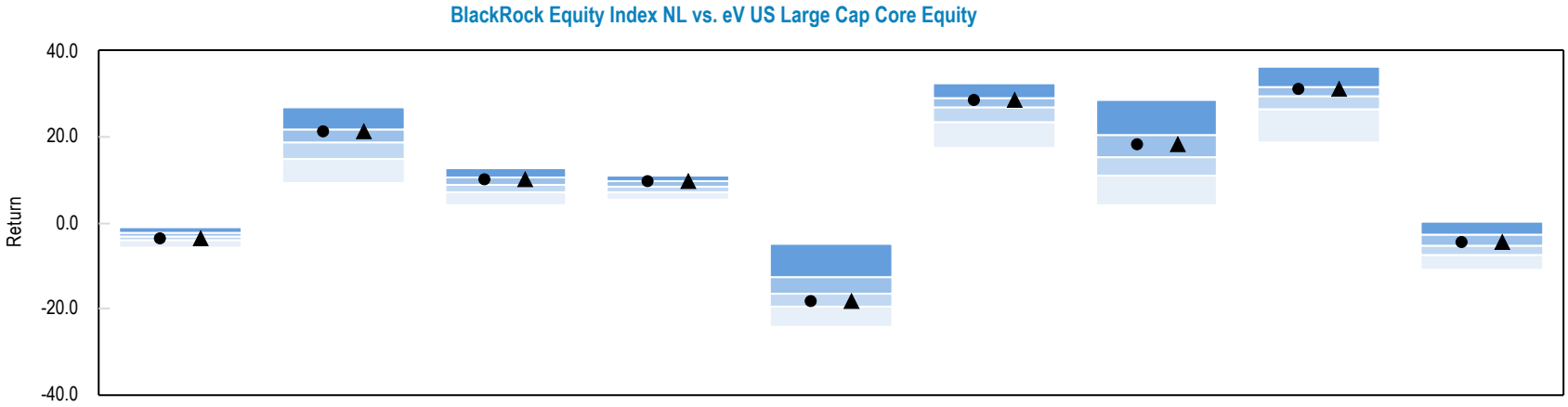


Domestic Effective Style Map
3 Years

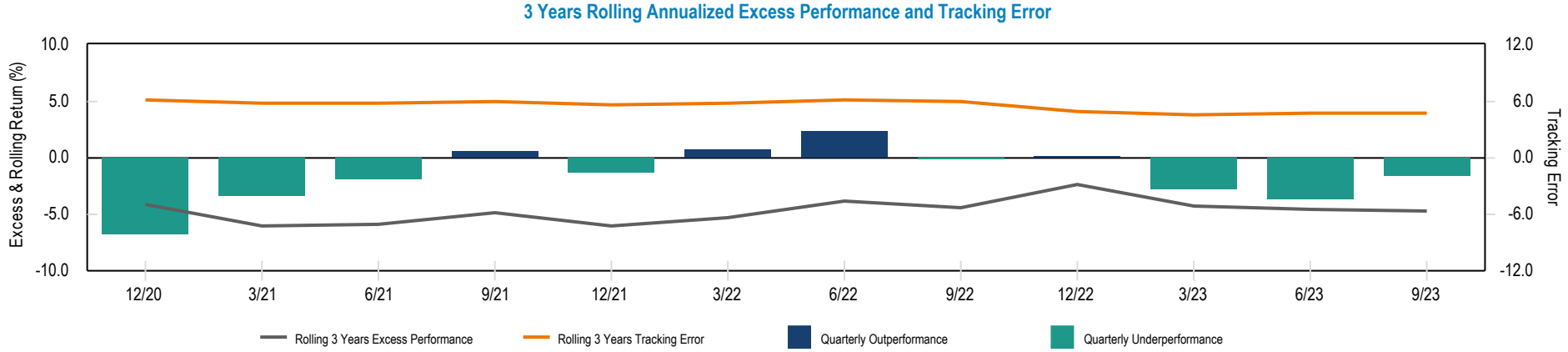


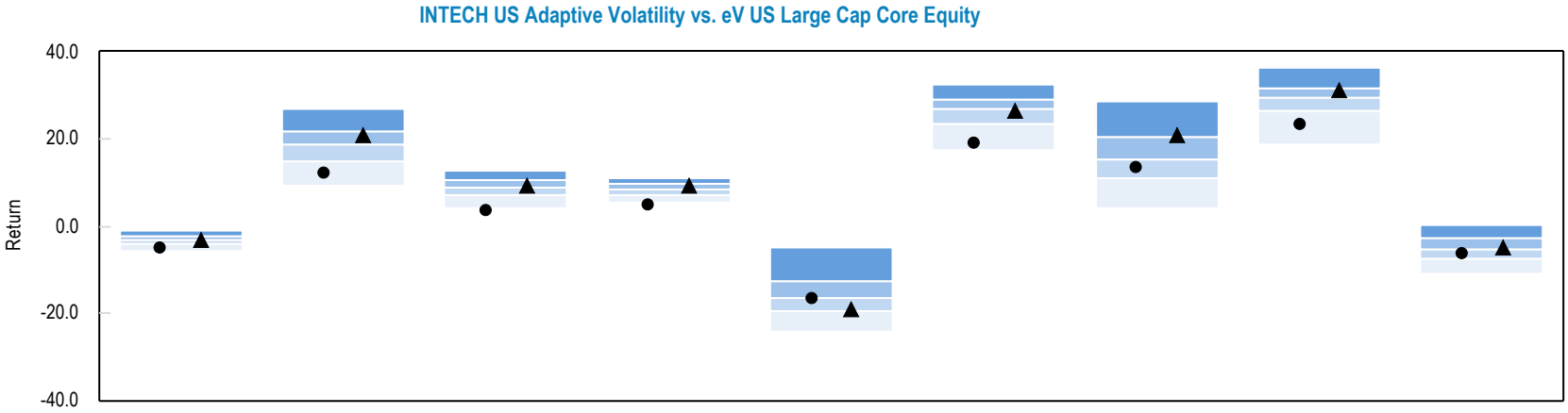
Managers need 3 years of history to be included in the style map.





