MEKETA

City of Phoenix Employees' Retirement System

January 31, 2024

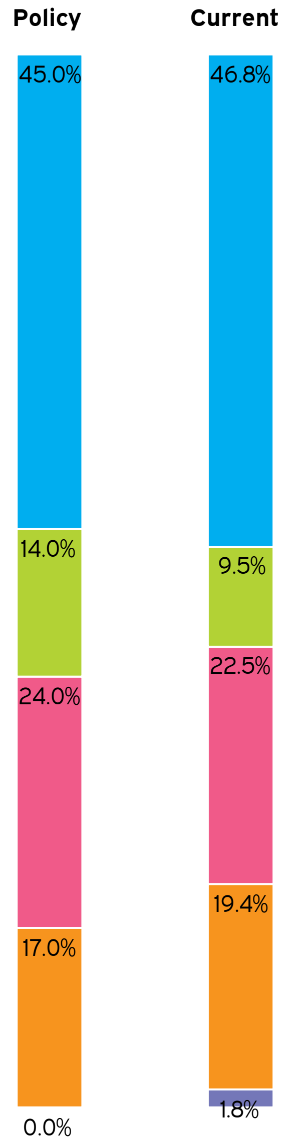
Performance Update

Index Returns – January Update[1]

	January 2024 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
Russell 3000	1.1	19.1	9.1	13.5	12.0
Russell 1000	1.4	20.2	9.8	14.0	12.3
Russell 1000 Growth	2.5	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	6.1	9.2	9.3	8.8
Russell MidCap	-1.4	6.7	5.5	10.1	9.5
Russell MidCap Growth	-0.5	15.1	1.2	11.2	10.8
Russell MidCap Value	-1.8	2.4	7.8	8.6	8.3
Russell 2000	-3.9	2.4	-0.8	6.8	7.0
Russell 2000 Growth	-3.2	4.5	-6.0	6.2	7.0
Russell 2000 Value	-4.5	-0.1	4.5	6.7	6.7
Foreign Equity					
MSCI ACWI ex USA	-1.0	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	10.0	4.6	6.9	4.8
MSCI EAFE Small Cap	-1.6	3.6	-1.1	4.6	4.8
MSCI Emerging Markets	-4.6	-2.9	-7.5	1.0	2.9
Fixed Income					
Bloomberg US Universal TR	-0.2	2.7	-2.8	1.1	1.9
Bloomberg US Aggregate TR	-0.3	2.1	-3.2	0.8	1.6
Bloomberg US TIPS TR	0.2	2.2	-1.0	2.9	2.2
Bloomberg US High Yield TR	0.0	9.3	1.9	4.4	4.5
JP Morgan GBI EM Global Diversified TR USD	-1.5	6.4	-3.3	-0.2	0.4
JP Morgan GBI EM Global Diversified TR LCL	0.6	8.9	0.4	3.9	5.6
Other					
NAREIT Equity	-4.2	-1.5	5.7	4.1	6.8
Bloomberg Commodity Index TR USD	0.4	-7.1	10.0	6.2	-1.1

[1] Source: Thomson Reuters.

Asset Allocation Compliance | As of January 31, 2024



Allocation vs. Targets and Policy	Current Balance ($)	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Growth	**1,684,082,284**	**47**	**45**	**2**	**22 - 62**	**Yes**
U.S. Equity	781,634,809	22	20	2	11 - 21	No
Developed Market Equity	440,130,530	12	11	1	4 - 14	Yes
Emerging Market Equity	206,710,721	6	5	1	3 - 13	Yes
Private Equity	255,606,223	7	9	-2	4 - 14	Yes
Income	**341,884,678**	**10**	**14**	**-4**	**11 - 31**	**No**
High Yield Bonds	161,169,453	4	5	-1	0 - 10	Yes
Bank Loans	99,674,920	3	3	0	0 - 6	Yes
Emerging Market Bonds	81,040,304	2	3	-1	0 - 6	Yes
Private Debt	-	0	3	-3	0 - 15	Yes
Inflation Hedging	**808,822,158**	**22**	**24**	**-2**	**16 - 36**	**Yes**
TIPS	151,152,042	4	6	-2	1 - 11	Yes
Real Estate	491,389,972	14	14	0	2 - 17	Yes
Infrastructure	99,264,305	3	2	1	0 - 8	Yes
Natural Resources	67,015,839	2	2	0	0 - 8	Yes
Crisis Risk Offset	**699,265,608**	**19**	**17**	**2**	**1 - 21**	**Yes**
Short Duration Bonds	365,276,908	10	8	2	1 - 11	Yes
Risk Mitigating Strategies	125,622,650	3	3	0	0 - 10	Yes
Hedge Funds	52,546,348	1	1	0	0 - 100	Yes
Cash Equivalents	155,819,701	4	5	-1	0 - 100	Yes
GTAA	**64,189,606**	**2**	**0**	**2**	**0 - 0**	**No**
Total	**3,598,244,333**	**100**	**100**	**0**		

