



# INVESTMENT PERFORMANCE SUMMARY

OFFICE OF THE STATE TREASURER &  
CASH MANAGEMENT POLICY BOARD

JUNE 30, 2021

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PROPRIETARY & CONFIDENTIAL



# MARKET OVERVIEW



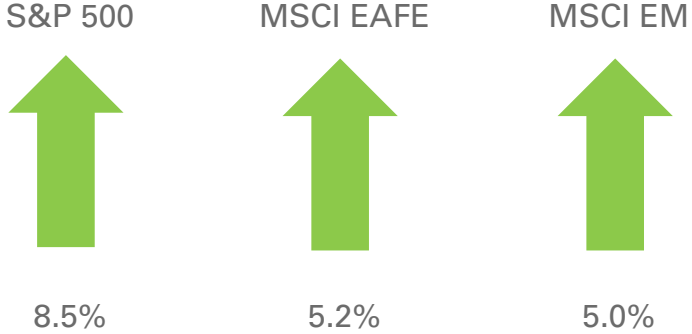
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# MARKET OVERVIEW

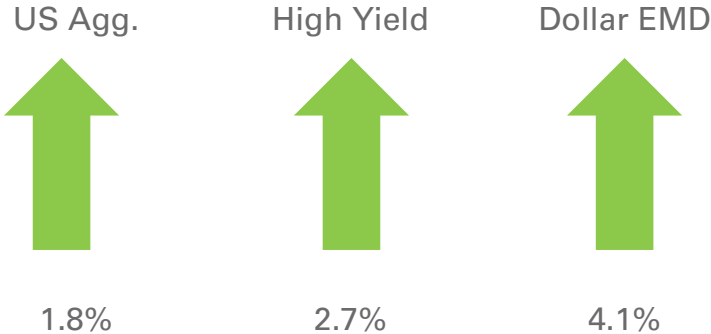
## Macro



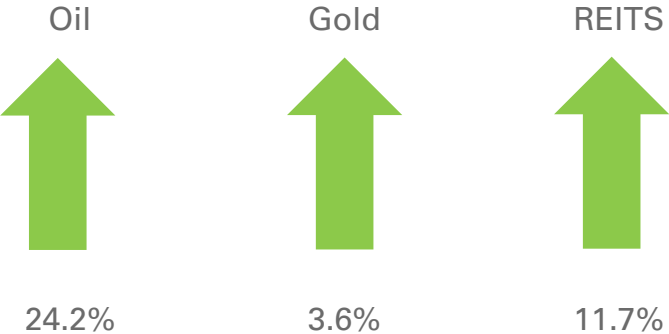
## Equity



## Credit



## Real Assets

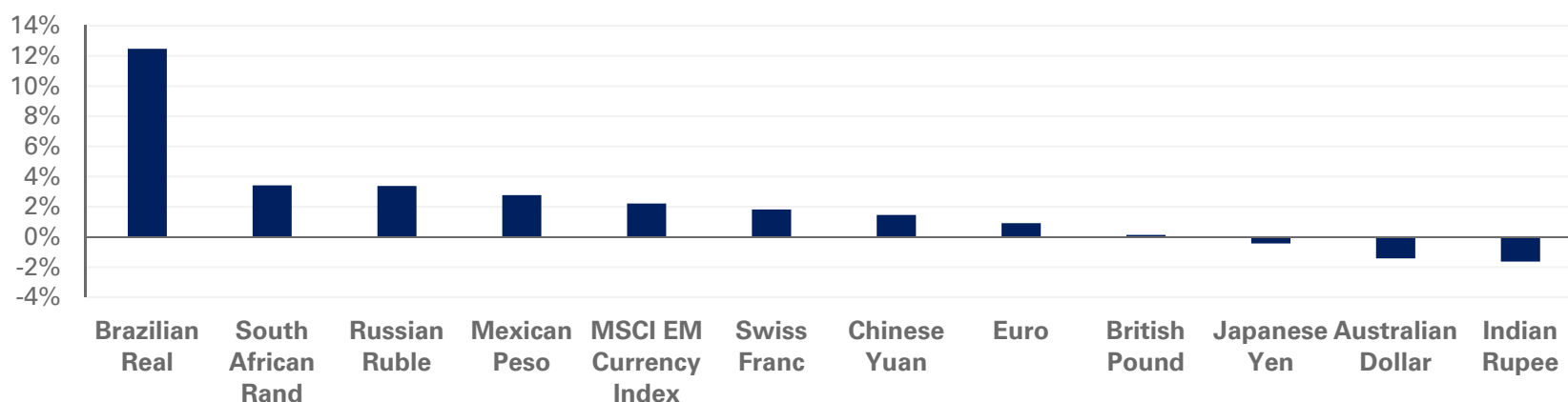


Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM EMBI Global Diversified Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITS (NAREIT Composite Index).  
 Source: CBOE, S&P, MSCI, Bloomberg, JPM, NAREIT, FactSet



# MACRO OVERVIEW

## CURRENCY PERFORMANCE RELATIVE TO U.S. DOLLAR



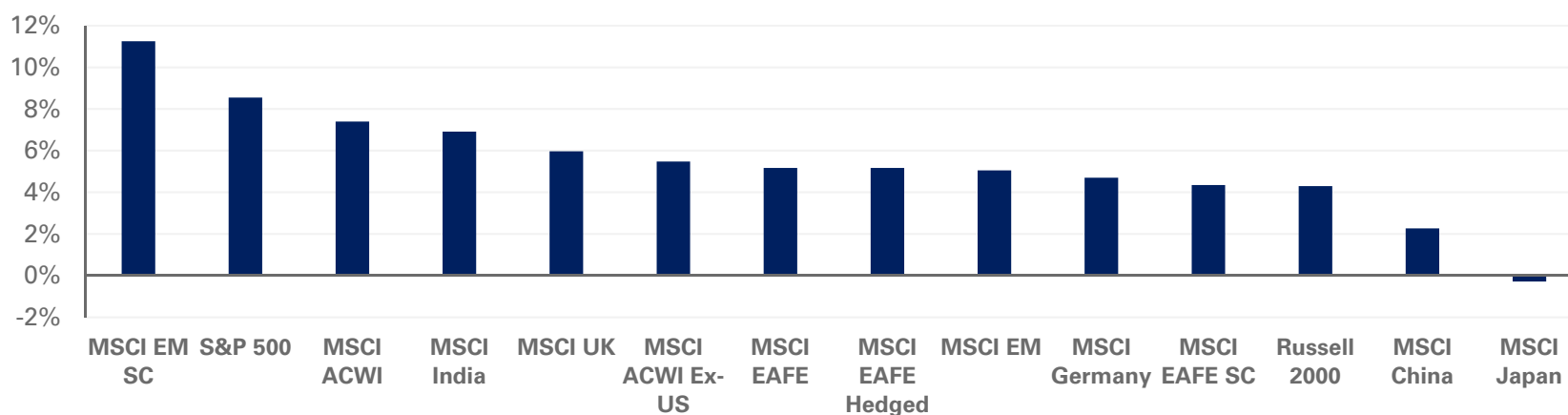
Central Banks	Current Rate	CPI YOY	Notes from the Quarter
<b>Federal Reserve</b>	0.00% - 0.25%	5.3%	The Fed maintained current levels of monthly asset purchases and projected two rate hikes by the end of 2023
<b>European Central Bank</b>	0.00%	1.9%	The ECB left rates unchanged and maintained its €1.85T emergency bond-buying program until at least March 2022
<b>Bank of Japan</b>	-0.10%	-0.1%	The BoJ will continue to maintain pandemic-relief measures QE program with inflation remaining well below target

Source (Top): MSCI, FactSet  
Source (Bottom): MSCI, FactSet



# EQUITY OVERVIEW

## QUARTERLY RETURN



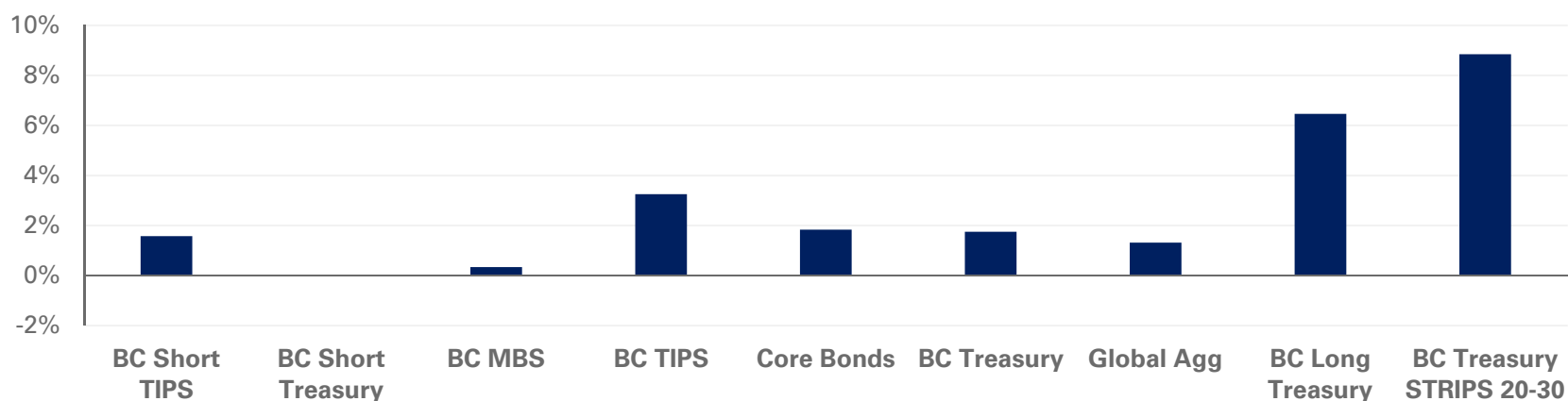
Russell 3000 QTD Sector Returns	QTD	1 year
Technology	13.7%	49.1%
Health Care	8.2%	29.5%
Consumer Discretionary	5.6%	50.5%
Consumer Staples	2.8%	24.3%
Energy	11.6%	58.3%
Materials & Processing	4.7%	53.4%
Producer Durables	6.0%	50.1%
Financial Services	6.9%	59.6%
Utilities	0.4%	17.6%



Source (Top): MSCI, Russell, S&P, FactSet  
Source (Bottom): Russell, FactSet

# RATES OVERVIEW

## QUARTERLY RETURN



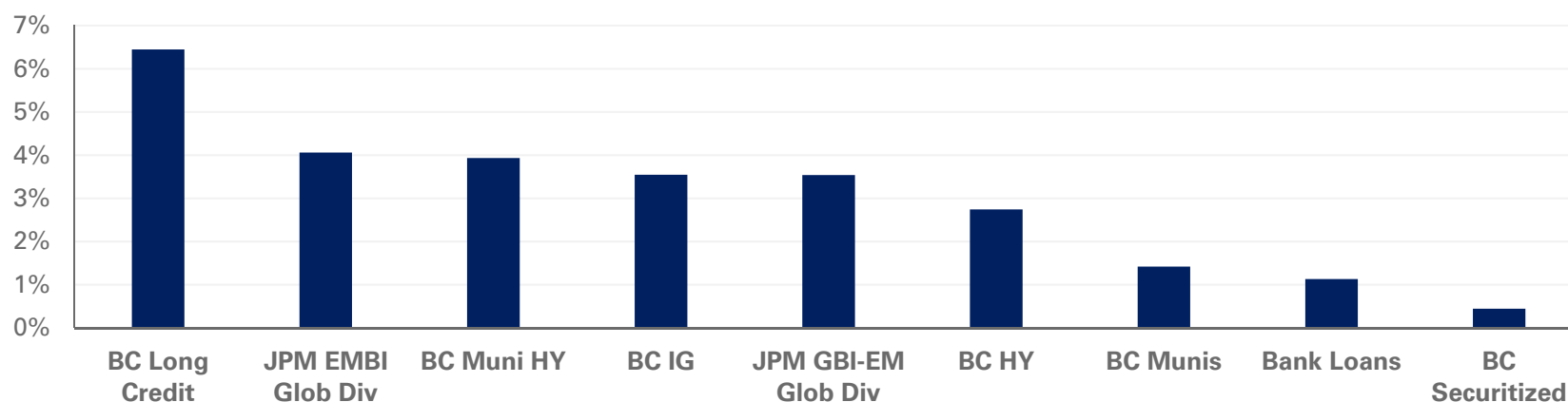
	Previous Quarter	Current Quarter	Δ
US 10-Year	1.74%	1.45%	-0.29%
US 30-Year	2.42%	2.06%	-0.36%
US Real 10-Year	-0.63%	-0.87%	-0.24%
German 10-Year	-0.30%	-0.21%	0.09%
Japan 10-Year	0.09%	0.05%	-0.03%
China 10-Year	3.21%	3.13%	-0.09%
EM Local Debt	4.99%	4.98%	-0.01%



Source (Top): Bloomberg, FactSet  
Source (Bottom): JPM, FactSet

# CREDIT OVERVIEW

## QUARTERLY RETURN



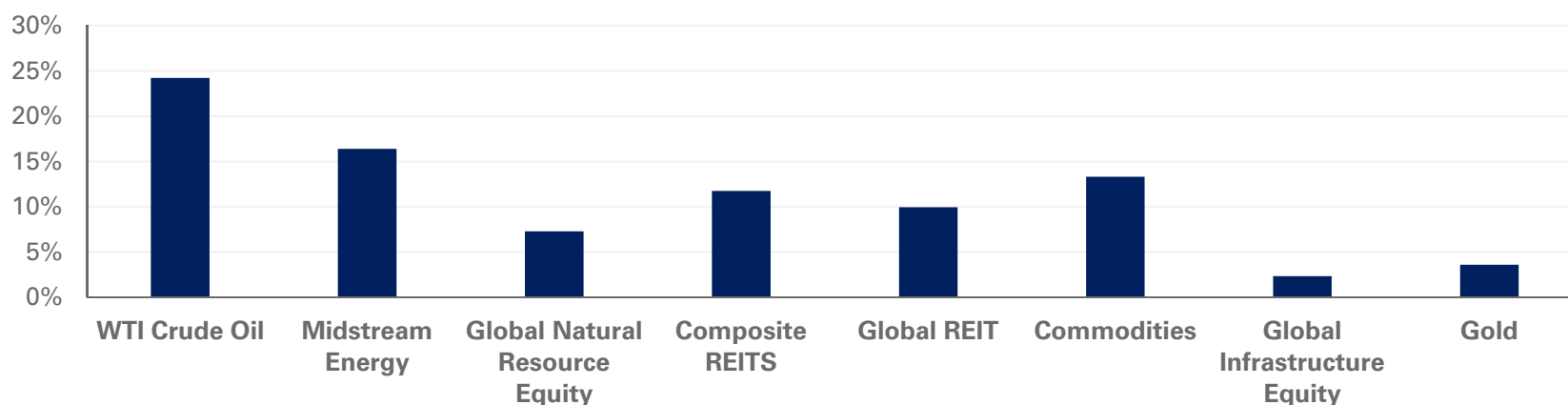
Credit Spread (Basis Points)	3/31/2021	6/30/2021	Δ	Median
BC IG Credit	91	80	-11	136
BC Long Credit	126	118	-8	175
BC Securitized	16	29	13	49
BC High Yield	310	268	-42	477
Muni HY	364	309	-55	631
JPM EMBI Glob Div	354	340	-14	344
Bank Loans - Libor	355	355	0	428

Notes: Medians calculated since 11/30/2000  
 Source (Top): Bloomberg, JPM, FactSet  
 Source (Bottom): Bloomberg, JPM, FactSet



# REAL ASSET OVERVIEW

## QUARTERLY RETURN



Real Asset Yields	Previous Quarter	Current Quarter
Midstream Energy	6.6%	5.9%
Core Real Estate	3.0%	3.0%
US REITs	3.6%	3.1%
Global Infrastructure Equities	3.0%	2.9%
Global Natural Resource Equities	3.0%	3.0%
Commodity Index Roll Yield	3.3%	2.8%
US 10-Year Breakeven Inflation	2.37%	2.32%

Note: Core Real Estate\* yields are subject to a one quarter lag  
 Source (Top): S&P, MSCI, Russell, JPM, FactSet  
 Source (Bottom): Alerian, NAREIT, Barclays, NEPC, FactSet







# EXECUTIVE SUMMARY



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# Delaware Office of the State Treasurer

## TOTAL FUND PERFORMANCE SUMMARY

	Market Value	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception Date
<b>Delaware Total Consolidation</b>	\$5,116,369,860	0.66%	-0.64%	-0.19%	3.71%	2.59%	2.21%	Jan-05
<b>Delaware Total Consolidation ex. CARES &amp; ARPA</b>	\$4,027,024,113	0.75%	-0.70%	-0.17%	3.81%	2.65%	2.23%	Jan-05
<b>Total Liquidity &amp; Reserve</b>	\$3,940,798,091	0.64%	-0.90%	-0.62%	3.69%	--	2.75%	Nov-16
<b>Total Liquidity</b>	\$1,338,065,334	0.04%	0.07%	0.23%	1.87%	1.56%	1.76%	Jan-05
<i>eV US Cash Management Net Median</i>		0.00%	0.02%	0.07%	1.40%	1.29%	1.41%	Jan-05
<b>Total Reserve</b>	\$2,602,732,757	0.94%	-1.29%	-0.94%	4.50%	2.79%	2.57%	Jan-05
<i>Reserve Custom Index</i>		1.15%	-1.21%	-0.76%	4.66%	2.77%	2.76%	Jan-05
<i>eV US Interm Duration Fixed Inc Net Median</i>		1.04%	-0.67%	0.86%	4.68%	2.72%	3.79%	Jan-05
<b>Total Endowment</b>	\$86,226,021	5.46%	7.77%	20.91%	9.64%	9.53%	7.71%	Aug-15
<i>Endowment Custom Index</i>		5.36%	7.01%	22.10%	11.49%	10.26%	8.52%	Aug-15
<i>eV Global Balanced Net Median</i>		4.83%	12.10%	29.69%	9.07%	9.25%	6.80%	Aug-15
<b>CARES</b>	\$164,384,049	0.02%	0.03%	0.05%	--	--	0.06%	Apr-20
<i>FTSE T-Bill 1 Month TR</i>		0.00%	0.01%	0.06%	1.23%	1.08%	0.07%	Apr-20
<i>eV US Cash Management Net Median</i>		0.00%	0.02%	0.07%	1.40%	1.29%	0.26%	Apr-20
<b>ARPA</b>	\$924,961,699	--	--	--	--	--	-0.05%	May-21
<i>FTSE T-Bill 1 Month TR</i>		0.00%	0.01%	0.06%	1.23%	1.08%	0.00%	May-21
<i>eV US Cash Management Net Median</i>		0.00%	0.02%	0.07%	1.40%	1.29%	0.00%	May-21

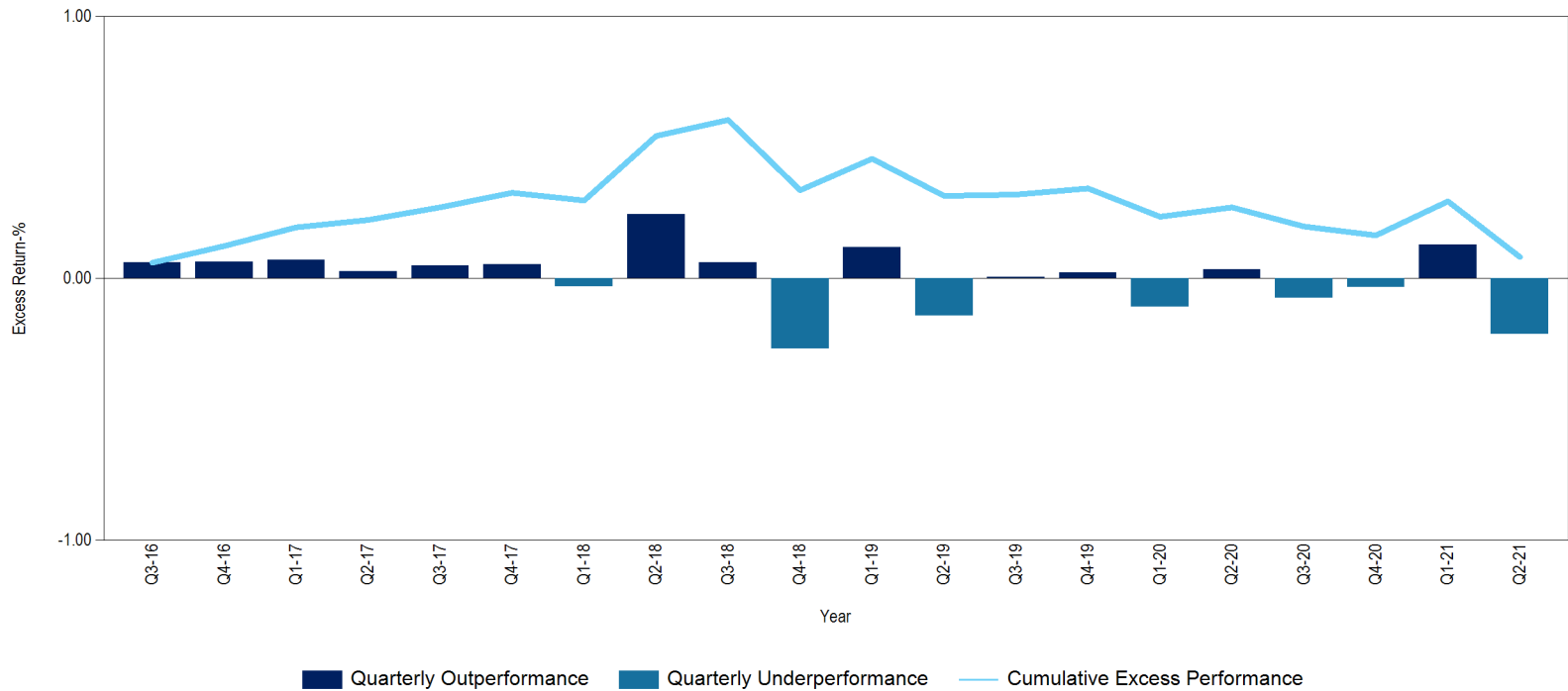
ARPA funded May 2021. Performance is shown first full quarter after funding.



