

EASTERN MICHIGAN UNIVERSITY
BOARD OF REGENTS
INVESTMENT PERFORMANCE ANALYSIS

2ND QUARTER 2023



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AUGUST 17, 2023



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Q2 2023 MARKETS IN REVIEW



PROPRIETARY & CONFIDENTIAL

CALENDAR YEAR INDEX PERFORMANCE

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Jul	YTD
S&P 500	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	28.7%	-18.1%	3.2%	20.6%
Russell 1000	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	26.5%	-19.1%	3.4%	20.7%
Russell 2000	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	14.8%	-20.4%	6.1%	14.7%
Russell 2500	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	18.2%	-18.4%	5.0%	14.2%
MSCI EAFE	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	11.3%	-14.5%	3.2%	15.3%
MSCI EM	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-2.5%	-20.1%	6.2%	11.4%
MSCI ACWI	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	18.5%	-18.4%	3.7%	18.1%
Private Equity	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	45.0%	-9.3%	-	2.1%
BBG TIPS	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	6.0%	-11.8%	0.1%	2.0%
BBG Municipal	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	1.5%	-8.5%	0.4%	3.1%
BBG Muni High Yield	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	7.8%	-13.1%	0.7%	5.1%
BBG US Corporate HY	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	1.4%	6.8%
BBG US Agg Bond	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.5%	-13.0%	-0.1%	2.0%
BBG Global Agg	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-4.7%	-16.2%	0.7%	2.1%
BBG Long Treasuries	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-4.6%	-29.3%	-2.2%	1.5%
BBG US Long Credit	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-1.2%	-25.3%	-0.1%	4.8%
BBG US STRIPS 20+ Yr	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-5.2%	-39.6%	-3.8%	1.1%
JPM GBI-EM Global Div	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-8.7%	-11.7%	2.9%	10.9%
JPM EMBI Glob Div	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.8%	-17.8%	1.9%	6.1%
CS Hedge Fund	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	8.2%	1.1%	-	1.9%
BBG Commodity	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	27.1%	16.1%	6.3%	-2.0%
Alerian Midstream	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	38.4%	21.5%	3.3%	8.0%
FTSE NAREIT Equity REITs	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	43.2%	-24.4%	2.9%	8.4%

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



CURRENT MARKET OUTLOOK



Mega-cap outperformance relative to the broader market is near levels seen during the height of the pandemic



Look to reduce S&P 500 and U.S. mega-cap equity exposure while maintaining U.S. large-cap value positions



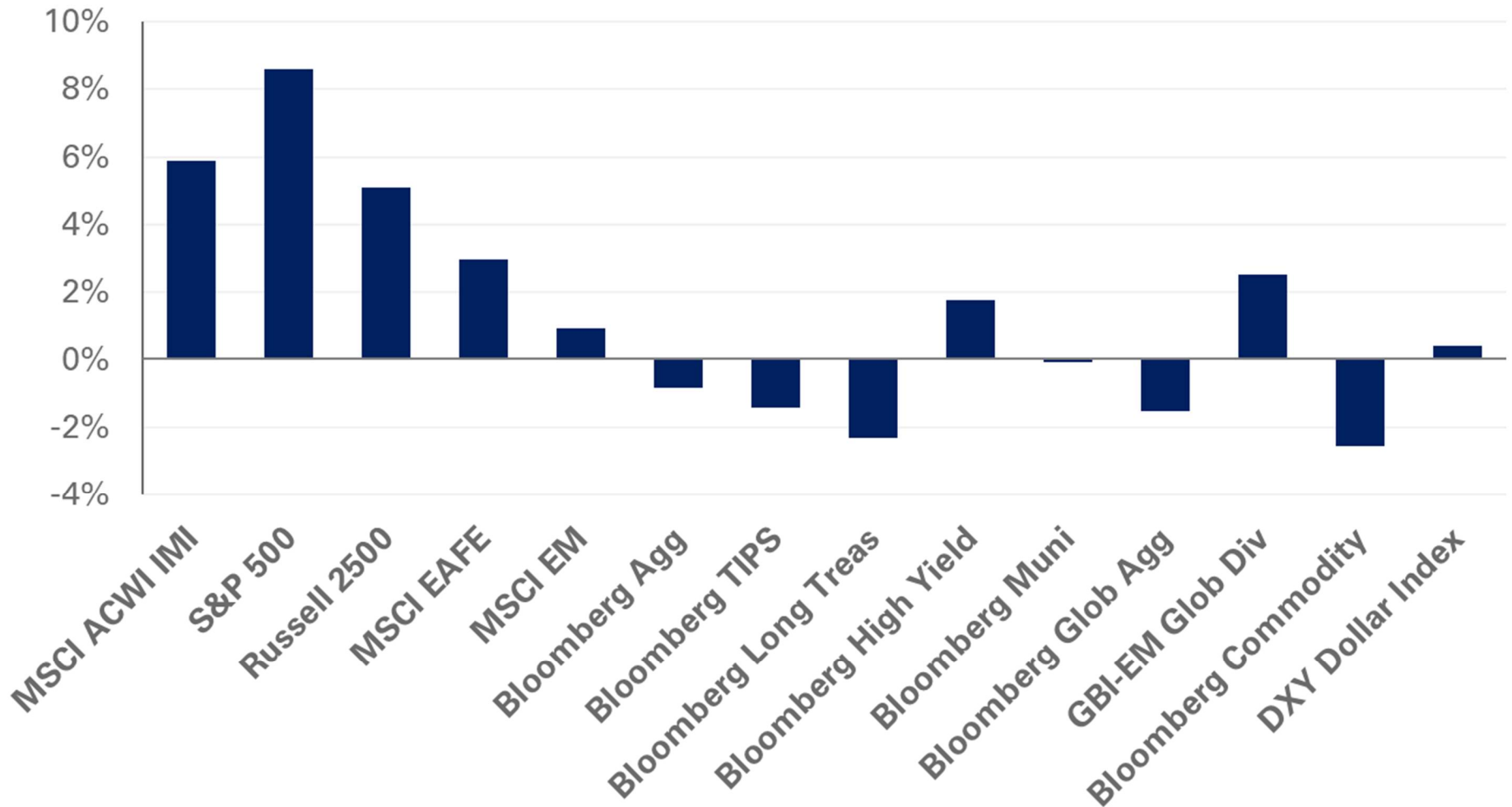
We believe U.S. high yield offers a greater return vs. U.S. large-cap equity and we recommend increasing exposure



Look to hold greater levels of cash within safe-haven fixed income and maintain greater levels of portfolio liquidity

