



INVESTMENT PERFORMANCE SUMMARY

OFFICE OF THE STATE TREASURER &
CASH MANAGEMENT POLICY BOARD

SEPTEMBER 30, 2022

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PROPRIETARY & CONFIDENTIAL



EXECUTIVE SUMMARY

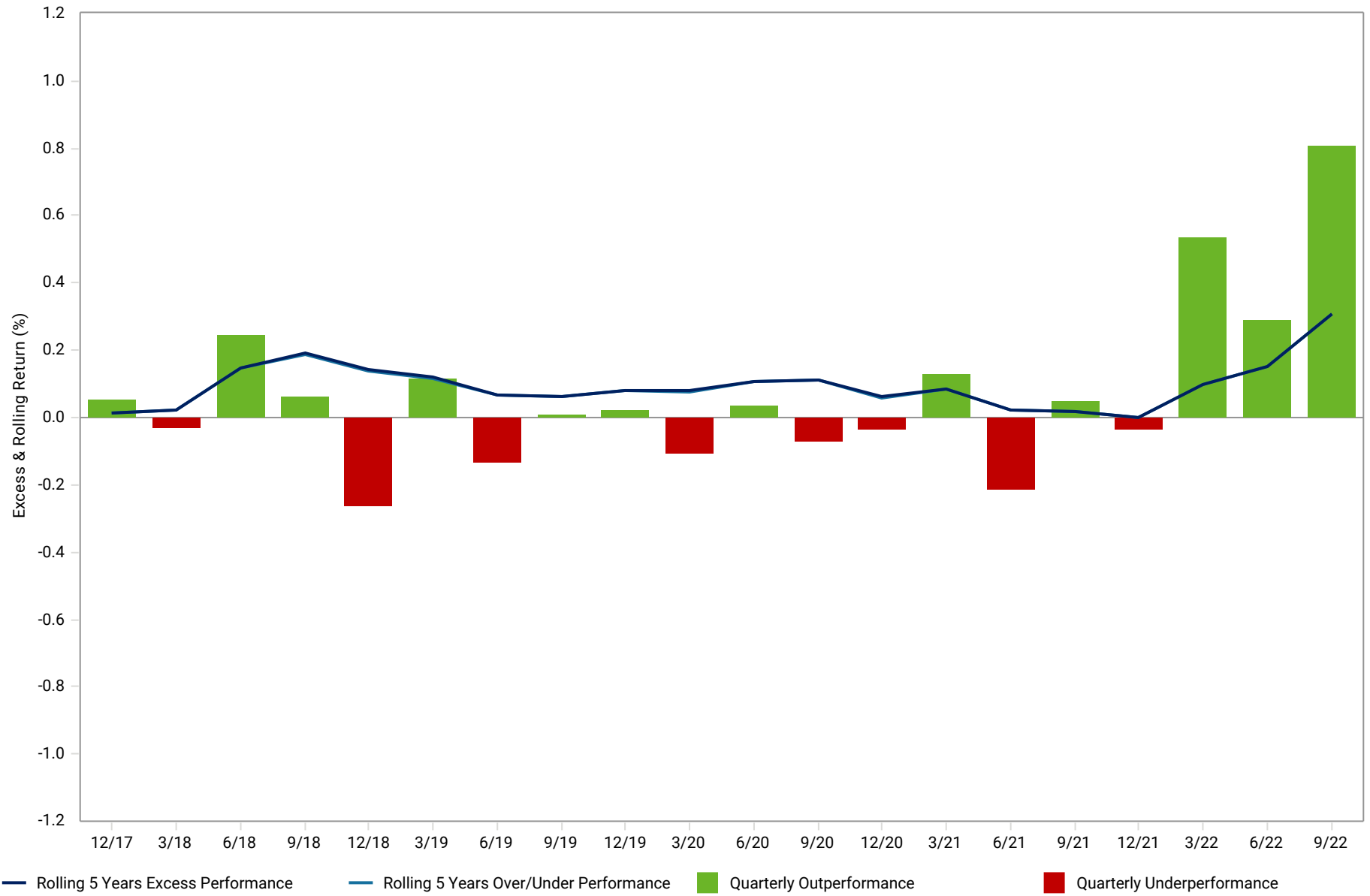


PROPRIETARY & CONFIDENTIAL

TOTAL FUND PERFORMANCE SUMMARY

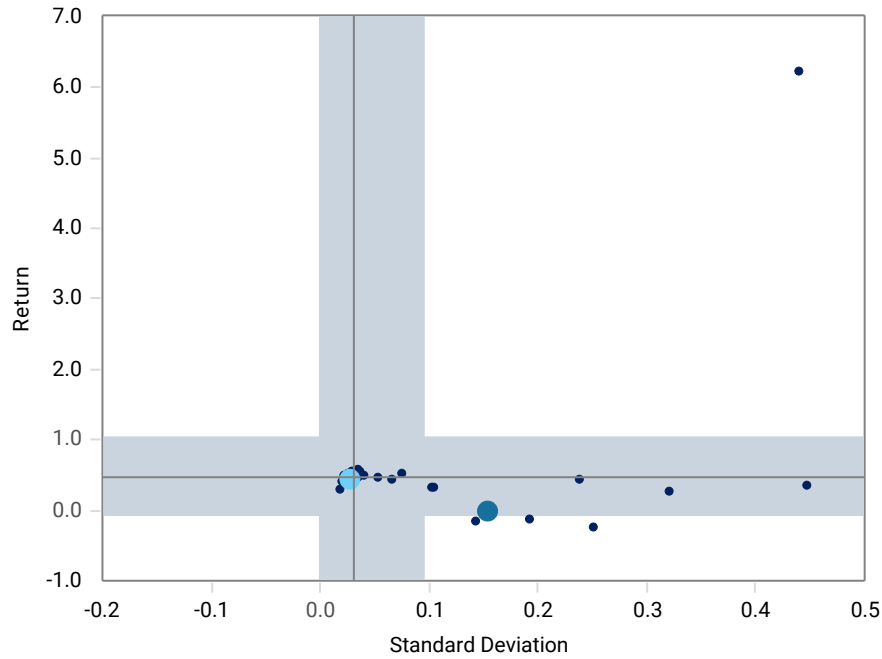
	Market Value (\$)	Performance (%)							
		3 Mo (%)	YTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Delaware Total Consolidation	5,617,189,830	-0.8	-3.6	-0.8	-3.9	0.2	1.5	1.8	Jan-05
Delaware Total Consolidation ex. CARES & ARPA	4,878,342,344	-0.9	-4.2	-0.9	-4.4	0.1	1.4	1.8	Jan-05
Total Liquidity & Reserve	4,795,832,434	-0.8	-3.8	-0.8	-4.1	0.1	1.4	1.4	Dec-16
Total Liquidity	3,259,027,778	0.0	-1.1	0.0	-1.3	0.3	1.1	1.6	Jan-05
<i>eV US Cash Management Median</i>		<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>1.1</i>	<i>1.3</i>	
Total Reserve	1,536,804,656	-2.7	-8.4	-2.7	-8.8	-1.4	0.8	1.9	Jan-05
<i>Reserve Custom Index</i>		<i>-3.5</i>	<i>-9.9</i>	<i>-3.5</i>	<i>-10.3</i>	<i>-1.9</i>	<i>0.5</i>	<i>1.9</i>	
<i>eV US Interm Duration Fixed Inc Median</i>		<i>-3.0</i>	<i>-10.0</i>	<i>-3.0</i>	<i>-10.5</i>	<i>-1.6</i>	<i>0.4</i>	<i>2.9</i>	
Total Endowment	82,509,910	-5.9	-22.0	-5.9	-18.7	0.0	1.8	3.2	Aug-15
<i>Endowment Custom Index</i>		<i>-5.6</i>	<i>-21.1</i>	<i>-5.6</i>	<i>-17.4</i>	<i>1.7</i>	<i>3.4</i>	<i>4.2</i>	
<i>eV Global Balanced Median</i>		<i>-6.2</i>	<i>-19.9</i>	<i>-6.2</i>	<i>-16.2</i>	<i>1.8</i>	<i>2.3</i>	<i>3.2</i>	
CARES	20,972,465	0.4	0.6	0.4	0.6	-	-	0.3	Apr-20
<i>FTSE 1 Month T-Bill</i>		<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>0.6</i>	<i>-</i>	<i>-</i>	<i>0.3</i>	
<i>eV US Cash Management Median</i>		<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>0.6</i>	<i>-</i>	<i>-</i>	<i>0.3</i>	
ARPA	717,875,021	0.2	-0.8	0.2	-1.0	-	-	-0.7	May-21
<i>FTSE 1 Month T-Bill</i>		<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>0.6</i>	<i>-</i>	<i>-</i>	<i>0.4</i>	
<i>eV US Cash Management Median</i>		<i>0.5</i>	<i>0.6</i>	<i>0.5</i>	<i>0.6</i>	<i>-</i>	<i>-</i>	<i>0.4</i>	

TOTAL RESERVE VS. RESERVE CUSTOM INDEX



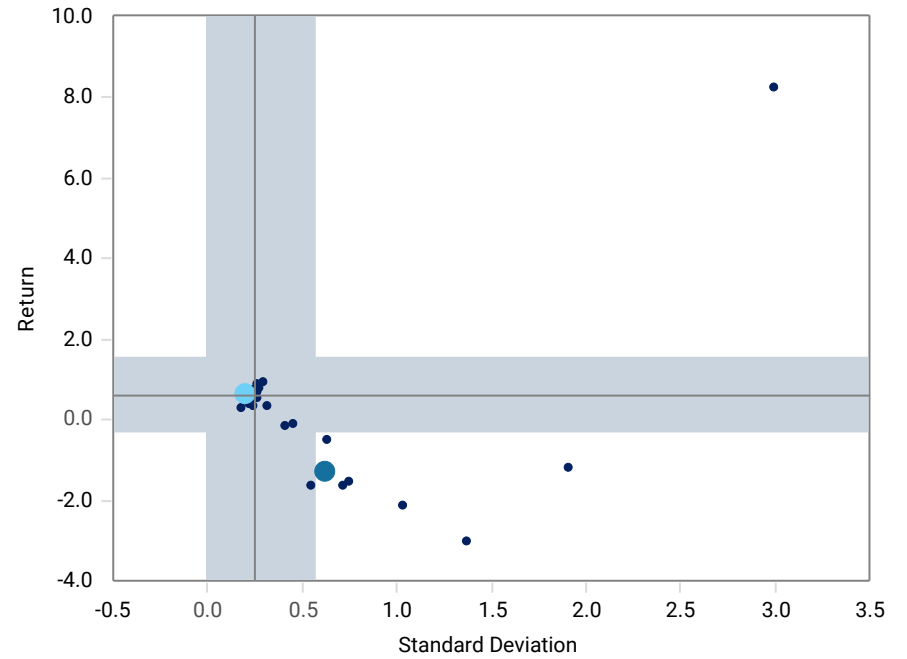
LIQUIDITY RISK/RETURN - 3 MONTHS & 1 YEAR

0.25 Year Ending September 30, 2022



- eV US Cash Management
- Total Liquidity
- FTSE 6 Month Tbill

1 Year Ending September 30, 2022



- eV US Cash Management
- Total Liquidity
- FTSE 6 Month Tbill

3 months Ending September 30, 2022

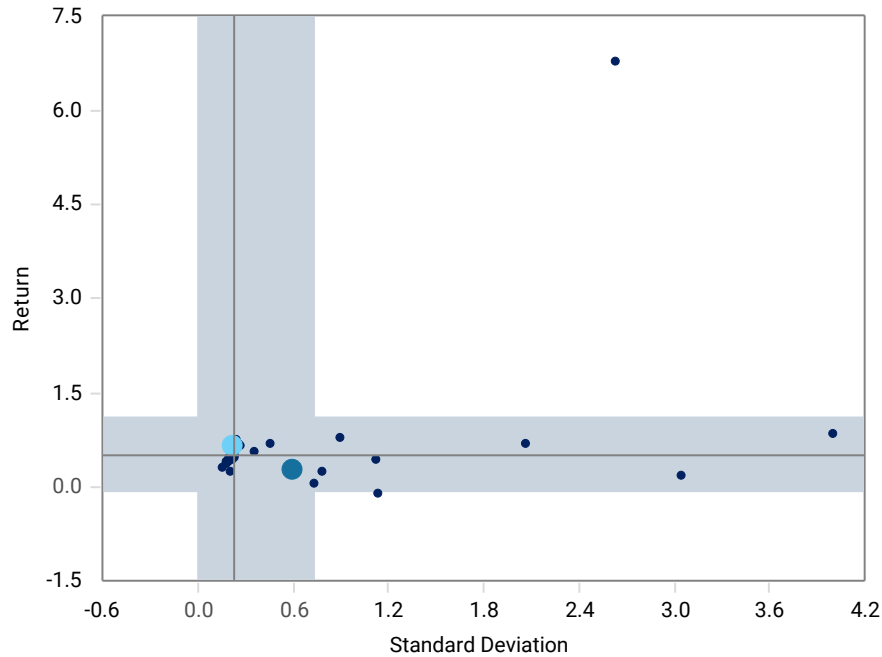
	Return	Standard Deviation	Sharpe Ratio
Total Liquidity	0.0	0.2	-0.7
FTSE 6 Month Tbill	0.4	0.0	-0.2

1 Year Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Liquidity	-1.3	0.6	-3.0
FTSE 6 Month Tbill	0.7	0.2	0.3

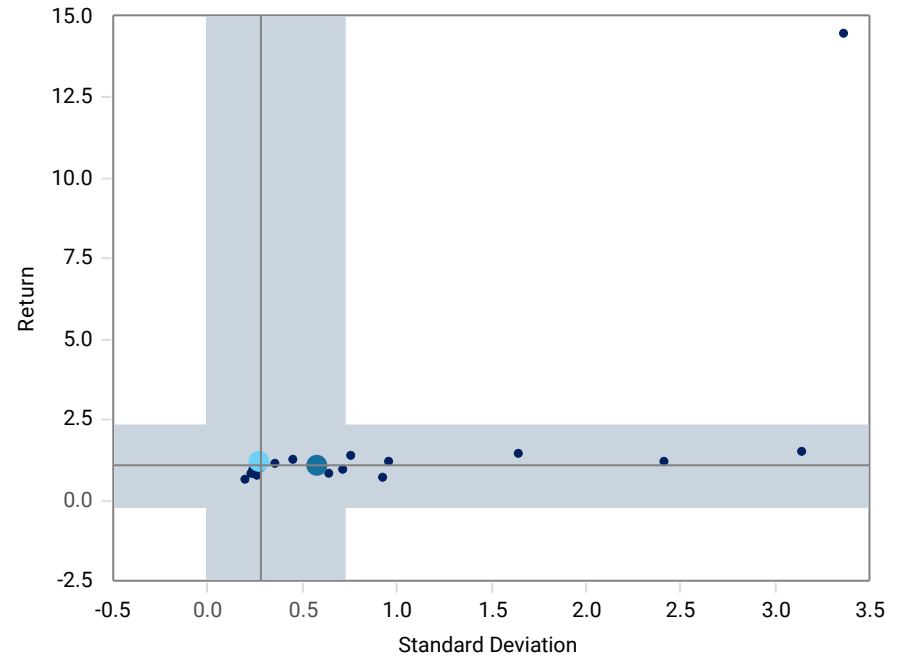
LIQUIDITY RISK/RETURN - 3 & 5 YEARS

3 Years Ending September 30, 2022



- eV US Cash Management
- Total Liquidity
- FTSE 6 Month Tbill

5 Years Ending September 30, 2022



- eV US Cash Management
- Total Liquidity
- FTSE 6 Month Tbill

3 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Liquidity	0.3	0.6	-0.5
FTSE 6 Month Tbill	0.7	0.2	0.5

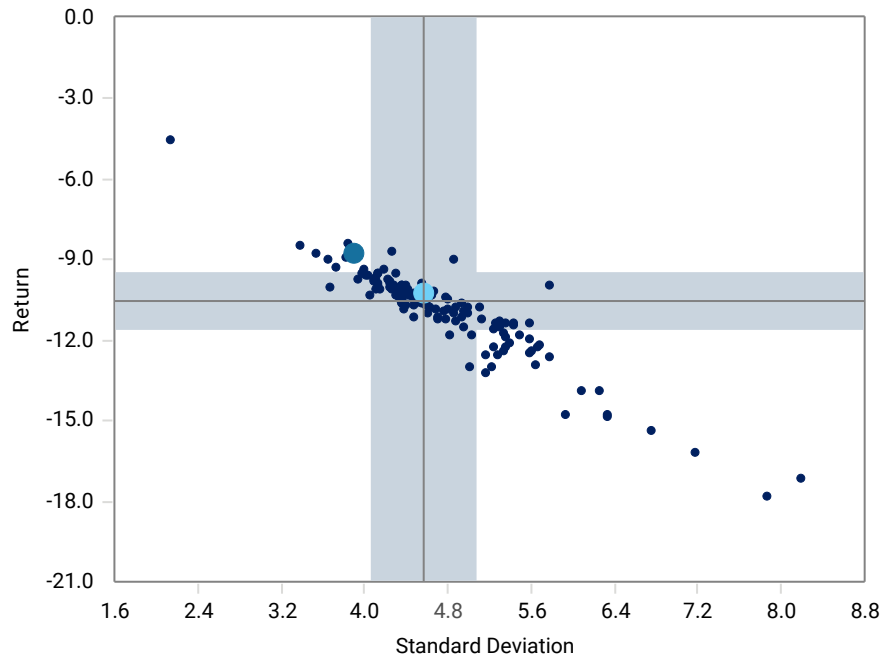
5 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Liquidity	1.1	0.6	-0.2
FTSE 6 Month Tbill	1.2	0.3	0.6



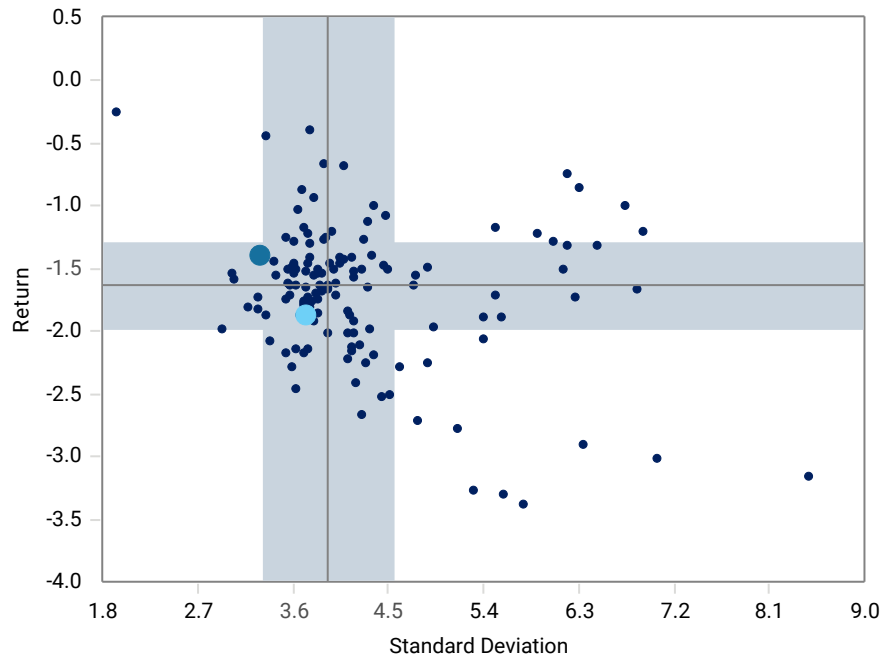
RESERVE RISK/RETURN - 1 & 3 YEARS

1 Year Ending September 30, 2022



- eV US Interm Duration Fixed Inc
- Total Reserve
- Reserve Custom Index

3 Years Ending September 30, 2022



- eV US Interm Duration Fixed Inc
- Total Reserve
- Reserve Custom Index

1 Years Ending September 30, 2022

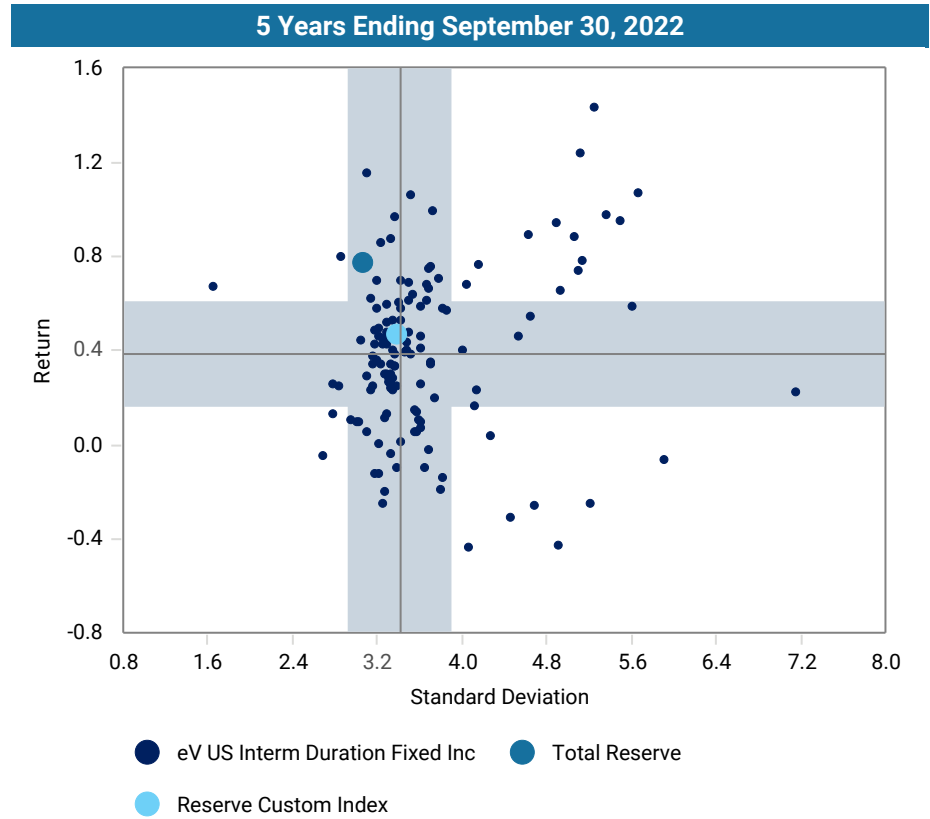
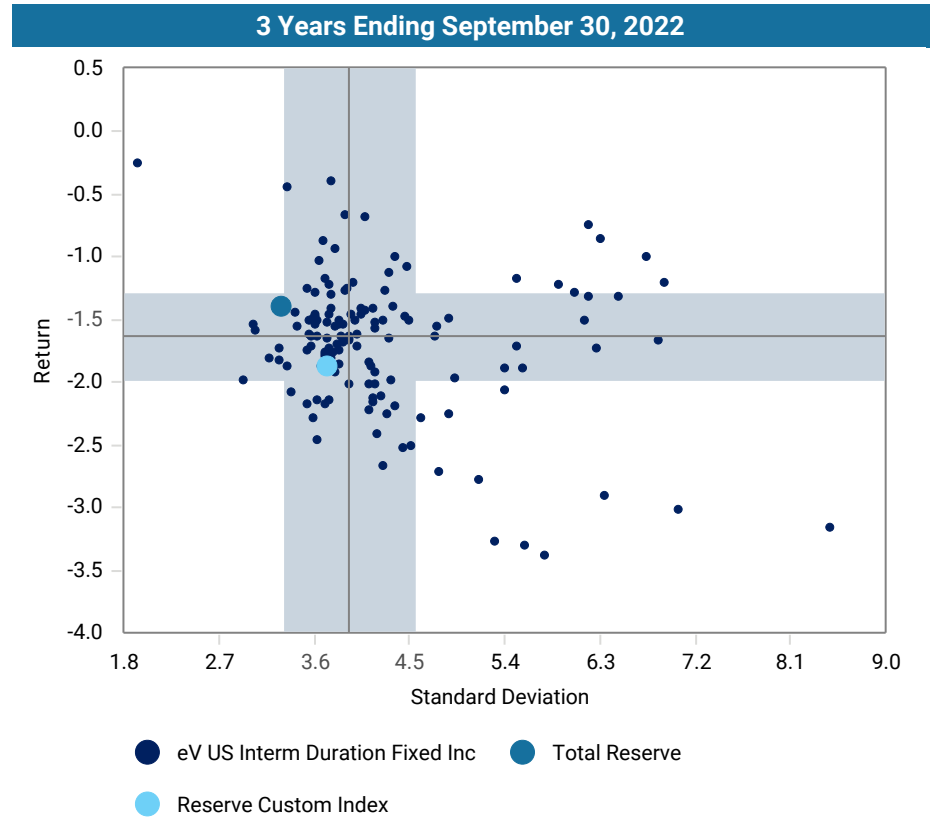
	Return	Standard Deviation	Sharpe Ratio
Total Reserve	-8.8	3.9	-2.4
Reserve Custom Index	-10.3	4.6	-2.4

