



March 9, 2023

To: Shelly Schueller, Director of Deferred Compensation, Wisconsin Dept. of Employee Trust Funds  
Fr: Bill Thornton, Investment Director, Empower Investments  
Re: Investment Lineup Summary, Fourth Quarter, 2022

The fourth quarter of 2022 put a positive spin on a dismal year for investors. After three consecutive quarters of negative returns, most all equity and fixed income categories saw solid increases in the last three months of the year. However, for the year investors experienced the worst-performing year in stocks since the financial crisis in 2008. Making matter worse, the Bloomberg Aggregate Bond Index finished the year with the worst overall performance in its history. With negative performance in the vast majority of equity and fixed income sectors, 2022 was a year that most investors would like to forget.

On a relative basis, though, the options in the Deferred Compensation Plan fared well versus their benchmarks. Of the actively managed funds in the lineup, only the Vanguard Wellington and Vanguard Long-Term Investment Grade Bond Funds trailed their assigned Morningstar categories for the year. Looking over a longer-term time period, only two funds (American Funds EuroPacific Growth and Vanguard Long-Term Investment Grade Bond Fund) trail their categories over the five-year time period. Both of those funds trailed their peers by marginal amounts.

At this point, pending our quarterly review with the Deferred Compensation Board, there doesn't appear to be a need to place any investment options on a Watch status.

Best Regards,

A handwritten signature in black ink that reads "Bill Thornton".

**Bill Thornton, CIMA®**  
Investment Director  
Empower Investments

8515 E. Orchard Rd.  
Greenwood Village, CO 80111  
empower.com

(303) 737-1514 direct  
william.thornton@empower.com

Securities underwritten by Empower Financial Services, Inc., Member FINRA/SIPC, an affiliate of Empower Funds, Inc.; Empower Trust Company, LLC, and registered investment adviser Empower Capital Management, LLC, marketed under the Empower Investments brand. ECM is the investment adviser to Empower Funds, Inc.

"EMPOWER" and "EMPOWER INVESTMENTS" and all associated logos and product names are trademarks of Empower Annuity Insurance Company of America.

State of Wisconsin Deferred Compensation Plan

# Investment Performance and Expense Ratio Review

Performance as of December 31, 2022

**Bill Thornton, CIMA®**

Investment Director, Empower Investments

303-737-1514

[william.thornton@empower.com](mailto:william.thornton@empower.com)



# Table of Contents

- 1) Executive Summary
- 2) Target Date Summary
- 3) Expense Ratio Information
- 4) Fund Analysis
- 5) Capital Markets Overview
- 6) Appendix

# Executive Summary



# Wisconsin Deferred Compensation Program – Asset Class Coverage

Core "Doers"							
Stable Value/ Money Market	Fixed Income	Large Cap Value	Large Cap Core	Large Cap Growth	Mid Cap	Small Cap	Global/ International
FDIC Bank Option, Vanguard Treasury Money Market, Stable Value Fund	BlackRock US Debt Index, Vanguard Long-Term Investment Grade, Dodge & Cox Income	JP Morgan US Value	Vanguard Institutional 500 Trust Index	Fidelity Contrafund Commingled Pool, Calvert U.S. Core Large Cap Resp Idx	BlackRock Mid Cap Equity Index, T.Rowe Price Instl Mid-Cap Equity	BlackRock Russell 2000 Index, DFA US Micro Cap	American Funds Europacific Growth, Blackrock EAFE Equity Index
Asset Allocation "Delegators"							
Balanced/Lifestyle/Lifecycle				Managed Accounts			
Vanguard Target Retirement Trusts, Vanguard Wellington				Professional Management Program - Ibbotson			
Specialty "Sophisticates"							
Brokerage		Other			Company Stock		
Schwab							

This graph is intended to show generally the anticipated relationship between various asset classes and the corresponding funds within each asset class available through your plan. Please note this is not intended to predict an actual level of return or risk for these funds. The historical returns and risk for these funds may vary significantly from the linear relationship represented above. Please refer to the funds' prospectuses and shareholder reports for actual return information.

Generally, the asset allocation of each target date fund will change on an annual basis with the asset allocation becoming more conservative as the fund nears the target retirement date. The target date is the approximate date when investors plan to start withdrawing their money.

The principal value of the fund(s) in a plan's lineup is not guaranteed at any time, including at the time of target date and/or withdrawal.

Name	Total Ret	Total Net Assets \$M	Expense Ratio				
	3 Mth	1 Yr	3 Yr	5 Yr	10 Yr		
American Funds EuroPacific Gr R6	13.78	-22.72	-0.15	1.54	5.30	141,780	0.46
Morningstar Foreign Large Growth Avg	13.77	-25.29	0.04	2.11	5.26	-	1.05
MSCI EAFE Index	17.34	-14.45	0.87	1.54	4.67	-	-
MSCI ACWI ex U.S.	14.28	-16.00	0.07	0.88	3.80	-	-
Blackrock EAFE Equity Index Coll T	18.39	-13.87	1.33	1.99	4.98	-	0.06
MSCI EAFE Index	17.34	-14.45	0.87	1.54	4.67	-	-
DFA US Micro Cap I	9.96	-12.46	7.60	5.85	10.32	6,628	0.41
Morningstar Small Cap Blend Avg	9.05	-16.24	5.17	4.85	9.08	-	0.98
Russell 2000 Index	6.23	-20.44	3.10	4.13	9.01	-	-
Blackrock Russell 2000 Index Coll M	6.26	-20.36	3.15	4.22	9.17	-	0.03
Russell 2000 Index	6.23	-20.44	3.10	4.13	9.01	-	-
T. Rowe Price Instl Mid-Cap Equity Gr	8.46	-23.17	3.21	7.42	12.46	5,047	0.61
Morningstar Mid Cap Growth Avg	5.07	-27.79	4.14	7.09	10.67	-	1.06
Russell Mid Cap Growth Index	6.90	-26.72	3.85	7.64	11.41	-	-
S&P Midcap 400 Index	10.78	-13.06	7.23	6.71	10.78	-	-
Blackrock Midcap Equity Index Coll F	10.76	-13.10	7.21	6.71	10.80	-	0.03
S&P MidCap 400 Index	10.78	-13.06	7.23	6.71	10.78	-	-
Calvert US Large Cap Core Rspnb Idx R6	6.78	-21.61	7.53	9.64	12.75	5,989	0.19
S&P 500 Index	7.56	-18.11	7.66	9.42	12.56	-	-
Morningstar Socially Resp Large Cap Avg**	8.24	-20.31	6.92	8.96	11.56	-	0.91
Morningstar Large Cap Growth Avg	8.27	-16.96	6.88	8.26	11.31	-	0.79
Fidelity Contrafund Commingled Pool CI 3	4.63	-27.14	6.11	9.00	-	-	0.35
Morningstar Large Cap Growth Avg	3.10	-29.91	4.72	8.30	11.77	-	0.96
Russell 1000 Growth Index	2.20	-29.14	7.79	10.96	14.10	-	-
S&P 500 Index	7.56	-18.11	7.66	9.42	12.56	-	-

\*\*This index is a compilation of all Large Cap Socially Conscious Funds in the Morningstar Database

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

Name	Total Ret	Total Net Assets \$M	Expense Ratio				
	3 Mth	1 Yr	3 Yr	5 Yr	10 Yr		
JP Morgan US Value R6	12.80	-2.08	9.38	9.29	12.18	4,066	0.44
Morningstar Large Cap Value Avg	12.42	-7.54	5.96	6.67	10.29	-	-
Russell 1000 Value Index	12.77	-5.90	6.96	7.03	10.23	-	-
Vanguard Institutional 500 Index Trust**	7.56	-18.13	7.66	9.42	12.55	-	0.01
S&P 500 Index	7.56	-18.11	7.66	9.42	12.56	-	-
Vanguard Wellington Adm	7.42	-14.26	4.17	6.02	8.46	102,210	0.16
Morningstar Moderate Allocation Avg	5.69	-13.64	2.89	4.13	6.21	-	1.04
Composite 65% S&P 500 / 35% Barclay's Aggregate	5.57	-16.33	4.03	6.13	8.54	-	-
Composite 65% S&P 500 / 35% Barclay's U.S. Credit A or Better Idx	6.06	-17.08	3.97	6.20	8.78	-	-
Vanguard Long-Term Investment-Grade Adm	4.00	-25.55	-5.65	-0.96	2.32	15,119	0.12
Barclay's LT Corporate A	3.27	-15.15	-2.87	0.22	1.76	-	-
Morningstar Long Term Bond	3.46	-24.44	-5.30	-0.72	2.02	-	0.49
Dodge & Cox Income X	2.77	-10.77	-1.09	1.15	2.10	58,065	0.33
Morningstar Intern Core-Plus Bond Avg	1.78	-13.27	-2.43	0.15	1.25	-	-
BarCap US Agg Bond TR USD	1.87	-13.01	-2.71	0.02	1.06	-	-
Blackrock US Debt Index Fund Coll W	1.69	-13.05	-2.72	0.03	1.10	-	0.03
BarCap US Agg Bond TR USD	1.87	-13.01	-2.71	0.02	1.06	-	-
Vanguard Admiral Treasury Money Mkt Inv	0.86	1.50	0.66	1.18	0.70	37,888	0.09
Morningstar Taxable Money Mkt Avg	0.75	1.26	0.53	0.97	0.55	-	0.41
U.S. Treasury 90-Day T-Bill	0.99	2.01	0.80	1.28	0.78	-	-
iMoney Net Average Treasury MM	0.78	1.27	0.51	0.89	0.48	-	-
Stable Value Fund	0.53	1.80	1.94	2.12	2.01	752	0.27
5 Yr. Constant Maturity Treasury Yield	1.00	3.00	1.46	1.82	1.67	-	-

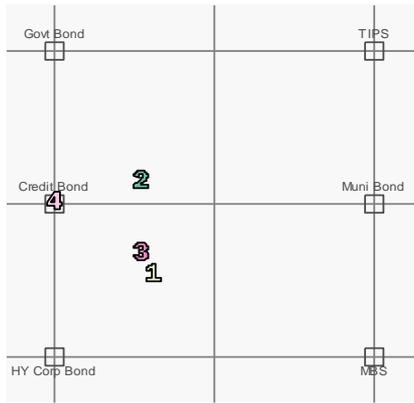
\*\* Italicized returns are taken from mutual fund share class..