U.S. EQUITIES OUTPERFORMED

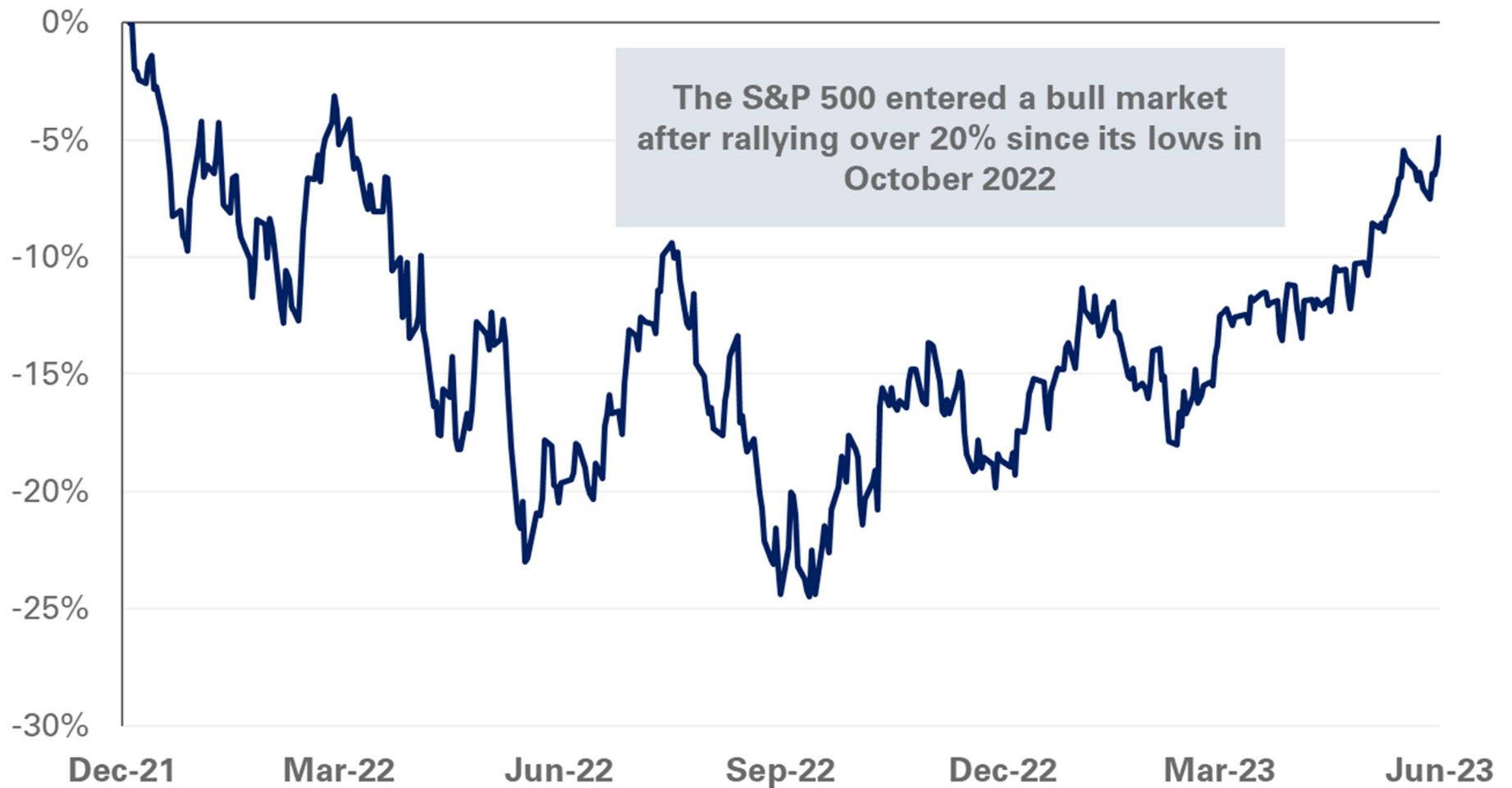
QUARTERLY TOTAL RETURNS



Sources: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, DXY, FactSet

THE S&P 500 REBOUNDED OFF OCTOBER LOWS

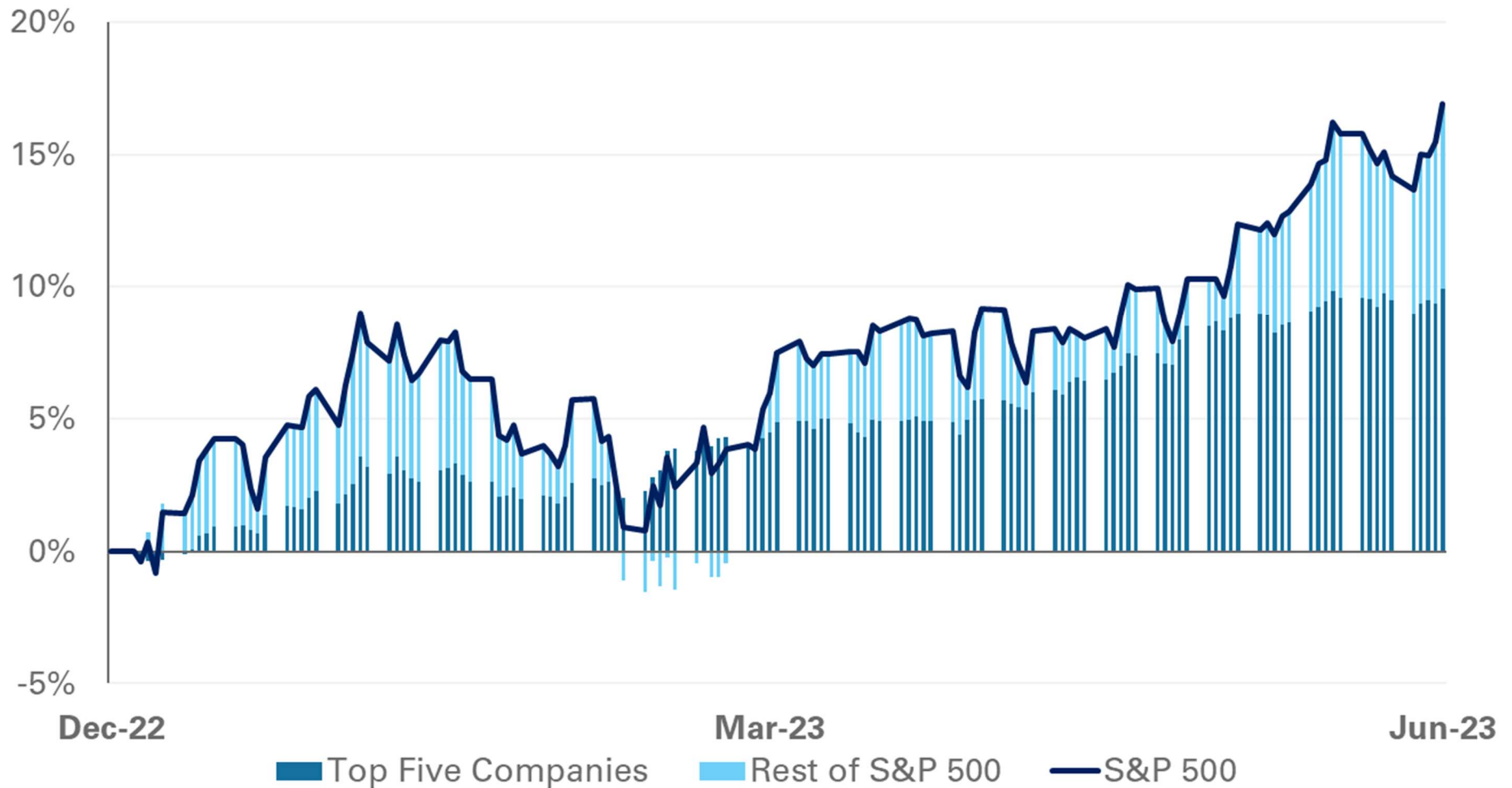
CUMULATIVE TOTAL RETURN



Source: S&P, FactSet

TOP FIVE COMPANIES LED THE S&P 500 HIGHER

CUMULATIVE TOTAL RETURNS



Top Five Companies represent Apple, Amazon, Alphabet, Microsoft, and NVidia,
Source: FactSet



LARGE-CAP TECH NEARING PEAK VALUATIONS

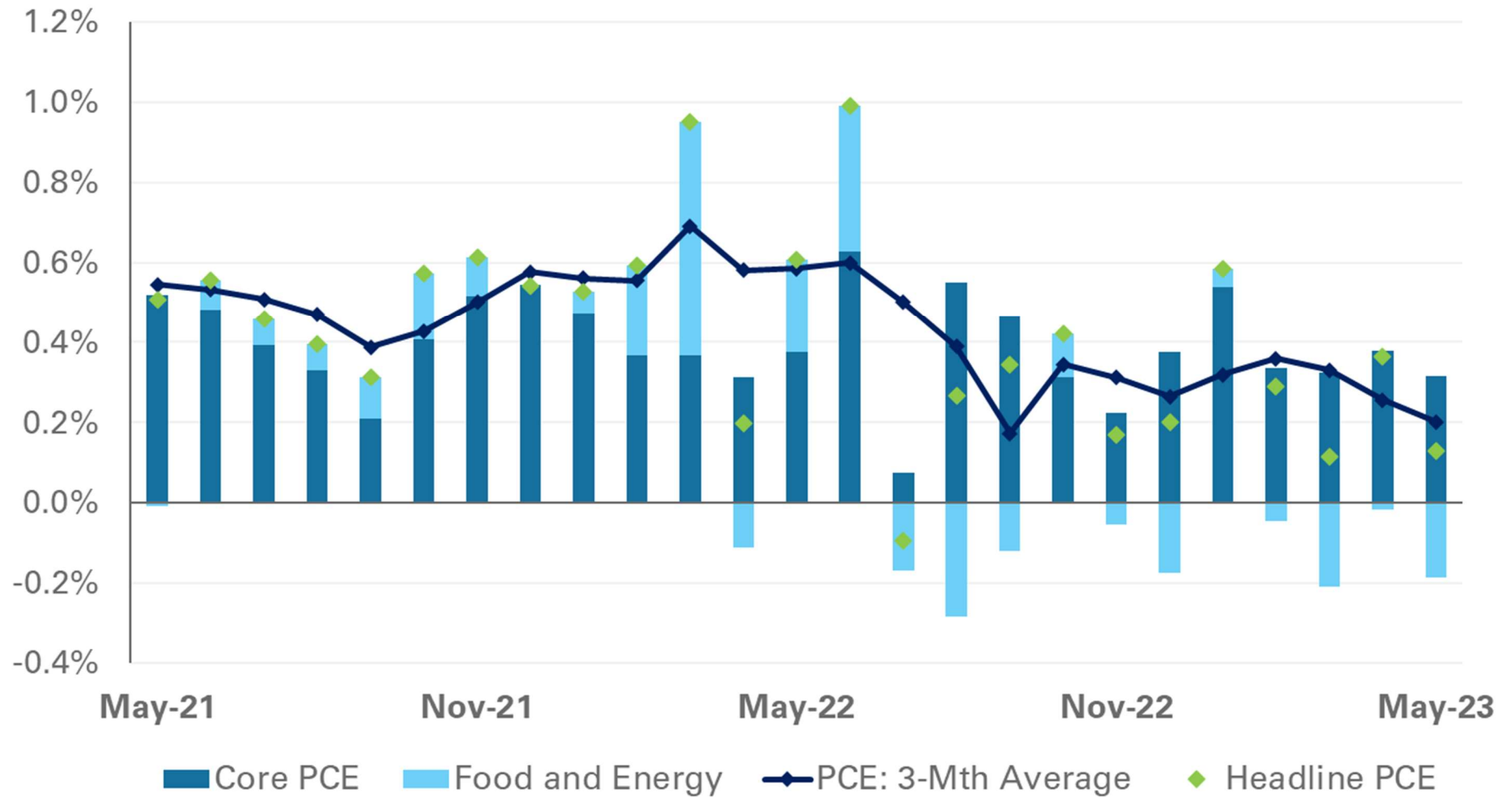
MARKET CAPITALIZATION: NASDAQ 100 VERSUS RUSSELL 2000



Source: Nasdaq, Russell, FactSet

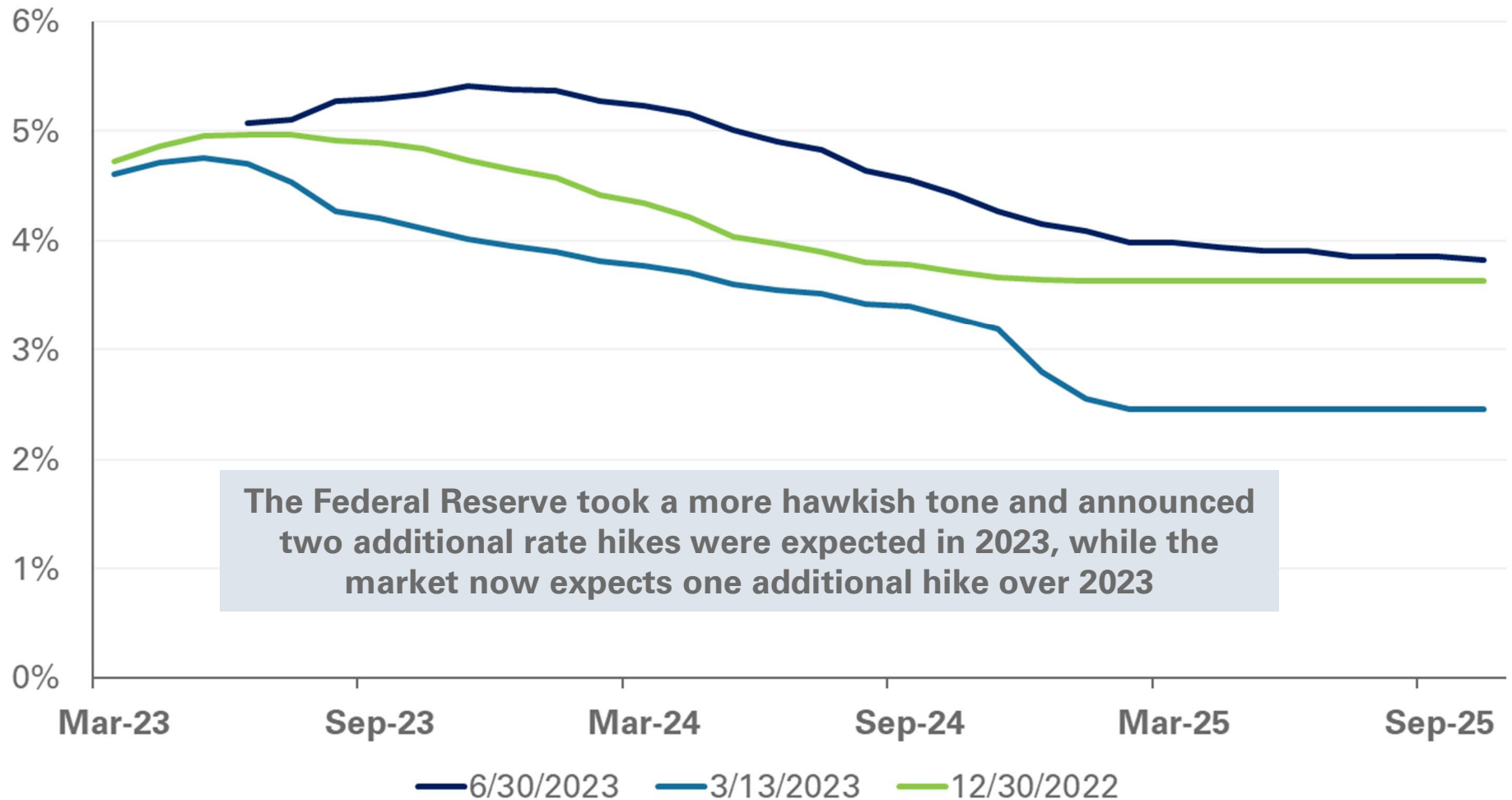
CORE INFLATION REMAINED ELEVATED

MONTHLY U.S. PCE PRICE INDEX CHANGES



MARKET RATE HIKE EXPECTATIONS ROSE

FEDERAL FUNDS FUTURES



3/13/2023 represents the Monday after the collapse of Silicon Valley Bank
Source: FactSet

U.S. ECONOMIC OUTLOOK



Market expectations for interest rates have converged with FOMC projections – signaling a higher-for-longer bias



Interest rate-sensitive sectors of the economy are still realizing the impact of a tighter monetary policy environment



Resilient data from the services sector and labor market strength continue to underpin “no landing” and “soft landing” outcomes