3 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Reserve	-1.4	3.3	-0.6
Reserve Custom Index	-1.9	3.7	-0.6



RESERVE RISK/RETURN - 3 & 5 YEARS



3 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Reserve	-1.4	3.3	-0.6
Reserve Custom Index	-1.9	3.7	-0.6

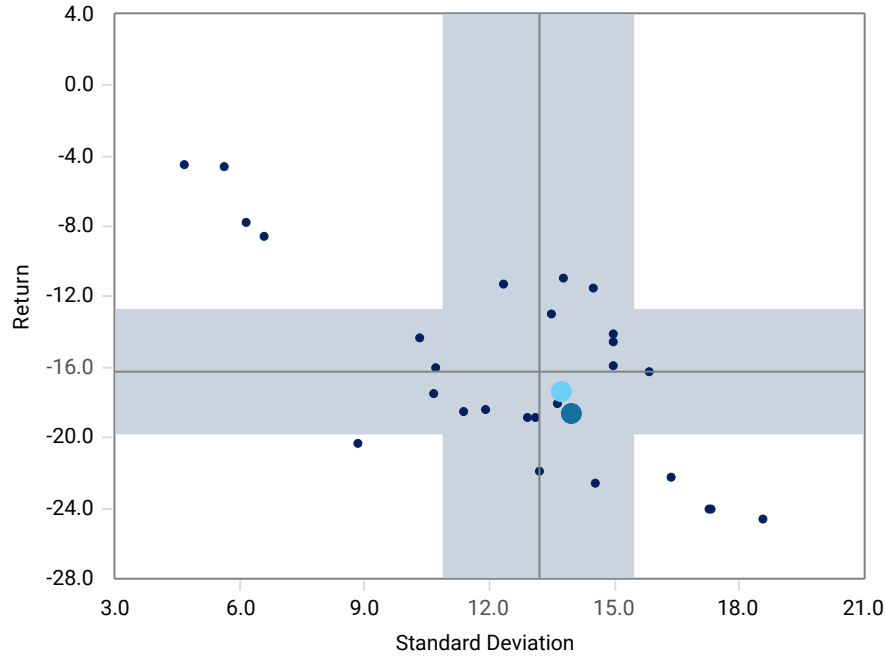
5 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Reserve	0.8	3.1	-0.1
Reserve Custom Index	0.5	3.4	-0.2



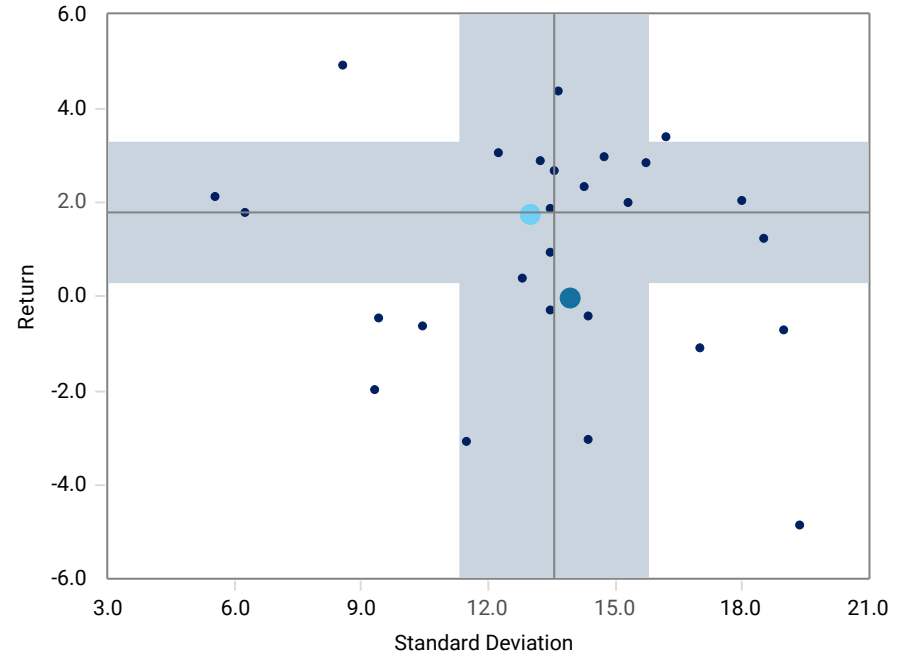
ENDOWMENT RISK/RETURN - 1 & 3 YEARS

1 Year Ending September 30, 2022



- eV Global Balanced
- Total Endowment
- Endowment Custom Index

3 Years Ending September 30, 2022



- eV Global Balanced
- Total Endowment
- Endowment Custom Index

1 Years Ending September 30, 2022

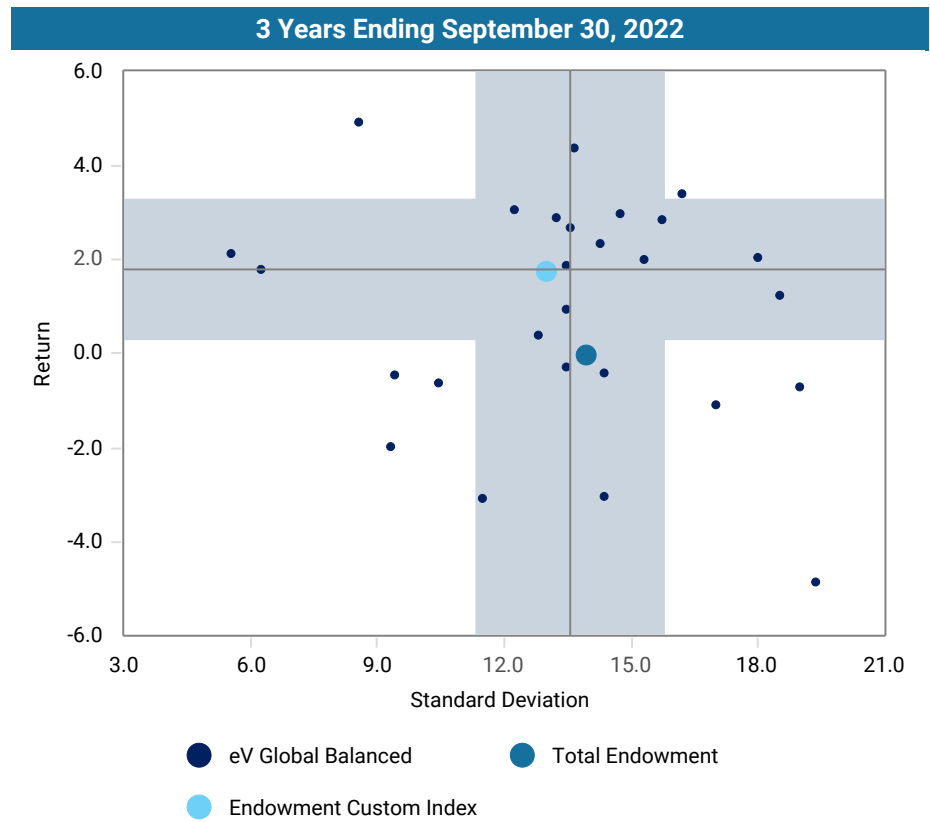
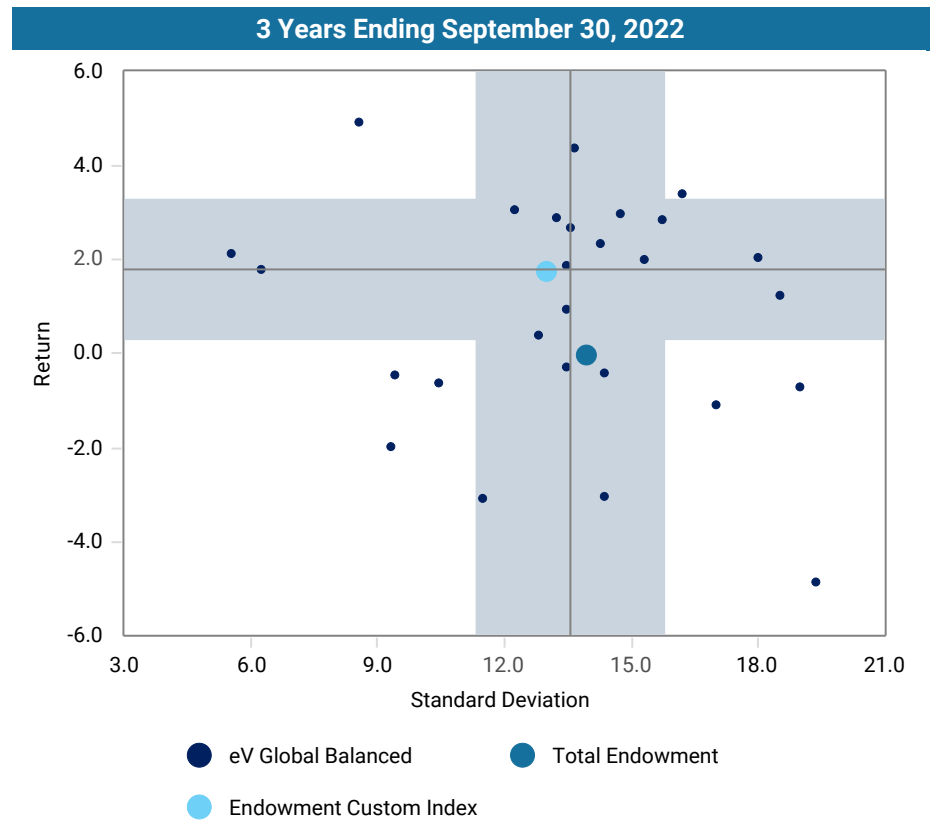
	Return	Standard Deviation	Sharpe Ratio
Total Endowment	0.0	13.9	0.0
Endowment Custom Index	1.7	13.0	0.2

3 Years Ending September 30, 2022

	Return	Standard Deviation	Sharpe Ratio
Total Endowment	0.0	13.9	0.0
Endowment Custom Index	1.7	13.0	0.2



ENDOWMENT RISK/RETURN - 3 & 5 YEARS



3 Years Ending September 30, 2022

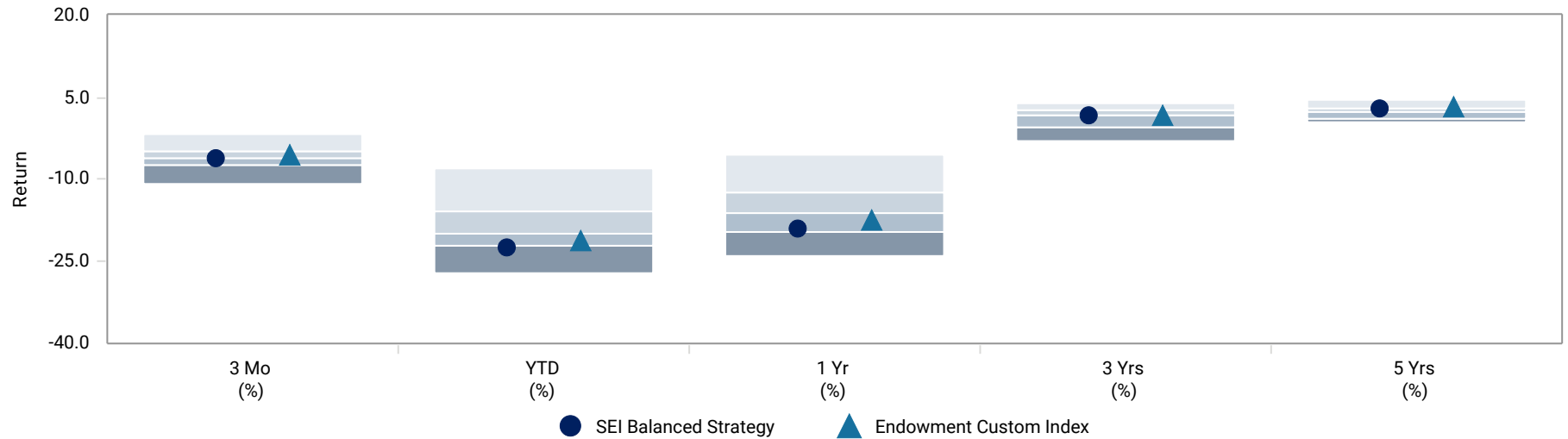
	Return	Standard Deviation	Sharpe Ratio
Total Endowment	0.0	13.9	0.0
Endowment Custom Index	1.7	13.0	0.2

5 Years Ending September 30, 2022

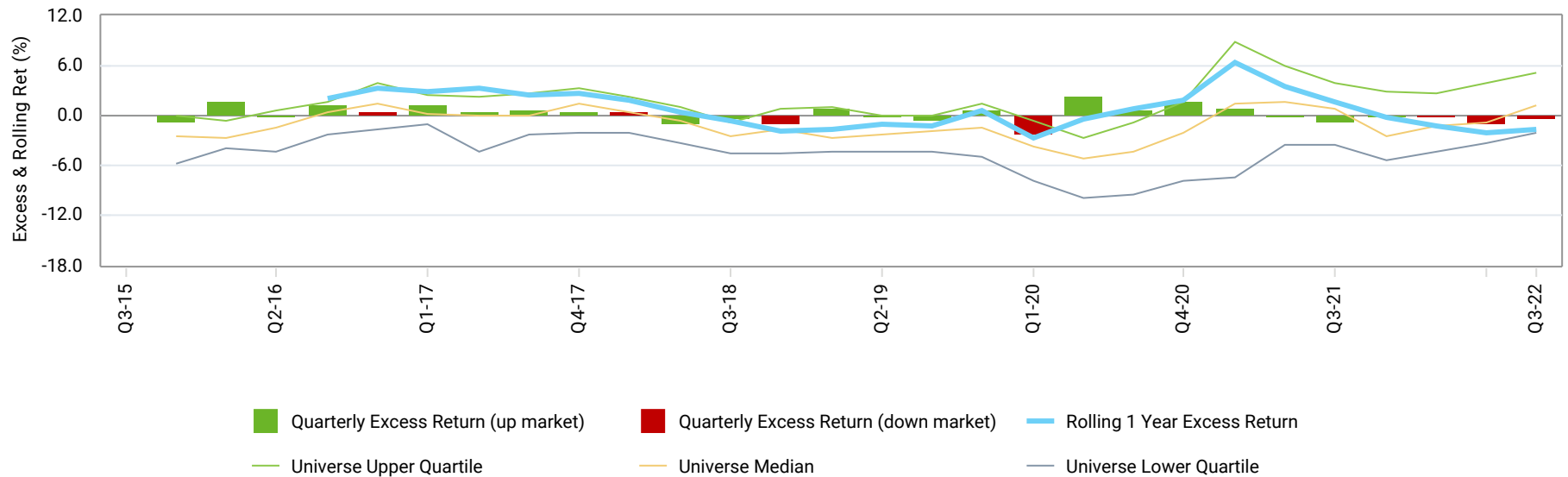
	Return	Standard Deviation	Sharpe Ratio
Total Endowment	1.8	12.1	0.1
Endowment Custom Index	3.4	11.2	0.2

SEI BALANCED STRATEGY

eV Global Balanced (net of fees)

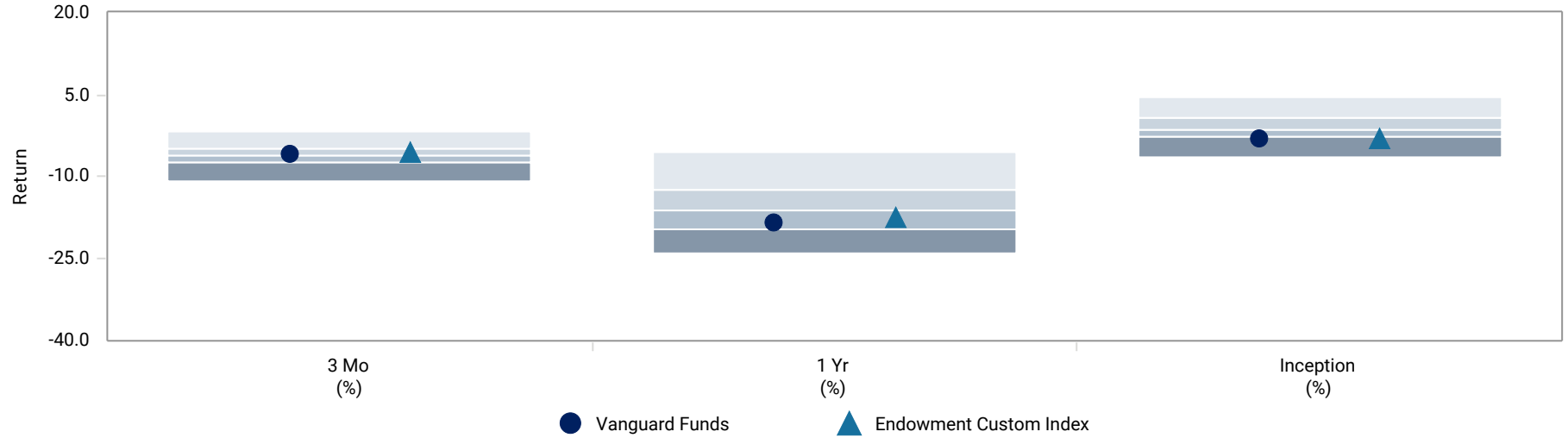


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022

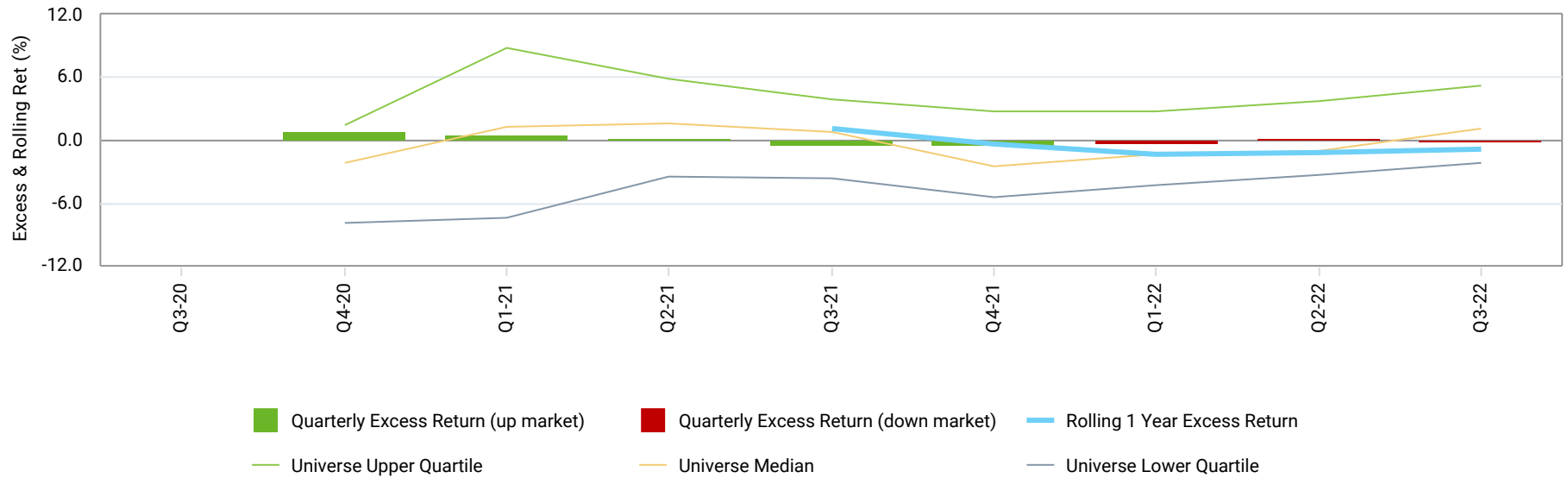


Delaware State Treasury
VANGUARD FUNDS

eV Global Balanced (net of fees)



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022



PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Delaware Total Consolidation	5,617,189,830	100.0	-0.8	-0.8	-3.6	-3.9	0.2	1.5	1.8	Jan-05
Delaware Total Consolidation ex. CARES & ARPA	4,878,342,344	86.8	-0.9	-0.9	-4.2	-4.4	0.1	1.4	1.8	Jan-05
Total Liquidity & Reserve	4,795,832,434	85.4	-0.8	-0.8	-3.8	-4.1	0.1	1.4	1.4	Dec-16
Total Liquidity	3,259,027,778	58.0	0.0	0.0	-1.1	-1.3	0.3	1.1	1.6	Jan-05
<i>eV US Cash Management Median</i>			0.5	0.5	0.6	0.6	0.5	1.1	1.3	
PFM Asset Management	1,641,410,300	29.2	0.2	0.2	-0.3	-0.4	0.5	1.2	1.0	Jun-13
Wilmington Liquidity	1,617,617,478	28.8	-0.2	-0.2	-1.8	-2.1	0.0	0.9	3.8	Jan-85
Total Reserve	1,536,804,656	27.4	-2.7	-2.7	-8.4	-8.8	-1.4	0.8	1.9	Jan-05
<i>Reserve Custom Index</i>			-3.5	-3.5	-9.9	-10.3	-1.9	0.5	1.9	
<i>eV US Interm Duration Fixed Inc Median</i>			-3.0	-3.0	-10.0	-10.5	-1.6	0.4	2.9	
JPM Intermediate	535,810,985	9.5	-1.4	-1.4	-4.2	-4.6	-0.2	0.8	1.0	Jun-13
<i>J.P. Morgan Custom Index</i>			-1.6	-1.6	-4.4	-4.9	-0.4	0.7	0.8	
Blackrock Financial Mangement	419,527,020	7.5	-2.1	-2.1	-6.5	-7.2	-0.9	-	0.8	Mar-18
<i>Blackrock Custom Index</i>			-2.3	-2.3	-6.3	-7.0	-0.9	0.6	0.8	
Chandler Asset Management	293,927,872	5.2	-4.2	-4.2	-13.8	-14.0	-2.9	0.3	0.7	Jun-13
Lazard Financial Management	287,538,779	5.1	-4.6	-4.6	-13.3	-13.5	-3.1	-	0.5	Mar-18
<i>Chandler/Lazard Custom Index</i>			-5.1	-5.1	-14.3	-14.4	-3.1	0.3	0.5	
Total Endowment	82,509,910	1.5	-5.9	-5.9	-22.0	-18.7	0.0	1.8	3.2	Aug-15
<i>Endowment Custom Index</i>			-5.6	-5.6	-21.1	-17.4	1.7	3.4	4.2	
<i>eV Global Balanced Median</i>			-6.2	-6.2	-19.9	-16.2	1.8	2.3	3.2	
SEI Balanced Strategy	42,270,382	0.8	-6.0	-6.0	-22.5	-19.0	1.8	3.1	4.6	Aug-15
Vanguard Funds	40,239,444	0.7	-5.7	-5.7	-21.5	-18.3	-	-	-2.8	Sep-20
<i>eV Global Balanced Median</i>			-6.2	-6.2	-19.9	-16.2	1.8	2.3	-1.5	

PERFORMANCE DETAIL

	Allocation		Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
CARES	20,972,465	0.4	0.4	0.4	0.6	0.6	-	-	0.3	Apr-20
<i>FTSE 1 Month T-Bill</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.3	
<i>eV US Cash Management Median</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.3	
PFM CARES	8,985,659	0.2	0.4	0.4	0.5	0.5	-	-	0.2	Apr-20
PFM NCC CARES	1,515,206	0.0	0.4	0.4	0.5	0.5	-	-	0.3	Jan-21
Wilmington CARES	8,952,810	0.2	0.5	0.5	0.6	0.6	-	-	0.3	Apr-20
Wilmington NCC CARES	1,518,791	0.0	0.4	0.4	0.5	0.5	-	-	0.3	Jan-21
<i>FTSE 1 Month T-Bill</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
ARPA	717,875,021	12.8	0.2	0.2	-0.8	-1.0	-	-	-0.7	May-21
<i>FTSE 1 Month T-Bill</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
<i>eV US Cash Management Median</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
PFM ARPA	361,030,167	6.4	0.2	0.2	-0.4	-0.5	-	-	-0.3	May-21
<i>FTSE 1 Month T-Bill</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
<i>eV US Cash Management Median</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
Wilmington ARPA	356,844,854	6.4	0.1	0.1	-1.2	-1.5	-	-	-1.1	May-21
<i>FTSE 1 Month T-Bill</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	
<i>eV US Cash Management Median</i>			0.5	0.5	0.6	0.6	0.5	1.1	0.4	

PG 11. Notes: Net of Fees. Results for periods longer than one year are annualized.

