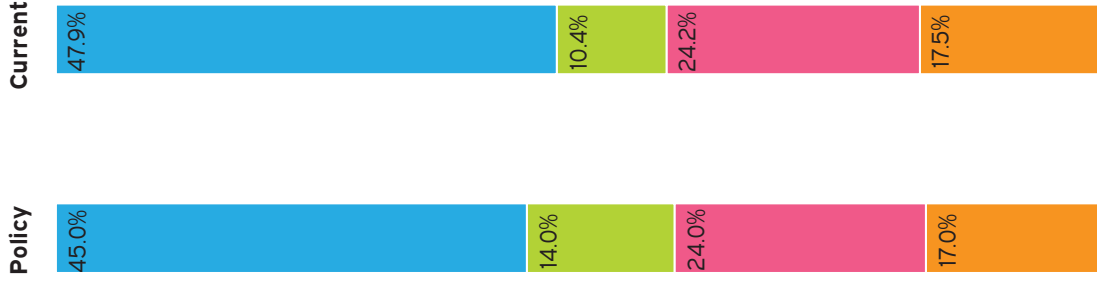


3Q24 Review

Asset Allocation Compliance | As of September 30, 2024

Allocation vs. Target and Policy							
	Balance (\$)	Current Allocation (%)	Interim Policy (%)	Difference (%)	Long Term Policy (%)	Policy Range (%)	Within IPS Range?
Growth	\$1,796,242,690	48	45	3	42	22 - 62	Yes
U.S. Equity	\$818,731,042	22	19	3	16	11 - 21	No
Developed Market Equity	\$373,669,465	10	9	1	9	4 - 14	Yes
Emerging Market Equity	\$310,201,605	8	8	0	8	3 - 13	Yes
Private Equity	\$293,640,578	8	9	-1	9	4 - 14	Yes
Income	\$389,914,567	10	14	-4	21	11 - 31	No
High Yield Bonds	\$171,444,307	5	5	0	5	0 - 10	Yes
Bank Loans	\$106,071,781	3	3	0	3	0 - 6	Yes
Emerging Market Bonds	\$87,598,479	2	3	-1	3	0 - 6	Yes
Private Debt	\$24,800,000	1	3	-2	10	5 - 15	No
Inflation Hedging	\$908,669,805	24	24	0	26	16 - 36	Yes
TIPS	\$231,356,369	6	6	0	6	1 - 11	Yes
Real Estate	\$483,351,067	13	14	-1	12	2 - 17	Yes
Infrastructure	\$125,627,361	3	2	1	4	0 - 8	Yes
Natural Resources	\$68,335,008	2	2	0	4	0 - 8	Yes
Crisis Risk Offset	\$656,744,050	18	17	1	11	1 - 21	Yes
Short Duration Bonds	\$354,818,305	9	7	2	6	1 - 11	Yes
Risk Mitigating Strategies	\$123,255,571	3	5	-2	5	0 - 10	Yes
Hedge Funds	\$54,614,289	1	0	1	0	0 - 5	Yes
Cash Equivalents	\$124,055,885	3	5	-2	0	0 - 5	Yes
Total	\$3,751,571,111	100	100	0	100		





City of Phoenix Employees' Retirement System

Asset Allocation & Performance | As of September 30, 2024

Asset Class Trailing Net Performance Summary

Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
3,751,571,111	100.0	3.6	7.7	12.6	3.3	6.6	6.3	7.4	Dec-87
<i>COPERS Policy Benchmark</i>									
<i>COPERS Custom Benchmark</i>									
1,796,242,690	47.9								
Growth									
US Equity									
<i>Russell 3000 Index</i>									
818,731,042	21.8	5.5	17.1	24.1	6.3	10.7	9.8	8.6	Mar-05
<i>Developed Market Equity (non-U.S.)</i>									
<i>MSCI/EAFE (Net)</i>									
373,669,465	10.0	9.8	14.3	26.2	1.9	7.0	6.1	5.4	Mar-05
Emerging Markets Equity									
<i>MSCI Emerging Markets (Net)</i>									
310,201,605	8.3	2.6	16.1	29.6	7.2	--	--	10.1	Nov-19
Private Equity									
<i>Russell 3000 +2% 1Q Lag</i>									
293,640,578	7.8	3.0	4.9	3.6	5.6	14.9	--	12.6	Apr-15
Income									
<i>Russell 3000 +2% 1Q Lag</i>									
389,914,567	10.4	3.7	29.1	25.5	10.2	16.4	--	14.4	
High Yield Bonds									
<i>Blmbg. U.S. Corp. High Yield Index</i>									
171,444,307	4.6	4.5	7.2	11.6	2.6	5.2	--	4.6	Aug-18
Bank Loans									
<i>Credit Suisse Leveraged Loan Index</i>									
106,071,781	2.8	2.2	8.0	10.5	6.8	5.7	--	5.4	Sep-18
Emerging Market Bonds									
<i>Emerging Market Debt Custom Benchmark</i>									
87,598,479	2.3	6.6	7.8	16.7	1.3	2.4	4.1	3.7	Feb-13
Private Debt									
<i>Credit Suisse Leveraged Loan Index+2%</i>									
24,800,000	0.7	--	--	--	--	--	--	--	Oct-24

Fiscal Year begins July 1.
 Custom Benchmark and Emerging Market Debt Custom Benchmark formulas are shown on Benchmark History page.
 The Policy Benchmark reflects an interim policy starting January 2024. The formula is shown on the Benchmark History page.

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Inflation Hedging	908,669,805	24.2								
TIPS	231,356,369	6.2	4.1	5.0	9.8	-0.6	2.6	--	3.0	Feb-18
<i>Blmbg. U.S. TIPS Index</i>			<i>4.1</i>	<i>4.9</i>	<i>9.8</i>	<i>-0.6</i>	<i>2.6</i>	--	<i>3.0</i>	
Real Estate	483,351,067	12.9	-0.7	-5.1	-7.1	1.4	3.4	6.2	5.8	Dec-06
NCREIF ODCE (VW) (Gross)			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.4</i>	
Core Real Estate	188,822,276	5.0	0.3	-4.2	-6.8	1.2	3.4	6.2	5.5	Jan-09
NCREIF ODCE (VW) (Gross)			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.6</i>	
Non-Core Real Estate	294,528,791	7.9	-1.3	-5.7	-7.2	1.8	3.6	6.1	7.0	Feb-09
NCREIF ODCE (VW) (Gross)			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.6</i>	
NCREIF ODCE (Q Lag)			<i>-0.4</i>	<i>-7.5</i>	<i>-9.3</i>	<i>1.9</i>	<i>3.2</i>	<i>6.4</i>	<i>4.8</i>	
Natural Resources	68,335,008	1.8	4.9	4.7	13.8	19.4	11.7	--	10.8	Sep-19
<i>S&P Global Natural Resources (Q Lag)</i>			<i>-1.8</i>	<i>4.0</i>	<i>7.8</i>	<i>6.3</i>	<i>8.4</i>	--	<i>10.2</i>	
Infrastructure	125,627,361	3.3	2.7	7.8	7.8	8.5	6.4	--	6.3	Sep-19
<i>CPI +3% (Seasonally Adjusted) (Q Lag)</i>			<i>1.0</i>	<i>4.2</i>	<i>6.1</i>	<i>8.1</i>	<i>7.3</i>	--	<i>7.2</i>	
Crisis Risk Offset	656,744,050	17.5								
Short Duration Bonds	354,818,305	9.5	3.0	4.1	10.7	-2.1	0.1	2.0	3.5	Mar-05
<i>Short Duration Bonds Custom Benchmark</i>			<i>3.0</i>	<i>4.4</i>	<i>11.5</i>	<i>-1.4</i>	<i>0.3</i>	<i>1.8</i>	<i>3.2</i>	
Risk Mitigating Strategies	123,255,571	3.3	-2.6	-4.9	--	--	--	--	-4.9	Jan-24
<i>50% CBOE Eurekahedge Long Volatility / 50% SG Trend Index</i>			<i>-1.7</i>	<i>1.9</i>	--	--	--	--	<i>1.9</i>	
Hedge Funds	54,614,289	1.5	0.9	9.5	12.5	6.1	7.9	3.8	3.9	Jan-14
<i>HFRI Fund Weighted Composite Index</i>			<i>2.9</i>	<i>8.2</i>	<i>12.7</i>	<i>4.0</i>	<i>7.4</i>	<i>5.1</i>	<i>5.0</i>	
Cash Equivalents	124,055,885	3.3	1.3	4.0	5.3	3.5	2.2	1.6	1.5	Mar-05
<i>ICE BofA 3 Month U.S. T-Bill</i>			<i>1.4</i>	<i>4.0</i>	<i>5.5</i>	<i>3.5</i>	<i>2.3</i>	<i>1.6</i>	<i>1.6</i>	

Trailing Net Performance										
Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date	
3,751,571,111	100.0	3.6	7.7	12.6	3.3	6.6	6.3	7.4	Dec-87	
<i>COPERS Policy Benchmark</i>										
		3.9	10.7	16.5	4.5	7.7	7.1	8.4		
<i>COPERS Custom Benchmark</i>										
		4.6	11.2	16.9	4.8	7.7	7.1	--		
<i>InvMetrics All Public DB Plans > \$1B Median</i>										
		4.8	9.9	17.4	4.6	8.0	6.9	7.6		
<i>InvMetrics All Public DB Plans > \$1B Rank</i>										
		97	95	98	87	93	87	100		
Growth										
	47.9									
US Equity										
	21.8	5.5	17.1	24.1	6.3	10.7	9.8	8.6	Mar-05	
<i>Russell 3000 Index</i>										
		6.2	20.6	35.2	10.3	15.3	12.8	10.3		
<i>SSgA Russell 3000 Index</i>										
	21.8	--	--	--	--	--	--	2.1	Sep-24	
<i>Russell 3000 Index</i>										
		--	--	--	--	--	--	2.1		
<i>eV All US Equity Median</i>										
		--	--	--	--	--	--	1.5		
<i>eV All US Equity Rank</i>										
		--	--	--	--	--	--	32		
Developed Market Equity (non-U.S.)										
	10.0	9.8	14.3	26.2	1.9	7.0	6.1	5.4	Mar-05	
<i>MSCI EAFE (Net)</i>										
		7.3	13.0	24.8	5.5	8.2	5.7	5.2		
<i>Baillie Gifford ACWI ex-U.S. Alpha Equities</i>										
	4.4	9.3	14.0	31.4	-1.3	6.4	6.5	6.1	Jul-11	
<i>MSCI AC World ex USA Growth (Net)</i>										
		6.9	14.1	26.7	0.8	7.1	6.0	5.3		
<i>MSCI AC World ex USA (Net)</i>										
		8.1	14.2	25.4	4.1	7.6	5.2	4.8		
<i>eV ACWI ex-US All Cap Growth Eq Median</i>										
		6.3	12.7	25.9	-0.7	7.2	6.7	6.7		
<i>eV ACWI ex-US All Cap Growth Eq Rank</i>										
		18	40	19	59	85	57	77		

The Custom Benchmark formula is shown on Benchmark History page.
 The Policy Benchmark reflects an interim policy starting January 2024. The formula is shown on the Benchmark History page.
 SSgA Russell 3000 Index was funded during August. Quarterly returns will populate after the first full quarter of performance.
 Artisan Global Opportunities, Robeco BP Large Cap Value, Eagle Small Cap Value, CRM Small Cap Value, and SSgA FTSE RAFI US Low Volatility were liquidated in August.
 Total US Equity market value included left over residual funds from the liquidated accounts roughly equating to \$550,000.

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	90,528,506	2.4	12.2	14.4	23.5	8.7	7.3	--	5.9	Aug-15
<i>FTSE RAFI Developed ex-U.S. Low Volatility Index</i>			12.2	14.3	23.2	8.5	7.0	--	5.6	
<i>MSCI EAFE (Net)</i>			7.3	13.0	24.8	5.5	8.2	--	5.8	
eV Global Low Volatility Equity Median			8.9	15.5	24.1	6.9	7.4	--	7.4	
eV Global Low Volatility Equity Rank			1	83	61	22	53	--	99	
First Eagle International Value	90,917,377	2.4	9.7	14.2	18.3	5.9	--	--	6.3	Dec-20
<i>MSCI EAFE Value Index (Net)</i>			8.9	13.8	23.1	8.9	--	--	10.8	
<i>MSCI EAFE (Net)</i>			7.3	13.0	24.8	5.5	--	--	7.7	
eV EAFE All Cap Value Median			8.4	12.6	22.3	6.3	--	--	8.9	
eV EAFE All Cap Value Rank			26	25	88	64	--	--	88	
Driehaus International Small Cap Growth	26,436,389	0.7	5.1	18.1	17.1	-0.9	--	--	-0.7	May-21
<i>MSCI AC World ex USA Small Growth Index (Net)</i>			8.4	11.2	22.5	-1.9	--	--	-1.0	
<i>MSCI AC World ex USA (Net)</i>			8.1	14.2	25.4	4.1	--	--	3.4	
eV ACWI ex-US Small Cap Equity Median			7.7	11.0	22.4	1.1	--	--	1.1	
eV ACWI ex-US Small Cap Equity Rank			85	9	89	57	--	--	62	



City of Phoenix Employees' Retirement System

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Emerging Markets Equity	310,201,605	8.3	2.6	16.1	29.6	7.2	--	--	10.1	Nov-19
<i>MSCI Emerging Markets (Net)</i>			<i>8.7</i>	<i>16.9</i>	<i>26.1</i>	<i>0.4</i>	--	--	<i>5.0</i>	
GQQ Emerging Markets Equity	155,325,420	4.1	-0.9	14.3	27.5	5.5	--	--	10.1	Jan-20
<i>MSCI Emerging Markets Growth (Net)</i>			<i>9.3</i>	<i>18.5</i>	<i>27.6</i>	<i>-2.3</i>	--	--	<i>2.9</i>	
eV Emg Mkts All Cap Growth Equity Median			5.5	13.1	23.0	-4.3	--	--	2.3	
eV Emg Mkts All Cap Growth Equity Rank			100	42	15	1	--	--	1	
LSV Emerging Markets Value	154,876,185	4.1	6.3	17.9	31.8	9.1	--	--	9.4	Nov-19
<i>MSCI Emerging Markets Value (Net)</i>			<i>8.1</i>	<i>15.1</i>	<i>24.4</i>	<i>3.3</i>	--	--	<i>5.3</i>	
eV Emg Mkts All Cap Value Equity Median			7.6	13.8	23.9	3.8	--	--	6.6	
eV Emg Mkts All Cap Value Equity Rank			63	15	1	1	--	--	14	
Private Equity	293,640,578	7.8	3.0	4.9	3.6	5.6	14.9	--	12.6	Apr-15
<i>Russell 3000 +2% 1Q Lag</i>			<i>3.7</i>	<i>29.1</i>	<i>25.5</i>	<i>10.2</i>	<i>16.4</i>	--	<i>14.4</i>	
Neuberger Berman Sonoran Tranche A (P.E.)	109,409,692	2.9	1.7	1.6	0.2	2.5	12.6	--	11.5	Apr-15
Neuberger Berman Sonoran Tranche B (P.E.)	126,863,400	3.4	0.9	4.7	3.4	8.4	16.8	--	1.8	Jan-19
Neuberger Berman Sonoran Tranche E (P.E.)	57,367,486	1.5								

The fair market values for Private Equity funds are based on the Q2 NAVs published by the manager (6/30/2024), adjusted for cash flows through the reported end date (9/30/2024).

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Income	389,914,567	10.4								
High Yield Bonds	171,444,307	4.6	4.5	7.2	11.6	2.6	5.2	--	4.6	Aug-18
<i>Blmbg. U.S. Corp: High Yield Index</i>			5.3	8.0	15.7	3.1	4.7	--	5.1	
Brigade Traditional High Yield	88,437,123	2.4	6.0	7.2	12.2	2.3	5.2	--	5.0	Aug-18
<i>Blmbg. U.S. Corp: High Yield Index</i>			5.3	8.0	15.7	3.1	4.7	--	5.1	
eV US High Yield Fixed Inc Median			4.4	7.3	14.3	3.1	4.4	--	4.7	
eV US High Yield Fixed Inc Rank			3	57	85	83	20	--	34	
Polen Capital Management	83,007,183	2.2	3.1	7.2	11.1	2.9	5.2	--	4.1	Sep-18
<i>Blmbg. U.S. Corp: High Yield Index</i>			5.3	8.0	15.7	3.1	4.7	--	5.0	
eV US High Yield Fixed Inc Median			4.4	7.3	14.3	3.1	4.4	--	4.7	
eV US High Yield Fixed Inc Rank			90	56	90	56	20	--	82	
Bank Loans	106,071,781	2.8	2.2	8.0	10.5	6.8	5.7	--	5.4	Sep-18
<i>Credit Suisse Leveraged Loan Index</i>			2.0	6.6	9.6	6.3	5.6	--	5.2	
Pacific Asset Management	106,071,781	2.8	2.2	8.0	10.5	6.8	5.7	--	5.4	Sep-18
<i>Credit Suisse Leveraged Loan Index</i>			2.0	6.6	9.6	6.3	5.6	--	5.2	
eV US Float-Rate Bank Loan Fixed Inc Median			2.0	6.2	9.2	5.6	5.0	--	4.7	
eV US Float-Rate Bank Loan Fixed Inc Rank			20	4	17	7	14	--	14	

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Emerging Market Bonds	87,598,479	2.3	6.6	7.8	16.7	1.3	2.4	4.1	3.7	Feb-13
<i>Emerging Market Debt Custom Benchmark</i>			6.4	7.3	15.4	0.6	1.6	3.7	3.5	
MetLife Emerging Markets Debt Collective Trust	87,598,479	2.3	6.6	7.8	16.7	1.3	2.4	--	2.6	Sep-19
<i>MetLife Custom Benchmark</i>			6.4	7.3	15.4	0.6	1.6	--	1.7	
eV Emg Mkts Fixed Inc - Blended Currency Median			6.5	7.5	17.3	1.1	1.9	--	2.0	
eV Emg Mkts Fixed Inc - Blended Currency Rank			47	46	57	43	36	--	31	
Private Debt	24,800,000	0.7	--	--	--	--	--	--	--	Oct-24
<i>Credit Suisse Leveraged Loan Index+2%</i>			--	--	--	--	--	--	--	
Ares Pathfinder Core Fund	24,800,000	0.7	--	--	--	--	--	--	--	Oct-24
<i>Credit Suisse Leveraged Loan Index+2%</i>			--	--	--	--	--	--	--	

Ares Pathfinder Core Fund was funded during July. Quarterly returns will populate after the first full quarter of performance.