Q2 2023 PERFORMANCE REVIEW

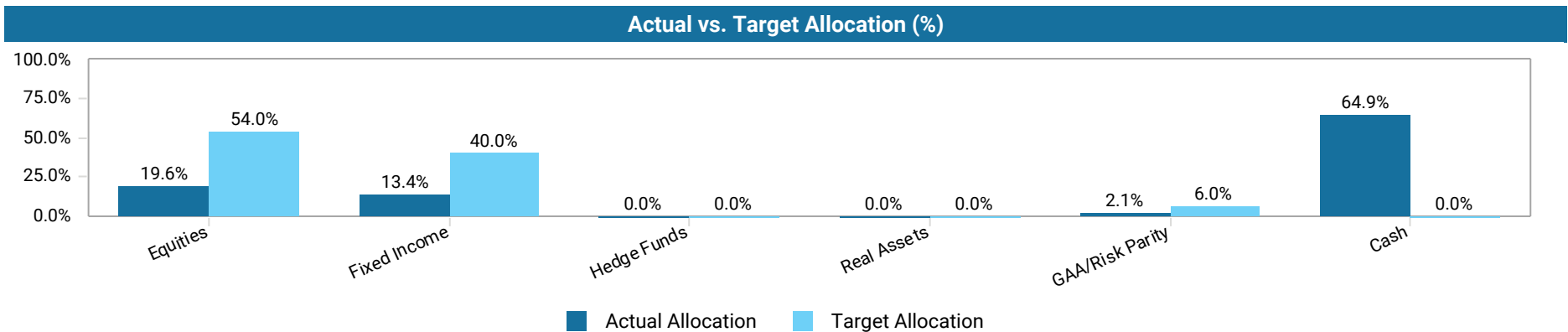


PROPRIETARY & CONFIDENTIAL

TOTAL FUND PERFORMANCE SUMMARY

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Board of Regents Total Composite	25,744,057	1.8	3.5	4.3	3.2	2.5
<i>Allocation Index</i>		1.5	3.4	4.1	3.4	4.1

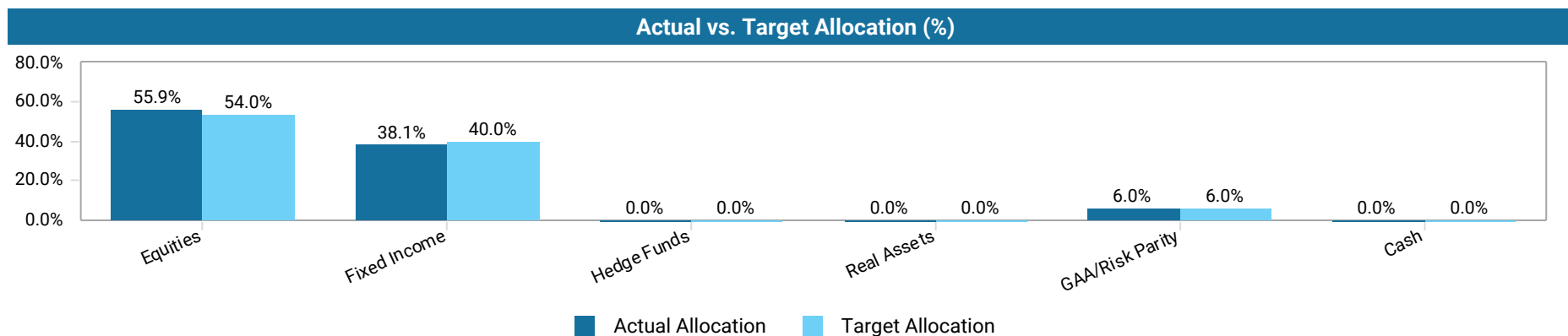
Year to Date			
	Return	Standard Deviation	Sharpe Ratio
Board of Regents Total Composite	3.5	0.6	0.4
<i>Allocation Index</i>	3.4	0.6	0.4



LONG TERM INVESTMENT POOL PERFORMANCE SUMMARY

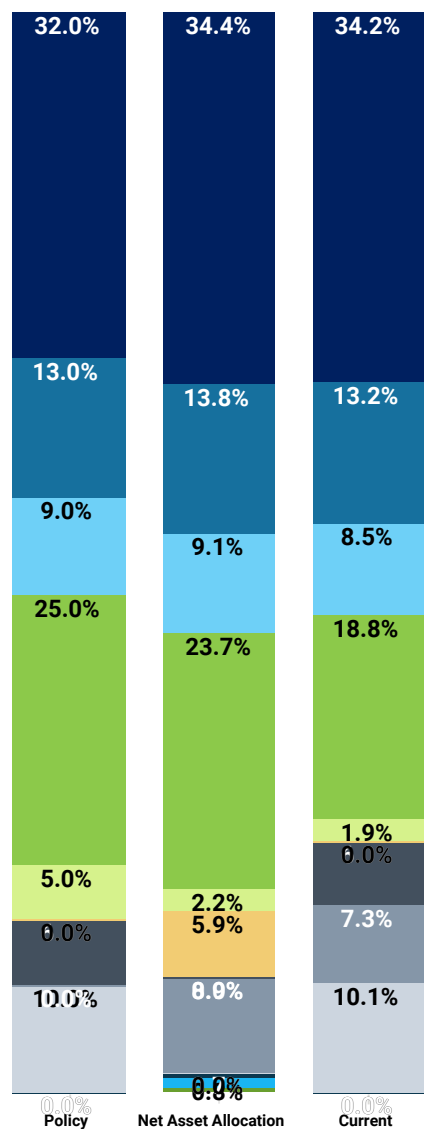
	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Long Term Investment Pool	9,047,708	3.0	7.9	8.6	5.2	3.7
<i>Long Term Allocation Index</i>		2.4	7.0	7.4	5.0	5.5
<i>Long Term Balanced Index</i>		3.0	8.4	8.6	4.4	4.7

Year to Date			
	Return	Standard Deviation	Sharpe Ratio
Long Term Investment Pool	7.9	3.0	0.3
<i>Long Term Allocation Index</i>	7.0	2.9	0.3
<i>Long Term Balanced Index</i>	8.4	2.9	0.4



LONG TERM POOL ASSET ALLOCATION VS. POLICY

Asset Allocation vs. Target



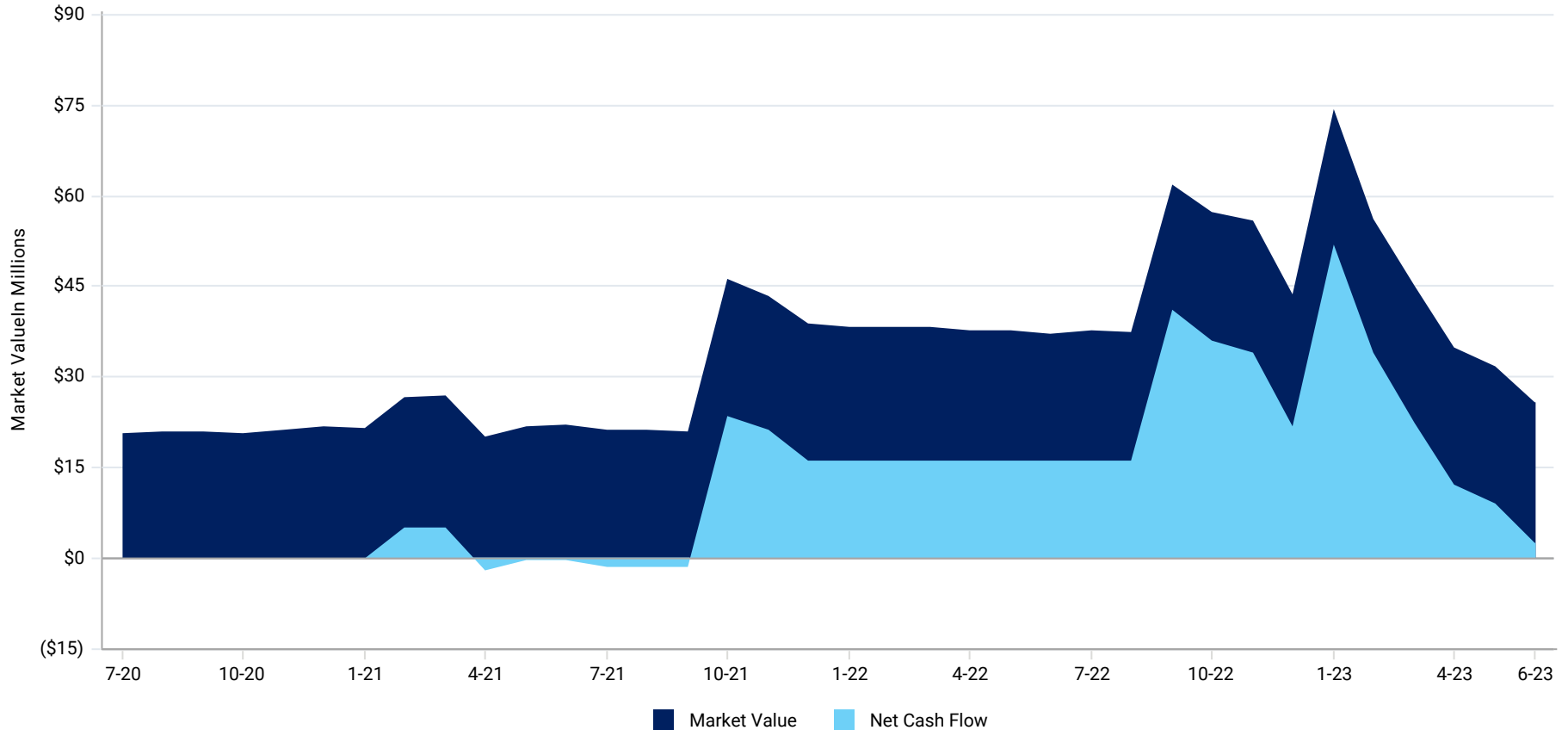
	Current (\$)	Policy (%)	Current (%)	Net Asset Allocation
Domestic Equity	3,092,587	32.0	34.2	34.4
International Equity	1,190,254	13.0	13.2	13.8
Emerging Markets Equity	772,496	9.0	8.5	9.1
Core Fixed Income	1,705,235	25.0	18.8	23.7
TIPS	173,575	5.0	1.9	2.2
Non-U.S. Fixed Income	-	0.0	0.0	5.9
GAA/Risk Parity	541,865	6.0	6.0	0.0
Treasury	656,171	0.0	7.3	8.9
Absolute Return	915,524	10.0	10.1	0.0
Hedge Funds	-	0.0	0.0	0.7
Real Assets	-	0.0	0.0	0.8
Cash	-	0.0	0.0	0.4
Total	9,047,708	100.0	100.0	100.0

The "Net Asset Allocation" analysis disaggregates the global asset allocation and the absolute return managers in order to get a better sense of the true exposures across the portfolio.