Performance history through 12/2015 is from BNY Mellon. NEPC Performance start date is January 2016. Fiscal Year end is June 30.

Reserve Custom Index consists of 25% ICE BofAML 1-5 Yrs AAA-A US Corp & Govt TR / 25% ICE BofAML 1-3 Yrs AAA-A US Corp & Govt / 50% ICE BofA ML US Gov/Credit 5-10 Yrs A Rated and Above, as of 4/1/2018. Prior to this, the index comprised 75% ICE BofAML 1-5 Yrs AAA-A US Corp & Govt TR / 25% ICE BofAML 6 Months US T-Bills TR.

Endowment Custom Index consists of 60% MSCI World Index/40% Bloomberg US Aggregate.

BlackRock Custom Index consists of 100% ICE BofAML 1-5 Yrs AAA-A US Corp & Govt TR.

J.P. Morgan Custom Index consists of 100% ICE BofAML 1-3 Yrs AAA-A US Corp & Govt.

Chandler/Lazard Custom Index consists of ICE BofAML US Gov/Credit 5-10 Yrs A Rated and Above.

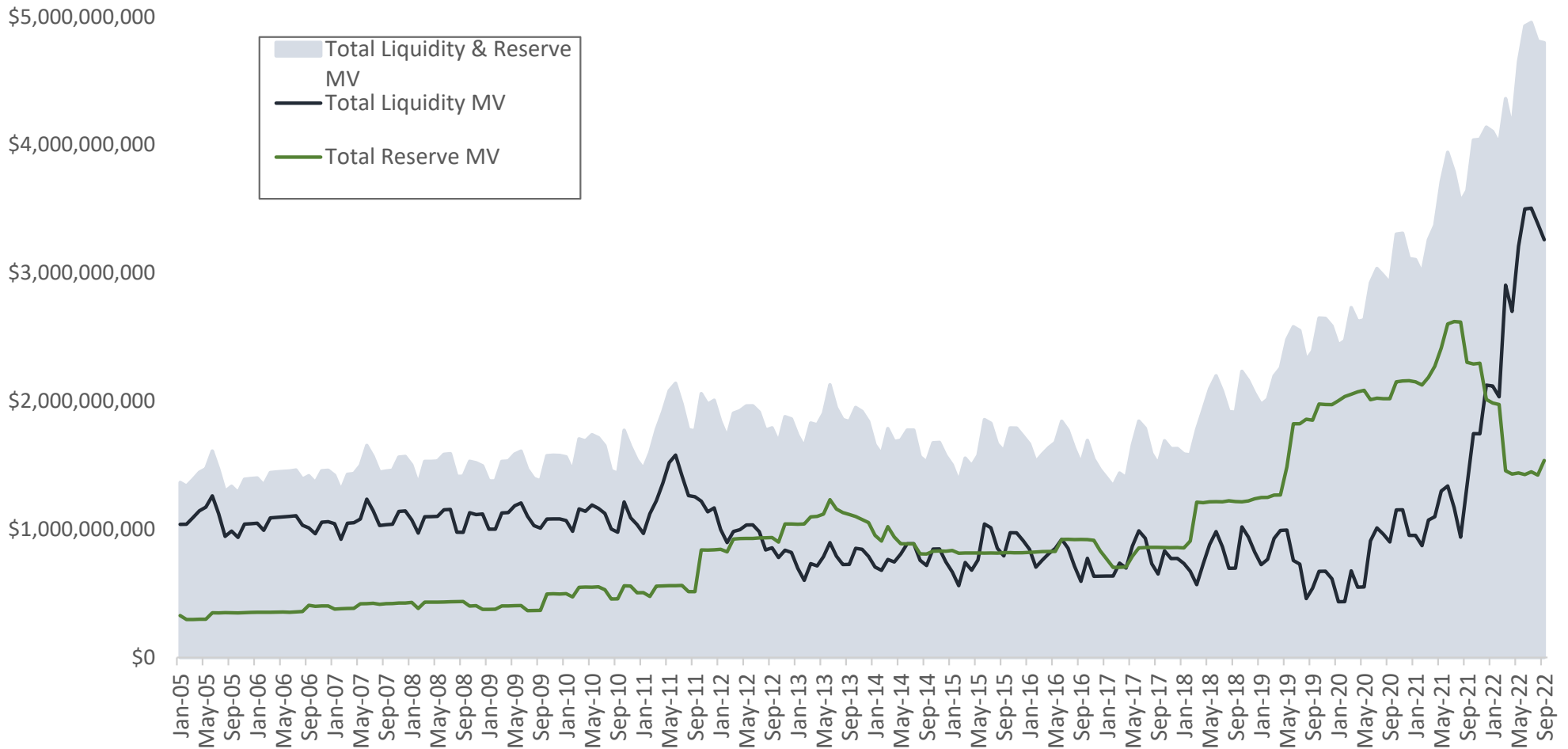
Notes for CARES: Net of Fees. Results for periods longer than one year are annualized.

Performance history through 12/2015 is from BNY Mellon. NEPC Performance start date is January 2016. Fiscal Year end is June 30.

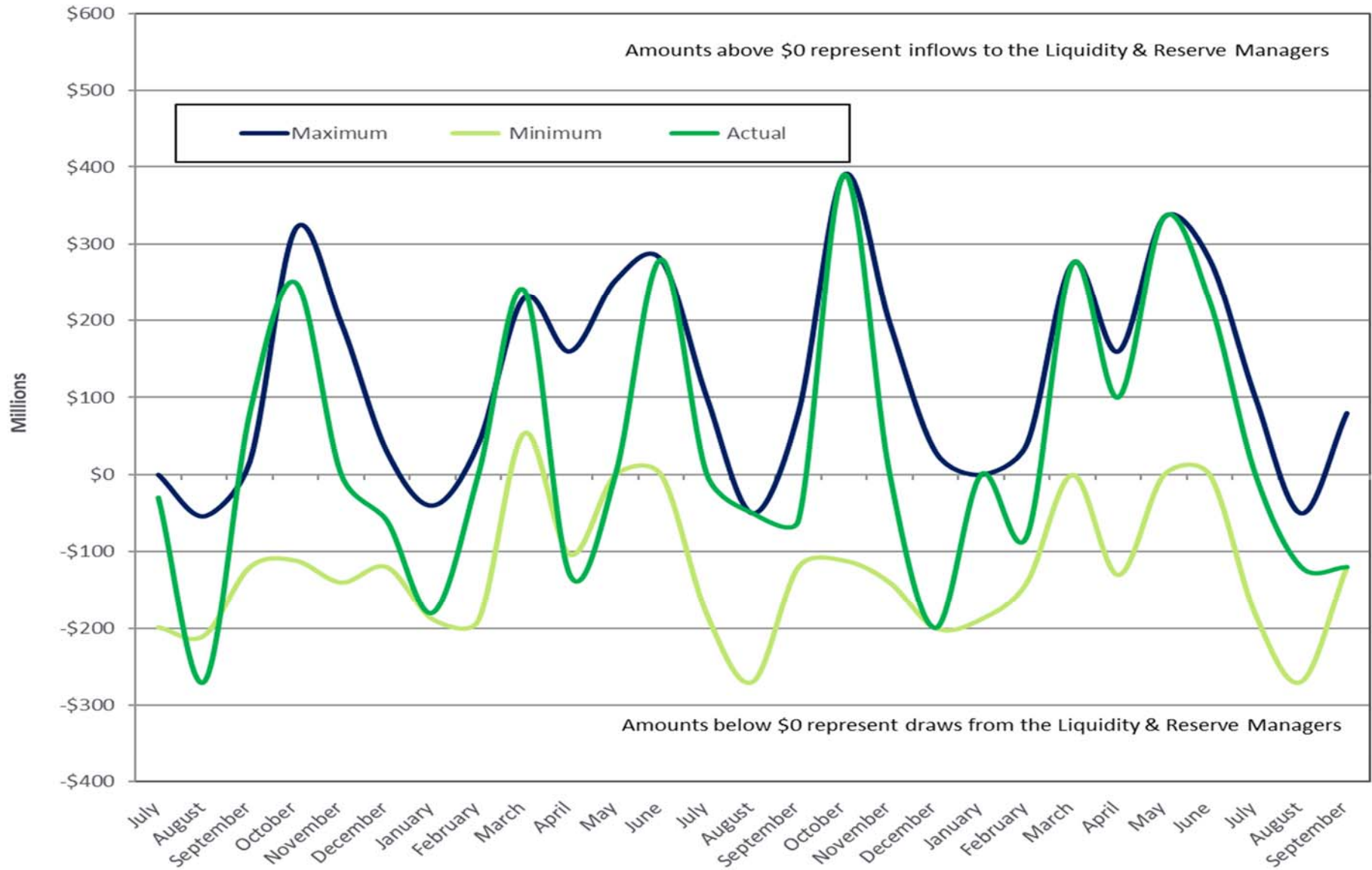
TOTAL LIQUIDITY AND RESERVE MARKET VALUES

ENDING SEPTEMBER 30, 2022

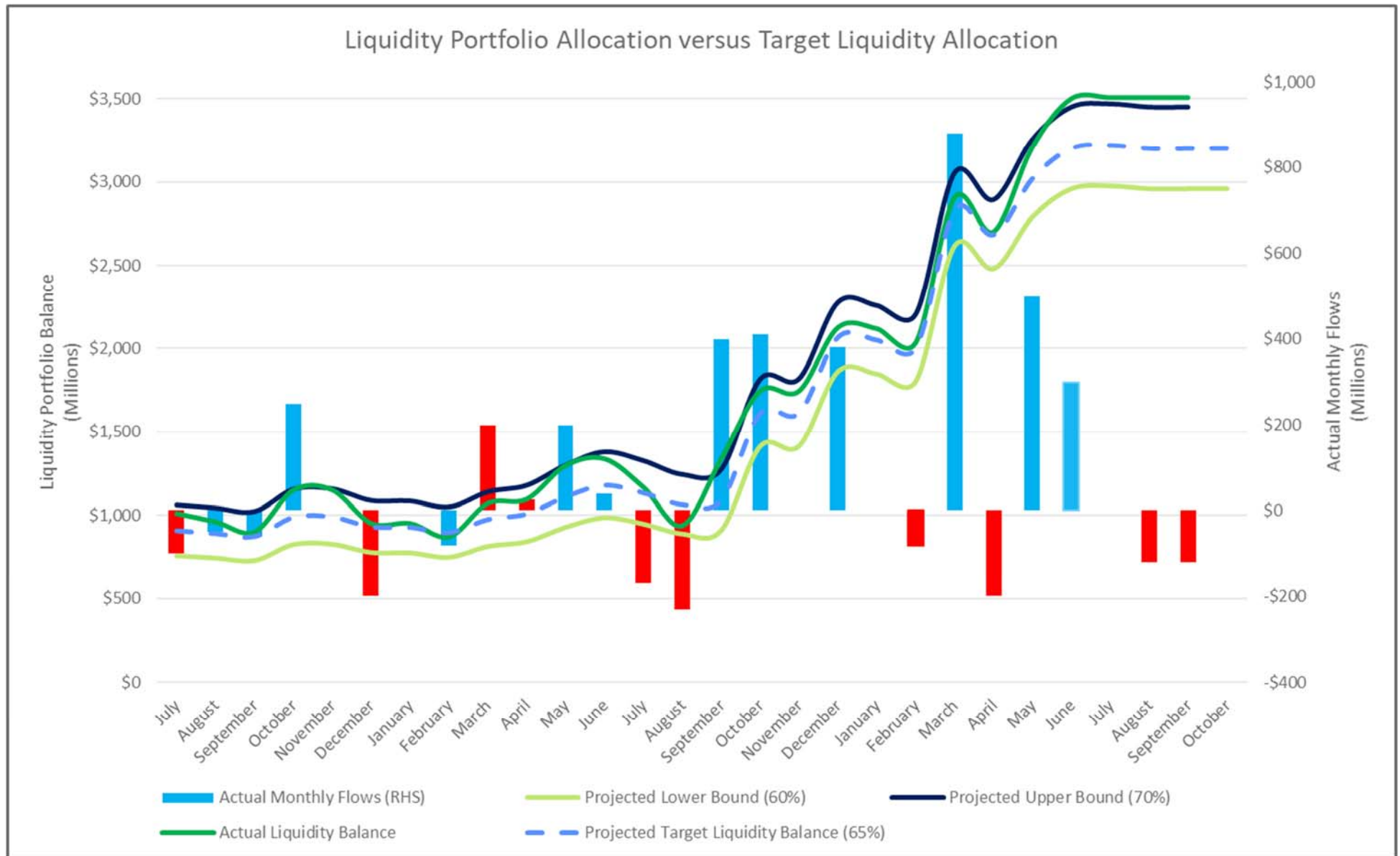
Market Value (\$)



LIQUIDITY & RESERVE CASH FLOWS



LIQUIDITY BALANCE



As of March 9, 2022, the target allocation between Liquidity and Reserve Portfolios was adjusted to 65%/35%. The previous target allocation was 50%/50%.



FISCAL YEAR TO DATE

	Change in Market Value Fiscal Year-to-Date Through Septmeber 30, 2022									Ending Market Value
	Beginning Market Value	Contributions	Withdrawals	Fees	Income	Unrealized Gain (Loss)	Realized Gain (Loss)	Amortization / Accretion		
Liquidity Managers										
PFM Asset Management	\$ 1,758,096,982	\$ -	\$ (120,000,000)	\$ (247,733)	\$ 6,869,583	\$ (4,104,740)	\$ (86,401)	\$ 882,611	\$ 1,641,410,300	
Wilmington Liquidity	\$ 1,740,698,726	\$ 8	\$ (120,000,000)	\$ (230,807)	\$ 4,519,525	\$ (8,725,971)	\$ (67,895)	\$ 1,423,894	\$ 1,617,617,478	
Total Liquidity Managers	\$ 3,498,795,708	\$ 8	\$ (240,000,000)	\$ (478,540)	\$ 11,389,108	\$ (12,830,711)	\$ (154,295)	\$ 2,306,505	\$ 3,259,027,778	
Reserve Managers										
BlackRock Financial Management	\$ 378,121,432	\$ 50,000,000	\$ -	\$ (69,180)	\$ 1,584,769	\$ (8,150,085)	\$ (2,022,285)	\$ 62,370	\$ 419,527,020	
Chandler Asset Management	\$ 255,893,933	\$ 50,000,000	\$ -	\$ (50,073)	\$ 1,588,578	\$ (13,151,370)	\$ (324,789)	\$ (28,409)	\$ 293,927,872	
JPM Intermediate	\$ 543,213,871	\$ -	\$ -	\$ (95,009)	\$ 2,567,228	\$ (6,821,739)	\$ (2,993,226)	\$ (60,141)	\$ 535,810,985	
Lazard Asset Management	\$ 250,262,091	\$ 50,000,000	\$ -	\$ (75,167)	\$ 1,716,633	\$ (13,676,890)	\$ (555,119)	\$ (132,770)	\$ 287,538,779	
Total Reserve Managers	\$ 1,427,491,327	\$ 150,000,000	\$ -	\$ (289,429)	\$ 7,457,208	\$ (41,800,083)	\$ (5,895,418)	\$ (158,949)	\$ 1,536,804,656	
Total Liquidity & Reserve Managers	\$ 4,926,287,035	\$ 150,000,008	\$ (240,000,000)	\$ (767,969)	\$ 18,846,316	\$ (54,630,794)	\$ (6,049,713)	\$ 2,147,555	\$ 4,795,832,434	
Land & Water Endowment										
SEI Funds	\$ 45,025,736	\$ 254,500	\$ (300,388)	\$ (42,302)	\$ 185,650	\$ (2,922,048)	\$ 69,184	\$ -	\$ 42,270,382	
Vanguard	\$ 42,730,310	\$ 254,500	\$ (300,338)	\$ (20,002)	\$ 205,769	\$ (2,569,606)	\$ (61,188)	\$ -	\$ 40,239,444	
Total Land & Water Endowment	\$ 87,756,130	\$ 509,000	\$ (600,726)	\$ (62,304)	\$ 391,419	\$ (5,491,654)	\$ 7,995	\$ -	\$ 82,509,910	
CARES										
PFM CARES	\$ 8,948,733	\$ -	\$ -	\$ -	\$ 25,885	\$ -	\$ -	\$ -	\$ 8,985,659	
PFM NCC CARES	\$ 1,508,979	\$ -	\$ -	\$ -	\$ 17,270	\$ -	\$ -	\$ -	\$ 1,515,206	
Wilmington CARES	\$ 8,908,368	\$ -	\$ -	\$ (2,578)	\$ 2,204	\$ 804	\$ (47)	\$ 44,058	\$ 8,952,810	
Wilmington NCC CARES	\$ 1,512,549	\$ -	\$ -	\$ -	\$ 6,241	\$ -	\$ -	\$ -	\$ 1,518,791	
Total CARES	\$ 20,878,629	\$ -	\$ -	\$ (2,578)	\$ 51,600	\$ 804	\$ (47)	\$ 44,058	\$ 20,972,466	
ARPA										
PFM ARPA	\$ 376,776,820	\$ -	\$ (16,569,987)	\$ (57,120)	\$ 1,139,757	\$ (273,767)	\$ (31,710)	\$ 46,173	\$ 361,030,167	
Wilmington ARPA	\$ 372,965,022	\$ 12	\$ (16,569,987)	\$ (56,889)	\$ 502,432	\$ 181,126	\$ -	\$ (176,862)	\$ 356,844,854	
Total ARPA	\$ 749,741,842	\$ 12	\$ (33,139,974)	\$ (114,009)	\$ 1,642,189	\$ (92,641)	\$ (31,710)	\$ (130,689)	\$ 717,875,021	
Total	\$ 5,784,663,636	\$ 150,509,020	\$ (273,740,700)	\$ (946,860)	\$ 20,931,524	\$ (60,214,285)	\$ (6,073,475)	\$ 2,060,925	\$ 5,617,189,831	

Footnotes:

As of March 9, 2022, the target allocation between Liquidity and Reserve Portfolios was adjusted to 65%/35%. The previous target allocation was 50%/50%.

Values provided by Northern Trust and are reconciled to the audited custodian reports.

Income is a product of income received during the month plus accrued income.

Numbers may not add due to rounding.



YIELD AND DURATION POSITIONING

Liquidity Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
PFM \$	1,641,410,300	34.2%	3.25%	0.53	6-Month Treasury Bill	3.40%	1.67
Wilmington Trust \$	1,617,617,478	33.7%	3.47%	0.81	6-Month Treasury Bill	3.40%	1.67
Total Liquidity \$	3,259,027,778	68.0%	3.36%	0.67	6-Month Treasury Bill	3.40%	1.67

Reserve Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
JP Morgan \$	535,810,985	11.2%	4.54%	1.84	BAML 1-3 Yr Govt/Credit A+	4.43%	2.58
BlackRock \$	419,527,020	8.7%	4.53%	2.78	BAML 1-5 Yr Govt/Credit A+	4.43%	2.58
Chandler \$	293,927,872	6.1%	4.43%	6.03	BAML 5-10 Yr Govt/Credit A+	4.30%	6.35
Lazard \$	287,538,779	6.0%	4.31%	6.07	BAML 5-10 Yr Govt/Credit A+	4.30%	6.35
Total Reserve \$	1,536,804,656	32.0%	4.47%	3.69	Custom Reserve Benchmark	4.37%	4.47

Total Liquidity & Reserve Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
Total Liquidity & Reserve \$	4,795,832,434	100.0%	3.72%	1.64	Weighted Average	4.08%	3.63

As of March 9, 2022, the target allocation between Liquidity and Reserve Portfolios was adjusted to 65%/35%. The previous target allocation was 50%/50%.