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Inflation Hedging	908,669,805	24.2								
TIPS	231,356,369	6.2	4.1	5.0	9.8	-0.6	2.6	--	3.0	Feb-18
<i>Blmbg. U.S. TIPS Index</i>			<i>4.1</i>	<i>4.9</i>	<i>9.8</i>	<i>-0.6</i>	<i>2.6</i>	--	<i>3.0</i>	
SSgA U.S. TIPS	231,356,369	6.2	4.1	5.0	9.8	-0.6	2.6	--	3.0	Feb-18
<i>Blmbg. U.S. TIPS Index</i>			<i>4.1</i>	<i>4.9</i>	<i>9.8</i>	<i>-0.6</i>	<i>2.6</i>	--	<i>3.0</i>	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			<i>4.0</i>	<i>4.9</i>	<i>9.6</i>	<i>-0.4</i>	<i>2.6</i>	--	<i>3.0</i>	
<i>eV US TIPS / Inflation Fixed Inc Rank</i>			<i>39</i>	<i>36</i>	<i>32</i>	<i>57</i>	<i>55</i>	--	<i>51</i>	
Real Estate	483,351,067	12.9	-0.7	-5.1	-7.1	1.4	3.4	6.2	5.8	Dec-06
<i>NCREIF ODCE (VW) (Gross)</i>			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.4</i>	
Non-Core Real Estate	294,528,791	7.9	-1.3	-5.7	-7.2	1.8	3.6	6.1	7.0	Feb-09
<i>NCREIF ODCE (VW) (Gross)</i>			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.6</i>	
<i>NCREIF ODCE (Q Lag)</i>			<i>-0.4</i>	<i>-7.5</i>	<i>-9.3</i>	<i>1.9</i>	<i>3.2</i>	<i>6.4</i>	<i>4.8</i>	
Core Real Estate	188,822,276	5.0	0.3	-4.2	-6.8	1.2	3.4	6.2	5.5	Jan-09
<i>NCREIF ODCE (VW) (Gross)</i>			<i>0.2</i>	<i>-2.6</i>	<i>-7.3</i>	<i>-0.2</i>	<i>2.9</i>	<i>6.1</i>	<i>5.6</i>	

The fair market values for Real Estate are based on the Q2 NAVs published by the manager (6/30/2024), adjusted for cash flows through the reported end date (9/30/2024).

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Natural Resources	68,335,008	1.8	4.9	4.7	13.8	19.4	11.7	--	10.8	Sep-19
<i>S&P Global Natural Resources (Q Lag)</i>										
Neuberger Berman Sonoran Tranche C (N.R.)	68,335,008	1.8	4.9	4.7	13.8	19.4	11.7	--	10.7	Aug-19
<i>S&P Global Natural Resources (Q Lag)</i>										
Infrastructure	125,627,361	3.3	2.7	7.8	7.8	8.5	6.4	--	6.3	Sep-19
<i>CPI +3% (Seasonally Adjusted) (Q Lag)</i>										
Neuberger Berman Sonoran Tranche D (Infra)	89,215,958	2.4	2.7	8.1	9.7	9.1	6.8	--	6.6	Aug-19
<i>CPI +3% (Seasonally Adjusted) (Q Lag)</i>										
Neuberger Berman Sonoran Tranche F (Infra)	36,411,403	1.0								

Natural Resources and Infrastructure funds are based on the Q2 NAVs published by the manager (6/30/2024), adjusted for cash flows through the reported end date (9/30/2024).

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Crisis Risk Offset	656,744,050	17.5								
Short Duration Bonds	354,818,305	9.5	3.0	4.1	10.7	-2.1	0.1	2.0	3.5	Mar-05
<i>Short Duration Bonds Custom Benchmark</i>			3.0	4.4	11.5	-1.4	0.3	1.8	3.2	
SSgA US 1-3 Year Gov/Cred	140,092,072	3.7	3.0	4.0	11.0	-1.6	0.2	--	1.7	Apr-18
<i>SSgA Custom Benchmark</i>			3.0	4.4	11.5	-1.4	0.3	--	1.7	
eV US Short Duration Fixed Inc Median			3.0	4.7	7.8	1.8	1.9	--	2.3	
eV US Short Duration Fixed Inc Rank			50	93	2	100	100	--	93	
Longfellow Short Duration	108,692,631	2.9	2.8	3.6	11.0	-1.8	0.4	--	1.9	May-18
<i>Longfellow Custom Benchmark</i>			3.0	3.7	10.8	-1.6	0.2	--	1.8	
eV US Short Duration Fixed Inc Median			3.0	4.7	7.8	1.8	1.9	--	2.4	
eV US Short Duration Fixed Inc Rank			70	96	2	100	100	--	89	
Western Asset Short Duration Constrained	106,033,602	2.8	3.1	4.7	10.0	-3.1	-0.3	2.0	3.5	Feb-05
<i>Western Asset Custom Benchmark</i>			3.0	4.4	8.7	-2.3	-0.2	1.6	3.1	
eV US Short Duration Fixed Inc Median			3.0	4.7	7.8	1.8	1.9	1.9	2.6	
eV US Short Duration Fixed Inc Rank			37	52	4	100	100	37	4	

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 and Custom Benchmark formula is shown on the Benchmark History page.

Asset Allocation & Performance | As of September 30, 2024

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Risk Mitigating Strategies	123,255,571	3.3	-2.6	-4.9	--	--	--	--	-4.9	Jan-24
<i>50% CBOE Eureka Hedge Long Volatility / 50% SG Trend Index</i>										
BH-DG Systematic Trading	42,720,250	1.1	-4.7	-6.0	-7.1	6.2	7.7	--	7.2	Mar-18
<i>Barclay CTA Index</i>			-0.5	3.7	2.0	3.5	4.1	--	3.6	
One River Dynamic Convexity	39,389,249	1.0	-2.9	-3.9	--	--	--	--	-3.9	Jan-24
<i>CBOE Eureka Hedge Long Volatility Hedge Fund Index</i>										
36 South Kohinoor Series (Cayman) Fund - Class B	41,146,071	1.1	-0.1	0.4	--	--	--	--	0.4	Jan-24
<i>CBOE Eureka Hedge Long Volatility Hedge Fund Index</i>										
Hedge Funds	54,614,289	1.5	0.9	9.5	12.5	6.1	7.9	3.8	3.9	Jan-14
<i>HFRI Fund Weighted Composite Index</i>										
Fir Tree International Value Fund, L.P.	54,614,289	1.5	0.9	9.8	17.0	1.5	6.4	--	1.7	Nov-14
<i>HFRI Event-Driven (Total) Index</i>										
Cash Equivalents	124,055,885	3.3	1.3	4.0	5.3	3.5	2.2	1.6	1.5	Mar-05
<i>ICE BofA 3 Month U.S. T-Bill</i>										
Dreyfus Government Cash Management Institutional	124,055,885	3.3	1.3	4.0	5.3	3.5	2.2	1.6	1.6	Mar-05
<i>ICE BofA 3 Month U.S. T-Bill</i>										



City of Phoenix Employees' Retirement System

Asset Allocation & Performance | As of September 30, 2024

Fiscal Year Net Performance											
	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)
Total Fund	5.4	-4.7	22.8	1.4	6.1	7.0	11.3	0.5	2.2	15.4	
<i>COPERS Policy Benchmark</i>	4.5	-3.7	24.9	1.4	6.6	7.9	10.6	2.3	3.9	15.3	
<i>COPERS Custom Benchmark</i>	5.3	-4.3	23.0	2.4	6.5	8.0	11.1	1.8	3.4	15.6	
<i>InvMetrics All Public DB Plans > \$1B Median</i>	7.6	-6.6	26.8	1.5	5.8	8.1	12.5	0.3	2.8	16.7	
<i>InvMetrics All Public DB Plans > \$1B Rank</i>	87	37	91	55	36	81	79	42	66	75	
Growth											
US Equity	11.2	-12.7	40.5	0.3	6.2	12.3	17.7	0.6	6.1	23.6	
<i>Russell 3000 Index</i>	19.0	-13.9	44.2	6.5	9.0	14.8	18.5	2.1	7.3	25.2	
<i>SSgA Russell 3000 Index</i>	--	--	--	--	--	--	--	--	--	--	
<i>Russell 3000 Index</i>	--	--	--	--	--	--	--	--	--	--	
<i>eV All US Equity Median</i>	--	--	--	--	--	--	--	--	--	--	
<i>eV All US Equity Rank</i>	--	--	--	--	--	--	--	--	--	--	
Developed Market Equity (non-U.S.)	14.5	-25.1	32.4	2.6	2.2	9.1	21.2	-6.1	-2.9	22.9	
<i>MSCI EAFE (Net)</i>	18.8	-17.8	32.4	-5.1	1.1	6.8	20.3	-10.2	-4.2	23.6	
<i>Baillie Gifford ACWI ex-U.S. Alpha Equities</i>	17.3	-34.1	34.5	9.5	3.4	9.1	26.3	-7.4	-0.2	20.6	
<i>MSCI AC World ex USA Growth (Net)</i>	13.3	-25.8	33.7	5.8	2.6	9.9	17.4	-6.2	-2.1	19.3	
<i>MSCI AC World ex USA (Net)</i>	12.7	-19.4	35.7	-4.8	1.3	7.3	20.5	-10.2	-5.3	21.8	
<i>eV ACWI ex-US All Cap Growth Eq Median</i>	16.6	-27.8	37.3	7.8	1.6	12.9	19.0	-7.5	-0.6	20.7	
<i>eV ACWI ex-US All Cap Growth Eq Rank</i>	43	81	61	41	40	74	15	50	45	56	

Fiscal Year begins July 1. Policy Benchmark and Custom Benchmark formulas are shown on Benchmark History page.

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
SSgA FTSE RAFI Dev. ex-US. Low Volatility Index	12.4	-7.1	27.6	-13.0	0.6	8.7	13.2	--	--	--
<i>FTSE RAFI Developed ex-US. Low Volatility Index</i>	12.0	-7.0	27.1	-13.4	0.3	8.6	13.0	--	--	--
<i>MSCI EAFE (Net)</i>	18.8	-17.8	32.4	-5.1	1.1	6.8	20.3	--	--	--
eV Global Low Volatility Equity Median	7.9	-6.0	22.3	-4.9	8.2	7.2	9.3	--	--	--
eV Global Low Volatility Equity Rank	16	67	21	98	100	28	10	--	--	--
First Eagle International Value	9.6	-10.1	--	--	--	--	--	--	--	--
<i>MSCI EAFE Value Index (Net)</i>	17.4	-11.9	--	--	--	--	--	--	--	--
<i>MSCI EAFE (Net)</i>	18.8	-17.8	--	--	--	--	--	--	--	--
eV EAFE All Cap Value Median	20.0	-14.3	--	--	--	--	--	--	--	--
eV EAFE All Cap Value Rank	100	9	--	--	--	--	--	--	--	--
Driehaus International Small Cap Growth	11.1	-27.8	--	--	--	--	--	--	--	--
<i>MSCI AC World ex USA Small Growth Index (Net)</i>	10.6	-27.3	--	--	--	--	--	--	--	--
<i>MSCI AC World ex USA (Net)</i>	12.7	-19.4	--	--	--	--	--	--	--	--
eV ACWI ex-US Small Cap Equity Median	12.0	-25.2	--	--	--	--	--	--	--	--
eV ACWI ex-US Small Cap Equity Rank	62	59	--	--	--	--	--	--	--	--

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Emerging Markets Equity	11.6	-19.9	44.0	--	--	--	--	--	--	--
<i>MSCI Emerging Markets (Net)</i>	<i>1.7</i>	<i>-25.3</i>	<i>40.9</i>	--	--	--	--	--	--	--
GQG Emerging Markets Equity	10.5	-23.6	43.0	--	--	--	--	--	--	--
<i>MSCI Emerging Markets Growth (Net)</i>	<i>-0.5</i>	<i>-31.2</i>	<i>40.1</i>	--	--	--	--	--	--	--
eV Emg Mkts All Cap Growth Equity Median	2.1	-30.4	42.8	--	--	--	--	--	--	--
eV Emg Mkts All Cap Growth Equity Rank	11	4	49	--	--	--	--	--	--	--
LSV Emerging Markets Value	12.8	-15.6	45.1	--	--	--	--	--	--	--
<i>MSCI Emerging Markets Value (Net)</i>	<i>4.1</i>	<i>-18.6</i>	<i>41.6</i>	--	--	--	--	--	--	--
eV Emg Mkts All Cap Value Equity Median	10.4	-20.3	45.1	--	--	--	--	--	--	--
eV Emg Mkts All Cap Value Equity Rank	29	21	51	--	--	--	--	--	--	--
Private Equity	-1.0	31.6	47.3	2.8	17.0	12.9	7.4	4.7	--	--
<i>Russell 3000 +2% 1Q Lag</i>	<i>-6.7</i>	<i>14.1</i>	<i>65.7</i>	<i>-7.3</i>	<i>10.9</i>	<i>16.1</i>	<i>20.4</i>	<i>1.7</i>	--	--
Neuberger Berman Sonoran Tranche A (P.E.)	-5.0	28.8	46.9	3.0	17.3	12.9	7.4	4.7	--	--
Neuberger Berman Sonoran Tranche B (P.E.)	4.5	38.4	46.3	-5.0	--	--	--	--	--	--
Neuberger Berman Sonoran Tranche E (P.E.)										

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Income										
High Yield Bonds	5.9	-9.1	23.4	-5.4	--	--	--	--	--	--
<i>Blmbg. U.S. Corp: High Yield Index</i>	9.1	-12.8	15.4	0.0	--	--	--	--	--	--
Brigade Traditional High Yield	4.5	-9.7	24.5	-3.9	--	--	--	--	--	--
<i>Blmbg. U.S. Corp: High Yield Index</i>	9.1	-12.8	15.4	0.0	--	--	--	--	--	--
eV US High Yield Fixed Inc Median	8.4	-11.7	14.3	-0.5	--	--	--	--	--	--
eV US High Yield Fixed Inc Rank	96	27	3	91	--	--	--	--	--	--
Polen Capital Management	7.4	-8.5	22.3	-7.1	--	--	--	--	--	--
<i>Blmbg. U.S. Corp: High Yield Index</i>	9.1	-12.8	15.4	0.0	--	--	--	--	--	--
eV US High Yield Fixed Inc Median	8.4	-11.7	14.3	-0.5	--	--	--	--	--	--
eV US High Yield Fixed Inc Rank	77	25	7	99	--	--	--	--	--	--
Bank Loans	11.4	-2.6	9.4	-0.5	--	--	--	--	--	--
<i>Credit Suisse Leveraged Loan Index</i>	10.1	-2.7	11.7	-2.3	--	--	--	--	--	--
Pacific Asset Management	11.4	-2.6	9.4	-0.5	--	--	--	--	--	--
<i>Credit Suisse Leveraged Loan Index</i>	10.1	-2.7	11.7	-2.3	--	--	--	--	--	--
eV US Float-Rate Bank Loan Fixed Inc Median	9.9	-3.7	10.6	-2.3	--	--	--	--	--	--
eV US Float-Rate Bank Loan Fixed Inc Rank	6	18	80	12	--	--	--	--	--	--



City of Phoenix Employees' Retirement System

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Emerging Market Bonds	10.4	-18.6	9.8	2.1	11.9	-0.2	7.0	6.8	1.0	9.5
<i>Emerging Market Debt Custom Benchmark</i>	7.8	-17.5	7.4	2.6	12.4	-1.6	6.0	9.8	0.5	11.6
MetLife Emerging Markets Debt Collective Trust	10.4	-18.6	9.8	--	--	--	--	--	--	--
<i>MetLife Custom Benchmark</i>	7.8	-17.5	7.4	--	--	--	--	--	--	--
eV Emg Mkts Fixed Inc - Blended Currency Median	10.1	-19.4	9.7	--	--	--	--	--	--	--
eV Emg Mkts Fixed Inc - Blended Currency Rank	48	38	46	--	--	--	--	--	--	--
Private Debt	--	--	--	--	--	--	--	--	--	--
<i>Credit Suisse Leveraged Loan Index+2%</i>	--	--	--	--	--	--	--	--	--	--
Ares Pathfinder Core Fund	--	--	--	--	--	--	--	--	--	--
<i>Credit Suisse Leveraged Loan Index+2%</i>	--	--	--	--	--	--	--	--	--	--

Emerging Market Debt Custom Benchmark formula is shown on Benchmark History page.