Performance Summary

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	**3,598,244,333**	**100.0**	**0.7**	**5.2**	**4.0**	**6.5**	**6.1**	**7.3**	**Dec-87**
COPERS Policy Benchmark			*-0.6*	*5.4*	*4.2*	*6.8*	*6.6*	*8.2*	
COPERS Custom Benchmark			*-0.2*	*6.2*	*4.2*	*6.9*	*6.6*	*8.2*	
Growth	**1,684,082,284**	**46.8**							
US Equity	**781,634,809**	**21.7**	**3.0**	**8.9**	**6.1**	**9.8**	**9.2**	**8.2**	**Mar-05**
Russell 3000 Index			*1.1*	*19.1*	*9.1*	*13.5*	*12.0*	*9.7*	
Developed Market Equity (non-U.S.)	**440,130,530**	**12.2**	**-0.3**	**6.0**	**-1.8**	**5.3**	**5.0**	**4.8**	**Mar-05**
MSCI EAFE			*0.6*	*10.0*	*4.6*	*6.9*	*4.8*	*4.8*	
Emerging Markets Equity	**206,710,721**	**5.7**	**0.9**	**21.5**	**3.2**	**--**	**--**	**8.1**	**Nov-19**
MSCI Emerging Markets			*-4.6*	*-2.9*	*-7.5*	*1.0*	*2.9*	*0.8*	
Private Equity	**255,606,223**	**7.1**	**0.0**	**4.3**	**17.5**	**16.1**	**--**	**13.0**	**Apr-15**
Russell 3000 +2% (Q Lag)			*-2.5*	*10.5*	*11.4*	*12.4*	*12.7*	*12.0*	
Income	**341,884,678**	**9.5**							
High Yield Bonds	**161,169,453**	**4.5**	**0.8**	**8.9**	**2.9**	**4.5**	**--**	**4.0**	**Aug-18**
Blmbg. U.S. Corp: High Yield Index			*0.0*	*9.3*	*1.9*	*4.4*	*4.5*	*4.2*	
Bank Loans	**99,674,920**	**2.8**	**1.5**	**11.1**	**5.7**	**5.4**	**--**	**4.9**	**Sep-18**
Credit Suisse Leveraged Loan Index			*0.8*	*11.1*	*5.5*	*5.2*	*4.4*	*4.8*	
Emerging Market Bonds	**81,040,304**	**2.3**	**-0.3**	**7.7**	**-1.7**	**2.6**	**4.0**	**3.2**	**Feb-13**
Emerging Market Debt Custom Benchmark			*-0.7*	*6.3*	*-2.4*	*1.8*	*3.8*	*3.0*	

Fiscal Year begins July 1.
The Policy Benchmark, Custom Benchmark, and Emerging Market Debt Custom Benchmark formulas are shown on Benchmark History page.