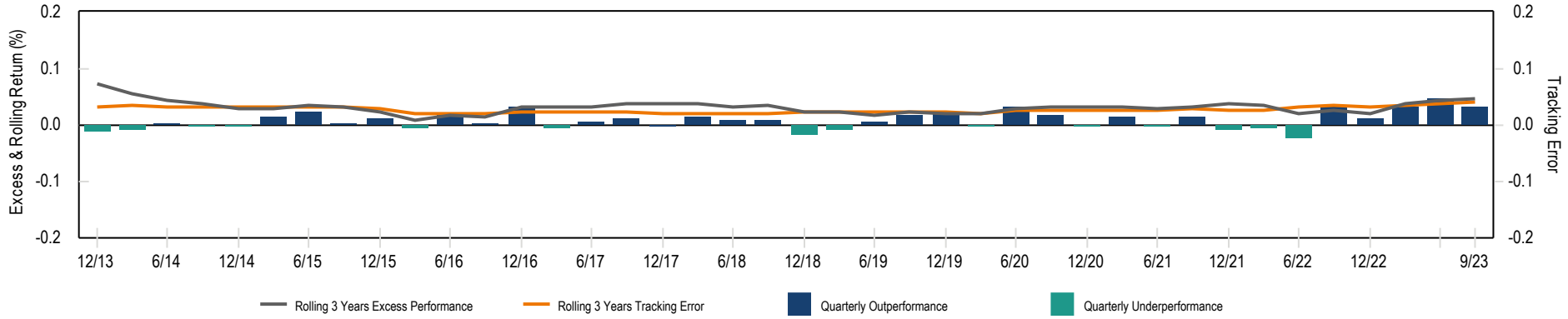
	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● BlackRock Equity Index NL	-3.27 (55)	21.59 (29)	10.12 (35)	9.90 (21)	-18.13 (65)	28.67 (32)	18.38 (38)	31.50 (30)	-4.42 (40)
▲ S&P 500 Index	-3.27 (55)	21.62 (29)	10.15 (34)	9.92 (20)	-18.11 (65)	28.71 (31)	18.40 (38)	31.49 (30)	-4.38 (40)
5th Percentile	-0.91	27.17	12.92	11.33	-4.92	32.79	29.02	36.43	0.50
1st Quartile	-2.31	22.03	10.59	9.69	-12.39	29.36	20.63	31.96	-2.67
Median	-3.15	18.85	9.15	8.70	-16.43	26.96	15.67	29.50	-5.17
3rd Quartile	-3.94	14.96	7.35	7.44	-19.19	23.82	11.00	26.69	-7.38
95th Percentile	-5.67	9.31	4.12	5.39	-24.13	17.80	4.35	19.07	-10.90
Population	346	333	322	299	351	364	379	383	388



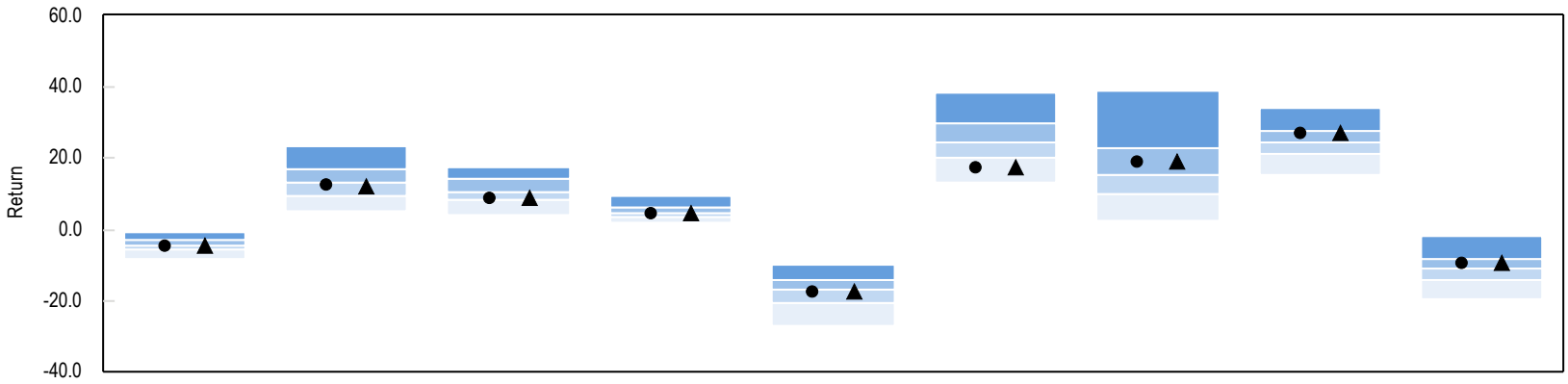


	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● INTECH US Adaptive Volatility	-4.78 (88)	12.33 (87)	3.82 (96)	5.13 (96)	-16.22 (48)	19.45 (92)	13.97 (61)	23.45 (91)	-5.84 (58)
▲ Russell 1000	-3.15 (50)	21.19 (32)	9.53 (44)	9.63 (27)	-19.13 (74)	26.45 (57)	20.96 (24)	31.43 (31)	-4.78 (46)
5th Percentile	-0.91	27.17	12.92	11.33	-4.92	32.79	29.02	36.43	0.50
1st Quartile	-2.31	22.03	10.59	9.69	-12.39	29.36	20.63	31.96	-2.67
Median	-3.15	18.85	9.15	8.70	-16.43	26.96	15.67	29.50	-5.17
3rd Quartile	-3.94	14.96	7.35	7.44	-19.19	23.82	11.00	26.69	-7.38
95th Percentile	-5.67	9.31	4.12	5.39	-24.13	17.80	4.35	19.07	-10.90
Population	346	333	322	299	351	364	379	383	388