*Difference between Policy and Current Allocation

ASSET GROWTH SUMMARY

3 Years Ending June 30, 2023



	Last Three Months	Year To Date	1 Year	3 Years
Beginning Market Value	45,061,399	43,636,098	37,273,075	20,455,158
Net Cash Flow	-19,854,793	-19,352,359	-13,548,185	2,594,177
Net Investment Change	537,451	1,460,318	2,019,167	2,694,721
Ending Market Value	25,744,057	25,744,057	25,744,057	25,744,057
Net Change	-19,317,342	-17,892,041	-11,529,018	5,288,899





TOTAL FUND SUMMARY



PROPRIETARY & CONFIDENTIAL

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Board of Regents Total Composite	25,744,057	100.0	1.8	3.5	4.3	3.2	2.5	3.1	4.2	Apr-09
<i>Allocation Index</i>			<u>1.5</u>	<u>3.4</u>	<u>4.1</u>	<u>3.4</u>	<u>4.1</u>	-	-	
Short Term Investment Pool	16,696,349	64.9	1.2	2.2	3.4	1.2	1.3	0.7	0.5	Apr-09
<i>90 Day U.S. Treasury Bill</i>			<u>1.2</u>	<u>2.3</u>	<u>3.6</u>	<u>1.3</u>	<u>1.6</u>	<u>1.0</u>	<u>0.7</u>	
Northern Inst Govt Select MMKT	614,456	2.4	1.2	2.3	3.5	1.2	1.0	0.5	0.4	Nov-09
<i>90 Day U.S. Treasury Bill</i>			<u>1.2</u>	<u>2.3</u>	<u>3.6</u>	<u>1.3</u>	<u>1.6</u>	<u>1.0</u>	<u>0.7</u>	
Bank of Ann Arbor T-Bills	16,081,893	62.5	1.2	2.2	2.6	0.9	1.1	0.6	0.4	Nov-09
<i>90 Day U.S. Treasury Bill</i>			<u>1.2</u>	<u>2.3</u>	<u>3.6</u>	<u>1.3</u>	<u>1.6</u>	<u>1.0</u>	<u>0.7</u>	
Long Term Investment Pool	9,047,708	35.1	3.0 (60)	7.9 (50)	8.6 (62)	5.2 (69)	3.7 (84)	4.5 (82)	4.9 (94)	Apr-09
<i>Long Term Allocation Index</i>			<u>2.4 (69)</u>	<u>7.0 (64)</u>	<u>7.4 (75)</u>	<u>5.0 (70)</u>	<u>5.5 (48)</u>	-	-	
<i>Long Term Balanced Index</i>			<u>3.0 (59)</u>	<u>8.4 (39)</u>	<u>8.6 (62)</u>	<u>4.4 (78)</u>	<u>4.7 (70)</u>	-	-	
<i>InvMetrics All E&F < \$50M Median</i>			3.2	7.9	9.5	6.5	5.4	6.1	8.3	
Total Equity	5,055,337	19.6	5.8 (36)	12.8 (42)	16.0 (49)	10.0 (56)	6.8 (61)	-	7.5 (47)	Jan-14
<i>MSCI AC World Index (Net)</i>			<u>6.2 (30)</u>	<u>13.9 (34)</u>	<u>16.5 (45)</u>	<u>11.0 (45)</u>	<u>8.1 (44)</u>	<u>8.8 (47)</u>	<u>7.6 (45)</u>	
<i>eV All Global Equity Median</i>			4.6	11.5	15.9	10.5	7.6	8.6	7.3	
Fidelity Large Cap Value - FLCOX	901,242	3.5	4.0 (44)	5.1 (37)	11.5 (48)	-	-	-	3.2 (58)	May-22
<i>Russell 1000 Value Index</i>			<u>4.1 (42)</u>	<u>5.1 (36)</u>	<u>11.5 (49)</u>	<u>14.3 (64)</u>	<u>8.1 (61)</u>	<u>9.2 (61)</u>	<u>3.2 (57)</u>	
<i>Large Value Median</i>			3.7	4.2	11.4	15.1	8.5	9.4	3.6	
SEG Baxter	192,026	0.7	1.6 (76)	10.7 (52)	11.8 (77)	3.0 (86)	3.9 (53)	-	4.6 (54)	Jul-17
<i>MSCI AC World ex USA (Net)</i>			<u>2.4 (56)</u>	<u>9.5 (67)</u>	<u>12.7 (69)</u>	<u>7.2 (54)</u>	<u>3.5 (63)</u>	<u>4.7 (84)</u>	<u>4.1 (67)</u>	
<i>eV All ACWI ex-US Equity Median</i>			2.7	10.8	14.8	7.4	4.0	5.7	4.7	
MFS Instl International Equity	998,228	3.9	3.8 (18)	14.1 (9)	21.2 (8)	-	-	-	9.3 (13)	May-22
<i>MSCI EAFE Index</i>			<u>3.2 (34)</u>	<u>12.1 (31)</u>	<u>19.4 (17)</u>	<u>9.5 (24)</u>	<u>4.9 (22)</u>	<u>5.9 (21)</u>	<u>7.9 (32)</u>	
<i>Foreign Large Blend Median</i>			3.0	11.2	16.3	8.2	4.0	5.2	6.3	
Acadian Emerging Markets Equity	772,496	3.0	4.3 (23)	12.3 (13)	8.8 (38)	7.7 (30)	3.5 (30)	-	3.6 (32)	Oct-14
<i>MSCI Emerging Markets (Net)</i>			<u>0.9 (72)</u>	<u>4.9 (77)</u>	<u>1.7 (79)</u>	<u>2.3 (65)</u>	<u>0.9 (72)</u>	<u>3.0 (70)</u>	<u>2.2 (71)</u>	
<i>eV Emg Mkts Equity Median</i>			2.2	7.2	6.2	3.9	2.2	3.6	2.9	
Vanguard Total Stock Market VIPERs - VTI	2,191,345	8.5	8.3 (25)	16.1 (25)	18.8 (32)	13.7 (48)	11.3 (24)	-	-	Nov-16
<i>Russell 3000 Index</i>			<u>8.4 (24)</u>	<u>16.2 (25)</u>	<u>19.0 (31)</u>	<u>13.9 (47)</u>	<u>11.4 (23)</u>	<u>12.3 (23)</u>	<u>13.2 (27)</u>	
<i>eV All US Equity Median</i>			5.4	10.0	15.4	13.6	8.7	10.3	11.1	

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed	3,450,505	13.4	-0.6 (76)	2.1 (72)	-0.1 (79)	-1.8 (57)	0.7 (60)	-	1.7 (54)	Jan-14
<i>Blmbg. U.S. Aggregate Index</i>			<i>-0.8 (80)</i>	<i>2.1 (72)</i>	<i>-0.9 (85)</i>	<i>-4.0 (80)</i>	<i>0.8 (59)</i>	<i>1.5 (58)</i>	<i>1.6 (54)</i>	
<i>eV All Global Fixed Inc Median</i>			<i>0.4</i>	<i>3.2</i>	<i>2.7</i>	<i>-0.8</i>	<i>1.2</i>	<i>2.0</i>	<i>1.9</i>	
BlackRock Strategic Income Opportunities Fund - BSIX	915,524	3.6	0.4 (4)	2.0 (87)	1.8 (8)	1.3 (1)	2.5 (7)	-	2.3 (10)	Oct-14
<i>Blmbg. U.S. Aggregate Index</i>			<i>-0.8 (79)</i>	<i>2.1 (87)</i>	<i>-0.9 (83)</i>	<i>-4.0 (95)</i>	<i>0.8 (89)</i>	<i>1.5 (97)</i>	<i>1.2 (91)</i>	
<i>eV US Core Plus Fixed Inc Median</i>			<i>-0.5</i>	<i>2.6</i>	<i>0.1</i>	<i>-2.9</i>	<i>1.2</i>	<i>2.0</i>	<i>1.7</i>	
Baird Core Bond - BAGIX	1,705,235	6.6	-0.6 (33)	2.4 (37)	-0.3 (33)	-3.7 (58)	1.1 (42)	-	1.4 (31)	Dec-14
<i>Blmbg. U.S. Aggregate Index</i>			<i>-0.8 (72)</i>	<i>2.1 (74)</i>	<i>-0.9 (75)</i>	<i>-4.0 (85)</i>	<i>0.8 (78)</i>	<i>1.5 (78)</i>	<i>1.0 (79)</i>	
<i>eV US Core Fixed Inc Median</i>			<i>-0.7</i>	<i>2.3</i>	<i>-0.5</i>	<i>-3.6</i>	<i>1.0</i>	<i>1.7</i>	<i>1.3</i>	
Vanguard Intermediate-Term Treasury ETF - VGIT	656,171	2.5	-1.6 (99)	1.3 (87)	-2.0 (99)	-	-	-	-	Apr-21
<i>Blmbg. U.S. Treasury: Intermediate</i>			<i>-1.1 (96)</i>	<i>1.1 (96)</i>	<i>-1.0 (93)</i>	<i>-2.9 (86)</i>	<i>0.8 (88)</i>	<i>0.9 (96)</i>	<i>-3.0 (66)</i>	
<i>eV US Interm Duration Fixed Inc Median</i>			<i>-0.6</i>	<i>1.8</i>	<i>0.1</i>	<i>-2.3</i>	<i>1.3</i>	<i>1.5</i>	<i>-2.9</i>	
Fidelity Inflation-Protected Bond Index Fund - FIPDX	173,575	0.7	-1.4 (40)	2.0 (21)	-1.3 (62)	-	-	-	-2.9 (51)	Jun-21
<i>Blmbg. U.S. TIPS</i>			<i>-1.4 (46)</i>	<i>1.9 (37)</i>	<i>-1.4 (65)</i>	<i>-0.1 (60)</i>	<i>2.5 (48)</i>	<i>2.1 (31)</i>	<i>-2.9 (52)</i>	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			<i>-1.4</i>	<i>1.8</i>	<i>-1.2</i>	<i>0.0</i>	<i>2.5</i>	<i>2.0</i>	<i>-2.9</i>	
GAA/ Risk Parity	541,865	2.1	0.7 (73)	4.0 (66)	4.7 (66)	0.4 (88)	-1.6 (94)	-	-0.7 (94)	Dec-14
<i>eV Global TAA Median</i>			<i>1.9</i>	<i>5.5</i>	<i>6.2</i>	<i>4.3</i>	<i>3.6</i>	<i>4.6</i>	<i>3.8</i>	
PIMCO All Asset - PAAIX	541,865	2.1	0.7 (73)	4.0 (66)	4.7 (66)	-	-	-	-	Apr-21
<i>PIMCO All Asset Index</i>			<i>0.4 (77)</i>	<i>3.8 (70)</i>	<i>2.8 (78)</i>	<i>-0.2 (91)</i>	<i>2.6 (70)</i>	<i>3.1 (80)</i>	<i>-2.1 (70)</i>	
<i>eV Global TAA Median</i>			<i>1.9</i>	<i>5.5</i>	<i>6.2</i>	<i>4.3</i>	<i>3.6</i>	<i>4.6</i>	<i>-1.2</i>	

-Allocation Index: Used to measure the value add from active management. Calculated as the asset weight from the prior month end multiplied by the specified market index.

-Long-Term Balanced Index: (54% - MSCI ACWI)(30% - Bloomberg Aggregate)(5% - Bloomberg US TIPS TR)(5% - Bloomberg US Treasury TR)(6% - PIMCO All Asset Index) as of 3/1/2021.

