# INVESTMENT PERFORMANCE SUMMARY QUARTER ENDING MARCH 31, 2021

# OFFICE OF THE STATE TREASURER & CASH MANAGEMENT POLICY BOARD



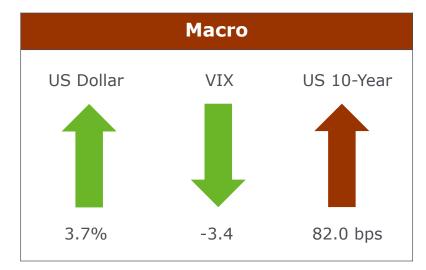
John Krimmel, CPA, CFA, Partner Kevin M. Leonard, Partner Jennifer Appel, CFA, Research Consultant



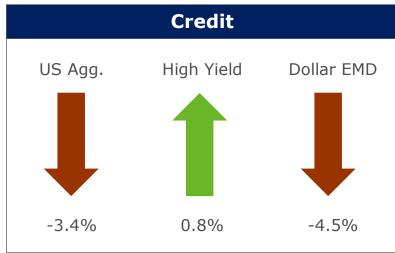
# **MARKET OVERVIEW**

NEPC, LLC —

#### **MARKET OVERVIEW**







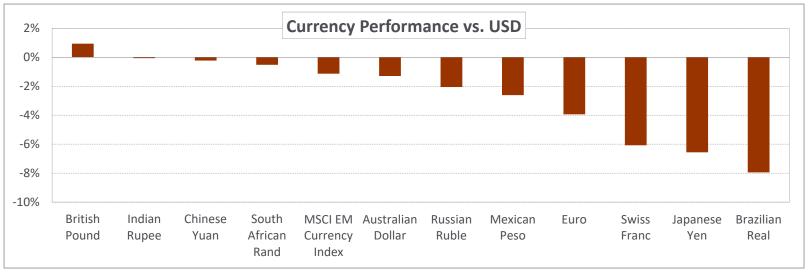


Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), 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: FactSet

2



# **MACRO OVERVIEW**



Source: MSCI, FactSet

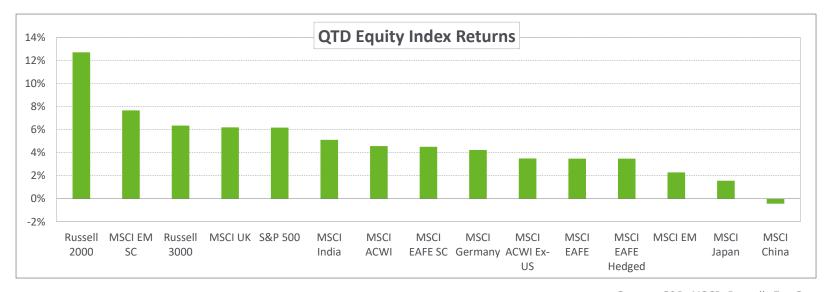
Central Banks	Current Rate	CPI YOY	Notes from the Quarter
Federal Reserve	0.00% - 0.25%	1.7%	The Fed maintained current levels of monthly asset purchases and indicated that federal funds rate would remain near zero levels until at least 2024
European Central Bank	0.00%	0.9%	The ECB left rates unchanged and maintained its €1.85T emergency bondbuying program until at least March 2022
Bank of Japan	-0.10%	-0.4%	The BoJ announced plans to increase equity purchases from ¥6T to a maximum of ¥12T a year, but updated its policy to only intervene when market falls rather than committing to steady purchases

3



Source: FactSet

# **EQUITY OVERVIEW**



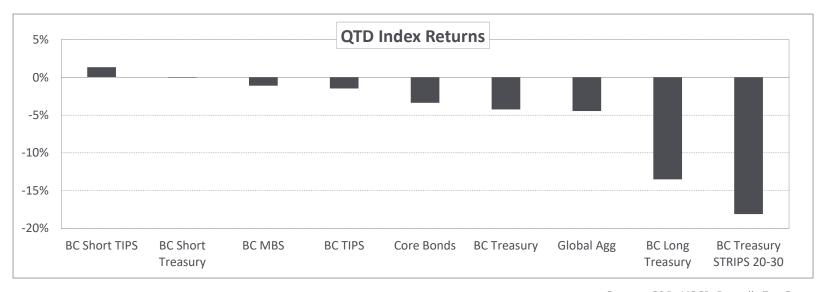
Source: S&P, MSCI, Russell, FactSet

Russell 3000 QTD Sector Returns	QTD	1 Year
Technology	3.2%	72.0%
Health Care	2.1%	39.9%
Consumer Discretionary	4.4%	86.7%
Consumer Staples	4.2%	32.2%
Energy	28.5%	89.0%
Materials & Processing	11.9%	86.1%
Producer Durables	8.5%	67.6%
Financial Services	16.1%	73.3%
Utilities	3.0%	21.6%





## **RATES OVERVIEW**



Source: S&P, MSCI, Russell, FactSet

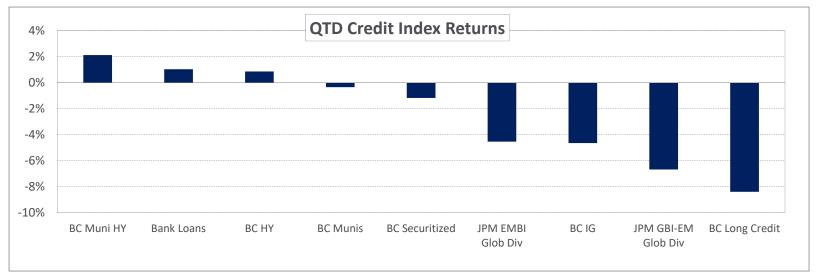
	Previous Quarter Yield	Current Quarter Yield	Δ
US 10-Year	0.92%	1.74%	0.82%
US 30-Year	1.65%	2.42%	0.77%
US Real 10-Year	-1.06%	-0.63%	0.43%
German 10-Year	-0.58%	-0.30%	0.28%
Japan 10-Year	0.02%	0.08%	0.06%
China 10-Year	3.19%	3.21%	0.02%
EM Local Debt	4.22%	4.99%	0.78%

5

Source: Barclays, JPM, FactSet



## **CREDIT OVERVIEW**



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

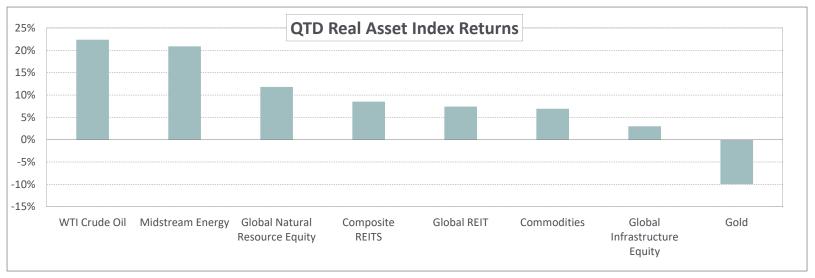
	Previous Quarter Spread (bps)	Current Quarter Spread (bps)	Δ	Median
BC IG Credit	96	91	-5	136
BC Long Credit	141	126	-15	175
BC Securitized	42	16	-26	49
BC High Yield	360	310	-50	477
Muni HY	382	364	-18	632
JPM EMBI Glob Div	352	354	2	344
Bank Loans - Libor	374	355	-19	437

6

Source: Barclays, JPM, FactSet; Medians calculated since 11/30/2000

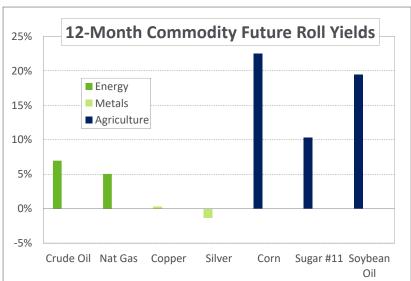


#### **REAL ASSETS OVERVIEW**



Source: S&P, MSCI, Russell, FactSet

Real Asset Yields	Previous Quarter	Current Quarter
Midstream Energy	7.9%	6.6%
Core Real Estate*	3.1%	3.0%
US REITs	3.8%	3.6%
Global REITs	4.3%	3.9%
Global Infrastructure Equities	3.4%	3.0%
Natural Resource Equities	3.4%	3.0%
Commodity Index Roll Yield	-0.1%	3.3%



Sources: Alerian, NAREIT, Barclays, NEPC, FactSet Core Real Estate\* yields are subject to a one quarter lag