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Inflation Hedging	**808,822,158**	**22.5**							
TIPS	**151,152,042**	**4.2**	**0.3**	**2.2**	**-1.1**	**2.9**	**--**	**2.6**	**Feb-18**
Blmbg. U.S. TIPS			*0.2*	*2.2*	*-1.0*	*2.9*	*2.2*	*2.6*	
Real Estate	**491,389,972**	**13.7**	**0.0**	**-6.2**	**7.7**	**5.9**	**7.6**	**6.3**	**Dec-06**
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*5.8*	
Core Real Estate	201,009,487	5.6	-0.1	-8.4	6.1	4.8	7.4	6.1	Jan-09
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*6.0*	
Non-Core Real Estate	290,380,485	8.1	0.0	-4.4	9.1	7.1	7.6	7.7	Feb-09
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*6.1*	
NCREIF ODCE 1Q Lagged			*0.0*	*-12.1*	*7.1*	*5.7*	*8.2*	*5.6*	
Natural Resources	**67,015,839**	**1.9**	**0.0**	**21.4**	**31.7**	**--**	**--**	**11.4**	**Sep-19**
S&P Global Natural Resources (1-Qtr Lag)			*-5.0*	*1.7*	*18.5*	*7.3*	*4.4*	*9.6*	
Infrastructure	**99,264,305**	**2.8**	**0.0**	**13.5**	**8.3**	**--**	**--**	**5.4**	**Sep-19**
CPI +3% (Seasonally Adjusted) (Q Lag)			*0.3*	*6.3*	*8.9*	*7.1*	*5.9*	*7.4*	
Crisis Risk Offset	**699,265,608**	**19.4**							
Short Duration Bonds	**365,276,908**	**10.2**	**0.0**	**1.8**	**-3.5**	**0.8**	**1.9**	**3.4**	**Mar-05**
Short Duration Bonds Custom Benchmark			*0.2*	*1.8*	*-3.3*	*0.8*	*1.6*	*3.1*	
Risk Mitigating Strategies	**125,622,650**	**3.5**	**-4.1**	**--**	**--**	**--**	**--**	**-4.1**	**Jan-24**
CBOE Eurekahedge Long Volatility Hedge Fund Index			*-0.1*	*-4.9*	*-3.0*	*1.3*	*-1.2*	*-0.1*	
Hedge Funds	**52,546,348**	**1.5**	**0.6**	**3.2**	**7.2**	**6.5**	**3.3**	**3.3**	**Jan-14**
HFRI Fund Weighted Composite Index			*0.2*	*5.5*	*4.2*	*6.4*	*4.7*	*4.6*	
Cash Equivalents	**155,819,701**	**4.3**	**0.4**	**5.1**	**2.3**	**1.8**	**1.2**	**1.4**	**Mar-05**
ICE BofA 3 Month U.S. T-Bill			*0.4*	*5.1*	*2.3*	*1.9*	*1.3*	*1.5*	
GTAA	**64,189,606**	**1.8**	**-0.2**	**2.9**	**2.9**	**5.2**	**4.4**	**2.9**	**Jul-07**
CPI +4% (Unadjusted)			*0.9*	*7.2*	*9.8*	*8.3*	*6.9*	*6.5*	

The Short Duration Bonds Custom Benchmark formula is shown on the Benchmark History page.

Trailing Net Performance

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	**3,598,244,333**	**100.0**	**0.7**	**5.2**	**4.0**	**6.5**	**6.1**	**7.3**	**Dec-87**
COPERS Policy Benchmark			*-0.6*	*5.4*	*4.2*	*6.8*	*6.6*	*8.2*	
COPERS Custom Benchmark			*-0.2*	*6.2*	*4.2*	*6.9*	*6.6*	*8.2*	
Growth	**1,684,082,284**	**46.8**							
US Equity	**781,634,809**	**21.7**	**3.0**	**8.9**	**6.1**	**9.8**	**9.2**	**8.2**	**Mar-05**
Russell 3000 Index			*1.1*	*19.1*	*9.1*	*13.5*	*12.0*	*9.7*	
SSgA FTSE RAFI U.S. Low Volatility	236,309,283	6.6	2.0	3.6	11.4	9.6	--	8.3	Jan-15
FTSE RAFI USD Low Volatility Index			*2.0*	*3.6*	*11.5*	*9.7*	*9.5*	*8.4*	
Russell 3000 Index			*1.1*	*19.1*	*9.1*	*13.5*	*12.0*	*11.4*	
Artisan Global Opportunities	215,534,786	6.0	9.6	18.1	0.7	12.4	--	11.0	Dec-14
MSCI AC World Index			*0.6*	*14.7*	*6.1*	*10.2*	*8.4*	*8.0*	
Robeco BP Large Cap Value	199,738,788	5.6	1.2	10.4	13.3	11.1	9.6	10.5	May-13
Russell 1000 Value Index			*0.1*	*6.1*	*9.2*	*9.3*	*8.8*	*9.3*	
Eagle Small Cap Growth	68,814,505	1.9	-1.6	4.6	-6.3	6.1	8.2	9.7	Jul-05
Russell 2000 Growth Index			*-3.2*	*4.5*	*-6.0*	*6.2*	*7.0*	*8.2*	
CRM Small Cap Value	61,237,447	1.7	-3.2	0.9	5.6	5.5	6.3	7.0	Feb-08
Russell 2000 Value Index			*-4.5*	*-0.1*	*4.5*	*6.7*	*6.7*	*7.3*	

The Policy Benchmark and Custom Benchmark formulas are shown on the Benchmark History page.
Market value and returns for Artisan Global Opportunities are as of 12/31/2023.