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Inflation Hedging										
TIPS	-1.4	-5.2	6.4	8.3	4.8	--	--	--	--	--
<i>Blmbg. U.S. TIPS Index</i>	-1.4	-5.1	6.5	8.3	4.8	--	--	--	--	--
SSgA U.S. TIPS	-1.4	-5.2	6.4	8.3	4.8	--	--	--	--	--
<i>Blmbg. U.S. TIPS Index</i>	-1.4	-5.1	6.5	8.3	4.8	--	--	--	--	--
eV US TIPS / Inflation Fixed Inc Median	-1.2	-5.1	6.6	7.4	4.6	--	--	--	--	--
eV US TIPS / Inflation Fixed Inc Rank	64	53	67	21	27	--	--	--	--	--
Real Estate	-2.6	24.5	10.6	-1.4	8.0	9.1	7.6	9.5	12.4	11.9
<i>NCREIF ODCE (VW) (Gross)</i>	-10.0	29.5	8.0	2.2	6.4	8.4	7.9	11.8	14.4	12.7
Non-Core Real Estate	2.2	20.7	14.1	-3.5	10.2	10.3	7.0	6.7	9.5	9.4
<i>NCREIF ODCE (VW) (Gross)</i>	-10.0	29.5	8.0	2.2	6.4	8.4	7.9	11.8	14.4	12.7
<i>NCREIF ODCE (Q Lag)</i>	-3.1	28.5	2.3	4.9	7.5	8.1	8.3	13.7	13.4	13.8
Core Real Estate	-8.0	29.3	6.5	1.6	6.1	8.2	8.0	11.2	14.2	13.2
<i>NCREIF ODCE (VW) (Gross)</i>	-10.0	29.5	8.0	2.2	6.4	8.4	7.9	11.8	14.4	12.7

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Natural Resources	15.3	54.2	11.6	--	--	--	--	--	--	--
<i>S&P Global Natural Resources (Q Lag)</i>	-5.0	30.8	67.7	--	--	--	--	--	--	--
Neuberger Berman Sonoran Tranche C (N.R.)	15.3	54.2	11.6	--	--	--	--	--	--	--
<i>S&P Global Natural Resources (Q Lag)</i>	-5.0	30.8	67.7	--	--	--	--	--	--	--
Infrastructure	11.9	6.2	7.4	--	--	--	--	--	--	--
<i>CPI +3% (Seasonally Adjusted) (Q Lag)</i>	8.1	11.8	5.7	--	--	--	--	--	--	--
Neuberger Berman Sonoran Tranche D (Infra)	13.0	6.2	7.4	--	--	--	--	--	--	--
<i>CPI +3% (Seasonally Adjusted) (Q Lag)</i>	8.1	11.8	5.7	--	--	--	--	--	--	--
Neuberger Berman Sonoran Tranche F (Infra)										

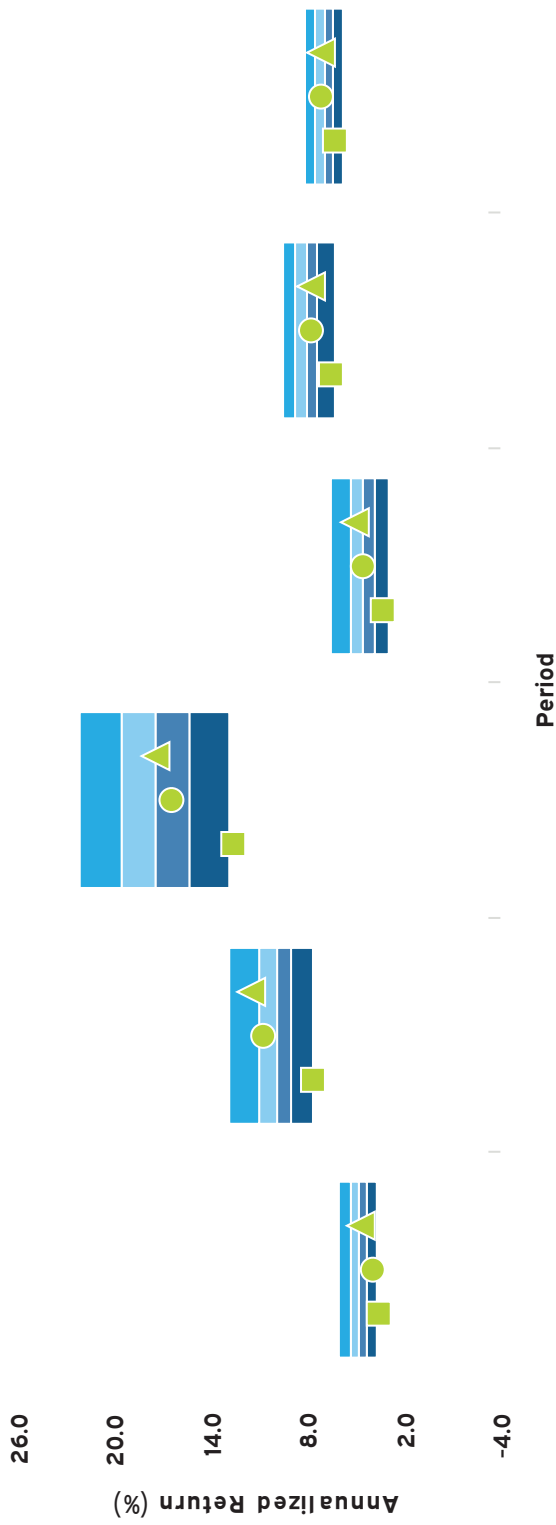
Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Crisis Risk Offset										
Short Duration Bonds	-0.9	-11.2	0.9	8.3	7.9	0.5	2.1	5.6	1.1	4.7
<i>Short Duration Bonds Custom Benchmark</i>	-0.9	-10.3	-0.3	8.7	7.9	-0.4	-0.3	6.0	1.9	4.4
SSgA US 1-3 Year Gov/Cred	-0.9	-10.3	-0.3	8.7	7.9	--	--	--	--	--
<i>SSgA Custom Benchmark</i>	-0.9	-10.3	-0.3	8.7	7.9	--	--	--	--	--
eV US Short Duration Fixed Inc Median	1.2	-4.0	1.0	4.0	4.3	--	--	--	--	--
eV US Short Duration Fixed Inc Rank	98	100	98	1	1	--	--	--	--	--
Longfellow Short Duration	-1.1	-10.7	2.4	7.4	7.3	--	--	--	--	--
<i>Longfellow Custom Benchmark</i>	-0.9	-10.3	-0.3	8.7	7.9	--	--	--	--	--
eV US Short Duration Fixed Inc Median	1.2	-4.0	1.0	4.0	4.3	--	--	--	--	--
eV US Short Duration Fixed Inc Rank	99	100	24	1	1	--	--	--	--	--
Western Asset Short Duration Constrained	-0.8	-13.1	1.8	8.4	8.8	0.4	3.3	5.8	1.6	7.2
<i>Western Asset Custom Benchmark</i>	-0.9	-10.3	-0.3	8.7	7.9	-0.4	-0.3	6.0	1.9	4.4
eV US Short Duration Fixed Inc Median	1.2	-4.0	1.0	4.0	4.3	0.4	0.7	1.8	0.9	1.8
eV US Short Duration Fixed Inc Rank	97	100	32	1	1	52	8	1	8	3

Asset Allocation & Performance | As of September 30, 2024

	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)
Risk Mitigating Strategies	--	--	--	--	--	--	--	--	--	--
<i>50% CBOE Eurekahedge Long Volatility / 50% SG Trend Index</i>	--	--	--	--	--	--	--	--	--	--
BH-DG Systematic Trading	-0.3	32.8	25.9	-2.5	8.5	--	--	--	--	--
<i>Barclay CTA Index</i>	-0.4	8.9	9.2	1.5	3.2	--	--	--	--	--
One River Dynamic Convexity	--	--	--	--	--	--	--	--	--	--
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>	--	--	--	--	--	--	--	--	--	--
36 South Kohinoor Series (Cayman) Fund - Class B	--	--	--	--	--	--	--	--	--	--
<i>CBOE Eurekahedge Long Volatility Hedge Fund Index</i>	--	--	--	--	--	--	--	--	--	--
Hedge Funds	1.2	6.1	22.5	-0.8	-2.2	0.5	6.4	-7.6	0.9	--
<i>HFRI Fund Weighted Composite Index</i>	5.0	-5.6	27.5	-0.5	1.3	5.7	7.9	-2.4	2.3	--
Fir Tree International Value Fund, L.P.	3.1	-17.1	29.9	2.1	-6.8	-0.7	5.7	-14.7	--	--
<i>HFRI Event-Driven (Total) Index</i>	5.3	-6.8	30.1	-4.4	1.2	5.5	12.5	-3.8	--	--
Cash Equivalents	3.7	0.2	0.0	1.3	2.1	1.2	0.5	0.2	0.0	0.0
<i>ICE BofA 3 Month U.S. T-Bill</i>	3.6	0.2	0.1	1.6	2.3	1.4	0.5	0.2	0.0	0.1
Dreyfus Government Cash Management Institutional	3.7	0.2	0.0	1.3	2.1	1.2	0.5	0.1	0.0	0.0
<i>ICE BofA 3 Month U.S. T-Bill</i>	3.6	0.2	0.1	1.6	2.3	1.4	0.5	0.2	0.0	0.1

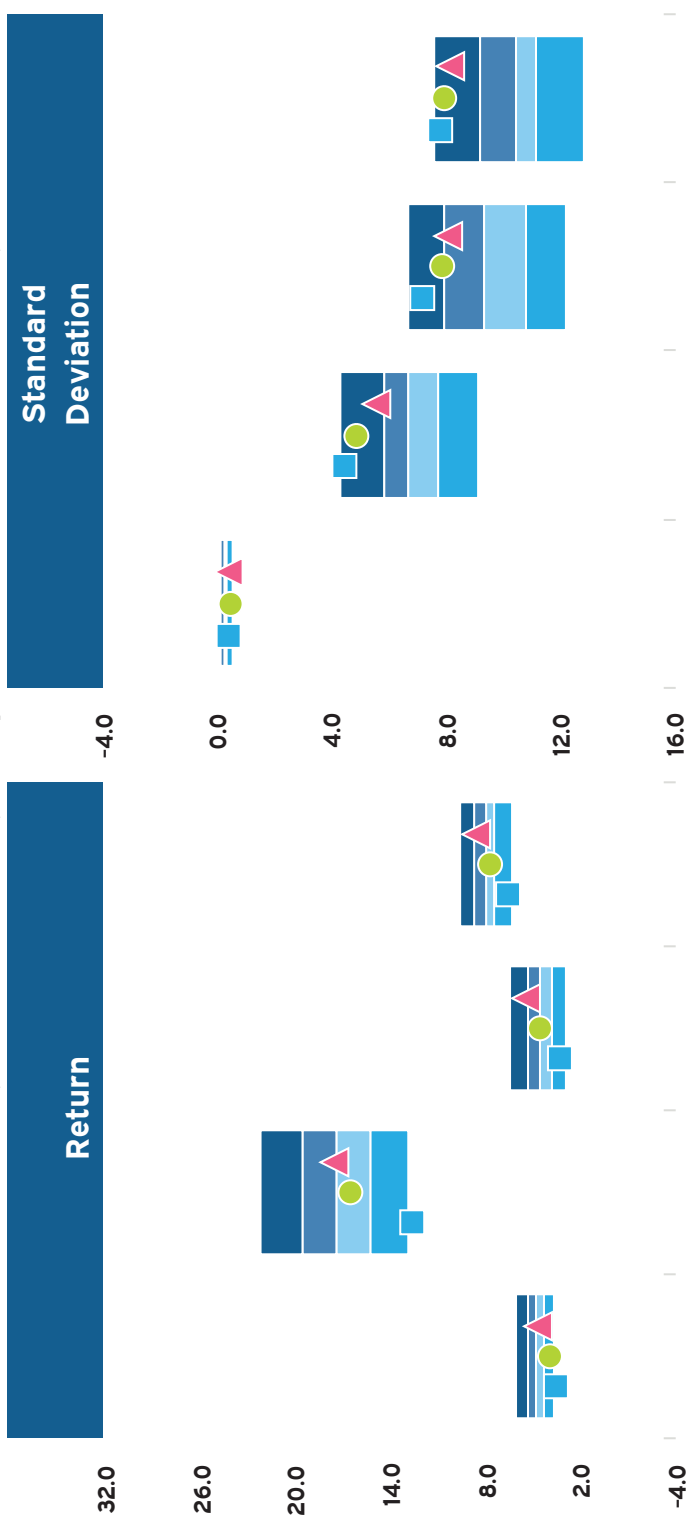
InvMetrics All Public DB Plans > \$1B



	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
■ Total Fund	3.6 (97)	7.7 (95)	12.6 (98)	3.3 (87)	6.6 (93)	6.3 (87)
● COPERS Policy Benchmark	3.9 (84)	10.7 (31)	16.5 (63)	4.5 (52)	7.7 (62)	7.1 (45)
▲ COPERS Custom Benchmark	4.6 (56)	11.5 (20)	17.5 (50)	5.0 (36)	7.8 (59)	7.2 (43)
5th Percentile	6.1	12.9	22.2	6.5	9.6	8.1
1st Quartile	5.3	11.0	19.5	5.3	8.7	7.5
Median	4.8	9.9	17.4	4.6	8.0	6.9
3rd Quartile	4.3	9.0	15.3	3.8	7.4	6.5
95th Percentile	3.7	7.6	12.9	2.9	6.3	5.9
Population	71	71	71	68	67	65

Parenteses contain percentile rankings. Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics | As of September 30, 2024



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Total Fund	3.6 (97)	12.6 (98)	3.3 (87)	6.6 (93)	0.4 (79)	4.5 (6)	7.2 (13)	7.8 (10)
COPERS Policy Benchmark	3.9 (84)	16.5 (63)	4.5 (52)	7.7 (62)	0.5 (91)	4.9 (12)	7.9 (23)	7.9 (12)
COPERS Custom Benchmark	4.6 (56)	17.5 (50)	5.4 (25)	8.6 (28)	0.4 (80)	5.6 (20)	8.1 (26)	8.2 (15)
5th Percentile	6.1	22.2	6.5	9.6	0.1	4.3	6.7	7.6
1st Quartile	5.3	19.5	5.3	8.7	0.2	5.9	7.9	9.2
Median	4.8	17.4	4.6	8.0	0.2	6.7	9.4	10.5
3rd Quartile	4.3	15.3	3.8	7.4	0.3	7.7	10.8	11.2
95th Percentile	3.7	12.9	2.9	6.3	0.6	9.2	12.2	12.9

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

InvMetrics All Public DB Plans > \$1B

35.0

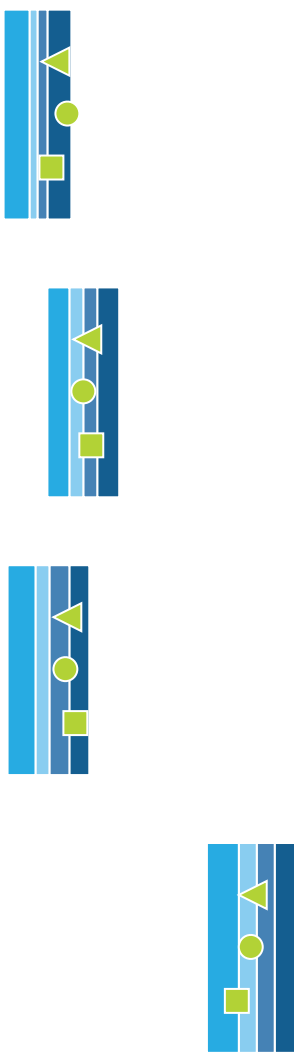
20.0

5.0

-10.0

-25.0

Annualized Return (%)

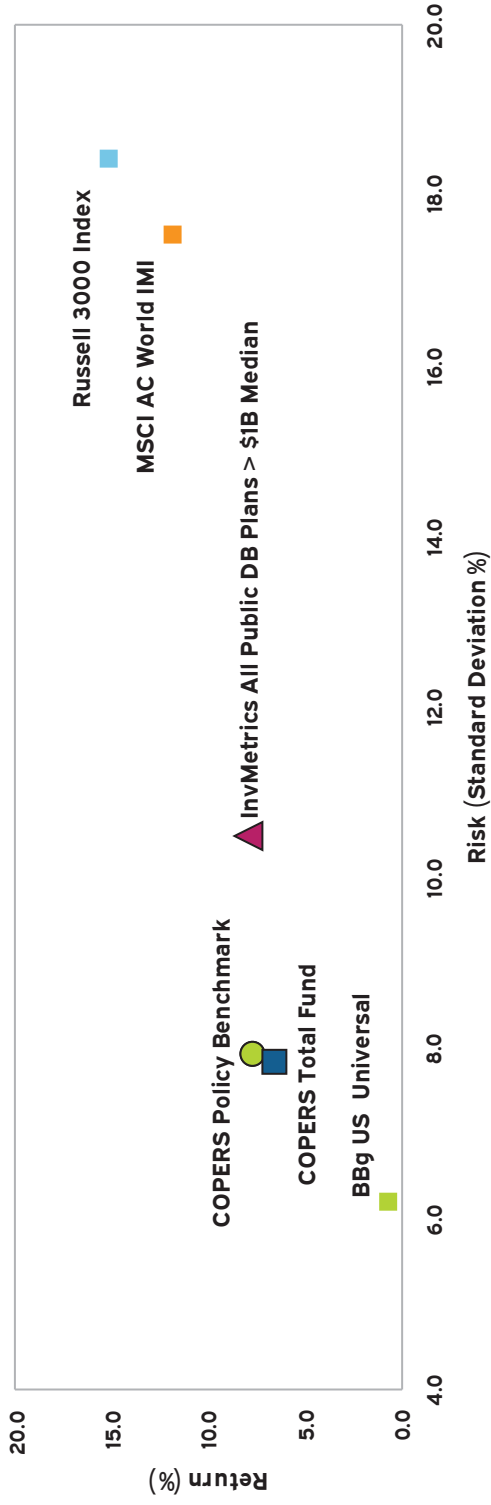


Period

	2023	2022	2021	2020	2019
Total Fund	7.9 (94)	-7.8 (22)	12.3 (86)	10.2 (67)	15.1 (81)
COPERS Policy Benchmark	11.0 (52)	-9.7 (44)	13.4 (73)	11.1 (52)	13.2 (94)
COPERS Custom Benchmark	11.1 (52)	-9.8 (45)	13.1 (75)	10.8 (60)	14.8 (86)
5th Percentile	14.4	-4.1	20.7	15.7	21.2
1st Quartile	12.5	-8.0	17.2	13.0	18.0
Median	11.2	-10.3	15.3	11.2	16.8
3rd Quartile	9.7	-12.5	13.0	9.4	15.5
95th Percentile	7.8	-15.4	10.5	6.8	12.8
Population	179	177	209	217	192

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

5-Year Annualized Risk/Return (Net of Fees)



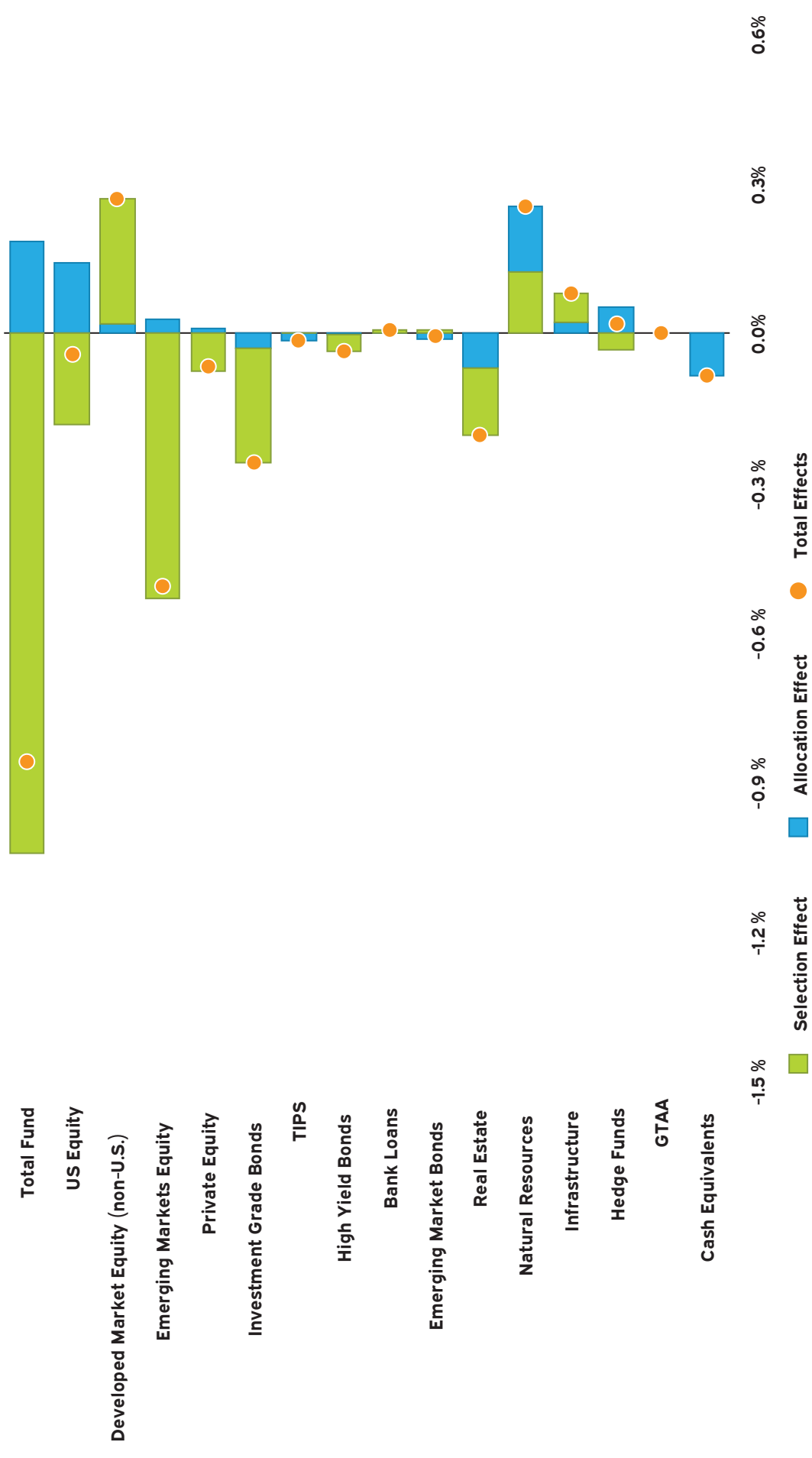
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
COPERS Total Fund	6.6	7.8	0.6
COPERS Policy Benchmark	7.7	7.9	0.7
InvMetrics All Public DB Plans > \$1B Median	8.0	10.5	0.6
Blmbg. U.S. Universal Index	0.7	6.2	-0.2
Russell 3000 Index	15.3	18.4	0.7
MSCI AC World IMI	11.9	17.5	0.6