March 31, 2021

Source: FactSet

# **EXECUTIVE SUMMARY**

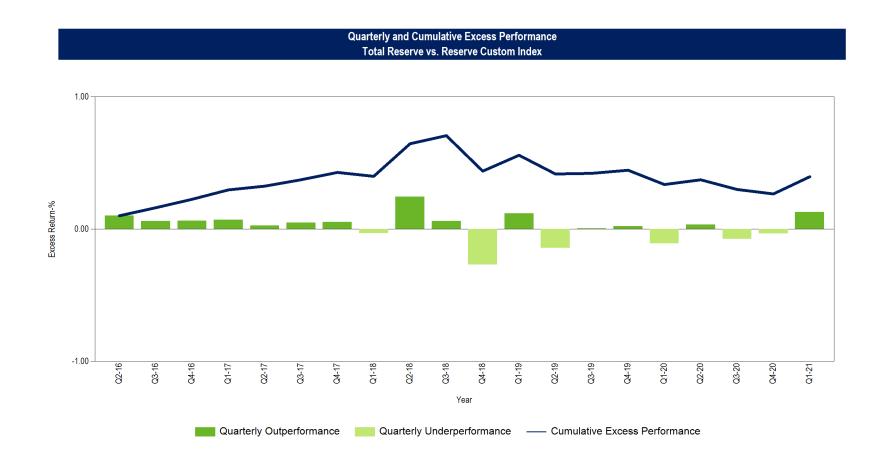
# **TOTAL FUND PERFORMANCE SUMMARY**

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception Date
Delaware Total Consolidation	\$3,633,397,517	-1.29%	-0.85%	0.77%	3.59%	2.56%	2.20%	Jan-05
Delaware Total Consolidation ex. CARES	\$3,340,666,268	-1.44%	-0.91%	0.99%	3.67%	2.60%	2.22%	Jan-05
Total Liquidity & Reserve	\$3,258,905,367	-1.53%	-1.25%	0.34%	3.60%		2.76%	Nov-16
Total Liquidity	\$1,072,644,790	0.02%	0.19%	1.02%	2.06%	1.61%	1.78%	Jan-05
eV US Cash Management Net Median		0.01%	0.07%	0.31%	1.56%	1.32%	1.43%	Jan-05
Total Reserve	\$2,186,260,577	-2.21%	-1.86%	-0.04%	4.27%	2.76%	2.55%	Jan-05
Reserve Custom Index		-2.34%	-1.89%	-0.10%	4.27%	2.68%	2.73%	Jan-05
eV US Interm Duration Fixed Inc Net Median		-1.69%	-0.17%	3.41%	4.34%	2.84%	3.78%	Jan-05
Total Endowment	\$81,760,901	2.19%	14.65%	31.31%	7.50%	8.60%	7.05%	Aug-15
Endowment Custom Index		1.57%	15.89%	30.50%	9.92%	9.44%	7.92%	Aug-15
eV Global Balanced Net Median		3.47%	22.53%	36.86%	8.04%	9.21%	7.63%	Aug-15
CARES	\$292,731,249	0.01%	0.03%	0.05%			0.05%	Apr-20
FTSE T-Bill 1 Month TR		0.01%	0.06%	0.08%	1.37%	1.09%	0.08%	Apr-20
eV US Cash Management Net Median		0.01%	0.07%	0.31%	1.56%	1.32%	0.31%	Apr-20

9

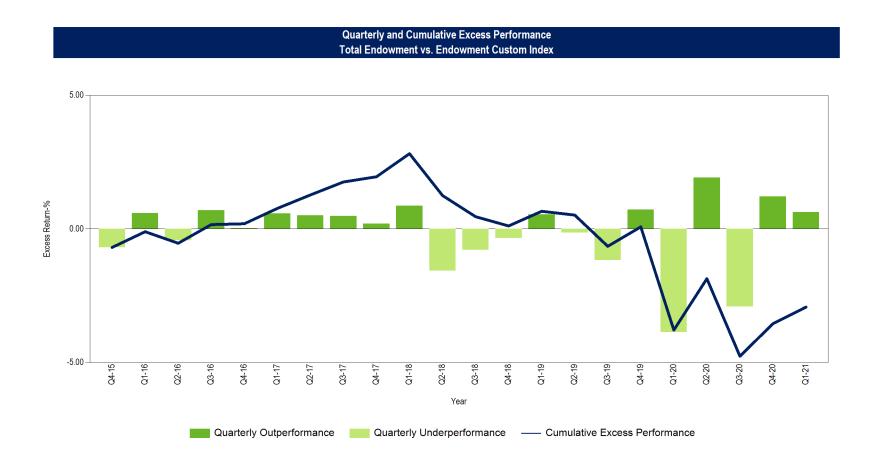


# **TOTAL FUND PERFORMANCE SUMMARY**





# **TOTAL FUND PERFORMANCE SUMMARY**

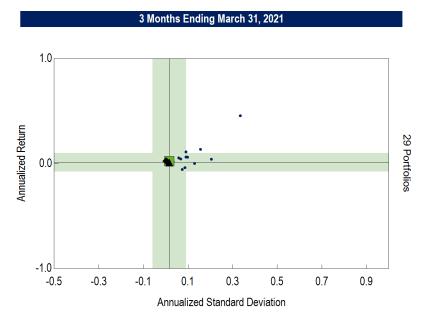


11



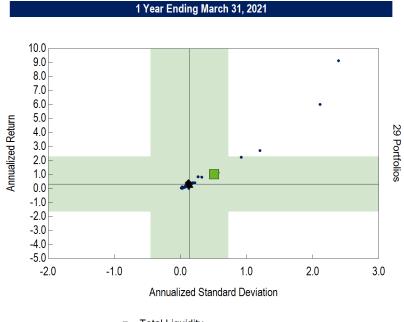
# LIQUIDITY RISK/RETURN - 3 MONTHS & 1 YEAR

12



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

3 Months Ending March 31, 2021					
	Anlzd Ret Anlzd Std Dev Sharpe Ration				
Total Liquidity	0.02%	0.02%	0.78		

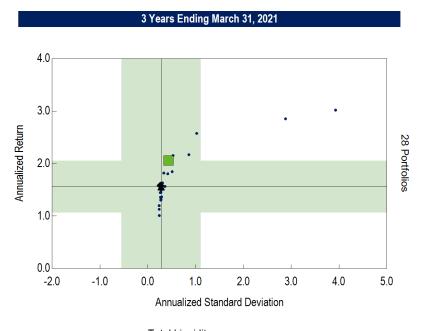


- Total Liquidity
- ◆ FTSE T-Bill 6 Months TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

1 Year Ending March 31, 2021					
	Anlzd Ret Anlzd Std Dev Sharpe Ration				
Total Liquidity	1.02%	0.51%	1.83		

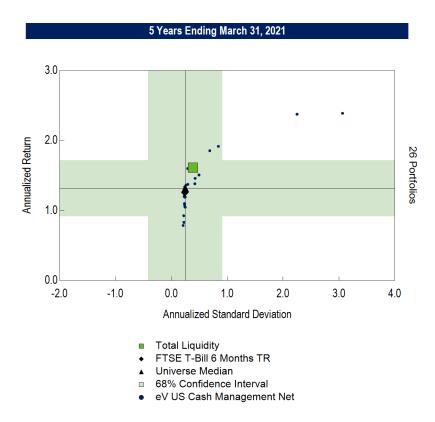


# LIQUIDITY RISK/RETURN - 3 & 5 YEARS



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

3 Years Ending March 31, 2021					
	Anlzd Ret Anlzd Std Dev Sharpe Ratio				
Total Liquidity	2.06%	0.44%	1.60		



5 Years Ending March 31, 2021					
	Anlzd Ret Anlzd Std Dev Sharpe Ratio				
Total Liquidity	1.61%	0.39%	1.27		

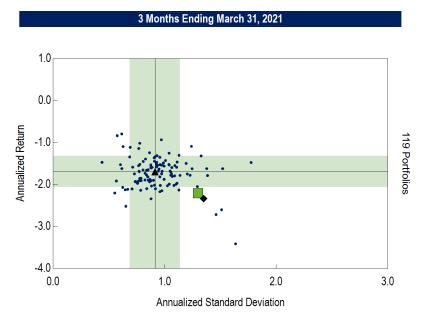


March 31, 2021

13

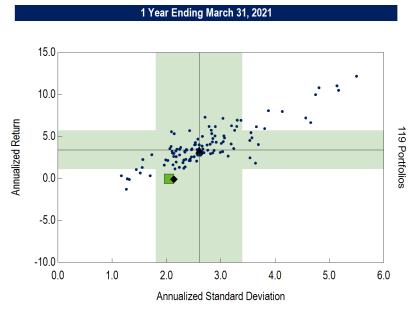
# **RESERVE RISK/RETURN - 3 MONTHS & 1 YEAR**

14



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

3 Months Ending March 31, 2021					
Anlzd Ret Anlzd Std Dev Sharpe Ratio					
Total Reserve	-2.21%	1.30%	-1.71		
Reserve Custom Index	-2.34%	1.35%	-1.74		

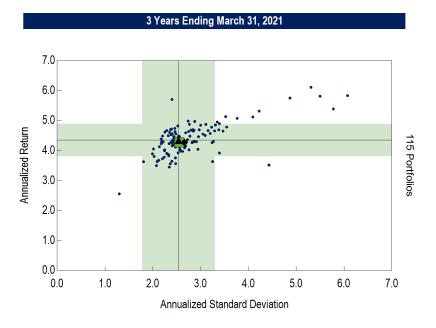


- Total Reserve
- Reserve Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV US Interm Duration Fixed Inc Net