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Developed Market Equity (non-U.S.)	**440,130,530**	**12.2**	**-0.3**	**6.0**	**-1.8**	**5.3**	**5.0**	**4.8**	**Mar-05**
MSCI EAFE			*0.6*	*10.0*	*4.6*	*6.9*	*4.8*	*4.8*	
Baillie Gifford ACWI ex-U.S. Alpha Equities	238,771,531	6.6	-0.9	5.7	-5.8	5.2	5.4	5.3	Jul-11
MSCI AC World ex USA Growth			*-0.8*	*4.3*	*-3.1*	*5.8*	*5.0*	*4.5*	
MSCI AC World ex USA Index			*-1.0*	*6.4*	*1.6*	*5.8*	*4.7*	*4.4*	
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	98,453,319	2.7	-0.3	9.2	7.1	5.0	--	4.6	Aug-15
FTSE RAFI Developed ex-U.S. Low Volatility Index			*-0.2*	*8.8*	*7.0*	*4.7*	*--*	*4.4*	
MSCI EAFE Index			*0.6*	*10.6*	*5.1*	*7.4*	*5.3*	*5.3*	
First Eagle International Value	79,598,567	2.2	0.0	3.4	2.6	--	--	3.2	Dec-20
MSCI EAFE Value Index			*-0.1*	*10.4*	*7.8*	*5.7*	*3.5*	*8.6*	
MSCI EAFE Index			*0.6*	*10.6*	*5.1*	*7.4*	*5.3*	*6.0*	
Driehaus International Small Cap Growth	23,307,114	0.6	4.8	6.3	--	--	--	-5.1	May-21
MSCI AC World ex USA Small Growth Index			*-2.3*	*4.0*	*-2.8*	*5.6*	*4.9*	*-5.8*	
MSCI AC World ex USA Index			*-1.0*	*6.4*	*1.6*	*5.8*	*4.7*	*-0.5*	
Emerging Markets Equity	**206,710,721**	**5.7**	**0.9**	**21.5**	**3.2**	**--**	**--**	**8.1**	**Nov-19**
MSCI Emerging Markets			*-4.6*	*-2.9*	*-7.5*	*1.0*	*2.9*	*0.8*	
GQG Emerging Markets Equity	108,523,763	3.0	2.9	27.7	0.6	--	--	9.0	Jan-20
MSCI Emerging Markets Growth			*-5.6*	*-8.0*	*-12.9*	*0.9*	*3.4*	*-2.2*	
LSV Emerging Markets Value	98,186,958	2.7	-1.2	15.3	6.6	--	--	6.4	Nov-19
MSCI Emerging Markets Value			*-3.6*	*2.7*	*-1.5*	*1.0*	*2.3*	*1.8*	

Market value for First Eagle International Value is as of 12/31/2023. The 1 month return of 0% reflects the carried over market value as of 12/31/2023.
Market value and returns for Driehaus International Small Cap Growth are as of 12/31/2023.

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**255,606,223**	**7.1**	**0.0**	**4.3**	**17.5**	**16.1**	**--**	**13.0**	**Apr-15**
Russell 3000 +2% (Q Lag)			*-2.5*	*10.5*	*11.4*	*12.4*	*12.7*	*12.0*	
Neuberger Berman Sonoran Tranche A (P.E.)	118,862,157	3.3	0.0	2.0	14.5	14.6	--	12.2	Apr-15
Neuberger Berman Sonoran Tranche B (P.E.)	119,218,858	3.3	0.0	6.7	23.1	1.1	--	1.1	Jan-19
Neuberger Berman Sonoran Tranche E (P.E.)	17,525,208	0.5							
Income	**341,884,678**	**9.5**							
High Yield Bonds	**161,169,453**	**4.5**	**0.8**	**8.9**	**2.9**	**4.5**	**--**	**4.0**	**Aug-18**
Blmbg. U.S. Corp: High Yield Index			*0.0*	*9.3*	*1.9*	*4.4*	*4.5*	*4.2*	
Brigade Traditional High Yield	83,150,513	2.3	0.8	8.5	2.9	5.2	--	4.4	Aug-18
Blmbg. U.S. Corp: High Yield Index			*0.0*	*9.3*	*1.9*	*4.4*	*4.5*	*4.2*	
Polen Capital Management	78,018,940	2.2	0.8	9.4	2.9	3.8	--	3.4	Sep-18
Blmbg. U.S. Corp: High Yield Index			*0.0*	*9.3*	*1.9*	*4.4*	*4.5*	*4.2*	
Bank Loans	**99,674,920**	**2.8**	**1.5**	**11.1**	**5.7**	**5.4**	**--**	**4.9**	**Sep-18**
Credit Suisse Leveraged Loan Index			*0.8*	*11.1*	*5.5*	*5.2*	*4.4*	*4.8*	
Pacific Asset Management	99,674,920	2.8	1.5	11.1	5.7	5.4	--	4.9	Sep-18
Credit Suisse Leveraged Loan Index			*0.8*	*11.1*	*5.5*	*5.2*	*4.4*	*4.8*	
Emerging Market Bonds	**81,040,304**	**2.3**	**-0.3**	**7.7**	**-1.7**	**2.6**	**4.0**	**3.2**	**Feb-13**
Emerging Market Debt Custom Benchmark			*-0.7*	*6.3*	*-2.4*	*1.8*	*3.8*	*3.0*	
MetLife Emerging Markets Debt Collective Trust	81,040,304	2.3	-0.3	7.7	-1.7	--	--	1.2	Sep-19
MetLife Custom Benchmark			*-0.7*	*6.3*	*-2.4*	*1.2*	*2.6*	*0.2*	