# Delaware Office of the State Treasurer

## TOTAL FUND PERFORMANCE SUMMARY

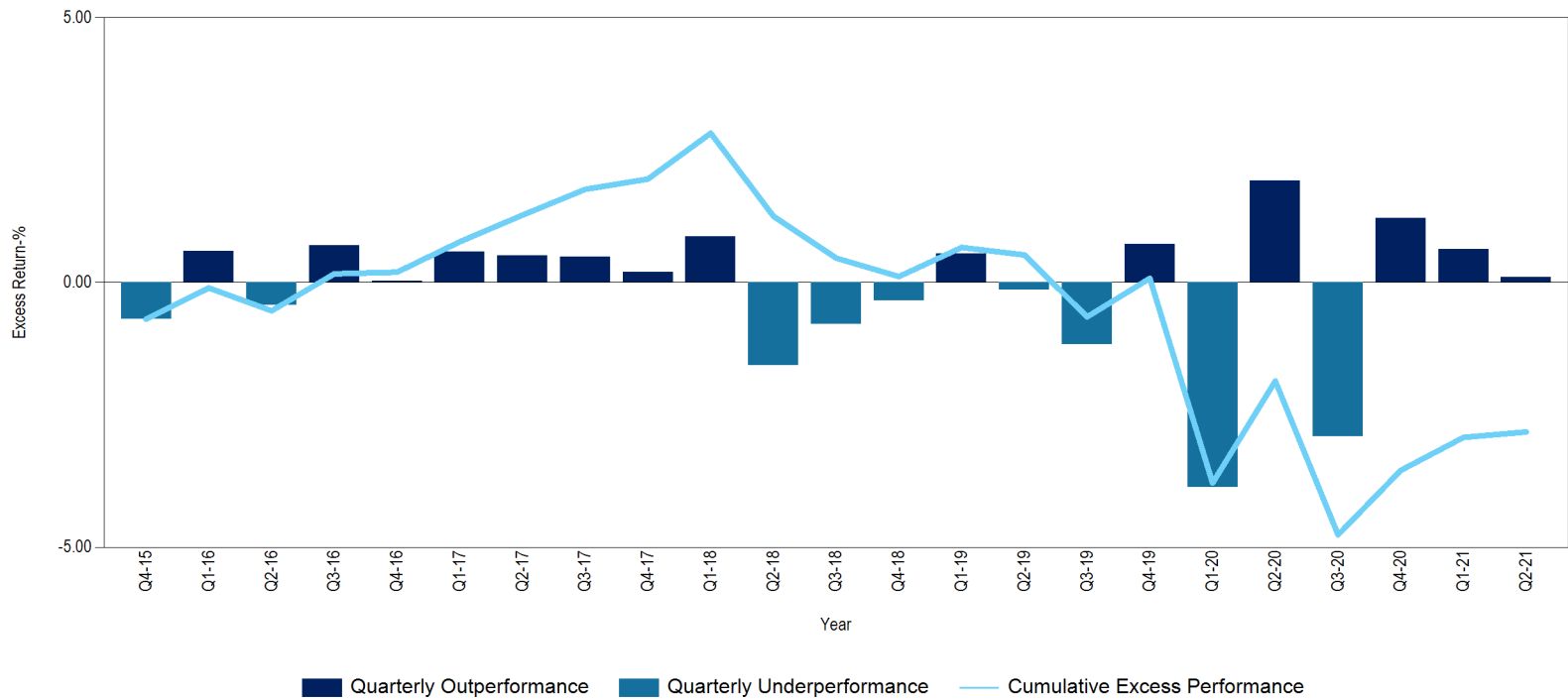
Quarterly and Cumulative Excess Performance  
Total Reserve vs. Reserve Custom Index



# Delaware Office of the State Treasurer

## TOTAL FUND PERFORMANCE SUMMARY

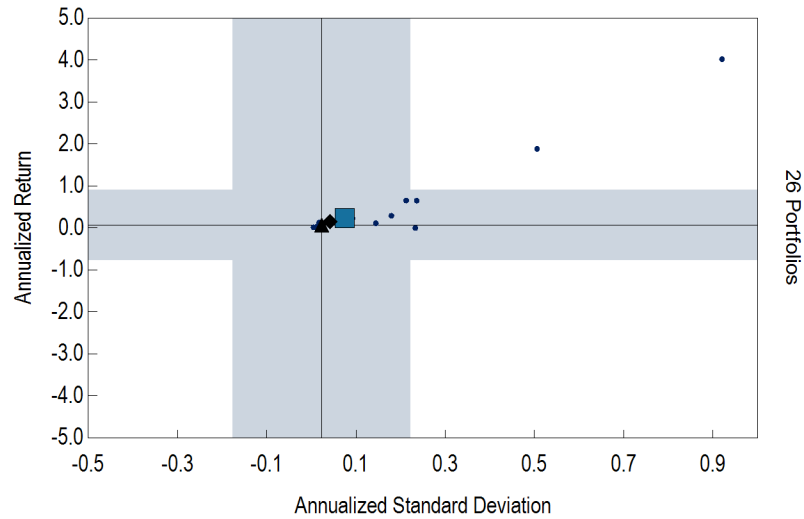
Quarterly and Cumulative Excess Performance  
Total Endowment vs. Endowment Custom Index



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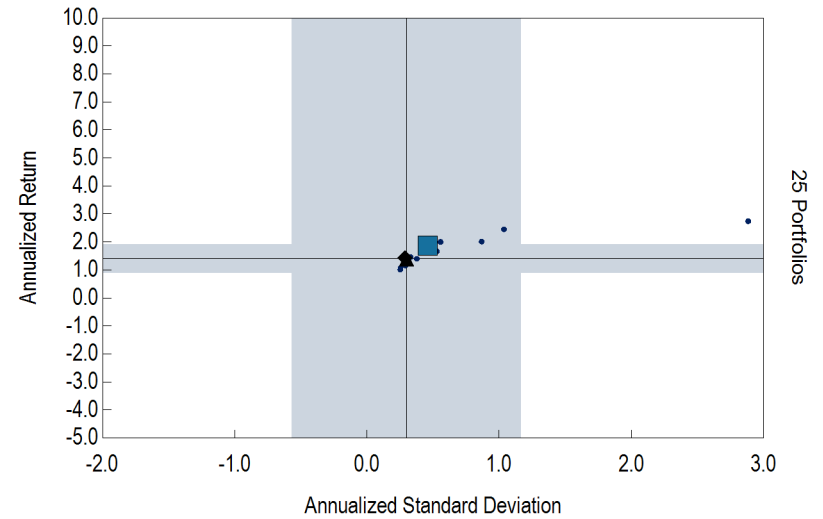
## LIQUIDITY RISK/RETURN - 1 & 3 YEARS

3 Months Ending June 30, 2021



- Total Liquidity
- ◆ FTSE T-Bill 6 Months TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

1 Year Ending June 30, 2021



- Total Liquidity
- ◆ FTSE T-Bill 6 Months TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

1 Year Ending June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Liquidity	0.23%	0.08%	2.35

3 Years Ending June 30, 2021

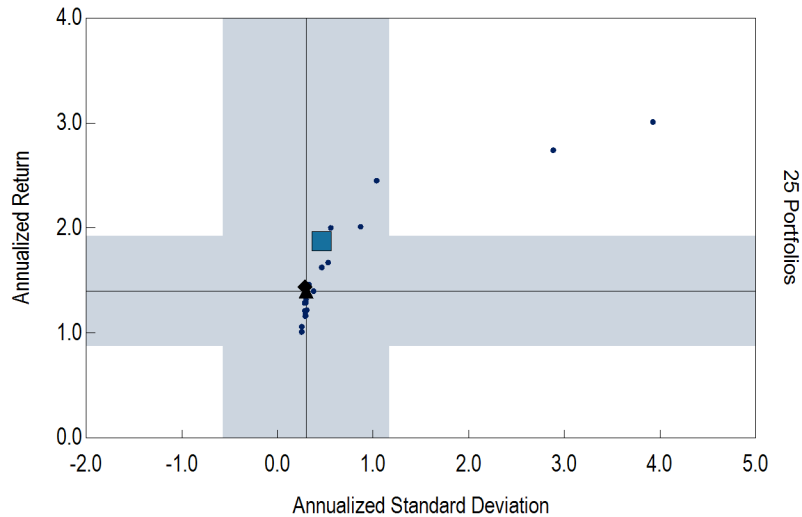
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Liquidity	1.87%	0.46%	1.46



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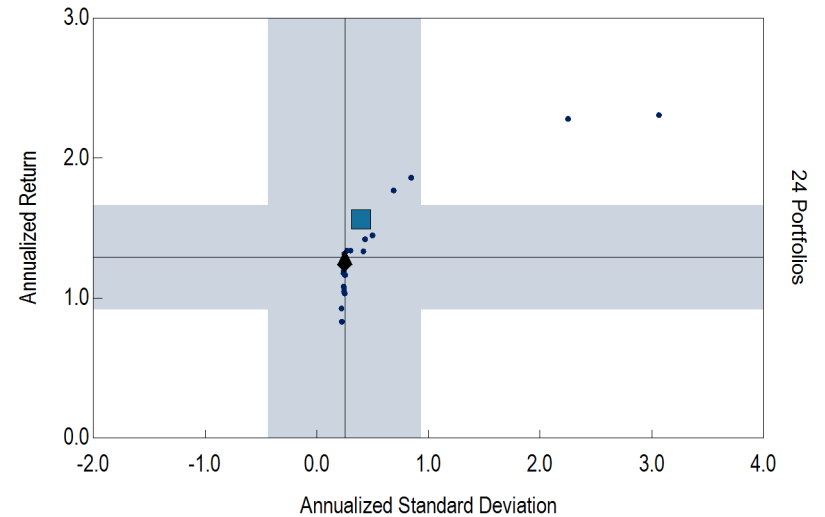
## LIQUIDITY RISK/RETURN - 3 & 5 YEARS

3 Years Ending June 30, 2021



- Total Liquidity
- ◆ FTSE T-Bill 6 Months TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

5 Years Ending June 30, 2021



- Total Liquidity
- ◆ FTSE T-Bill 6 Months TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

3 Years Ending June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
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Total Liquidity	1.87%	0.46%	1.46
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5 Years Ending June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
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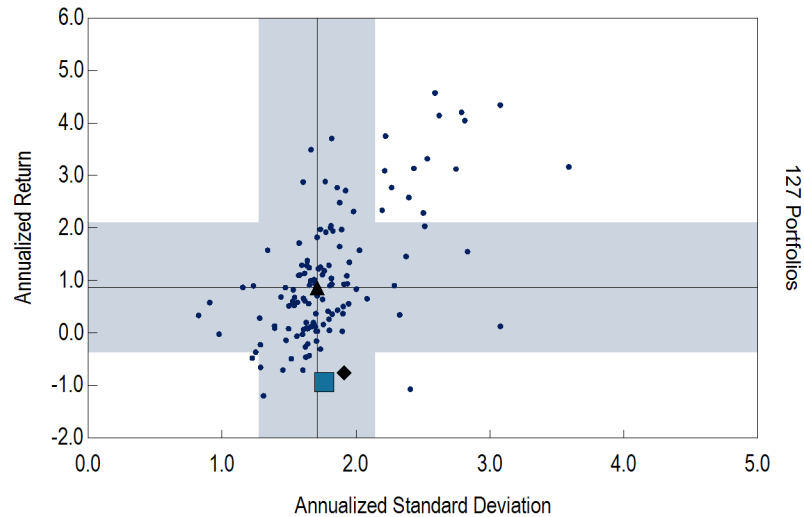
Total Liquidity	1.56%	0.40%	1.14
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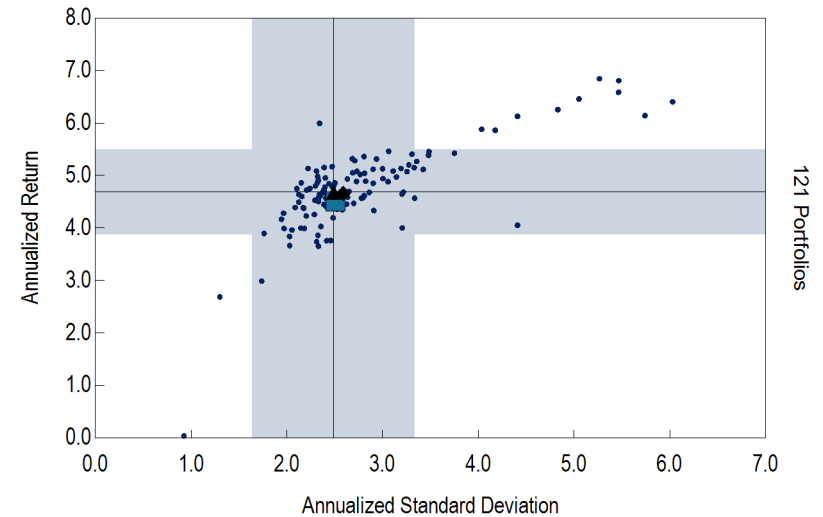
## RESERVE RISK/RETURN - 1 & 3 YEARS

1 Year Ending June 30, 2021



- Total Reserve
- ◆ Reserve Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV US Interm Duration Fixed Inc Net

3 Years Ending June 30, 2021



- Total Reserve
- ◆ Reserve Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV US Interm Duration Fixed Inc Net

1 Year Ending June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve	-0.94%	1.76%	-0.57
Reserve Custom Index	-0.76%	1.91%	-0.43

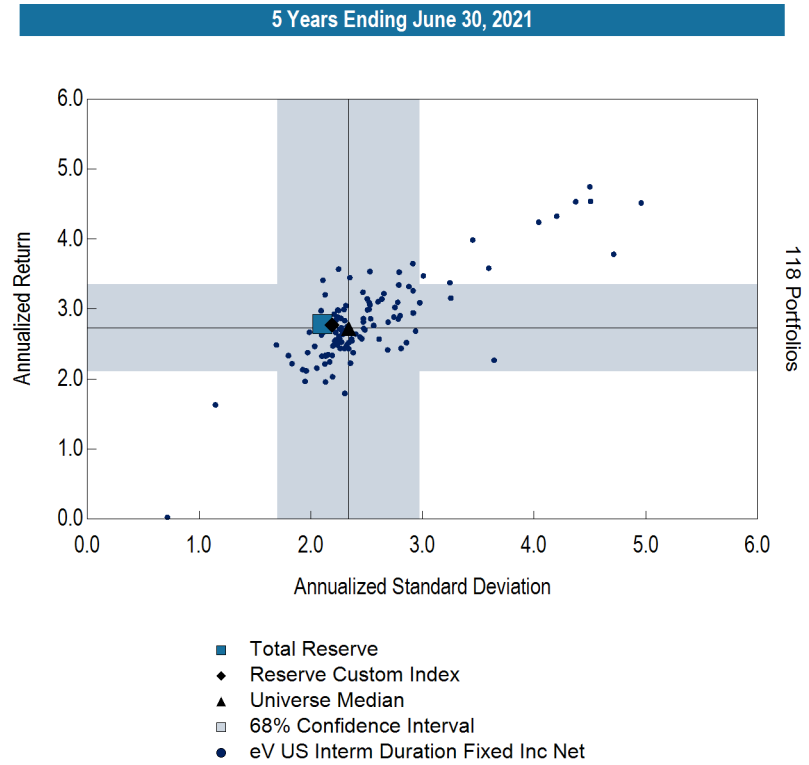
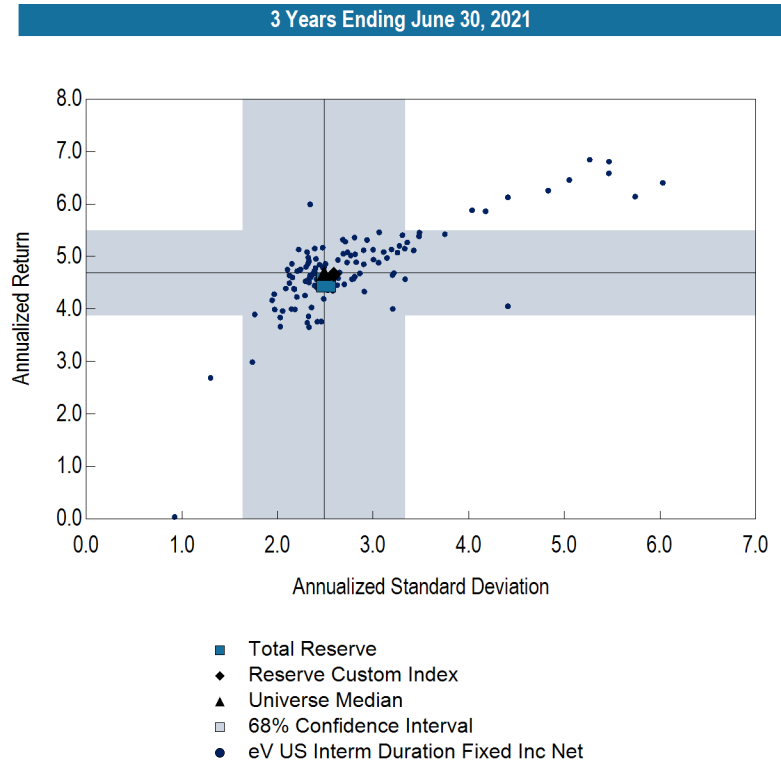
3 Years Ending June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve	4.50%	2.51%	1.30
Reserve Custom Index	4.66%	2.59%	1.32



# Delaware Office of the State Treasurer

## RESERVE RISK/RETURN - 3 & 5 YEARS



**3 Years Ending June 30, 2021**

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve	4.50%	2.51%	1.30
Reserve Custom Index	4.66%	2.59%	1.32

**5 Years Ending June 30, 2021**

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve	2.79%	2.11%	0.81
Reserve Custom Index	2.77%	2.19%	0.77

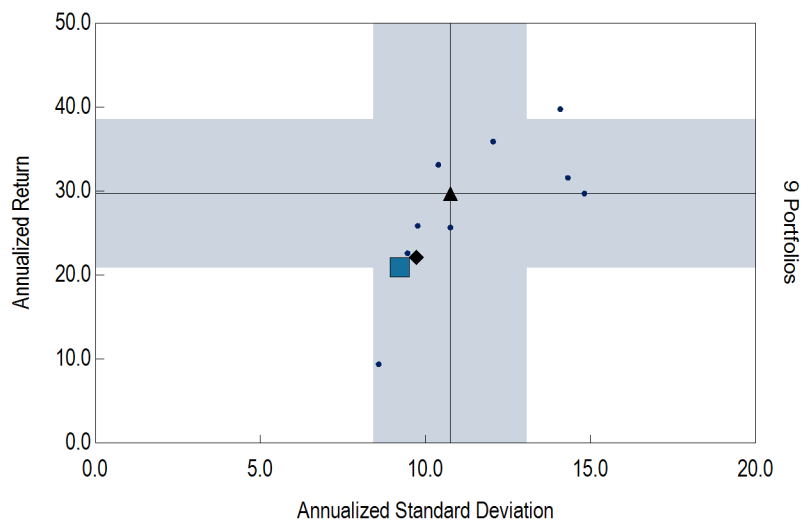




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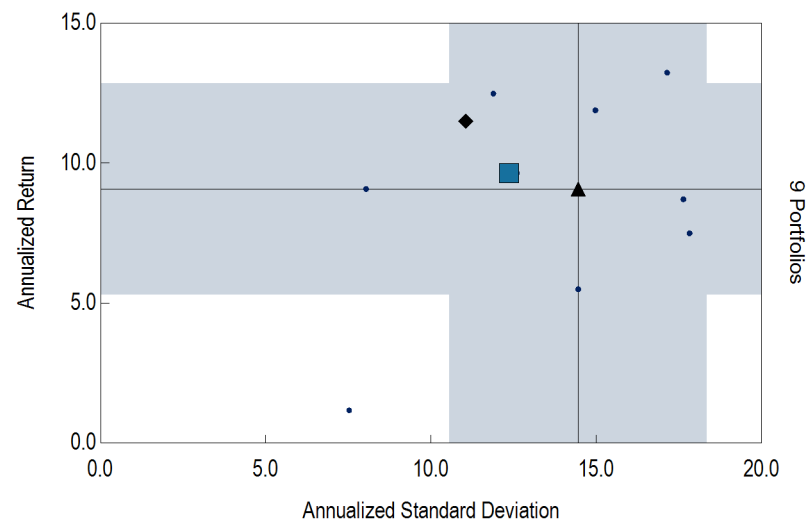
## ENDOWMENT RISK/RETURN - 1 & 3 YEARS