1 Year Ending March 31, 2021					
Anlzd Ret Anlzd Std Dev Sharpe Ratio					
-0.04%	2.05%	-0.06			
-0.10%	2.14%	-0.09			
	Anlzd Ret -0.04%	Anlzd Ret Anlzd Std Dev -0.04% 2.05%			

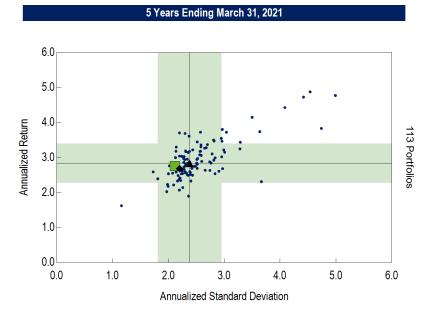


# **RESERVE RISK/RETURN - 3 & 5 YEARS**



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

3 Years Ending March 31, 2021										
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio							
Total Reserve	4.27%	2.55%	1.14							
Reserve Custom Index	4.27%	2.66%	1.09							



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

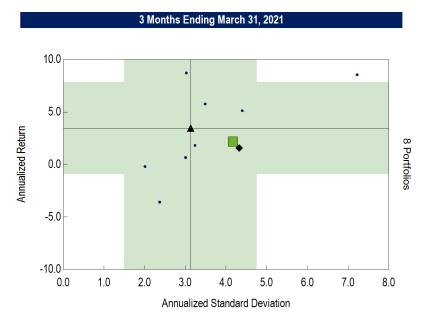
5 Years Ending March 31, 2021										
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio							
Total Reserve	2.76%	2.11%	0.79							
Reserve Custom Index	2.68%	2.20%	0.72							



March 31, 2021

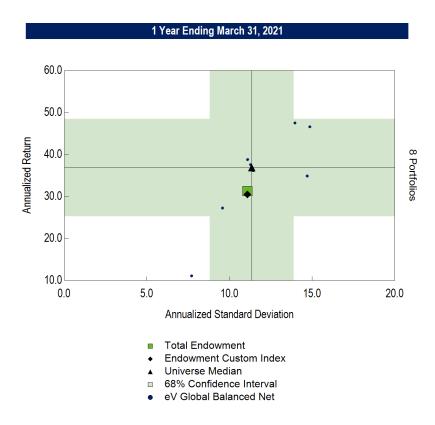
15

# **ENDOWMENT RISK/RETURN - 3 MONTHS & 1 YEAR**



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

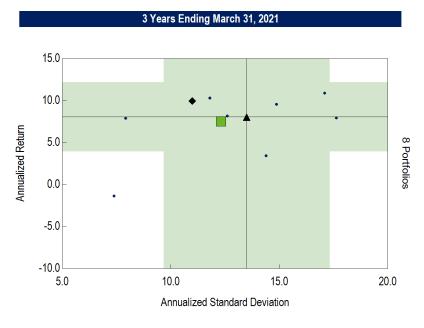
3 Months Ending March 31, 2021									
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio						
Total Endowment	2.19%	4.17%	0.52						
Endowment Custom Index	1.57%	4.32%	0.36						



1 Year Ending March 31, 2021										
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio							
Total Endowment	31.31%	11.09%	2.82							
Endowment Custom Index	30.50%	11.08%	2.74							

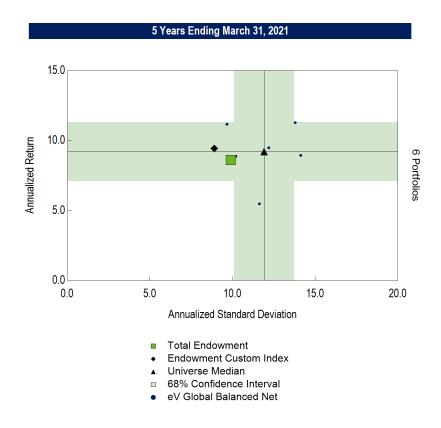


# **ENDOWMENT RISK/RETURN - 3 & 5 YEARS**



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

3 Years Ending March 31, 2021										
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio							
Total Endowment	7.50%	12.32%	0.50							
Endowment Custom Index	9.92%	10.99%	0.78							



5 Years Ending March 31, 2021										
	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio							
Total Endowment	8.60%	9.90%	0.76							
Endowment Custom Index	9.44%	8.90%	0.93							



March 31, 2021

17

## **TOTAL FUND PERFORMANCE DETAIL - NET OF FEES**

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Delaware Total Consolidation	3,633,397,517	100.00	-1.29		-0.85		0.77		3.59		2.56		2.20	Jan-05
Delaware Total Consolidation ex. CARES	3,340,666,268	91.94	-1.44		-0.91		0.99		3.67		2.60		2.22	Jan-05
Total Liquidity & Reserve	3,258,905,367	89.69	-1.53		-1.25		0.34		3.60				2.76	Nov-16
Total Liquidity	1,072,644,790	29.52	0.02	39	0.19	30	1.02	23	2.06	19	1.61	16	1.78	Jan-05
eV US Cash Management Net Median			0.01		0.07		0.31		1.56		1.32		1.43	Jan-05
PFM Asset Management	537,401,051	14.79	0.04	27	0.18	31	0.86	28	2.02	19	1.64	16	1.27	Jun-13
Wilmington Liquidity	535,243,739	14.73	0.01	55	0.20	30	1.18	15	2.09	18	1.55	22	4.06	Jan-85
Total Reserve	2,186,260,577	60.17	-2.21	96	-1.86	99	-0.04	99	4.27	61	2.76	60	2.55	Jan-05
Reserve Custom Index			-2.34	97	-1.89	99	-0.10	99	4.27	61	2.68	67	2.73	Jan-05
eV US Interm Duration Fixed Inc Net Median			-1.69		-0.17		3.41		4.34		2.84		3.78	Jan-05
JPM Intermediate	588,543,024	16.20	-0.06	32	0.27	71	1.61	81	3.14	54	2.06	71	1.74	Jun-13
J.P. Morgan Custom Index			-0.04	29	0.25	71	0.95	93	2.94	72	1.89	79	1.63	Jun-13
Blackrock Financial Mangement	521,451,443	14.35	-0.49	81	0.03	89	1.60	81	3.64	22			3.60	Mar-18
Blackrock Custom Index			-0.53	81	-0.14	97	0.89	94	3.48	29	2.21	58	3.46	Mar-18
Chandler Asset Management	542,865,958	14.94	-4.01	90	-3.37	99	-0.09	98	5.32	21	3.32	60	2.59	Jun-13
Lazard Financial Management	533,400,152	14.68	-4.04	91	-4.14	99	-3.11	99	4.92	49			4.95	Mar-18
Chandler/Lazard Custom Index	, ,		-4.36	95	-3.82	99	-1.14	99	5.31	21	3.29	63	5.24	Mar-18
Total Endowment	81,760,901	2.25	2.19	56	14.65	90	31.31	79	7.50	73	8.60	82	7.05	Aug-15
Endowment Custom Index	, ,		1.57	61	15.89	89	30.50	80	9.92	22	9.44	42	7.92	Aug-15
eV Global Balanced Net Median			3.47		22.53		36.86		8.04		9.21		7.63	Aug-15
SEI Funds	42.391.990	1.17	2.29	56	19.15	68	36.96	49	10.08	19	10.48	29	9.01	Aug-15
Vanguard Funds	39,368,838	1.08	2.07	57									9.72	Sep-20
eV Global Balanced Net Median	,,		3.47		22.53		36.86		8.04		9.21		14.59	Sep-20
CARES	292,731,249	8.06	0.01	47	0.03	75	0.05	85	-				0.05	Apr-20
FTSE T-Bill 1 Month TR	,,	5.52	0.01	47	0.06	61	0.08	79	1.37	70	1.09	80	0.08	Apr-20
eV US Cash Management Net Median			0.01		0.07		0.31		1.56		1.32		0.31	Apr-20
PFM CARES	136,008,776	3.74	0.01	47	0.03	75	0.05	85					0.05	Apr-20
PFM NCC CARES	10.355.615	0.29	0.01										0.01	Jan-21
Wilmington CARES	136,009,974	3.74	0.01	48	0.03	75	0.05	85					0.05	Apr-20
Wilmington NCC CARES	10,356,884	0.29	0.02										0.02	Jan-21
FTSE T-Bill 1 Month TR	10,000,004	0.20	0.01		0.06		0.08		1.37		1.09		0.01	Jan-21

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 BofAML 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.