Risk-Adjusted Return vs. Peers ¹					
	1 Yr	3 Yrs	5 Yrs	10 Yrs	
COPERS Total Plan - Net	12.61	3.33	6.59	6.26	
Risk-Adjusted Median	11.61	3.52	5.95	5.57	
Excess Return	1.01	-0.19	0.64	0.69	

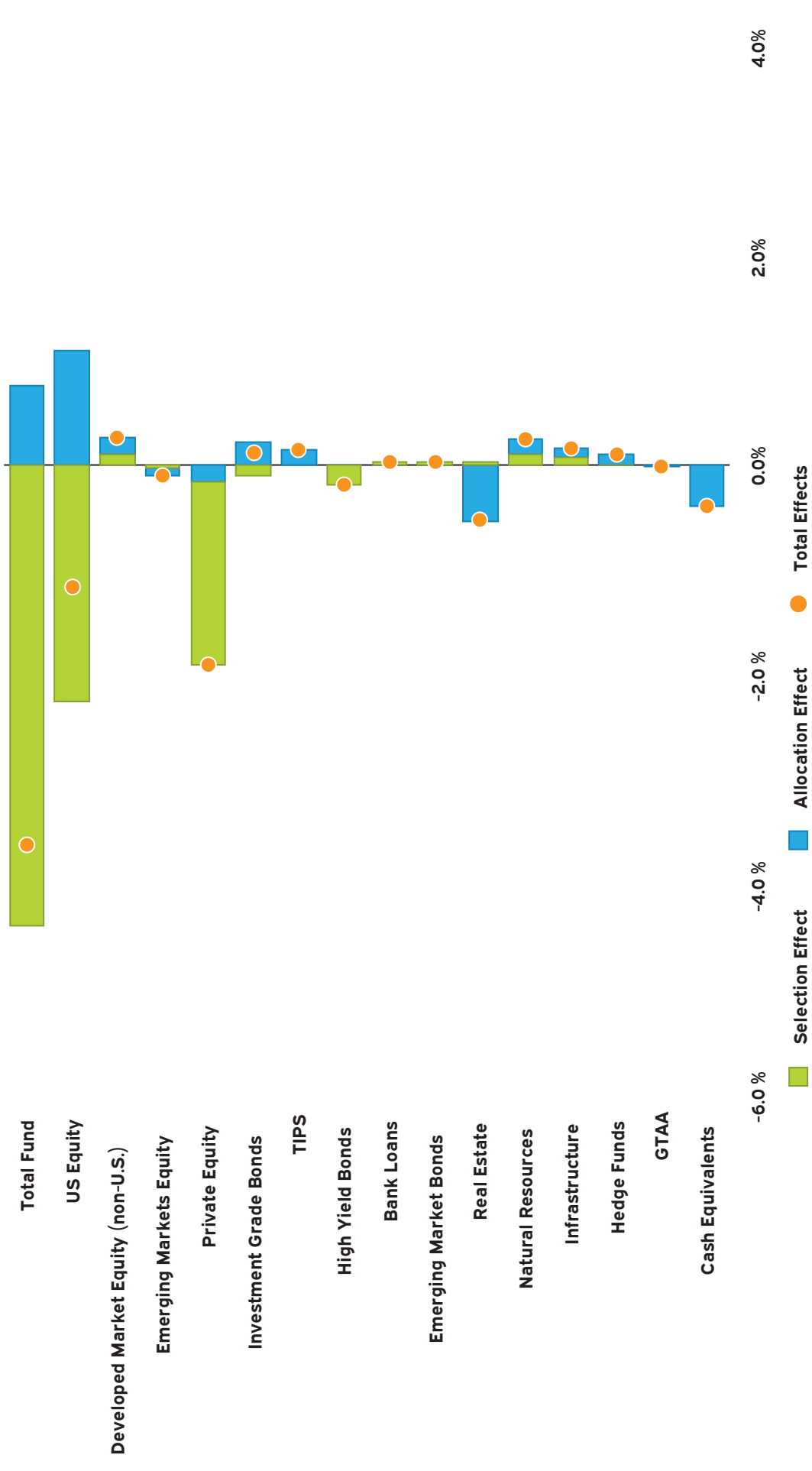
¹ The risk-adjusted median normalizes the median fund to the COPERS exhibited volatility. Calculated as: risk-adjusted median = unadjusted median return * (ERS volatility/peer volatility).

Total Fund Attribution | 3 Months Ending September 30, 2024

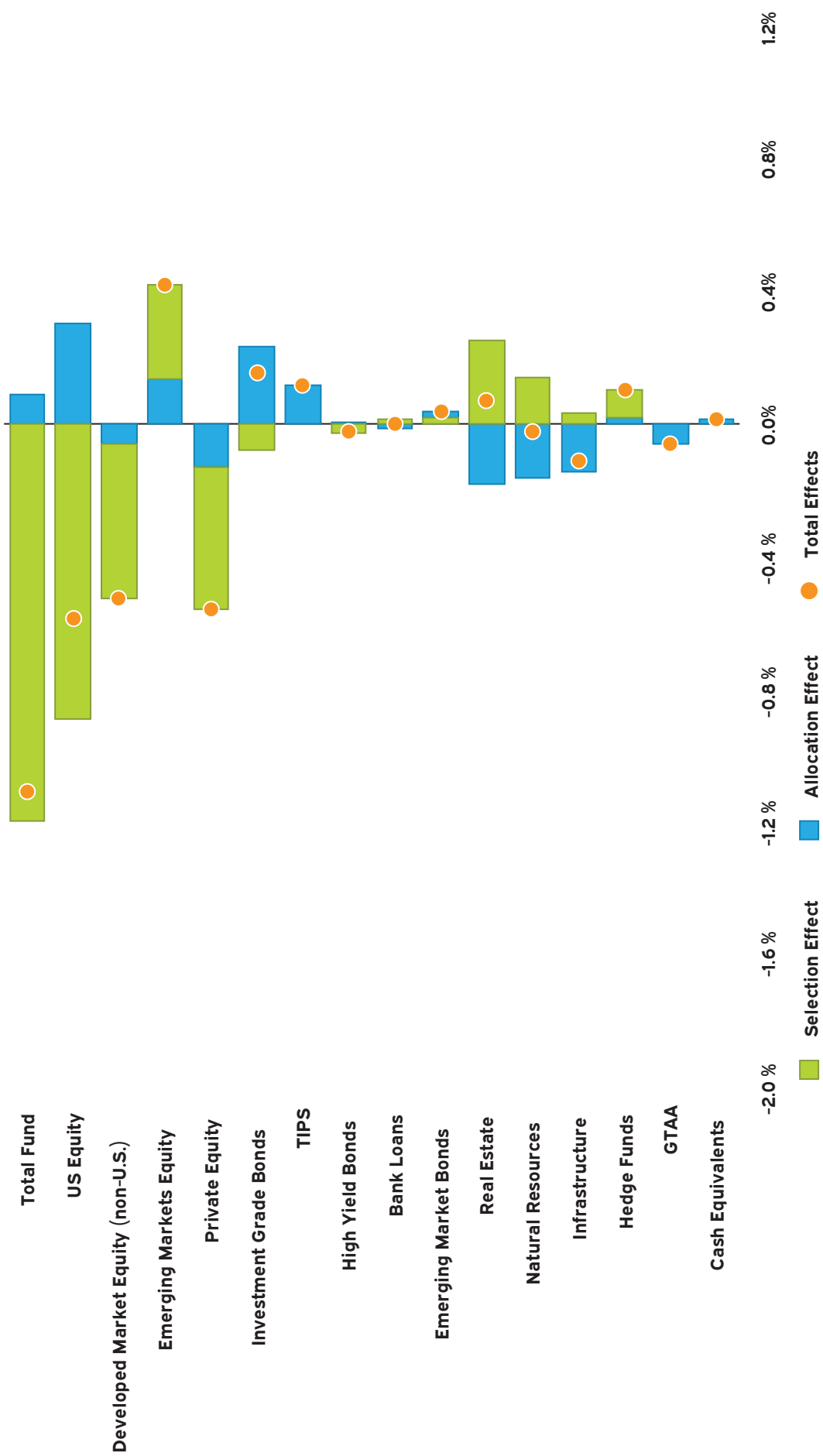
Attribution Effects
3 Months Ending September 30, 2024



Attribution Effects
1 Year Ending September 30, 2024



Attribution Effect
3 Years Ending September 30, 2024



Benchmark History As of September 30, 2024

Benchmark

From Date To Date

COPERS Policy Benchmark

04/01/2024	Present	19.0% Russell 3000 Index, 7.0% Bloomberg U.S. Gov/Credit 1-3 Year Index, 5.0% Blmbg. U.S. Corp: High Yield Index, 9.0% MSCI EAFE 3.0% Credit Suisse Leveraged Loan Index, 8.0% MSCI Emerging Markets, 6.0% Blmbg. U.S. TIPS Index, 3.0% Emerging Market Deb Custom Benchmark, 2.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% 1Q Lag, 14.0% NCREIF OCDE, 2.0% S&P Global Natural Resources (1-Qtr Lag), 5.0% ICE BofA 3 Month U.S. T-Bill, 5.0% 50% CBOE Eurekahedge Long Volatility / 50% SG Trend Index, 3.0% Credit Suisse Leveraged Loan +2% (Q Lag)
01/01/2024	04/01/2024	20.0% Russell 3000 Index, 8.0% Bloomberg U.S. Gov/Credit 1-3 Year Index, 5.0% Blmbg. U.S. Corp: High Yield Index, 11.0% MSCI EAFE, 1.0% HFRI Fund Weighted Composite Index, 3.0% Credit Suisse Leveraged Loan Index, 5.0% MSCI Emerging Markets, 6.0% Blmbg. U.S. TIPS Index, 3.0% Emerging Market Debt Custom Benchmark, 2.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% 1Q Lag, 14.0% NCREIF OCDE, 2.0% S&P Global Natural Resources (1-Qtr Lag), 5.0% ICE BofA 3 Month U.S. T-Bill, 3.0% 50% CBOE Eurekahedge Long Volatility / 50% SG Trend Index, 3.0% Credit Suisse Leveraged Loan +2%
09/01/2019	01/01/2024	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, 5.0% HFRI Fund Weighted Composite Index, 3.0% Credit Suisse Leveraged Loan Index, 8.0% MSCI Emerging Markets, 7.0% Blmbg. U.S. TIPS Index, 3.0% MetLife Custom Benchmark, 4.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% 1Q Lag, 12.0% NCREIF OCDE, 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, 5.0% HFRI Fund Weighted Composite Index, 3.0% Credit Suisse Leveraged Loan Index, 8.0% MSCI Emerging Markets, 7.0% Blmbg. U.S. TIPS Index, 3.0% JPM EMBI Global Diversified, 4.0% CPI +3% (Seasonally Adjusted) (Q Lag), 9.0% Russell 3000 +2% 1Q Lag, 12.0% NCREIF OCDE, 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, 5.0% JPM EMBI Global Diversified, 8.0% CPI +4% (Unadjusted), 15.0% NCREIF OCDE, 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

01/01/2015	Present	The Custom Benchmark is calculated monthly using the beginning of month asset class weights applied to each corresponding primary benchmark return.
12/01/1987	12/31/2014	100.0% Custom benchmark input by previous consultant.

Benchmark History		Benchmark	
From Date	To Date	As of September 30, 2024	
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 Index, 35.0% JPM EMBI Global Index (USD)
Short Duration Bonds Custom Benchmark			
02/01/2024	Present	100.0%	Bloomberg U.S. Gov/Credit 1-3 Year Index
01/01/2024	02/01/2024	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%	Bloomberg U.S. Gov/Credit 1-3 Year Index
02/01/2005	01/01/2024	100.0%	Blmbg. U.S. Aggregate Index
Longfellow Custom Benchmark			
02/01/2024	Present	100.0%	Bloomberg U.S. Gov/Credit 1-3 Year Index
02/01/2005	02/01/2024	100.0%	Blmbg. U.S. Aggregate Index
Western Asset Custom Benchmark			
12/01/2023	Present	100.0%	Bloomberg U.S. Gov/Credit 1-3 Year 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 Quarter to Date				
	Beginning Market Value(\$)	Net Cash Flows	Net Investment Change	Ending Market Value(\$)
36 South Kohinoor Series (Cayman) Fund - Class B	\$41,206,279	\$0	-\$60,207	\$41,146,071
Adler Real Estate V	\$9,499,331	-\$75,249	\$69,331	\$9,493,413
American Landmark III	\$36,028,171	-\$154,342	-\$860,210	\$35,013,619
American Landmark IV	\$12,606,498	\$3,709,523	-\$1,360,446	\$14,955,575
Ares Pathfinder Core Fund	\$0	\$24,800,000	\$0	\$24,800,000
Artisan Global Opportunities	\$236,478,369	-\$238,837,399	\$2,359,030	\$0
Ascentris Value Add III	\$9,080,498	\$2,072,879	-\$1,764,151	\$9,389,226
Ascentris Value Add III - B	\$1,346,982	\$1,663,980	-\$6,447	\$3,004,515
Baillie Gifford ACWI ex-U.S. Alpha Equities	\$151,667,423	\$0	\$14,119,771	\$165,787,194
BH-DG Systematic Trading	\$44,834,719	\$0	-\$2,114,469	\$42,720,250
Brigade Traditional High Yield	\$83,440,485	\$0	\$4,996,639	\$88,437,123
CRM Small Cap Value	\$66,984,748	-\$67,004,276	\$106,571	\$87,043
Dreyfus Government Cash Management Institutional	\$140,084,805	-\$17,435,941	\$1,407,021	\$124,055,885
Driehaus International Small Cap Growth	\$25,102,599	\$0	\$1,333,789	\$26,436,389
Eagle Small Cap Growth	\$75,966,983	-\$72,664,583	-\$3,203,746	\$98,654
Fir Tree International Value Fund, L.P.	\$54,148,496	\$0	\$465,793	\$54,614,289
First Eagle International Value	\$82,862,836	\$0	\$8,054,541	\$90,917,377
Focus SH Fund	\$33,659,599	\$0	\$138,633	\$33,798,232
GQG Emerging Markets Equity	\$156,730,359	\$0	-\$1,404,939	\$155,325,420
Hammes Partners III	\$17,220,062	-\$207,624	\$396,404	\$17,408,842
Hammes Partners IV	\$282,102	\$2,566,527	-\$131,687	\$2,716,942
HSI Real Estate V	\$170,279	\$0	-\$18,431	\$151,848



City of Phoenix Employees' Retirement System

Financial Reconciliation | As of September 30, 2024

	Beginning Market Value(\$)	Net Cash Flows	Net Investment Change	Ending Market Value(\$)
JPMorgan Strategic Property	\$69,204,638	-\$683,184	\$561,669	\$69,083,122
Longfellow Short Duration	\$105,667,649	\$0	\$3,024,983	\$108,692,631
LSV Emerging Markets Value	\$145,554,380	\$0	\$9,321,805	\$154,876,185
MetLife Emerging Markets Debt Collective Trust	\$82,152,852	\$0	\$5,445,627	\$87,598,479
Morgan Stanley Prime Property	\$83,722,588	-\$825,453	-\$150,036	\$82,747,099
Neuberger Berman Sonoran Tranche A (P.E.)	\$110,544,091	-\$3,000,000	\$1,865,601	\$109,409,692
Neuberger Berman Sonoran Tranche B (P.E.)	\$124,697,219	\$1,000,000	\$1,166,181	\$126,863,400
Neuberger Berman Sonoran Tranche C (N.R.)	\$69,130,489	-\$4,000,000	\$3,204,519	\$68,335,008
Neuberger Berman Sonoran Tranche D (Infra)	\$84,872,321	\$2,000,000	\$2,343,637	\$89,215,958
Neuberger Berman Sonoran Tranche E (P.E.)	\$41,864,955	\$10,000,000	\$5,502,531	\$57,367,486
Neuberger Berman Sonoran Tranche F (Infra)	\$32,506,102	\$3,000,000	\$905,301	\$36,411,403
Northwood Real Estate Partners, L.P. (Series IV)	\$28,565,015	\$366,898	\$179,007	\$29,110,920
Northwood Real Estate Partners, L.P. (Series V)	\$35,124,153	\$608,355	-\$502,816	\$35,229,692
One River Dynamic Convexity	\$40,547,058	\$0	-\$1,157,809	\$39,389,249
Pacific Asset Management	\$103,799,289	\$0	\$2,272,492	\$106,071,781
Pan Asia Core Plus Real Estate Fund	\$28,902,459	-\$292,457	-\$284,763	\$28,325,239
Polen Capital Management	\$80,548,091	\$0	\$2,459,092	\$83,007,183
Real Estate Capital Asia Partners III LP	\$3,668,243	\$0	-\$56,530	\$3,611,713
Real Estate Capital Asia Partners IV LP	\$8,439,053	\$0	-\$86,695	\$8,352,358
Real Estate Capital Partners V	\$17,836,302	\$0	-\$217,864	\$17,618,438
Realterm Logistics Income	\$36,946,372	-\$240,185	\$285,867	\$36,992,054
Robeco BP Large Cap Value	\$217,908,552	-\$211,196,693	-\$6,378,703	\$333,156