LEVEL 144A SECURITIES

	MV - 9/30/22 (\$)	144A Securities MV (\$)	144A Securities Percent of Total Portfolio (%)	144A Securities Percent of Manager Portfolio (%)
Delaware Total Consolidation	\$5,617,189,831	\$394,517,508	7.0%	
Total Liquidity & Reserve	\$4,795,832,434	\$394,517,508	7.0%	
Total Liquidity	\$3,259,027,778	\$279,615,898	5.0%	
PFM Asset Management	\$1,641,410,300	\$17,207,869	0.3%	1.0%
Wilmington Liquidity	\$1,617,617,478	\$262,408,029	4.7%	16.2%
Total Reserve	\$1,536,804,656	\$114,901,610	2.0%	
JPM Intermediate	\$535,810,985	\$80,336,462	1.4%	15.0%
Blackrock Financial Mangement	\$419,527,020	\$30,773,479	0.5%	7.3%
Chandler Asset Management	\$293,927,872	\$3,791,670	0.1%	1.3%
Lazard Financial Management	\$287,538,779	\$0	0.0%	0.0%
Total Endowment	\$82,509,910	\$0	0.0%	
SEI Funds	\$42,270,382	\$0	0.0%	
Vanguard Funds	\$40,239,444	\$0	0.0%	
CARES	\$20,972,466	\$0	0.0%	
PFM CARES	\$8,985,659	\$0	0.0%	
PFM NCC CARES	\$1,515,206	\$0	0.0%	
Wilmington CARES	\$8,952,810	\$0	0.0%	
Wilmington NCC CARES	\$1,518,791	\$0	0.0%	
ARPA	\$717,875,021	\$0	0.0%	
PFM ARPA	\$361,030,167	\$0	0.0%	
Wilmington ARPA	\$356,844,854	\$41,167,939	0.7%	11.5%





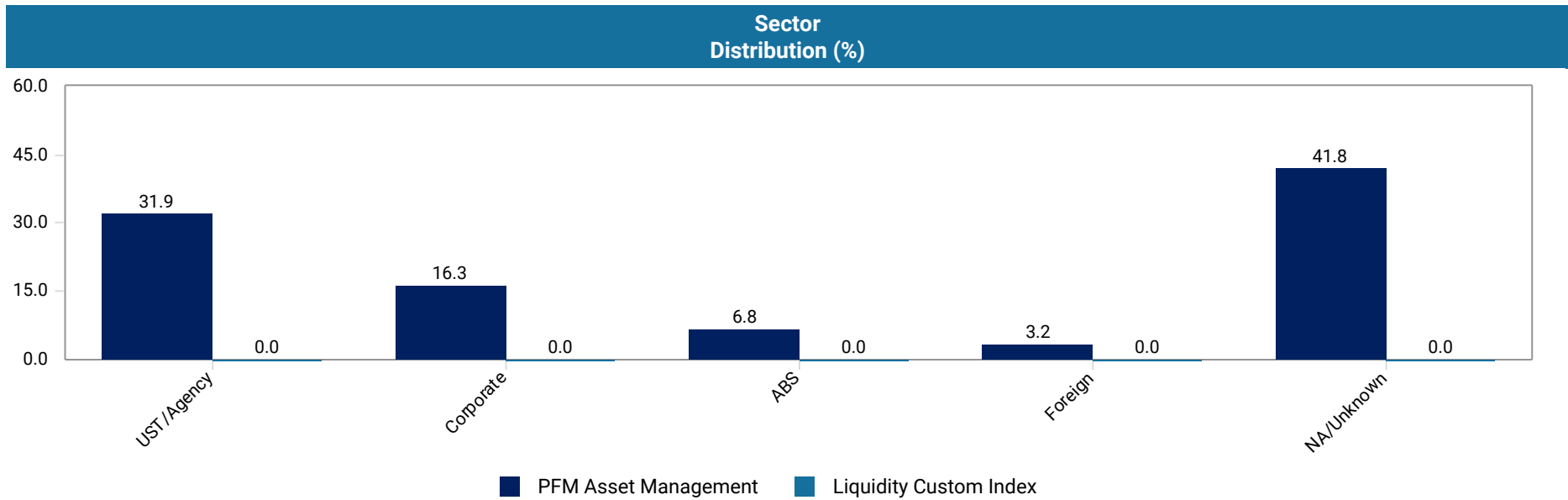
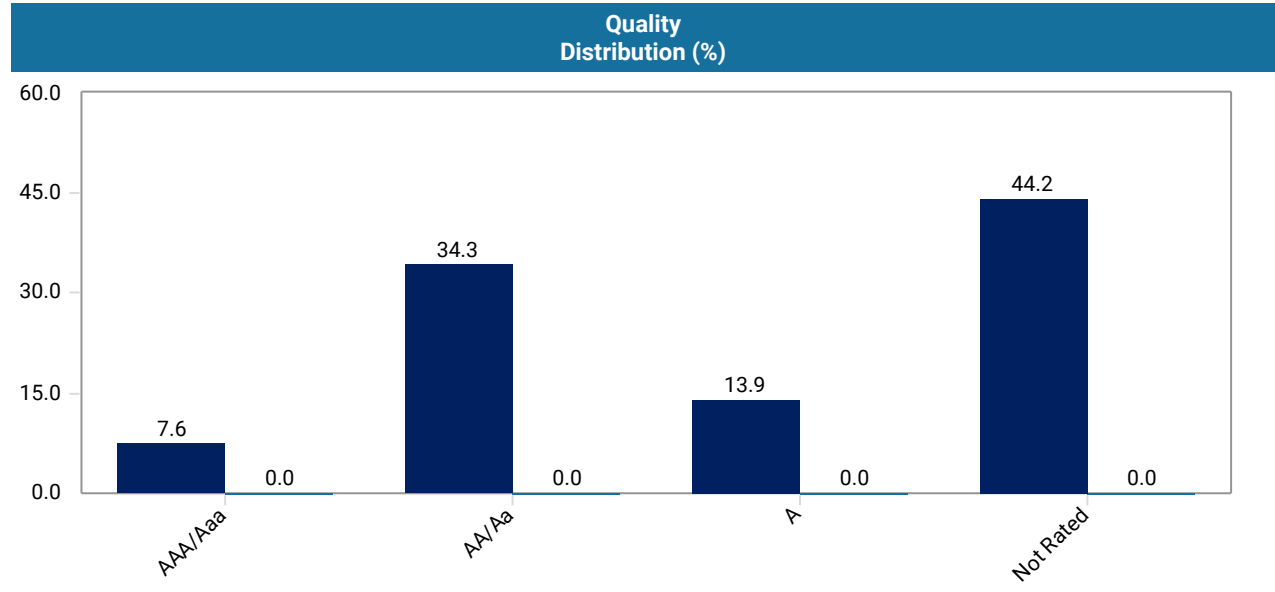
LIQUIDITY MANAGER REVIEW



PROPRIETARY & CONFIDENTIAL

PFM ASSET MANAGEMENT

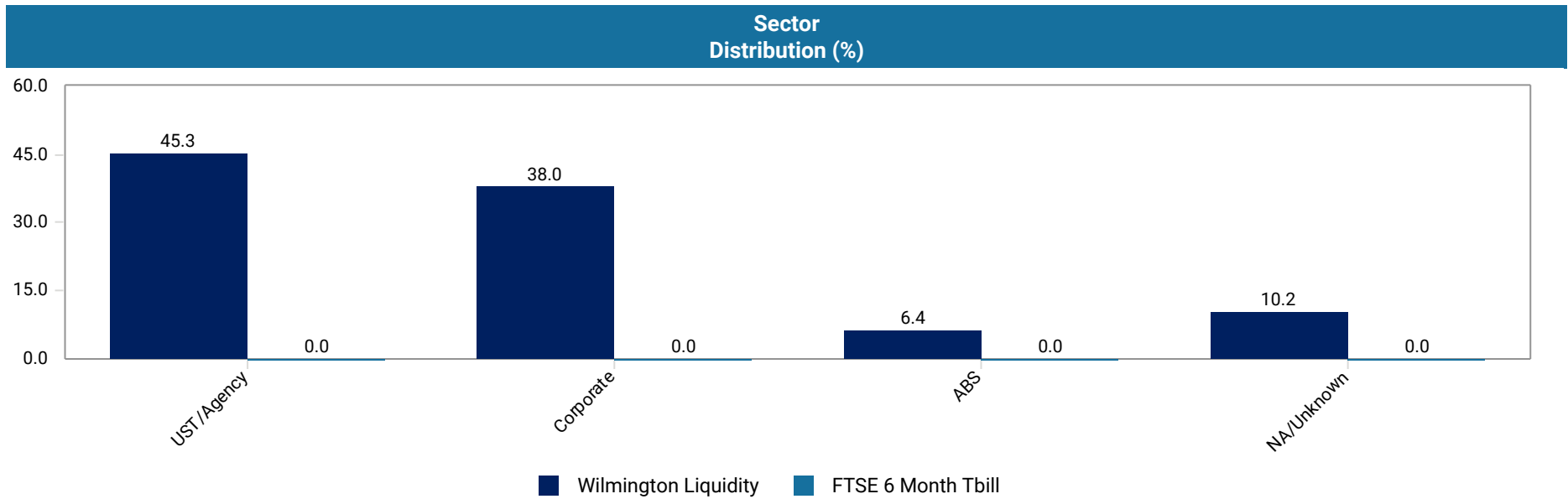
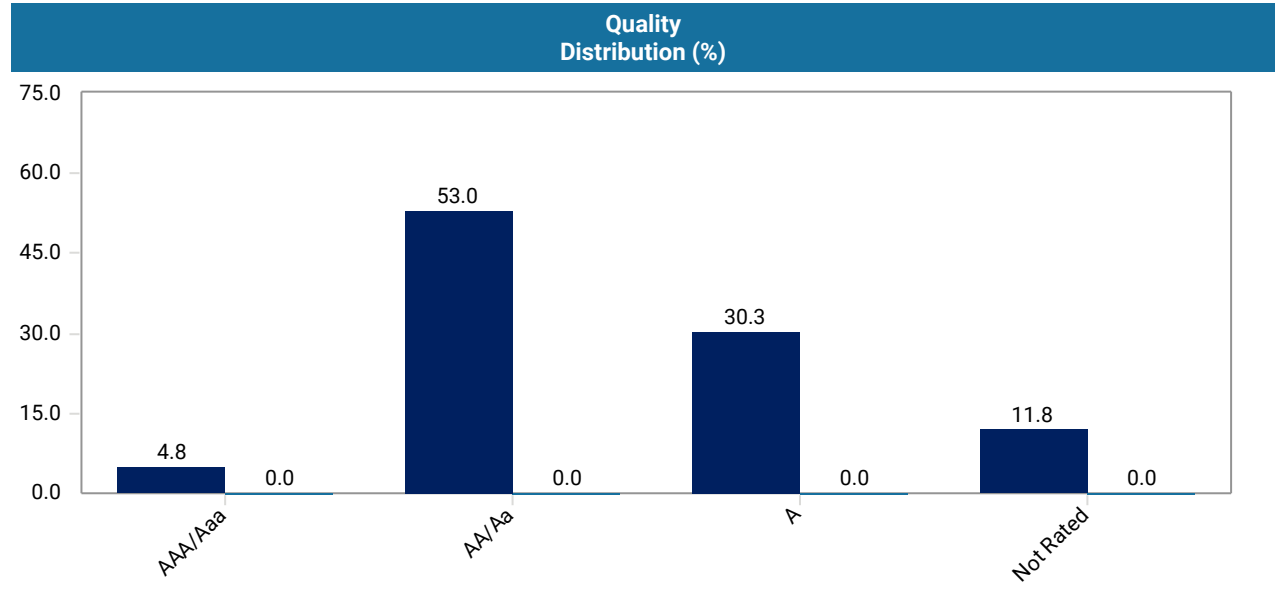
Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.1	
Avg. Maturity	0.7	
Average Duration	0.7	
Avg. Quality	AA	



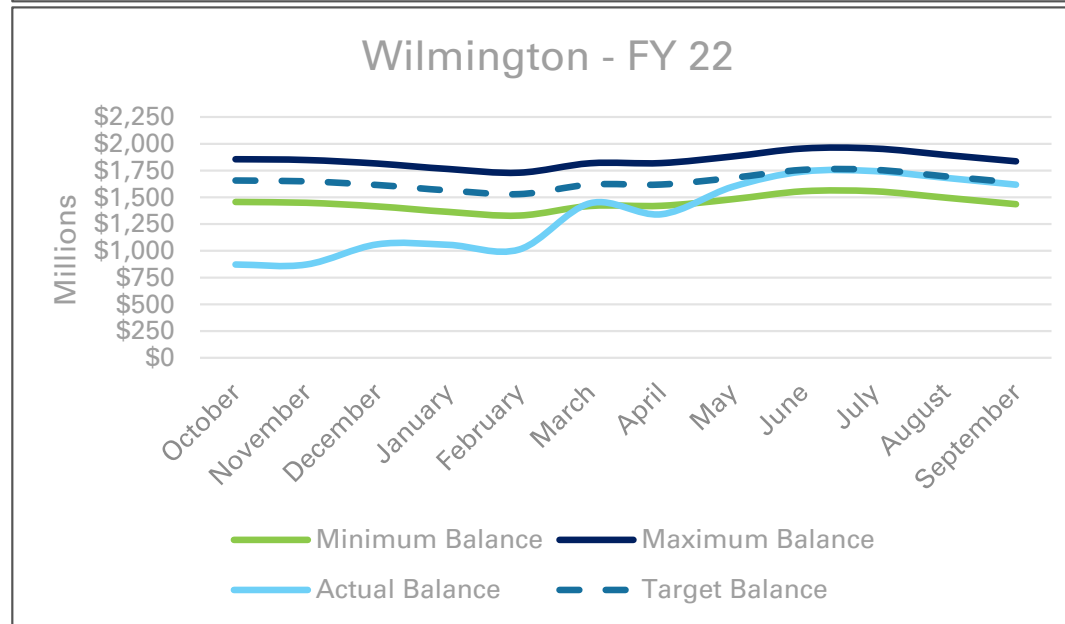
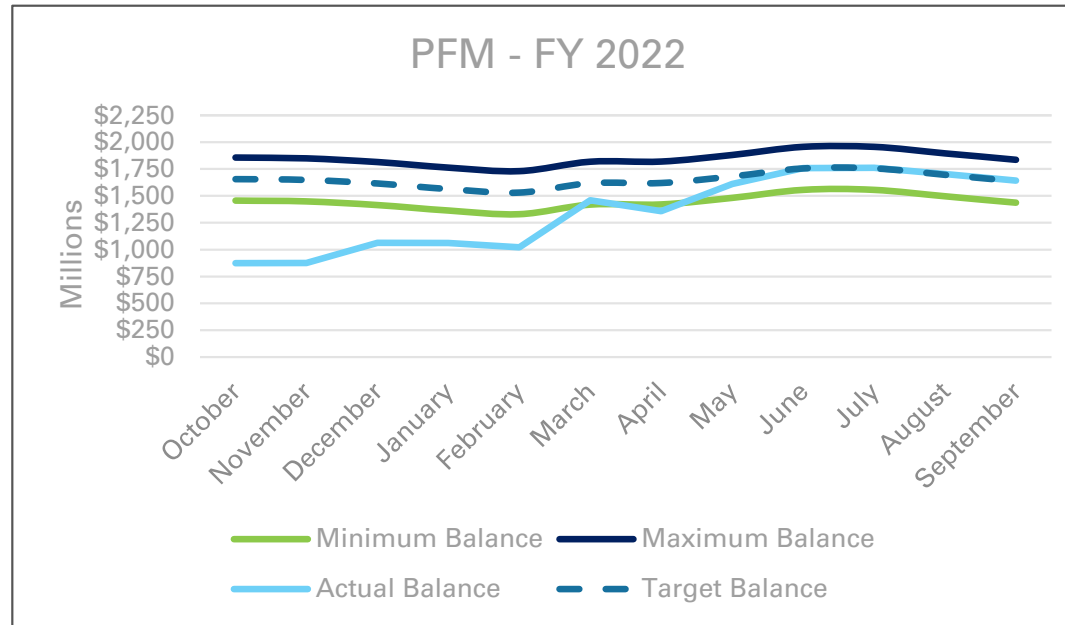
Delaware State Treasury

WILMINGTON LIQUIDITY

Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.3	
Avg. Maturity	0.9	
Average Duration	0.8	
Avg. Quality	AA	



LIQUIDITY MANAGERS – TARGET BALANCES



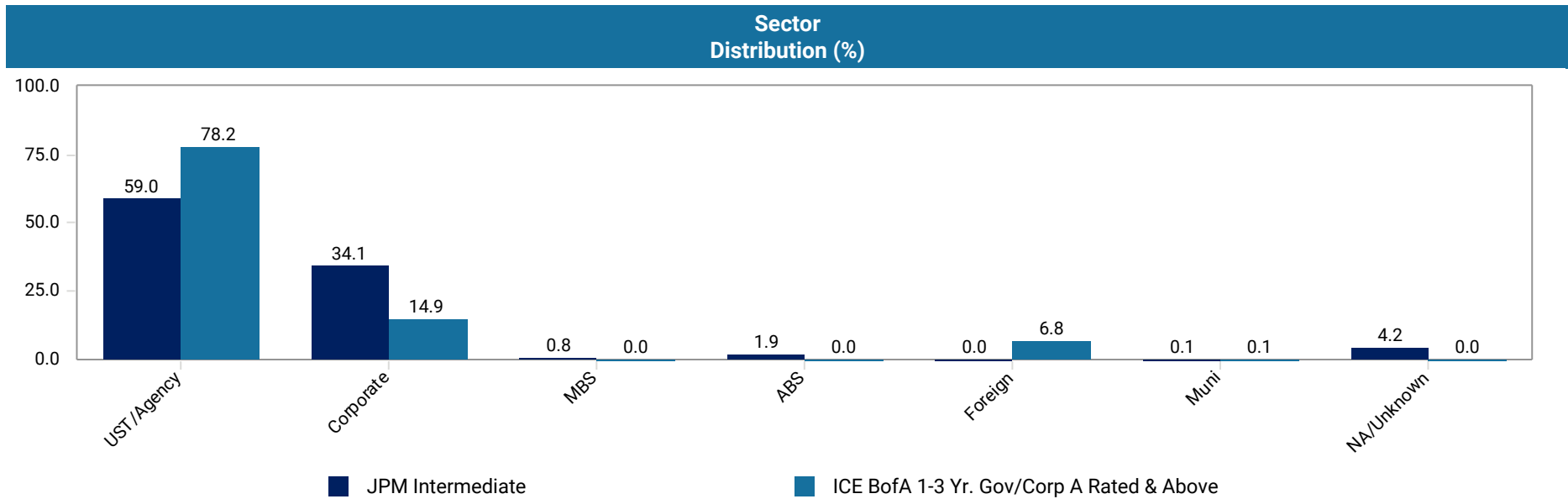
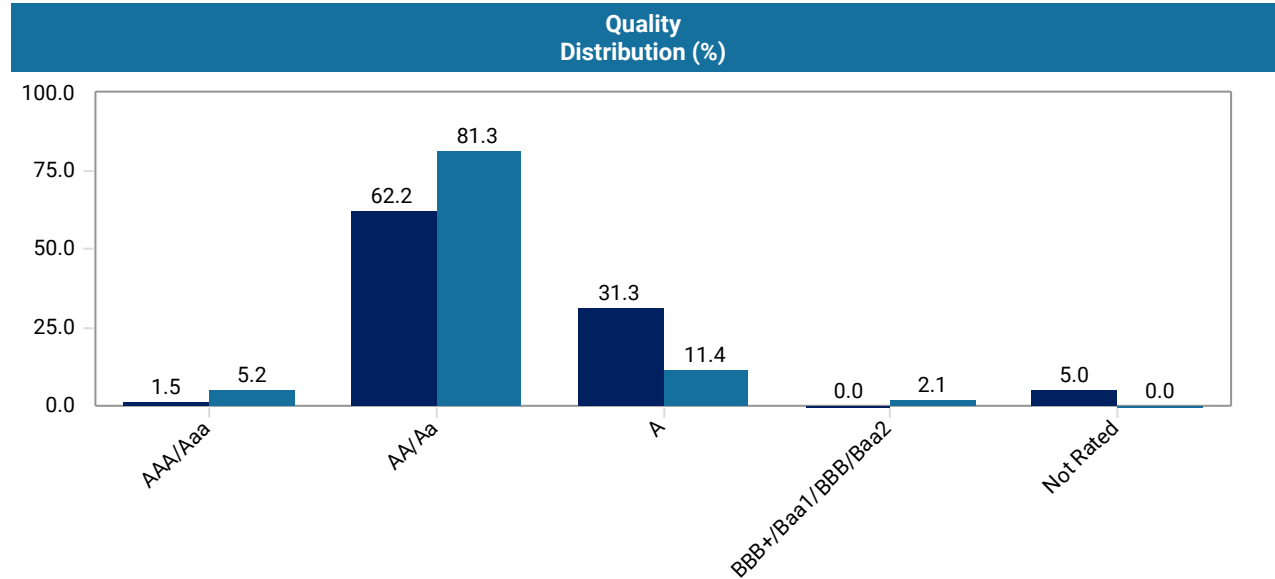
RESERVE MANAGER REVIEW



PROPRIETARY & CONFIDENTIAL

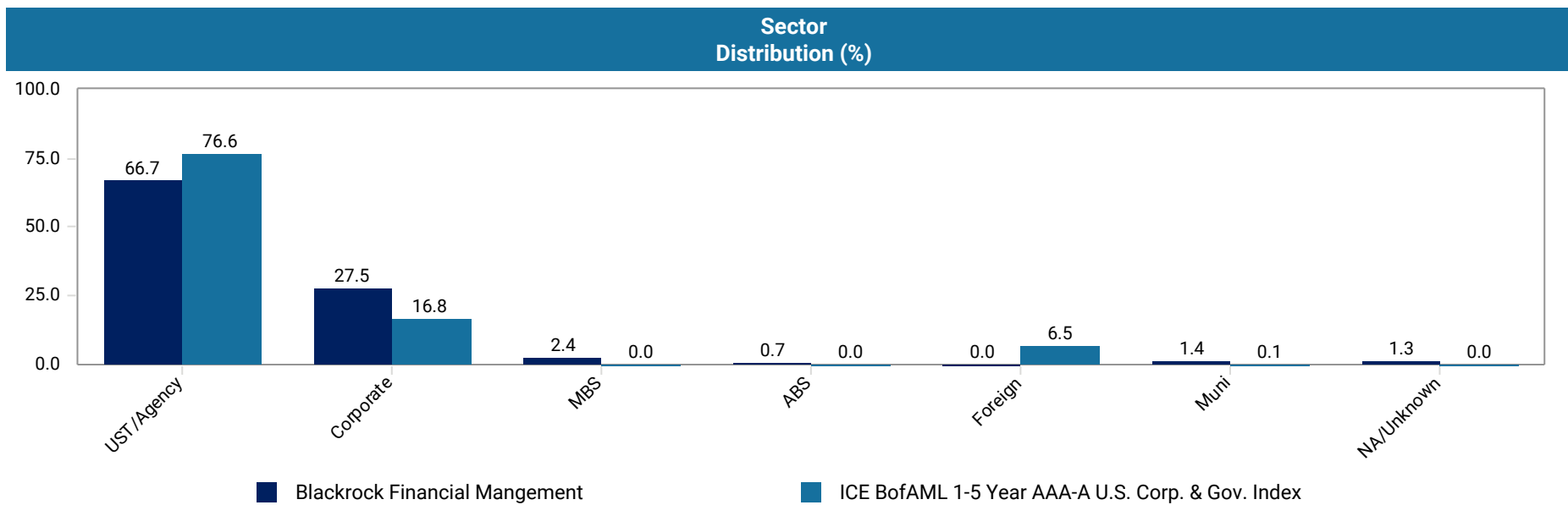
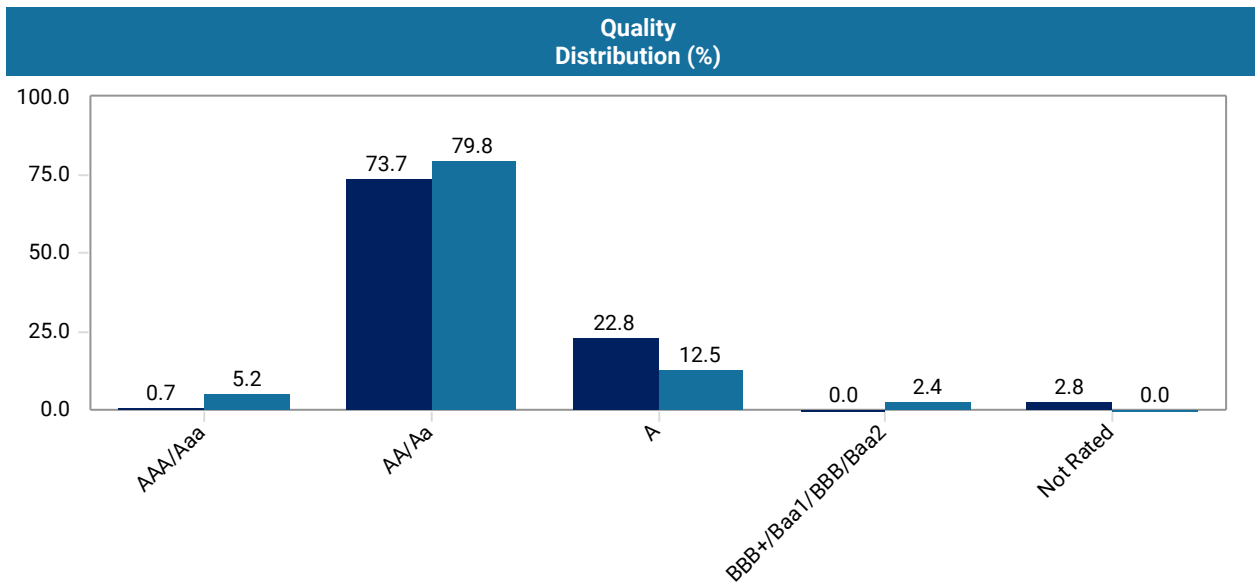
JPM INTERMEDIATE

Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.6	4.4
Avg. Maturity	2.0	1.9
Average Duration	1.9	1.9
Avg. Quality	AA	AA