1 Year Ending June 30, 2021



- Total Endowment
- ◆ Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

3 Years Ending June 30, 2021



- Total Endowment
- ◆ Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

1 Year Ending June 30, 2021			
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	20.91%	9.23%	2.26
Endowment Custom Index	22.10%	9.72%	2.27

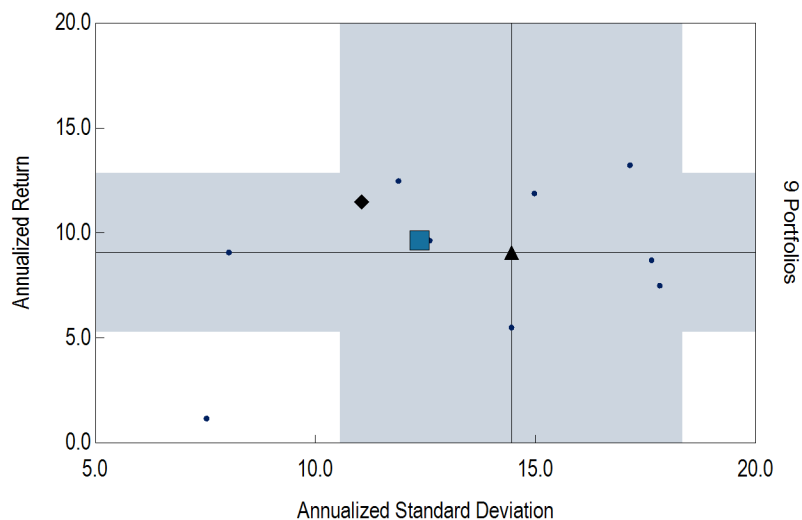
3 Years Ending June 30, 2021			
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	9.64%	12.37%	0.68
Endowment Custom Index	11.49%	11.05%	0.93



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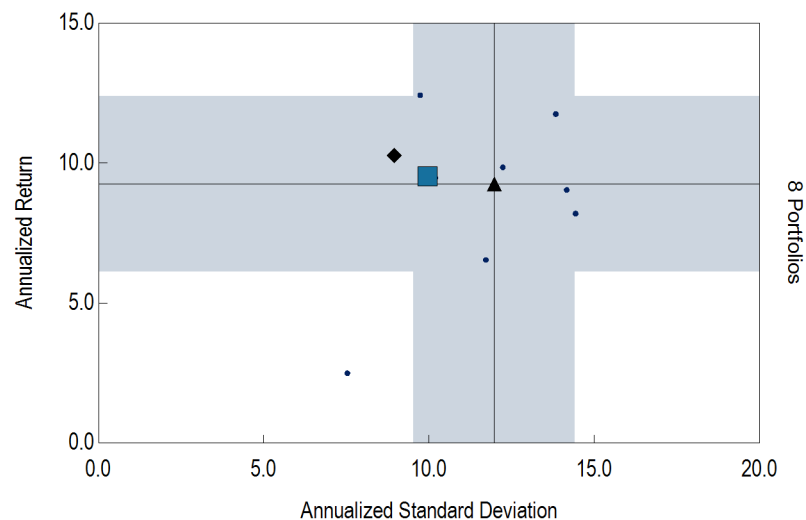
## ENDOWMENT RISK/RETURN - 3 & 5 YEARS

3 Years Ending June 30, 2021



- Total Endowment
- ◆ Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

5 Years Ending June 30, 2021



- Total Endowment
- ◆ Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

3 Years Ending June 30, 2021			
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	9.64%	12.37%	0.68
Endowment Custom Index	11.49%	11.05%	0.93

5 Years Ending June 30, 2021			
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	9.53%	9.95%	0.85
Endowment Custom Index	10.26%	8.95%	1.02



# Delaware Office of the State Treasurer

## TOTAL FUND PERFORMANCE DETAIL - NET OF FEES

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Delaware Total Consolidation</b>	<b>5,116,369,860</b>	<b>100.00</b>	<b>0.66</b>	<b>--</b>	<b>-0.64</b>	<b>--</b>	<b>-0.19</b>	<b>--</b>	<b>3.71</b>	<b>--</b>	<b>2.59</b>	<b>--</b>	<b>2.21</b>	<b>Jan-05</b>
<b>Delaware Total Consolidation ex. CARES &amp; ARPA</b>	<b>4,027,024,113</b>	<b>78.71</b>	<b>0.75</b>	<b>--</b>	<b>-0.70</b>	<b>--</b>	<b>-0.17</b>	<b>--</b>	<b>3.81</b>	<b>--</b>	<b>2.65</b>	<b>--</b>	<b>2.23</b>	<b>Jan-05</b>
<b>Total Liquidity &amp; Reserve</b>	<b>3,940,798,091</b>	<b>77.02</b>	<b>0.64</b>	<b>--</b>	<b>-0.90</b>	<b>--</b>	<b>-0.62</b>	<b>--</b>	<b>3.69</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>2.75</b>	<b>Nov-16</b>
<b>Total Liquidity</b>	<b>1,338,065,334</b>	<b>26.15</b>	<b>0.04</b>	<b>18</b>	<b>0.07</b>	<b>20</b>	<b>0.23</b>	<b>28</b>	<b>1.87</b>	<b>22</b>	<b>1.56</b>	<b>17</b>	<b>1.76</b>	<b>Jan-05</b>
<i>eV US Cash Management Net Median</i>			<i>0.00</i>		<i>0.02</i>		<i>0.07</i>		<i>1.40</i>		<i>1.29</i>		<i>1.41</i>	<i>Jan-05</i>
PFM Asset Management	670,165,384	13.10	0.05	18	0.09	19	0.23	28	1.83	22	1.58	17	1.23	Jun-13
Wilmington Liquidity	667,899,950	13.05	0.04	19	0.05	24	0.23	28	1.92	20	1.50	19	4.03	Jan-85
<b>Total Reserve</b>	<b>2,602,732,757</b>	<b>50.87</b>	<b>0.94</b>	<b>71</b>	<b>-1.29</b>	<b>98</b>	<b>-0.94</b>	<b>99</b>	<b>4.50</b>	<b>69</b>	<b>2.79</b>	<b>48</b>	<b>2.57</b>	<b>Jan-05</b>
<i>Reserve Custom Index</i>			<i>1.15</i>	<i>35</i>	<i>-1.21</i>	<i>97</i>	<i>-0.76</i>	<i>99</i>	<i>4.66</i>	<i>54</i>	<i>2.77</i>	<i>48</i>	<i>2.76</i>	<i>Jan-05</i>
<i>eV US Intern Duration Fixed Inc Net Median</i>			<i>1.04</i>		<i>-0.67</i>		<i>0.86</i>		<i>4.68</i>		<i>2.72</i>		<i>3.79</i>	<i>Jan-05</i>
JPM Intermediate	983,835,579	19.23	0.07	80	0.01	44	0.34	76	3.03	63	1.90	73	1.69	Jun-13
<i>J.P. Morgan Custom Index</i>			<i>0.01</i>	<i>89</i>	<i>-0.03</i>	<i>51</i>	<i>0.27</i>	<i>80</i>	<i>2.85</i>	<i>76</i>	<i>1.75</i>	<i>80</i>	<i>1.58</i>	<i>Jun-13</i>
Blackrock Financial Mangement	522,812,835	10.22	0.26	51	-0.23	76	0.29	79	3.60	23	--	--	3.41	Mar-18
<i>Blackrock Custom Index</i>			<i>0.20</i>	<i>58</i>	<i>-0.33</i>	<i>89</i>	<i>0.06</i>	<i>91</i>	<i>3.49</i>	<i>29</i>	<i>2.11</i>	<i>59</i>	<i>3.26</i>	<i>Mar-18</i>
Chandler Asset Management	553,398,402	10.82	1.94	62	-2.14	98	-1.50	99	5.87	36	3.56	34	2.76	Jun-13
Lazard Financial Management	542,685,942	10.61	1.74	85	-2.37	99	-2.48	99	5.55	68	--	--	5.12	Mar-18
<i>Chandler/Lazard Custom Index</i>			<i>2.20</i>	<i>29</i>	<i>-2.25</i>	<i>99</i>	<i>-1.70</i>	<i>99</i>	<i>6.14</i>	<i>23</i>	<i>3.60</i>	<i>31</i>	<i>5.53</i>	<i>Mar-18</i>
<b>Total Endowment</b>	<b>86,226,021</b>	<b>1.69</b>	<b>5.46</b>	<b>43</b>	<b>7.77</b>	<b>62</b>	<b>20.91</b>	<b>90</b>	<b>9.64</b>	<b>38</b>	<b>9.53</b>	<b>41</b>	<b>7.71</b>	<b>Aug-15</b>
<i>Endowment Custom Index</i>			<i>5.36</i>	<i>44</i>	<i>7.01</i>	<i>66</i>	<i>22.10</i>	<i>88</i>	<i>11.49</i>	<i>28</i>	<i>10.26</i>	<i>26</i>	<i>8.52</i>	<i>Aug-15</i>
<i>eV Global Balanced Net Median</i>			<i>4.83</i>		<i>12.10</i>		<i>29.69</i>		<i>9.07</i>		<i>9.25</i>		<i>6.80</i>	<i>Aug-15</i>
SEI Balanced Strategy	44,700,020	0.87	5.44	43	7.86	62	25.63	76	12.05	22	11.33	18	9.59	Aug-15
Vanguard Funds	41,525,917	0.81	5.48	43	7.67	63	--	--	--	--	--	--	15.73	Sep-20
<i>eV Global Balanced Net Median</i>			<i>4.83</i>		<i>12.10</i>		<i>29.69</i>		<i>9.07</i>		<i>9.25</i>		<i>24.89</i>	<i>Sep-20</i>

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% BBgBarc 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.



# Delaware Office of the State Treasurer

## TOTAL FUND PERFORMANCE DETAIL - NET OF FEES

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>CARES</b>	<b>164,384,049</b>	<b>3.21</b>	<b>0.02</b>	<b>20</b>	<b>0.03</b>	<b>38</b>	<b>0.05</b>	<b>60</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.06</b>	<b>Apr-20</b>
FTSE T-Bill 1 Month TR			0.00	49	0.01	53	0.06	57	1.23	70	1.08	79	0.07	Apr-20
eV US Cash Management Net Median			0.00		0.02		0.07		1.40		1.29		0.26	Apr-20
PFM CARES	76,743,189	1.50	0.05	18	0.06	21	0.07	48	--	--	--	--	0.08	Apr-20
PFM NCC CARES	5,471,494	0.11	-0.05	--	-0.04	--	--	--	--	--	--	--	-0.04	Jan-21
Wilmington CARES	76,693,740	1.50	0.00	46	0.02	53	0.03	69	--	--	--	--	0.05	Apr-20
Wilmington NCC CARES	5,475,625	0.11	-0.02	--	0.00	--	--	--	--	--	--	--	0.00	Jan-21
FTSE T-Bill 1 Month TR			0.00	--	0.01	--	0.06	--	1.23	--	1.08	--	0.01	Jan-21
<b>ARPA</b>	<b>924,961,699</b>	<b>18.08</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-0.05</b>	<b>May-21</b>
FTSE T-Bill 1 Month TR			0.00	49	0.01	53	0.06	57	1.23	70	1.08	79	0.00	May-21
eV US Cash Management Net Median			0.00		0.02		0.07		1.40		1.29		0.00	May-21
PFM APRA	462,847,299	9.05	--	--	--	--	--	--	--	--	--	--	-0.02	May-21
FTSE T-Bill 1 Month TR			0.00	49	0.01	53	0.06	57	1.23	70	1.08	79	0.00	May-21
eV US Cash Management Net Median			0.00		0.02		0.07		1.40		1.29		0.00	May-21
Wilmington ARPA	462,114,400	9.03	--	--	--	--	--	--	--	--	--	--	-0.09	May-21
FTSE T-Bill 1 Month TR			0.00	49	0.01	53	0.06	57	1.23	70	1.08	79	0.00	May-21
eV US Cash Management Net Median			0.00		0.02		0.07		1.40		1.29		0.00	May-21

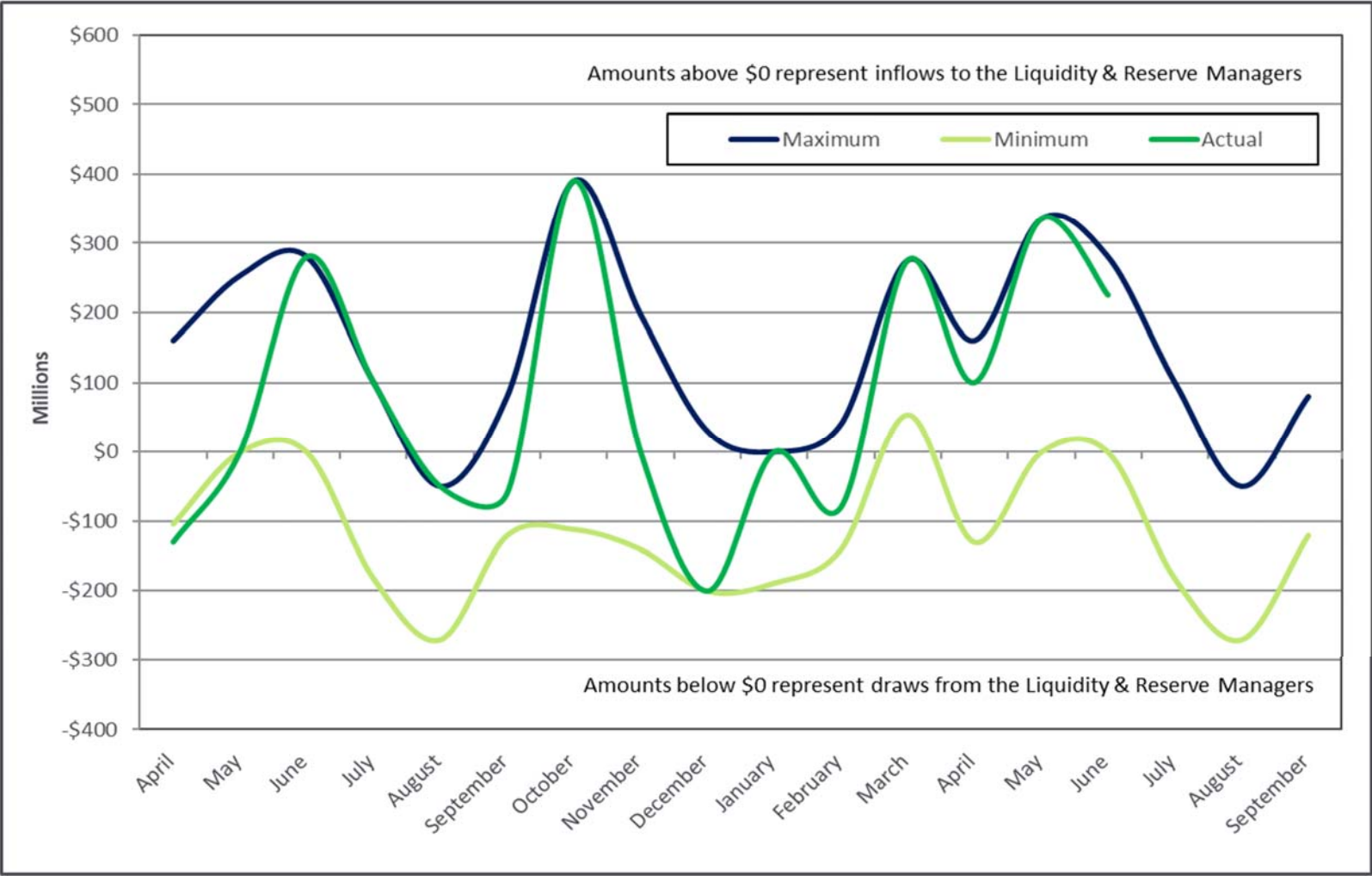
Notes: Net of Fees. Results for periods longer than one year are annualized.

ARPA funded May 2021. Performance is shown first full quarter after funding.

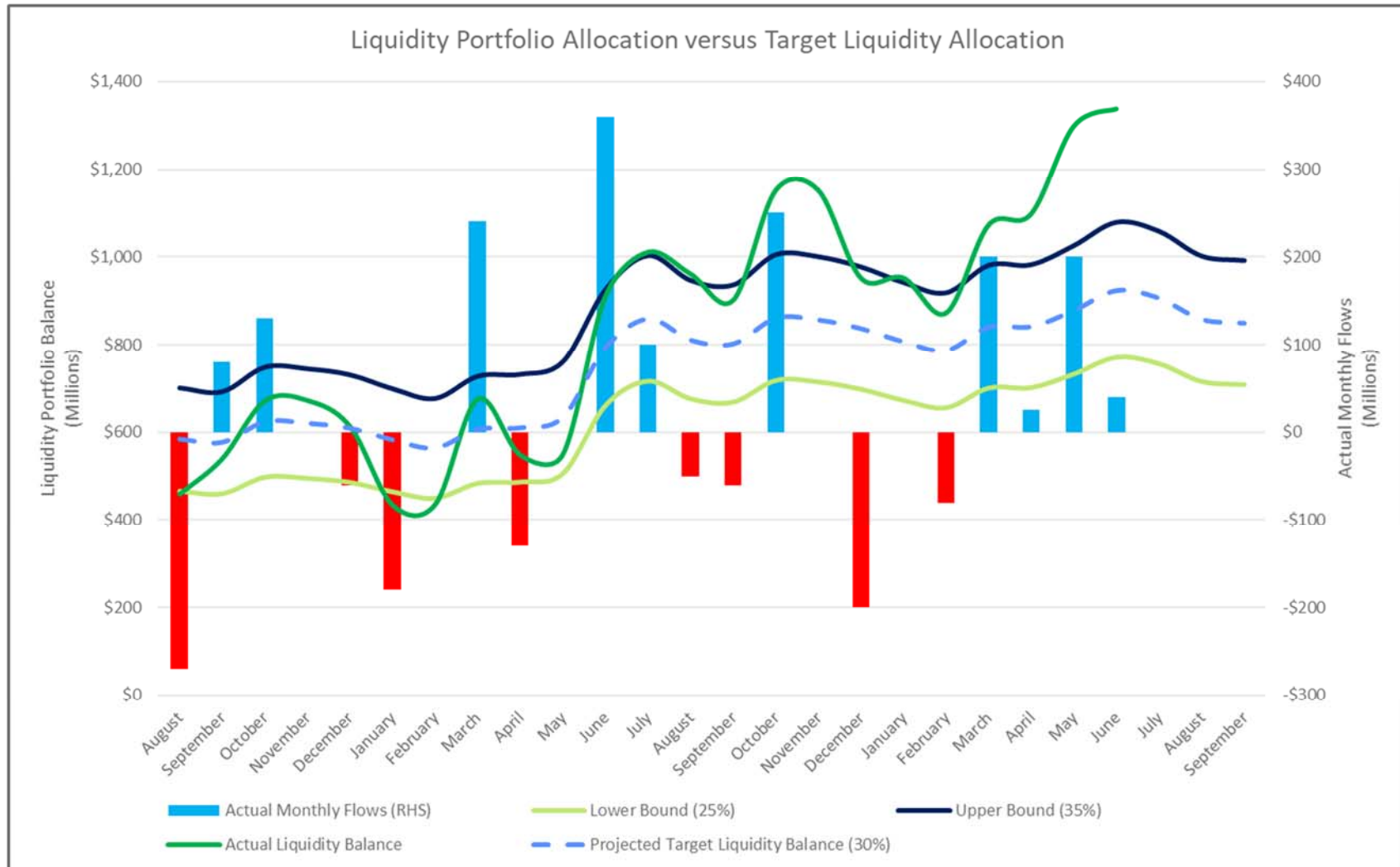
Performance history through 12/2015 is from BNY Mellon. NEPC Performance start date is January 2016. Fiscal Year end is June 30.