3 Years Rolling Annualized Excess Performance and Tracking Error



Vanguard Small Cap Index Ins vs. eV US Small Cap Core Equity

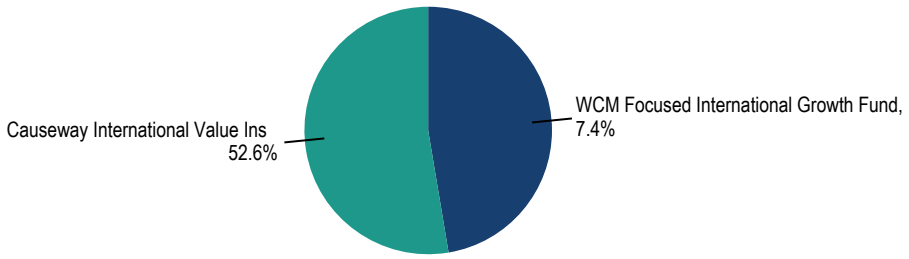


	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Vanguard Small Cap Index Ins	-4.61 (50)	12.54 (53)	8.71 (73)	4.61 (52)	-17.63 (58)	17.73 (84)	19.12 (36)	27.40 (28)	-9.32 (32)
▲ Vanguard Spliced Small Cap Index	-4.64 (52)	12.40 (54)	8.66 (73)	4.57 (53)	-17.64 (58)	17.71 (84)	19.07 (36)	27.35 (28)	-9.33 (32)
5th Percentile	-0.97	23.24	17.63	9.45	-9.70	38.33	38.98	34.05	-1.72
1st Quartile	-3.11	16.75	14.28	6.10	-13.98	29.82	22.97	27.83	-8.44
Median	-4.62	13.11	10.80	4.71	-16.65	24.27	15.34	24.69	-10.92
3rd Quartile	-5.78	9.51	8.17	3.33	-20.46	20.18	9.95	21.28	-14.07
95th Percentile	-8.25	5.28	4.27	1.81	-27.06	13.32	2.47	15.53	-19.33
Population	186	182	172	163	190	197	201	207	216

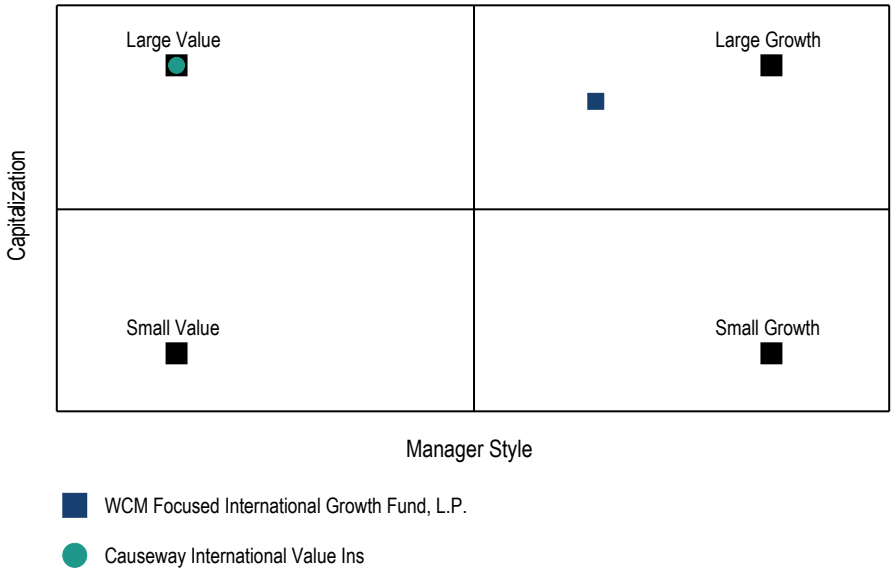
International Equity

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total International Equity	**58,433,669**	**100.0**	**-6.0**	**10.1**	**28.9**	**6.8**	**6.4**	**5.3**	**-20.0**	**14.6**	**21.7**	**27.8**	**-13.0**
Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)			*-3.5*	*5.3*	*20.2*	*3.8*	*2.6*	*3.5*	*-16.6*	*8.5*	*11.1*	*21.6*	*-14.8*
International Equity	**58,433,669**	**100.0**											
WCM Focused International Growth Fund, L.P.	27,676,948	47.4	-8.8	4.5	17.6	1.0	6.8	-	-28.6	17.6	33.1	35.7	-7.4
MSCI AC World ex USA (Net)			*-3.8*	*5.3*	*20.4*	*3.7*	*2.6*	*3.3*	*-16.0*	*7.8*	*10.7*	*21.5*	*-14.2*
eV ACWI ex-US All Cap Growth Eq Rank			*66*	*43*	*51*	*23*	*2*	-	*56*	*3*	*35*	*14*	*1*
Causeway International Value Ins	30,756,721	52.6	-3.4	15.8	42.2	14.5	4.9	-	-6.8	9.1	5.4	20.1	-18.6
MSCI EAFE (Net)			*-4.1*	*7.1*	*25.6*	*5.8*	*3.2*	*3.8*	*-14.5*	*11.3*	*7.8*	*22.0*	*-13.8*
Foreign Large Value Rank			*72*	*3*	*3*	*8*	*12*	-	*29*	*84*	*23*	*36*	*91*