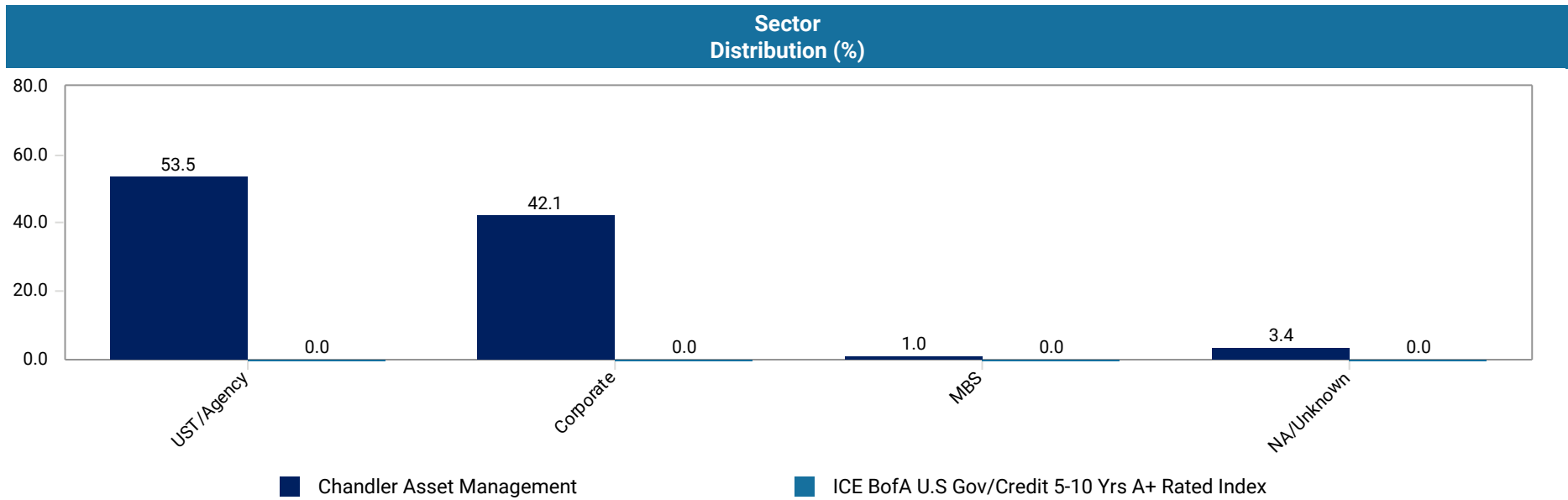
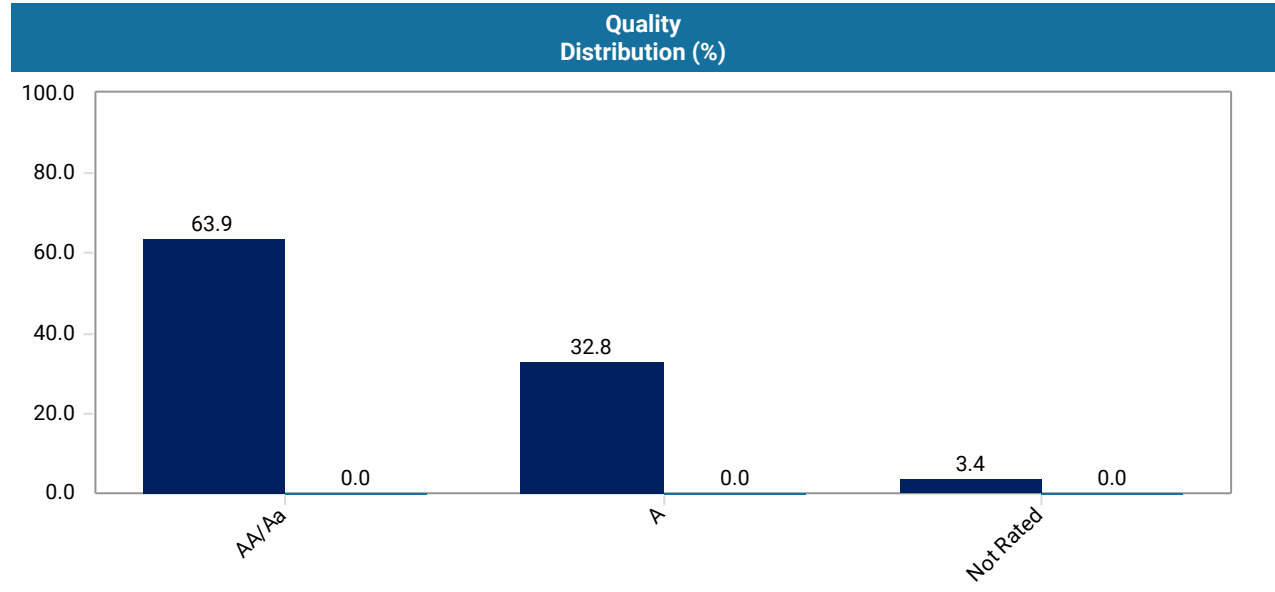
BLACKROCK FINANCIAL MANGEMENT

Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.5	4.4
Avg. Maturity	2.9	2.7
Average Duration	2.8	2.6
Avg. Quality	AA	AA



CHANDLER ASSET MANAGEMENT

Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.5	
Avg. Maturity	7.0	
Average Duration	6.2	
Avg. Quality	AA	



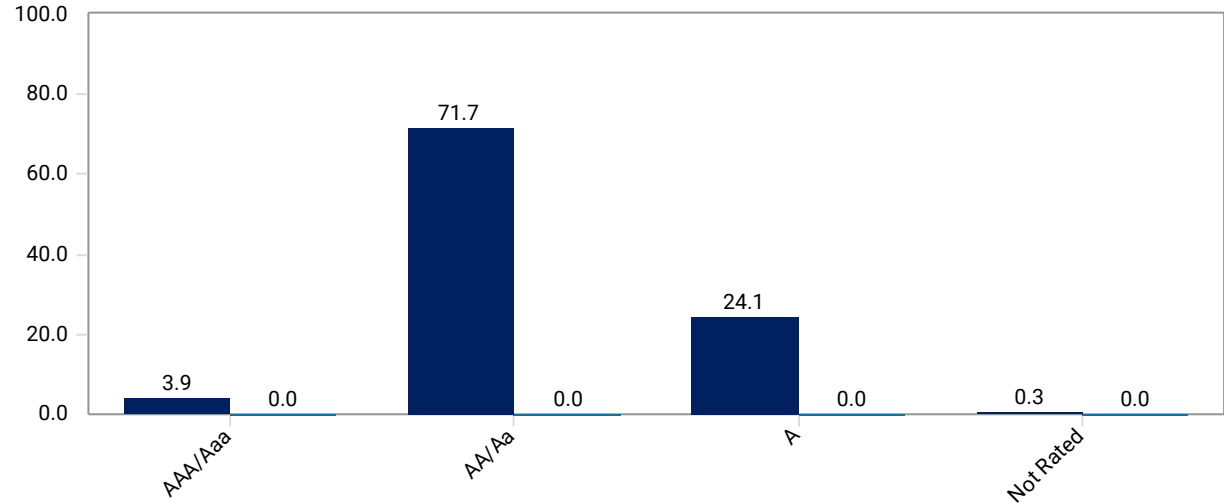
■ Chandler Asset Management

■ ICE BofA U.S. Gov/Credit 5-10 Yrs A+ Rated Index

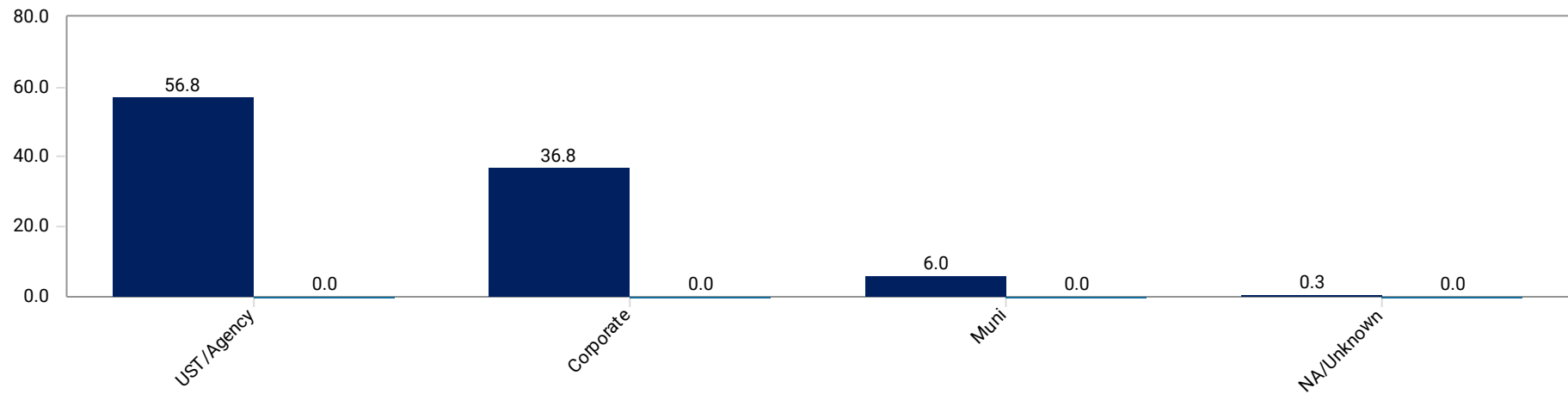
LAZARD FINANCIAL MANAGEMENT

Characteristics		
	Portfolio	Benchmark
Yield To Maturity (%)	4.3	
Avg. Maturity	6.7	
Average Duration	6.0	
Avg. Quality	AA	

Quality Distribution (%)



Sector Distribution (%)



■ Lazard Financial Management

■ ICE BofA U.S. Gov/Credit 5-10 Yrs A+ Rated Index



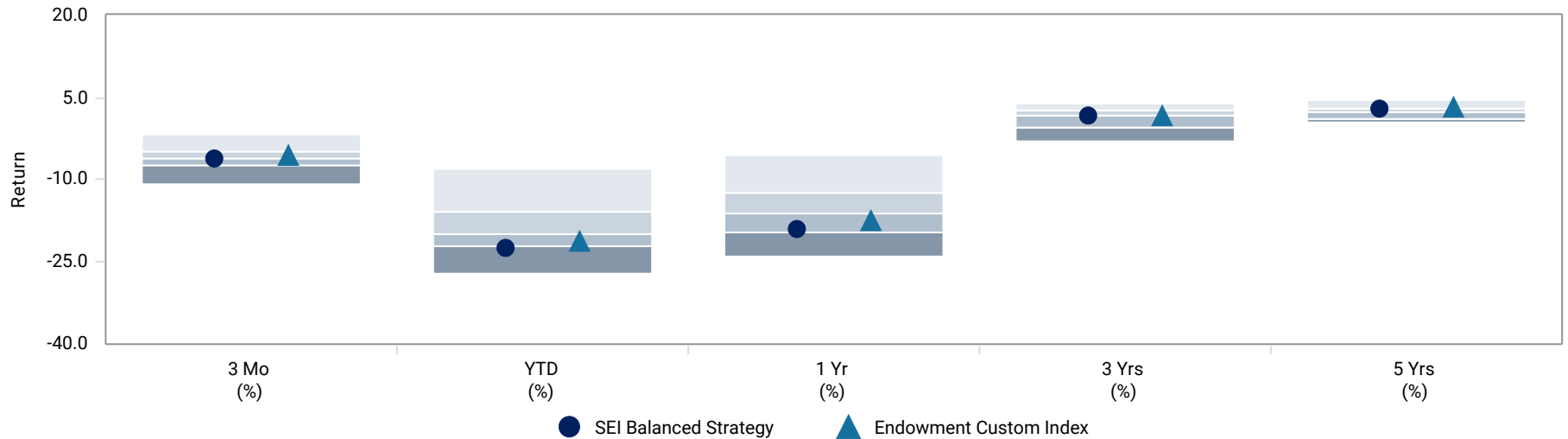
ENDOWMENT MANAGER REVIEW



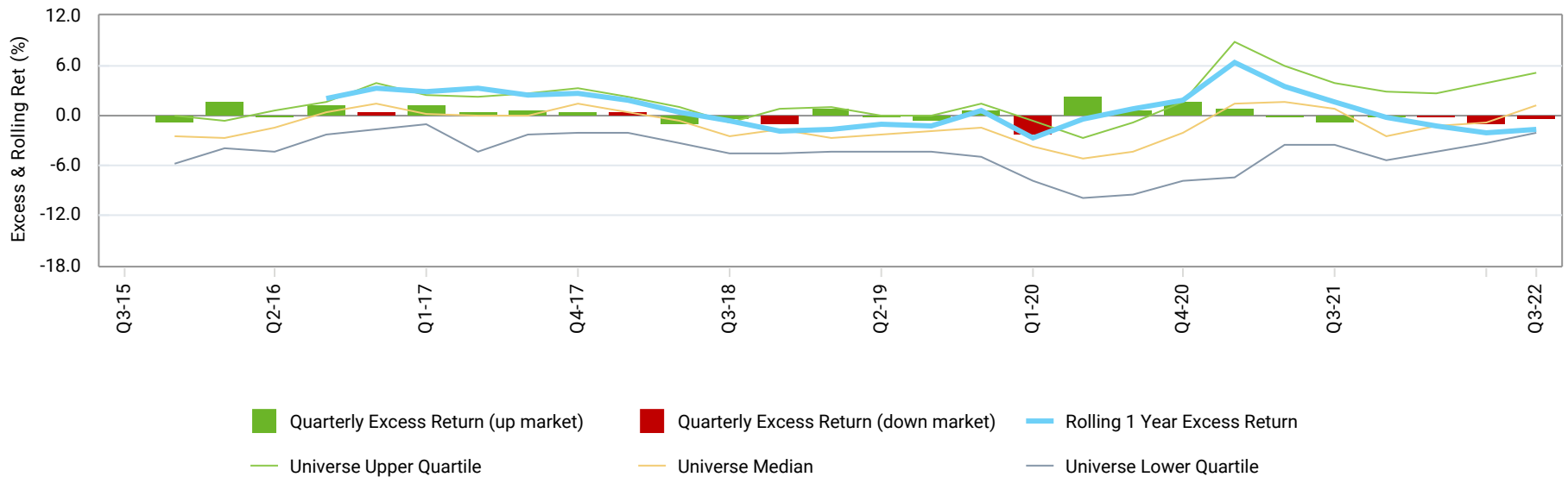
PROPRIETARY & CONFIDENTIAL

SEI BALANCED STRATEGY

eV Global Balanced (net of fees)

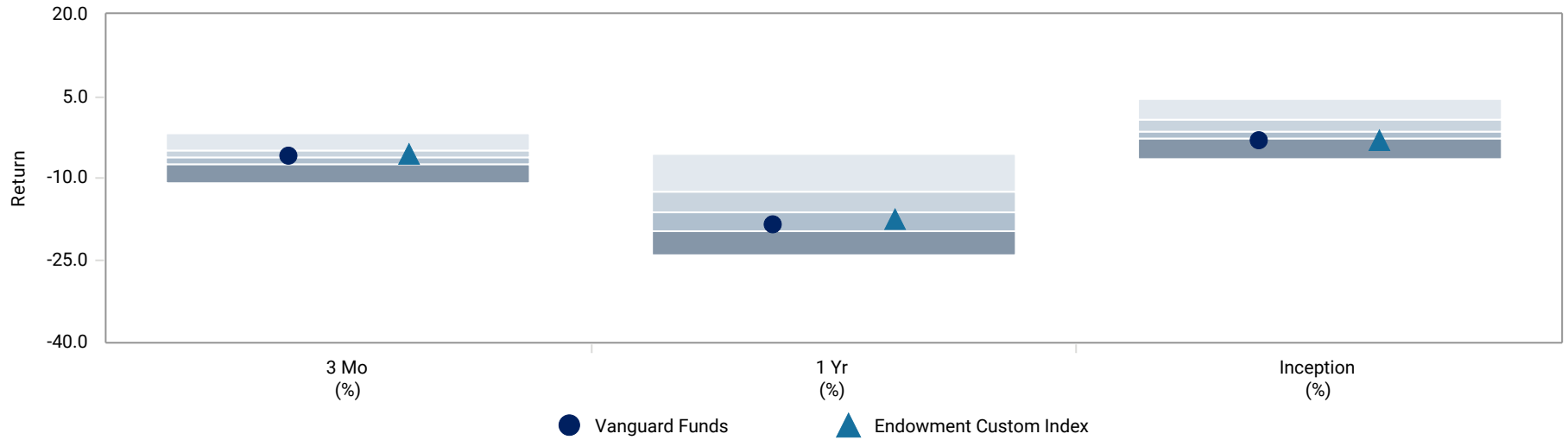


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022

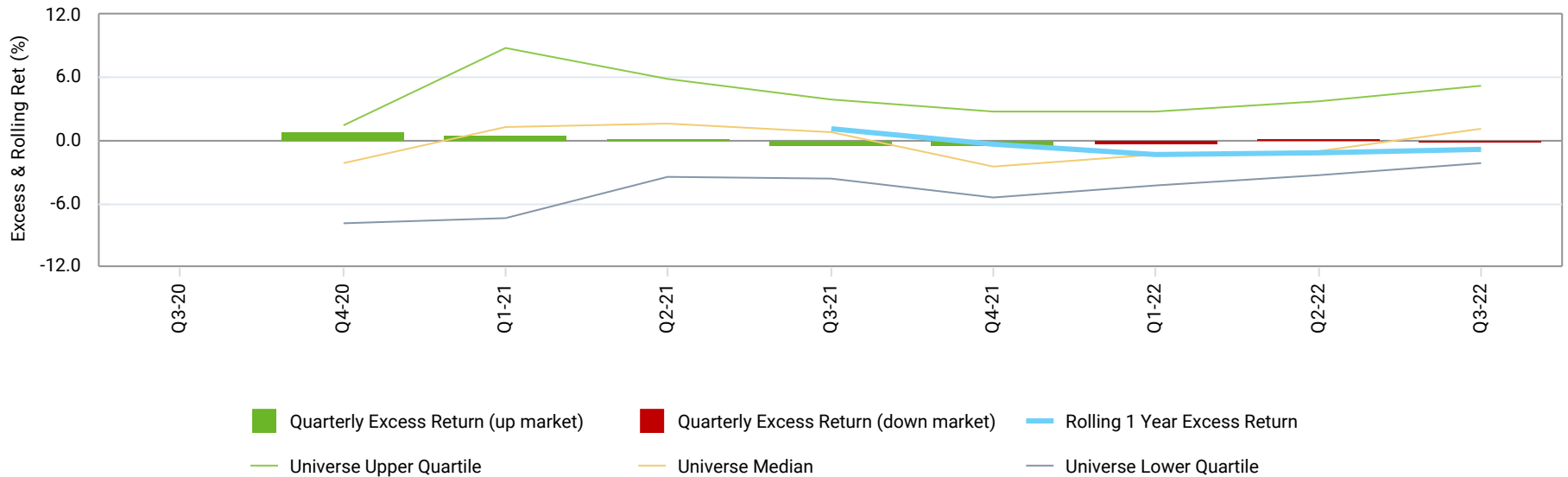


Delaware State Treasury
VANGUARD FUNDS

eV Global Balanced (net of fees)



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022



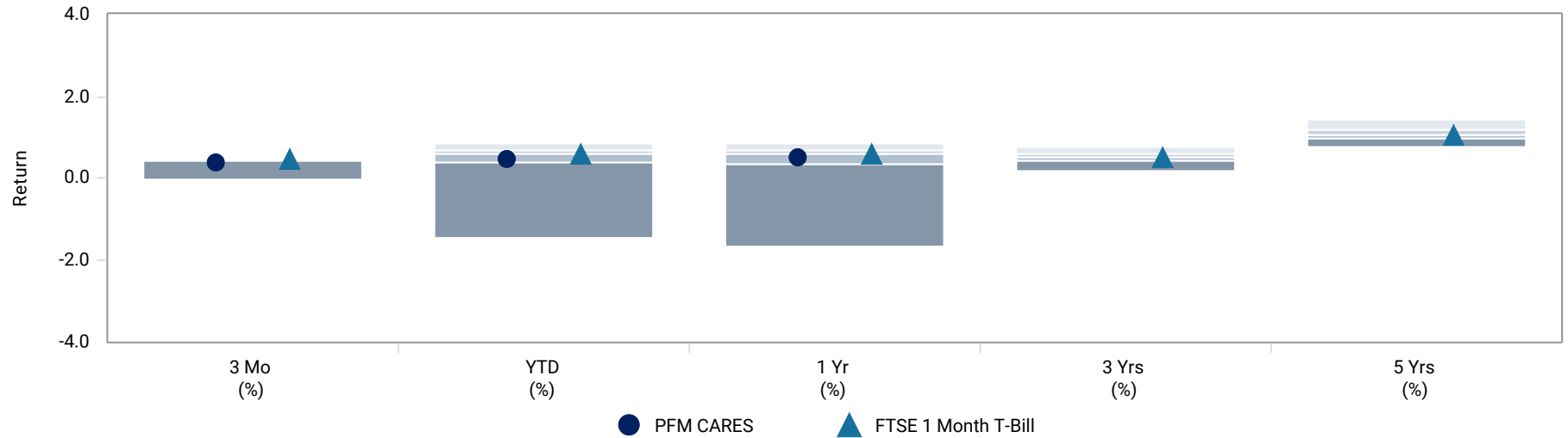
CARES MANAGER REVIEW



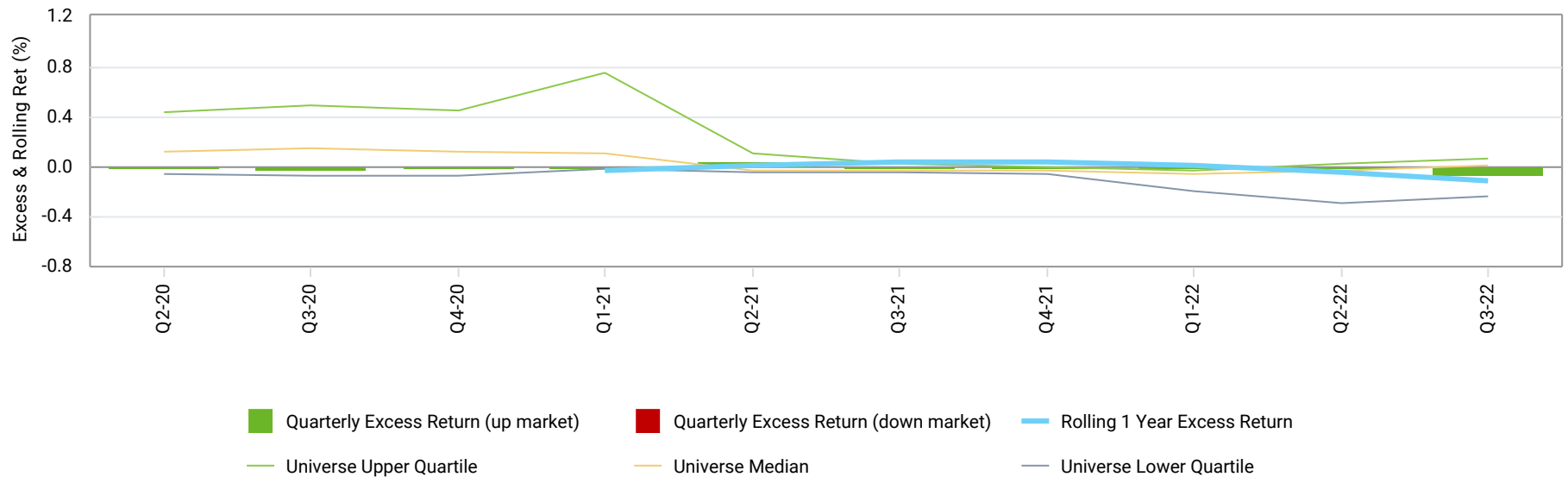
PROPRIETARY & CONFIDENTIAL

Delaware State Treasury PFM CARES

eV US Cash Management (net of fees)