# LIQUIDITY & RESERVE CASH FLOWS



# LIQUIDITY BALANCE



# FISCAL YEAR TO DATE

	Change in Market Value Fiscal Year-to-Date Through June 30, 2021									Ending Market Value
	Beginning Market Value	Contributions	Withdrawals	Fees	Income	Unrealized Gain (Loss)	Realized Gain (Loss)	Amortization / Accretion		
<b>Liquidity Managers</b>										
PFM Asset Management	\$ 456,492,365	\$ 537,500,259	\$ (325,000,000)	\$ (334,285)	\$ 5,576,840	\$ (1,422,464)	\$ 234,835	\$ (2,882,168)	\$	\$ 670,165,384
Wilmington Liquidity	\$ 454,246,650	\$ 537,500,054	\$ (325,000,000)	\$ (336,439)	\$ 5,167,018	\$ (1,814,699)	\$ 273,261	\$ (2,135,896)	\$	\$ 667,899,950
<b>Total Liquidity Managers</b>	<b>\$ 910,739,015</b>	<b>\$ 1,075,000,313</b>	<b>\$ (650,000,000)</b>	<b>\$ (670,724)</b>	<b>\$ 10,743,858</b>	<b>\$ (3,237,163)</b>	<b>\$ 508,096</b>	<b>\$ (5,018,064)</b>	<b>\$</b>	<b>\$ 1,338,065,334</b>
<b>Reserve Managers</b>										
BlackRock Financial Management	\$ 486,370,073	\$ 35,003,620	\$ -	\$ (347,455)	\$ 7,311,028	\$ (10,560,489)	\$ 6,306,674	\$ (1,270,616)	\$	\$ 522,812,835
Chandler Asset Management	\$ 526,857,829	\$ 35,000,010	\$ -	\$ (352,072)	\$ 11,523,040	\$ (25,093,400)	\$ 5,144,008	\$ 318,986	\$	\$ 553,398,402
JPM Intermediate	\$ 477,223,108	\$ 505,000,010	\$ -	\$ (374,383)	\$ 6,839,097	\$ (7,245,599)	\$ 3,461,984	\$ (1,068,639)	\$	\$ 983,835,579
Lazard Asset Management	\$ 521,377,153	\$ 35,000,010	\$ -	\$ (596,707)	\$ 11,850,257	\$ (30,374,936)	\$ 9,212,433	\$ (3,782,272)	\$	\$ 542,685,942
<b>Total Reserve Managers</b>	<b>\$ 2,011,828,163</b>	<b>\$ 610,003,650</b>	<b>\$ -</b>	<b>\$ (1,670,617)</b>	<b>\$ 37,523,422</b>	<b>\$ (73,274,424)</b>	<b>\$ 24,125,099</b>	<b>\$ (5,802,541)</b>	<b>\$</b>	<b>\$ 2,602,732,758</b>
<b>Total Liquidity &amp; Reserve Managers</b>	<b>\$ 2,922,567,178</b>	<b>\$ 1,685,003,963</b>	<b>\$ (650,000,000)</b>	<b>\$ (2,341,341)</b>	<b>\$ 48,267,279</b>	<b>\$ (76,511,587)</b>	<b>\$ 24,633,195</b>	<b>\$ (10,820,605)</b>	<b>\$</b>	<b>\$ 3,940,798,092</b>
<b>Land &amp; Water Endowment</b>										
SEI Funds	\$ 25,440,594	\$ 11,390,752	\$ (1,277,000)	\$ (128,766)	\$ 712,136	\$ 6,627,469	\$ 1,934,836	\$ -	\$	\$ 44,700,020
Vanguard	\$ -	\$ 36,788,900	\$ (1,257,000)	\$ (42,406)	\$ 699,924	\$ 5,112,037	\$ 224,462	\$ -	\$	\$ 41,525,917
<b>Total Land &amp; Water Endowment</b>	<b>\$ 71,593,828</b>	<b>\$ 52,753,659</b>	<b>\$ (53,262,652)</b>	<b>\$ (171,172)</b>	<b>\$ 1,413,544</b>	<b>\$ 11,739,506</b>	<b>\$ 2,159,298</b>	<b>\$ -</b>	<b>\$</b>	<b>\$ 86,226,021</b>
<b>CARES</b>										
PFM CARES	\$ 427,436,714	\$ -	\$ (350,812,665)	\$ (37,577)	\$ 646,487	\$ 4,112	\$ 7,996	\$ (501,876)	\$	\$ 76,743,189
PFM NCC CARES	\$ -	\$ 69,506,644	\$ (64,035,066)	\$ (4,916)	\$ 10,032	\$ -	\$ 3,002	\$ (8,203)	\$	\$ 5,471,494
Wilmington CARES	\$ 427,436,909	\$ -	\$ (350,812,665)	\$ (31,720)	\$ 49,084	\$ 231	\$ (9,017)	\$ 60,918	\$	\$ 76,693,740
Wilmington NCC CARES	\$ -	\$ 69,506,644	\$ (64,035,066)	\$ (4,598)	\$ 3,118	\$ 1,723	\$ 5,022	\$ (1,217)	\$	\$ 5,475,625
<b>Total CARES</b>	<b>\$ 854,873,623</b>	<b>\$ 139,013,288</b>	<b>\$ (829,695,462)</b>	<b>\$ (78,811)</b>	<b>\$ 708,721</b>	<b>\$ 6,066</b>	<b>\$ 7,002</b>	<b>\$ (450,378)</b>	<b>\$</b>	<b>\$ 164,384,048</b>
<b>ARPA</b>										
PFM ARPA	\$ -	\$ 462,937,844	\$ -	\$ -	\$ 258,437	\$ (334,543)	\$ (14,453)	\$ 15	\$	\$ 462,847,299
Wilmington ARPA	\$ -	\$ 462,524,770	\$ -	\$ -	\$ 205,062	\$ (616,460)	\$ 1,006	\$ 21	\$	\$ 462,114,400
<b>Total ARPA</b>	<b>\$ -</b>	<b>\$ 925,462,614</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 463,499</b>	<b>\$ (951,003)</b>	<b>\$ (13,447)</b>	<b>\$ 37</b>	<b>\$</b>	<b>\$ 924,961,699</b>
<b>Total</b>	<b>\$ 3,849,034,629</b>	<b>\$ 2,802,233,524</b>	<b>\$ (1,532,958,114)</b>	<b>\$ (2,591,324)</b>	<b>\$ 50,853,042</b>	<b>\$ (65,717,018)</b>	<b>\$ 26,786,048</b>	<b>\$ (11,270,946)</b>	<b>\$</b>	<b>\$ 5,116,369,860</b>

## Footnotes:

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.

The \$3,610 contribution in August 2020 for BlackRock represents proceeds from a securities litigation settlement.



# YIELD AND DURATION POSITIONING

Liquidity Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
PFM \$	670,165,384	17.0%	0.23%	0.82	6-Month Treasury Bill	0.05%	0.48
Wilmington Trust \$	667,899,950	16.9%	0.21%	1.05	6-Month Treasury Bill	0.05%	0.48
<b>Total Liquidity \$</b>	<b>1,338,065,334</b>	<b>34.0%</b>	<b>0.22%</b>	<b>0.93</b>	<b>6-Month Treasury Bill</b>	<b>0.05%</b>	<b>0.48</b>

Reserve Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
JP Morgan \$	983,835,579	25.0%	0.29%	1.61	BAML 1-3 Yr Govt/Credit A+	0.30%	1.90
BlackRock \$	522,812,835	13.3%	0.52%	2.51	BAML 1-5 Yr Govt/Credit A+	0.49%	2.69
Chandler \$	553,398,402	14.0%	1.24%	6.01	BAML 5-10 Yr Govt/Credit A+	1.34%	6.72
Lazard \$	542,685,942	13.8%	1.22%	6.29	BAML 5-10 Yr Govt/Credit A+	1.34%	6.72
<b>Total Reserve \$</b>	<b>2,602,732,758</b>	<b>66.0%</b>	<b>0.73%</b>	<b>3.70</b>	<b>Custom Reserve Benchmark</b>	<b>0.87%</b>	<b>4.51</b>

Total Liquidity & Reserve Portfolio Yield and Duration Analysis							
Portfolio					Benchmark		
	Portfolio Value	% of Assets	Yield	Duration		Yield	Duration
<b>Total Liquidity &amp; Reserve \$</b>	<b>3,940,798,092</b>	<b>100.0%</b>	<b>0.56%</b>	<b>2.76</b>	<b>Weighted Average</b>	<b>0.62%</b>	<b>3.30</b>

As of June 1, 2020, the target allocation between Liquidity and Reserve Portfolios was adjusted to 30%/70%. The previous target allocation was 25%/75%.





# LEVEL 144A SECURITIES

	MV - 6/30/21 (\$)	144A Securities MV (\$)	144A Securities Percent of Total Portfolio (%)	144A Securities Percent of Manager Portfolio (%)
<b>Delaware Total Consolidation</b>	<b>\$5,116,369,860</b>	<b>\$286,844,302</b>	<b>5.6%</b>	
<b>Total Liquidity &amp; Reserve</b>	<b>\$3,940,798,092</b>	<b>\$286,844,302</b>	<b>5.6%</b>	
<b>Total Liquidity</b>	<b>\$1,338,065,334</b>	<b>\$135,046,830</b>	<b>2.6%</b>	
PFM Asset Management	\$670,165,384	\$61,923,281	1.2%	9.2%
Wilmington Liquidity	\$667,899,950	\$73,123,549	1.4%	10.9%
<b>Total Reserve</b>	<b>\$2,602,732,758</b>	<b>\$151,797,472</b>	<b>3.0%</b>	
JPM Intermediate	\$983,835,579	\$138,455,181	2.7%	14.1%
Blackrock Financial Mangement	\$522,812,835	\$13,342,291	0.3%	2.6%
Chandler Asset Management	\$553,398,402	\$0	0.0%	0.0%
Lazard Financial Management	\$542,685,942	\$0	0.0%	0.0%
<b>Total Endowment</b>	<b>\$86,226,021</b>	<b>\$0</b>	<b>0.0%</b>	
SEI Funds	\$44,700,020	\$0	0.0%	
Vanguard Funds	\$41,525,917	\$0	0.0%	
<b>CARES</b>	<b>\$164,384,048</b>	<b>\$0</b>	<b>0.0%</b>	
PFM CARES	\$76,743,189	\$0	0.0%	
PFM NCC CARES	\$5,471,494	\$0	0.0%	
Wilmington CARES	\$76,693,740	\$0	0.0%	
Wilmington NCC CARES	\$5,475,625	\$0	0.0%	
<b>ARPA</b>	<b>\$924,961,699</b>	<b>\$0</b>	<b>0.0%</b>	
PFM ARPA	\$462,847,299	\$0	0.0%	
Wilmington ARPA	\$462,114,400	\$0	0.0%	



# LIQUIDITY MANAGER REVIEW

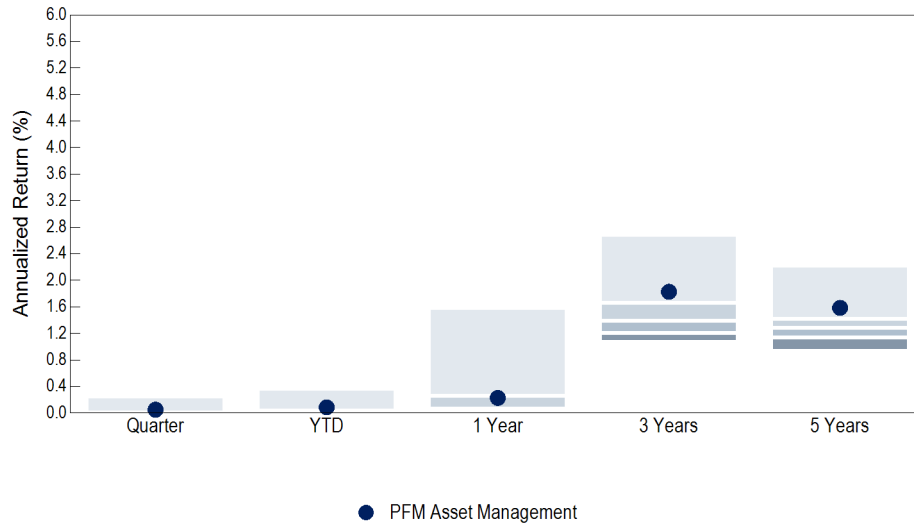


PROPRIETARY & CONFIDENTIAL

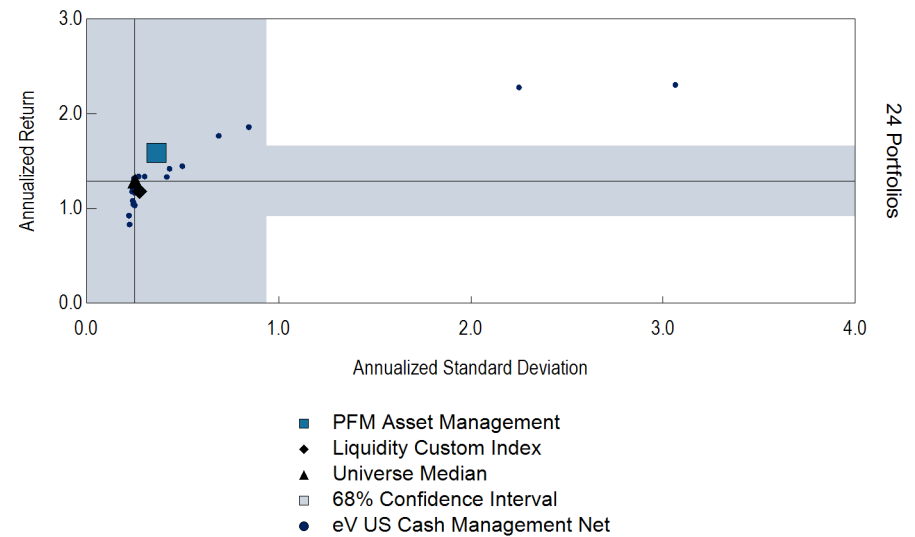
# Delaware Office of the State Treasurer

## PFM ASSET MANAGEMENT

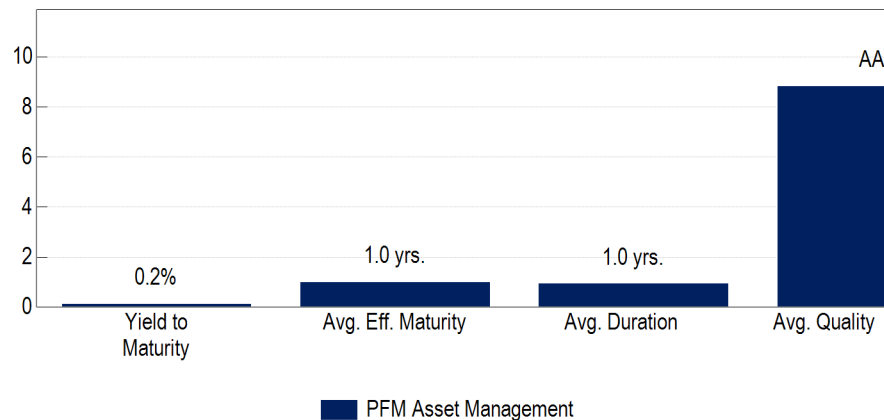
eV US Cash Management Net Return Comparison



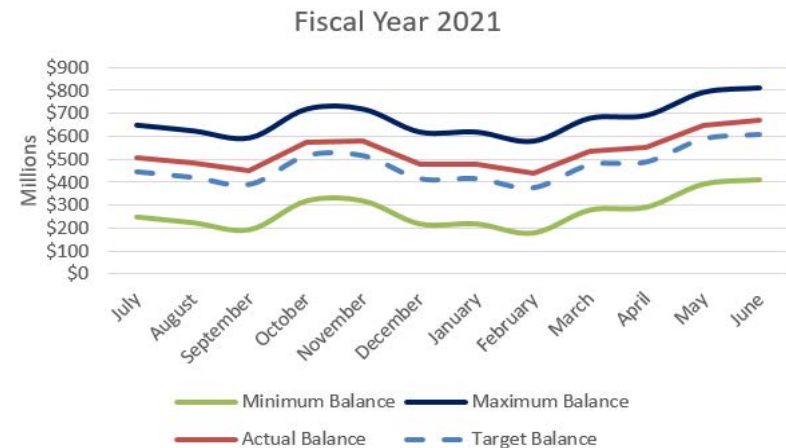
5 Year Risk Return



Characteristics



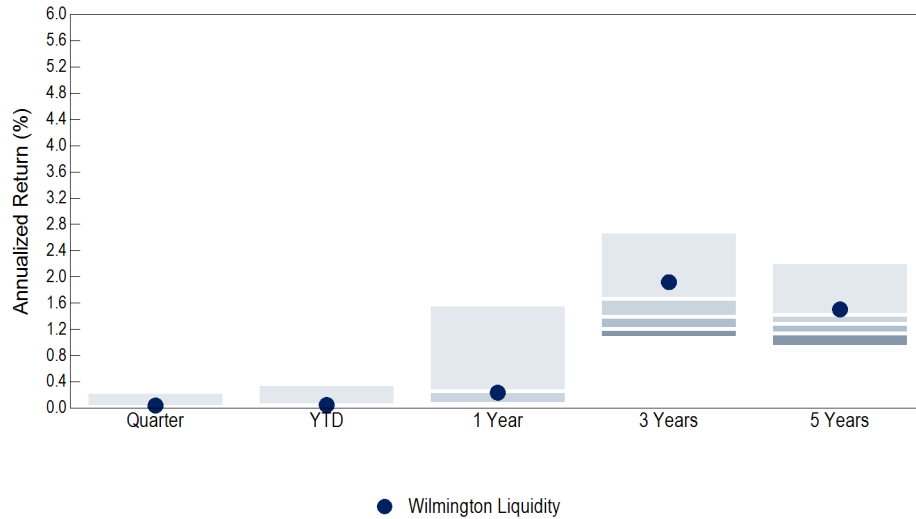
Manager Balance to Target



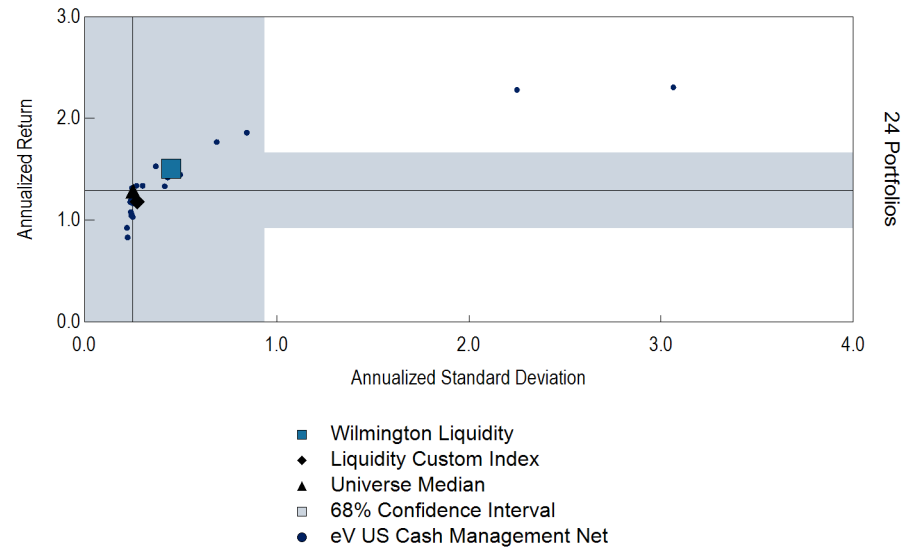
# Delaware Office of the State Treasurer

## WILMINGTON LIQUIDITY

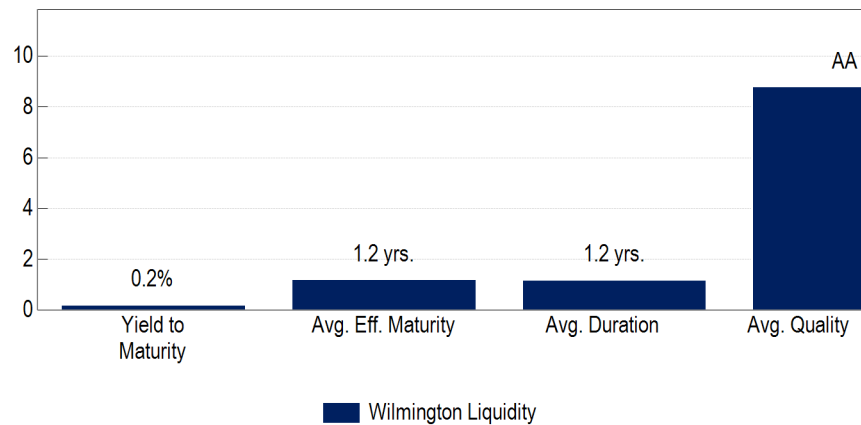
eV US Cash Management Net Return Comparison