City of Phoenix Employees' Retirement System

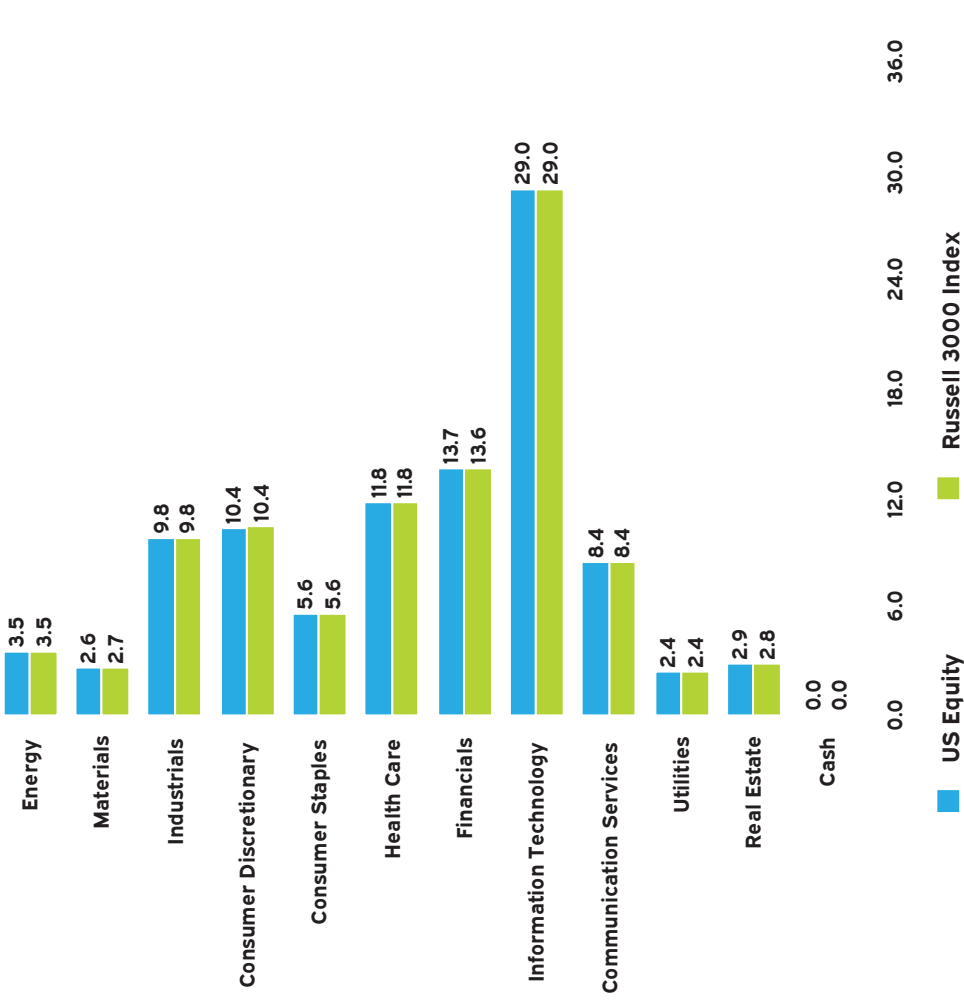
Financial Reconciliation | As of September 30, 2024

	Beginning Market Value(\$)	Net Cash Flows	Net Investment Change	Ending Market Value(\$)
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	\$80,703,996	\$0	\$9,824,509	\$90,528,506
SSgA FTSE RAFI U.S. Low Volatility	\$244,898,610	-\$256,764,863	\$11,866,253	\$0
SSgA Russell 3000 Index	\$0	\$778,764,863	\$39,447,326	\$818,212,189
SSgA U.S. TIPS	\$151,903,223	\$70,000,000	\$9,453,146	\$231,356,369
SSgA US 1-3 Year Gov/Cred	\$160,775,133	-\$24,800,000	\$4,116,939	\$140,092,072
Western Asset Short Duration Constrained	\$102,849,891	\$0	\$3,183,711	\$106,033,602
Wheelock Real Estate Fund	\$6,044,961	\$0	\$296,666	\$6,341,627
Wheelock Street Partners	\$2,463,694	\$0	\$34,834	\$2,498,528
Wheelock Street Partners II	\$6,637,120	\$0	\$20,533	\$6,657,653
Wheelock Street Partners VI	\$17,924,128	\$1,160,537	\$619,258	\$19,703,923
Wheelock Street V	\$11,562,581	\$0	-\$416,094	\$11,146,487
Total	\$3,617,366,830	\$3,531,314	\$130,672,968	\$3,751,571,111

Characteristics

	Portfolio	Benchmark
Number of Holdings	2,508	2,987
Wtd. Avg. Mkt. Cap \$B	851.6	851.8
Median Mkt. Cap \$B	3.3	2.3
Price To Earnings	26.9	26.9
Price To Book	4.7	4.7
Return on Equity (%)	9.7	9.5
Yield (%)	1.3	1.3
Beta (5 Years, Monthly)	0.9	1.0
R-Squared (5 Years, Monthly)	0.9	1.0

Sector Weights (%) vs Russell 3000 Index



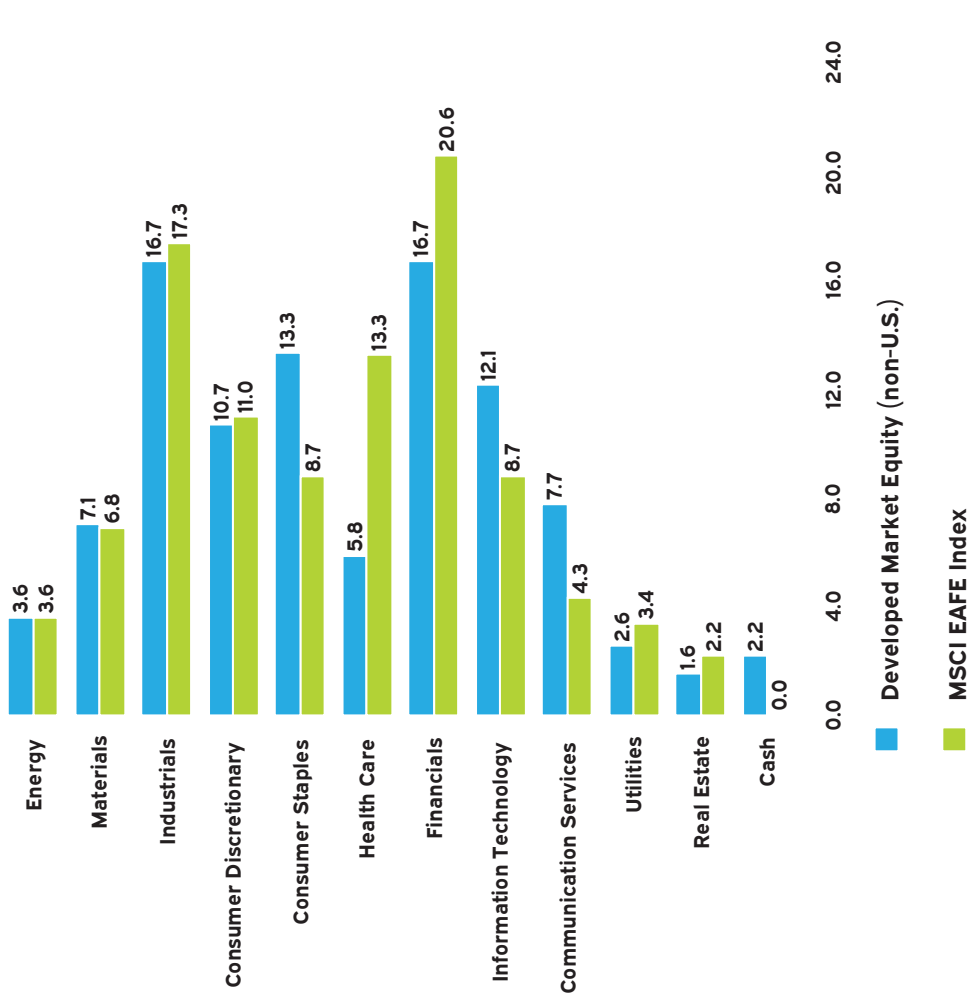
Top Holdings (%)

Apple Inc	6.1
Microsoft Corp	5.8
NVIDIA Corporation	5.1
Amazon.com Inc	3.1
Meta Platforms Inc	2.3
Alphabet Inc Class A	1.8
Berkshire Hathaway Inc	1.5
Alphabet Inc Class C	1.5
Broadcom Inc	1.4
Tesla Inc	1.3

Characteristics

	Portfolio	Benchmark
Number of Holdings	590	732
Wtd. Avg. Mkt. Cap \$B	84.3	95.6
Median Mkt. Cap \$B	8.5	15.8
Price To Earnings	15.3	15.2
Price To Book	2.8	2.6
Return on Equity (%)	4.5	4.6
Yield (%)	2.4	3.0
Beta (5 Years, Monthly)	1.0	1.0
R-Squared (5 Years, Monthly)	0.9	1.0

Sector Weights (%) vs MSCI EAFE Index



Top Holdings (%)

Gold - Physical	2.4
MercadoLibre Inc	2.1
Taiwan Semiconductor Manufac. COM	2.0
Nestle SA, Cham Und Vevey	1.7
Danone SA	1.6
Tencent Holdings LTD	1.4
Unilever PLC	1.2
CRH PLC	1.2
SAP SE	1.1
Scout24 SE	1.1

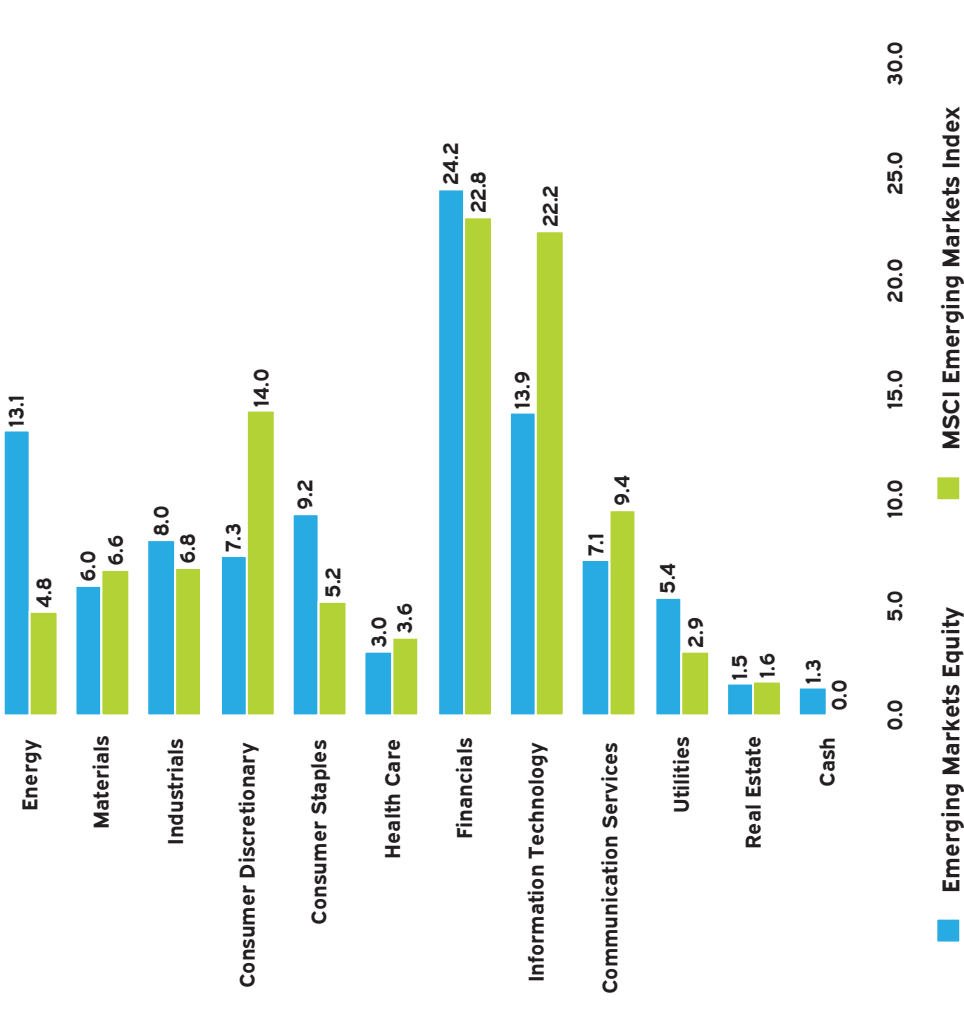
Characteristics

	Portfolio	Benchmark
Number of Holdings	340	1,277
Wtd. Avg. Mkt. Cap \$B	135.5	153.6
Median Mkt. Cap \$B	8.3	8.2
Price To Earnings	11.0	15.7
Price To Book	2.5	2.9
Return on Equity (%)	16.9	4.6
Yield (%)	4.1	2.6
Beta (3 Years, Monthly)	0.7	1.0
R-Squared (3 Years, Monthly)	0.8	1.0

Top Holdings (%)

Taiwan Semiconductor Manufac. COM	4.7
ITC Ltd	3.2
Alibaba Group Holding Ltd	1.9
Petroleo Brasileiro S.A.- Petrobras	1.8
TotalEnergies SE	1.6
Petroleo Brasileiro S.A.- Petrobras	1.3
Adani Green Energy Limited	1.3
Tencent Holdings LTD	1.3
Adani Enterprises Ltd	1.3
Icici Bank Ltd	1.3

Sector Weights (%) vs MSCI Emerging Markets Index





City of Phoenix Employees' Retirement System

SSgA Russell 3000 Index | As of September 30, 2024

Top Holdings	
Apple Inc	6.1
Microsoft Corp	5.8
NVIDIA Corporation	5.1
Amazon.com Inc	3.1
Meta Platforms Inc	2.3
Alphabet Inc Class A	1.8
Berkshire Hathaway Inc	1.5
Alphabet Inc Class C	1.5
Broadcom Inc	1.4
Tesla Inc	1.3

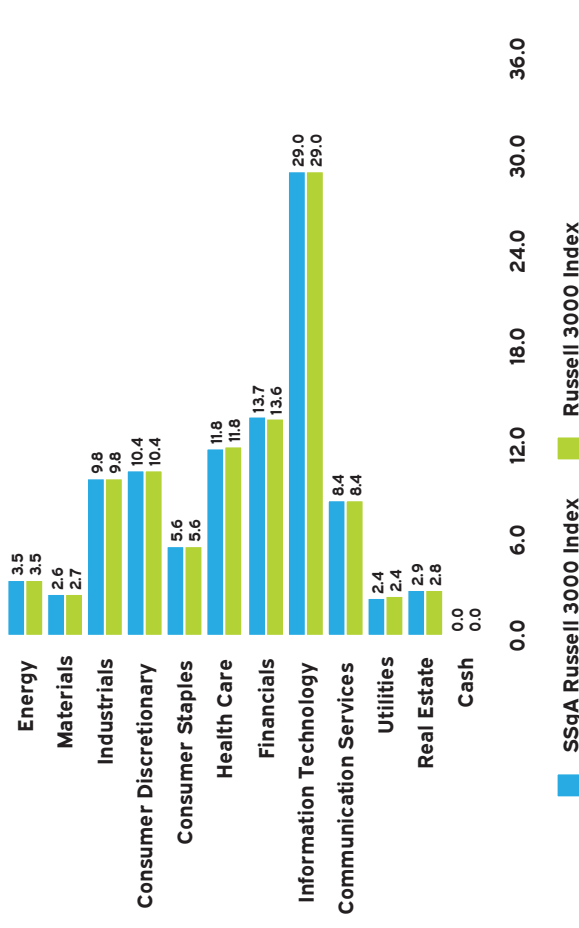
Account Information	
Account Name	SSgA Russell 3000 Index
Account Structure	Commingled Fund
Inception Date	08/01/2024
Asset Class	US Equity
Benchmark	Russell 3000 Index
Peer Group	

Equity Characteristics vs Russell 3000 Index			
	Portfolio	Benchmark	
Number of Holdings	2,498	2,987	
Wtd. Avg. Mkt. Cap \$B	851.6	851.8	
Median Mkt. Cap \$B	3.3	2.3	
P/E Ratio	26.9	26.9	
Yield (%)	1.3	1.3	
EPS Growth - 5 Yrs. (%)	18.4	18.4	
Price to Book	4.7	4.7	

% of Portfolio 29.9

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
SSgA Russell 3000 Index	-	-	-	-	-	-	7.1	08/01/2024
Russell 3000 Index	-	-	-	-	-	-	4.3	

Sector Weights (%)



SSgA Russell 3000 Index was funded during August. Returns will populate after first full quarter of performance.