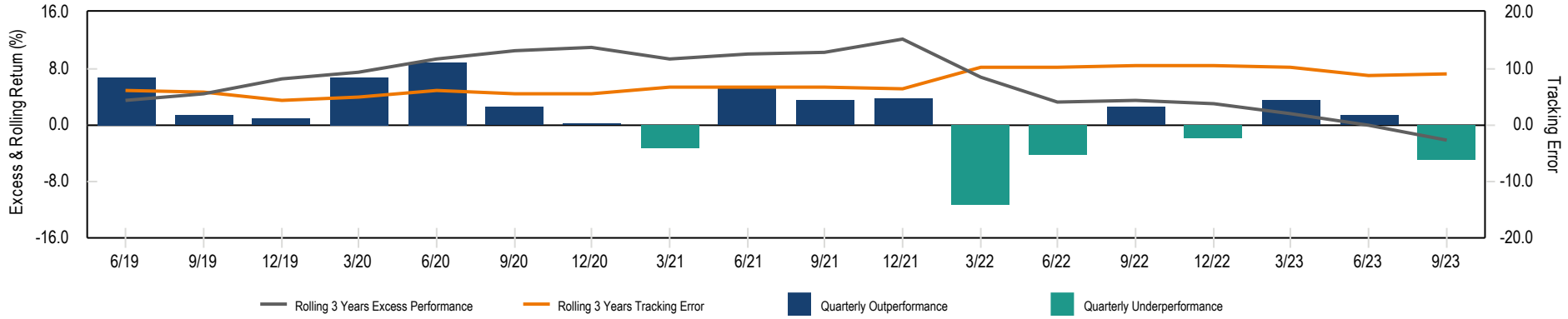
Total International Equity
Current Allocation



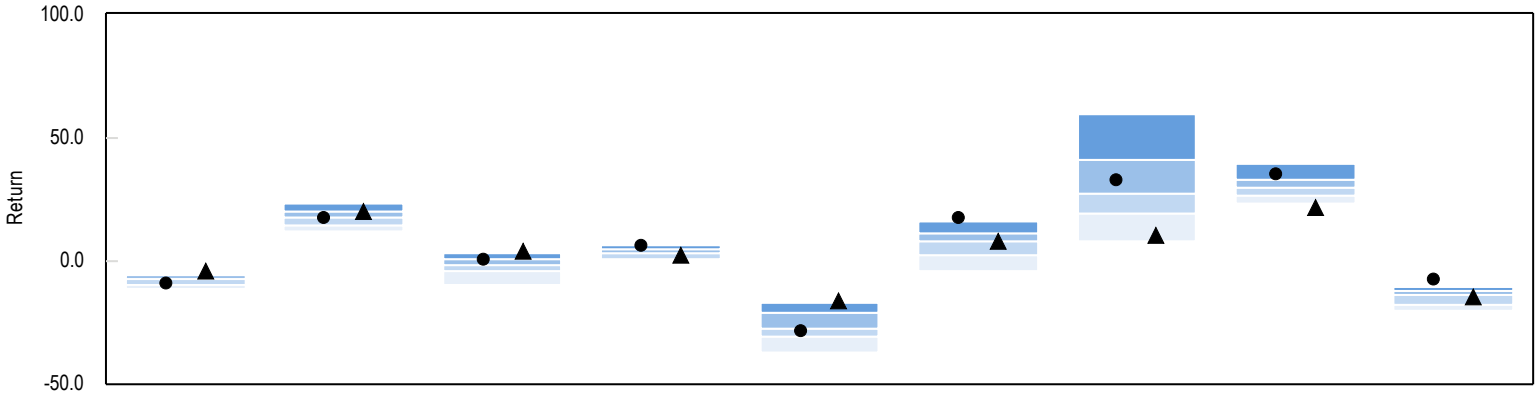
International Equity Effective Style Map
3 Years