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

Asset Class: Fixed Income

Style Drift    Cash    Credit Bond    Govt Bond    HY Corp Bond    MBS    Muni Bond    TIPS    Style Exposure

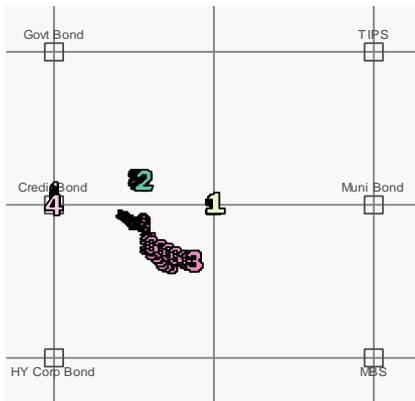
### AVERAGE STYLE (5-Year)



### Fixed Income

	Style Drift	Cash	Credit Bond	Govt Bond	HY Corp Bond	MBS	Muni Bond	TIPS	Style Exposure
<b>1 Vanguard Treasury Money Market Investor</b> FTSE Treasury Bill 3 Mon	0.80 0.74	99.33 99.37	0.03 0.08	0.00 0.00	0.43 0.40	0.01 0.01	0.06 0.01	0.13 0.12	
<b>2 BlackRock US Debt Index Fund M</b> BBgBarc US Aggregate Bond Index	2.33 1.79	0.31 0.96	29.01 29.93	42.95 41.93	0.77 0.06	26.49 26.16	0.43 0.85	0.04 0.11	
<b>3 Dodge &amp; Cox Income X</b> BBgBarc US Aggregate Bond Index	20.62 1.79	22.00 0.96	44.73 29.93	3.63 41.93	8.63 0.06	19.58 26.16	0.94 0.85	0.48 0.11	
<b>4 Vanguard Long-Term Investment-Grade Adm</b> BBgBarc US Credit A+ Long TR USD	5.56 2.26	0.00 0.00	98.09 99.79	1.91 0.21	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	

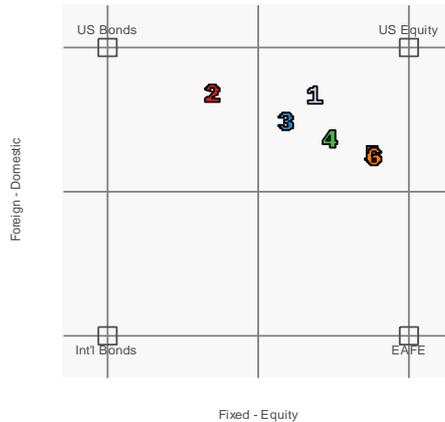
### STYLE DRIFT (5-Year)



Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

Asset Class: **Balanced**

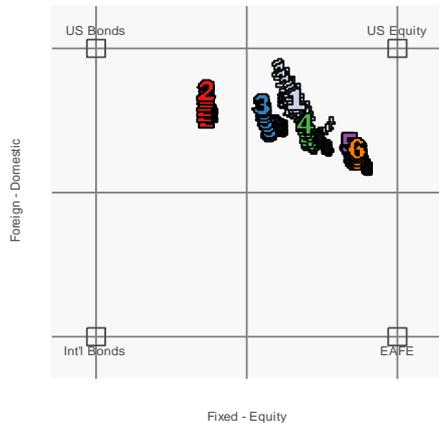
### AVERAGE STYLE (5-Year)



### Balanced

	Style Drift	Cash	US Bonds	Int'l Bonds	EAFE	US Equity	Style Exposure
<b>1</b> Vanguard Wellington Admiral S&P 500 Index	16.64 3.55	10.42 2.27	23.90 0.22	3.82 0.32	10.73 1.29	51.14 95.89	
<b>2</b> The Vanguard Target Retire Inc Trust I S&P Target Date Retirement Income	6.57 5.79	13.94 20.58	52.23 45.17	3.77 2.36	9.49 9.52	20.56 22.37	
<b>3</b> The Vanguard Target Retire 2025 Trust I S&P Target Date 2025	7.78 9.26	1.90 12.85	34.38 26.94	5.47 3.14	19.40 18.10	38.85 38.97	
<b>4</b> The Vanguard Target Retire 2035 Trust I S&P Target Date 2035	8.99 11.68	0.99 7.79	19.46 10.95	6.44 4.42	24.79 25.62	48.32 51.23	
<b>5</b> The Vanguard Target Retire 2045 Trust I S&P Target Date 2045	9.40 8.29	0.73 4.18	5.07 4.09	7.11 4.09	29.97 30.45	57.13 57.20	
<b>6</b> The Vanguard Target Retire 2055 Trust I S&P Target Date 2055	8.62 7.30	0.73 3.40	4.21 2.39	7.12 3.64	30.50 32.03	57.44 58.54	

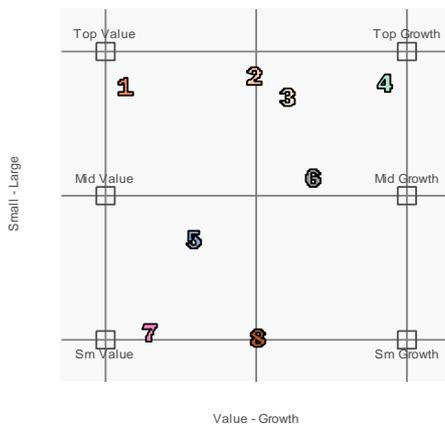
### STYLE DRIFT (5-Year)



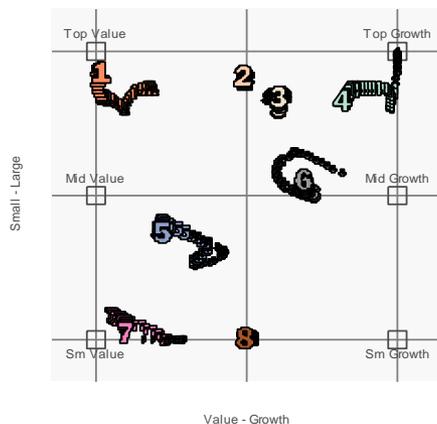
Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

Asset Class: Equity

### AVERAGE STYLE (5-Year)



### STYLE DRIFT (5-Year)



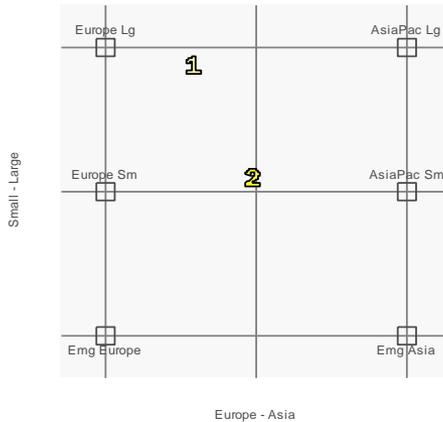
### Equity

	Style Drift	Cash	Top Value	Top Growth	Mid Value	Mid Growth	Sm Value	Sm Growth	Style Exposure
		█	█	█	█	█	█	█	
<b>1 JPMorgan US Value R6</b> Russell 1000 Value Index	15.37 1.37	0.75 0.03	72.81 66.50	5.33 0.04	17.22 33.33	0.71 0.00	2.84 0.07	0.34 0.03	
<b>2 Vanguard Institutional Index Instl PI</b> S&P 500 Index	5.28 5.25	0.93 0.94	36.90 36.92	45.91 45.89	13.42 13.41	2.81 2.81	0.03 0.03	0.00 0.00	
<b>3 Calvert US Large Cap Core Rspnb Idx R6</b> S&P 500 Index	16.78 5.25	1.32 0.94	30.06 36.92	40.07 45.89	8.53 13.41	17.81 2.81	0.50 0.03	1.70 0.00	
<b>4 Fidelity Contrafund Commingled Pool Cl 2</b> Russell 1000 Growth Index	14.14 3.28	4.71 0.04	1.13 0.06	74.22 80.16	5.35 0.03	13.57 19.37	0.00 0.01	1.02 0.34	
<b>5 BlackRock Mid-Cap Equity Index F</b> Russell Mid-Cap Index	23.90 4.34	0.15 0.04	0.99 0.17	0.10 0.19	49.47 61.50	17.33 37.69	20.37 0.12	11.59 0.28	
<b>6 T. Rowe Price Instl Mid-Cap Equity Gr</b> Russell Mid-Cap Growth Index	18.31 0.00	3.75 0.00	8.40 0.00	4.61 0.00	21.53 0.00	60.25 100.00	0.00 0.00	1.48 0.00	
<b>7 DFA US Micro Cap I</b> Russell 2000 Index	12.89 1.47	2.05 0.01	0.01 0.01	0.11 0.01	3.12 0.31	0.49 0.01	80.59 48.82	13.64 50.83	
<b>8 BlackRock Russell 2000 Index-T</b> Russell 2000 Index	1.44 1.47	0.01 0.01	0.00 0.01	0.01 0.01	0.31 0.31	0.01 0.01	48.83 48.82	50.84 50.83	

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

Asset Class: International

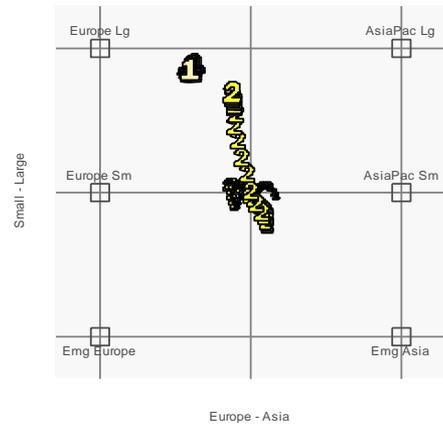
### AVERAGE STYLE (5-Year)



### International

	Style Drift	Cash	Europe Lg	Europe Sm	AsiaPac Lg	AsiaPac Sm	Emg Europe	Emg Asia	Style Exposure
		█	█	█	█	█	█	█	
<b>1 BlackRock EAFE Equity Index-T</b>	9.60	3.83	62.06	5.22	24.92	1.78	0.92	1.28	
MSCI EAFE	5.09	2.82	61.67	2.03	31.69	1.12	0.66	0.02	
<b>2 American Funds Europacific Growth R6</b>	24.29	0.66	23.30	24.05	15.29	7.93	3.59	25.17	
MSCI ACWI ex USA GDP NR USD	12.74	0.17	34.28	3.51	7.12	0.00	11.59	43.32	