Top Holdings	
MercadoLibre Inc	4.7
Taiwan Semiconductor Manufac. COM	4.5
Tencent Holdings LTD	3.2
CRH PLC	2.6
SAP SE	2.5
Samsung Electronics Co Ltd	2.3
Scout24 SE	2.3
Ryanair Holdings PLC	2.2
Atlas Copco AB	2.1
Deutsche Boerse AG	2.1

Account Information	
Account Name	Baillie Gifford ACWI ex-U.S. Alpha Equities
Account Structure	Commingled Fund
Inception Date	07/01/2011
Asset Class	International Equity
Benchmark	MSCI AC World ex USA Growth (Net)
Peer Group	eV ACWI ex-US All Cap Growth Eq

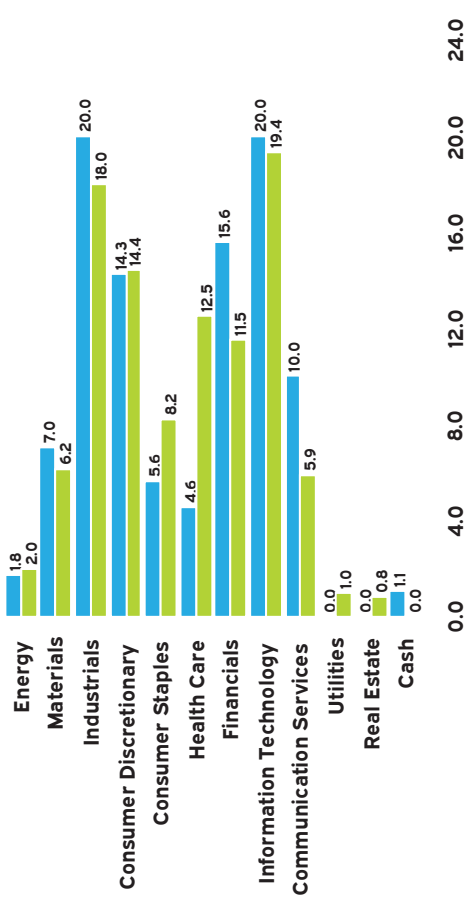
Equity Characteristics		
vs MSCI AC World ex USA Growth		
	Portfolio	Benchmark
Number of Holdings	82	1,188
Wtd. Avg. Mkt. Cap \$B	124.5	145.3
Median Mkt. Cap \$B	29.5	10.3
P/E Ratio	19.4	22.4
Yield (%)	1.5	1.6
EPS Growth - 5 Yrs. (%)	20.3	13.9
Price to Book	4.1	3.9

% of Portfolio **28.5**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
Baillie Gifford ACWI ex-U.S. Alpha Equities	9.3	14.0	31.4	-1.3	6.4	6.5	6.1	07/01/2011
MSCI AC World ex USA Growth	7.0	14.3	27.1	1.1	7.4	6.3	5.7	

Sector Weights (%)



Top Holdings

ASICS Corporation	2.0
SUESS MicroTec SE	1.8
Saipem SpA	1.7
Intermediate Capital Group PLC	1.6
Element Fleet Management Corp	1.6
Nordex SE	1.6
Fujitec Co Ltd	1.6
Aritzia Inc	1.5
Comet Holding AG, Wuennewil-Flamatt	1.5
DOF Group ASA	1.5

% of Portfolio

16.4

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
Driehaus Inter. Small Cap Growth	5.1	18.1	17.1	-0.9	-	-	-0.7	05/01/2021
MSCI ACWI ex US Small Growth	8.5	11.5	22.9	-1.6	7.9	6.4	-0.7	

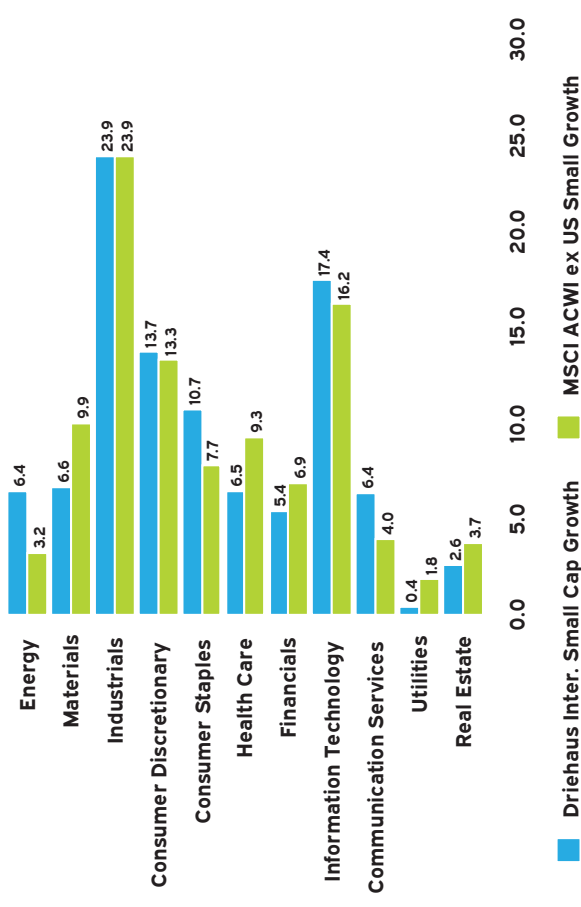
Account Information

Account Name	Driehaus International Small Cap Growth
Account Structure	Commingled Fund
Inception Date	05/01/2021
Asset Class	International Equity
Benchmark	MSCI AC World ex USA Small Growth Index (Net)
Peer Group	eV ACWI ex-US Small Cap Equity

Equity Characteristics

vs MSCI ACWI ex US Small Growth	Portfolio	Benchmark
Number of Holdings	112	2,438
Wtd. Avg. Mkt. Cap \$B	5.1	3.1
Median Mkt. Cap \$B	4.0	1.3
P/E Ratio	18.0	19.3
Yield (%)	2.0	1.8
EPS Growth - 5 Yrs. (%)	16.3	15.9
Price to Book	2.8	2.8

Sector Weights (%)



Top Holdings

Gold - Physical	10.0
CASH	5.9
Imperial Oil Ltd	3.7
Unilever PLC	2.4
Danone SA	2.2
Willis Towers Watson plc	2.1
Prosus NV	2.0
Investor AB publ	2.0
Shell Plc	2.0
Compagnie Financiere Richemont SA	2.0

Account Information

Account Name	First Eagle International Value
Account Structure	Commingled Fund
Inception Date	12/01/2020
Asset Class	International Equity
Benchmark	MSCI EAFE Value Index (Net)
Peer Group	eV EAFE All Cap Value

Equity Characteristics vs MSCI EAFE Value

	Portfolio	Benchmark
Number of Holdings	104	460
Wtd. Avg. Mkt. Cap \$B	58.2	74.6
Median Mkt. Cap \$B	16.0	14.6
P/E Ratio	15.1	11.4
Yield (%)	2.8	4.4
EPS Growth - 5 Yrs. (%)	8.4	7.3
Price to Book	1.9	1.8

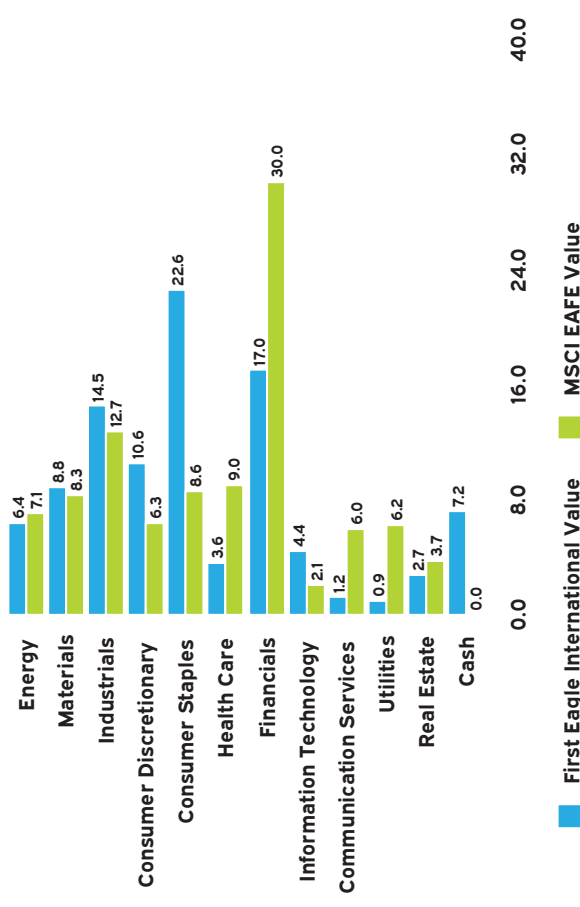
% of Portfolio

34.3

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
First Eagle International Value	9.7	14.2	18.3	5.9	-	-	6.3	12/01/2020
MSCI EAFE Value	9.0	14.5	24.0	9.7	9.0	5.2	11.5	

Sector Weights (%)



Top Holdings	
HSBC Holdings PLC	3.9
Nestle SA, Cham Und Vevey	3.6
Sanofi	2.9
Unilever PLC	2.8
Deutsche Telekom AG	2.7
Enel Ente Nazionale	2.4
Bayer AG	1.8
GSK plc	1.8
Generic Future	1.8
Mizuho Financial Group Inc	1.7

% of Portfolio **25.4**

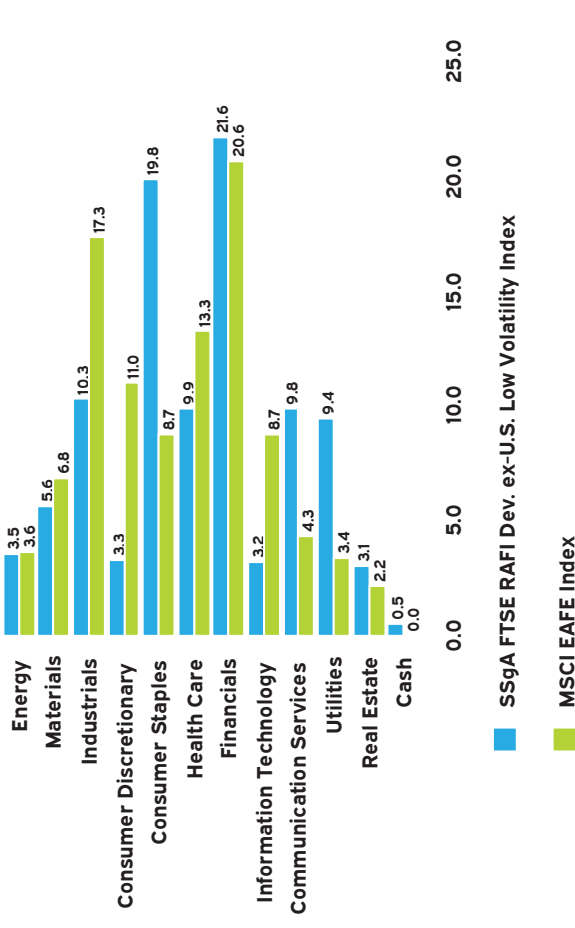
Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	12.2	14.4	23.5	8.7	7.3	-	5.9	08/01/2015
MSCI EAFE Index	7.3	13.5	25.4	6.0	8.7	-	6.3	

Account Information	
Account Name	SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index
Account Structure	Commingled Fund
Inception Date	08/01/2015
Asset Class	International Equity
Benchmark	FTSE RAFI Developed ex-U.S. Low Volatility Index
Peer Group	eV Global Low Volatility Equity

Equity Characteristics vs MSCI EAFE Index		
	Portfolio	Benchmark
Number of Holdings	339	732
Wtd. Avg. Mkt. Cap \$B	60.4	95.6
Median Mkt. Cap \$B	9.4	15.8
P/E Ratio	10.6	15.2
Yield (%)	3.8	3.0
EPS Growth - 5 Yrs. (%)	6.5	9.4
Price to Book	2.2	2.6

Sector Weights (%)



Top Holdings	
ITC Ltd	6.3
Taiwan Semiconductor Manufac. COM	6.3
Petroleo Brasileiro S.A.- Petrobras	3.7
TotalEnergies SE	3.1
Adani Green Energy Limited	2.7
Tencent Holdings LTD	2.7
Adani Enterprises Ltd	2.6
Icici Bank Ltd	2.5
CASH	2.5
MercadoLibre Inc	2.5

Account Information	
Account Name	GQG Emerging Markets Equity
Account Structure	Commingled Fund
Inception Date	01/01/2020
Asset Class	International Equity
Benchmark	MSCI Emerging Markets Growth (Net)
Peer Group	eV Emg Mkts All Cap Growth Equity

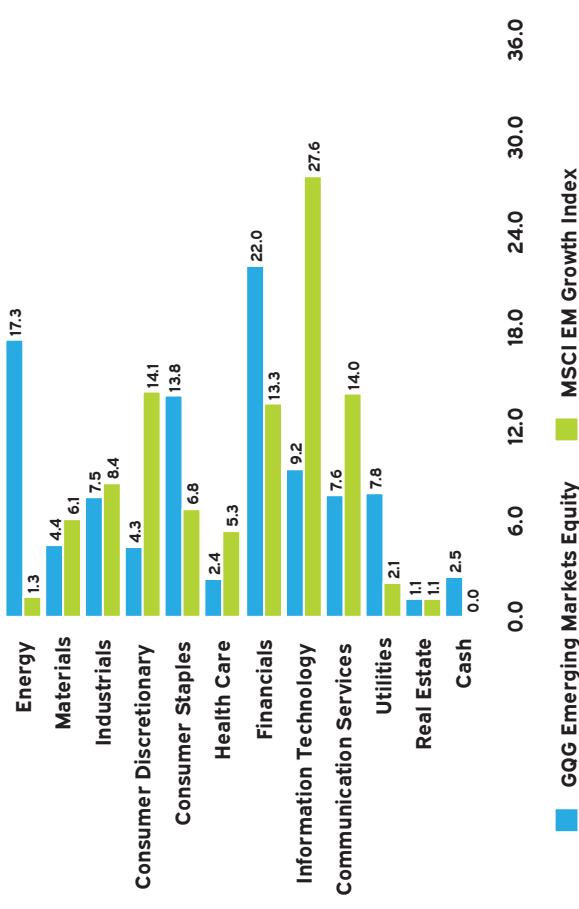
Equity Characteristics vs MSCI EM Growth Index			
	Portfolio	Benchmark	
Number of Holdings	81	772	
Wtd. Avg. Mkt. Cap \$B	213.5	226.2	
Median Mkt. Cap \$B	47.0	8.0	
P/E Ratio	15.7	23.3	
Yield (%)	3.5	1.5	
EPS Growth - 5 Yrs. (%)	25.7	19.7	
Price to Book	3.8	3.9	

% of Portfolio **34.9**

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
GQG Emerging Markets Equity	-0.9	14.3	27.5	5.5	-	-	01/01/2020
MSCI EM Growth Index	9.3	18.7	27.9	-2.0	-	-	3.2

Sector Weights (%)



Top Holdings	
Alibaba Group Holding Ltd	3.7
Taiwan Semiconductor Manufac. COM	3.0
Hon Hai Precision Industry Co Ltd	1.9
Samsung Electronics Co Ltd	1.8
Mediatek Incorporation	1.4
Kia Corporation	1.1
Oil & Natural Gas Corp Ltd	1.1
Lenovo Group Ltd	1.1
The Peoples Insurance Co Group of China	1.0
Coal India Ltd	1.0

Account Information	
Account Name	LSV Emerging Markets Value
Account Structure	Commingled Fund
Inception Date	11/01/2019
Asset Class	International Equity
Benchmark	MSCI Emerging Markets Value (Net)
Peer Group	eV Emg Mkts All Cap Value Equity

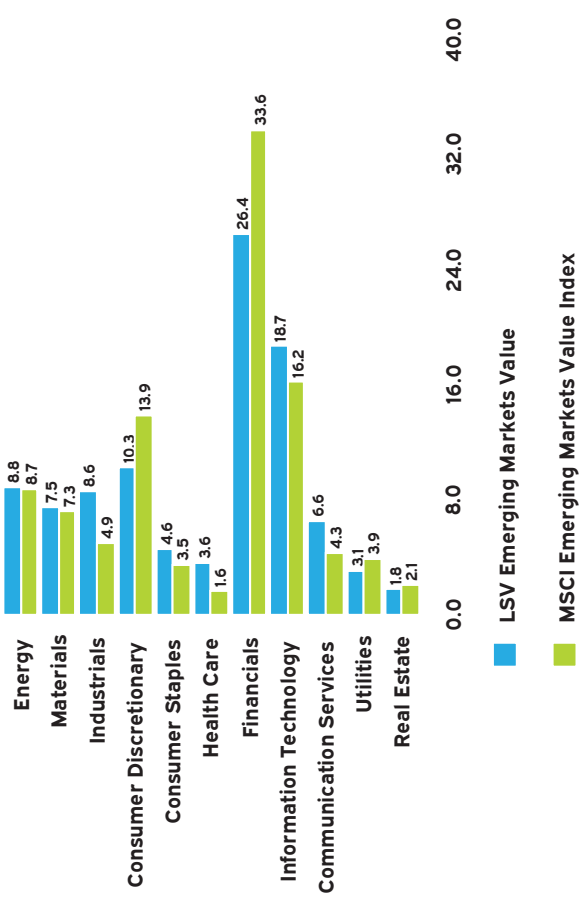
Equity Characteristics			
vs MSCI Emerging Markets Value Index		Portfolio	Benchmark
Number of Holdings	270	703	
Wtd. Avg. Mkt. Cap \$B	57.2	71.9	
Median Mkt. Cap \$B	5.1	8.5	
P/E Ratio	8.7	11.4	
Yield (%)	4.7	3.8	
EPS Growth - 5 Yrs. (%)	13.9	9.5	
Price to Book	1.8	2.1	

% of Portfolio 17.1

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
LSV Emerging Markets Value	6.3	17.9	31.8	9.1	-	-	9.4	11/01/2019
MSCI Emerging Markets Value Index	8.4	15.7	25.1	3.9	6.5	3.7	5.9	

Sector Weights (%)





City of Phoenix Employees' Retirement System

SSgA US 1-3 Year Gov/Cred | As of September 30, 2024

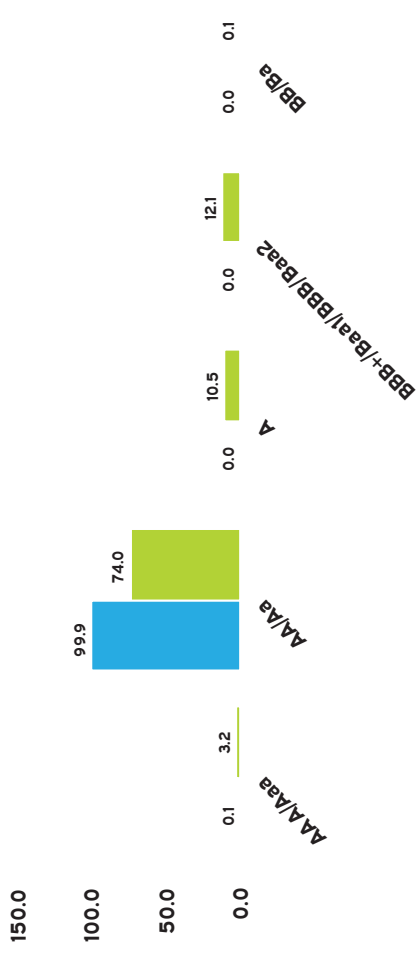
Account Information

Account Name	SSgA US 1-3 Year Gov/Cred
Account Structure	Commingled Fund
Inception Date	04/01/2018
Asset Class	US Fixed Income
Benchmark	SSgA Custom Benchmark
Peer Group	eV US Core Fixed Inc

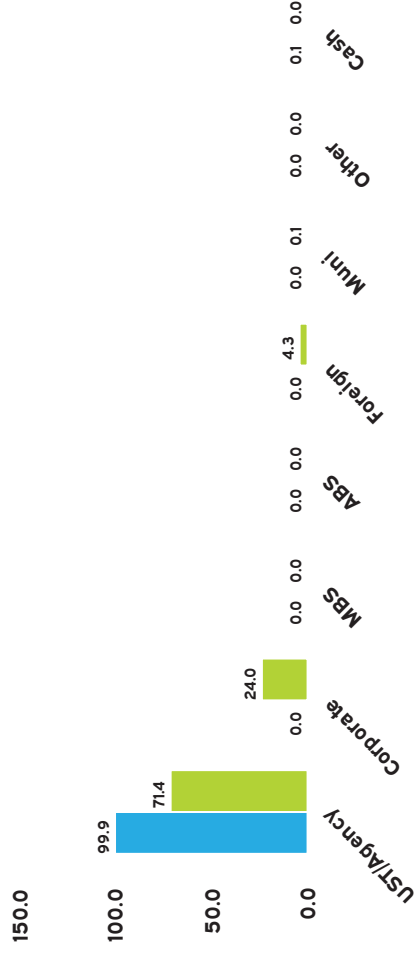
Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception	Inception Date
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
SSgA US 1-3 Year Gov/Cred	3.0	4.0	11.0	-1.6	0.2	-	1.7	04/01/2018
Bloomberg U.S. Gov/Credit 1-3 Year Index	3.0	4.4	7.2	1.5	1.7	1.6	2.1	