18

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

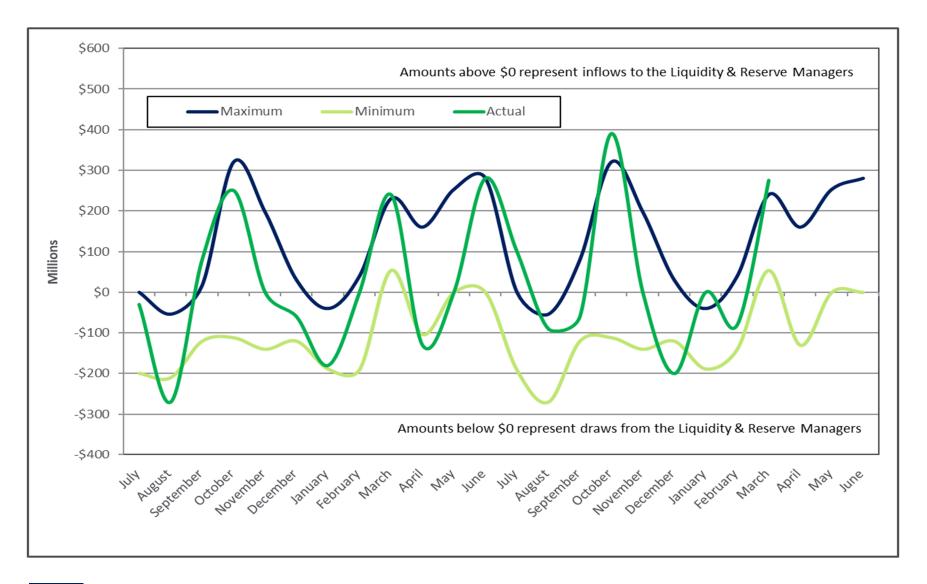
BlackRock Custom Index consists of 100% ICE BofAML 1-5 Yrs AAA-A US Corp & Govt TR.

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.

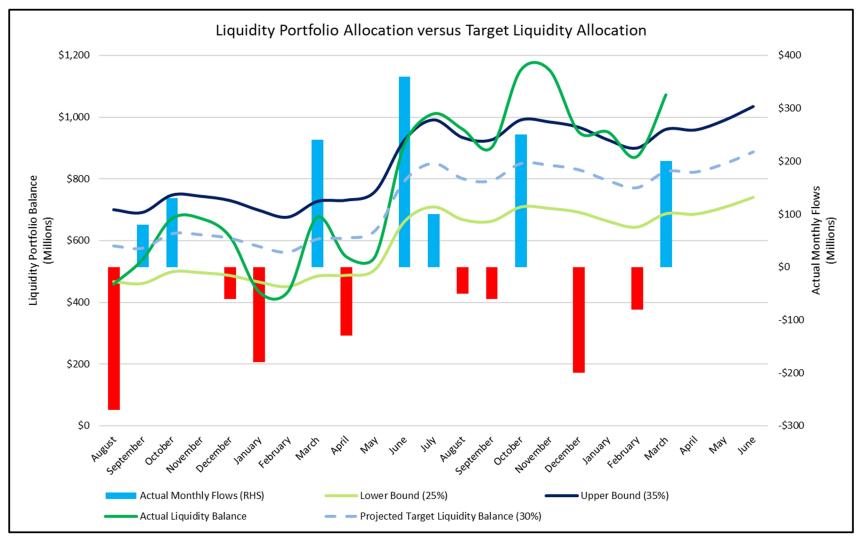


# **LIQUIDITY & RESERVE CASH FLOWS**





# LIQUIDITY BALANCE



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%.



RHS refers to the use of the Right Hand Scale.

# **FISCAL YEAR TO DATE**

Change in Market Value Fiscal Year-to-Date Through March 31, 2021																	
		Beginning								Ur	nrealized Gain	F	Realized Gain	A	Amortization /	ا	Ending Market
		Market Value		Contributions		Withdrawals	Fees	Inco	me		(Loss)		(Loss)		Accretion		Value
Liquidity Managers	,	456 402 265	,	200 000 240	,	(240,000,000)	(247.267) 6	4.005	200	,	(4 202 200)	,	464.070	,	(4.024.055)	_	527 404 054
PFM Asset Management	\$	456,492,365	\$	290,000,249	\$	(210,000,000) \$	(247,367) \$	4,095,			(1,283,289)		•	\$	(1,821,855)	•	537,401,051
Wilmington Liquidity	\$	454,246,650	\$	290,000,014	\$	(210,000,000) \$	(253,093) \$	3,864,			(1,535,255)		266,132	-	(1,345,019)		535,243,739
Total Liquidity Managers	\$	910,739,015	\$	580,000,263	\$	(420,000,000) \$	(500,460) \$	7,960,	278	Ş	(2,818,545)	Ş	431,111	Ş	(3,166,875)	Ş	1,072,644,790
Reserve Managers																	
BlackRock Financial Management	\$	486,370,073	\$	35,003,610	\$	- \$	(259,533) \$	5,713,	318	\$	(9,106,516)	\$	4,700,485	\$	(969,994)	\$	521,451,443
Chandler Asset Management	\$	526,857,829	\$	35,000,000	\$	- \$	(262,692) \$	8,658,	315	\$	(32,677,648)	\$	5,045,990	\$	243,662	\$	542,865,958
JPM Intermediate	\$	477,223,108	\$	110,000,000	\$	- \$	(282,678) \$	5,227,		\$	(5,948,120)	•	2,971,009	•	(647,894)		588,543,024
Lazard Asset Management	\$	521,377,153	\$	35,000,000		- \$	(447,367) \$	8,721,	043	\$	(39,185,314)	\$	10,662,860	\$	(2,728,227)	\$	533,400,152
Total Reserve Managers	\$	2,011,828,163	\$	215,003,610	\$	- \$	(1,252,270) \$	28,320,	776	\$	(86,917,597)		23,380,344	\$			2,186,260,577
						·					, , , ,				, , , ,		
Total Liquidity & Reserve Managers	\$ :	2,922,567,178	\$	795,003,873	\$	(420,000,000) \$	(1,752,730) \$	36,281,	053	\$	(89,736,142)	\$	23,811,455	\$	(7,269,328)	\$	3,258,905,367
Land & Water Endowment																	
SEI Funds	\$	25,440,594	\$	11.390.752	¢	(1,277,000) \$	(90,590) \$	576,	523	¢	4,433,467	Ċ	1,918,144	¢	_	\$	42,391,990
Vanguard	\$	-	\$	36,788,900	•	(1,257,000) \$	(24,332) \$	481,		•	3,167,292		212,002	•	_	\$	39,368,838
Total Land & Water Endowment	\$	71,593,828	\$	52,753,659	\$	(53,262,652) \$	(114,922) \$	1,060,				\$	2,130,146	_	-	\$	81,760,902
	•	12,000,020	•	02,000,000	_	(00,202,002, 4	()	_,,		•	1,223,122	•	_,,	•		,	02,100,002
CARES																	
PFM CARES	\$	427,436,714	\$	-	\$	(291,490,724) \$	(15,783) \$	276,	191	\$	(119,165)	\$	471	\$	(78,928)	\$	136,008,776
PFM NCC CARES	\$	-	\$	69,506,644	\$	(59,155,860) \$	- \$	10,	032	\$	-	\$	3,002	\$	(8,203)	\$	10,355,615
Wilmington CARES	\$	427,436,909	\$	-	\$	(291,490,724) \$	(15,865) \$	28,	745	\$	781	\$	(2,714)	\$	52,842	\$	136,009,974
Wilmington NCC CARES	\$	-	\$	69,506,644	\$	(59,155,860) \$	(1,144) \$		380	\$	1,836	\$	4,528	\$	-	\$	10,356,884
Total CARES	\$	854,873,623	\$	139,013,288	\$	(701,293,168) \$	(32,792) \$	315,	848	\$	(116,548)	\$	5,287	\$	(34,289)	\$	292,731,249
Total	\$ :	3,849,034,629	\$	986,770,820	\$(	1,174,555,820) \$	(1,900,444) \$	37,656,	983	\$	(82,251,932)	\$	25,946,888	\$	(7,303,616)	\$	3,633,397,517

#### 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				Ben	chmark						
	<u>Portfolio Value</u>	% of Assets	<u>Yield</u>	<u>Duration</u>		Yield	<u>Duration</u>					
PFM \$	537,401,051	16.5%	0.33%	0.68	6-Month Treasury Bill	0.03%	0.48					
Wilmington Trust \$	535,243,739	16.4%	0.22%	0.89	6-Month Treasury Bill	0.03%	0.48					
Total Liquidity \$	1,072,644,790	32.9%	0.28%	0.78	6-Month Treasury Bill	0.03%	0.48					
	Reserve Portfolio Yield and Duration Analysis											
	Portfolio				Ben	chmark						
	Portfolio Value	% of Assets	<u>Yield</u>	<u>Duration</u>		Yield	<u>Duration</u>					
JP Morgan \$	588,543,024	18.1%	0.28%	1.57	BAML 1-3 Yr Govt/Credit A+	0.25%	1.90					
BlackRock \$	521,451,443	16.0%	0.54%	2.56	BAML 1-5 Yr Govt/Credit A+	0.46%	2.69					
Chandler \$	542,865,958	16.7%	1.43%	6.15	BAML 5-10 Yr Govt/Credit A+	1.57%	6.71					
Lazard \$	533,400,152	16.4%	1.40%	6.23	BAML 5-10 Yr Govt/Credit A+	1.57%	6.71					
Total Reserve \$	2,186,260,577	67.1%	0.90%	4.08	Custom Reserve Benchmark	0.96%	4.50					
	Total Liquidity & Reserve Portfolio Yield and Duration Analysis											
	Portfolio				Ben	chmark						
	<u>Portfolio Value</u>	% of Assets	<u>Yield</u>	<u>Duration</u>		<u>Yield</u>	<u>Duration</u>					
Total Liquidity & Reserve \$	3,258,905,367	100.0%	0.69%	3.00	Weighted Average	0.68%	3.30					