3 Years Rolling Annualized Excess Performance and Tracking Error

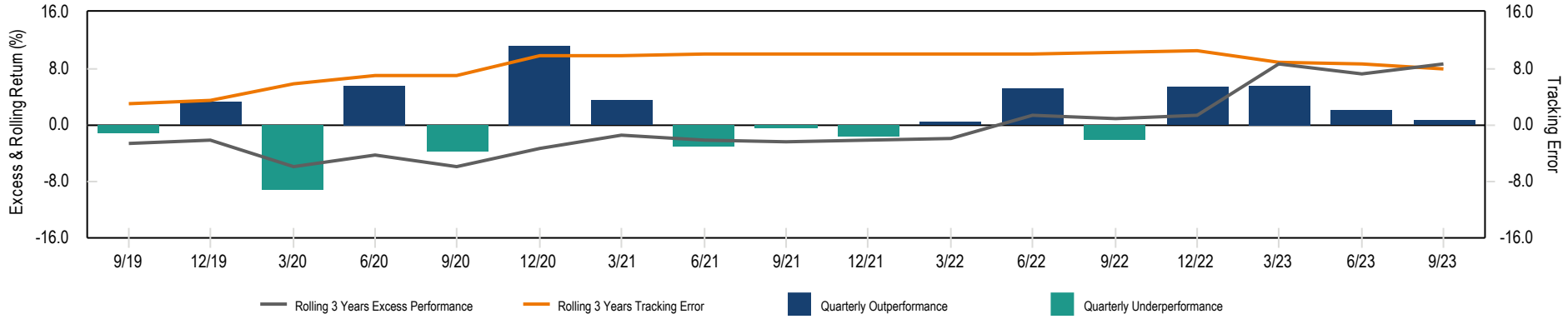


WCM Focused International Growth Fund, L.P. vs. eV ACWI ex-US All Cap Growth Eq

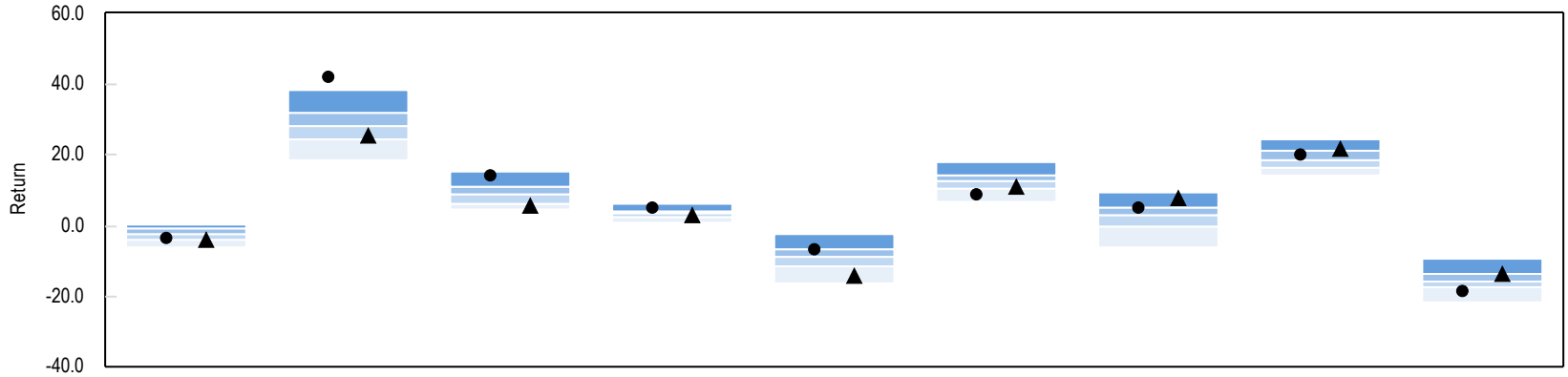


	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● WCM Focused International Growth Fund, L.P.	-8.76 (67)	17.56 (52)	0.99 (26)	6.81 (2)	-28.60 (56)	17.64 (3)	33.07 (35)	35.73 (14)	-7.40 (1)
▲ MSCI AC World ex USA (Net)	-3.77 (1)	20.39 (25)	3.74 (3)	2.58 (63)	-16.00 (5)	7.82 (52)	10.65 (94)	21.51 (98)	-14.20 (51)
5th Percentile	-4.56	23.29	3.53	6.55	-16.68	16.24	60.05	39.17	-10.47
1st Quartile	-5.92	19.92	1.02	4.96	-20.67	10.91	40.93	33.16	-12.47
Median	-7.64	17.83	-1.24	3.06	-27.70	7.88	27.10	29.91	-14.10
3rd Quartile	-9.69	14.76	-4.19	1.21	-30.96	2.49	19.43	26.62	-17.52
95th Percentile	-11.24	11.79	-9.47	0.56	-37.49	-4.15	8.19	23.06	-20.06
Population	36	36	36	32	37	39	39	39	36