### STYLE DRIFT (5-Year)



Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

# 3-Year Percentile Ranks

12/31/2022

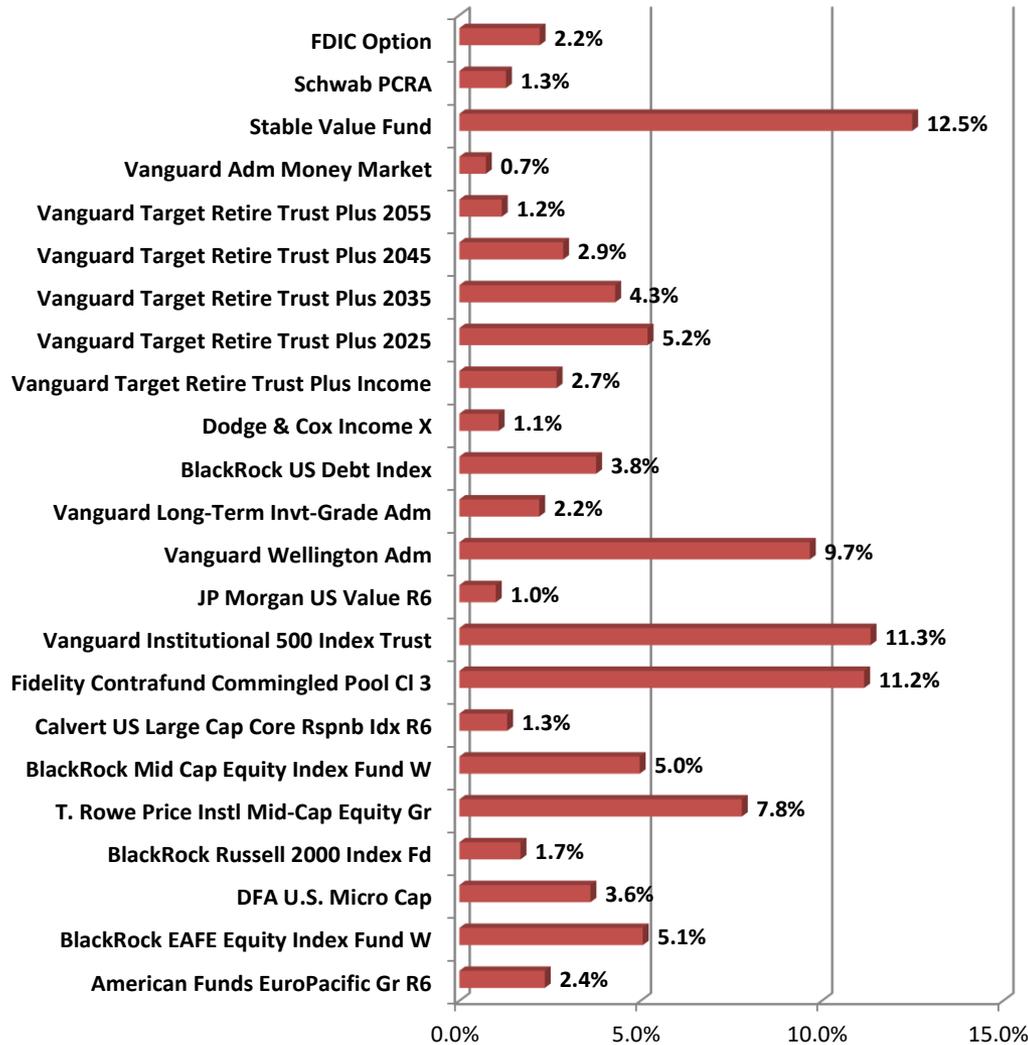
Group/Investment	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
	2022	2022	2022	2022	2021	2021	2021	2021	2020	2020	2020	2020
	% of Peer Group Beaten											
American Funds Europacific Grth R6	42	45	41	30	30	63	58	46	57	40	42	31
BlackRock EAFE® Equity Index F	72	54	56	61	58	57	53	56	57	56	69	74
Blackrock Mid Cap Eq Idx Fund CF	70	63	57	50	50	50	50	50	50	50	45	52
BlackRock Russell 2000® Index F	22	41	27	39	54	69	80	84	88	82	84	81
Blackrock US Debt Idx Fund CF	59	59	65	60	55	59	59	63	70	76	83	95
Calvert US Lrg Cap Core Rspnb Idx I	62	84	81	92	94	94	97	97	99	97	96	90
DFA US Micro Cap I	83	86	83	68	45	28	32	40	25	17	23	31
Dodge & Cox Income	92	88	90	80	69	74	79	82	83	78	82	69
Fidelity Contrafund Commingled PI 3	58	62	48	55	35	9	7	11	9	20	29	33
JP Morgan US Value R6	87	89	87	81	78	84	81	77	78	78	80	79
T. Rowe Price Instl Mid-Cap Equity Gr	34	25	33	20	24	39	34	37	38	37	36	45
Vanguard Instl 500 Index Trust	68	78	80	82	77	73	74	76	78	82	84	81
Vanguard Long-Term Inv-Grade Adm	58	49	50	46	42	50	49	54	47	60	72	77
Vanguard Target Retire Trust Plus 2025	61	60	64	68	69	72	73	77	79	89	85	80
Vanguard Target Retire Trust Plus 2035	52	57	58	55	54	63	67	60	70	80	80	79
Vanguard Target Retire Trust Plus 2045	66	70	76	68	57	66	67	70	73	83	80	73
Vanguard Target Retire Trust Plus 2055	68	69	75	65	41	63	64	59	68	78	81	78
Vanguard Target Retire Trust Plus Inc	69	75	73	60	56	69	66	71	78	86	84	90
Vanguard Wellington™ Admiral™	77	69	81	79	82	87	84	77	73	80	81	87

1<sup>st</sup> Quartile
  2<sup>nd</sup> Quartile
  3<sup>rd</sup> Quartile
  4<sup>th</sup> Quartile

\* Percentile ranks shown for Calvert US Large Cap Responsible Index are taken from oldest share class of the respective mutual fund.



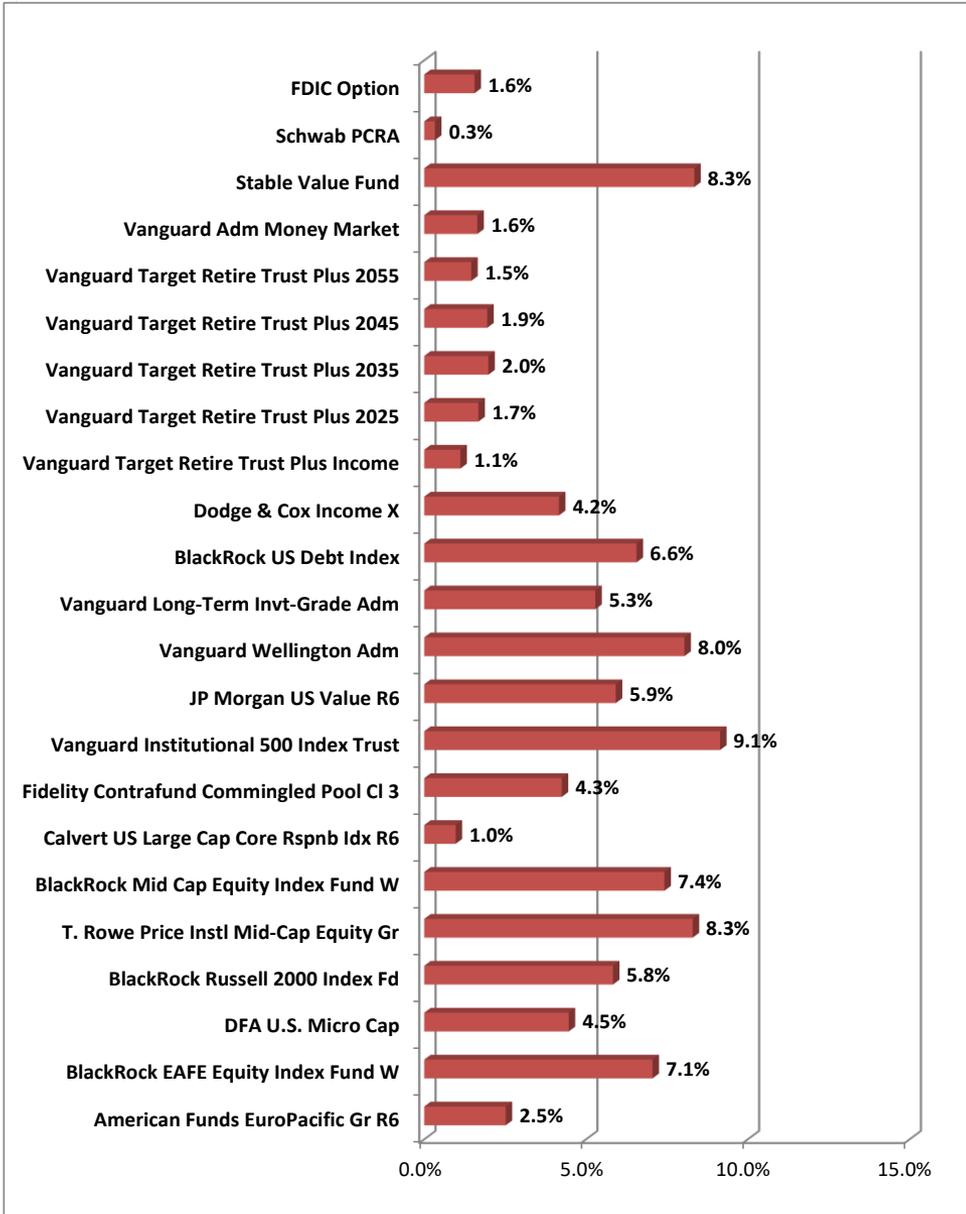
	Plan Inception Date	Fund Net Assets	WDC Assets in Fund	WDC as a Percentage of Fund Assets	Fund as a Percentage of WDC Assets	Number of Participants	Percentage of WDC Participants Utilizing Fund
American Funds EuroPacific Gr R6	1/28/2005	\$141,779,859,297	\$141,916,715	0.10%	2.36%	9,114	13.23%
BlackRock EAFE Equity Index Fund W	2/1/2001	\$50,596,795,886	\$304,694,192	0.60%	5.06%	25,534	37.08%
DFA U.S. Micro Cap	2/1/1997	\$6,627,642,166	\$217,756,933	3.29%	3.62%	16,164	23.47%
BlackRock Russell 2000 Index Fd	2/20/2004	\$1,061,406,118	\$101,566,707	9.57%	1.69%	21,113	30.66%
T. Rowe Price Instl Mid-Cap Equity Gr	2/1/1998	\$5,046,728,607	\$469,163,190	9.30%	7.79%	30,029	43.60%
BlackRock Mid Cap Equity Index Fund W	2/1/2001	\$6,178,438,227	\$299,591,913	4.85%	4.98%	26,870	39.01%
Calvert US Large Cap Core Rspnb Idx R6	4/18/2003	\$5,988,617,650	\$79,405,350	1.33%	1.32%	3,516	5.11%
Fidelity Contrafund Commingled Pool CI 3	1/31/1994	\$91,033,324,007	\$672,360,238	0.74%	11.17%	15,383	22.34%
Vanguard Institutional 500 Index Trust	9/9/1990	\$111,900,000,000	\$682,891,837	0.61%	11.34%	33,093	48.05%
JP Morgan US Value R6	1/6/2022	\$4,065,944,139	\$60,548,689	1.49%	1.01%	21,429	31.11%
Vanguard Wellington Adm	10/26/2001	\$102,209,678,936	\$582,141,230	0.57%	9.67%	29,103	42.26%
Vanguard Long-Term Invt-Grade Adm	10/26/2001	\$15,118,953,779	\$132,646,290	0.88%	2.20%	19,139	27.79%
BlackRock US Debt Index	2/1/2001	\$12,153,576,708	\$227,171,929	1.87%	3.77%	23,753	34.49%
Dodge & Cox Income X	9/20/2019	\$58,064,786,582	\$65,268,450	0.11%	1.08%	15,071	21.88%
Vanguard Target Retire Trust Plus Income	7/29/2005	\$22,600,000,000	\$161,591,103	0.72%	2.68%	4,050	5.88%
Vanguard Target Retire Trust Plus 2025	7/29/2005	\$66,600,000,000	\$312,669,197	0.47%	5.19%	6,063	8.80%
Vanguard Target Retire Trust Plus 2035	7/29/2005	\$78,300,000,000	\$258,834,542	0.33%	4.30%	7,173	10.42%
Vanguard Target Retire Trust Plus 2045	7/29/2005	\$66,800,000,000	\$172,372,974	0.26%	2.86%	7,049	10.24%
Vanguard Target Retire Trust Plus 2055	8/18/2010	\$38,400,000,000	\$70,554,664	0.18%	1.17%	5,260	7.64%
Vanguard Adm Money Market	10/1/1993	\$37,888,162,387	\$44,076,871	0.12%	0.73%	5,945	8.63%
Stable Value Fund	9/1/1996	N/A	\$752,068,245	N/A	12.49%	30,209	43.86%
Schwab PCRA	2/17/2000	N/A	\$77,406,879	N/A	1.29%	1,203	1.75%
FDIC Option	12/31/1996	N/A	\$133,369,092	N/A	2.22%	5,627	8.17%