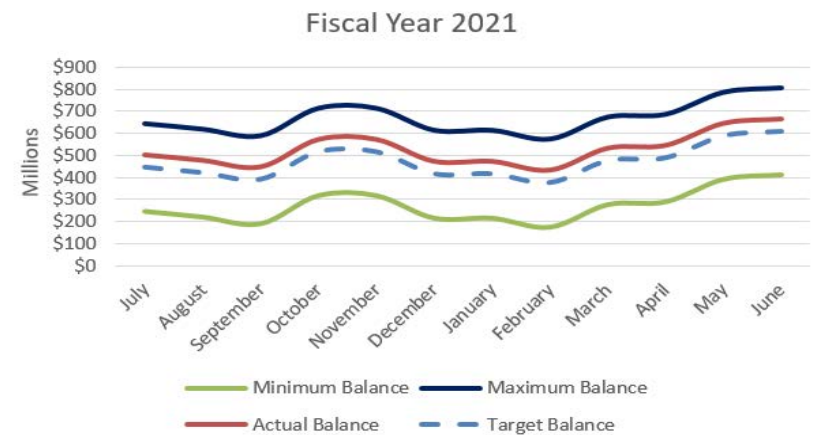
5 Year Risk Return



Characteristics



Manager Balance to Target



# RESERVE MANAGER REVIEW

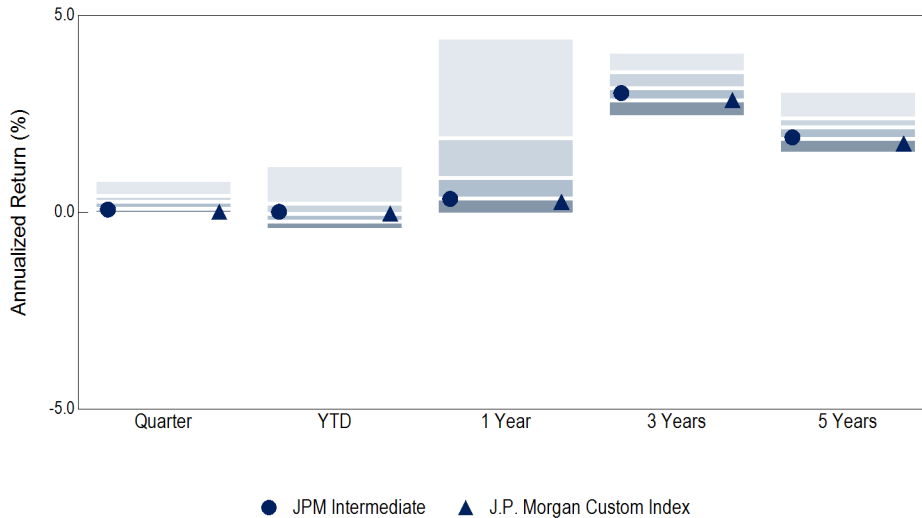


PROPRIETARY & CONFIDENTIAL

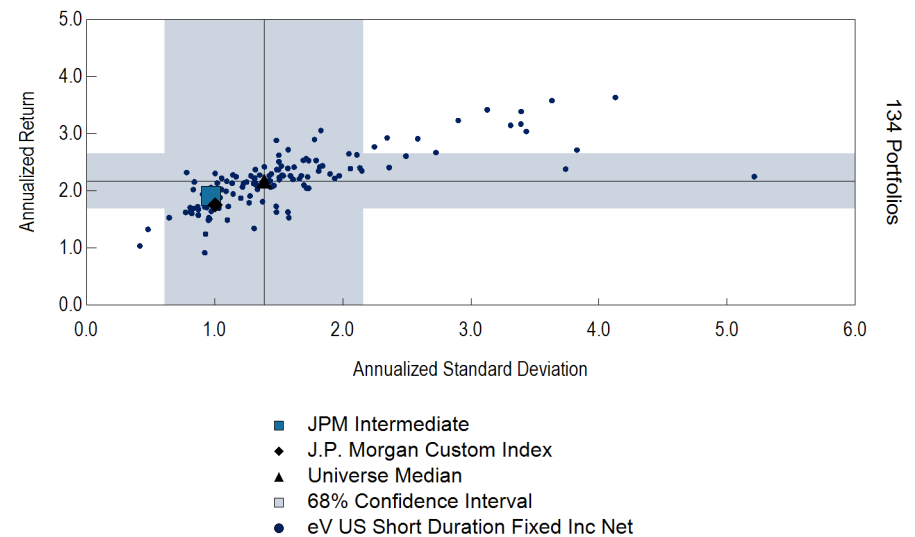
# Delaware Office of the State Treasurer

## JPM INTERMEDIATE

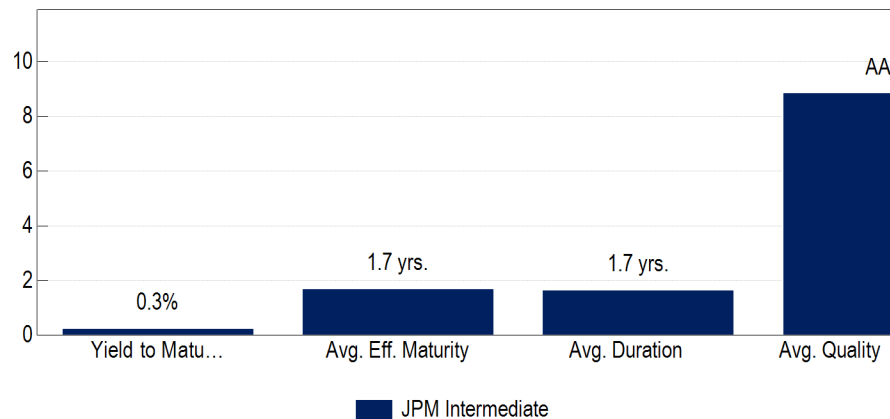
eV US Short Duration Fixed Inc Net Return Comparison



5 Year Risk Return



Characteristics



Qualitative Attribution

**Duration and Yield Positioning:** The portfolio's duration increased slightly this quarter, increasing to 1.61 from 1.57. The duration is below the benchmark's duration (1.90) at quarter end. The yield for the portfolio increased from 0.28% to 0.29% in the quarter. The quarter end benchmark yield is 0.30%.

**Result:** Duration/curve positioning had a largely neutral effect for the quarter. There were 7 bps of outperformance in Q2 and only one bp of outperformance can be traced to the duration curve.

**Credit Positioning:** The portfolio materially increased its allocation to Treasuries (64.7% to 71.6%) through the quarter. The AAA/AA/A IG credit weighting was 27.9% at quarter end, it was 34.9% as of 3/31/21.

**Result:** The credit positions had a largely neutral effect for the quarter. There were 7 bps of outperformance in Q2 and only 7 bps of outperformance can be traced to credit positioning.

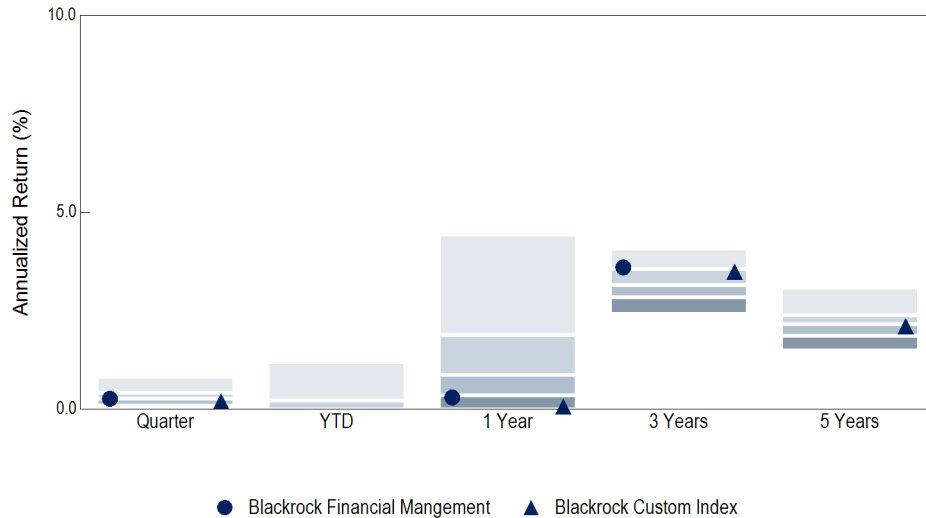
**Other Positioning:** JPM has positioned the portfolio to weather stronger growth and high inflation ahead. The strategists have a slight underweight to Treasuries – they believe that growth/inflation will challenge the Fed's plan to keep rates at 0 beyond 2023. They are also underweight IG Corporates, saying that spreads offer limited value at all-time tight levels.



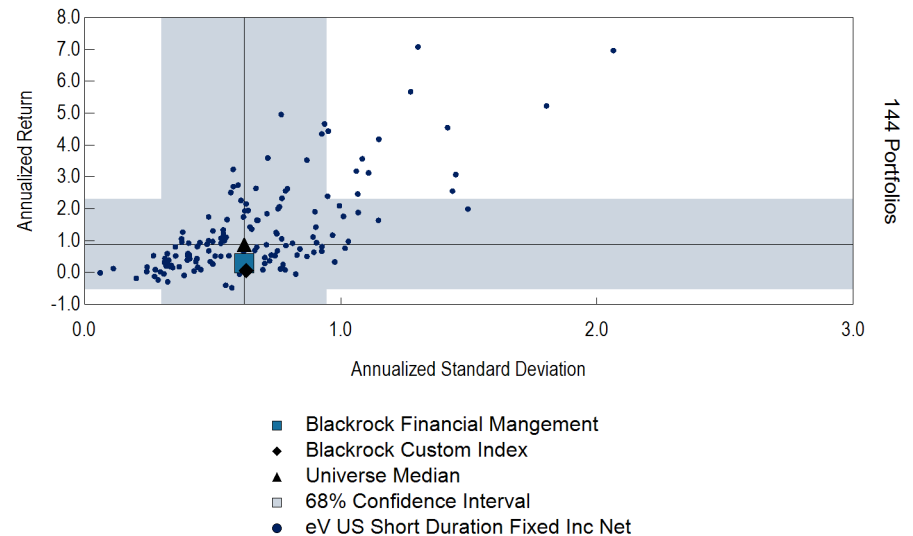
# Delaware Office of the State Treasurer

## BLACKROCK FINANCIAL MANAGEMENT

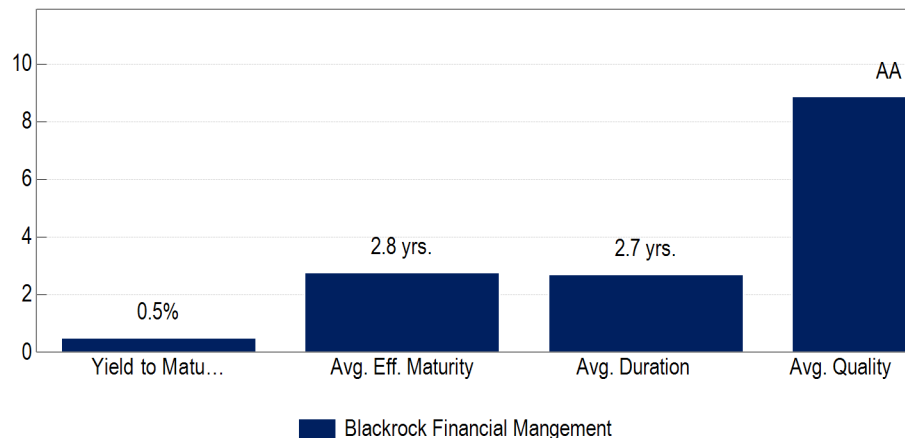
eV US Short Duration Fixed Inc Net Return Comparison



1 Year Risk Return



Characteristics



Qualitative Attribution

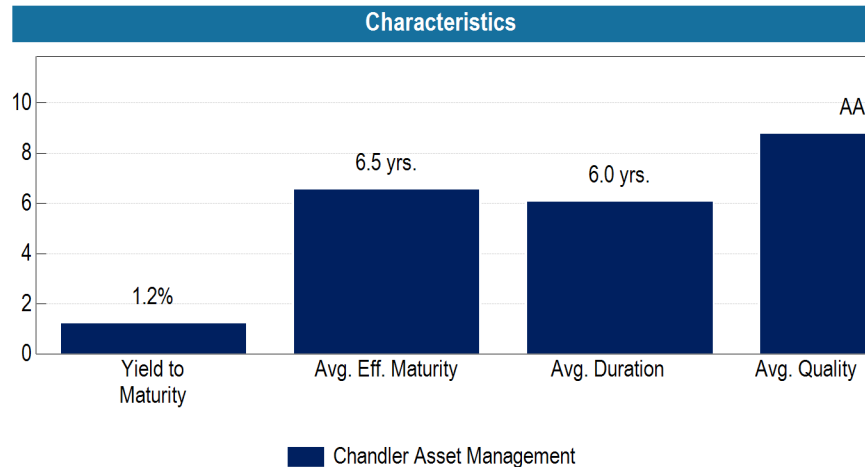
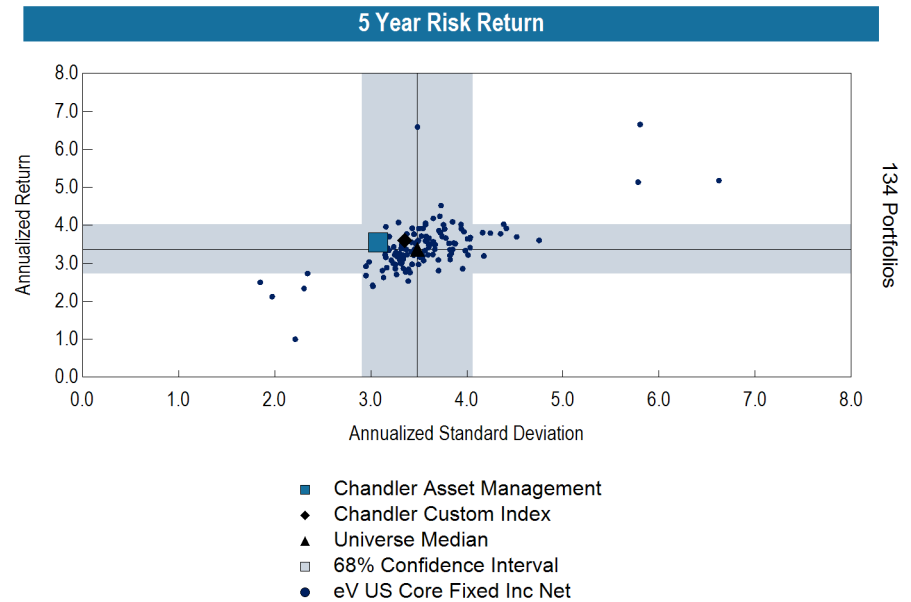
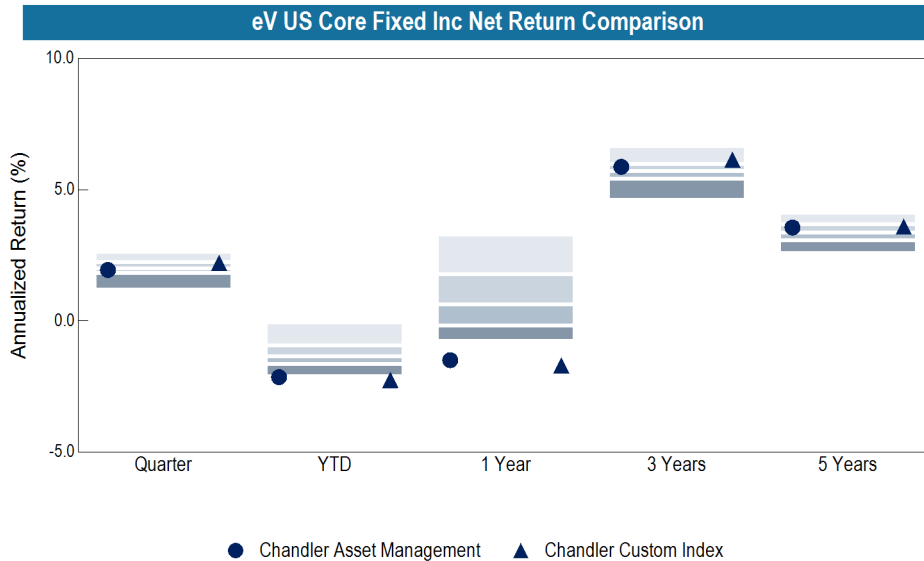
**Duration and Yield Positioning:** The portfolio's duration was 2.51 at quarter end (2.69 for the benchmark). The portfolio's yield was 0.52% at quarter end (0.49% for the benchmark).  
**Result:** Portfolio duration and curve positioning did not meaningfully affect relative performance in the quarter. There was 6 bps of outperformance from the benchmark for the quarter.  
**Credit Positioning:** Portfolio has a 52% weighting to US Treasuries and US Agencies. The portfolio has a 13% weight to ABS and CMBS positions.  
**Result:** Credit positioning did not meaningfully affect relative performance in the quarter. There was 6 bps of outperformance from the benchmark for the quarter.  
**Other Positioning:** Blackrock maintains a short duration bias through the recent rate rally. They believe that rates will rise in the long term with an improving economic situation, COVID-19 vaccines continuing to filter through the population, along with rising inflation expectations.





# Delaware Office of the State Treasurer

## CHANDLER ASSET MANAGEMENT



### Qualitative Attribution

**Duration and Yield Positioning:** The portfolio's duration was 6.01 at quarter end (6.72 for the benchmark). The portfolio's yield was 1.24% at quarter end (1.34% for the benchmark).

**Result:** Chandler's duration positioning below the benchmark detracted from performance overall. The majority of the underperformance occurred in June when the yield curve flattened.

**Credit Positioning:** The portfolio has a 46% allocation to US Treasuries as of 6/30/21. The portfolio also has a 39% allocation to IG Corporates at quarter end. These positions largely stayed unchanged through the quarter. **Result:** Credit positioning did not affect performance that much in the quarter, as the majority of the underperformance came from curve positioning rather than sector positioning.

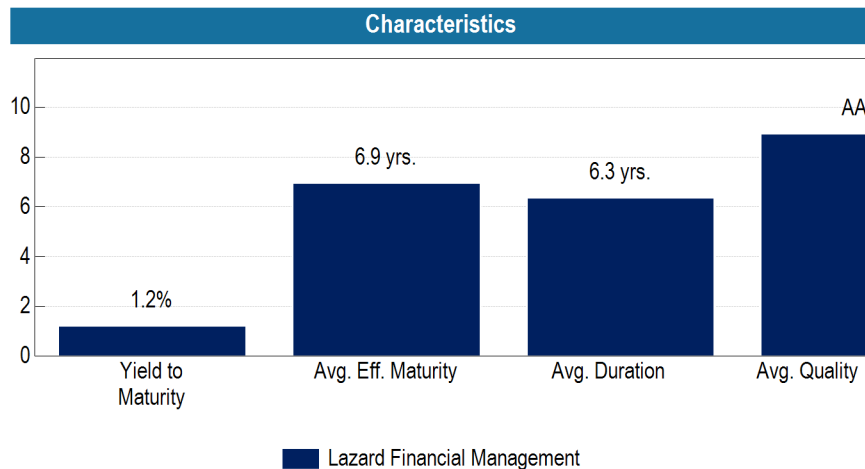
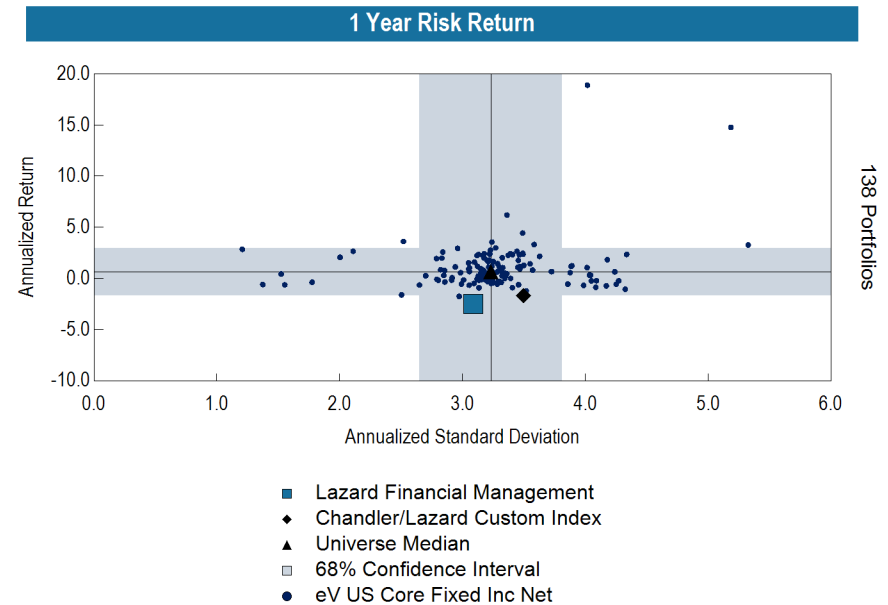
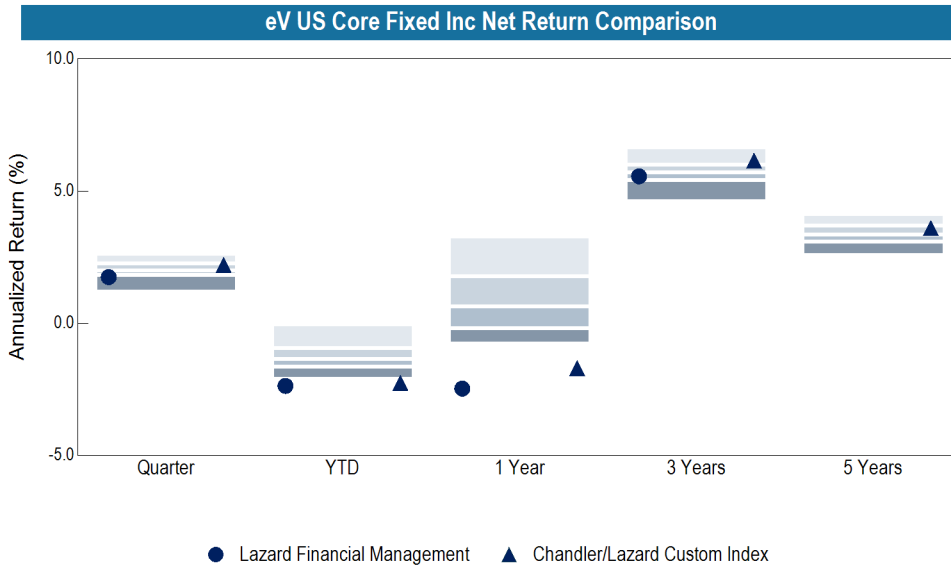
**Other Positioning:** Chandler believes inflation will remain elevated through the summer months and then will begin to stabilize. Chandler is wary of inflation accelerating through the rest of the year and into 2022. If supply chain bottlenecks persist and there is a continued labor shortage there is a stronger chance of this occurring.