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

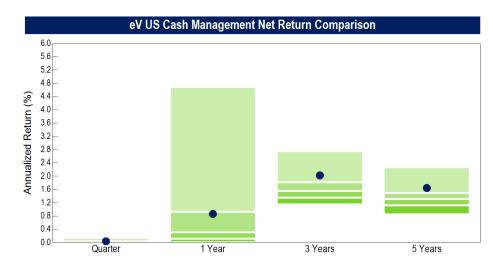
	MV - 3/31/21 (\$)	144A Securities MV (\$)	144A Securities Percent of Total Portfolio (%)	144A Securities Percent of Manager Portfolio (%)
Delaware Total Consolidation	\$3,633,397,517	\$106,754,123	2.9%	
Total Liquidity & Reserve	\$3,258,905,367	\$106,754,123	2.9%	
Total Liquidity	\$1,072,644,790	\$67,144,168	1.8%	
PFM Asset Management	\$537,401,051	\$18,110,415	0.5%	3.4%
Wilmington Liquidity	\$535,243,739	\$49,033,753	1.3%	9.2%
Total Reserve	\$2,186,260,577	\$39,609,955	1.1%	
JPM Intermediate	\$588,543,024	\$35,806,958	1.0%	6.1%
Blackrock Financial Mangement	\$521,451,443	\$3,802,997	0.1%	0.7%
Chandler Asset Management	\$542,865,958	\$0	0.0%	0.0%
Lazard Financial Management	\$533,400,152	\$0	0.0%	0.0%
Total Endowment	\$81,760,828	\$0	0.0%	
SEI Funds	\$42,391,990	\$0	0.0%	
Vanguard Funds	\$39,368,838	\$0	0.0%	 
CARES	\$292,731,249	\$0	0.0%	
PFM CARES	\$136,008,776	\$0	0.0%	
PFM NCC CARES	\$10,355,615	\$0	0.0%	 
Wilmington CARES	\$136,009,974	\$0	0.0%	 
Wilmington NCC CARES	\$10,356,884	\$0	0.0%	     

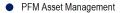


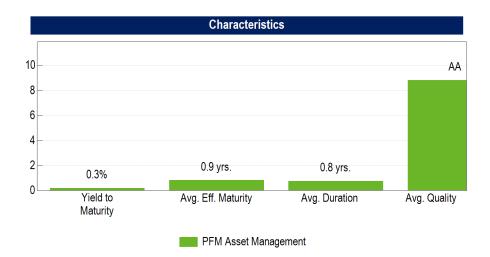
# LIQUIDITY MANAGER REVIEW

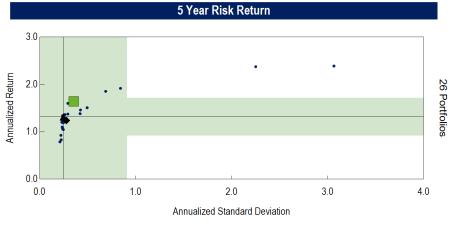
NEPC, LLC -

### **PFM ASSET MANAGEMENT**







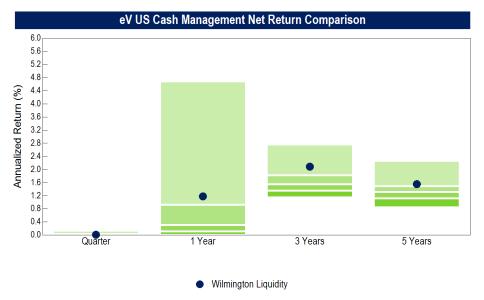


- PFM Asset Management
- Liquidity Custom Index
- Universe Median
- 68% Confidence Interval
- eV US Cash Management Net

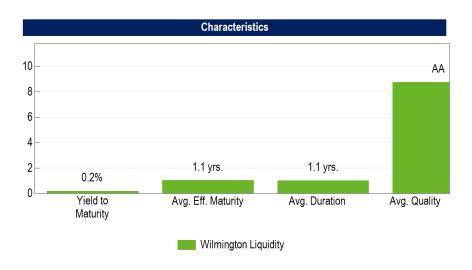




# WILMINGTON LIQUIDITY







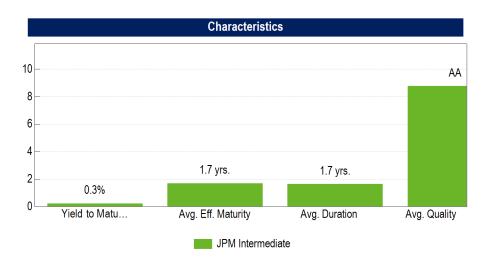




# RESERVE MANAGER REVIEW

#### JPM INTERMEDIATE







- JPM Intermediate
- ◆ J.P. Morgan Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV US Short Duration Fixed Inc Net

#### **Qualitative Attribution**

**Duration and Yield Positioning:** The portfolio's duration slightly decreased this quarter, dropping from 1.67 to 1.57. The duration is below the benchmark's duration (1.83) at quarter end. The yield for the portfolio increased from 0.23% to 0.28% in the quarter. The quarter end benchmark yield is 0.24%.

**Result:** Duration/curve positioning had a largely neutral effect for the quarter. The portfolio's duration and yield curve positioning had negligible effect on performance for the quarter.

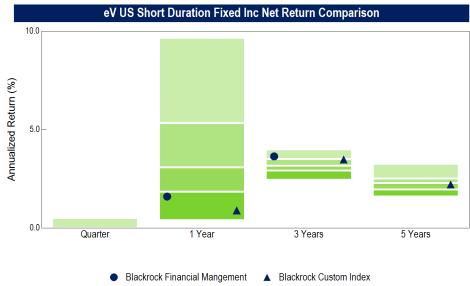
**Credit Positioning:** The portfolio maintained an underweight to Treasuries (64.7% vs 75.5%) at quarter end. The AAA/AA/A IG credit weighting was 34.9% at quarter end vs 24.1% for the benchmark.

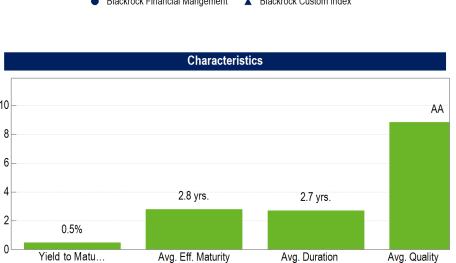
**Result:** The credit positions had negligible effects on relative performance as the portfolio and benchmark moved in lockstep for the quarter.

**Other Positioning:** JPM is anticipating a lot of economic indicators lifting off from y-o-y low levels. They've noted restaurant spending, lodging, and air travel are all increasing tangibly, fueling an economic recovery across the country and world.



#### **BLACKROCK FINANCIAL MANAGEMENT**





Blackrock Financial Mangement



- Blackrock Financial Mangement
- Blackrock Custom Index
- Universe Median
- 68% Confidence Interval
- eV US Short Duration Fixed Inc Net

#### **Qualitative Attribution**

**Duration and Yield Positioning:** The portfolio's duration was 2.56 at quarter end (2.68 for the benchmark). The portfolio's yield was 0.54% at quarter end (0.46% for the benchmark).

**Result:** Portfolio duration and curve positioning did not meaningfully affect relative performance in the quarter.

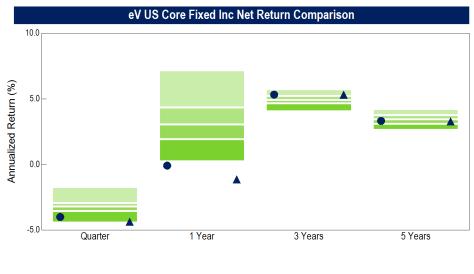
**Credit Positioning:** Portfolio is overweight spread sectors (MBS and ABS) and has a slight overweight to Investment Grade Corporates.

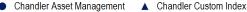
**Result:** Spread sector allocations have been beneficial for the portfolio as credit spreads have tightened in the past year.

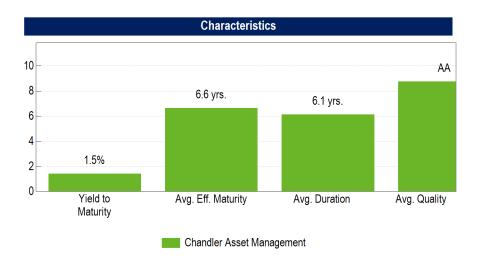
**Other Positioning:** Blackrock is positioning assets according to a few separate themes. First, they have a short duration bias with a belief in the yield curve steepening. Next they've been adding to IG credit positions, furthermore they've been building positions in the high yield sector and securitized credit sector as they believe opportunistic allocations will be beneficial in this space.