Total WDC Assets

**\$6,020,067,233**

Domestic Equity	\$2,583,284,858	43%
Intl Equity	\$446,610,908	7%
Balanced Funds	\$582,141,230	10%
Target Date Funds	\$976,022,481	16%
Fixed Income	\$425,086,670	7%
Cash Equiv.	\$929,514,208	15%
Self-Directed Brok.	\$77,406,879	1%



Total WDC Participants  
68,871

Name	Expense Ratio	Annual Expense per \$1000
American Funds EuroPacific Gr R6	0.46	\$4.60
Cat: Foreign Large Growth	1.05	
Blackrock EAFE Equity Index Fund W	0.06	\$0.60
Cat: Foreign Large Blend Index	0.38	
DFA U.S. Micro Cap	0.41	\$4.10
Cat: Small Blend	0.98	
Blackrock Russell 2000 Index Fd	0.03	\$0.30
Cat: Small Cap Blend Index	0.38	
T. Rowe Price Instl Mid-Cap Equity Gr	0.61	\$6.10
Cat: Mid Growth	1.06	
Blackrock Mid Cap Equity Index Fund W	0.03	\$0.30
Cat: Mid Cap Blend Index	0.47	
Calvert US Large Cap Core Rspnb Idx R6	0.19	\$1.90
Cat: Socially Resp Large Cap	0.91	
Fidelity Contrafund Commingled Pool CI 3	0.35	\$3.50
Cat: Large Growth	0.96	
Vanguard Institutional 500 Index Trust	0.01	\$0.10
Cat: Large Cap Blend Index	0.43	
JP Morgan US Value R6	0.44	\$4.40
Cat: Large Value	0.90	
Stable Value Fund	0.27	\$2.70
Cat: Stable Value	0.63	

Name	Expense Ratio	Annual Expense per \$1000
Dodge & Cox Income X	0.33	\$3.30
Cat: Interim. Core-Plus Bond	0.74	
Vanguard Wellington Adm	0.16	\$1.60
Cat: Moderate Allocation	1.04	
Vanguard Target Retire Trust Plus 2055	0.06	\$0.60
Cat: Target Date 2050+	0.71	
Vanguard Target Retire Trust Plus 2045	0.06	\$0.60
Cat: Target Date 2041-2045	0.71	
Vanguard Target Retire Trust Plus 2035	0.06	\$0.60
Cat: Target Date 2031-2035	0.69	
Vanguard Target Retire Trust Plus 2025	0.06	\$0.60
Cat: Target Date 2021-2025	0.67	
Vanguard Target Retire Trust Plus Income	0.06	\$0.60
Cat: Retirement Income	0.67	
Vanguard Long-Term Invmt-Grade Adm	0.12	\$1.20
Cat: Long Term Bond	0.49	
Blackrock US Debt Index	0.03	\$0.30
Cat: Intermediate Bond Index	0.28	
Vanguard Adm Money Market	0.09	\$0.90
Average US Taxable Money Market Fund	0.41	

**Asset-Weighted Average Expense Ratio: 0.19%**

# Target Date Fund Summary



# Target Date Performance

12/31/2022

Name	Total Ret 3 Mth	Total Ret 1 Yr	Total Ret 3 Yr	Total Ret 5 Yr	Total Ret 10 Yr	Total Net Assets \$M	Expense Ratio	% Short- Term	% US Stocks	% Non US Stocks	% Inv Grade Bond	% High Yield Bond
<b>Vanguard Target RetireTrust Plus Income</b>	<b>3.80</b>	<b>-12.71</b>	<b>0.39</b>	<b>2.36</b>	<b>3.69</b>	<b>22,600</b>	<b>0.06</b>	<b>3</b>	<b>17</b>	<b>12</b>	<b>68</b>	<b>0</b>
S&P Target Date Retirement Income TR USD	4.50	-11.17	0.53	2.33	3.59	-	-	-	-	-	-	-
Composite Returns*	4.53	-14.06	-0.78	1.44	3.03	-	-	-	-	-	-	-
<b>Vanguard Target RetireTrust Plus 2025</b>	<b>6.07</b>	<b>-15.43</b>	<b>1.78</b>	<b>3.70</b>	<b>6.55</b>	<b>66,600</b>	<b>0.06</b>	<b>3</b>	<b>32</b>	<b>22</b>	<b>43</b>	<b>0</b>
S&P Target Date 2025 TR USD	6.34	-13.13	2.26	3.75	6.23	-	-	-	-	-	-	-
Composite Returns*	6.81	-15.30	0.82	2.64	4.76	-	-	-	-	-	-	-
<b>Vanguard Target RetireTrust Plus 2035</b>	<b>7.51</b>	<b>-16.51</b>	<b>2.76</b>	<b>4.46</b>	<b>7.69</b>	<b>78,300</b>	<b>0.06</b>	<b>2</b>	<b>41</b>	<b>29</b>	<b>28</b>	<b>0</b>
S&P Target Date 2035 TR USD	8.31	-14.99	3.29	4.63	7.42	-	-	-	-	-	-	-
Composite Returns*	8.34	-16.22	1.78	3.37	5.83	-	-	-	-	-	-	-
<b>Vanguard Target RetireTrust Plus 2045</b>	<b>8.90</b>	<b>-17.31</b>	<b>3.81</b>	<b>5.22</b>	<b>8.44</b>	<b>66,800</b>	<b>0.06</b>	<b>2</b>	<b>50</b>	<b>35</b>	<b>13</b>	<b>0</b>
S&P Target Date 2045 TR USD	9.77	-15.84	3.98	5.16	8.11	-	-	-	-	-	-	-
Composite Returns*	9.70	-16.98	2.74	4.09	6.87	-	-	-	-	-	-	-
<b>Vanguard Target RetireTrust Plus 2055</b>	<b>9.25</b>	<b>-17.43</b>	<b>3.89</b>	<b>5.27</b>	<b>8.45</b>	<b>38,400</b>	<b>0.06</b>	<b>2</b>	<b>52</b>	<b>37</b>	<b>9</b>	<b>0</b>
S&P Target Date 2055+ TR USD	10.11	-15.97	4.18	5.31	8.46	-	-	-	-	-	-	-
Composite Returns*	10.11	-17.16	2.98	4.26	7.12	-	-	-	-	-	-	-

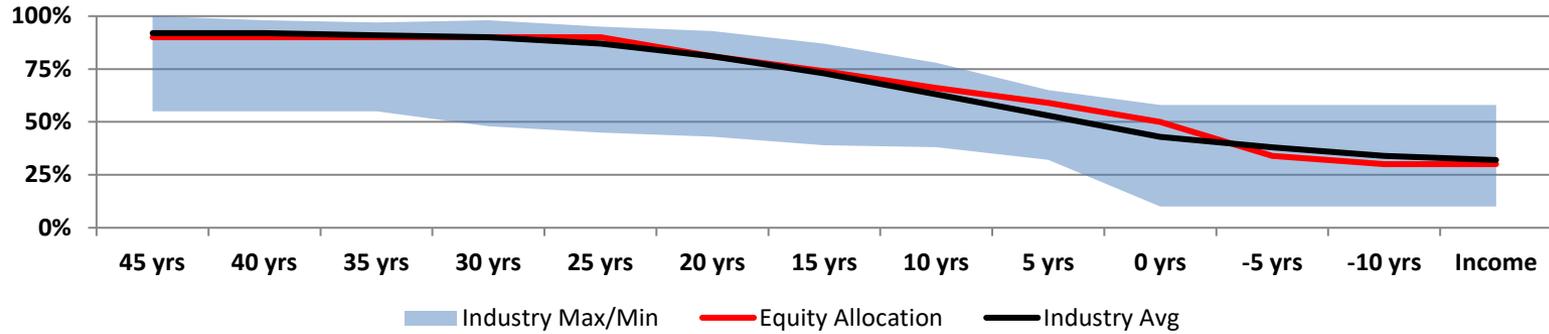
\*Composite benchmark consists of the following indices weighted to match the allocation of the specific target date fund:  
MSCI Broad Market, MSCI EAFE, Barclays Aggregate Bond, and Barclays US Treasury 1-3 Month