Credit Quality Allocation



Sector Allocation



Portfolio Fixed Income Characteristics

	Q3-24	Q2-24	
	Portfolio	Benchmark	Portfolio
Yield To Maturity	3.7	3.9	4.8
Average Duration	1.9	1.9	1.9
Average Quality	AA	AA	AA
Weighted Average Maturity	2.0	2.0	2.0



City of Phoenix Employees' Retirement System

Longfellow Short Duration | As of September 30, 2024

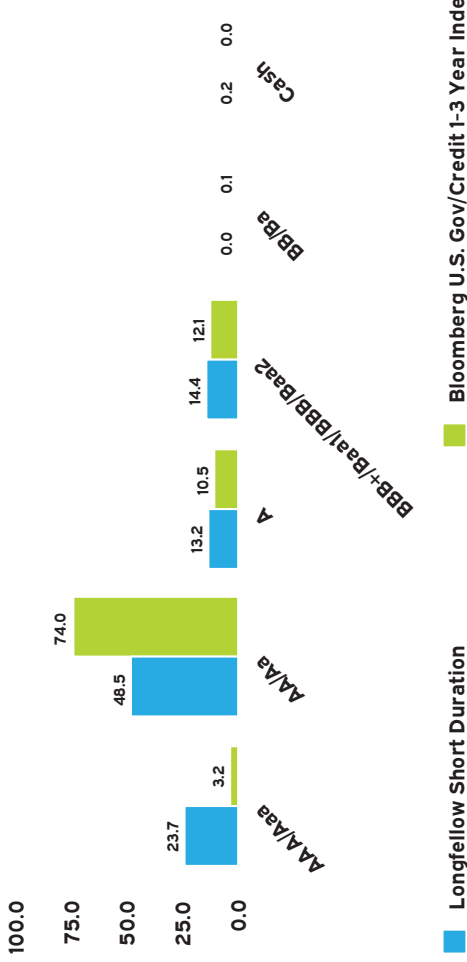
Account Information

Account Name	Longfellow Short Duration
Account Structure	Separate Account
Inception Date	05/01/2018
Asset Class	US Fixed Income
Benchmark	Longfellow Custom Benchmark
Peer Group	eV US Short Duration Fixed Inc

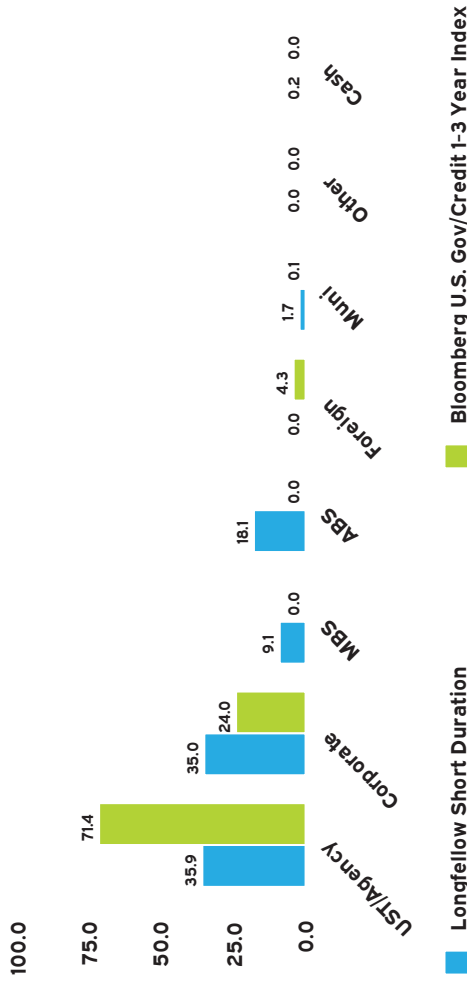
Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception
	(%)	(%)	(%)	(%)	(%)	(%)	Date
Longfellow Short Duration	2.8	3.6	11.0	-1.8	0.4	-	19
Bloomberg U.S. Gov/Credit 1-3 Year Index	3.0	4.4	7.2	1.5	1.7	1.6	2.2

Credit Quality Allocation



Sector Allocation



Portfolio Fixed Income Characteristics

	Q3-24	Q2-24	
	Portfolio	Benchmark	Portfolio
Yield To Maturity	4.3	3.9	5.3
Average Duration	1.8	1.9	1.7
Average Quality	AA	AA	AA
Weighted Average Maturity	2.0	2.0	2.0



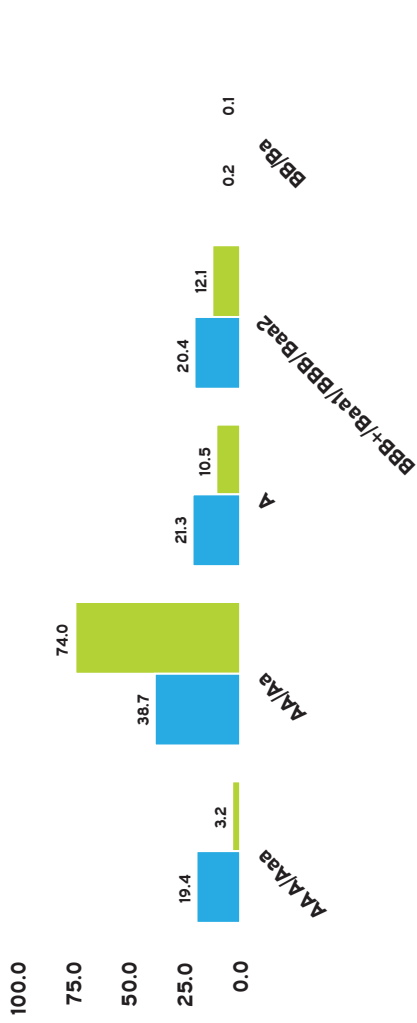
City of Phoenix Employees' Retirement System

Western Asset Short Duration Constrained | As of September 30, 2024

Account Information

Account Name	Western Asset Short Duration Constrained
Account Structure	Separate Account
Inception Date	02/01/2005
Asset Class	US Fixed Income
Benchmark	Western Asset Custom Benchmark
Peer Group	eV US Short Duration Fixed Inc

Credit Quality Allocation



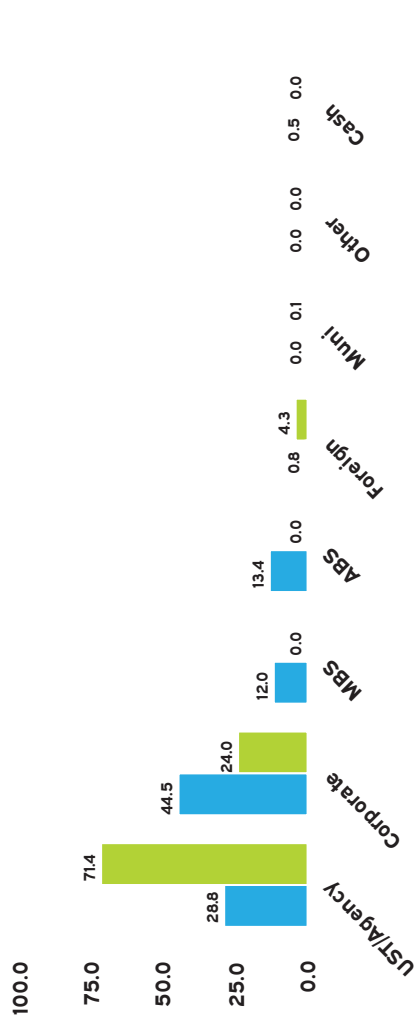
Western Asset Short Duration

Bloomberg U.S. Gov/Credit 1-3 Year Index

Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Western Asset Short Duration	3.1	4.7	10.0	-3.1	-0.3	2.0	3.5
Bloomberg U.S. Gov/Credit 1-3 Year Index	3.0	4.4	7.2	1.5	1.7	1.6	2.3

Sector Allocation



Western Asset Short Duration

Bloomberg U.S. Gov/Credit 1-3 Year Index

Portfolio Fixed Income Characteristics

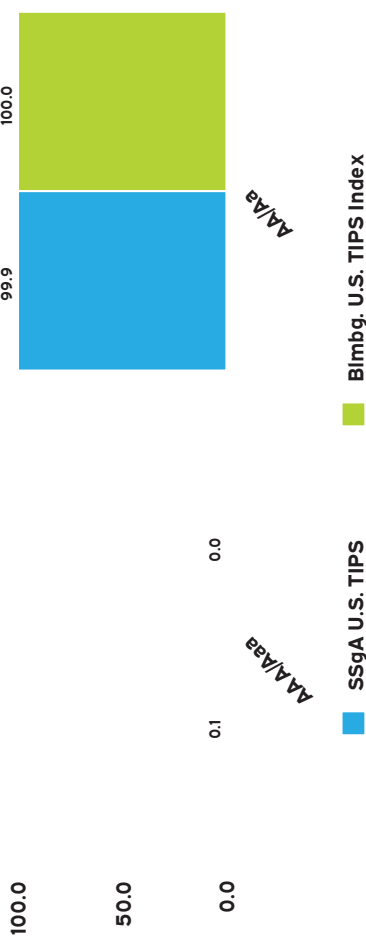
	Q3-24	Q2-24
	Portfolio	Benchmark
Yield To Maturity	4.2	3.9
Average Duration	1.9	1.9
Average Quality	AA	AA
Weighted Average Maturity	2.4	2.0

Account Information

Account Name	SSgA U.S. TIPS
Account Structure	Commingled Fund
Inception Date	02/01/2018
Asset Class	US Fixed Income
Benchmark	Blimbg. U.S. TIPS Index
Peer Group	eV US TIPS / Inflation Fixed Inc

150.0

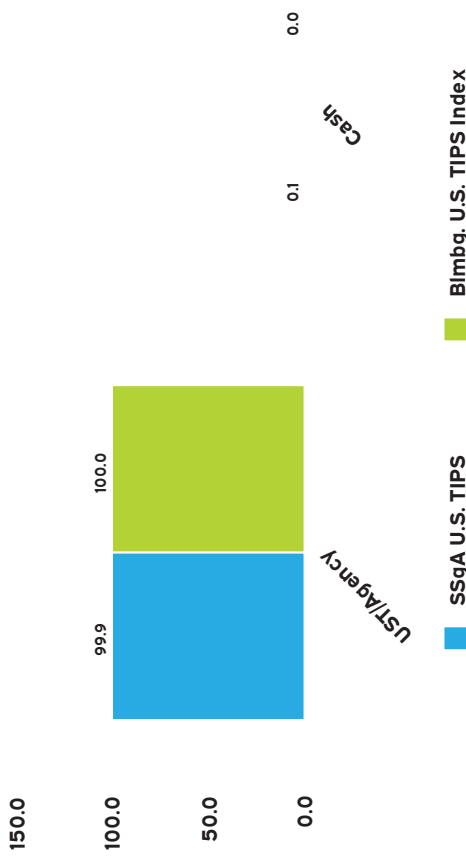
Credit Quality Allocation



Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
SSgA U.S. TIPS	4.1	5.0	9.8	-0.6	2.6	-	3.0	02/01/2018
Blimbg. U.S. TIPS Index	4.1	4.9	9.8	-0.6	2.6	2.5	3.0	

Sector Allocation



150.0

Portfolio Fixed Income Characteristics

	Q3-24 Portfolio	Benchmark	Q2-24 Portfolio
Yield To Maturity	3.8	3.8	4.7
Average Duration	3.8	2.4	4.9
Average Quality	AA	AA	AA
Weighted Average Maturity	7.4	7.4	7.1



City of Phoenix Employees' Retirement System

Brigade Traditional High Yield | As of September 30, 2024

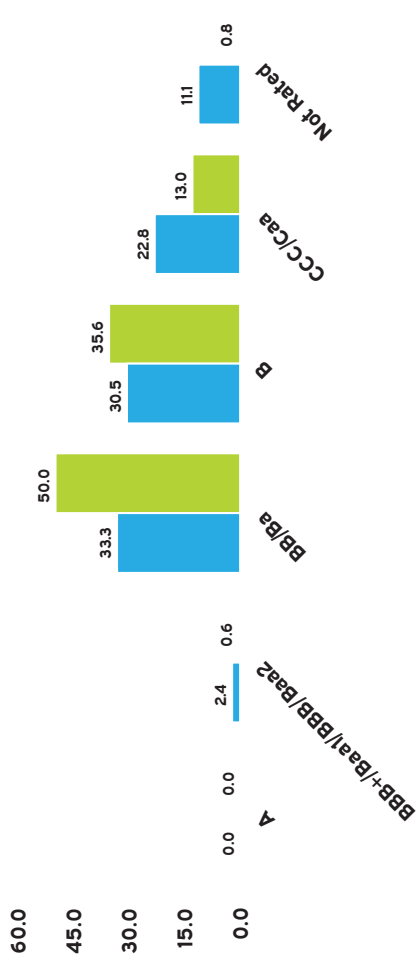
Account Information

Account Name	Brigade Traditional High Yield
Account Structure	Separate Account
Inception Date	08/01/2018
Asset Class	US Fixed Income
Benchmark	Bimbg. U.S. Corp: High Yield Index
Peer Group	eV US High Yield Fixed Inc

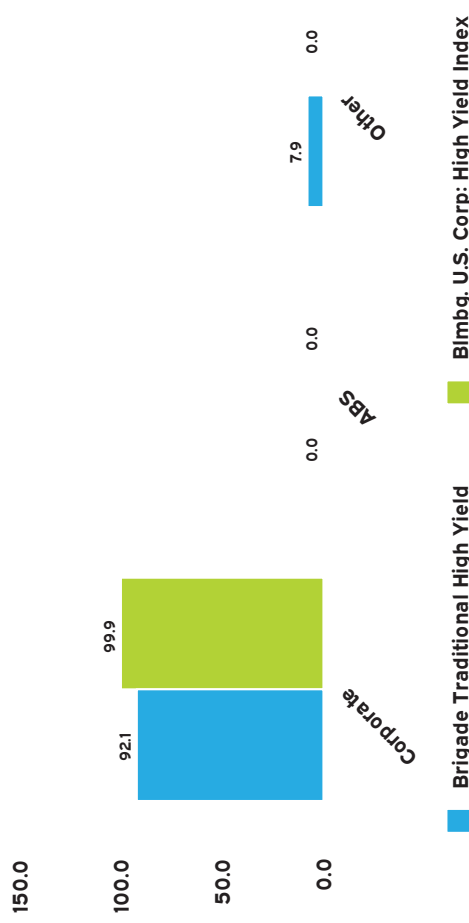
Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception	Inception Date
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Brigade Traditional High Yield	6.0	7.2	12.2	2.3	5.2	-	5.0	08/01/2018
Bimbg. U.S. Corp: High Yield Index	5.3	8.0	15.7	3.1	4.7	5.0	5.1	

Credit Quality Allocation



Sector Allocation



Portfolio Fixed Income Characteristics

	Q3-24	Q2-24	
	Portfolio	Benchmark	Portfolio
Yield To Maturity	9.4	7.0	10.4
Average Duration	2.8	3.0	3.0
Average Quality	B	B	B
Weighted Average Maturity	4.8	4.7	5.0

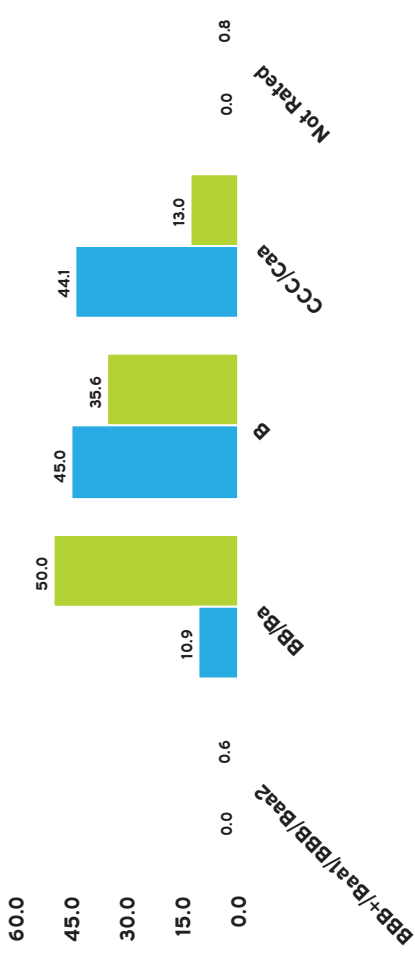
Account Information

Account Name	Polen Capital Management				
Account Structure	Commingled Fund				
Inception Date	09/01/2018				
Asset Class	US Fixed Income				
Benchmark	Blmbg. U.S. Corp: High Yield Index				
Peer Group	eV US High Yield Fixed Inc				

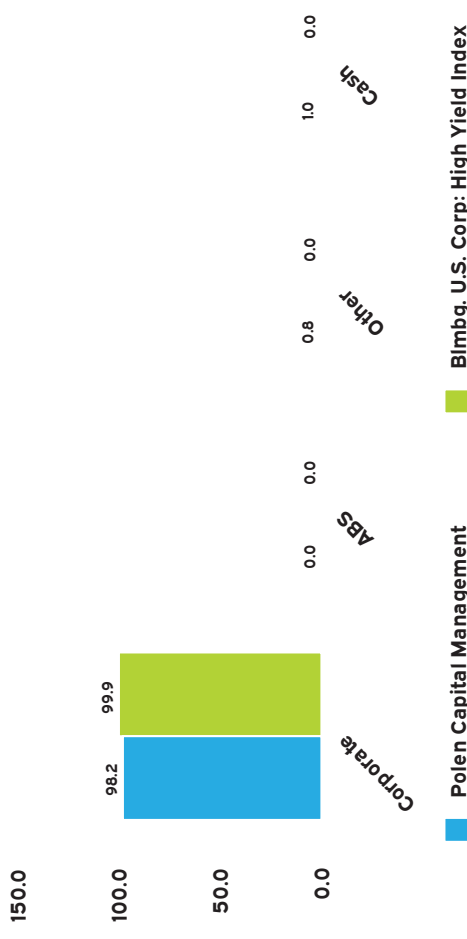
Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception	Inception Date
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Polen Capital Management	3.1	7.2	11.1	2.9	5.2	-	4.1	09/01/2018
Blmbg. U.S. Corp: High Yield Index	5.3	8.0	15.7	3.1	4.7	5.0	5.0	