The MetLife Custom Benchmark composition is included in the Emerging Market Debt Custom Benchmark detail shown on the Benchmark History page.
Market value and returns for Pacific Asset Management are as of 12/31/2023.

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Inflation Hedging	**808,822,158**	**22.5**							
TIPS	**151,152,042**	**4.2**	**0.3**	**2.2**	**-1.1**	**2.9**	**--**	**2.6**	**Feb-18**
Blmbg. U.S. TIPS			*0.2*	*2.2*	*-1.0*	*2.9*	*2.2*	*2.6*	
SSgA U.S. TIPS	151,152,042	4.2	0.3	2.2	-1.1	2.9	--	2.6	Feb-18
Blmbg. U.S. TIPS			*0.2*	*2.2*	*-1.0*	*2.9*	*2.2*	*2.6*	
Real Estate	**491,389,972**	**13.7**	**0.0**	**-6.2**	**7.7**	**5.9**	**7.6**	**6.3**	**Dec-06**
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*5.8*	
Non-Core Real Estate	290,380,485	8.1	0.0	-4.4	9.1	7.1	7.6	7.7	Feb-09
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*6.1*	
NCREIF ODCE 1Q Lagged			*0.0*	*-12.1*	*7.1*	*5.7*	*8.2*	*5.6*	
Core Real Estate	201,009,487	5.6	-0.1	-8.4	6.1	4.8	7.4	6.1	Jan-09
NCREIF ODCE (VW) (Monthly)			*0.0*	*-12.0*	*4.9*	*4.2*	*7.3*	*6.0*	
Natural Resources	**67,015,839**	**1.9**	**0.0**	**21.4**	**31.7**	**--**	**--**	**11.4**	**Sep-19**
S&P Global Natural Resources (1-Qtr Lag)			*-5.0*	*1.7*	*18.5*	*7.3*	*4.4*	*9.6*	
Neuberger Berman Sonoran Tranche C (N.R.)	67,015,839	1.9	0.0	21.4	31.7	--	--	11.2	Aug-19
S&P Global Natural Resources (1-Qtr Lag)			*-5.0*	*1.7*	*18.5*	*7.3*	*4.4*	*7.5*	
Infrastructure	**99,264,305**	**2.8**	**0.0**	**13.5**	**8.3**	**--**	**--**	**5.4**	**Sep-19**
CPI +3% (Seasonally Adjusted) (Q Lag)			*0.3*	*6.3*	*8.9*	*7.1*	*5.9*	*7.4*	
Neuberger Berman Sonoran Tranche D (Infra)	75,759,495	2.1	0.0	15.3	8.9	--	--	5.7	Aug-19
CPI +3% (Seasonally Adjusted) (Q Lag)			*0.3*	*6.3*	*8.9*	*7.1*	*5.9*	*7.4*	
Neuberger Berman Sonoran Tranche F (Infra)	23,504,810	0.7							