# Delaware Office of the State Treasurer

## LAZARD FINANCIAL MANAGEMENT



### Qualitative Attribution

**Duration and Yield Positioning:** The portfolio's duration was 6.29 at quarter end (benchmark's duration was 6.72). The portfolio yield was 1.22% at the end of the quarter (benchmark's yield was 1.34%).

**Result:** The shorter duration position of the portfolio was additive to performance in the quarter. Interest rate changes were a positive contributor to relative returns YTD as rates have pushed higher.

**Credit Positioning:** The portfolio's treasury allocation at the end of the quarter was 84% (benchmark's treasury allocation was 70%).

**Result:** The portfolio's overweight to treasuries hurt relative performance for the quarter. The mandate to underweight BBB-rated Corporates hurt performance in Q2 as Corporate credit had excess returns versus US Treasuries.

**Other Positioning:** Lazard is wary of vaccinations not properly taking hold through the global population. They are wary of global infections and mutations hurting the medium-term prospects of the economy. They see downside risk in segments of the global economy that are sensitive to further escalations in virus-induced limitations.



# ENDOWMENT MANAGER REVIEW

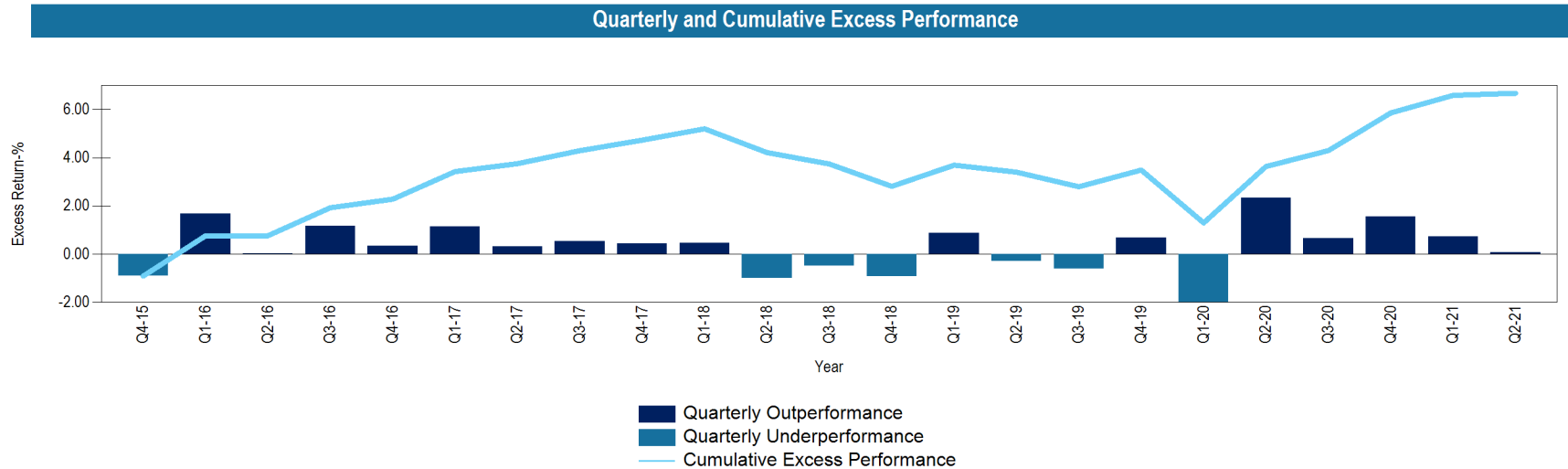
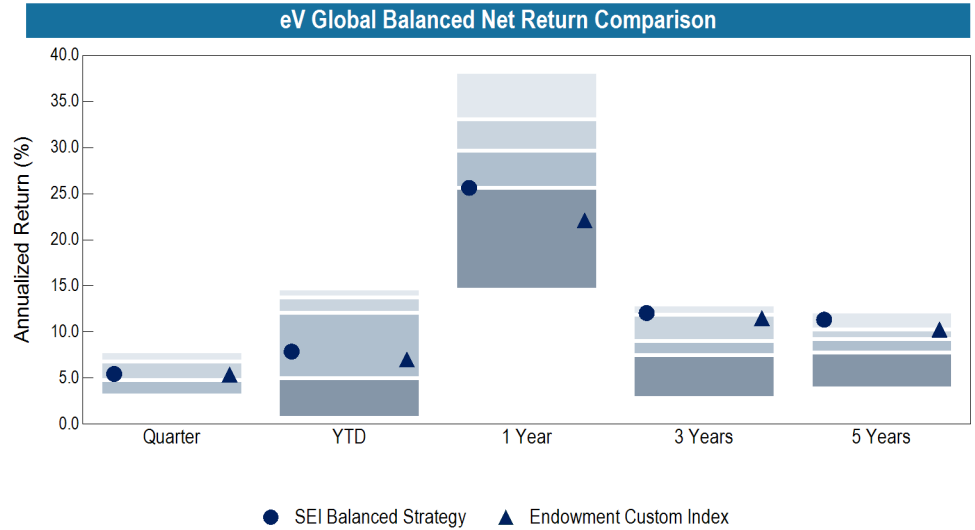


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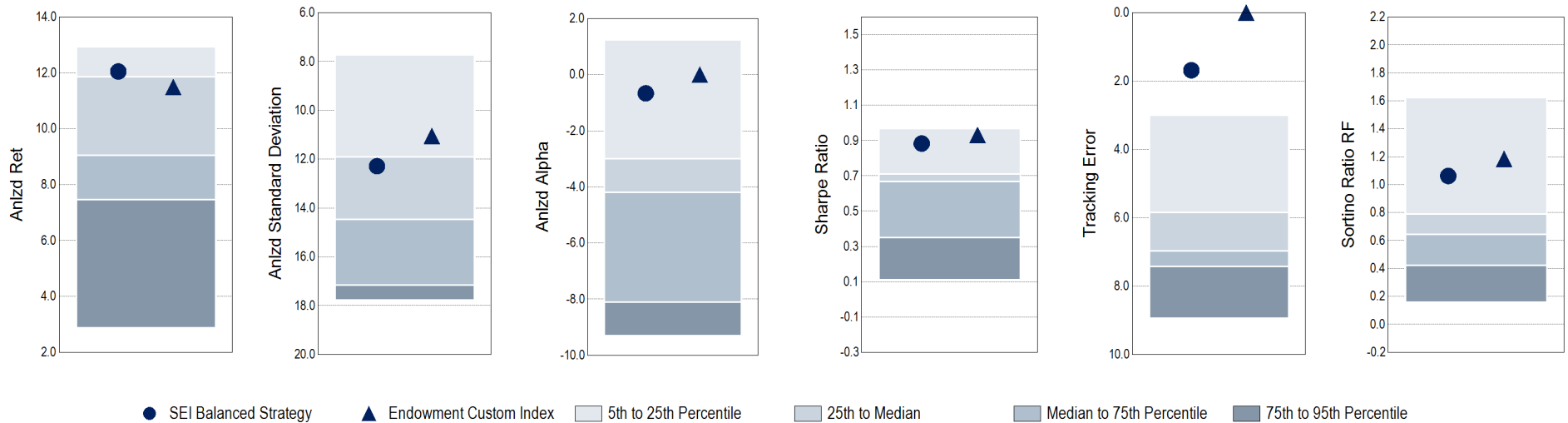
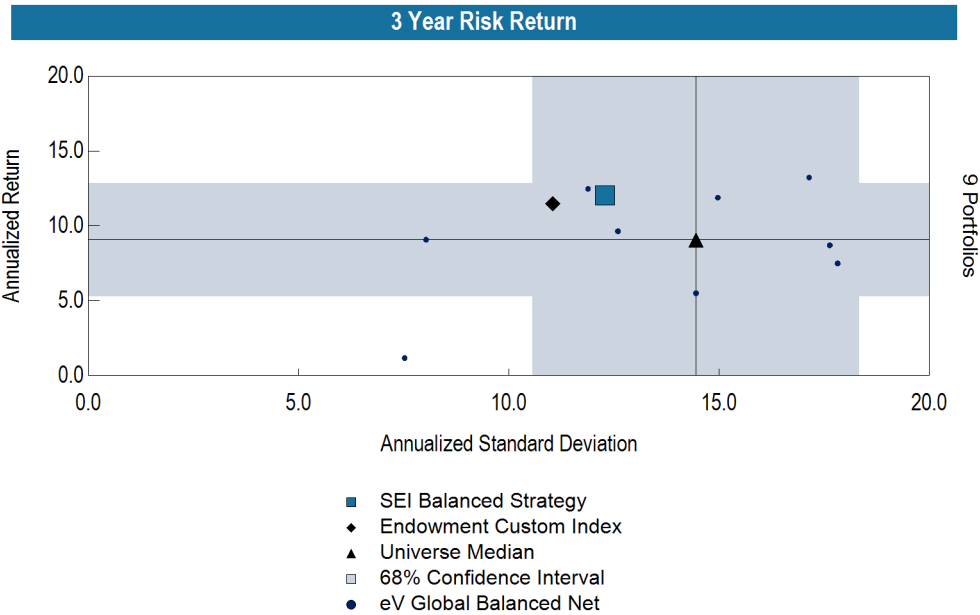
## SEI BALANCED STRATEGY

SEI Balanced Strategy manages a multi-asset class portfolio subject to a 60% target equity allocation which will be held in a range of 45% to 75%, with international equities not to exceed 35% of the equity allocation. A combination of fixed income, alternative investments, and cash will account for the remaining 40% target allocation. Funds will be managed by the following SEI strategies: SEI US Managed Volatility Strategy, SEI S&P 500 Index Strategy, SEI Extended Markets Index Strategy, SEI Small Cap II Equity Strategy, SEI World Equity ex-US Strategy, SEI Core Fixed Income Strategy, SEI High Yield Strategy, and SEI Emerging Markets Debt Strategy.



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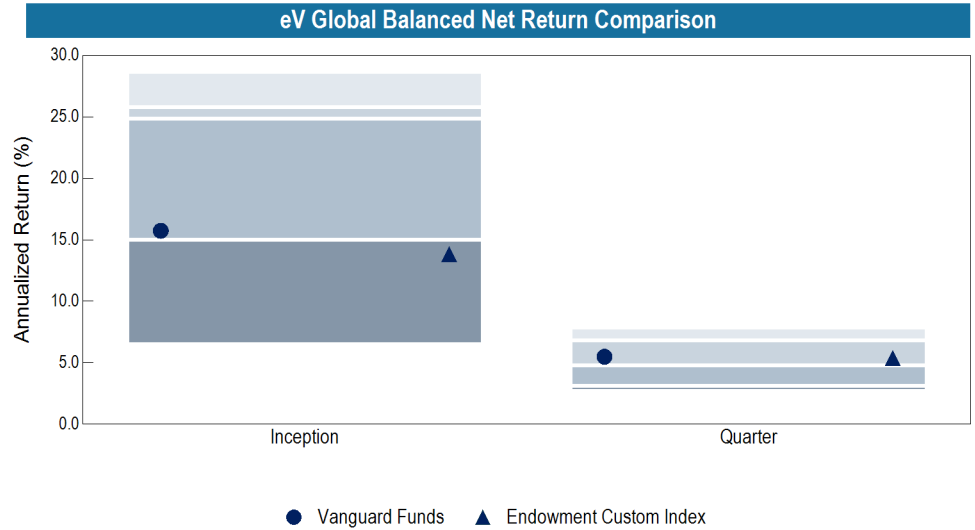
## SEI BALANCED STRATEGY



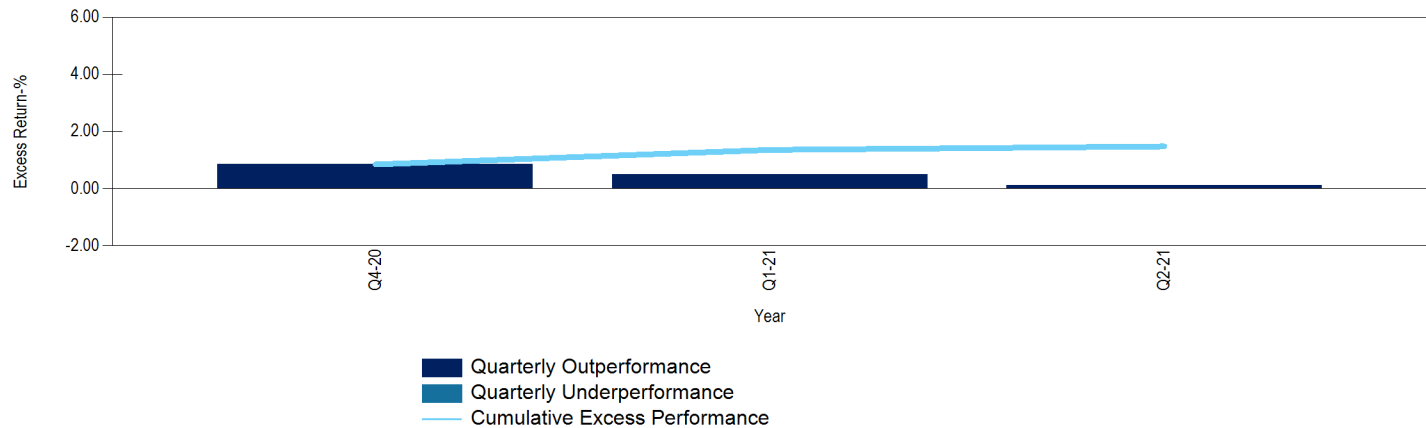
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## VANGUARD FUNDS

Vanguard's account is passively managed implementation approach to the Endowment Fund's strategic asset allocation portfolio consists of three individual mutual funds, the Vanguard Total Stock Market Index Fund (US Equities), the Vanguard Developed Markets Index Fund (international equities), and the Vanguard Total Bond Market Index Fund (US bonds). Over longer periods of time this strategy's investment returns should closely track the underlying performance benchmark. In the near-term the strategy's investment returns may deviate slightly due to cash flows, fund allocations, and minor deviations in the underlying mutual fund benchmarks.

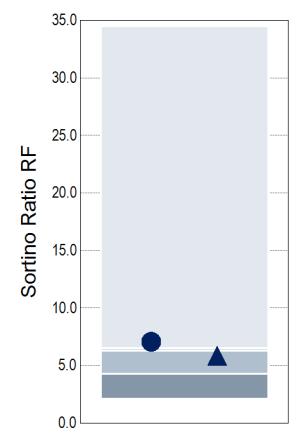
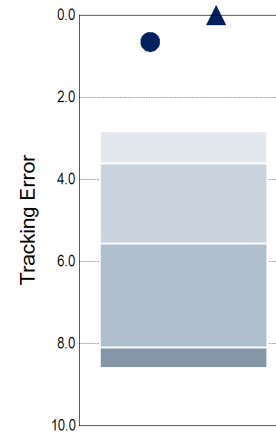
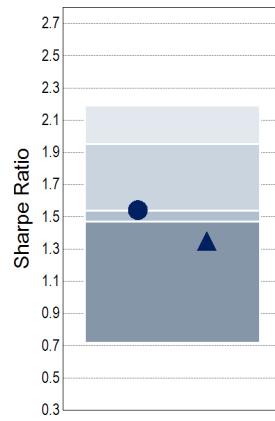
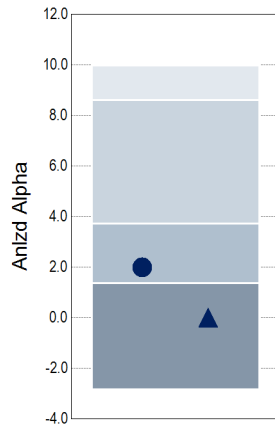
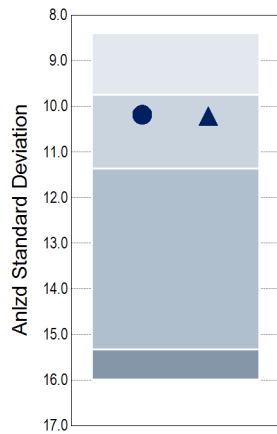
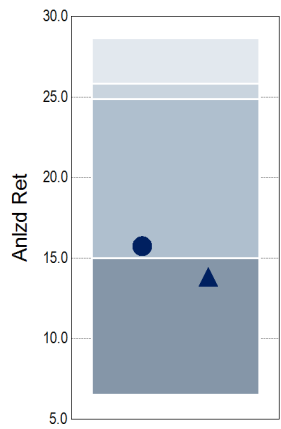
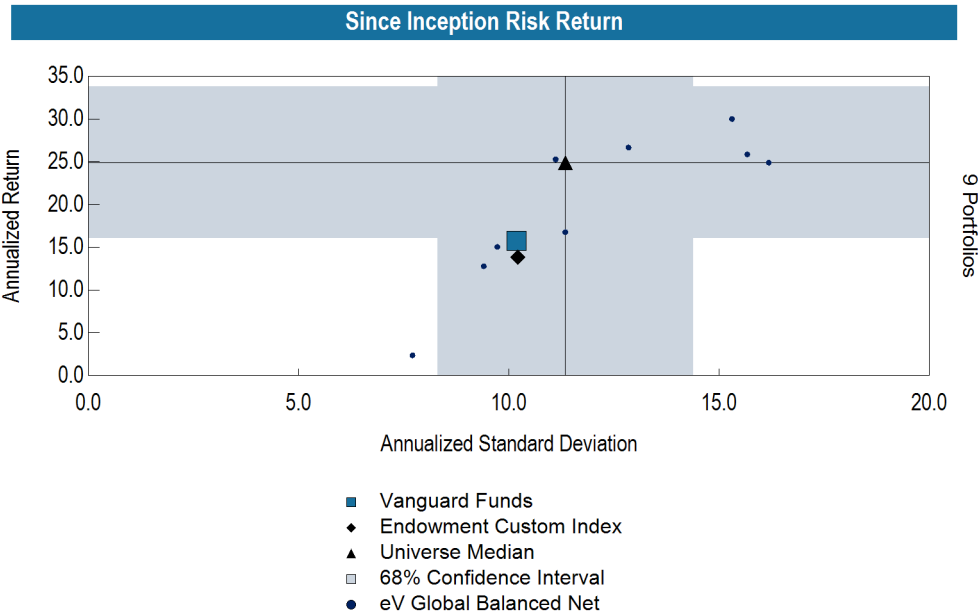


### Quarterly and Cumulative Excess Performance



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## VANGUARD FUNDS



● Vanguard Funds    ▲ Endowment Custom Index    □ 5th to 25th Percentile    □ 25th to Median    □ Median to 75th Percentile    □ 75th to 95th Percentile