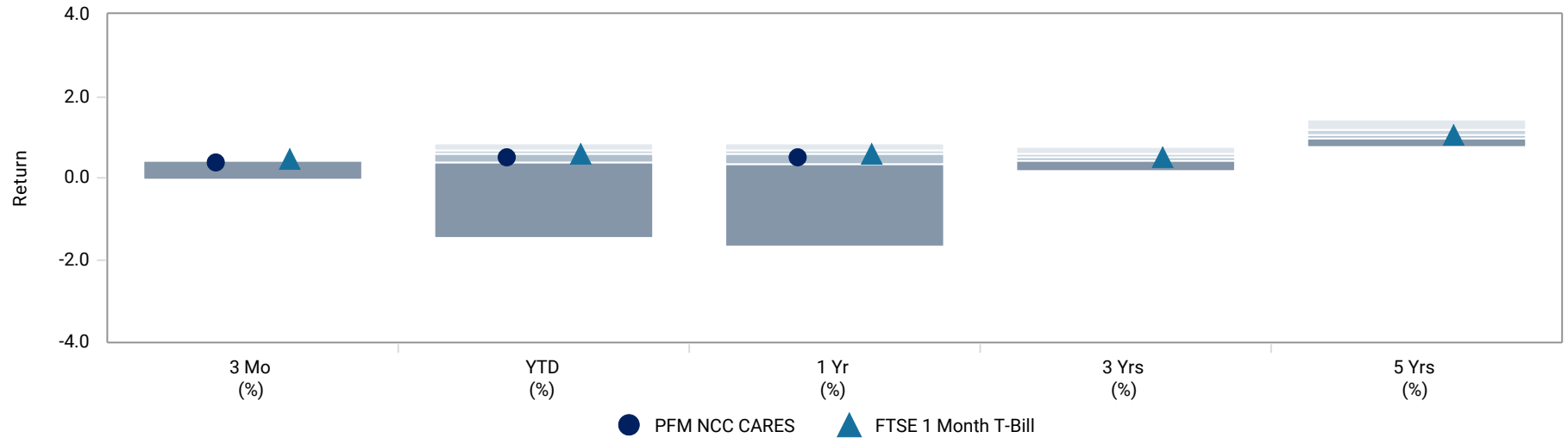
Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022



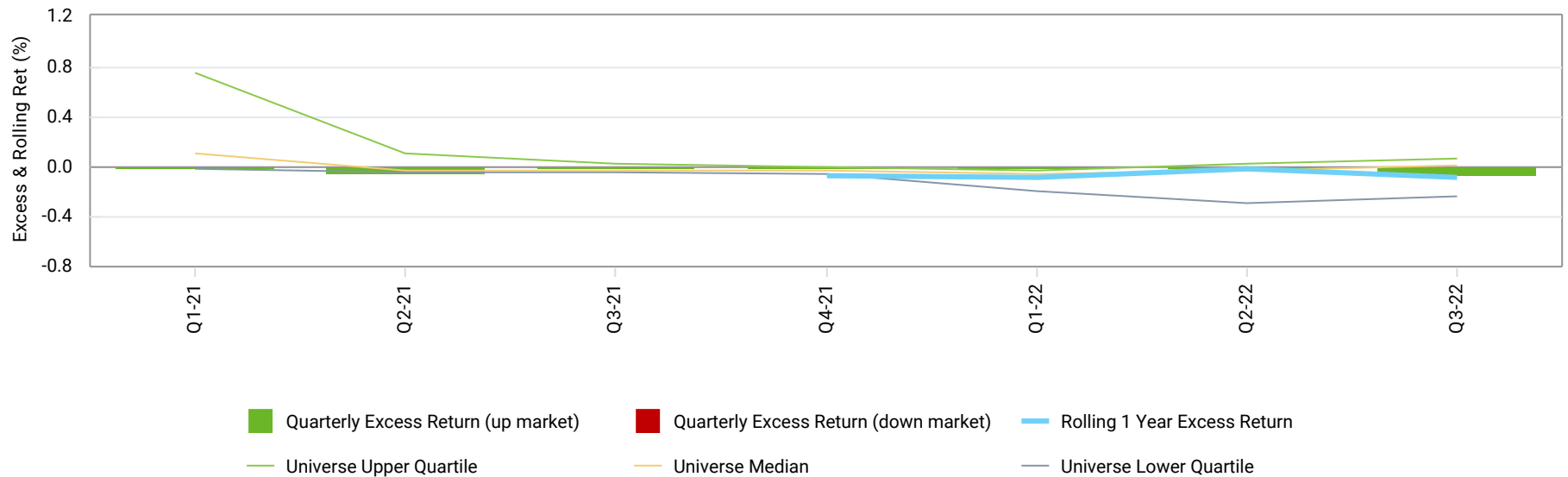
Delaware State Treasury

PFM NCC CARES

eV US Cash Management (net of fees)

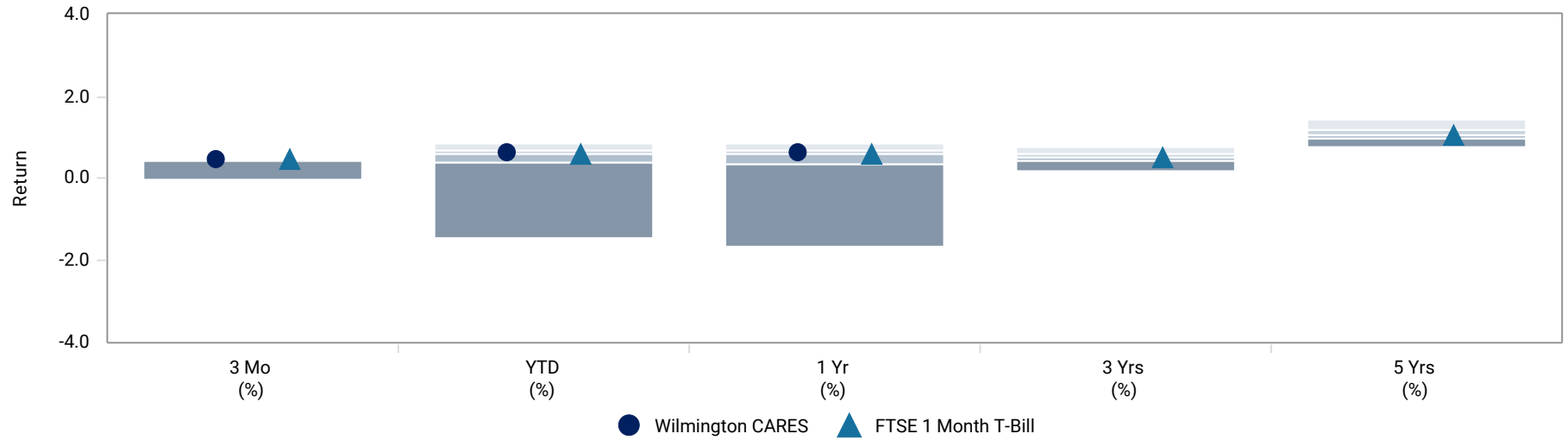


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022

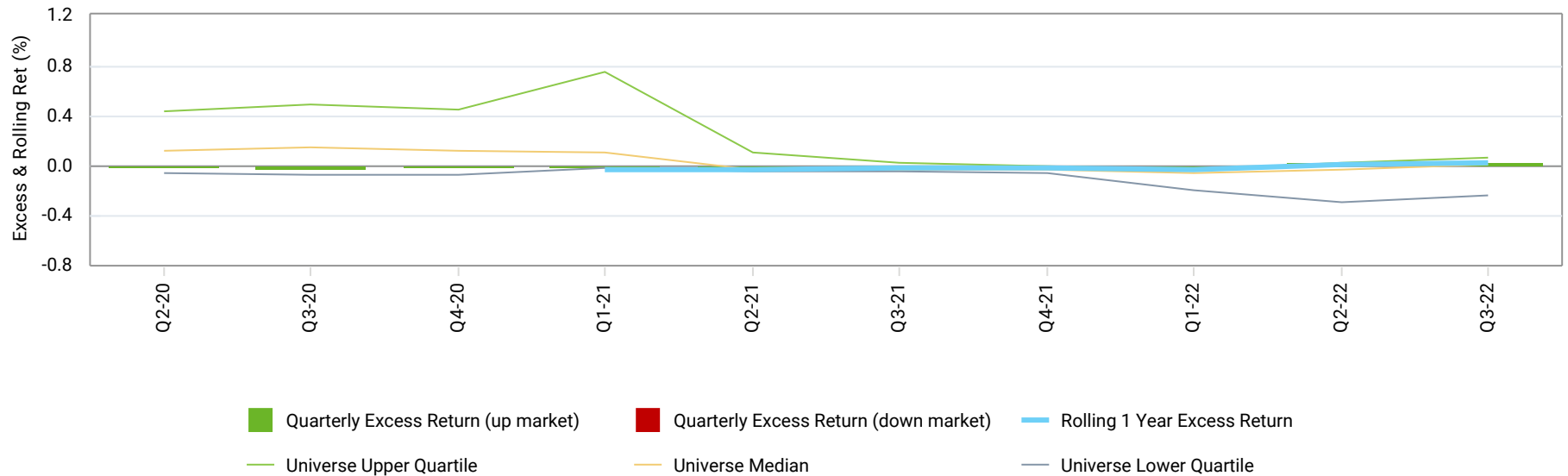


Delaware State Treasury
WILMINGTON CARES

eV US Cash Management (net of fees)

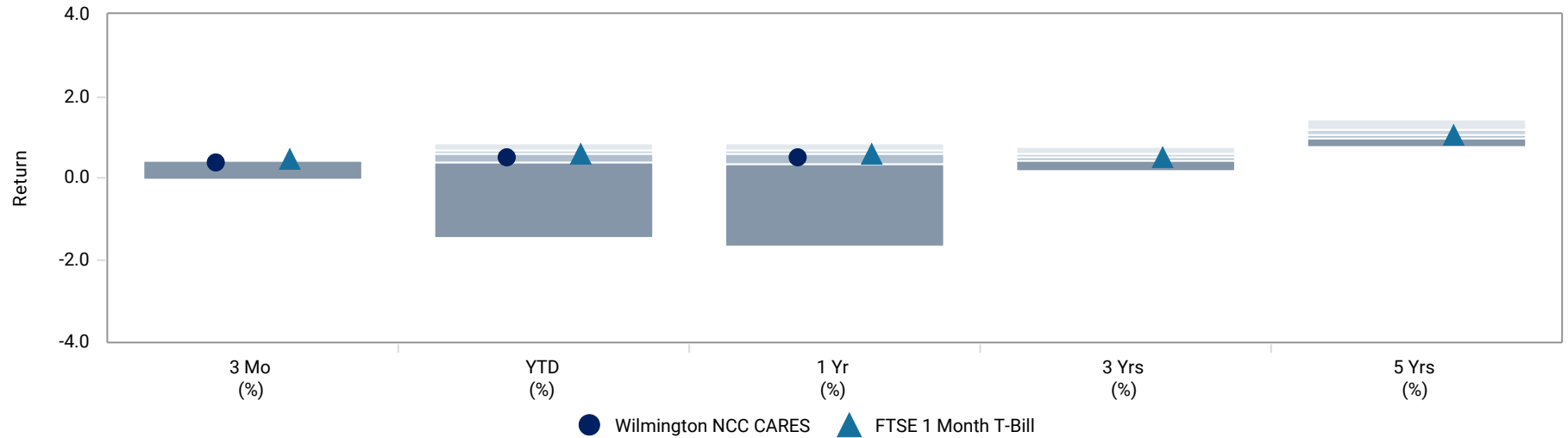


Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022

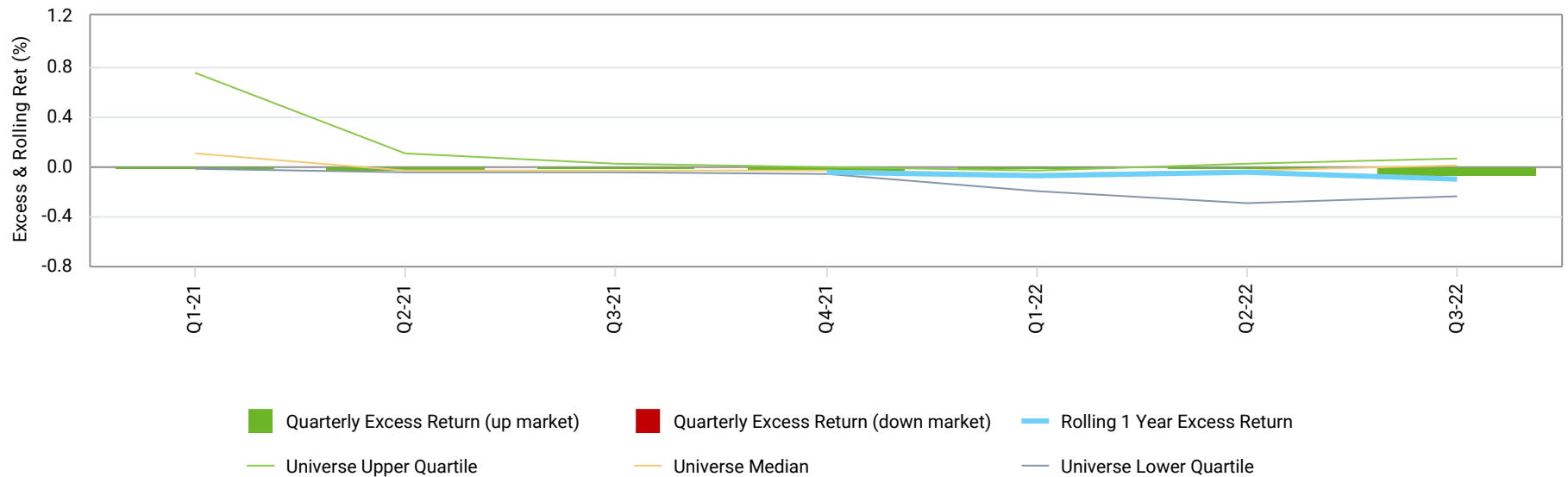


Delaware State Treasury
WILMINGTON NCC CARES

eV US Cash Management (net of fees)



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending September 30, 2022



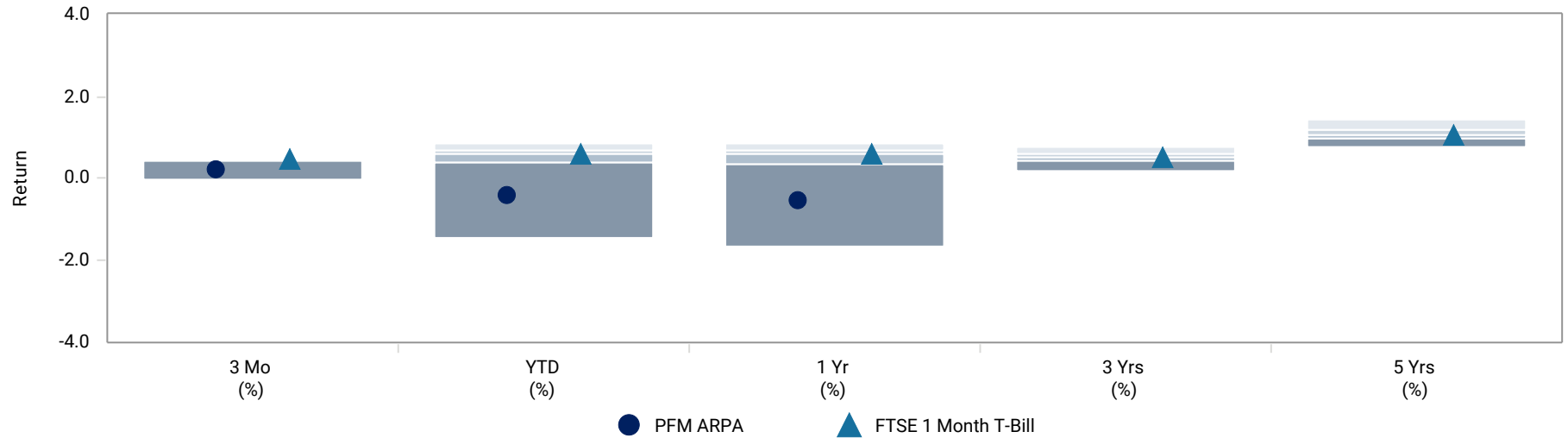
ARPA MANAGER REVIEW



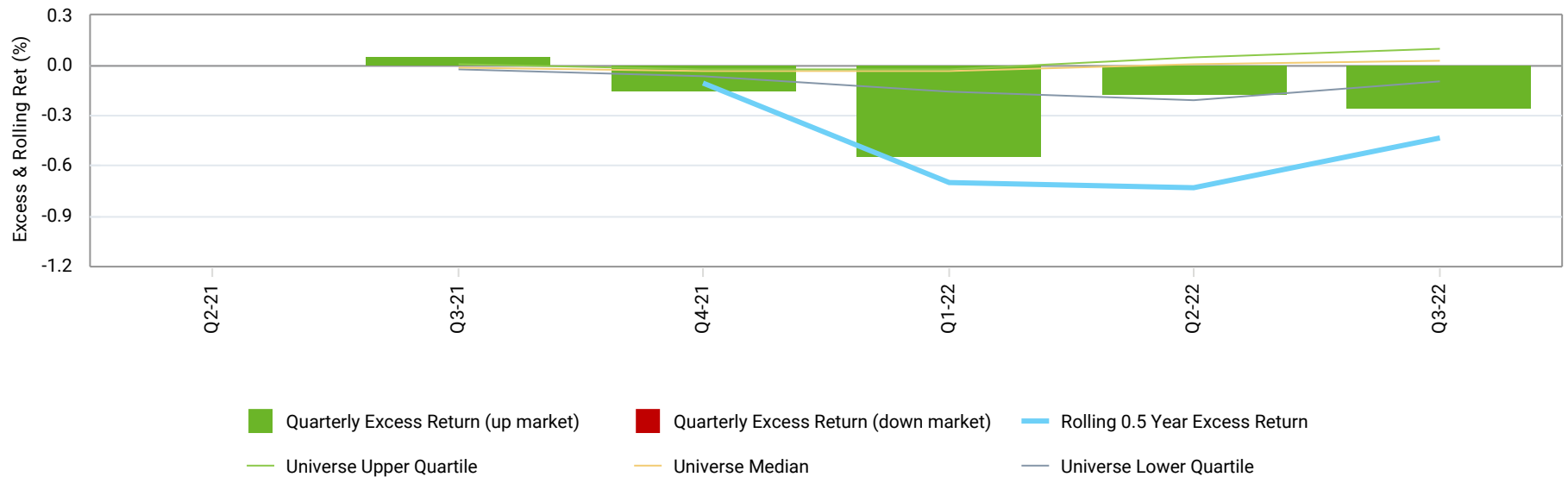
PROPRIETARY & CONFIDENTIAL

Delaware State Treasury
PFM ARPA

eV US Cash Management (net of fees)

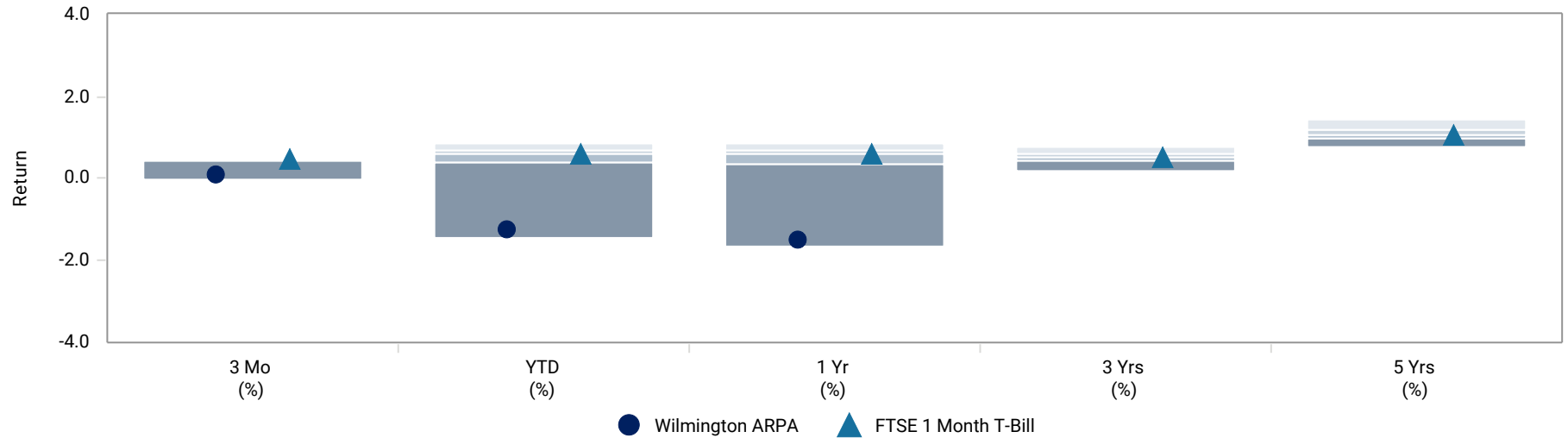


Quarter Excess Return with a Rolling 0.5 Year Excess Return over Since Inception Ending September 30, 2022

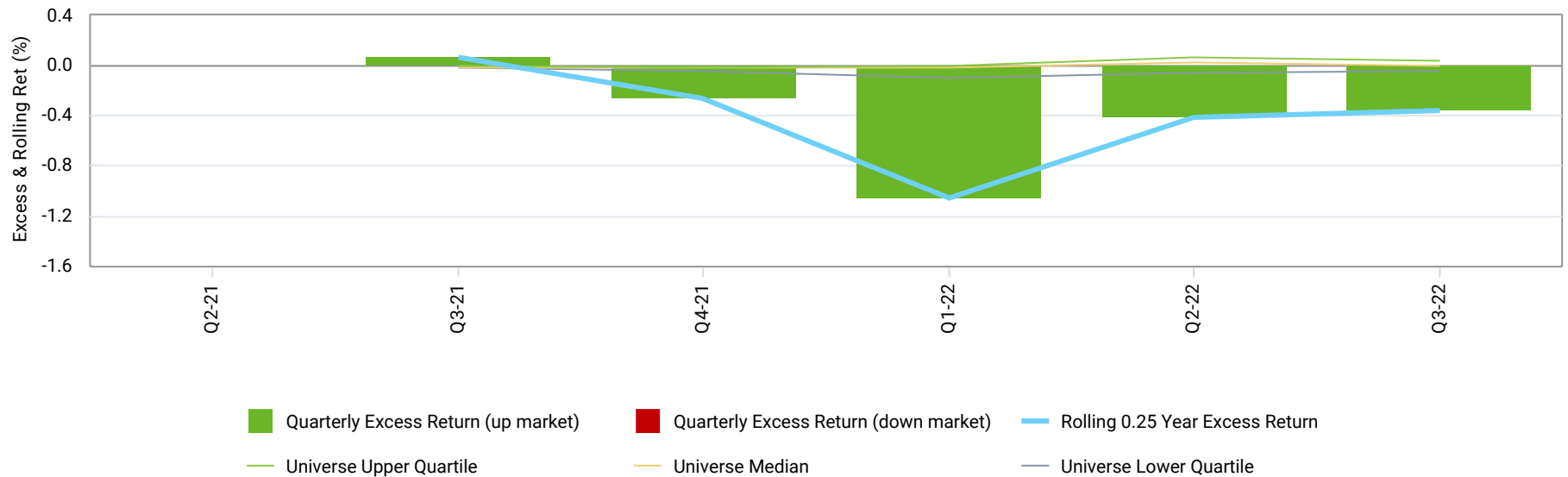


Delaware State Treasury
WILMINGTON ARPA

eV US Cash Management (net of fees)



Quarter Excess Return with a Rolling 0.25 Year Excess Return over Since Inception Ending September 30, 2022