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#### CHANDLER ASSET MANAGEMENT









#### **Qualitative Attribution**

**Duration and Yield Positioning:** The portfolio's duration was 6.15 at quarter end (6.71 for the benchmark). The portfolio's yield was 1.43% at quarter end (1.57% for the benchmark).

**Result:** Chandler's duration positioning below the benchmark was additive to performance overall. The overall term structure of the portfolio relative to benchmark was the largest relative performance driver. Underweight exposure to the 7-10 year portion of the maturity distribution added to performance.

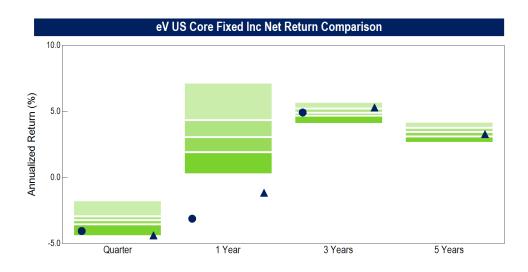
**Credit Positioning:** The portfolio remains overweight the Corporate sector; based on a view of the recovering economy (especially so in the second half of 2021). The Corporate overweight should benefit the total return for the portfolio.

**Result:** Over-weights to spread sectors were beneficial to relative performance in the quarter. Spread sectors should continue to help portfolio performance as the economy recovers.

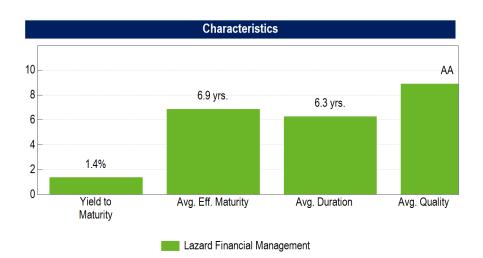
**Other Positioning:** Chandler is confident there is a large amount of pentup demand awaiting to be deployed in the service sector and 'main street' economy. They also see that the domestic savings rate is still elevated, they anticipate this savings being drawn down as travel restrictions are loosened and post-quarantine normalcy returns.

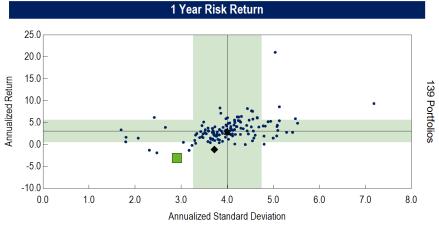


#### LAZARD FINANCIAL MANAGEMENT









- Lazard Financial Management
- Chandler/Lazard Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV US Core Fixed Inc Net

#### **Qualitative Attribution**

**Duration and Yield Positioning:** The portfolio's duration was 6.23 at quarter end (benchmark's duration was 6.50). The portfolio yield was 1.40% at the end of the quarter (benchmark's yield was 1.57%).

**Result:** The shorter duration position of the portfolio was additive to performance in the quarter. Interest rate positioning was additive to performance as rates pushed higher and the longer end of the curve steepened YTD.

**Credit Positioning:** The portfolio's treasury allocation at the end of the quarter was 84% (benchmark's treasury allocation was 68%).

**Result:** The portfolio's overweight to treasuries hurt relative performance for the quarter. As the economic recovery has gone on, spread sector over-weight has been beneficial.

**Other Positioning:** Lazard anticipates the broad economic recovery to continue as the year goes on. They see a broad "K-Shaped Recovery" with certain industries thriving in the recovery and other industries falling behind. Broadly, Lazard hasn't seen any market changes that would materially alter their investment strategy for this mandate.



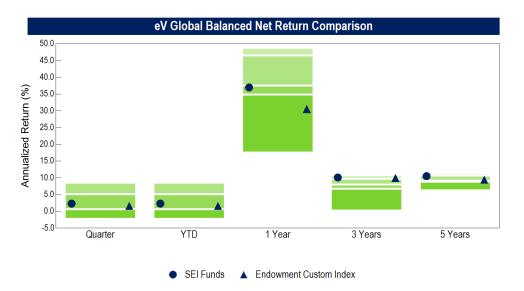
March 31, 2021

31

# ENDOWMENT MANAGER REVIEW

#### **SEI FUNDS**

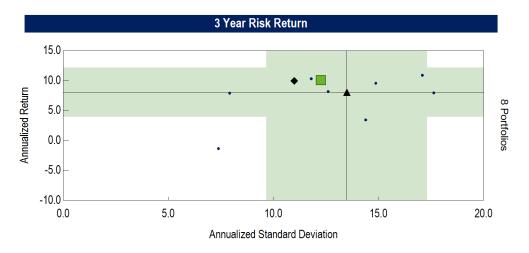
SEI Funds manages a multi-asset class portfolio subject to a 60% target equity allocation which will be held in a range of 45% to 75%, with international equities not to exceed 35% of the equity allocation. A combination of fixed income, alternative investments, and cash will account for the remaining 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.



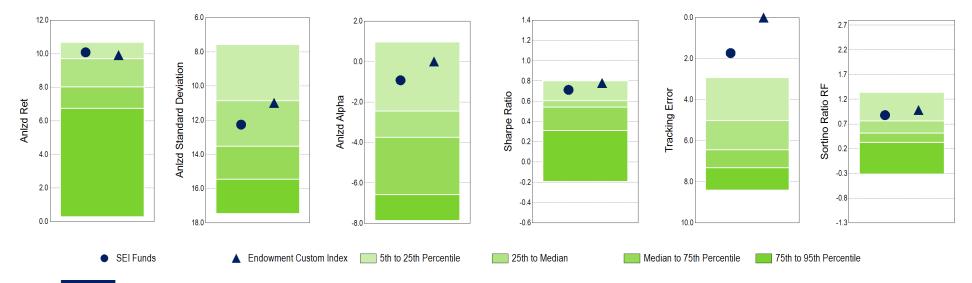




## **SEI FUNDS**



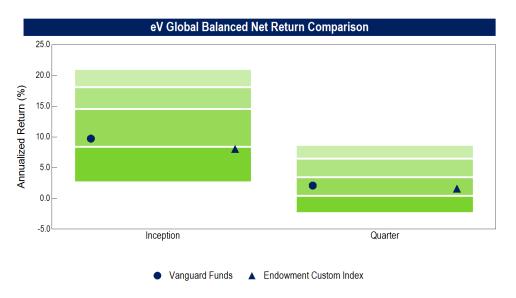
- SEI Funds
- ◆ Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

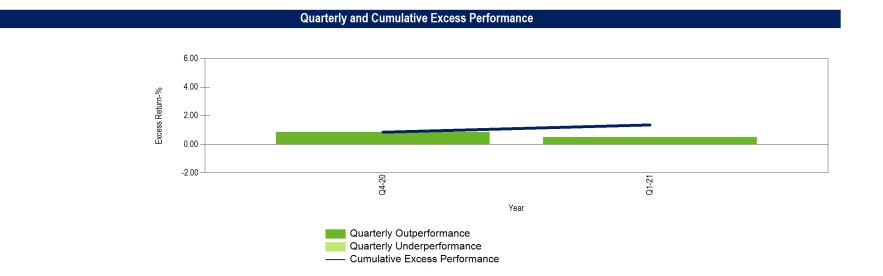




#### **VANGUARD FUNDS**

Vanguard's account is passively managed implementation approach to the Endowment Fund's strategic asset allocation portfolio consists of three individual mutal 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.





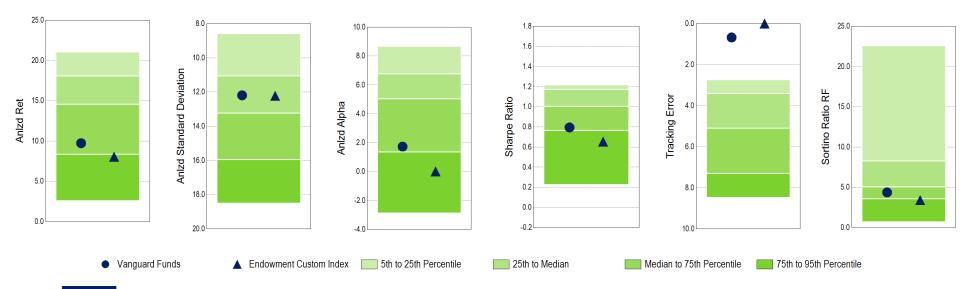


#### **Delaware Office of the State Treasurer**

#### **VANGUARD FUNDS**



- Vanguard Funds
- Endowment Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- eV Global Balanced Net