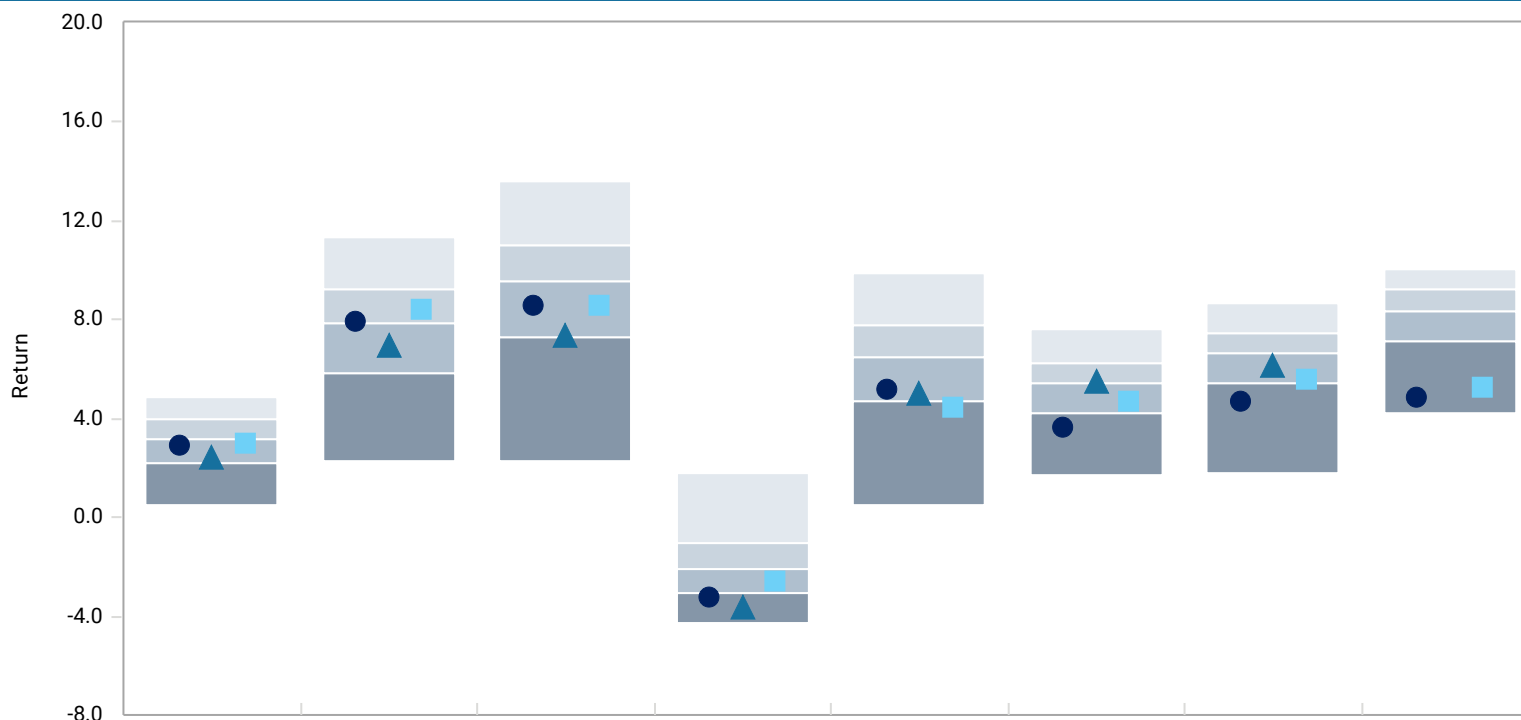
-PIMCO All Asset Index: (40% - Bloomberg Aggregate)(30% - Bloomberg US TIPS 1-10 Yr)(10% - S&P 500)(10% - Bloomberg High Yield)(10% - JP Morgan EMBI+).

CASH FLOW SUMMARY BY MANAGER

	1 Quarter Ending June 30, 2023					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flows	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$740,374	-	-\$1,349	-\$1,349	\$33,471	\$772,496
Baird Core Bond - BAGIX	\$1,715,753	-	-	-	-\$10,517	\$1,705,235
Bank of Ann Arbor T-Bills	\$25,333,746	-	-\$9,502,636	-\$9,502,636	\$250,783	\$16,081,893
BlackRock Strategic Income Opportunities Fund - BSIX	\$911,931	-	-	-	\$3,592	\$915,524
Fidelity Inflation-Protected Bond Index Fund - FIPDX	\$175,988	-	-	-	-\$2,413	\$173,575
Fidelity Large Cap Value - FLCOX	\$866,282	-	-	-	\$34,959	\$901,242
MFS Intl International Equity	\$961,856	-	-	-	\$36,373	\$998,228
Northern Inst Govt Select MMKT	\$10,927,544	\$12,428	-\$10,350,808	-\$10,338,380	\$25,292	\$614,456
PIMCO All Asset - PAAIX	\$537,873	-	-	-	\$3,992	\$541,865
SEG Baxter	\$188,952	-	-	-	\$3,074	\$192,026
US Treasury	-	-	-	-	-	-
Vanguard Intermediate-Term Treasury ETF - VGIT	\$670,713	-	-\$4,206	-\$4,206	-\$10,336	\$656,171
Vanguard Total Stock Market VIPERs - VTI	\$2,030,387	-	-\$8,222	-\$8,222	\$169,181	\$2,191,345
Total	\$45,061,399	\$12,428	-\$19,867,221	-\$19,854,793	\$537,451	\$25,744,057

RETURN SUMMARY VS. PEER UNIVERSE

Long Term Investment Pool vs. InvMetrics All E&F < \$50M

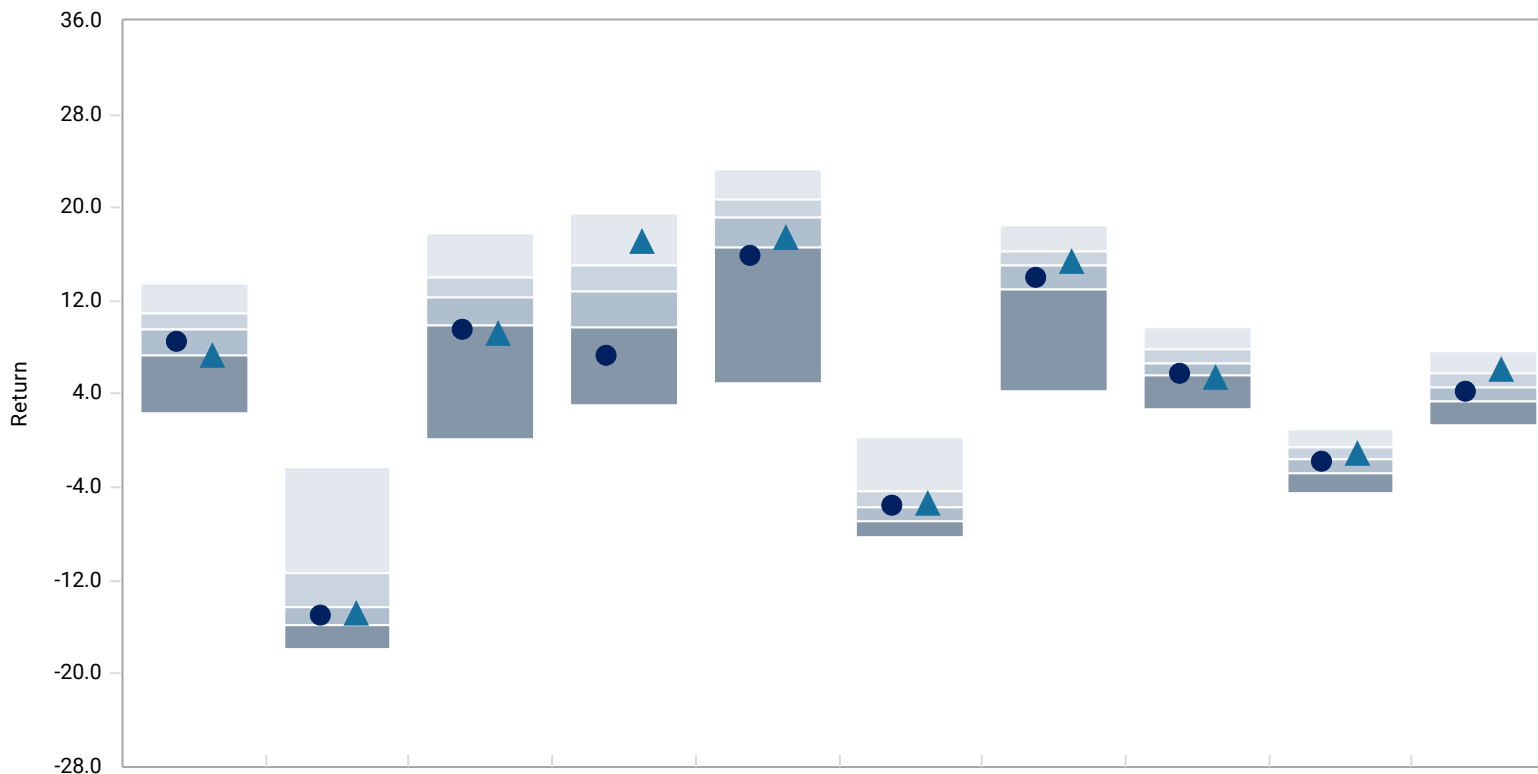


	3 Mo	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	Inception
● Long Term Investment Pool	3.0 (60)	7.9 (50)	8.6 (62)	-3.2 (78)	5.2 (69)	3.7 (84)	4.7 (82)	4.9 (94)
▲ Long Term Allocation Index	2.4 (69)	7.0 (64)	7.4 (75)	-3.7 (88)	5.0 (70)	5.5 (48)	6.2 (62)	
■ Long Term Balanced Index	3.0 (59)	8.4 (39)	8.6 (62)	-2.6 (65)	4.4 (78)	4.7 (69)	5.6 (73)	5.3 (92)
5th Percentile	4.9	11.3	13.6	1.8	9.9	7.6	8.7	10.0
1st Quartile	4.0	9.2	11.0	-1.0	7.8	6.3	7.4	9.2
Median	3.2	7.9	9.5	-2.1	6.5	5.4	6.7	8.3
3rd Quartile	2.2	5.8	7.3	-3.1	4.7	4.2	5.4	7.1
95th Percentile	0.5	2.2	2.3	-4.3	0.5	1.7	1.8	4.2
Population	358	354	331	296	280	246	217	96

-The above Return Summary vs. Peer Universe analytic is based on the Long Term Investment Pool.

RETURN SUMMARY VS. PEER UNIVERSE

Long Term Investment Pool vs. InvMetrics All E&F < \$50M



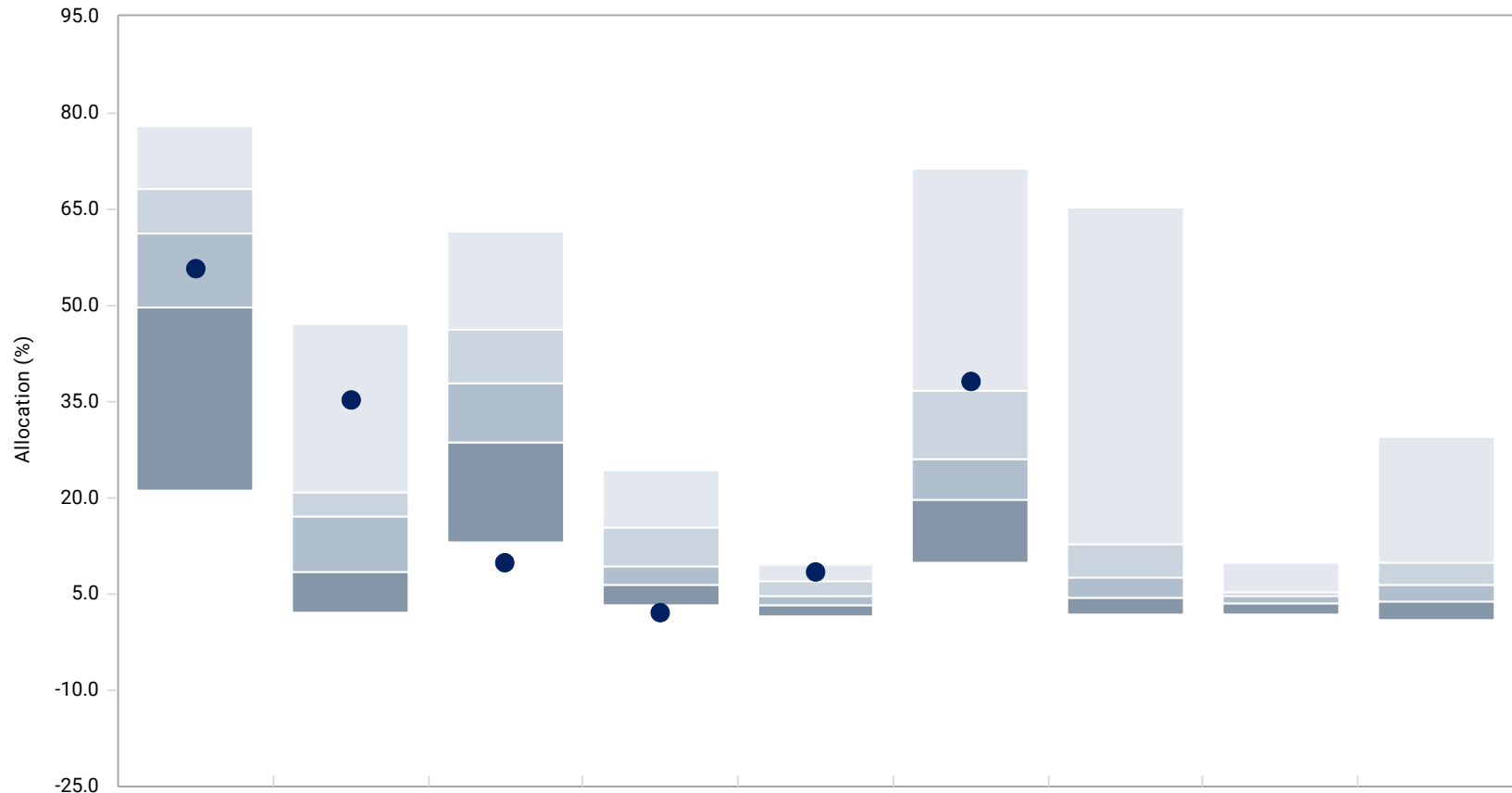
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
● Long Term Investment Pool	8.6 (62)	-15.0 (63)	9.6 (77)	7.3 (88)	16.0 (78)	-5.5 (46)	14.0 (67)	5.8 (73)	-1.8 (57)	4.3 (57)
▲ Long Term Allocation Index	7.4 (75)	-14.8 (61)	9.2 (79)	17.2 (13)	17.4 (70)	-5.4 (43)	15.5 (42)	5.4 (79)	-1.1 (39)	6.2 (20)
5th Percentile	13.6	-2.2	17.9	19.5	23.4	0.2	18.6	9.8	1.0	7.7
1st Quartile	11.0	-11.4	14.1	15.1	20.8	-4.2	16.3	7.9	-0.5	5.8
Median	9.5	-14.2	12.4	12.8	19.1	-5.8	15.1	6.6	-1.6	4.6
3rd Quartile	7.3	-15.9	9.8	9.8	16.6	-6.9	13.0	5.7	-2.7	3.3
95th Percentile	2.3	-17.8	0.1	3.1	4.9	-8.3	4.3	2.6	-4.6	1.4
Population	331	479	513	721	610	526	530	521	475	433