3 Years Rolling Annualized Excess Performance and Tracking Error



Causeway International Value Ins vs. Foreign Large Value

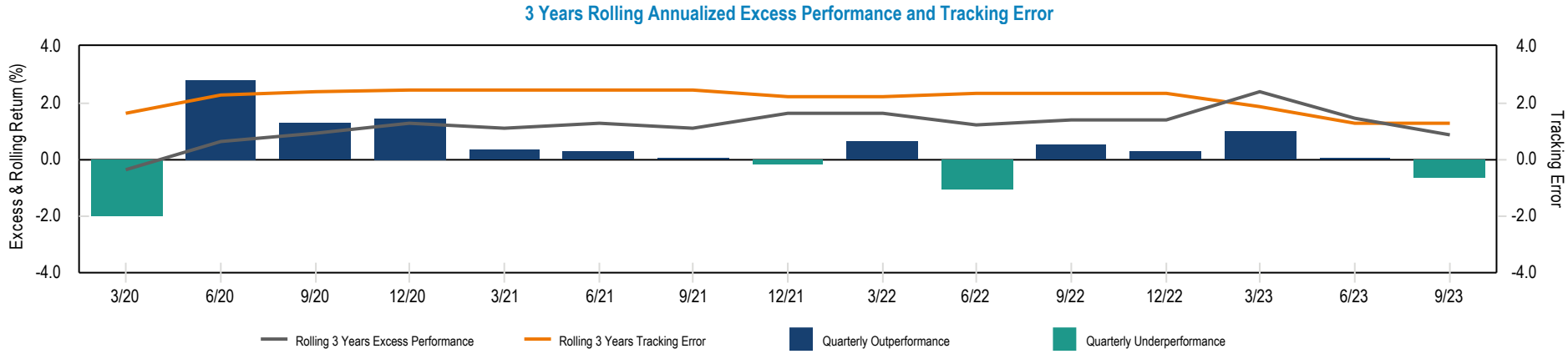


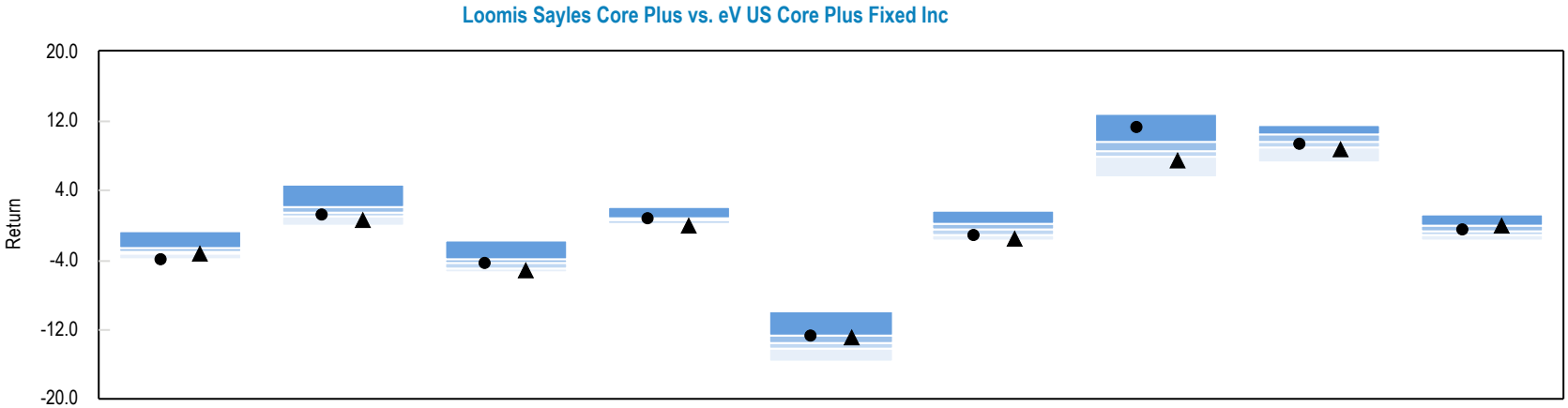
	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Causeway International Value Ins	-3.40 (72)	42.16 (3)	14.46 (8)	4.92 (12)	-6.76 (29)	9.07 (84)	5.40 (23)	20.10 (36)	-18.61 (91)
▲ MSCI EAFE (Net)	-4.11 (80)	25.65 (73)	5.75 (91)	3.24 (55)	-14.45 (89)	11.26 (62)	7.82 (7)	22.01 (15)	-13.79 (26)
5th Percentile	0.48	38.66	15.50	6.46	-2.19	17.99	9.27	24.46	-9.55
1st Quartile	-0.87	31.96	11.24	4.09	-6.41	14.21	5.16	21.24	-13.53
Median	-2.30	28.43	9.10	3.37	-8.94	12.49	2.85	18.48	-15.92
3rd Quartile	-3.92	24.76	6.50	2.24	-11.69	10.27	0.00	16.71	-17.67
95th Percentile	-6.36	18.82	4.84	0.92	-16.20	6.99	-5.95	14.11	-21.89
Population	95	95	85	82	92	92	89	88	84

Domestic Fixed Income

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total Fixed Income	**52,120,381**	**100.0**	**-3.9**	**-0.9**	**1.3**	**-4.3**	**0.9**	**2.2**	**-12.7**	**-1.1**	**11.3**	**9.4**	**-0.4**
Total Fixed Income Benchmark (Bloomberg Aggregate)			*-3.2*	*-1.2*	*0.6*	*-5.2*	*0.1*	*1.1*	*-13.0*	*-1.5*	*7.5*	*8.7*	*0.0*
Loomis Sayles Core Plus	52,120,381	100.0	-3.9	-0.9	1.3	-4.3	0.9	-	-12.7	-1.1	11.3	9.4	-0.4
Blmbg. U.S. Aggregate Index			*-3.2*	*-1.2*	*0.6*	*-5.2*	*0.1*	-	*-13.0*	*-1.5*	*7.5*	*8.7*	*0.0*
eV US Core Plus Fixed Inc Rank			*95*	*75*	*65*	*49*	*32*	-	*23*	*76*	*10*	*60*	*41*