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Crisis Risk Offset	**699,265,608**	**19.4**							
Short Duration Bonds	**365,276,908**	**10.2**	**0.0**	**1.8**	**-3.5**	**0.8**	**1.9**	**3.4**	**Mar-05**
Short Duration Bonds Custom Benchmark			*0.2*	*1.8*	*-3.3*	*0.8*	*1.6*	*3.1*	
SSgA US 1-3 Year Gov/Cred	159,167,111	4.4	0.0	2.3	-3.1	0.9	--	1.2	Apr-18
SSgA Custom Benchmark			*0.4*	*2.8*	*-3.0*	*1.0*	*1.7*	*1.3*	
Longfellow Short Duration	104,406,092	2.9	-0.3	2.3	-3.0	1.1	--	1.4	May-18
Longfellow Custom Benchmark			*-0.3*	*2.1*	*-3.2*	*0.8*	*1.6*	*1.3*	
Western Asset Short Duration Constrained	101,703,705	2.8	0.4	0.4	-4.6	0.3	2.0	3.4	Feb-05
Western Asset Custom Benchmark			*0.4*	*0.1*	*-3.8*	*0.4*	*1.4*	*3.0*	
Risk Mitigating Strategies	**125,622,650**	**3.5**	**-4.1**	**--**	**--**	**--**	**--**	**-4.1**	**Jan-24**
CBOE Eurekahedge Long Volatility Hedge Fund Index			*-0.1*	*-4.9*	*-3.0*	*1.3*	*-1.2*	*-0.1*	
BH-DG Systematic Trading	43,618,003	1.2	-4.1	-6.7	10.1	10.7	--	8.4	Mar-18
SG Trend Index			*1.2*	*-1.7*	*10.7*	*10.1*	*5.6*	*7.0*	
One River Dynamic Convexity	41,004,647	1.1							
CBOE Eurekahedge Long Volatility Hedge Fund Index			*-0.1*	*-4.9*	*-3.0*	*1.3*	*-1.2*	*0.0*	
36 South Kohinoor Series (Cayman) Fund - Class B	41,000,000	1.1							
CBOE Eurekahedge Long Volatility Hedge Fund Index			*-0.1*	*-4.9*	*-3.0*	*1.3*	*-1.2*	*0.0*	

36 South Kohinoor and One River Dynamic Convexity were funded January 2024. Returns will populate after first full month of performance.
SSgA US Aggregate Bond, Longfellow Core Fixed Income, and Western Asset U.S. Core changed to Short Duration Fixed Income in January 2024, February 2024, and December 2023, respectively. The strategies have been renamed accordingly.
The Short Duration Bonds Custom Benchmark formula is shown on the Benchmark History page.

	Market Value ($)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Hedge Funds	**52,546,348**	**1.5**	**0.6**	**3.2**	**7.2**	**6.5**	**3.3**	**3.3**	**Jan-14**
HFRI Fund Weighted Composite Index			*0.2*	*5.5*	*4.2*	*6.4*	*4.7*	*4.6*	
Carlson Double Black Diamond, Ltd.	2,489,467	0.1	0.0	-2.5	6.1	4.8	--	3.1	Aug-14
HFRI Relative Value (Total) Index			*0.6*	*5.7*	*4.3*	*4.5*	*4.0*	*3.8*	
Fir Tree International Value Fund, L.P.	50,056,881	1.4	0.7	11.8	3.7	4.4	--	0.9	Nov-14
HFRI Event-Driven (Total) Index			*-0.1*	*7.0*	*4.9*	*6.1*	*4.6*	*4.9*	
Cash Equivalents	**155,819,701**	**4.3**	**0.4**	**5.1**	**2.3**	**1.8**	**1.2**	**1.4**	**Mar-05**
ICE BofA 3 Month U.S. T-Bill			*0.4*	*5.1*	*2.3*	*1.9*	*1.3*	*1.5*	
Dreyfus Government Cash Management Institutional	155,819,701	4.3	0.4	5.1	2.3	1.8	1.2	1.4	Mar-05
ICE BofA 3 Month U.S. T-Bill			*0.4*	*5.1*	*2.3*	*1.9*	*1.3*	*1.5*	
GTAA	**64,189,606**	**1.8**	**-0.2**	**2.9**	**2.9**	**5.2**	**4.4**	**2.9**	**Jul-07**
CPI +4% (Unadjusted)			*0.9*	*7.2*	*9.8*	*8.3*	*6.9*	*6.5*	
PIMCO All Asset	64,189,606	1.8	-0.2	2.9	2.9	5.2	4.4	4.2	Dec-13
All Asset Custom Benchmark			*0.0*	*6.6*	*1.3*	*4.3*	*3.9*	*3.9*	

Market value for Carlson Double Black Diamond reflects the remaining balance.