-The above Return Summary vs. Peer Universe analytic is based on the Long Term Investment Pool.



ASSET ALLOCATION VS. PEER UNIVERSE

Total Fund Allocation vs. InvMetrics All E&F < \$50M



	Total Equity	Global Equity	US Equity	Dev'd ex-US Equity	Emg Mkt Equity	Total Fixed Income	Hedge Funds	Real Assets/Commod	Global TAA
● Long Term Investment Pool	55.9 (64)	35.3 (11)	10.0 (97)	2.1 (99)	8.5 (13)	38.1 (23)			
5th Percentile	77.9	47.2	61.4	24.5	9.5	71.3	65.4	9.8	29.5
1st Quartile	68.2	20.9	46.4	15.5	7.0	36.7	12.8	5.2	9.9
Median	61.2	17.1	38.0	9.4	4.8	26.2	7.7	4.7	6.5
3rd Quartile	49.6	8.5	28.6	6.3	3.2	19.7	4.3	3.7	3.7
95th Percentile	21.1	2.1	13.2	3.3	1.6	9.9	1.7	1.7	1.0
Population	678	164	647	73	213	703	193	250	38

-The above Asset Allocation vs. Peer Universe analytic is based on the Long Term Investment Pool.

INVESTMENT MANAGER - DUE DILIGENCE STATUS

Investment Options	Manager Changes/ Announcement	NEPC Due Diligence Committee Recommendations
PIMCO All Asset - PAAIX	Global Head of Credit Research Relocation/New Role	Watch

INVESTMENT MANAGER - DUE DILIGENCE STATUS

Investment Options	Manager Changes/ Announcement	NEPC Due Diligence Committee Recommendations
PIMCO All Asset - PAAIX	<p>PIMCO notified NEPC on 5/31/2023 that Christian Stracke, Global Head of Credit Research, will be relocating to the firm’s London office in June and will be assuming the new role of PIMCO’s President and “overseeing the firm’s international businesses outside the Americas”. Mr. Stracke will retain his portfolio management responsibilities as well as his Global Head of Credit Research role. As President, Mr. Stracke will work on broadening PIMCO’s footprint globally, from both a client and investment product standpoint. PIMCO noted that the role of President had existed historically, but the focus was more on business management in the prior iteration. In his capacity as President, Mr. Stracke will report to CEO, Manny Roman. For credit research, he will continue to report into Group CIO, Dan Ivascyn. This update is just an FYI and will remain on the Watch status.</p>	Watch



NEPC CURRENT OPPORTUNITIES

US High Yield Bond



PROPRIETARY & CONFIDENTIAL

NEPC CURRENT OPPORTUNITIES

RATIONALE

IMPLEMENTATION VIEW

Maintain U.S. Large-Cap Value Exposure

Maintain U.S. large-cap value exposure with S&P 500 as the funding source

- U.S. large-cap value exposure can help mitigate the portfolio impact relative to the S&P 500 of discount rates normalizing above market expectations

U.S. Large Cap Equity

Portfolio Tilt:

70% S&P 500,
30% Russell 1000 Value

Opportunity Cost:

S&P 500

Increase U.S. High Yield Bond Exposure

Increase U.S. high yield and credit exposure with S&P 500 as the funding source

- U.S. high yield bonds offer a greater return relative to the S&P 500 and we recommend increasing credit exposure

U.S. High Yield Bonds

Portfolio Tilt:

100% U.S. High Yield Bonds

Opportunity Cost:

S&P 500

Add to Active Global Equity Strategies

Increase exposure to active global equity strategies with S&P 500 as the funding source

- We encourage greater use of active equity approaches and recommend tilting equity exposure to global equity strategies

U.S. Large Cap Equity

Portfolio Tilt:

100% MSCI World

Opportunity Cost:

S&P 500

REDUCE S&P 500 AND U.S. MEGA-CAP EXPOSURE

U.S. mega-cap are **exhibiting signs of a growing asset bubble** with outperformance near levels seen during the height of the pandemic

Look to **reduce S&P 500 and U.S. mega-cap equity exposure** while maintaining U.S. value positions

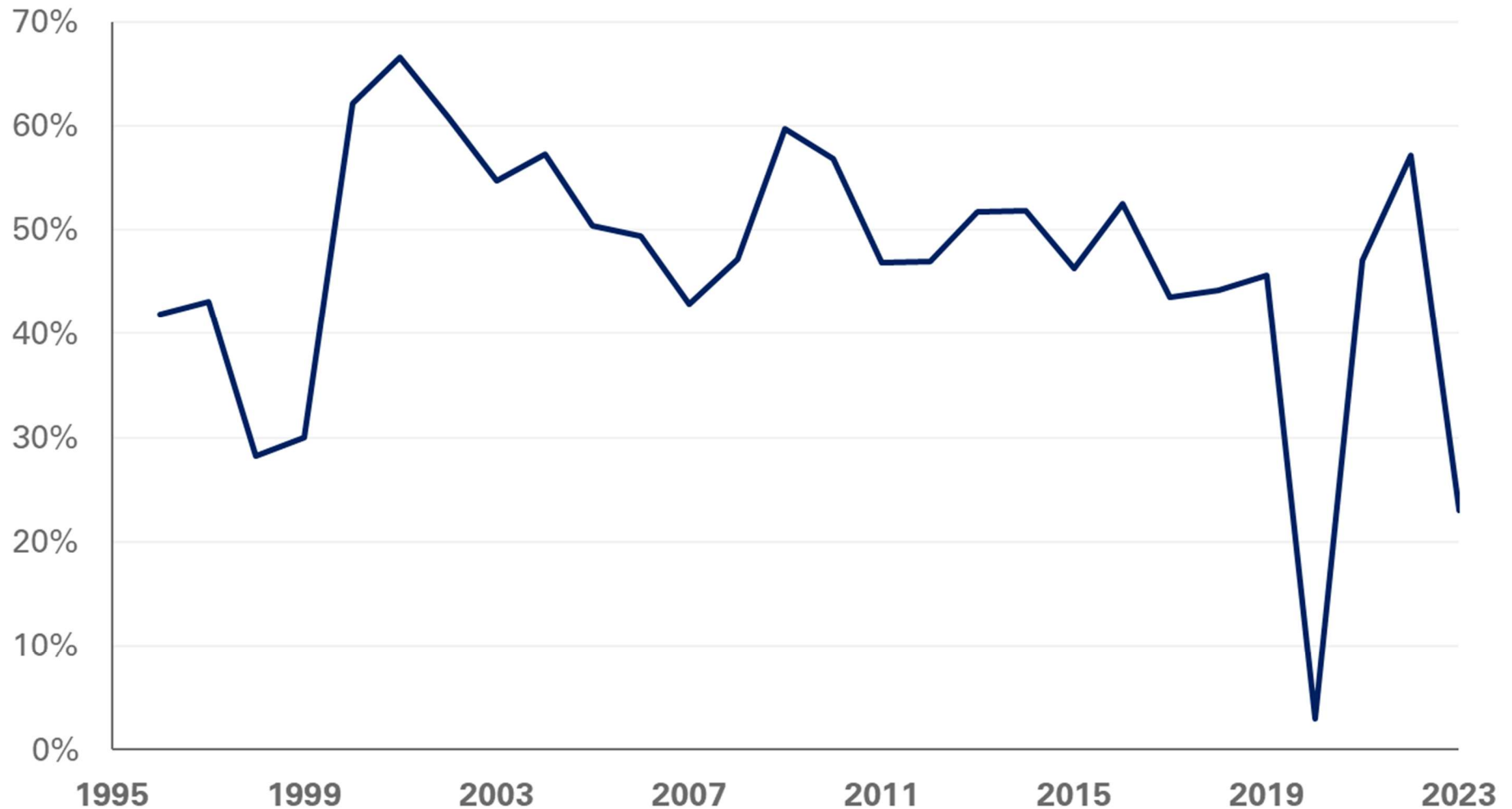
We believe **U.S. high yield bonds offer a greater return** relative to U.S. large-cap equity and we recommend increasing credit exposure

We recommend **tilting equity exposure to global equity strategies** and encourage greater usage of active equity approaches

Expanding valuations for mega-cap stocks and deflationary momentum **pose a risk to our “reduce S&P 500” thesis**