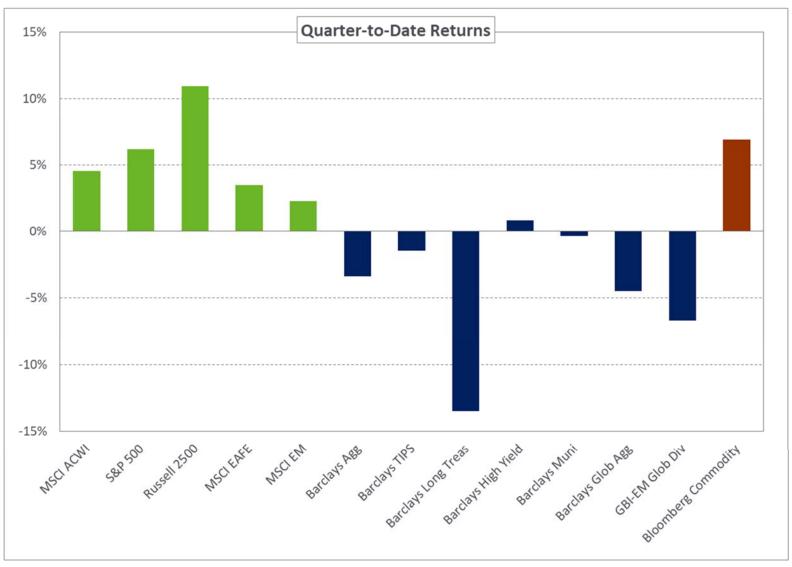


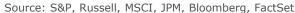


# REPORT APPENDIX

NEPC, LLC —

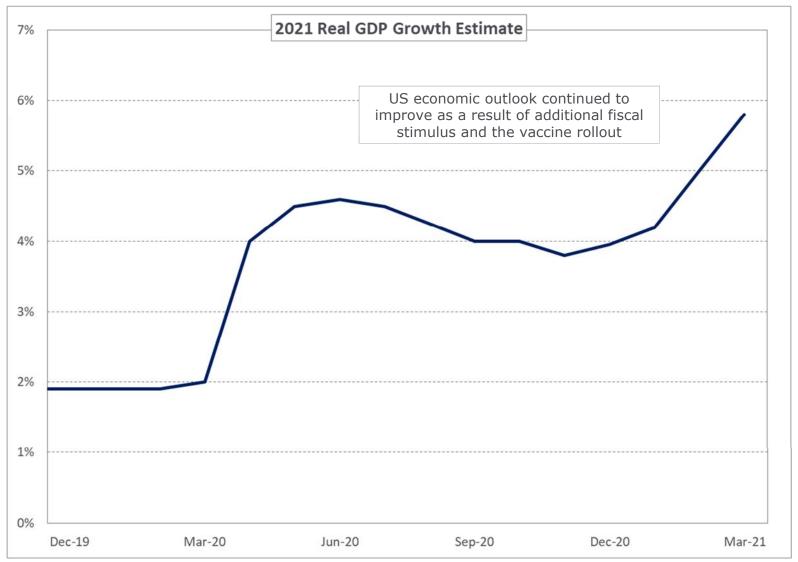
#### FIXED INCOME UNDERPERFORMED







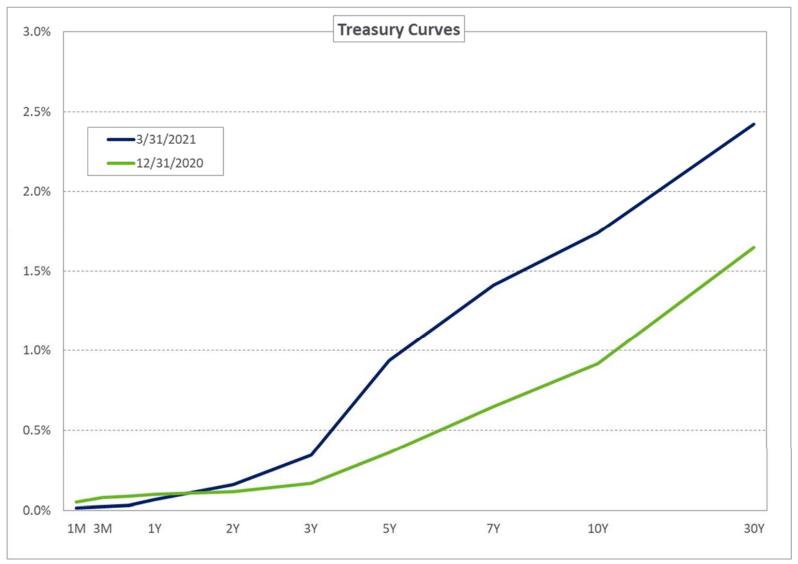
#### THE U.S. ECONOMIC OUTLOOK IMPROVED







## LONG-TERM INTEREST RATES ROSE







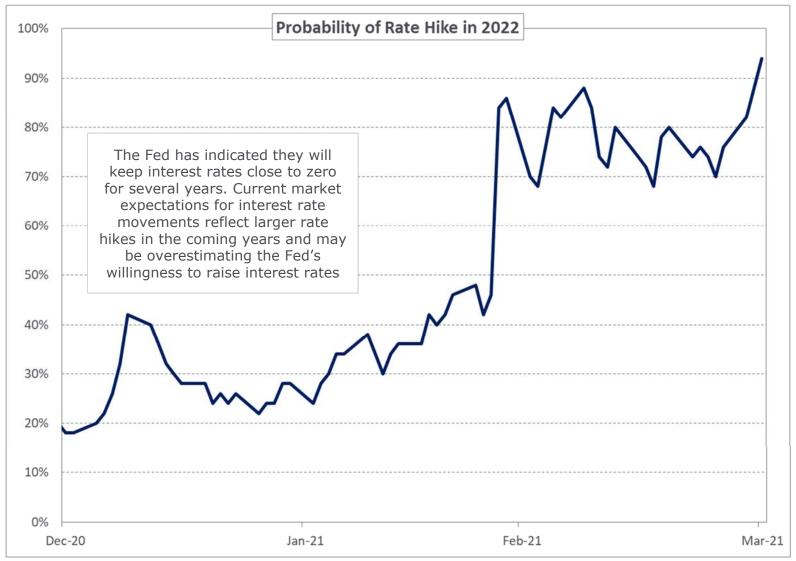
#### THE U.S. YIELD CURVE STEEPENED







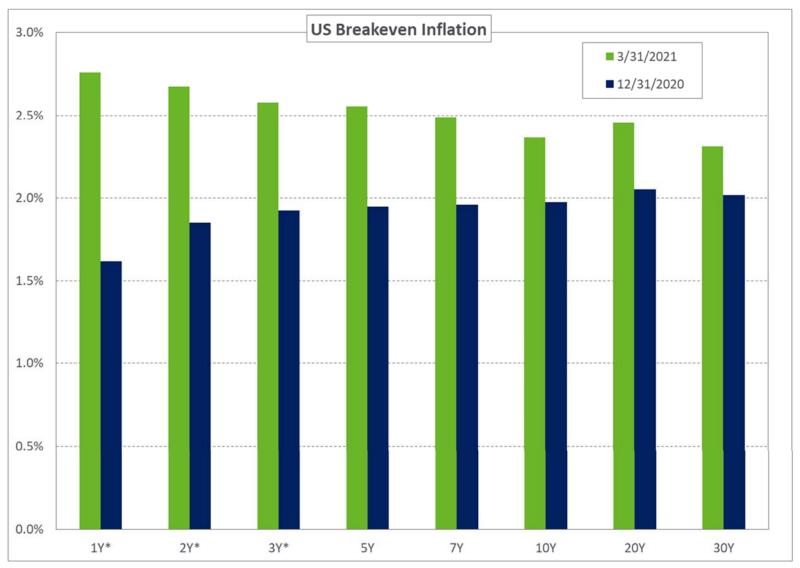
#### THE MARKET EXPECTS A RATE HIKE IN 2022







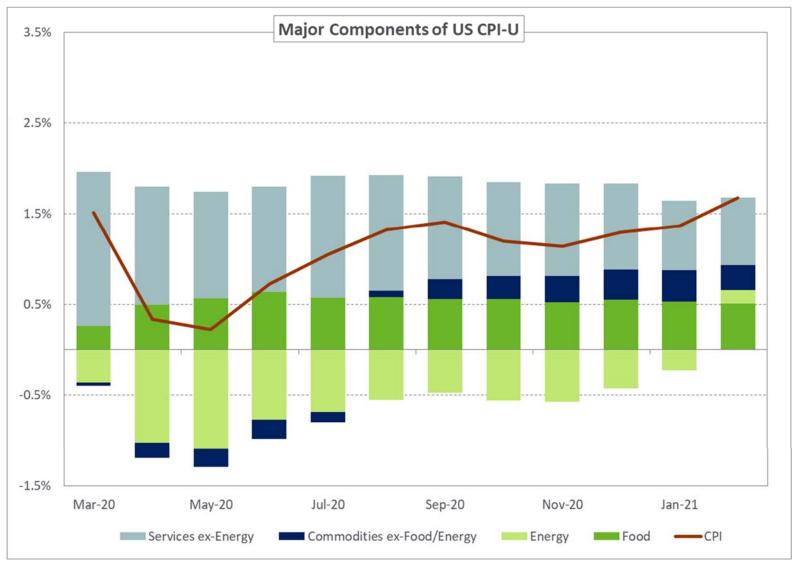
#### NEAR-TERM INFLATION EXPECTATIONS ROSE







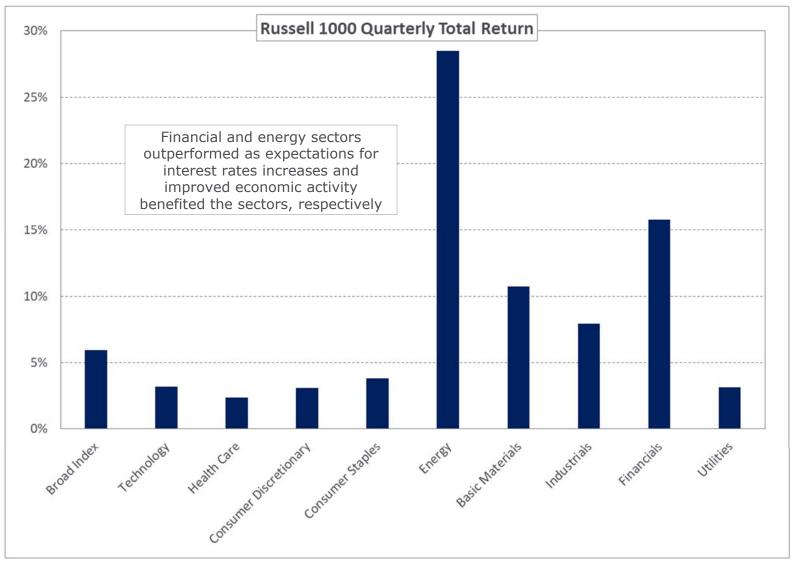
#### REALIZED INFLATION REMAINS SUBDUED







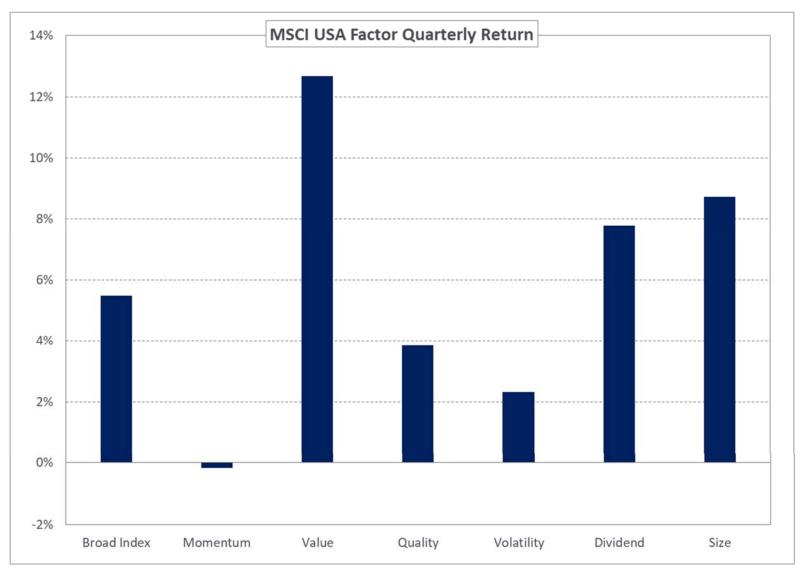
#### FINANCIAL & ENERGY SECTORS OUTPERFORMED







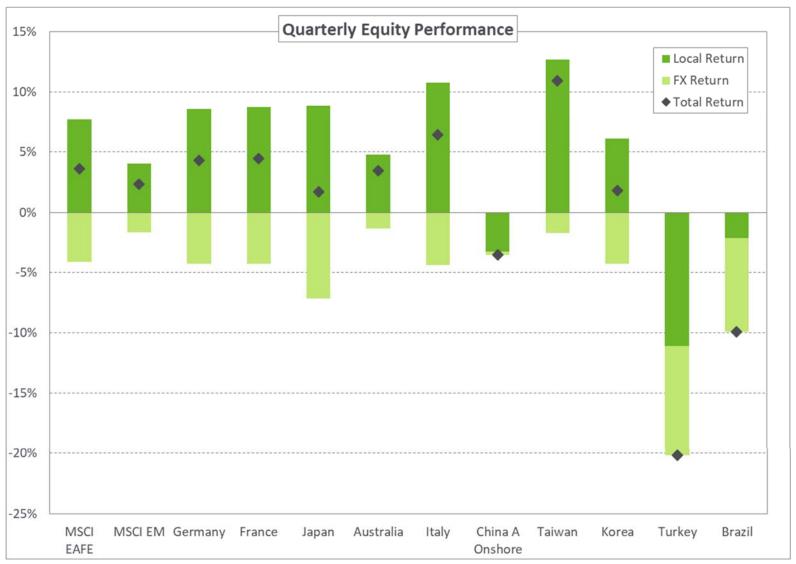
#### THE MOMENTUM FACTOR UNDERPERFORMED







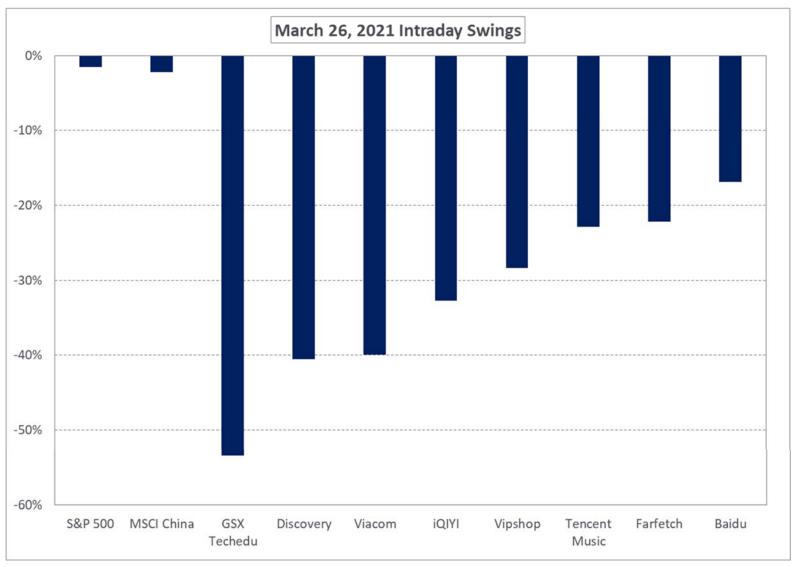
## USD STRENGTH WEIGHED ON NON-US EQUITIES



Source: MSCI, FactSet



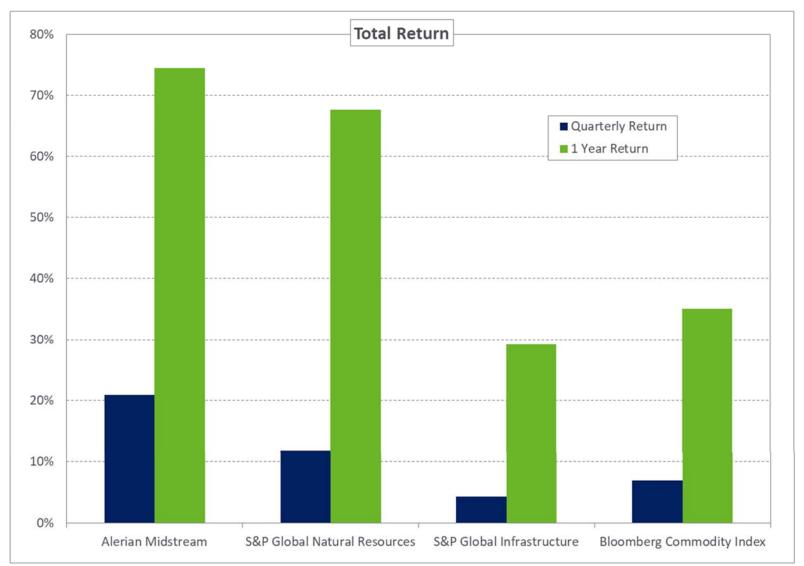
#### ARCHEGOS CAPITAL IMPACTED SELECT STOCKS

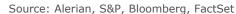


Source: S&P, MSCI, FactSet



#### MIDSTREAM REBOUNDED FROM PANDEMIC LOWS







#### **GLOSSARY OF INVESTMENT TERMINOLOGY**

# Of Portfolios/Observations<sup>1</sup> - The total number of data points that make up a specified universe

**Allocation Index**<sup>3</sup> - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

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 that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions

**Average Effective Maturity** - 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 ability to meet or beat an index.

Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question 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.

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.

Data Source: 'InvestorForce, 'Interaction Effect Performance Attribution, 'NEPC, LLC, 'Investopedia, 'Hedgeco.net



#### GLOSSARY OF INVESTMENT TERMINOLOGY

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> - Is 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>** - Equals 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> – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

High-Water Mark<sup>4</sup> - The highest peak in 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.

**Hurdle Rate**<sup>4</sup> - The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

Interaction Effects<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 over weighted 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 the either effect.

Median<sup>3</sup> - The value (rate of return, market sensitivity, etc.) that exceeds onehalf of the values in the 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>** – Is 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.

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



#### **GLOSSARY OF INVESTMENT TERMINOLOGY**

**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 this 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.

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 is, positive or negative.

**Soft Hurdle rate**<sup>5</sup> – is a hurdle rate 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 Effects<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 a defined time period.

Universe3 - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation - Standard Deviation of Positive Returns

**Weighted Avg. 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.

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



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- 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.
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