Fixed Income Effective Style Map

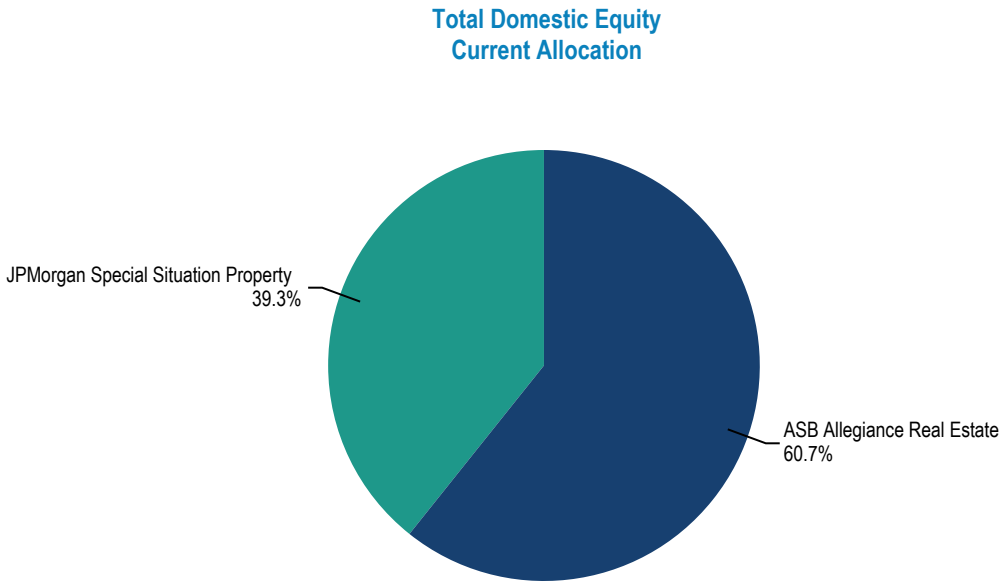




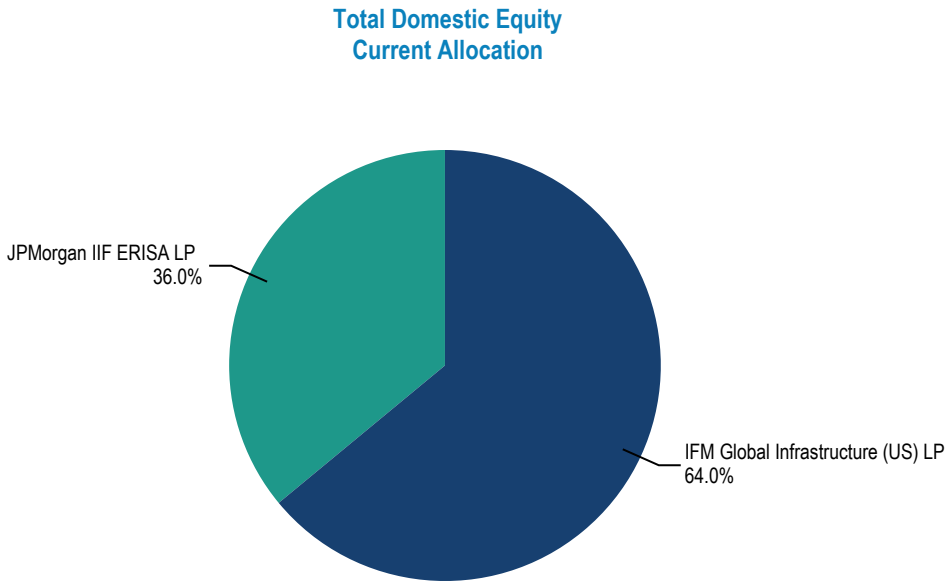
	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Loomis Sayles Core Plus	-3.86 (95)	1.27 (64)	-4.35 (50)	0.87 (31)	-12.66 (23)	-1.06 (76)	11.29 (10)	9.43 (60)	-0.42 (41)
▲ Blmbg. U.S. Aggregate Index	-3.23 (78)	0.64 (82)	-5.21 (87)	0.10 (90)	-13.01 (36)	-1.55 (91)	7.51 (82)	8.72 (81)	0.01 (25)
5th Percentile	-0.59	4.69	-1.80	2.21	-9.84	1.70	12.80	11.63	1.23
1st Quartile	-2.60	2.24	-3.87	0.92	-12.76	0.11	9.63	10.60	-0.07
Median	-2.94	1.57	-4.37	0.57	-13.46	-0.42	8.62	9.72	-0.60
3rd Quartile	-3.19	0.97	-4.85	0.30	-14.13	-1.03	7.86	9.00	-1.02
95th Percentile	-3.87	-0.01	-5.43	-0.01	-15.62	-1.70	5.65	7.40	-1.67
Population	140	138	129	122	143	143	145	146	145

Alternatives

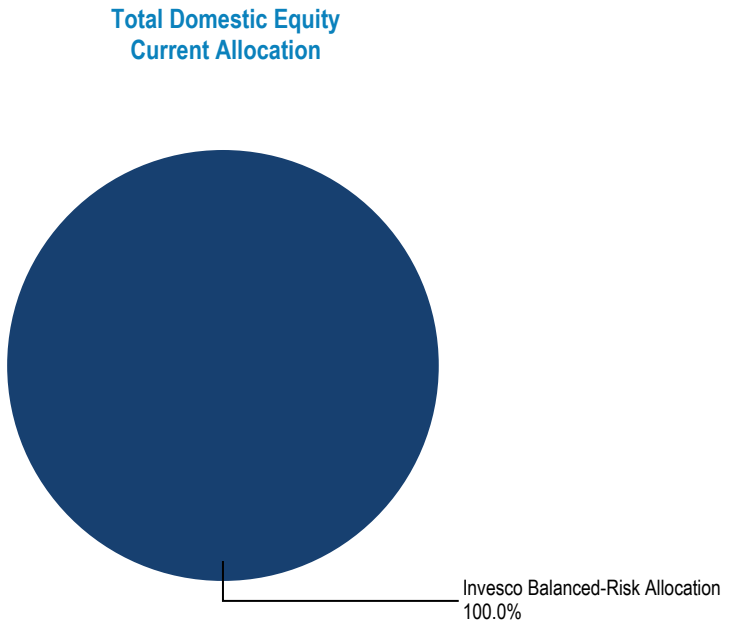
	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total Real Estate	**38,018,342**	**100.0**	**-4.7**	**-14.8**	**-19.5**	**1.8**	**2.3**	**5.6**	**4.4**	**17.3**	**1.7**	**4.0**	**7.1**
NCREIF ODCE			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	*7.2*	*6.5*	*21.0*	*0.3*	*4.4*	*7.4*
ASB Allegiance Real Estate	23,083,799	60.7	-4.1	-15.5	-19.1	2.1	2.2	-	9.6	13.8	1.4	3.1	6.0
NCREIF ODCE			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	-	*6.5*	*21.0*	*0.3*	*4.4*	*7.4*
JPMorgan Special Situation Property	14,934,542	39.3	-5.5	-13.8	-20.1	1.5	2.3	-	-2.6	22.4	2.0	5.0	9.6
NCREIF ODCE			*-2.1*	*-8.1*	*-12.9*	*6.2*	*4.7*	-	*6.5*	*21.0*	*0.3*	*4.4*	*7.4*