Benchmark History
As of January 31, 2024

From Date	To Date	Benchmark
COPERS Policy Benchmark		
09/01/2019	Present	16.0% Russell 3000 Index, 15.0% Blmbg. U.S. Aggregate Index, 5.0% Blmbg. U.S. Corp: High Yield Index, 9.0% MSCI EAFE (Net), 5.0% HFRI Fund Weighted Composite Index, 3.0% Credit Suisse Leveraged Loan Index, 8.0% MSCI Emerging Markets (Net), 7.0% Blmbg. U.S. TIPS, 3.0% MetLife Custom Benchmark, 4.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% (Q Lag), 12.0% NCREIF ODCE (VW) (Gross) (Monthly), 4.0% S&P Global Natural Resources (1-Qtr Lag)
10/01/2017	09/01/2019	16.0% Russell 3000 Index, 15.0% Blmbg. U.S. Aggregate Index, 5.0% Blmbg. U.S. Corp: High Yield Index, 9.0% MSCI EAFE (Net), 5.0% HFRI Fund Weighted Composite Index, 3.0% Credit Suisse Leveraged Loan Index, 8.0% MSCI Emerging Markets (Net), 7.0% Blmbg. U.S. TIPS, 3.0% JPM EMBI Global Diversified, 4.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% (Q Lag), 12.0% NCREIF ODCE (VW) (Gross) (Monthly), 4.0% S&P Global Natural Resources (1-Qtr Lag)
01/01/2015	10/01/2017	22.0% Russell 3000 Index, 20.0% Blmbg. U.S. Aggregate Index, 19.0% MSCI AC World ex USA IMI (Net), 5.0% JPM EMBI Global Diversified, 8.0% CPI +4% (Unadjusted), 15.0% NCREIF ODCE (VW) (Gross) (Monthly), 1.0% Russell 3000 +3% (Q Lag), 10.0% ARS Custom Benchmark
12/01/1987	01/01/2015	100.0% Policy benchmark input by previous consultant.
COPERS Custom Benchmark		
1/1/2015	Present	The Custom Benchmark is calculated monthly using the beginning of month asset class weights applied to each corresponding primary benchmark return.
12/1/1987	12/31/2014	100.0% Custom benchmark input by previous consultant
Emerging Market Debt Custom Benchmark		
09/01/2019	Present	100.0% MetLife Custom Benchmark
02/01/2013	09/01/2019	100.0% JPM EMBI Global Diversified
MetLife Custom Benchmark		
02/01/2002	Present	30.0% JPM GBI-EM Global Diversified, 35.0% JPM CEMBI Broad Diversified, 35.0% JPM EMBI Global (USD)

Benchmark History
As of January 31, 2024

From Date	To Date	Benchmark
Short Duration Bonds Custom Benchmark		
01/01/2024	Present	43.6% ICE BofA 1-3 Years U.S. Treasury Index, 28.7% Blmbg. U.S. Aggregate Index, 27.7% ICE BofA 1-3 Years U.S. Treasury Index
12/01/2023	01/01/2024	43.4% Blmbg. U.S. Aggregate Index, 28.5% Blmbg. U.S. Aggregate Index, 28.2% ICE BofA 1-3 Years U.S. Treasury Index
02/01/2005	12/01/2023	100.0% Blmbg. U.S. Aggregate Index
SSgA Custom Benchmark		
01/01/2024	Present	100.0% ICE BofA 1-3 Years U.S. Treasury Index
02/01/2005	01/01/2024	100.0% Blmbg. U.S. Aggregate Index
Longfellow Custom Benchmark		
02/01/2005	Present	100.0% Blmbg. U.S. Aggregate Index
Western Asset Custom Benchmark		
12/01/2023	Present	100.0% ICE BofA 1-3 Years U.S. Treasury Index
02/01/2005	12/01/2023	100.0% Blmbg. U.S. Aggregate Index

From 12/01/2023 through 02/01/2024, the Short Duration Bonds Custom Benchmark reflects a dynamic weighted average calculation using the underlying weights of the SSGA, Longfellow, and Western Asset accounts.

Cash Flow Summary
Month to Date

	Beginning Market Value	Net Cash Flows	Net Investment Change	Ending Market Value
36 South Kohinoor Series (Cayman) Fund - Class B	$0	$41,000,000	$0	$41,000,000
Adler Real Estate V	$5,243,439	$0	$0	$5,243,439
American Landmark III	$37,047,746	-$259,944	$0	$36,787,802
American Landmark IV	$15,974,897	$0	$0	$15,974,897
Artisan Global Opportunities	$196,720,083	$0	$18,814,702	$215,534,786
Ascentris Value Add III	$10,084,421	$111,853	$0	$10,196,274
Ascentris Value Add III - B	$1,488,507	$44,358	$0	$1,532,865
Baillie Gifford ACWI ex-U.S. Alpha Equities	$240,874,898	$0	-$2,103,367	$238,771,531
BH-DG Systematic Trading	$45,468,714	$0	-$1,850,711	$43,618,003
Brigade Traditional High Yield	$82,516,320	$0	$634,193	$83,150,513
Carlson Double Black Diamond, Ltd.	$2,489,467	$0	$0	$2,489,467
CRM Small Cap Value	$63,270,214	$0	-$2,032,768	$61,237,447
Dreyfus Government Cash Management Institutional	$116,948,534	$38,510,631	$360,535	$155,819,701
Driehaus International Small Cap Growth	$22,229,822	$0	$1,077,291	$23,307,114
Eagle Small Cap Growth	$69,915,016	$0	-$1,100,511	$68,814,505
Fir Tree International Value Fund, L.P.	$49,729,098	$0	$327,783	$50,056,881
First Eagle International Value	$79,598,567	$0	$0	$79,598,567
Focus SH Fund	$34,058,648	$0	$0	$34,058,648
GQG Emerging Markets Equity	$105,509,214	$0	$3,014,549	$108,523,763
Hammes Partners III	$15,973,458	$0	$0	$15,973,458
Hammes Partners IV	$547,985	$0	$0	$547,985
HSI Real Estate V	$235,473	$0	$0	$235,473