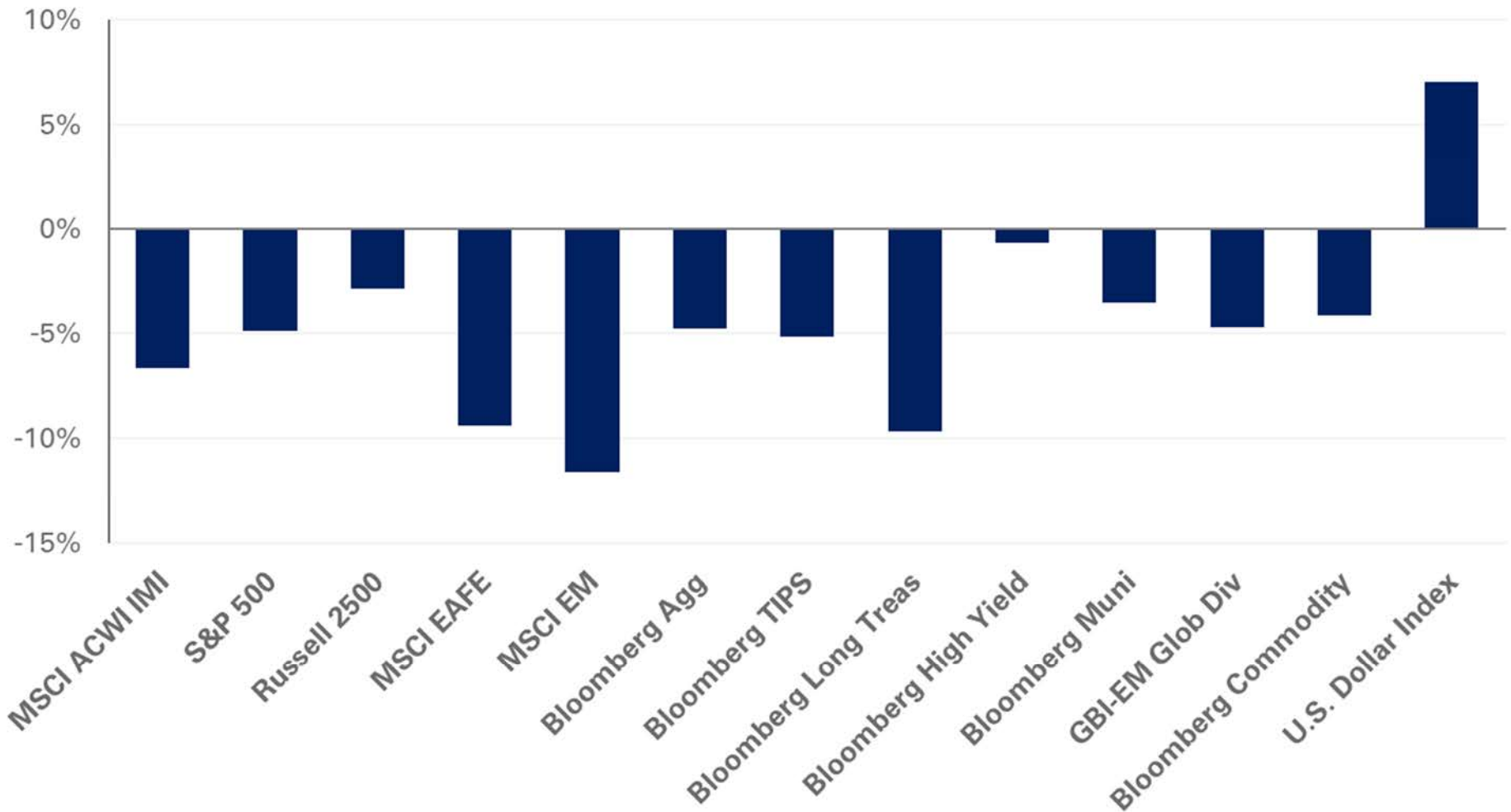
REPORT APPENDIX



PROPRIETARY & CONFIDENTIAL

GLOBAL ASSETS BROADLY DECLINED

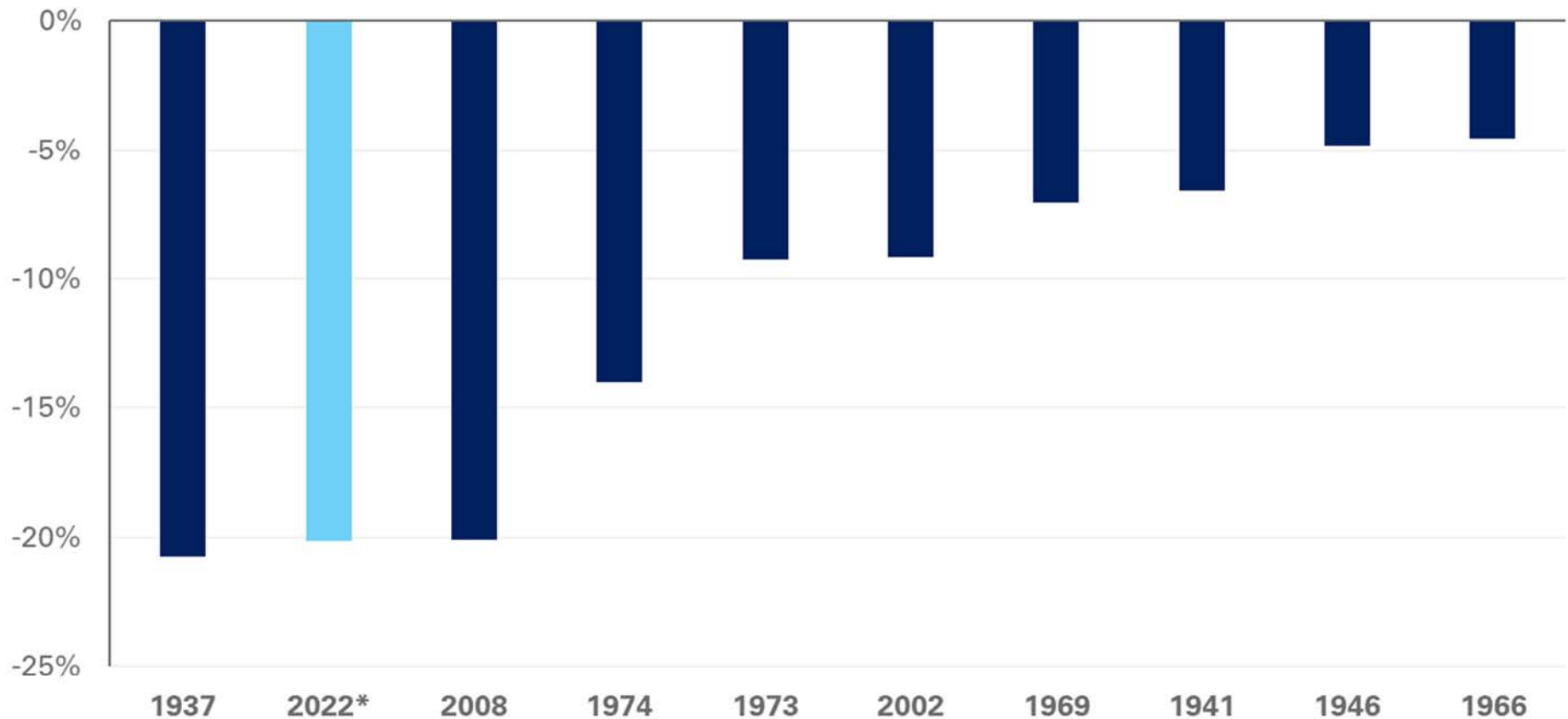
QUARTERLY TOTAL RETURNS



Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet

60/40 PORTFOLIO ON TRACK FOR WORST YEAR

WORST ANNUAL RETURNS: 60/40 PORTFOLIO

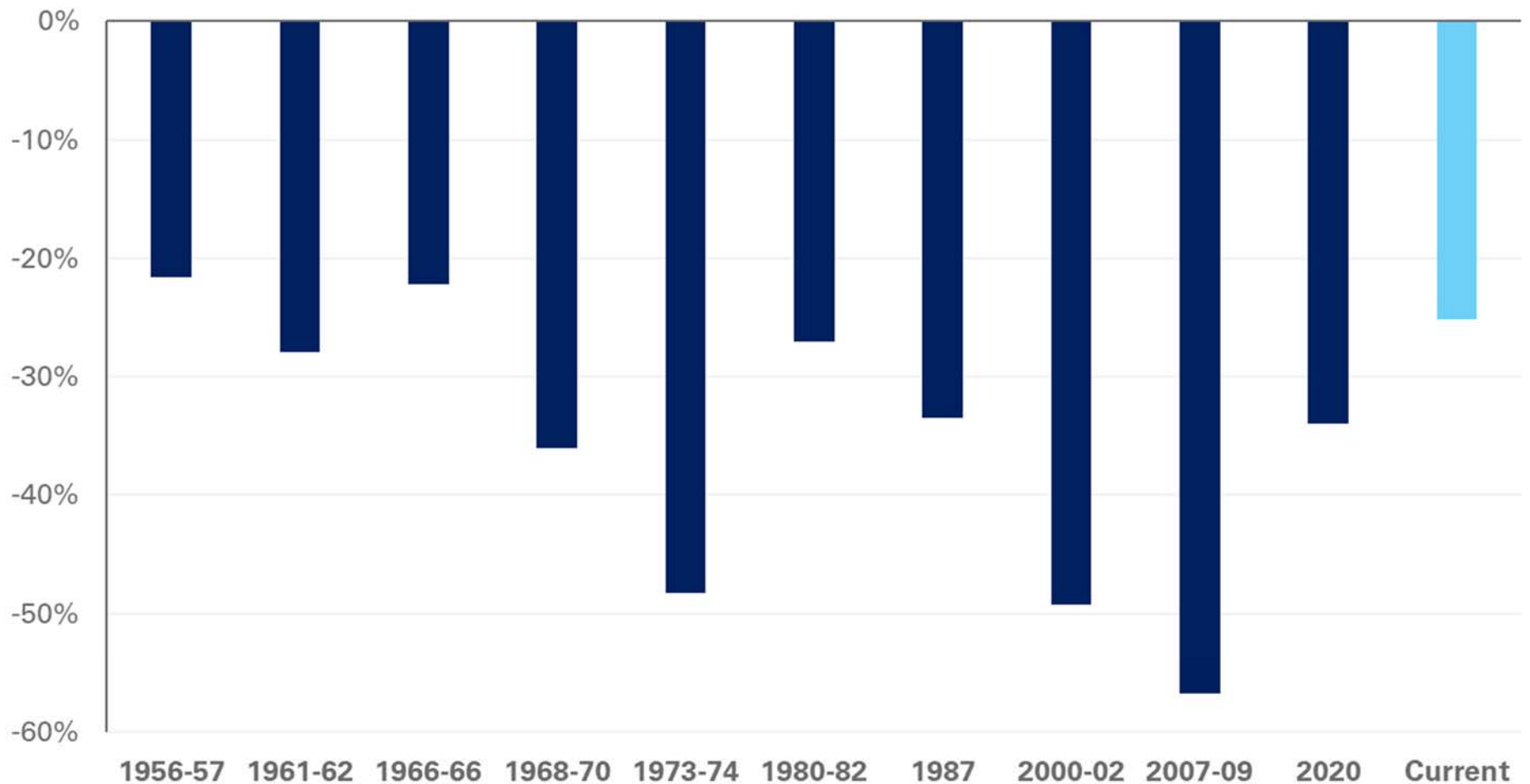


60/40 Portfolio represents 60% S&P 500 and 40% U.S. Aggregate Bonds (post 1975) and 40% Treasury (prior to 1974)
Data calculated from 12/31/1936; 2022 represents returns through the first nine months of the year
Source: S&P, Bloomberg, FactSet



THE S&P 500 FELL BACK INTO A BEAR MARKET

S&P 500 PEAK-TO-TROUGH DRAWDOWNS THAT EXCEED -20%

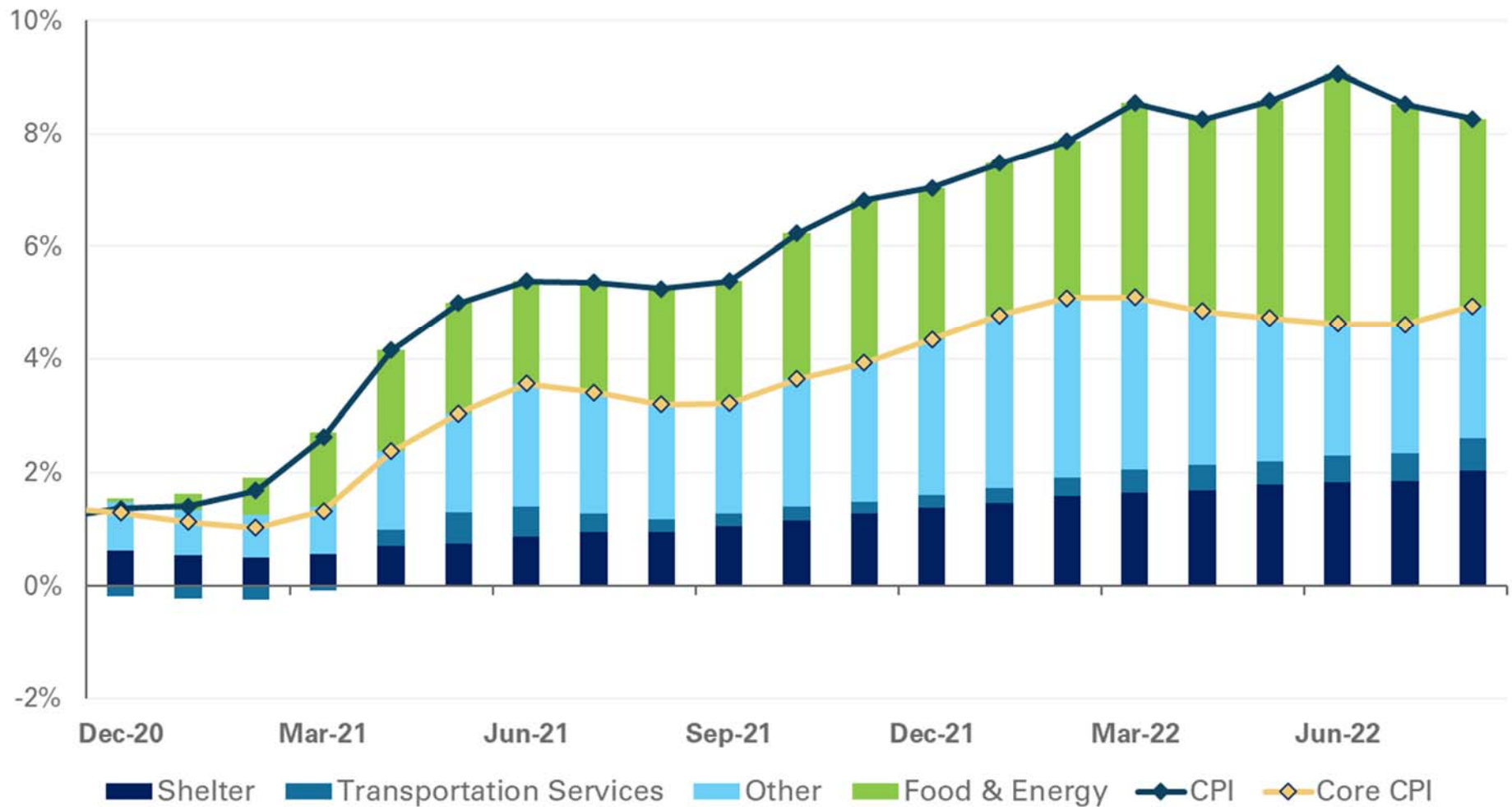


Calculated as of 12/31/1955 to 9/30/2022
Source: S&P, FactSet



CORE INFLATION INCREASED DURING THE QUARTER

ANNUAL U.S. CPI-U CHANGES

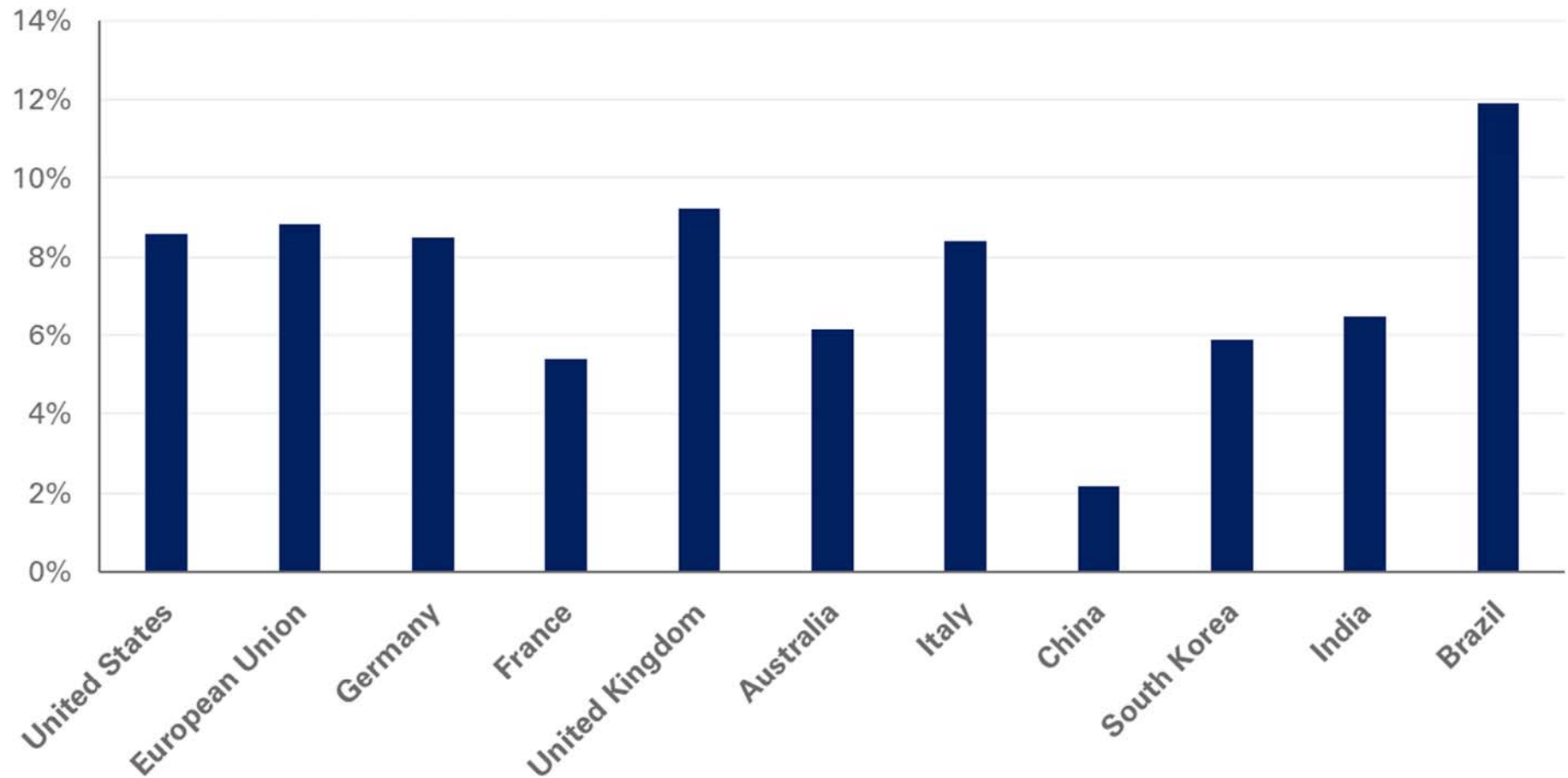


Source: Department of Labor, FactSet



GLOBAL INFLATION REMAINED ELEVATED

ANNUAL CPI CHANGES

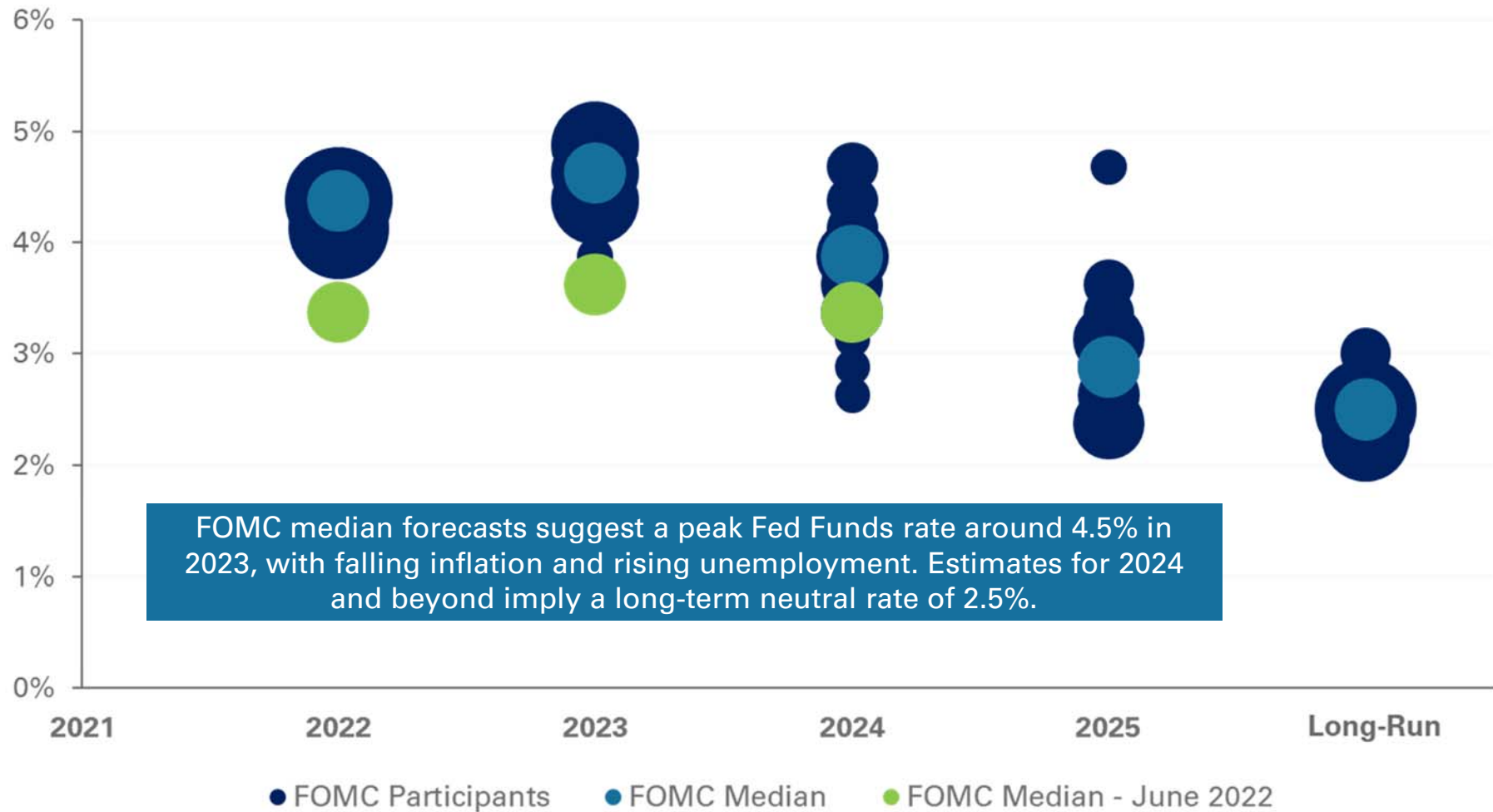


Figures as of 8/30/2022; Germany, Italy, and South Korea figures as of 9/30/2022
Source: FactSet