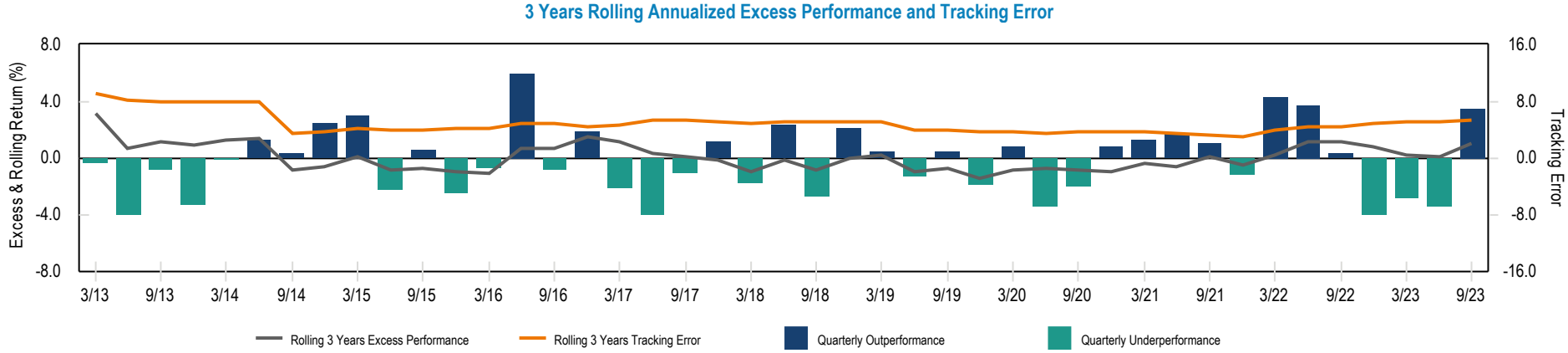


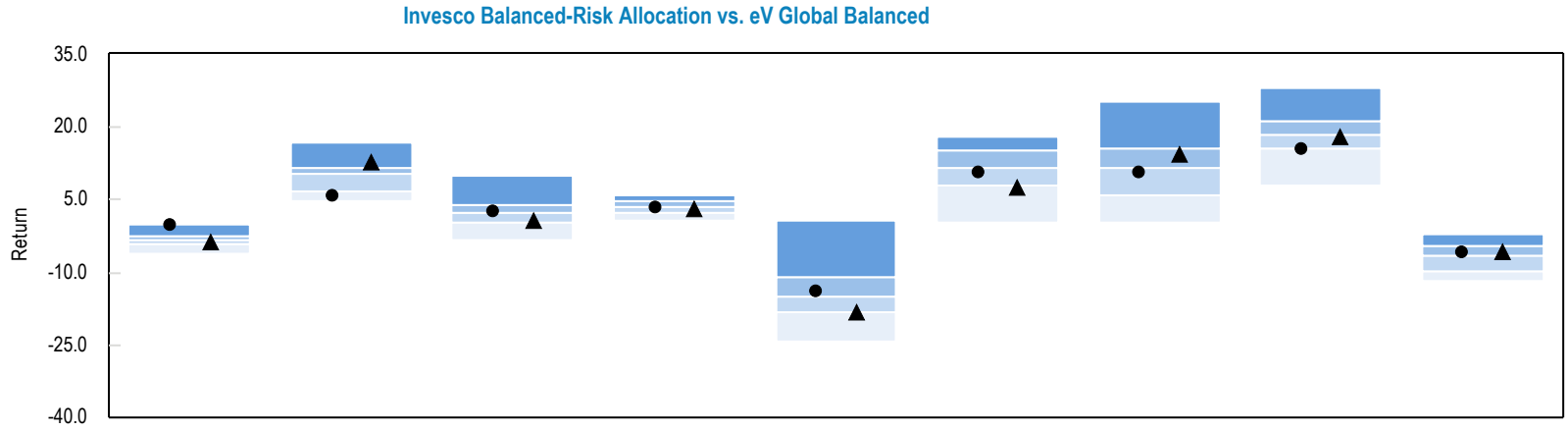
	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total Infrastructure	**20,224,575**	**100.0**	**0.5**	**4.8**	**10.5**	**9.3**	**8.2**	**7.6**	**6.5**	**11.7**	**5.4**	**11.5**	**10.2**
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*	*11.8*	*12.4*	*6.4*	*7.4*	*7.0*
IFM Global Infrastructure (US) LP	12,944,386	64.0	0.4	5.6	9.8	11.8	9.9	9.5	8.2	17.4	3.1	14.6	15.8
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*	*11.8*	*12.4*	*6.4*	*7.4*	*7.0*
JPMorgan IIF ERISA LP	7,280,189	36.0	0.7	5.5	14.0	6.3	6.1	5.4	4.0	4.0	8.4	8.0	4.2
CPI + 5%			*2.1*	*7.6*	*8.9*	*11.0*	*9.2*	*7.9*	*11.8*	*12.4*	*6.4*	*7.4*	*7.0*



	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
Total Multi-Asset	**49,844,433**	**100.0**	**-0.2**	**2.3**	**5.8**	**2.7**	**3.6**	**4.3**	**-13.7**	**10.9**	**10.8**	**15.7**	**-5.8**
60% MSCI ACWI Net/40% FTSE WGBI			*-3.7*	*4.9*	*12.6*	*0.6*	*3.1*	*4.2*	*-18.1*	*7.8*	*14.5*	*18.2*	*-5.8*
eV Global Balanced Rank			*9*	*63*	*90*	*47*	*48*	*56*	*36*	*54*	*55*	*74*	*31*
Invesco Balanced-Risk Allocation	49,844,433	100.0	-0.2	2.3	5.8	2.7	3.6	4.2	-13.7	10.9	10.8	15.7	-5.8
60% MSCI ACWI Net/40% FTSE WGBI			*-3.7*	*4.9*	*12.6*	*0.6*	*3.1*	*4.2*	*-18.1*	*7.8*	*14.5*	*18.2*	*-5.8*
eV Global Balanced Rank			*9*	*63*	*90*	*47*	*48*	*57*	*36*	*54*	*55*	*74*	*31*







	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Invesco Balanced-Risk Allocation	-0.21 (9)	5.81 (90)	2.73 (47)	3.59 (48)	-13.70 (36)	10.89 (54)	10.83 (55)	15.67 (74)	-5.82 (31)
▲ 60% MSCI ACWI Net/40% FTSE WGBI	-3.73 (69)	12.64 (16)	0.55 (72)	3.07 (67)	-18.14 (77)	7.76 (77)	14.53 (37)	18.17 (56)	-5.85 (31)
5th Percentile	-0.15	16.94	9.91	6.00	0.71	18.17	25.33	27.95	-2.24
1st Quartile	-2.58	11.76	3.98	4.89	-11.03	15.31	15.52	21.29	-4.34
Median	-3.16	10.48	2.53	3.57	-15.03	11.58	11.55	18.53	-6.65
3rd Quartile	-4.13	6.95	0.23	2.37	-18.06	8.00	5.91	15.62	-9.65
95th Percentile	-6.07	4.59	-3.46	0.64	-24.24	0.19	0.28	7.91	-11.90
Population	50	48	40	38	49	49	52	54	57