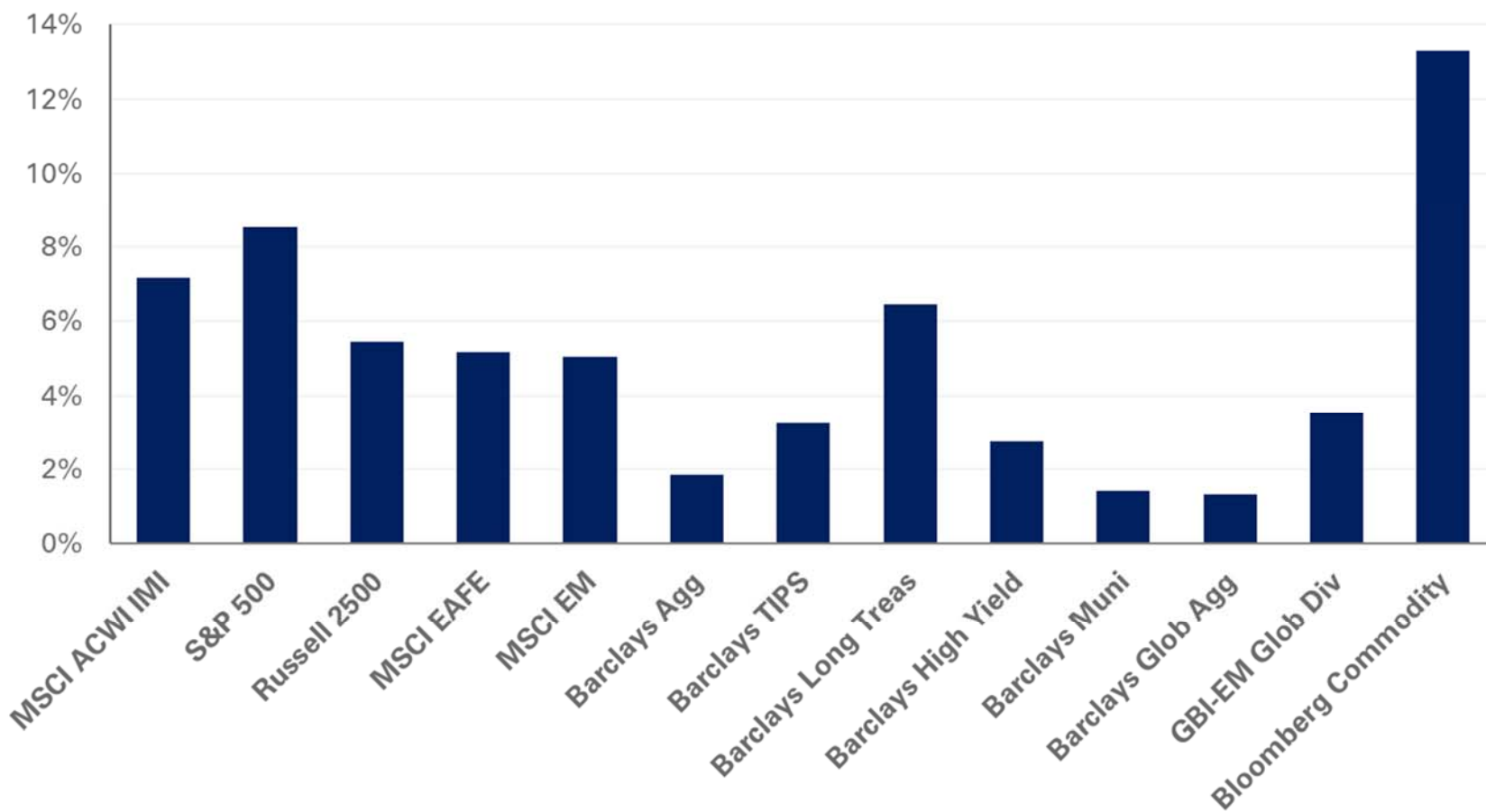
# REPORT APPENDIX



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# S&P 500 OUTPERFORMED

## QUARTERLY RETURN

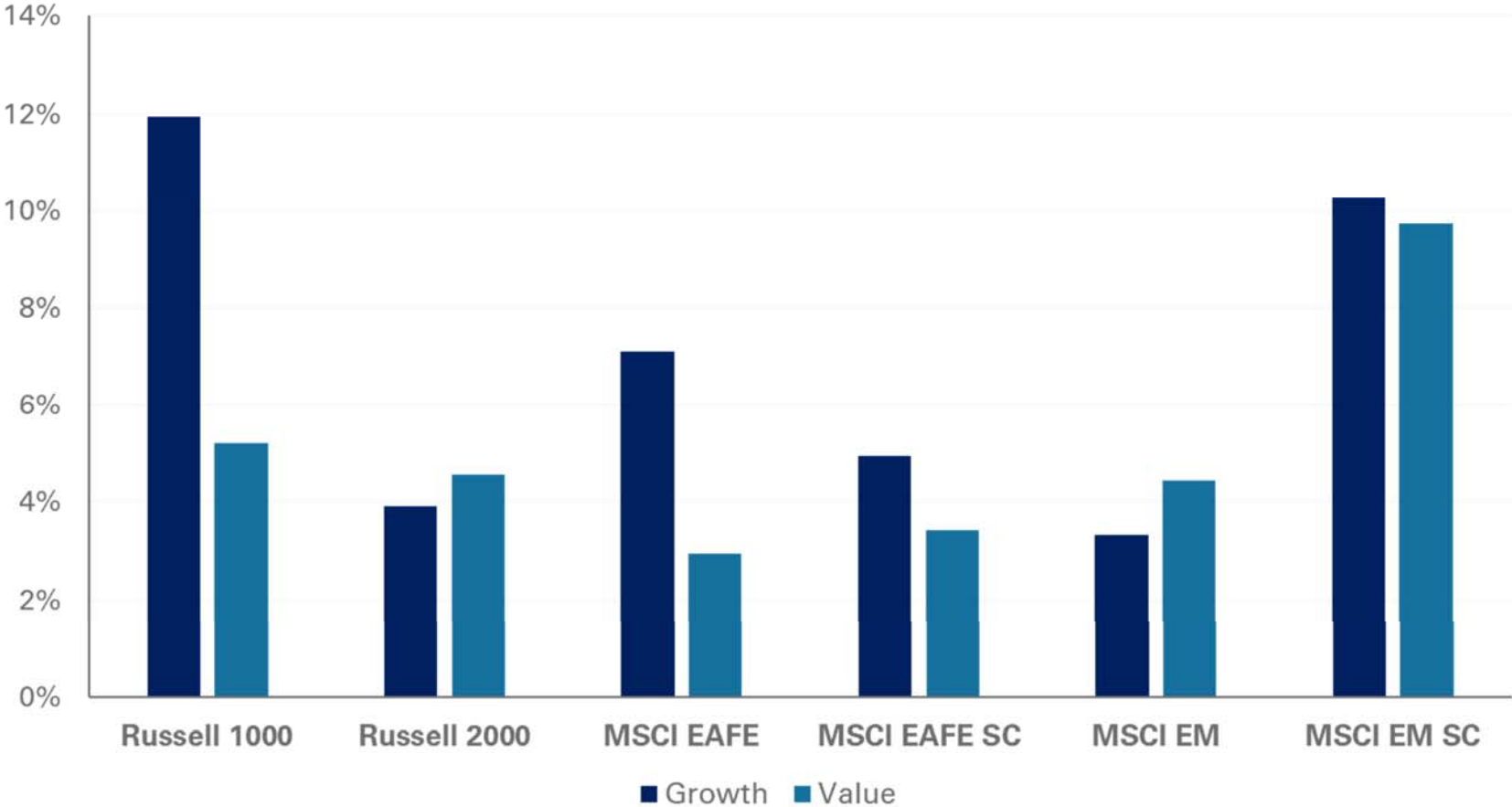


Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet



# U.S. LARGE CAP GROWTH OUTPERFORMED

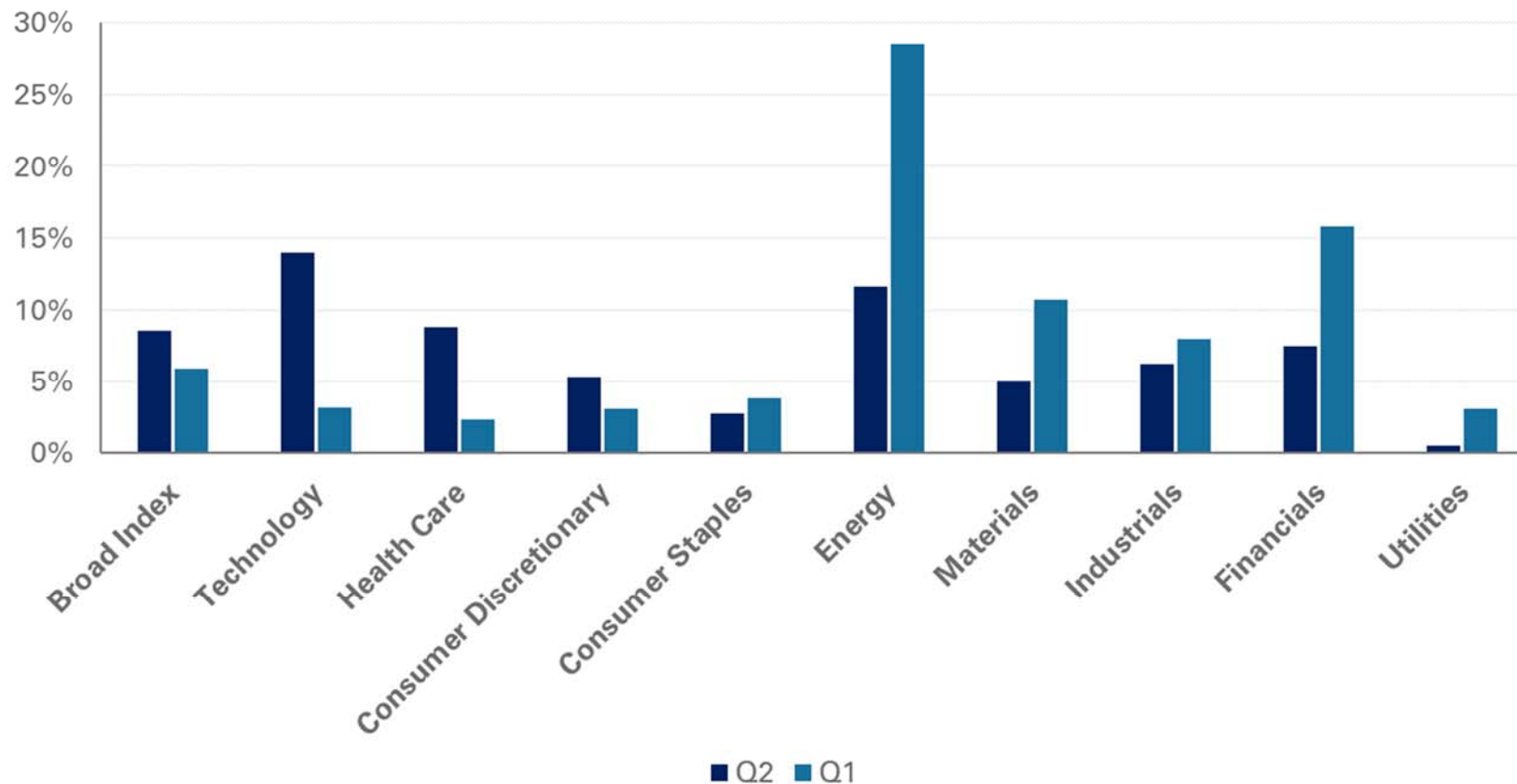
## QUARTERLY RETURN



Source: Russell, MSCI, FactSet

# TECHNOLOGY OUTPERFORMED IN Q2

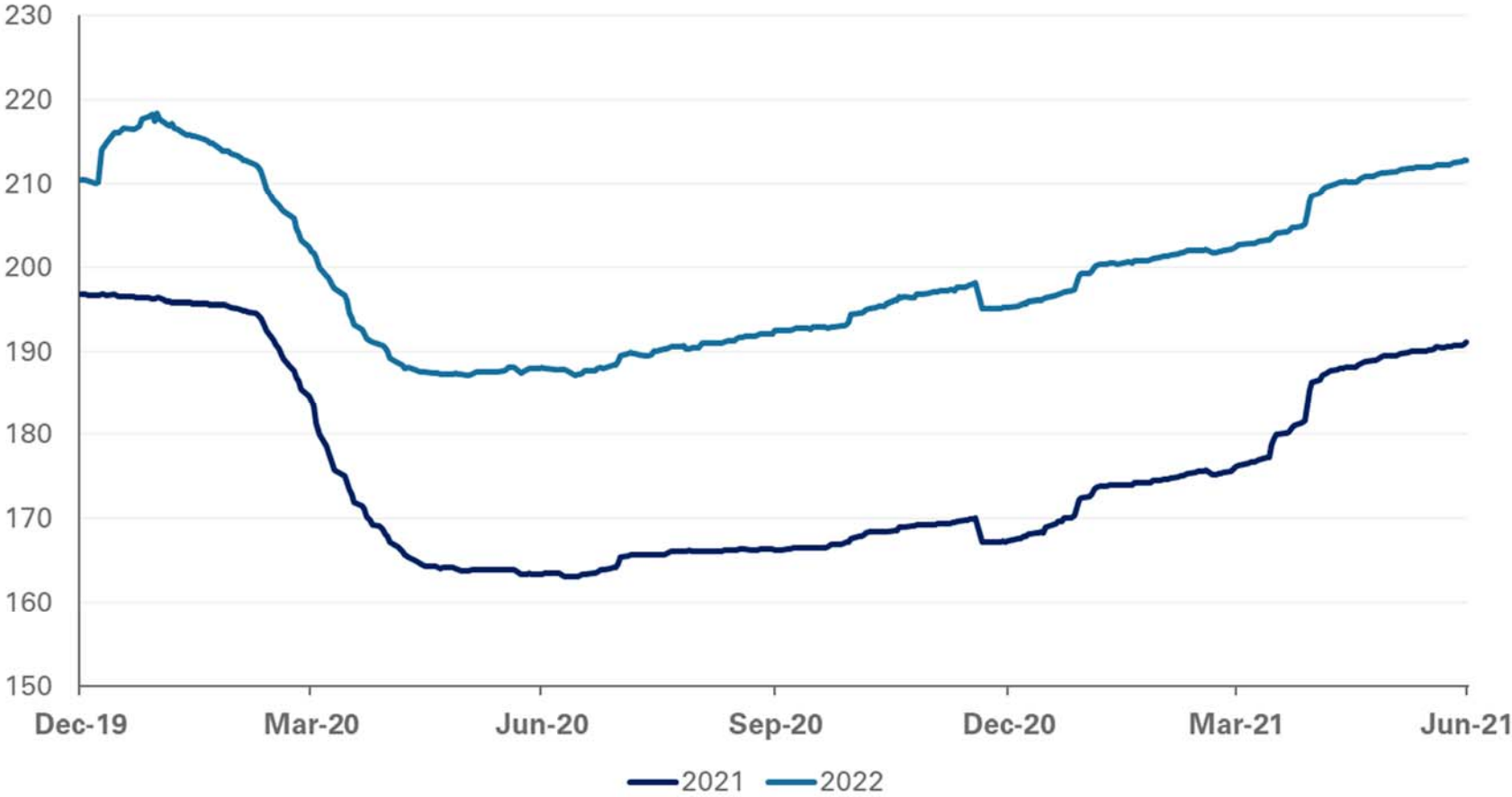
## QUARTERLY RETURN



Source: Russell 1000 Index, FactSet

# EPS FORECASTS RECOVERED TO PRE-COVID LEVELS

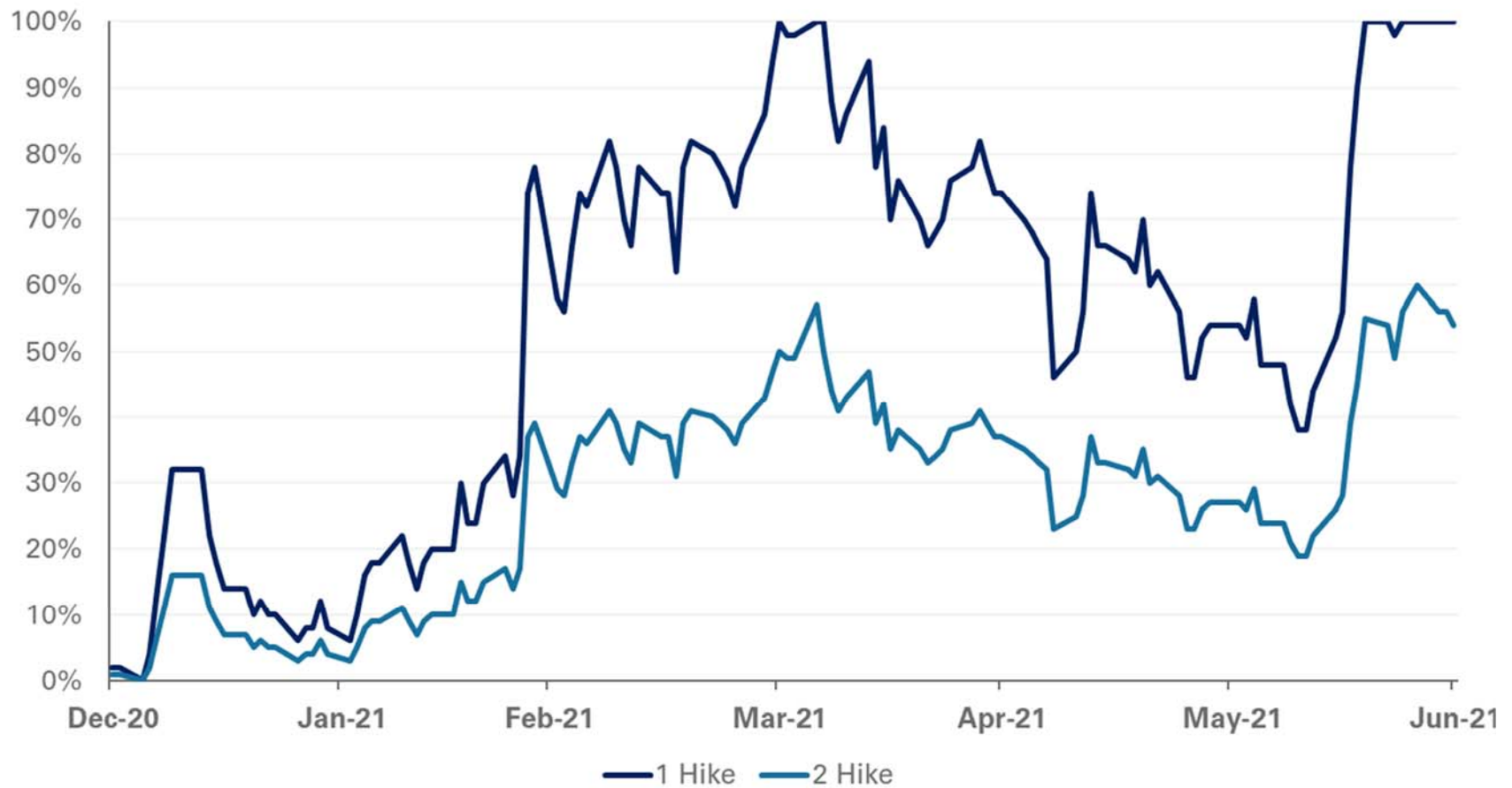
## S&P 500 EARNINGS PER SHARE FORECASTS



Source: S&P, FactSet

# MARKET PRICED RATE HIKE IN 2022

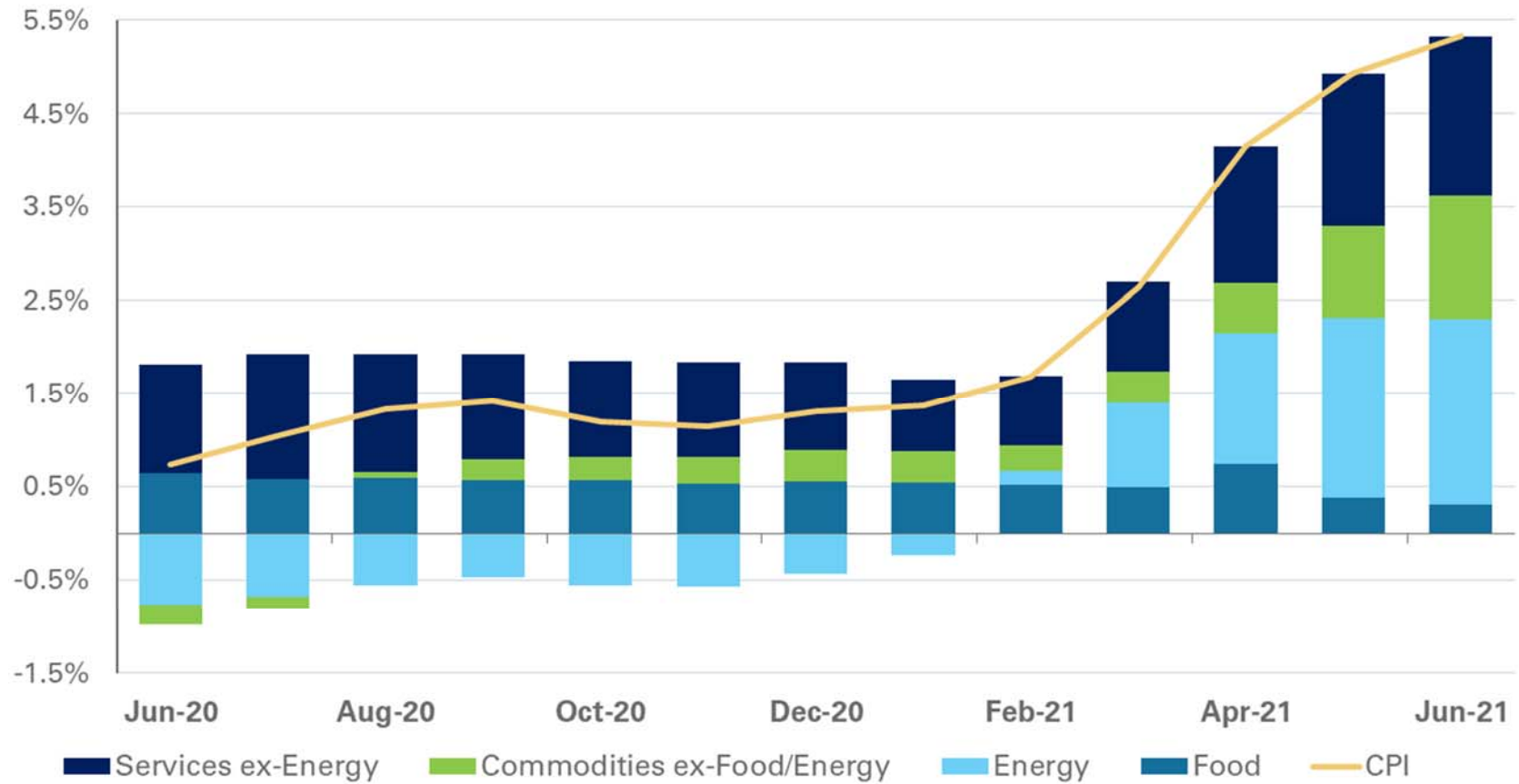
PROBABILITY OF FED FUNDS HIKE BY THE END OF 2022



Source: FactSet

# REALIZED INFLATION ACCELERATED

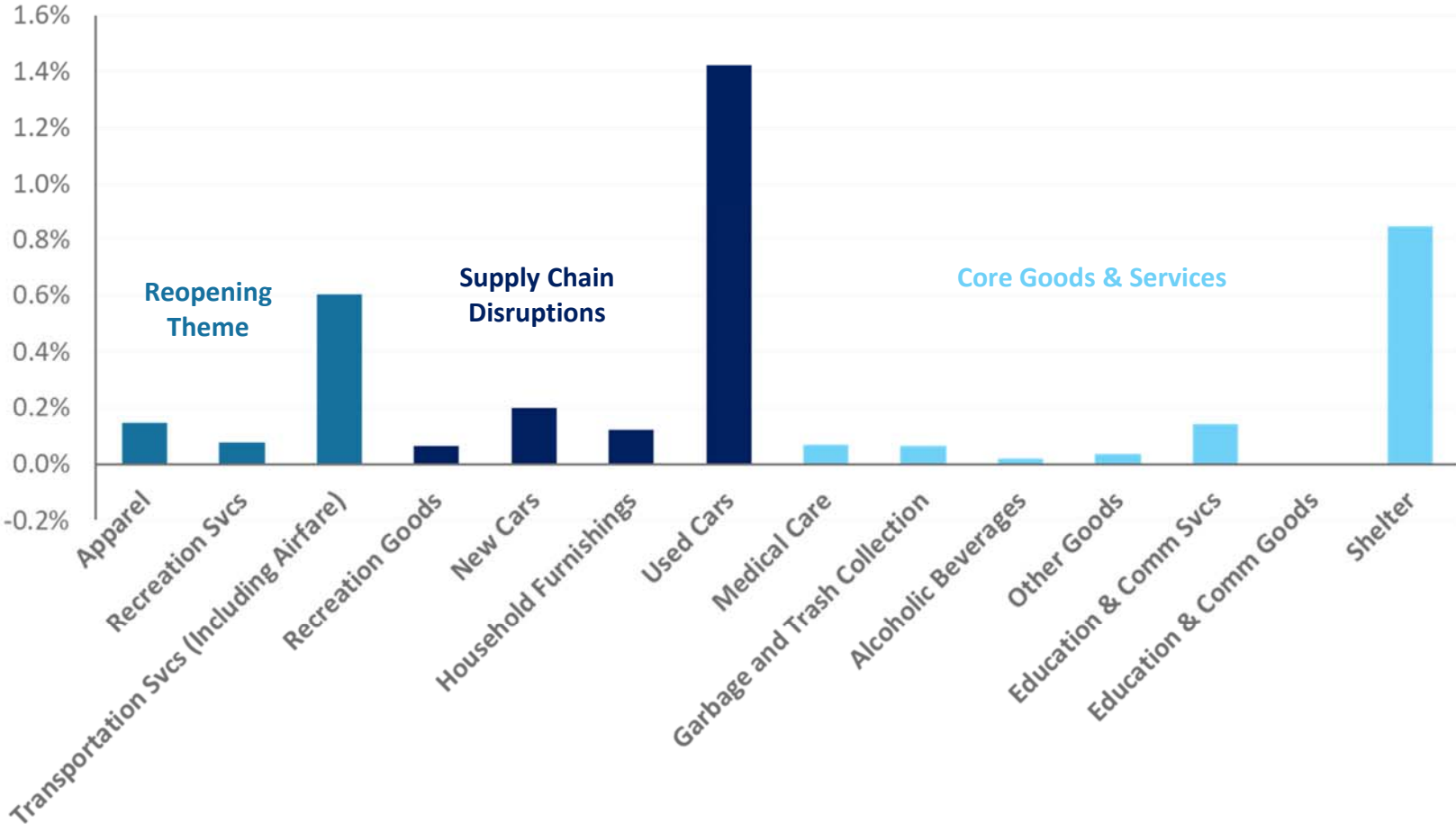
## MAJOR COMPONENTS OF YEAR-OVER-YEAR U.S. CPI



Source: Bureau of Labor Statistics, FactSet, NEPC; as of 06/30/2021

# UNUSUALLY HIGH INFLATION ACTIVITY

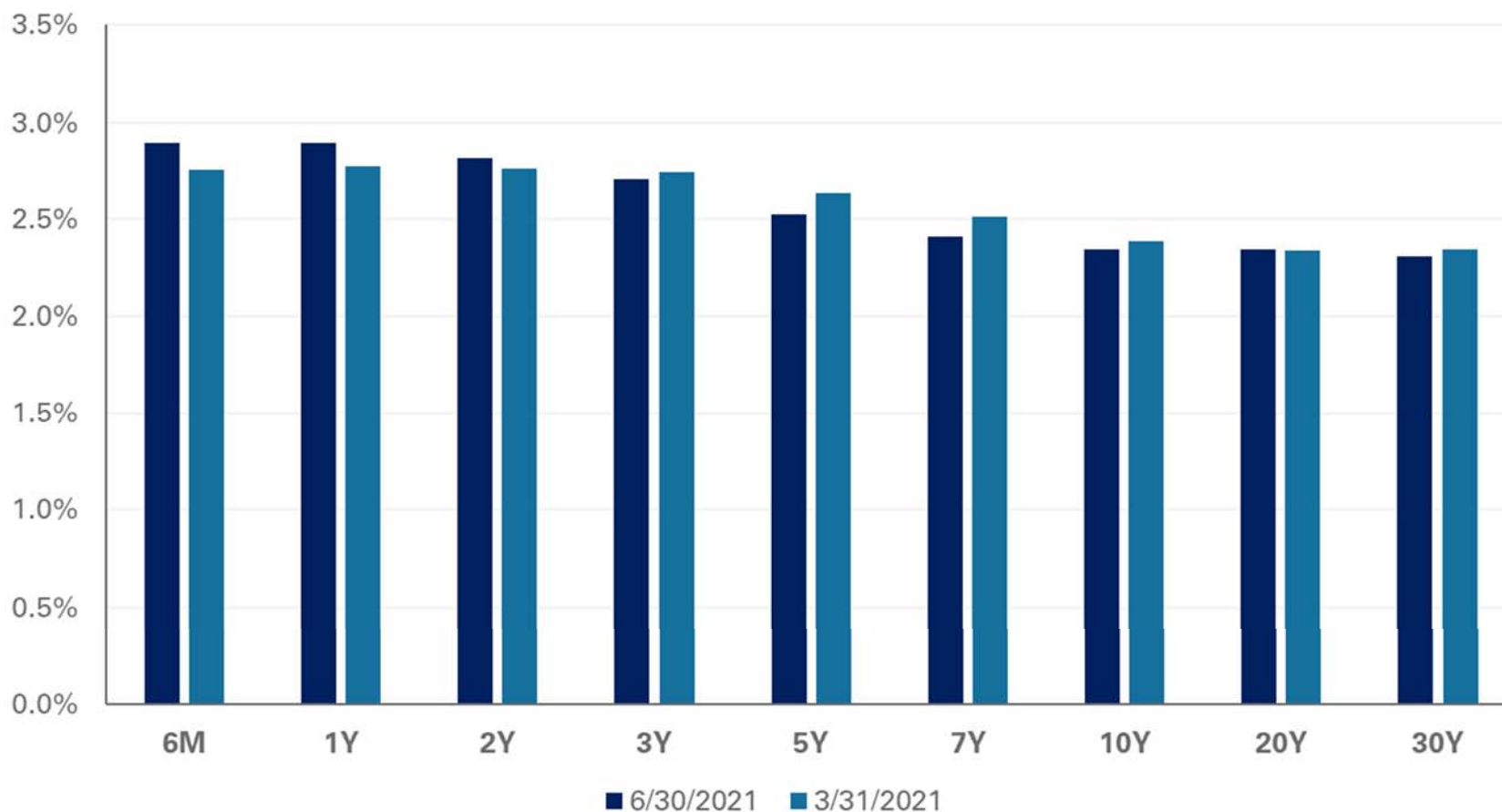
## CONTRIBUTION TO YEAR-OVER-YEAR U.S. CPI-U



Source: Bureau of Labor Statistics, FactSet, NEPC; as of 06/30/2021

# SHORT-TERM INFLATION EXPECTATION ROSE

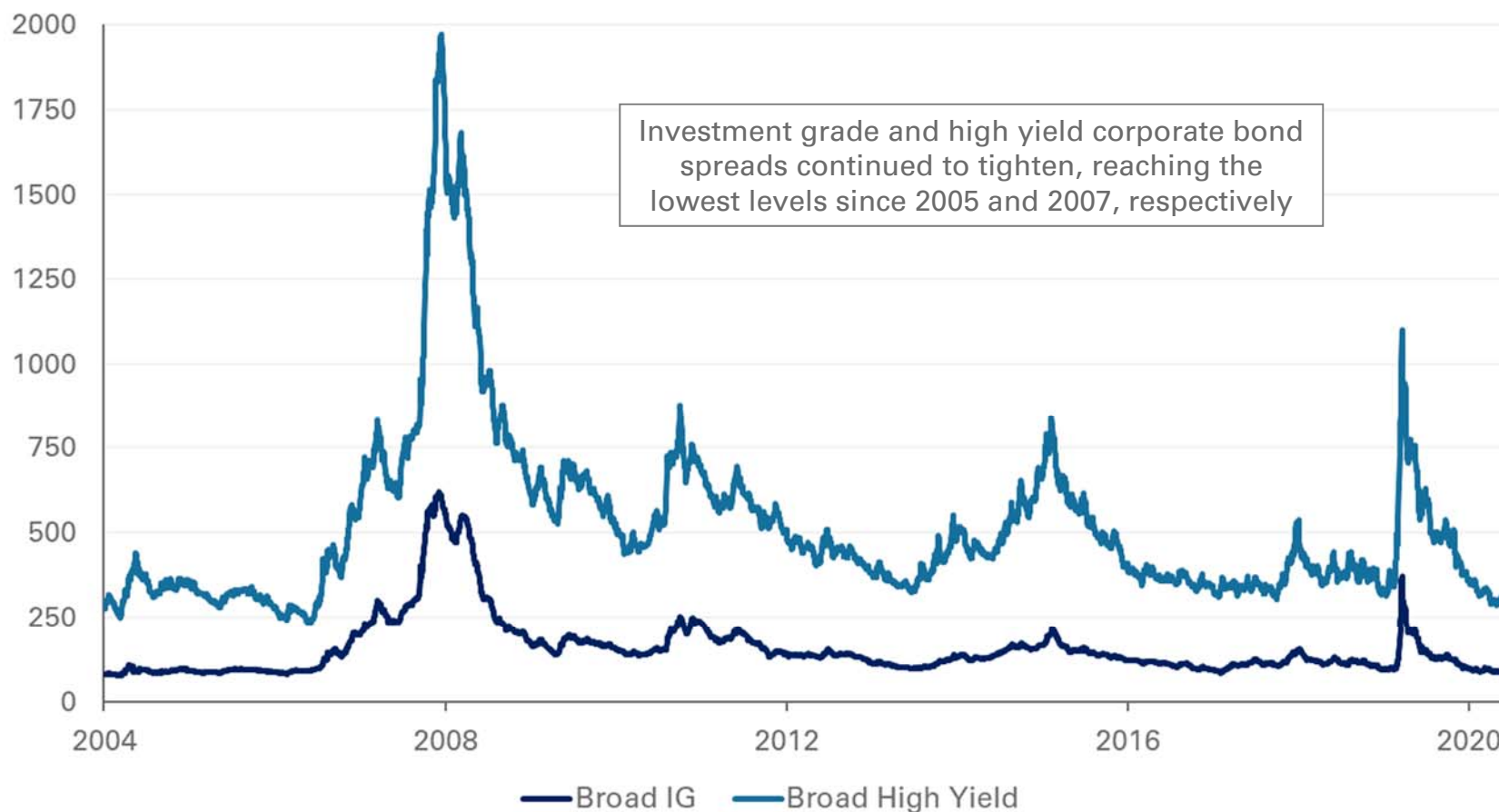
## U.S. BREAKEVEN INFLATION



Source: FactSet

# CORPORATE SPREADS NEAR LOWS

## OPTION ADJUSTED CREDIT SPREADS

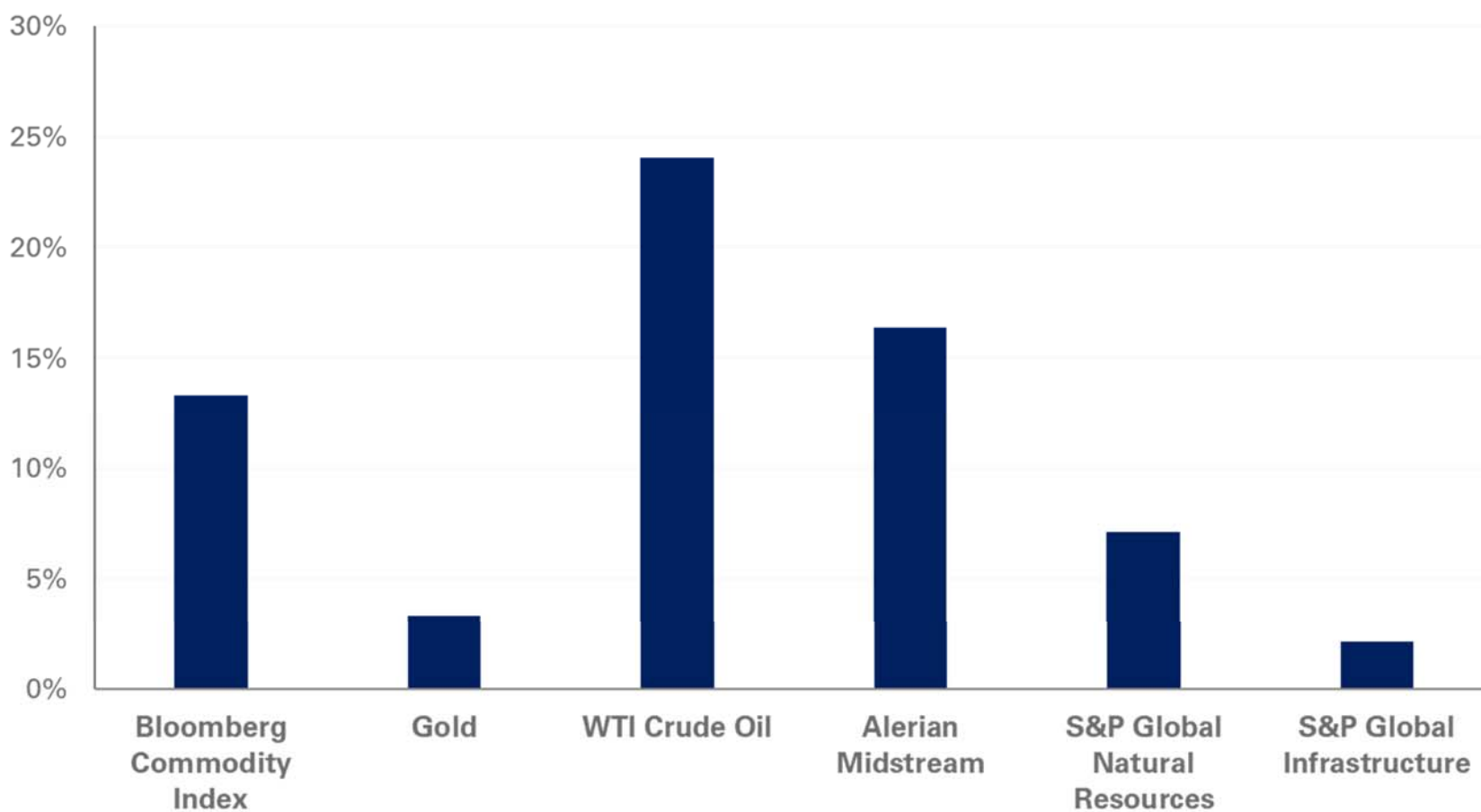


Source: Bloomberg, FactSet



# REBOUND IN OIL PRICES BOOSTED REAL ASSETS

## QUARTERLY RETURN



Source: Bloomberg, Alerian, S&P, FactSet

# GLOSSARY OF INVESTMENT TERMINOLOGY

- **# Of Portfolios/Observations<sup>1</sup>**
  - The total number of data points that make up a universe or sample.
- **Allocation Index<sup>3</sup>**
  - 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 Effect<sup>2</sup>**
  - 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)<sup>3</sup>**
  - 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)<sup>3</sup>**
  - 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.
- **Attribution<sup>3</sup>**
  - 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 Maturity<sup>4</sup>**
  - 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 Average<sup>1</sup>**
  - 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) Attribution<sup>1</sup>**
  - 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: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net



# GLOSSARY OF INVESTMENT TERMINOLOGY

- **Brinson Hood Beebower (BHB) Attribution<sup>1</sup>**
  - 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)<sup>4</sup>**
  - 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.
- **Correlation<sup>1</sup>**
  - 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.
- **Coupon<sup>4</sup>**
  - 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 Effect<sup>1</sup>**
  - The effect that changes in currency exchange rates over time affect excess performance.
- **Derivative Instrument<sup>3</sup>**
  - 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 Deviation<sup>1</sup>**
  - 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.*
- **Duration<sup>3</sup>**
  - 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 Ratio<sup>1</sup>**