Credit Quality Allocation



Sector Allocation



Portfolio Fixed Income Characteristics

	Q3-24	Q2-24
	Portfolio	Benchmark
Yield To Maturity	8.5	7.0
Average Duration	2.0	3.0
Average Quality	B	B
Weighted Average Maturity	5.0	4.7

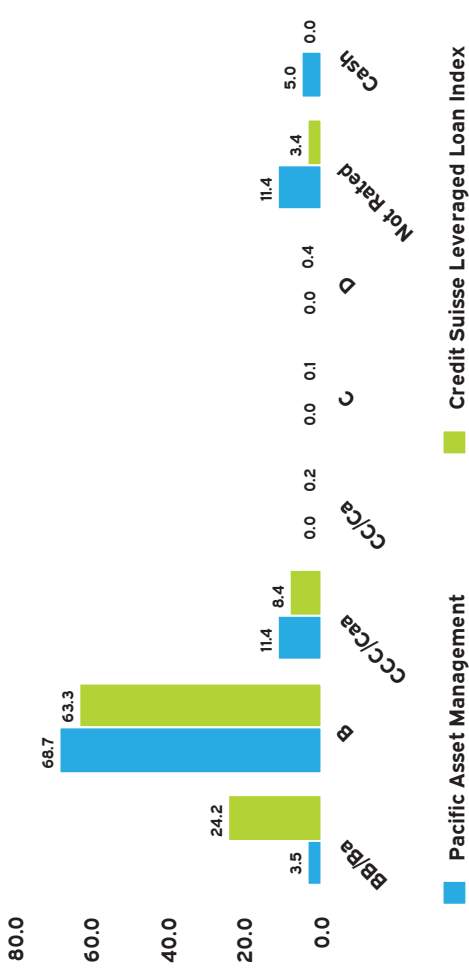
Account Information

Account Name	Pacific Asset Management
Account Structure	Commingled Fund
Inception Date	09/01/2018
Asset Class	Global Fixed Income
Benchmark	Credit Suisse Leveraged Loan Index
Peer Group	eV US Float-Rate Bank Loan Fixed Inc

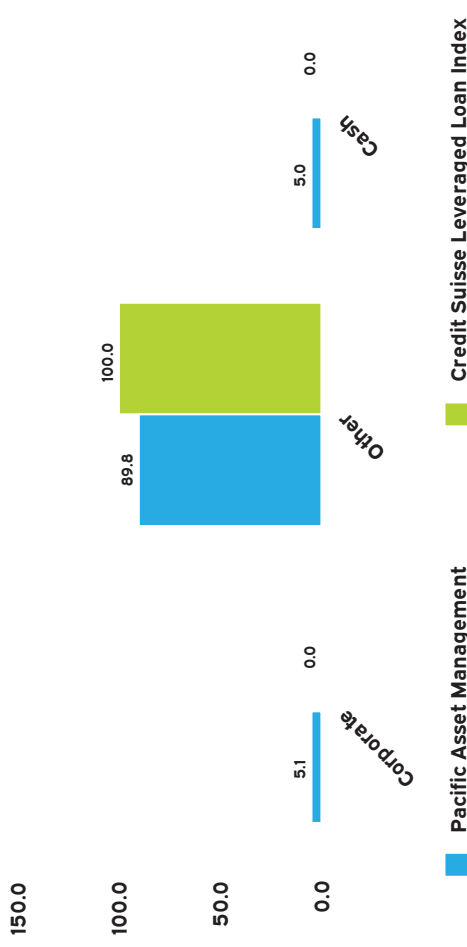
Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception	Inception Date
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Pacific Asset Management	2.2	8.0	10.5	6.8	5.7	-	5.4	09/01/2018
Credit Suisse Leveraged Loan Index	2.0	6.6	9.6	6.3	5.6	4.9	5.2	

Credit Quality Allocation



Sector Allocation



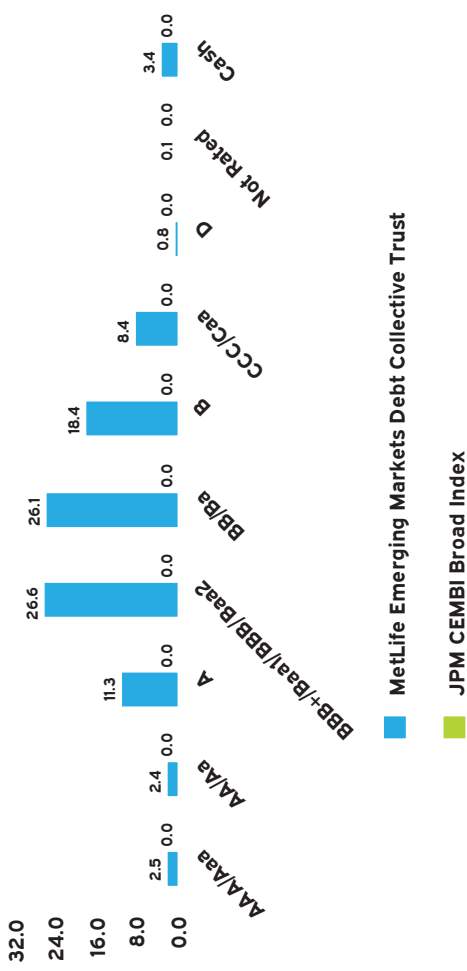
Portfolio Fixed Income Characteristics

	Q3-24	Q2-24
	Portfolio	Benchmark
Yield To Maturity	7.5	8.4
Average Duration	0.4	0.3
Average Quality	B	B
Weighted Average Maturity	4.4	4.4

Account Information

Account Name	MetLife Emerging Markets Debt Collective Trust
Account Structure	Commingled Fund
Inception Date	09/01/2019
Asset Class	International Fixed Income
Benchmark	MetLife Custom Benchmark
Peer Group	eV Emg Mkts Fixed Inc - Blended Currency

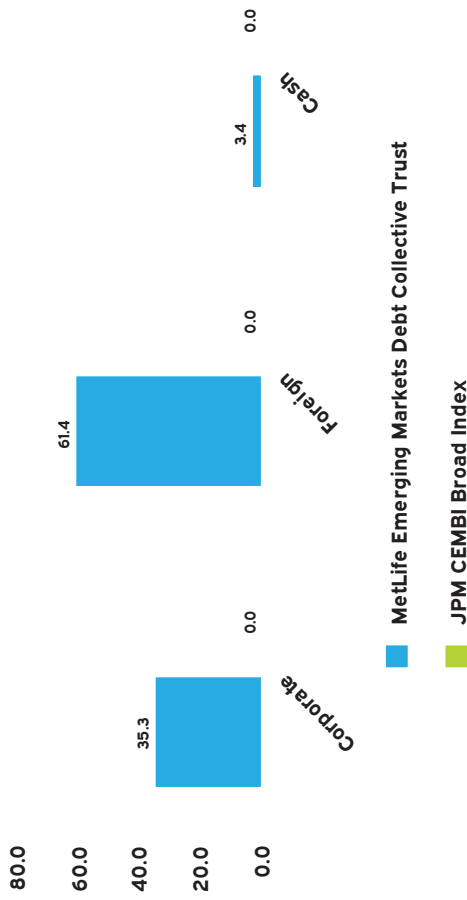
Credit Quality Allocation



Portfolio Performance Summary

	QTD	YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception (%)	Inception Date
MetLife Emerging Markets Debt Collective Trust	6.6	7.8	16.7	1.3	2.4	-	2.6	09/01/2019
JPM CEMBI Broad Index	4.4	8.3	14.1	-0.4	1.7	3.5	1.7	

Sector Allocation



Portfolio Fixed Income Characteristics

	Q3-24 Portfolio	Q2-24 Portfolio
Yield To Maturity	8.2	9.1
Average Duration	5.9	5.7
Average Quality	BB	BB
Weighted Average Maturity	10.0	9.7

Weighted average maturity characteristic is reflective of weighted average life. Characteristics for JPM CEMBI Broad Index are currently unavailable.

Account Information

Account Name	Neuberger Berman Sonoran Tranche A (P.E.)
Account Structure	Limited Partnership
Investment Style	ACTIVE
Inception Date	04/01/2015
Benchmark	Russell 3000 +2% (1-Qtr Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2015	Neuberger Berman Sonoran Tranche A (P.E.)	\$165,000,000	\$106,118,046	\$145,066,002	\$109,409,692	\$254,475,694	\$58,881,954
Total		\$165,000,000	\$106,118,046	\$145,066,002	\$109,409,692	\$254,475,694	\$58,881,954



City of Phoenix Employees' Retirement System

Neuberger Berman Sonoran Tranche B (P.E.) | As of September 30, 2024

Account Information

Account Name Neuberger Berman Sonoran Tranche B (P.E.)

Account Structure Limited Partnership

Investment Style ACTIVE

Inception Date 12/21/2018

Benchmark Russell 3000 +2% (1-Qtr Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2018	Neuberger Berman Sonoran Tranche B (P.E.)	\$110,000,000	\$82,252,280	\$4,660,270	\$126,863,400	\$131,523,670	\$27,747,720
Total		\$110,000,000	\$82,252,280	\$4,660,270	\$126,863,400	\$131,523,670	\$27,747,720

Account Information

Account Name	Neuberger Berman Sonoran Tranche C (N.R.)
Account Structure	Limited Partnership
Investment Style	ACTIVE
Inception Date	08/01/2019
Benchmark	S&P Global Natural Resources (1-Qtr Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2019	Neuberger Berman Sonoran Tranche C (N.R.)	\$100,000,000	\$62,075,521	\$20,500,000	\$68,335,008	\$88,835,008	\$37,924,479
Total		\$100,000,000	\$62,075,521	\$20,500,000	\$68,335,008	\$88,835,008	\$37,924,479



City of Phoenix Employees' Retirement System

Neuberger Berman Sonoran Tranche D (Infra) | As of September 30, 2024

Account Information

Account Name Neuberger Berman Sonoran Tranche D (Infra)

Account Structure Limited Partnership

Investment Style ACTIVE

Inception Date 08/01/2019

Benchmark CPI +3% (Seasonally Adjusted) (Q Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2019	Neuberger Berman Sonoran Tranche D (Infra)	\$100,000,000	\$69,934,151	\$1,000,000	\$89,215,958	\$90,215,958	\$31,065,849
Total		\$100,000,000	\$69,934,151	\$1,000,000	\$89,215,958	\$90,215,958	\$31,065,849

Account Information

Account Name	Neuberger Berman Sonoran Tranche E (P.E.)
Account Structure	Limited Partnership
Investment Style	ACTIVE
Inception Date	12/15/2022
Benchmark	Russell 3000 +2% (1-Qtr Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2022	Neuberger Berman Sonoran Tranche E (P.E.)	\$300,000,000	\$50,500,000	-	\$57,367,486	\$57,367,486	\$249,500,000
Total		\$300,000,000	\$50,500,000	-	\$57,367,486	\$57,367,486	\$249,500,000



City of Phoenix Employees' Retirement System

Neuberger Berman Sonoran Tranche F (Infra) | As of September 30, 2024

Account Information

Account Name	Neuberger Berman Sonoran Tranche F (Infra)
Account Structure	Limited Partnership
Investment Style	ACTIVE
Inception Date	12/15/2022
Benchmark	CPI +3% (Seasonally Adjusted) (Q Lag)

Non-Marketable Securities Overview by Vintage Year

Vintage Year	Account	Commitment	Cumulative Takedown	Cumulative Distributions	Market Value	Total Value	Unfunded Commitment
2022	Neuberger Berman Sonoran Tranche F (Infra)	\$100,000,000	\$34,500,000	-	\$36,411,403	\$36,411,403	\$68,000,000
Total		\$100,000,000	\$34,500,000	-	\$36,411,403	\$36,411,403	\$68,000,000



City of Phoenix Employees' Retirement System

Fee Schedule | As of September 30, 2024

Investment Expense Analysis			
	Fee Schedule	Market Value (\$)	Estimated Fee Value Estimated Fee (%)
Total Fund		\$3,751,571,111	
Growth		\$1,796,242,690	
US Equity		\$818,731,042	
SSgA Russell 3000 Index		\$818,212,189	
Developed Market Equity (non-U.S.)		\$373,669,465	
Baillie Gifford ACWI ex-U.S. Alpha Equities	0.52 % of Assets	\$165,787,194	\$862,093 0.52
Driehaus International Small Cap Growth	0.90 % of Assets	\$26,436,389	\$237,927 0.90
First Eagle International Value	0.79 % of Assets	\$90,917,377	\$718,247 0.79
SSgA FTSE RAFI Dev. ex-U.S. Low Volatility Index	0.10 % of First \$50 M	\$90,528,506	\$82,423 0.09
	0.08 % of Next \$50 M		
	0.07 % Thereafter		
	Minimum Fee: \$25,000		
Emerging Markets Equity		\$310,201,605	
LSV Emerging Markets Value	0.50 % of Assets	\$154,876,185	\$774,381 0.50
GQG Emerging Markets Equity	0.65 % of Assets	\$155,325,420	\$1,009,615 0.65
Private Equity		\$293,640,578	
Neuberger Berman Sonoran Tranche A (P.E.)	Year 1: 0.25%; Year 2-8: 0.36%; Years 9-10: 0.05%; Based on Committed Capital of \$165mm	\$109,409,692	
Neuberger Berman Sonoran Tranche B (P.E.)	Year 1: 0.20%; Year 2-8: 0.33%; Years 9-10: 0.05%; Based on Committed Capital of \$110mm	\$126,863,400	
Neuberger Berman Sonoran Tranche E (P.E.)	0.05% for 10 years; Based on Committed Capital of 300mm	\$57,367,486	



City of Phoenix Employees' Retirement System

Fee Schedule | As of September 30, 2024

	Fee Schedule	Market Value (\$)	Estimated Fee Value	Estimated Fee (%)
Income		\$389,914,567		
High Yield Bonds		\$171,444,307		
Polen Capital Management	0.55 % of First \$100 M 0.50 % Thereafter	\$83,007,183	\$456,540	0.55
Brigade Traditional High Yield	0.55 % of First \$100 M 0.45 % Thereafter	\$88,437,123	\$486,404	0.55
Bank Loans		\$106,071,781		
Pacific Asset Management	0.37 % of Assets	\$106,071,781	\$392,466	0.37
Emerging Market Bonds		\$87,598,479		
MetLife Emerging Markets Debt Collective Trust	0.55 % of Assets	\$87,598,479	\$481,792	0.55
Private Debt		\$24,800,000		
Ares Pathfinder Core Fund	Performance Based 1.08 % and 15.00 %	\$24,800,000	\$266,600	1.08



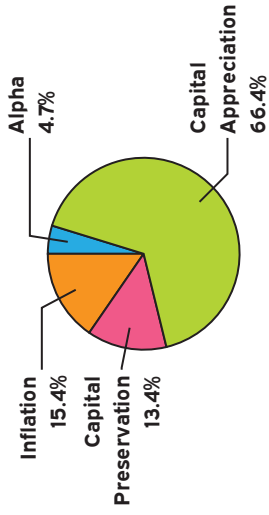
City of Phoenix Employees' Retirement System

Fee Schedule | As of September 30, 2024

	Fee Schedule	Market Value (\$)	Estimated Fee Value	Estimated Fee (%)
Inflation Hedging		\$908,669,805		
TIPS		\$231,356,369		
SSgA U.S. TIPS	0.04 % of First \$50 M 0.03 % of Next \$50 M 0.03 % Thereafter	\$231,356,369	\$67,839	0.03
Real Estate		\$483,351,067		
Natural Resources		\$68,335,008		
Neuberger Berman Sonoran Tranche C (N.R.)	Year 1: 0.20%; Year 2-8: 0.30%; Years 9-10: 0.05%; Based on Committed Capital of \$100mm	\$68,335,008		
Infrastructure		\$125,627,361		
Neuberger Berman Sonoran Tranche D (Infra)	Year 1: 0.20%; Year 2-8: 0.30%; Years 9-10: 0.05%; Based on Committed Capital of \$100mm	\$89,215,958		
Neuberger Berman Sonoran Tranche F (Infra)	0.05% for 10 years; Based on Committed Capital of \$100mm	\$36,411,403		

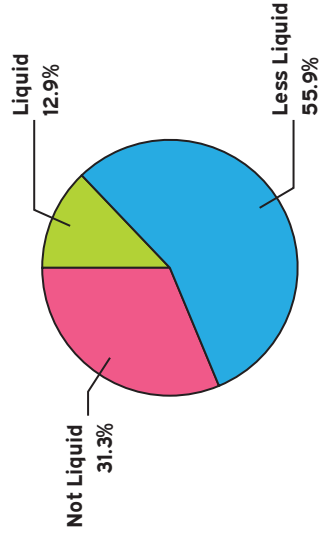
	Fee Schedule	Market Value (\$)	Estimated Fee Value	Estimated Fee (%)
Crisis Risk Offset				
Short Duration Bonds				
SSGA US 1-3 Year Gov/Cred	0.05 % of First \$50 M 0.04 % of Next \$50 M 0.04 % Thereafter	\$656,744,050 \$354,818,305 \$140,092,072	\$61,037	0.04
Western Asset Short Duration Constrained	0.20 % of First \$100 M 0.10 % Thereafter	\$106,033,602	\$206,034	0.19
Longfellow Short Duration	0.25 % of First \$50 M 0.15 % of Next \$50 M 0.13 % Thereafter	\$108,692,631	\$211,300	0.19
Risk Mitigating Strategies				
BH-DG Systematic Trading	0.93 % of Assets	\$42,720,250	\$397,298	0.93
One River Dynamic Convexity	1.00 % of Assets	\$39,389,249	\$393,892	1.00
36 South Kohinoor Series (Cayman) Fund - Class B	1.00 % of Assets	\$41,146,071	\$411,461	1.00
Hedge Funds				
Fir Tree International Value Fund, L.P.	Performance Based 1.50 % and 20.00 %	\$54,614,289	\$819,214	1.50

Asset Allocation by Theme



- Alpha
- Capital Appreciation
- Capital Preservation
- Inflation

Asset Allocation by Liquidity



- Less Liquid
- Liquid
- Not Liquid

Correlation Matrix - 10 Year

	Total Fund	HFRI Fund Weighted Composite Index	MSCI ACWI Index	Bimbg. U.S. Aggregate	Real Asset Custom Index
Total Fund	1.0				
HFRI Fund Weighted Composite Index	0.9	1.0			
MSCI ACWI Index	1.0	0.9	1.0		
Bimbg. U.S. Aggregate	0.4	0.2	0.4	1.0	
Real Asset Custom Index	0.6	0.5	0.5	0.0	1.0

Thematic Analysis - October 1, 2017 to September 30, 2024