SMALL SUBSET OF STOCKS OUTPERFORMED

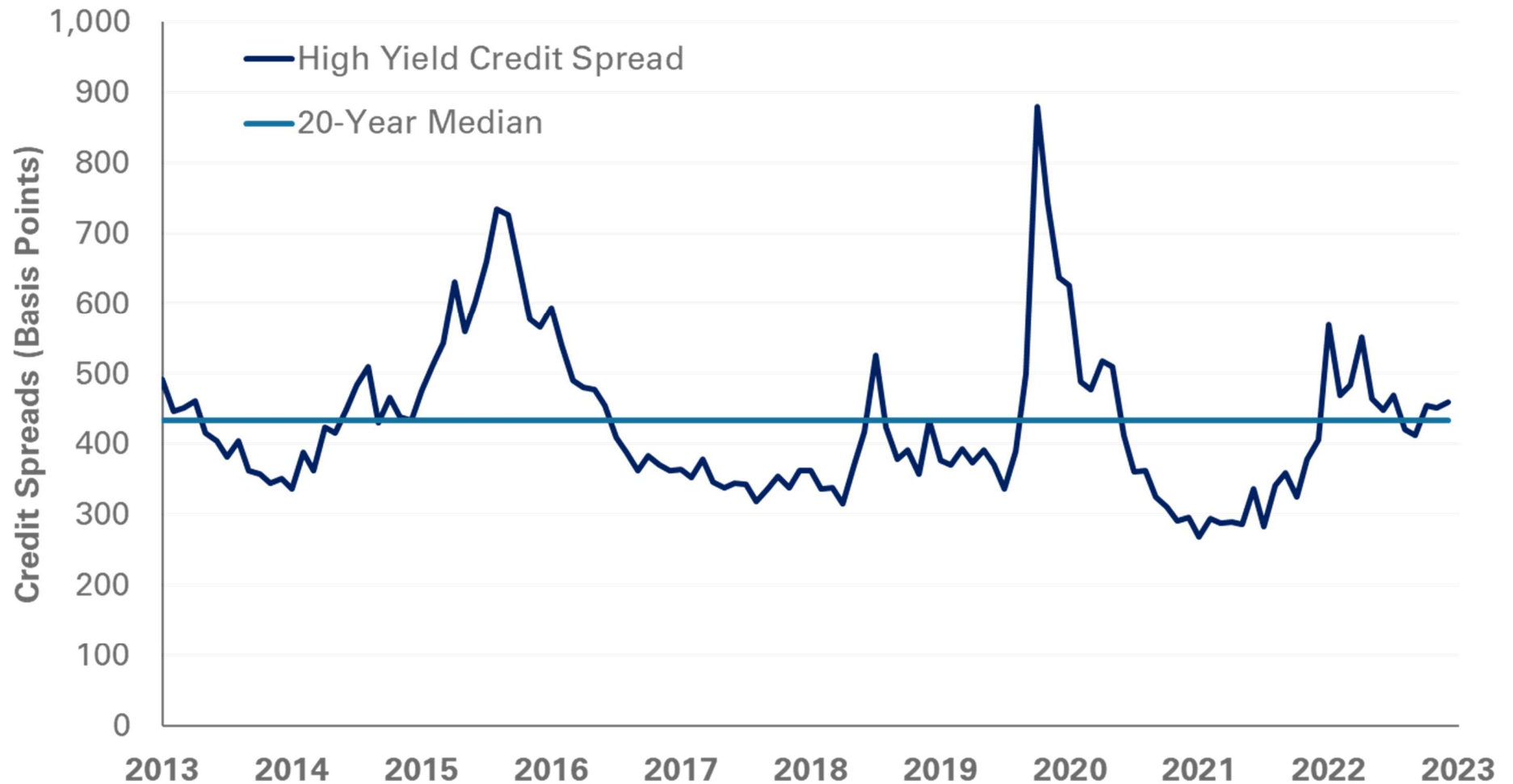
PERCENTAGE OF STOCKS OUTPERFORMING THE S&P 500



Sources: S&P, FactSet

HIGH YIELD SPREADS ARE NEAR FAIR VALUE

U.S. HIGH YIELD CREDIT SPREADS AND 20-YEAR MEDIAN SPREAD

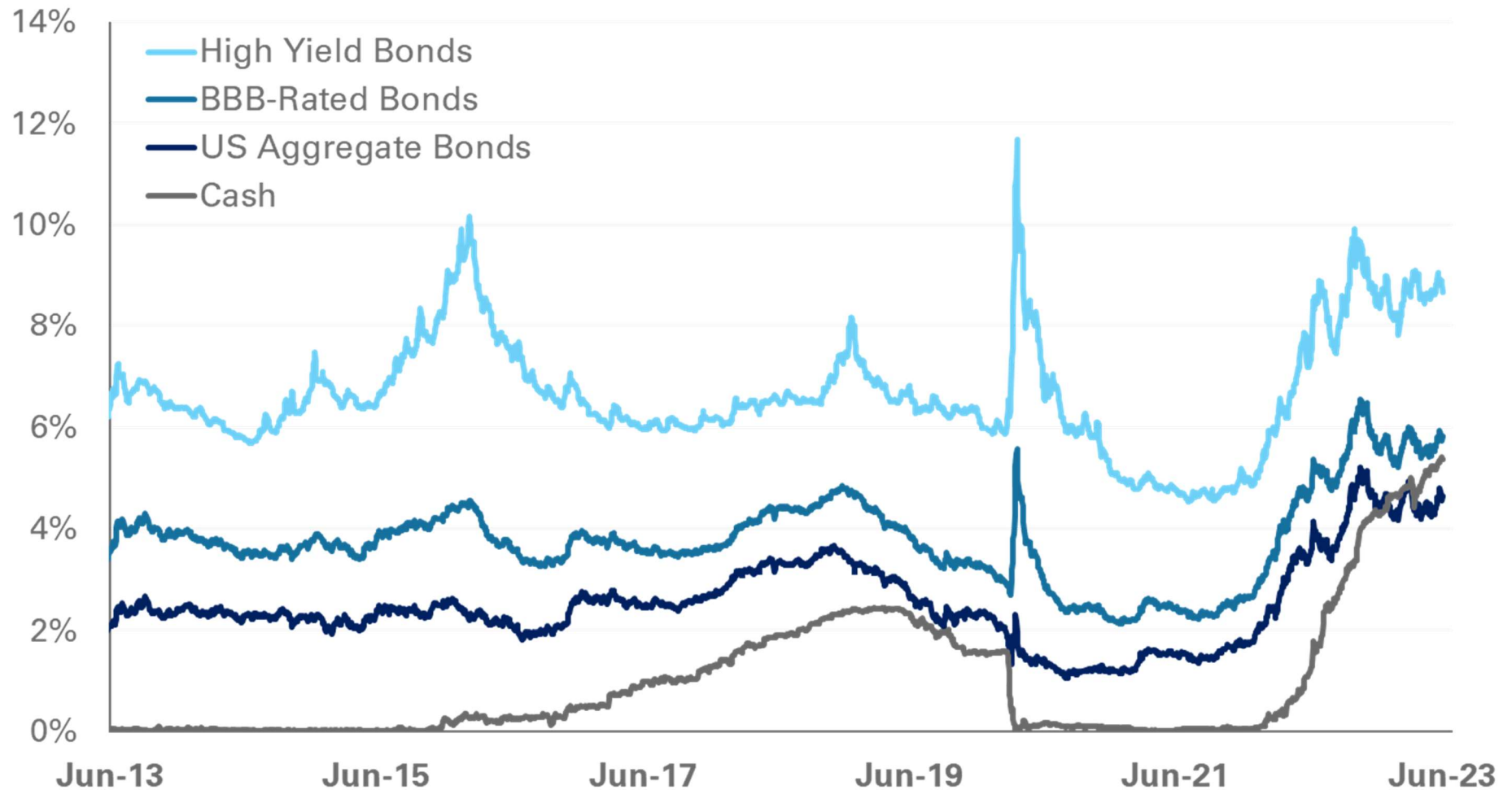


Sources: Bloomberg, FactSet



U.S. HIGH YIELD OFFERS A CARRY BENEFIT

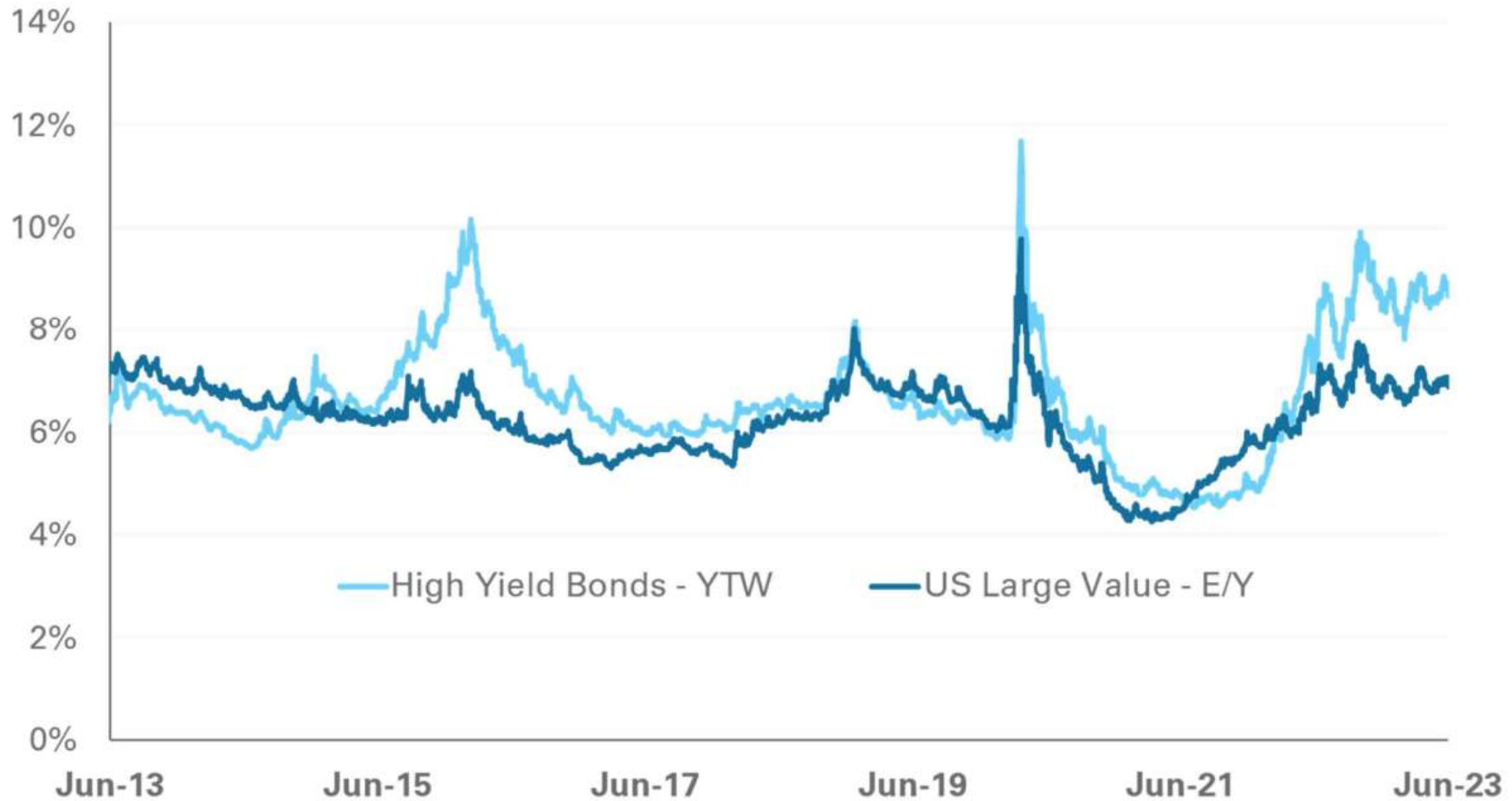
CURRENT YIELD FOR MAJOR BOND MARKET SEGMENTS



Sources: Bloomberg, FactSet

VALUE AND U.S. HIGH YIELD APPEAR ATTRACTIVE

U.S. LARGE VALUE EARNINGS YIELD AND HIGH YIELD BONDS



Source: Russell, MSCI, FactSet

CURRENT OPPORTUNITY RECOMMENDATION

- **Based upon the analysis presented, we recommend the Board of Regents:**
 - Trim 3% of the portfolio from the Vanguard Total Stock Market Index
 - Initiate a position in the Barings US High Yield strategy

- **This recommendation:**
 - Trims EMU's exposure to large cap US equity where valuations are expensive compared to historical averages
 - Current yields in the US high yield bond marketplace are north of 7%
 - This recommendation trims the portfolio's equity risk in favor of an asset class with lower historical volatility

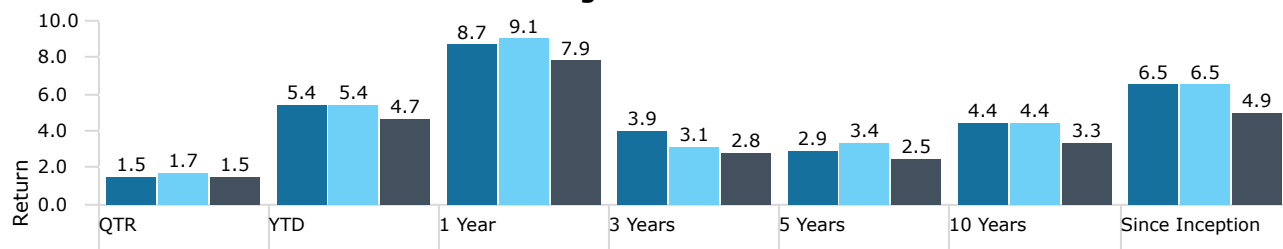
Barings U.S. High Yield

Investment Strategy

The investment seeks to achieve a high level of total return, with an emphasis on current income, by investing primarily in high yield debt and related securities. The fund invests primarily in lower rated U.S. debt securities, including securities in default. It invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in lower rated fixed income securities (rated below Baa3 by Moody's, below BBB- by Standard & Poor's or the equivalent by any NRSRO (using the lower rating) or, if unrated, determined to be of below investment grade quality by the fund's sub-adviser.