  - 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 Bond<sup>3</sup>**
  - 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 Hurdle<sup>5</sup>**
  - 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 Mark<sup>4</sup>**
  - 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: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net



# GLOSSARY OF INVESTMENT TERMINOLOGY

- **High-Water Mark<sup>4</sup>**
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- **Hurdle Rate<sup>4</sup>**
  - 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 Effect<sup>2</sup>**
  - 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.
- **Median<sup>3</sup>**
  - 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 Duration<sup>3</sup>**
  - The percentage change in the price of a fixed income security that results from a change in yield.
- **Mortgage Backed Securities (MBS)<sup>3</sup>**
  - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.
- **Municipal Bond (Muni)<sup>4</sup>**
  - A debt security issued by a state, municipality or county to finance its capital expenditures.
- **Net Investment Change<sup>1</sup>**
  - The change in an investment after accounting for all Net Cash Flows.
- **Performance Fee<sup>4</sup>**
  - 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 Index<sup>3</sup>**
  - 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)<sup>4</sup>**
  - 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)<sup>3</sup>**
  - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).
- **Price to Sales (P/S)<sup>4</sup>**
  - 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.
- **Quartile<sup>3</sup>**
  - 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.

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



# GLOSSARY OF INVESTMENT TERMINOLOGY

- **Rank<sup>3</sup>**
  - 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)<sup>4</sup>**
  - 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) Effect<sup>2</sup>**
  - 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 Hurdle<sup>5</sup>**
  - A rate of return that, once beaten, allows a fund manager to charge a performance fee based on the entire annualized return.
- **Tiered Fee<sup>1</sup>**
  - 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 Effect<sup>2</sup>**
  - 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 Return<sup>1</sup>**
  - 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.
- **Universe<sup>3</sup>**
  - The list of all assets eligible for inclusion in a portfolio, or group of portfolios eligible for inclusion in a distribution.
- **Upside Deviation<sup>1</sup>**
  - Standard Deviation of Positive Returns
- **Weighted Average Market Cap.<sup>4</sup>**
  - 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 (%)<sup>3</sup>**
  - The current yield of a security is the current indicated annual dividend rate divided by current price.
- **Yield to Maturity<sup>3</sup>**
  - The discount rate that equates the present value of cash flows, both principal and interest, to market price.



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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.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

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





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