Values for Artisan Global Opportunities, Driehaus International Small Cap, and First Eagle International are as of 12/31/2023. Value for Carlson Double Black Diamond is as of 10/31/2023.
36 South Kohinoor was funded January 2024.

	Beginning Market Value	Net Cash Flows	Net Investment Change	Ending Market Value
JPMorgan Strategic Property	$73,635,362	-$710,091	-$110,625	$72,814,646
Longfellow Short Duration	$104,749,937	$0	-$343,845	$104,406,092
LSV Emerging Markets Value	$99,343,092	$0	-$1,156,134	$98,186,958
MetLife Emerging Markets Debt Collective Trust	$81,274,525	$0	-$234,221	$81,040,304
Morgan Stanley Prime Property	$89,428,947	$0	$0	$89,428,947
Neuberger Berman Sonoran Tranche A (P.E.)	$122,862,157	-$4,000,000	$0	$118,862,157
Neuberger Berman Sonoran Tranche B (P.E.)	$119,218,858	$0	$0	$119,218,858
Neuberger Berman Sonoran Tranche C (N.R.)	$67,015,839	$0	$0	$67,015,839
Neuberger Berman Sonoran Tranche D (Infra)	$75,759,495	$0	$0	$75,759,495
Neuberger Berman Sonoran Tranche E (P.E.)	$17,525,208	$0	$0	$17,525,208
Neuberger Berman Sonoran Tranche F (Infra)	$21,504,810	$2,000,000	$0	$23,504,810
Northwood Real Estate Partners, L.P. (Series IV)	$28,577,047	$46,635	$0	$28,623,682
Northwood Real Estate Partners, L.P. (Series V)	$37,334,764	$58,691	$0	$37,393,455
One River Dynamic Convexity	$0	$41,000,000	$4,647	$41,004,647
Pacific Asset Management	$98,202,054	$0	$1,472,866	$99,674,920
Pan Asia Core Plus Real Estate Fund	$29,877,094	$46,238	$0	$29,923,331
PIMCO All Asset	$104,525,598	-$40,000,000	-$335,993	$64,189,606
Polen Capital Management	$77,429,930	$0	$589,011	$78,018,940
Real Estate Capital Asia Partners III LP	$2,230,865	$0	$0	$2,230,865
Real Estate Capital Asia Partners IV LP	$10,404,991	$0	$0	$10,404,991
Real Estate Capital Partners V	$19,354,713	$0	$0	$19,354,713
Realterm Logistics Income	$38,765,894	$0	$0	$38,765,894
Robeco BP Large Cap Value	$197,304,768	$0	$2,434,020	$199,738,788

Value for Pacific Asset Management is as of 12/31/2023.
One River Dynamic Convexity was funded January 2024.

	Beginning Market Value	Net Cash Flows	Net Investment Change	Ending Market Value
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	$98,693,043	$0	-$239,724	$98,453,319
SSgA FTSE RAFI U.S. Low Volatility	$231,649,117	$0	$4,660,167	$236,309,283
SSgA U.S. TIPS	$150,622,099	$0	$529,943	$151,152,042
SSgA US 1-3 Year Gov/Cred	$159,127,363	$0	$39,748	$159,167,111
Western Asset Short Duration Constrained	$101,304,567	$0	$399,138	$101,703,705
Wheelock Real Estate Fund	$5,015,950	$0	$0	$5,015,950
Wheelock Street Partners	$2,199,757	$0	$0	$2,199,757
Wheelock Street Partners II	$6,672,562	$0	$0	$6,672,562
Wheelock Street Partners VI	$16,800,107	$0	$0	$16,800,107
Wheelock Street V	$11,210,233	$0	$0	$11,210,233
Total	**$3,495,545,266**	**$77,848,370**	**$24,850,696**	**$3,598,244,333**

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