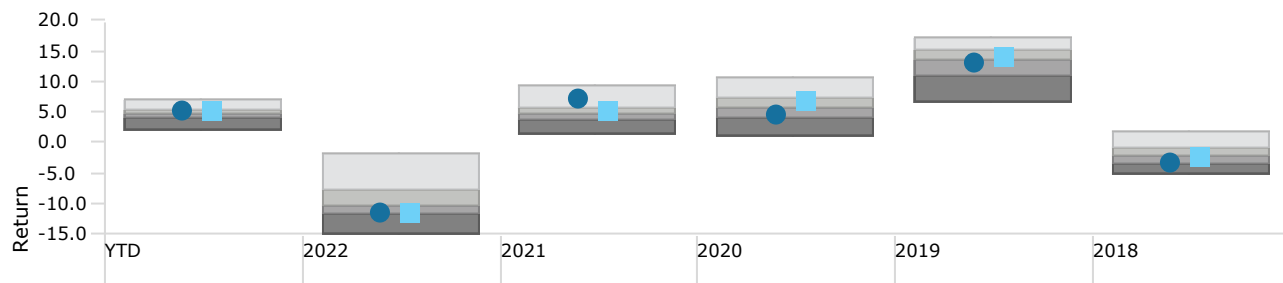
● Barings U.S. High Yield ■ Bloomberg US Corporate High Yield TR USD ▲ US Fund High Yield Bond

Trailing Period Returns



Performance Relative to Peer Group

Peer Group (5-95%): High Yield Bond (U.S.)



Quarterly Returns

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Year
2023	3.87	1.46			5.38
2022	-3.45	-10.82	-0.75	3.95	-11.18
2021	1.81	3.34	1.08	0.90	7.29
2020	-12.73	7.23	4.33	7.20	4.66
2019	6.97	2.25	1.65	1.93	13.32
2018	-0.88	1.00	2.42	-5.38	-2.98
2017	3.00	2.38	1.90	0.01	7.47
2016			5.07	2.31	14.86

Excess Returns

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Year
2023	0.30	-0.29			-
2022	1.38	-1.00	-0.11	-0.23	0.01
2021	0.96	0.59	0.19	0.18	2.02
2020	-0.04	-2.95	-0.26	0.75	-2.45
2019	-0.29	-0.25	0.31	-0.68	-1.00
2018	-0.02	-0.03	0.02	-0.84	-0.90
2017	0.30	0.20	-0.08	-0.46	-0.04
2016			-0.48	0.55	-2.26

Summary Statistics

Time Period: 7/1/2018 to 6/30/2023

	Strategy	Benchmark
Up Capture Ratio	96.25	100.00
Down Capture Ratio	99.59	100.00
Std Dev	9.22	9.30
Information Ratio	-0.28	-
Alpha	-0.39	0.00
Beta	0.98	1.00
R2	97.03	100.00
Tracking Error	1.60	0.00
Sharpe Ratio	0.18	0.22

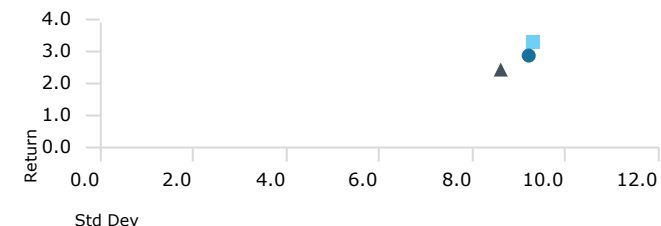
Drawdown Statistics

Time Period: Since Common Inception (10/1/2000) to 6/30/2023

	Strategy	Benchmark
Max Drawdown	-25.61	-33.31
Max Drawdown # of Months	18	18
Max Drawdown Peak Date	6/1/2007	6/1/2007
Max Drawdown Valley Date	11/30/2008	11/30/2008
Recovery # of Months	13	9

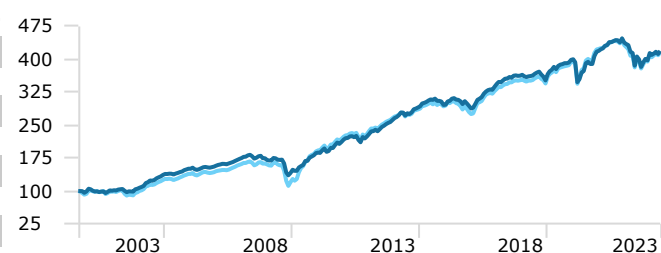
Risk-Reward

Time Period: 7/1/2018 to 6/30/2023



	Strategy	Benchmark
M-Squared (Risk Adjusted Return)	3.32%	3.74%

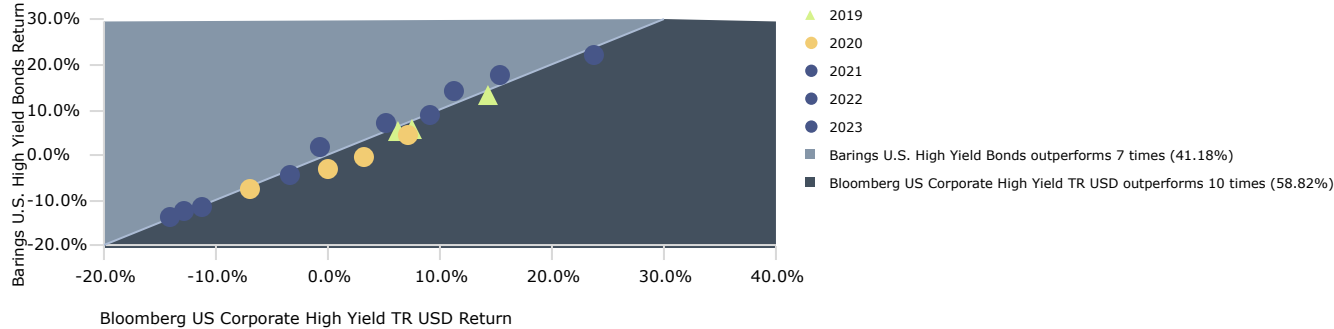
Investment Growth



Barings U.S. High Yield Bonds

Over/Under Benchmark Performance

Rolling Window: 1 Year 3 Months shift

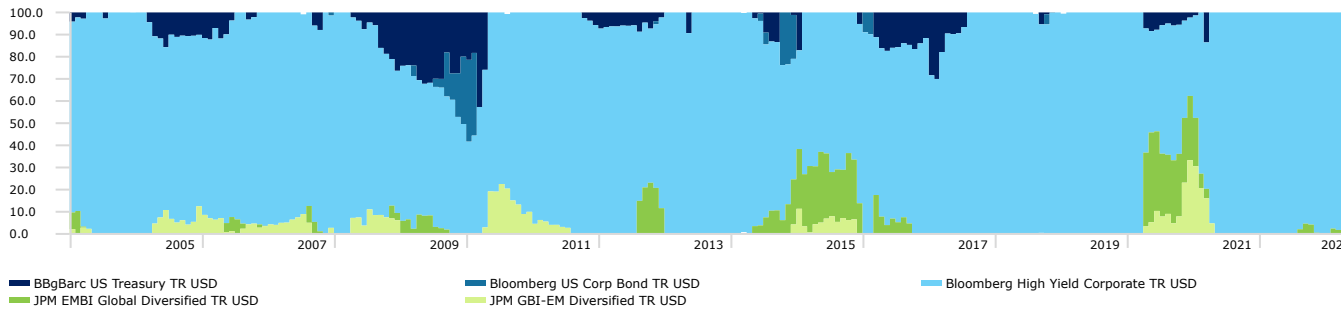


Characteristics

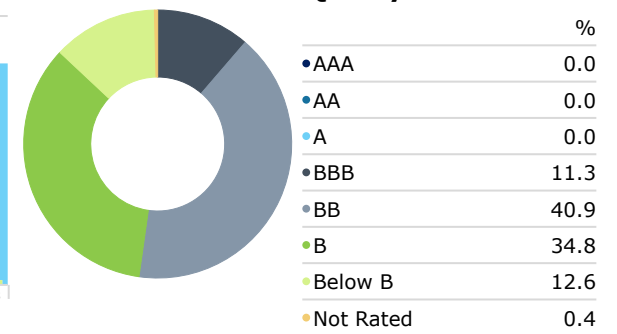
Yield	7.64
Duration	3.75
Average Credit Quality	B

Factor Analysis (Sectors)

Time Period: Since Common Inception (10/1/2000) to 6/30/2023

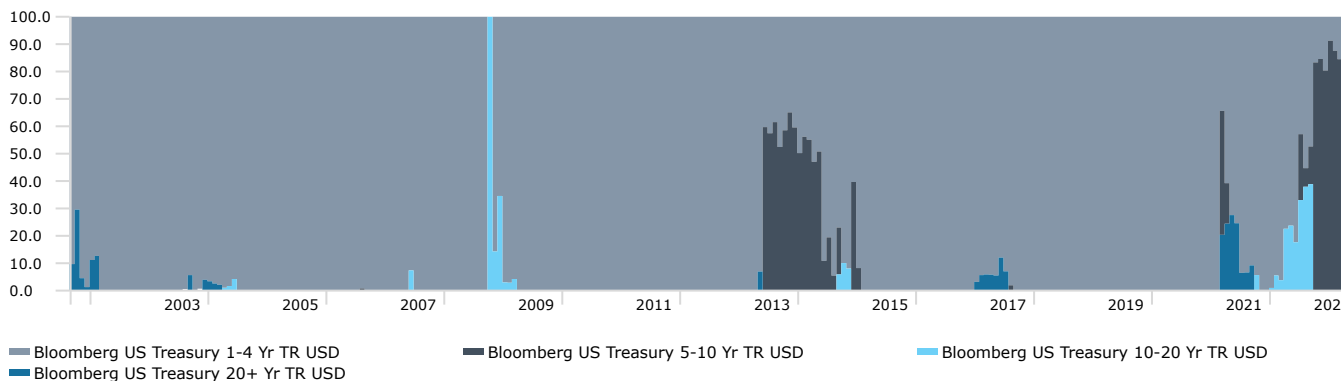


Credit Quality

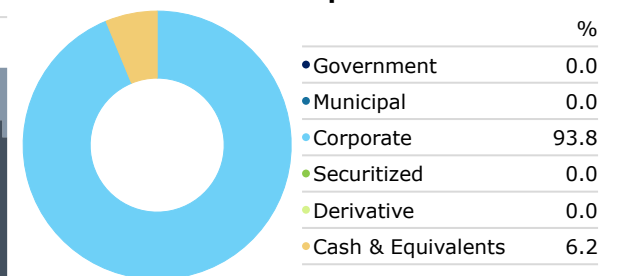


Factor Analysis (US Rates)

Time Period: Since Common Inception (10/1/2000) to 6/30/2023



Sector Exposure





APPENDIX



DUE DILIGENCE MONITOR

NEPC Due Diligence Status Key

No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.

NEPC Due Diligence Rating Key

1	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
2	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
3	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
4	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
5	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
NR	Due diligence has not been sufficiently completed on the product or manager.

DISCLAIMERS

Past performance is no guarantee of future results.

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