FOMC PROJECTS LOWER RATES IN 2024

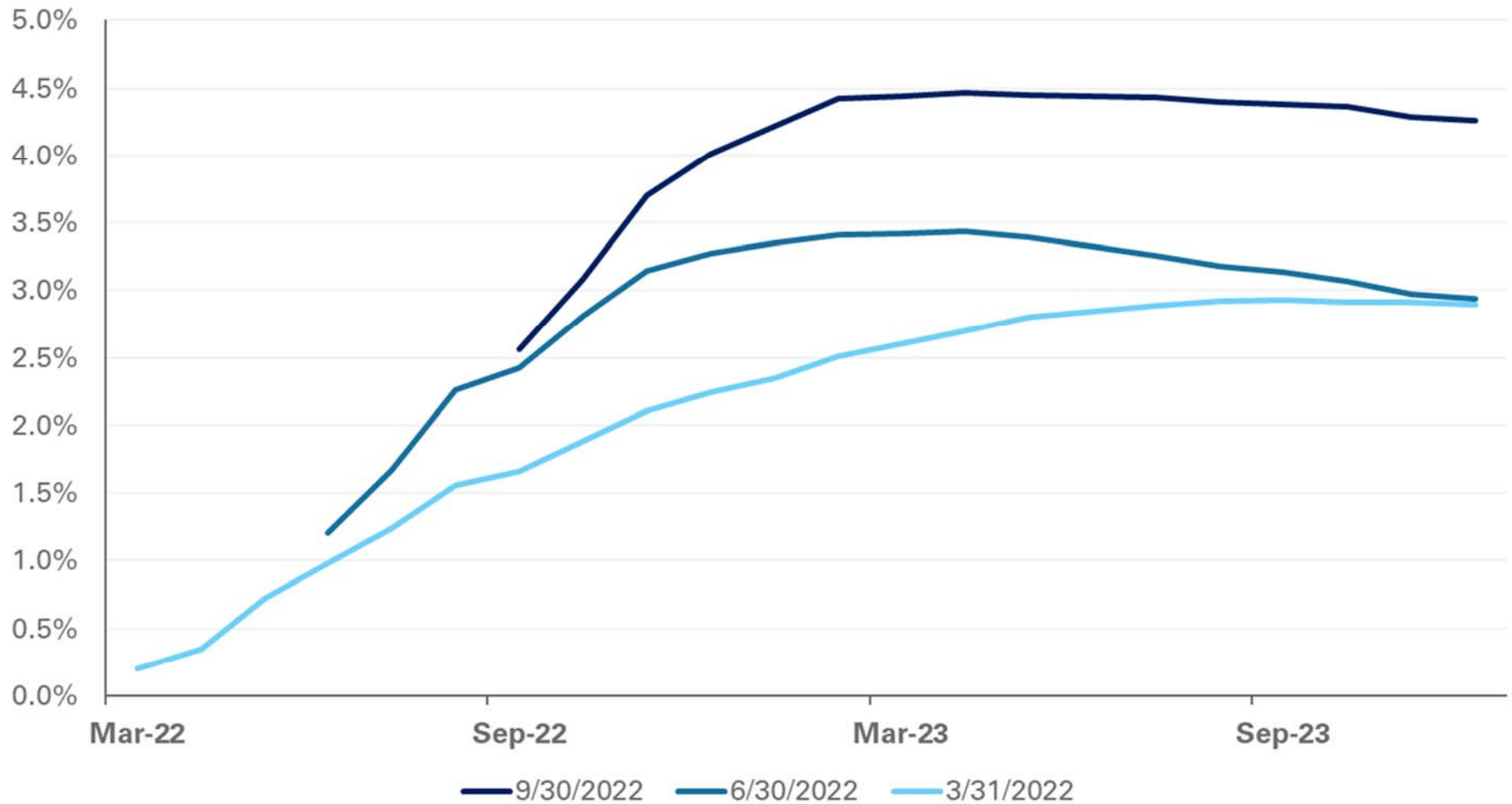
FOMC DOT PLOT PROJECTIONS



Source: Federal Reserve System

FED FUNDS EXPECTATIONS ROSE

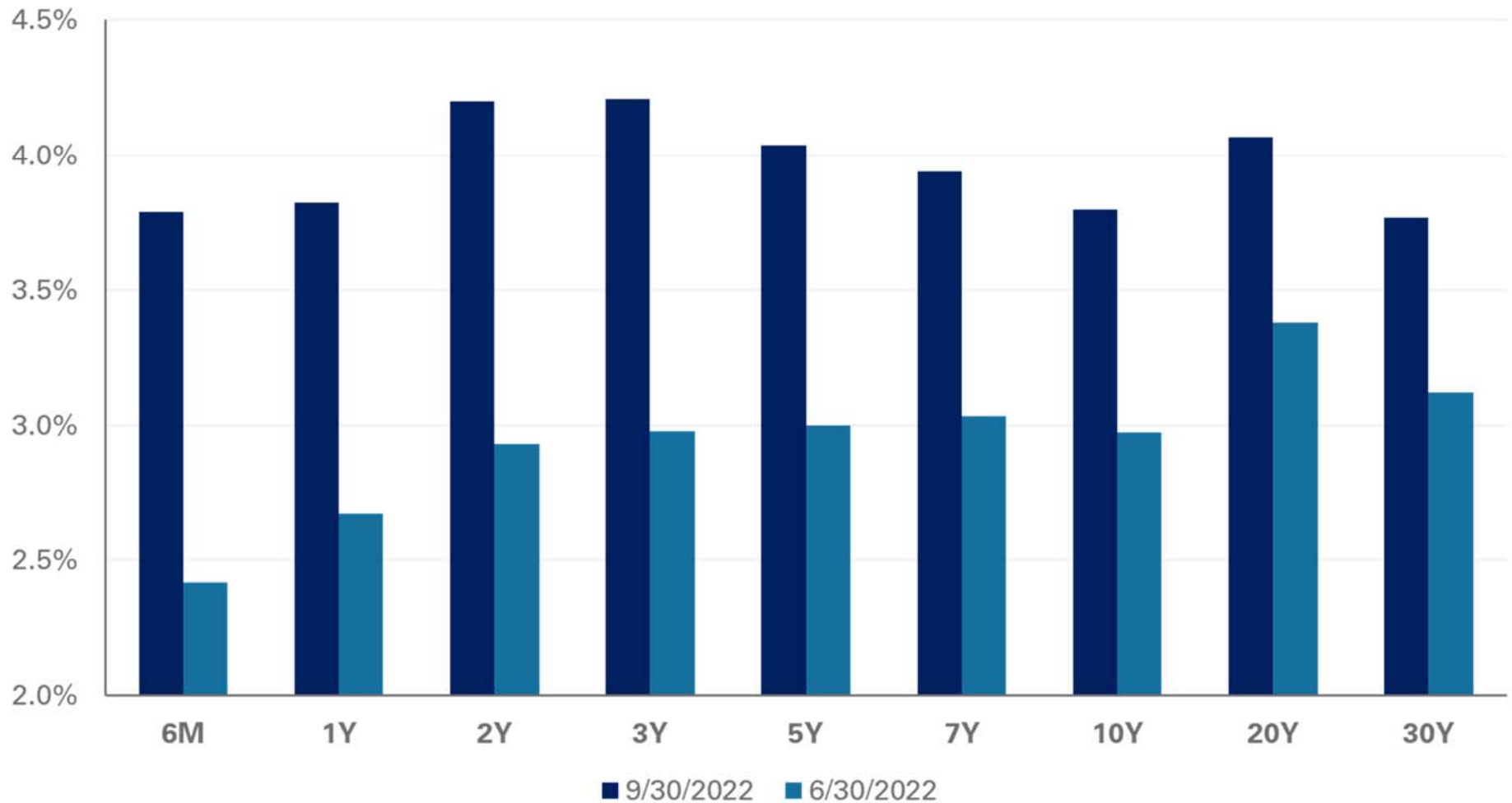
FEDERAL FUNDS FUTURES



Source: FactSet

NOMINAL TREASURY YIELDS SHIFTED HIGHER

U.S. TREASURY YIELD CURVE



Source: FactSet

TREASURY YIELDS INVERTED

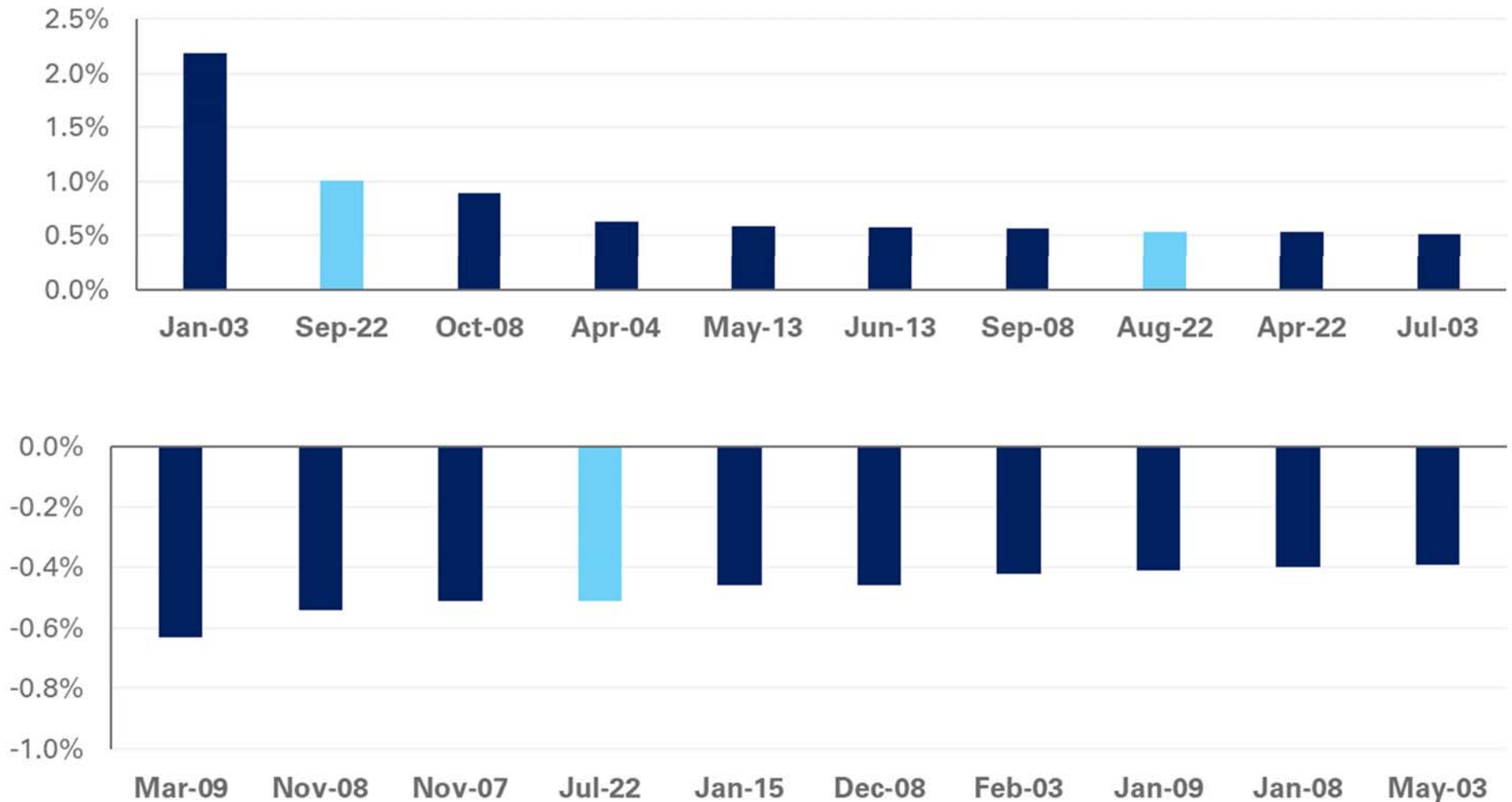
10Y-2Y TREASURY YIELD SPREAD



Source: FactSet

VOLATILE QUARTER FOR U.S. REAL YIELDS

TOP TEN MONTHLY CHANGES: 10-YEAR U.S. TIPS REAL YIELD



Calculated based on data between 12/31/2002 to 9/30/2022
Source: FactSet



THE DOLLAR STRENGTHENED

THE U.S. DOLLAR INDEX

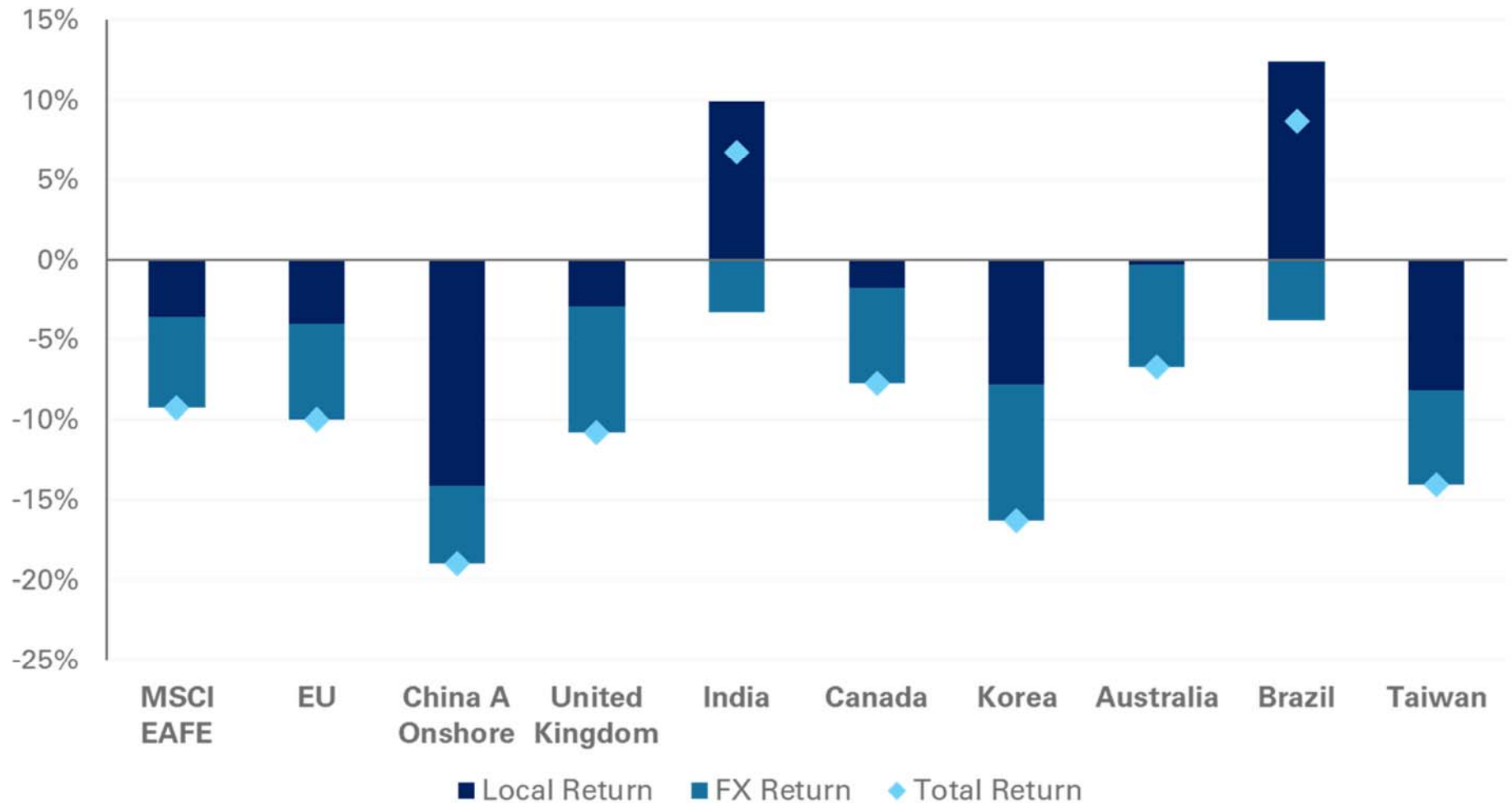


U.S. Dollar Index represents the value of the U.S. Dollar relative to the currencies of major trade partners. The Euro, Japanese Yen, Pound Sterling, and Canadian Dollar represent the largest weights within the Index.
Source: FactSet



DOLLAR STRENGTH WEIGHED ON NON-U.S. ASSETS

QUARTER-TO-DATE EQUITY RETURNS



Source: MSCI, FactSet

NON-U.S. CURRENCY WEAKNESS ACCELERATED

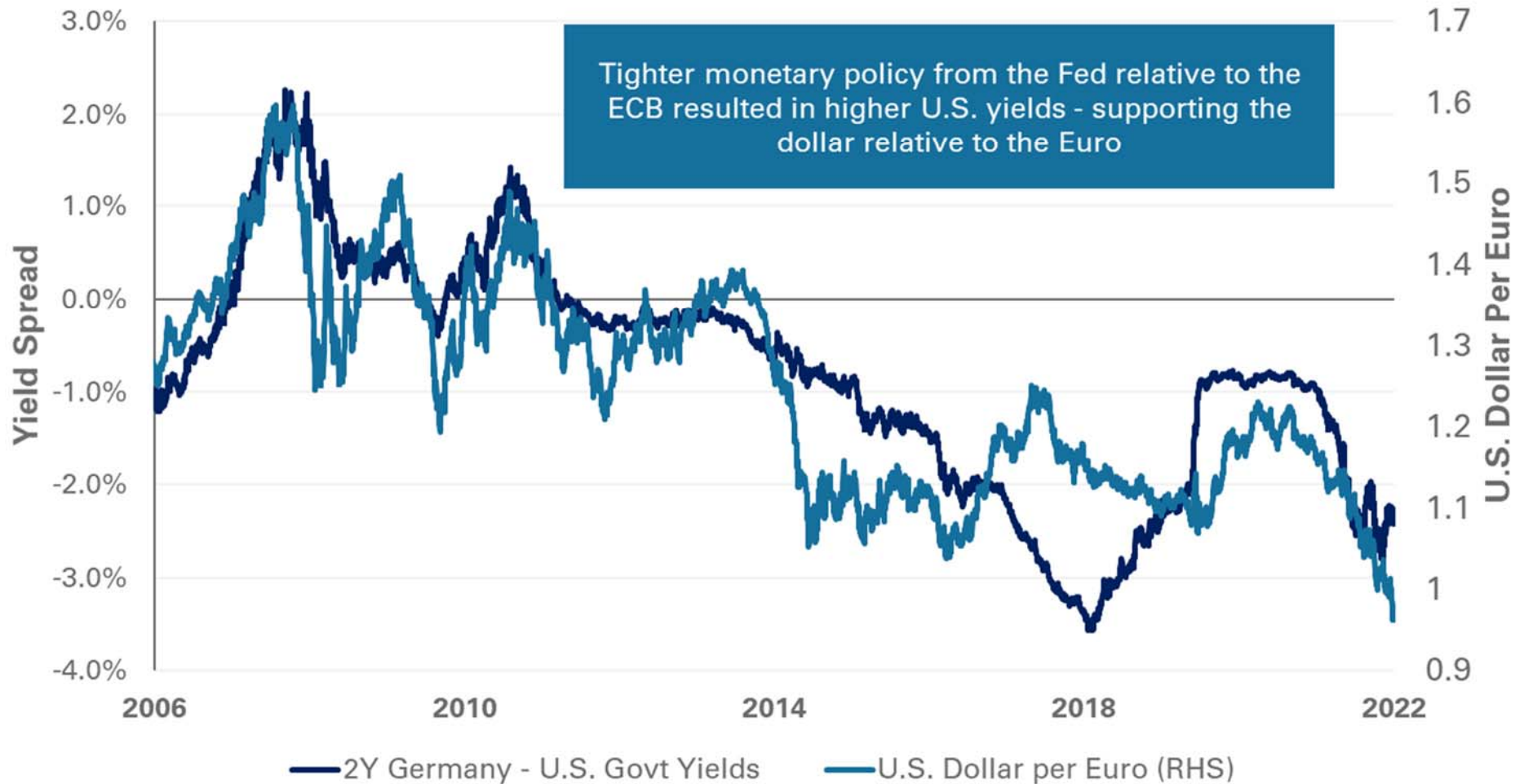
CUMULATIVE CURRENCY RETURNS



Source: FactSet

HIGH RELATIVE YIELDS BENEFIT THE DOLLAR

GERMANY VERSUS U.S. GOVERNMENT YIELD DIFFERENTIAL



Source: FactSet

GLOSSARY OF INVESTMENT TERMINOLOGY

- **# Of Portfolios/Observations¹**
 - The total number of data points that make up a universe or sample.
- **Allocation Index³**
 - The Allocation Index measures the value added to (or subtracted from) each portfolio by active management. It is calculated monthly: The portfolio weight allocated to each category from the prior month-end is multiplied by a specified market index return.
- **Asset Allocation Effect²**
 - Measures an investment manager’s ability to effectively allocate their portfolio’s assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.
- **Agency Bonds (Agencies)³**
 - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.
- **Asset Backed Securities (ABS)³**
 - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.
- **Attribution³**
 - Attribution is an analytical technique used to evaluate the performance of a portfolio relative to a benchmark. A proper attribution highlights where value was added or subtracted as a result of the manager’s decisions.
- **Average Effective Maturity⁴**
 - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.
- **Batting Average¹**
 - A measurement representing an investment manager's history in surpassing an index.
Formula: Divide the number of days (or months, quarters, etc.) in which the manager beat or matched the index by the total number of days (or months, quarters, etc.) in the time period, and multiply that factor by 100.
- **Brinson Fachler (BF) Attribution¹**
 - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio’s underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



GLOSSARY OF INVESTMENT TERMINOLOGY

- **Brinson Hood Beebower (BHB) Attribution¹**
 - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.
- **Corporate Bond (Corp)⁴**
 - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.
- **Correlation¹**
 - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.
- **Coupon⁴**
 - The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."
- **Currency Effect¹**
 - The effect that changes in currency exchange rates over time affect excess performance.
- **Derivative Instrument³**
 - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.
- **Downside Deviation¹**
 - The standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.
Formula: Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.
- **Duration³**
 - Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.
- **Equity/Debt/Cash Ratio¹**
 - The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. a 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).
- **Foreign Bond³**
 - A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.
- **Hard Hurdle⁵**
 - A rate of return that, once beaten, allows a fund manager to charge a performance fee on returns above the specified hurdle rate.
- **High-Water Mark⁴**
 - The highest value that an investment fund/account has reached. This term is often used in the context of fund manager compensation, which is performance-based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



GLOSSARY OF INVESTMENT TERMINOLOGY

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- **Hurdle Rate⁴**
 - The minimum rate of return on an investment required for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.
- **Interaction Effect²**
 - The Interaction Effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and overweighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with either effect.
- **Median³**
 - The value that exceeds one-half of the values in a population and that is exceeded by one-half of the values. The median has a percentile rank of 50.
- **Modified Duration³**
 - The percentage change in the price of a fixed income security that results from a change in yield.
- **Mortgage Backed Securities (MBS)³**
 - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.
- **Municipal Bond (Muni)⁴**
 - A debt security issued by a state, municipality or county to finance its capital expenditures.
- **Net Investment Change¹**
 - The change in an investment after accounting for all Net Cash Flows.
- **Performance Fee⁴**
 - A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.
- **Policy Index³**
 - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in the investment policy statement.
- **Price to Book (P/B)⁴**
 - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".
- **Price to Earnings (P/E)³**
 - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).
- **Price to Sales (P/S)⁴**
 - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.
- **Quartile³**
 - One of four segments of a distribution. The top quartile consists of observations that rank from 1 to 25, the second quartile consists of observations that rank between 25 and 50, etc.

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GLOSSARY OF INVESTMENT TERMINOLOGY

- **Rank³**
 - The relative position of a single observation in a larger population. Universe rankings range from 1 to 100, with 1 being the best and 100 the worst.
- **Return on Equity (ROE)⁴**
 - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.
- **Selection (or Manager) Effect²**
 - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect: The larger the sector, the larger the effect, positive or negative.
- **Soft Hurdle⁵**
 - A rate of return that, once beaten, allows a fund manager to charge a performance fee based on the entire annualized return.
- **Tiered Fee¹**
 - A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).
- **Total Effect²**
 - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.
- **Total Return¹**
 - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over the time period.
- **Universe³**
 - The list of all assets eligible for inclusion in a portfolio, or group of portfolios eligible for inclusion in a distribution.
- **Upside Deviation¹**
 - Standard Deviation of Positive Returns
- **Weighted Average Market Cap.⁴**
 - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.
- **Yield (%)³**
 - The current yield of a security is the current indicated annual dividend rate divided by current price.
- **Yield to Maturity³**
 - The discount rate that equates the present value of cash flows, both principal and interest, to market price.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv