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

# Glide Path Summary

12/31/2022

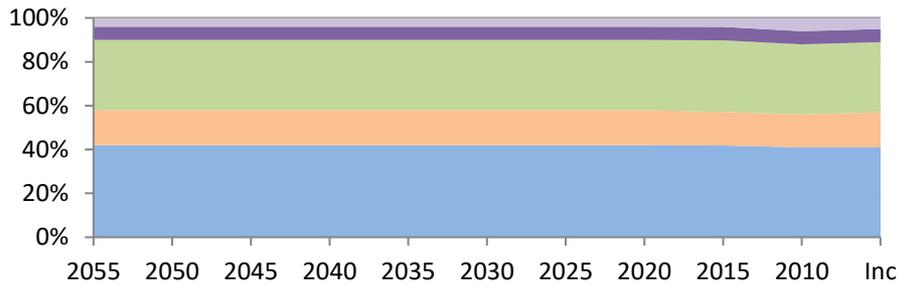
Data as of Dec 31, 2022



	45 yrs	40 yrs	35 yrs	30 yrs	25 yrs	20 yrs	15 yrs	10 yrs	5 yrs	0 yrs	-5 yrs	-10 yrs	Income
Equity %	90%	90%	90%	90%	90%	81%	74%	66%	59%	50%	34%	30%	30%
Industry Avg	89%	88%	85%	79%	71%	62%	53%	63%	53%	43%	38%	34%	32%

## Equity Diversification

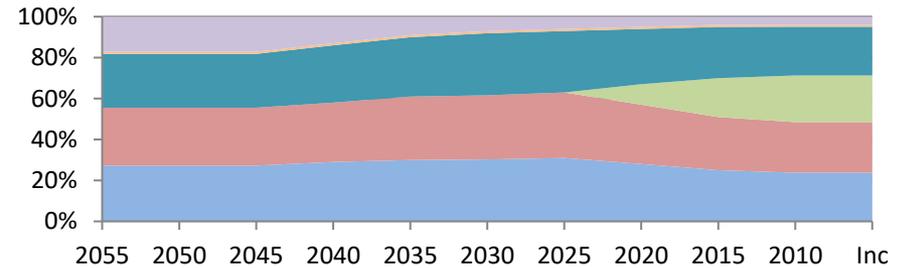
US Large Cap US Mid/Small Non-US - Dev Non-US - Emrg Other



	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010	Inc
US Large Cap	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%
US Mid/Small	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Non-US - Dev	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%
Non-US - Emrg	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Other	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%

## Fixed Income Diversification

US Govt US Inv Grade US High Yield TIPS Foreign Other Cash



	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010	Inc
US Govt	27%	27%	27%	29%	30%	30%	31%	28%	25%	24%	24%
US Inv Grade	28%	28%	28%	29%	31%	31%	32%	29%	26%	25%	25%
US High Yield	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TIPS	0%	0%	0%	0%	0%	0%	0%	10%	19%	23%	23%
Foreign	26%	26%	26%	28%	29%	30%	30%	27%	25%	24%	24%
Other	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Cash	17%	17%	17%	13%	9%	7%	6%	5%	4%	4%	4%

# Expense Ratio Information



	Net Expense Ratio	Peer Rank	Gross Expense Ratio	Peer Rank
<b>Cash Equiv</b>				
<b>Stable Value</b>				
Stable Value (Wisconsin)	0.28		0.28	
<b>Fixed Income</b>				
<b>Money Market-Taxable</b>				
Vanguard Treasury Money Market Investor	0.09	2	0.09	1
Money Market-Taxable Median	0.47		0.57	
<b>Intermediate Core Bond</b>				
BlackRock US Debt Index Fund M	0.03	3	0.03	2
Intermediate Core Bond Median	0.77		0.94	
<b>Intermediate Core-Plus Bond</b>				
Dodge & Cox Income X	0.33	7	0.36	7
Intermediate Core-Plus Bond Median	0.64		0.76	
<b>Long-term Bond</b>				
Vanguard Long-Term Investment-Grade Adm	0.12	18	0.12	15
Long-Term Bond Median	0.63		0.83	
<b>Balanced</b>				
<b>Allocation--50% to 70% Equity</b>				
Vanguard Wellington Admiral	0.16	1	0.16	1
Allocation--50% to 70% Equity Median	1.12		1.26	
<b>Target-Date Retirement</b>				
The Vanguard Target Retire Inc Trust I	0.07	1	0.07	1
Target-Date Retirement Median	0.77		1.12	
<b>Target-Date 2025</b>				
The Vanguard Target Retire 2025 Trust I	0.07	1	0.07	1
Target-Date 2025 Median	0.75		1.02	
<b>Target-Date 2035</b>				
The Vanguard Target Retire 2035 Trust I	0.07	1	0.07	1
Target-Date 2035 Median	0.76		1.09	
<b>Target-Date 2045</b>				
The Vanguard Target Retire 2045 Trust I	0.07	1	0.07	1
Target-Date 2045 Median	0.75		1.13	

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

	Net Expense Ratio	Peer Rank	Gross Expense Ratio	Peer Rank
<b>Target-Date 2055</b>				
<b>The Vanguard Target Retire 2055 Trust I</b>	<b>0.07</b>	<b>1</b>	<b>0.07</b>	<b>1</b>
<i>Target-Date 2055 Median</i>	<i>0.75</i>		<i>1.16</i>	
<b>Equity</b>				
<b>Large Value</b>				
<b>JPMorgan US Value R6</b>	<b>0.44</b>	<b>9</b>	<b>0.51</b>	<b>10</b>
<i>Large Value Median</i>	<i>0.99</i>		<i>1.16</i>	
<b>Large Blend</b>				
<b>Vanguard Institutional Index Instl PI</b>	<b>0.02</b>	<b>2</b>	<b>0.02</b>	<b>1</b>
<b>Calvert US Large Cap Core Rspnb Idx R6</b>	<b>0.19</b>	<b>7</b>	<b>0.29</b>	<b>9</b>
<i>Large Blend Median</i>	<i>0.97</i>		<i>1.13</i>	
<b>Large Growth</b>				
<b>Fidelity Contrafund Commingled Pool Cl 2</b>	<b>0.38</b>	<b>5</b>	<b>0.38</b>	<b>4</b>
<i>Large Growth Median</i>	<i>1.09</i>		<i>1.23</i>	
<b>Mid-Cap Blend</b>				
<b>BlackRock Mid-Cap Equity Index F</b>	<b>0.02</b>	<b>1</b>	<b>0.02</b>	<b>1</b>
<i>Mid-Cap Blend Median</i>	<i>1.05</i>		<i>1.21</i>	
<b>Mid-Cap Growth</b>				
<b>T. Rowe Price Instl Mid-Cap Equity Gr</b>	<b>0.61</b>	<b>6</b>	<b>0.61</b>	<b>5</b>
<i>Mid-Cap Growth Median</i>	<i>1.20</i>		<i>1.39</i>	
<b>Small Blend</b>				
<b>DFA US Micro Cap I</b>	<b>0.41</b>	<b>11</b>	<b>0.41</b>	<b>9</b>
<b>BlackRock Russell 2000 Index-T</b>	<b>0.06</b>	<b>3</b>	<b>0.06</b>	<b>2</b>
<i>Small Blend Median</i>	<i>1.12</i>		<i>1.26</i>	
<b>International</b>				
<b>Foreign Large Blend</b>				
<b>BlackRock EAFE Equity Index-T</b>	<b>0.06</b>	<b>3</b>	<b>0.08</b>	<b>4</b>
<i>Foreign Large Blend Median</i>	<i>1.05</i>		<i>1.26</i>	
<b>Foreign Large Growth</b>				
<b>American Funds Europacific Growth R6</b>	<b>0.46</b>	<b>5</b>	<b>0.46</b>	<b>3</b>
<i>Foreign Large Growth Median</i>	<i>1.11</i>		<i>1.29</i>	

Past performance is no guarantee of future results. Rankings provided based on total returns. Performance quoted for mutual funds may include performance of a predecessor fund/share class prior to the share class commencement of operations.

# Fund Analysis

*Please consider the investment objectives, risks, fees and expenses carefully before investing. The prospectus contains this and other information about the investment options. Depending on the investment options offered in your Plan, your registered representative can provide you with prospectuses for any mutual funds; any applicable annuity contracts and the annuity's underlying funds; and/or disclosure documents for investment options exempt from SEC registration. Please read them carefully before investing.*

*Past performance is not indicative of future results. Performance includes the reinvestment of any income. Returns will fluctuate; and an investment upon redemption may be worth more or less than its original value. Current performance may be higher or lower than the performance data shown. For up-to-date month end performance information please call 800-345-2345.*

*Rankings provided based on total return.*

*Sources: MPI Stylus Web, Morningstar, individual investment managers*



In order to present the most complete information possible, mutual fund share classes are used as a proxy in the following pages for the commingled trusts included in the Deferred Compensation Plan. To indicate these pages, the fund name at the top of the page has been italicized.

# Stable Value (Wisconsin)

12/30/2022

<b>Fund Incep Date:</b> 07/01/1998	<b>Benchmark:</b> ML 3-month T-Bill	<b>Category:</b> Stable Value	<b>Net Assets:</b> NA	<b>Manager Name:</b> Team Managed	<b>Manager Start Date:</b> 06/30/1998	<b>Expense Ratio:</b> 0.28%	<b>Expense Rank:</b> NA
---------------------------------------	--	----------------------------------	--------------------------	--------------------------------------	--	--------------------------------	----------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	0.00%
Industrials	0.00%
Technology	0.00%
Energy	0.00%

#### Cyclical

Basic Materials	0.00%
Consumer Cyclical	0.00%
Real Estate	0.00%
Financial Services	0.00%

#### Defensive

Consumer Defensive	0.00%
Healthcare	0.00%
Utilities	0.00%

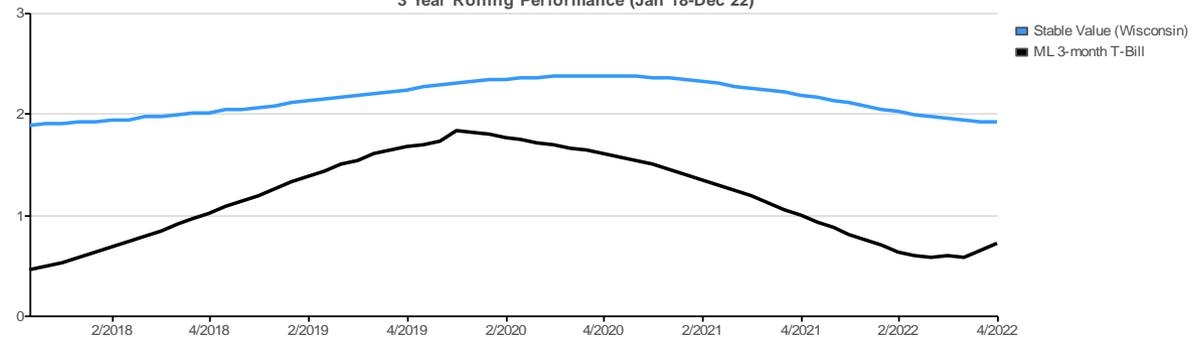
### TOP 10 HOLDINGS

## INVESTMENT OVERVIEW

To provide safety of principal and a stable crediting rate, while generating a competitive return.

## PERFORMANCE

### 3 Year Rolling Performance (Jan 18-Dec 22)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	0.52	1.74	1.74 / NA	1.92 / NA	2.11 / NA	2.05 / NA	2.00 / NA	3.86
Benchmark	0.84	1.46	1.46 / NA	0.72 / NA	1.26 / NA	1.07 / NA	0.76 / NA	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	1.74	1.69	2.31	2.56	2.25	1.89	1.89	1.85	1.73
Benchmark	1.46	0.05	0.67	2.28	1.87	0.86	0.33	0.05	0.03

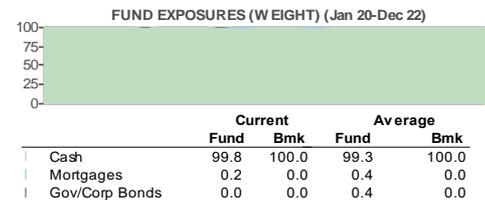
## RISK & PERFORMANCE STATISTICS

	Fund	Benchmark
3 Yr		
Alpha	1.18	0.00
Beta	0.00	0.00
R-Squared	0.00	0.00
Sharpe Ratio	11.92	0.00
Up Market Capture	245.04	100.00
Down Market Capture	-3256.29	100.00
5 Yr		
Alpha	0.84	0.00
Beta	0.00	0.00
R-Squared	0.00	0.00
Sharpe Ratio	7.50	0.00
Up Market Capture	160.59	100.00
Down Market Capture	-3255.39	100.00

## NOTES

Total: NA%

## ASSET LOADINGS (Returns-based)



# Vanguard Treasury Money Market Investor VUSXX

12/30/2022

<b>Fund Incep Date:</b> 12/14/1992	<b>Benchmark:</b> FTSE Treasury Bill 3 Mon	<b>Category:</b> Money Market-Taxable	<b>Net Assets:</b> \$37,227.00M	<b>Manager Name:</b> Nafis T. Smith	<b>Manager Start Date:</b> 12/22/2017	<b>Expense Ratio:</b> 0.09%	<b>Expense Rank:</b> 2
---------------------------------------	---	--	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



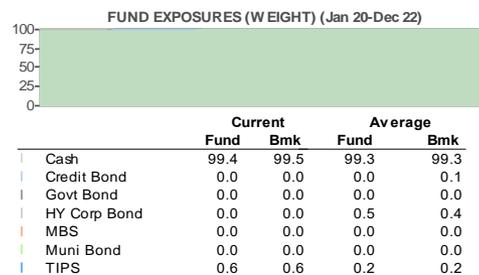
### Credit Quality (%)

AAA	
AA	
A	
BBB	
BB	
B	
Below B	
NR/NA	
<b>Total:</b>	<b>0.00%</b>

### Sector (%)

% Government	99.99%
% Municipal	0.00%
% Corporate	0.00%
% Securitized	0.00%
% Cash and Equivalent	0.01%
% Derivative	0.00%
<b>Total:</b>	<b>100.00%</b>

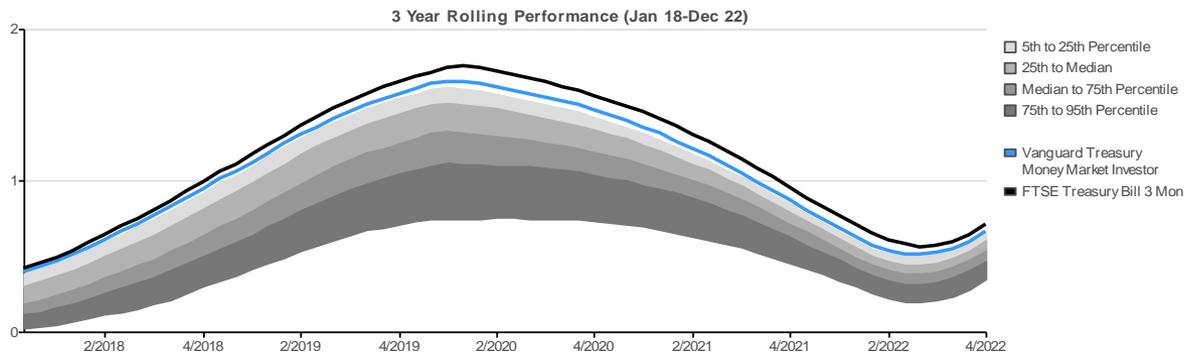
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide current income while maintaining liquidity and a stable share price of \$1. The fund invests solely in high-quality, short-term money market instruments whose interest and principal payments are backed by the full faith and credit of the U.S. government. At least 80% of the fund's assets will be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities; the remainder of the assets will also be invested in U.S. Treasury securities and in repurchase agreements fully collateralized by U.S. Treasury securities.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	0.86	1.50	1.50 / 14	0.66 / 5	1.18 / 3	0.99 / 2	0.70 / 2	2.28
Benchmark	0.87	1.50	1.50 / 14	0.71 / 2	1.25 / 1	1.05 / 1	0.74 / 1	
Peer Group Median	0.80	1.32	1.32 / 50	0.53 / 50	0.99 / 50	0.77 / 50	0.54 / 50	
Number of Funds			581	534	499	435	388	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	1.50	0.01	0.47	2.14	1.80	0.79	0.25	0.02	0.01
Benchmark	1.50	0.05	0.58	2.25	1.86	0.84	0.27	0.03	0.03
Peer Group Median	1.32	0.01	0.28	1.83	1.47	0.46	0.03	0.01	0.01

## RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	-0.05	0.00	-0.17
Beta	1.04	1.00	1.10
R-Squared	96.42	100.00	82.70
Sharpe Ratio	-0.20	-0.05	-0.66
Up Market Capture	93.28	100.00	75.25
Down Market Capture	NA	NA	NA
5 Yr			
Alpha	-0.06	0.00	-0.25
Beta	1.04	1.00	1.10
R-Squared	96.12	100.00	76.53
Sharpe Ratio	-0.27	-0.05	-0.97
Up Market Capture	94.77	100.00	79.45
Down Market Capture	NA	NA	NA

## NOTES

<b>Fund Incep Date:</b> 07/02/1993	<b>Benchmark:</b> BBgBarc US Aggregate Bond Index	<b>Category:</b> Intermediate Core Bond	<b>Net Assets:</b> \$2,245.00M	<b>Manager Name:</b> James J. Mauro	<b>Manager Start Date:</b> 04/29/2011	<b>Expense Ratio:</b> 0.05%	<b>Expense Rank:</b> 4
---------------------------------------	--	--	-----------------------------------	--	--	--------------------------------	---------------------------

### PORTFOLIO COMPOSITION (Holdings-based)

#### Assets



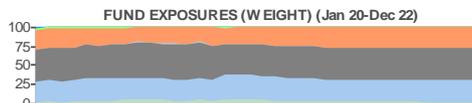
#### Credit Quality (%)

AAA	72.87%
AA	2.41%
A	11.03%
BBB	13.69%
BB	0.00%
B	0.00%
Below B	0.00%
NR/NA	0.00%
<b>Total:</b>	<b>100.00%</b>

#### Sector (%)

% Government	41.39%
% Municipal	0.57%
% Corporate	23.59%
% Securitized	22.92%
% Cash and Equivalent	11.53%
% Derivative	0.00%
<b>Total:</b>	<b>100.00%</b>

### ASSET LOADINGS (Returns-based)

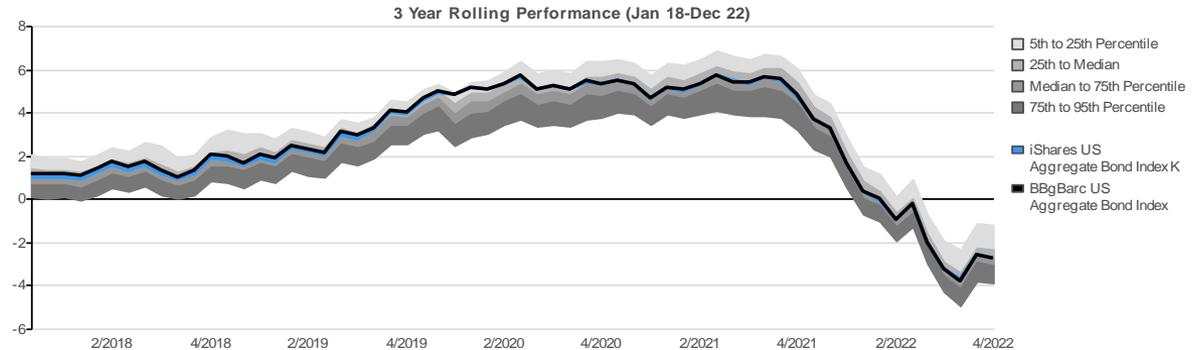


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	1.1	0.6	2.3	1.1
Credit Bond	28.5	29.0	29.2	29.8
Govt Bond	42.1	43.0	42.7	42.2
HY Corp Bond	0.0	0.0	0.2	0.1
MBS	28.3	27.4	24.9	25.9
Muni Bond	0.0	0.0	0.6	0.8
TIPS	0.0	0.0	0.2	0.1

### INVESTMENT OVERVIEW

The investment seeks to provide investment results that correspond to the total return performance of fixed-income securities in the aggregate, as represented by the Bloomberg U.S. Aggregate Bond Index. The fund is a "feeder" fund that invests all of its assets in the Master Portfolio of MIP, which has the same investment objective and strategies as the fund. Under normal circumstances, at least 90% of the value of the fund's assets, plus the amount of any borrowing for investment purposes, is invested in securities comprising the Bloomberg U.S. Aggregate Index.

### PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	1.65	-13.03	-13.03 / 29	-2.77 / 49	-0.03 / 39	0.82 / 50	0.95 / 49	4.21
Benchmark	1.87	-13.01	-13.01 / 28	-2.71 / 45	0.02 / 34	0.89 / 40	1.06 / 36	
Peer Group Median	1.64	-13.44	-13.44 / 50	-2.78 / 50	-0.12 / 50	0.82 / 50	0.94 / 50	
Number of Funds			460	432	408	375	367	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-13.03	-1.80	7.64	8.71	-0.08	3.39	2.53	0.38	5.93
Benchmark	-13.01	-1.54	7.51	8.72	0.01	3.54	2.65	0.55	5.97
Peer Group Median	-13.44	-1.59	7.82	8.46	-0.41	3.38	2.58	0.14	5.44

### RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	-0.07	0.00	0.00
Beta	1.00	1.00	1.01
R-Squared	99.80	100.00	95.49
Sharpe Ratio	-0.58	-0.56	-0.55
Up Market Capture	99.34	100.00	106.00
Down Market Capture	100.15	100.00	103.38
5 Yr			
Alpha	-0.06	0.00	-0.13
Beta	1.00	1.00	1.00
R-Squared	99.81	100.00	95.54
Sharpe Ratio	-0.23	-0.22	-0.24
Up Market Capture	99.26	100.00	100.45
Down Market Capture	100.09	100.00	102.94

### NOTES

<b>Fund Incep Date:</b> 05/02/2022	<b>Benchmark:</b> BBgBarc US Aggregate Bond Index	<b>Category:</b> Intermediate Core-Plus Bond	<b>Net Assets:</b> \$58,065.00M	<b>Manager Name:</b> Dana M. Emery	<b>Manager Start Date:</b> 01/03/1989	<b>Expense Ratio:</b> 0.33%	<b>Expense Rank:</b> 7
---------------------------------------	--	---	------------------------------------	---------------------------------------	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



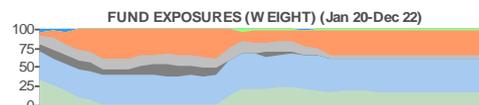
### Credit Quality (%)

AAA	49.20%
AA	4.80%
A	7.20%
BBB	28.70%
BB	9.40%
B	0.70%
Below B	0.01%
NR/NA	0.00%
<b>Total:</b>	<b>100.01%</b>

### Sector (%)

% Government	12.87%
% Municipal	1.95%
% Corporate	39.42%
% Securitized	43.51%
% Cash and Equivalent	2.25%
% Derivative	0.00%
<b>Total:</b>	<b>100.00%</b>

## ASSET LOADINGS (Returns-based)

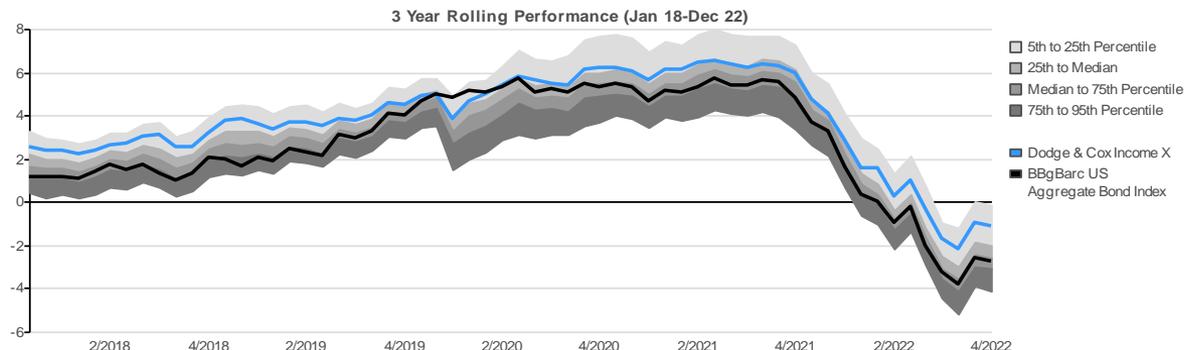


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	16.8	0.6	13.2	1.1
Credit Bond	43.7	29.0	41.5	29.8
Govt Bond	0.0	43.0	5.0	42.2
HY Corp Bond	3.9	0.0	10.2	0.1
MBS	32.2	27.4	28.3	25.9
Muni Bond	3.3	0.0	1.5	0.8
TIPS	0.0	0.0	0.4	0.1

## INVESTMENT OVERVIEW

The investment seeks a high and stable rate of current income, consistent with long-term preservation of capital; a secondary objective is capital appreciation. The fund invests in a diversified portfolio of bonds and other debt securities. The fund will invest at least 80% of its total assets in (1) investment-grade debt securities and (2) cash equivalents. "Investment grade" means securities rated Baa3 or higher by Moody's Investors Service, or BBB- or higher by Standard & Poor's Ratings Group or Fitch Ratings, or equivalently rated by any nationally recognized statistical rating organization, or, if unrated, deemed to be of similar quality by Dodge & Cox.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	2.77	-10.77	-10.77 / 6	-1.09 / 9	1.15 / 8	2.23 / 8	2.10 / 6	-2.19
Benchmark	1.87	-13.01	-13.01 / 27	-2.71 / 59	0.02 / 52	0.89 / 70	1.06 / 65	
Peer Group Median	1.82	-13.84	-13.84 / 50	-2.57 / 50	0.05 / 50	1.14 / 50	1.24 / 50	
Number of Funds			626	579	555	514	478	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-10.77	-0.91	9.45	9.73	-0.31	4.36	5.61	-0.59	5.48
Benchmark	-13.01	-1.54	7.51	8.72	0.01	3.54	2.65	0.55	5.97
Peer Group Median	-13.84	-0.81	8.31	9.25	-0.80	4.23	3.79	-0.30	5.60

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	1.66	0.00	0.41
Beta	1.00	1.00	1.07
R-Squared	86.95	100.00	84.13
Sharpe Ratio	-0.26	-0.56	-0.45
Up Market Capture	119.58	100.00	119.72
Down Market Capture	95.15	100.00	109.05

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	1.03	0.00	0.08
Beta	0.92	1.00	1.03
R-Squared	83.79	100.00	84.15
Sharpe Ratio	0.00	-0.22	-0.18
Up Market Capture	102.50	100.00	106.37
Down Market Capture	85.61	100.00	104.78

## NOTES

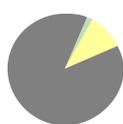
# Vanguard Long-Term Investment-Grade Adm VWETX

12/30/2022

<b>Fund Incep Date:</b> 02/12/2001	<b>Benchmark:</b> BBgBarc US Credit A+ Long TR USD	<b>Category:</b> Long-term Bond	<b>Net Assets:</b> \$15,119.00M	<b>Manager Name:</b> Scott I. St. John	<b>Manager Start Date:</b> 05/28/2014	<b>Expense Ratio:</b> 0.12%	<b>Expense Rank:</b> 18
---------------------------------------	---	------------------------------------	------------------------------------	---	--	--------------------------------	----------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



Cash	2.15%
US Stocks	0.00%
US Bonds	88.43%
Non-US Stocks	0.00%
Preferred Stocks	0.00%
Convertible Bonds	0.00%
Other	0.00%
Non-US Bonds	9.42%

### Credit Quality (%)

AAA	12.46%
AA	21.05%
A	59.95%
BBB	5.77%
BB	0.00%
B	0.00%
Below B	0.34%
NR/NA	0.43%
<b>Total:</b>	<b>100.00%</b>

### Sector (%)

% Government	8.62%
% Municipal	9.61%
% Corporate	79.25%
% Securitized	0.35%
% Cash and Equivalent	1.95%
% Derivative	0.23%
<b>Total:</b>	<b>100.01%</b>

## ASSET LOADINGS (Returns-based)

FUND EXPOSURES (W EIGHT) (Jan 20-Dec 22)



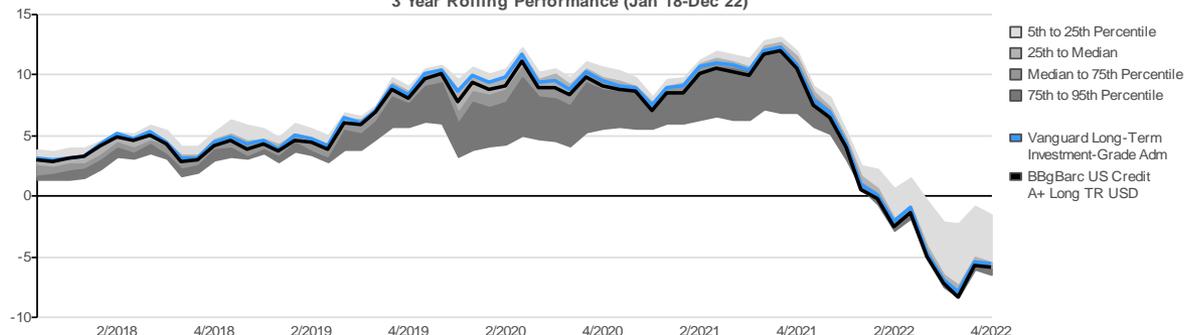
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.0	0.0
Credit Bond	100.0	100.0	99.4	100.0
Govt Bond	0.0	0.0	0.6	0.0
HY Corp Bond	0.0	0.0	0.0	0.0
MBS	0.0	0.0	0.0	0.0
Muni Bond	0.0	0.0	0.0	0.0
TIPS	0.0	0.0	0.0	0.0

## INVESTMENT OVERVIEW

The investment seeks to provide a high and sustainable level of current income. The fund invests in a variety of high-quality and, to a lesser extent, medium-quality fixed income securities, at least 80% of which will be intermediate- and long-term investment-grade securities. High-quality fixed income securities are those rated the equivalent of A3 or better; medium-quality fixed income securities are those rated the equivalent of Baa1, Baa2, or Baa3. The fund's dollar-weighted average maturity is expected to fall within a range that is five years shorter than or five years longer than that of its benchmark index.

## PERFORMANCE

3 Year Rolling Performance (Jan 18-Dec 22)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	4.00	-25.55	-25.55 / 22	-5.65 / 30	-0.96 / 52	2.05 / 42	2.32 / 17	5.49
Benchmark	4.48	-25.62	-25.62 / 25	-5.98 / 60	-1.21 / 73	1.78 / 66	1.94 / 55	
Peer Group Median	3.53	-26.14	-26.14 / 50	-5.84 / 50	-0.95 / 50	1.98 / 50	2.04 / 50	
Number of Funds			33	32	32	32	31	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-25.55	-2.29	15.47	20.52	-5.86	12.04	7.92	-2.11	18.28
Benchmark	-25.62	-2.36	14.46	20.85	-6.32	11.49	7.88	-1.95	17.22
Peer Group Median	-26.14	-1.58	14.59	20.16	-5.08	11.63	6.75	-3.41	16.73

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.28	0.00	0.25
Beta	0.99	1.00	0.97
R-Squared	99.45	100.00	95.40
Sharpe Ratio	-0.39	-0.41	-0.39
Up Market Capture	101.43	100.00	99.22
Down Market Capture	99.49	100.00	98.43

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.25	0.00	0.26
Beta	1.00	1.00	0.98
R-Squared	99.41	100.00	95.10
Sharpe Ratio	-0.12	-0.14	-0.12
Up Market Capture	100.94	100.00	98.21
Down Market Capture	99.34	100.00	98.85

## NOTES



# Vanguard Wellington Admiral VWENX

12/30/2022

<b>Fund Incep Date:</b> 05/14/2001	<b>Benchmark:</b> S&P 500 Index	<b>Category:</b> Allocation--50% to 70% Equity	<b>Net Assets:</b> \$102,210.00M	<b>Manager Name:</b> Loren L. Moran	<b>Manager Start Date:</b> 01/27/2017	<b>Expense Ratio:</b> 0.16%	<b>Expense Rank:</b> 1
---------------------------------------	------------------------------------	---	-------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	5.53%
Industrials	9.94%
Technology	17.65%
Energy	5.53%

#### Cyclical

Basic Materials	1.49%
Consumer Cyclical	11.61%
Real Estate	1.96%
Financial Services	15.25%

#### Defensive

Consumer Defensive	8.22%
Healthcare	18.61%
Utilities	4.22%

### TOP 10 HOLDINGS

Microsoft Corp	4.39%
Charles Schwab Corp	2.84%
Apple Inc	2.67%
Alphabet Inc Class A	2.37%
UnitedHealth Group Inc	1.89%
Amazon.com Inc	1.87%
Progressive Corp	1.60%
McDonald's Corp	1.55%
Coca-Cola Co	1.54%
Humana Inc	1.51%
<b>Total:</b>	<b>22.24%</b>

### ASSET LOADINGS (Returns-based)

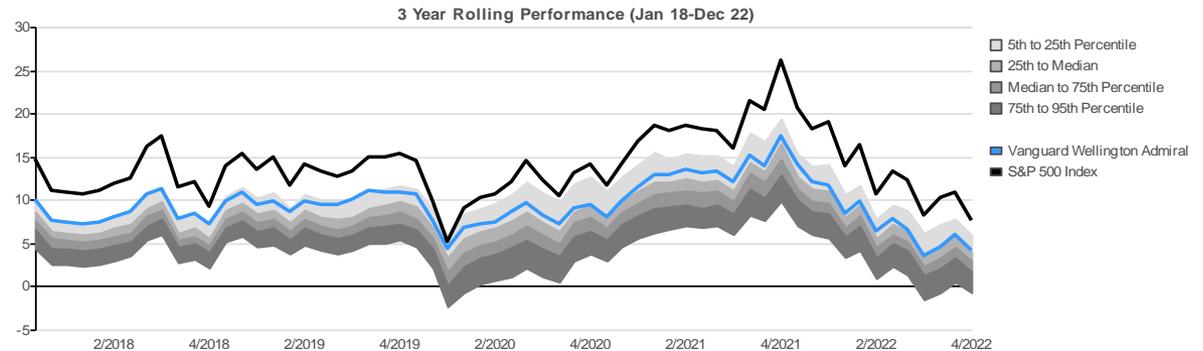


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	3.1	0.0	6.1	2.4
US Bonds	31.9	0.0	26.8	0.4
Intl Bonds	0.0	0.3	4.7	0.2
Intl Equity	16.0	0.8	8.1	0.2
US Equity	49.0	98.8	54.4	96.9

## INVESTMENT OVERVIEW

The investment seeks to provide long-term capital appreciation and moderate current income. The fund invests 60% to 70% of its assets in dividend-paying and, to a lesser extent, non-dividend-paying common stocks of established large companies. The remaining 30% to 40% of the fund's assets are invested mainly in fixed income securities that the advisor believes will generate a moderate level of current income. These securities include investment-grade corporate bonds, with some exposure to U.S. Treasury and government agency bonds, and mortgage-backed securities.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	7.42	-14.26	-14.26 / 42	4.17 / 20	6.02 / 11	7.95 / 7	8.46 / 5	7.42
Benchmark	7.56	-18.11	-18.11 / 92	7.66 / 1	9.42 / 1	11.48 / 1	12.56 / 1	
Peer Group Median	6.48	-15.01	-15.01 / 50	2.92 / 50	4.09 / 50	5.92 / 50	6.27 / 50	
Number of Funds			762	721	698	677	614	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-14.26	19.12	10.68	22.61	-3.35	14.82	11.09	0.14	9.90
Benchmark	-18.11	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69
Peer Group Median	-15.01	13.16	12.36	19.28	-5.97	13.88	6.78	-1.35	5.86

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-1.60	0.00	-2.63
Beta	0.68	1.00	0.66
R-Squared	96.59	100.00	93.69
Sharpe Ratio	0.30	0.42	0.22
Up Market Capture	62.98	100.00	57.73
Down Market Capture	72.77	100.00	71.43

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.82	0.00	-2.50
Beta	0.65	1.00	0.65
R-Squared	95.46	100.00	93.74
Sharpe Ratio	0.43	0.51	0.29
Up Market Capture	61.41	100.00	55.76
Down Market Capture	67.58	100.00	67.62

## NOTES



# Vanguard Target Retirement Income Fund VTINX (Proxy for Vanguard Tgt Ret Tr Plus Income) 12/30/2022

<b>Fund Incep Date:</b> 10/27/2003	<b>Benchmark:</b> S&P Target Date Retirement Income	<b>Category:</b> Target-Date Retirement	<b>Net Assets:</b> \$36,654.00M	<b>Manager Name:</b> William A. Coleman	<b>Manager Start Date:</b> 02/22/2013	<b>Expense Ratio:</b> 0.08%	<b>Expense Rank:</b> 1
---------------------------------------	--	--	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	6.40%
Industrials	11.34%
Technology	18.43%
Energy	5.43%

#### Cyclical

Basic Materials	5.08%
Consumer Cyclical	10.68%
Real Estate	3.49%
Financial Services	16.12%

#### Defensive

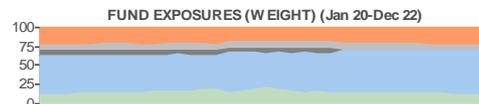
Consumer Defensive	7.24%
Healthcare	12.79%
Utilities	3.02%

### TOP 10 HOLDINGS

Vanguard Total Bond Market II Idx Inv	36.64%
Vanguard Total Stock Mkt Idx Instl Pls	17.76%
Vanguard Shrt-Term Infl-Prot Sec Idx Adm	16.12%
Vanguard Total Intl Bd II Idx Instl	15.97%
Vanguard Total Intl Stock Index Inv	12.37%

Total: 98.86%

### ASSET LOADINGS (Returns-based)

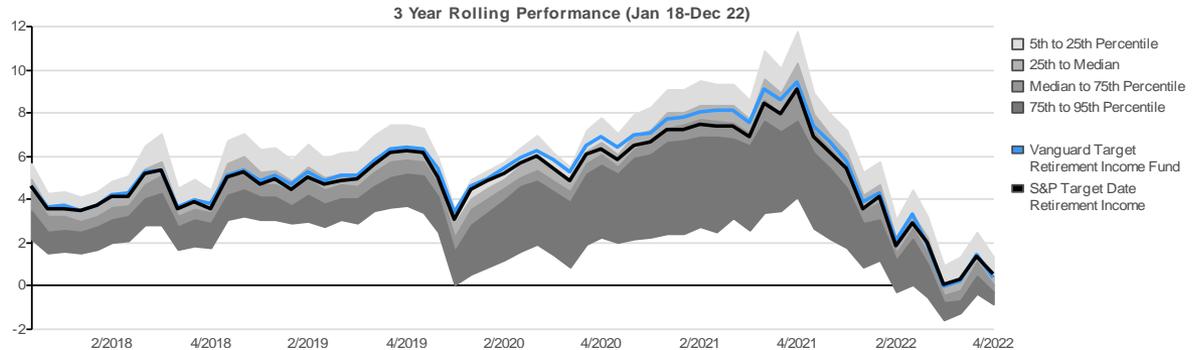


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	12.7	22.6	14.7	21.5
US Bonds	57.3	46.7	51.9	45.3
Intl Bonds	0.0	0.0	4.0	2.8
Intl Equity	7.5	12.2	8.2	8.8
US Equity	22.5	18.5	21.3	21.6

## INVESTMENT OVERVIEW

The investment seeks to provide current income and some capital appreciation. The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors currently in retirement. Its indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.74	-12.74	-12.74 / 50	0.34 / 31	2.30 / 31	3.58 / 32	3.62 / 29	4.57
Benchmark	4.50	-11.17	-11.17 / 15	0.53 / 23	2.33 / 29	3.58 / 32	3.59 / 32	
Peer Group Median	3.97	-12.75	-12.75 / 50	0.01 / 50	1.86 / 50	3.26 / 50	3.33 / 50	
Number of Funds			164	161	143	130	112	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-12.74	5.25	10.02	13.16	-1.99	8.47	5.25	-0.17	5.54
Benchmark	-11.17	5.11	8.81	13.33	-2.54	8.54	5.01	-0.18	4.86
Peer Group Median	-12.75	5.81	9.06	12.92	-3.37	8.56	5.04	-1.25	4.04

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.17	0.00	-0.42
Beta	1.03	1.00	1.08
R-Squared	98.78	100.00	97.22
Sharpe Ratio	0.00	0.02	-0.02
Up Market Capture	103.59	100.00	111.13
Down Market Capture	104.92	100.00	112.16

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.03	0.00	-0.48
Beta	1.00	1.00	1.12
R-Squared	98.51	100.00	97.15
Sharpe Ratio	0.18	0.18	0.11
Up Market Capture	99.96	100.00	108.32
Down Market Capture	100.28	100.00	111.35

## NOTES



# Vanguard Target Retirement 2025 Fund VTTVX (Proxy for Vanguard Tgt Ret Tr Plus 2025) 12/30/2022

<b>Fund Incep Date:</b> 10/27/2003	<b>Benchmark:</b> S&P Target Date 2025	<b>Category:</b> Target-Date 2025	<b>Net Assets:</b> \$71,647.00M	<b>Manager Name:</b> William A. Coleman	<b>Manager Start Date:</b> 02/22/2013	<b>Expense Ratio:</b> 0.08%	<b>Expense Rank:</b> 1
---------------------------------------	---	--------------------------------------	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



## Sector Breakdown

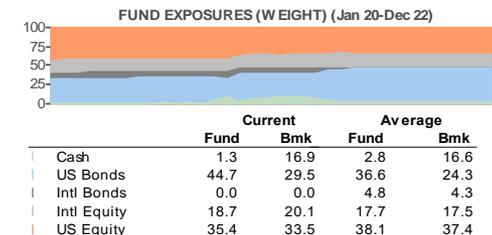
Sensitive	
Communication Services	6.40%
Industrials	11.33%
Technology	18.46%
Energy	5.42%
Cyclical	
Basic Materials	5.07%
Consumer Cyclical	10.67%
Real Estate	3.49%
Financial Services	16.10%
Defensive	
Consumer Defensive	7.24%
Healthcare	12.81%
Utilities	3.01%

## TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Instl Pls	33.23%
Vanguard Total Bond Market II Idx Inv	27.35%
Vanguard Total Intl Stock Index Inv	22.85%
Vanguard Total Intl Bd II Idx Instl	12.12%
Vanguard Sht-Term Infl-Prot Sec Idx Adm	3.27%

Total: 98.83%

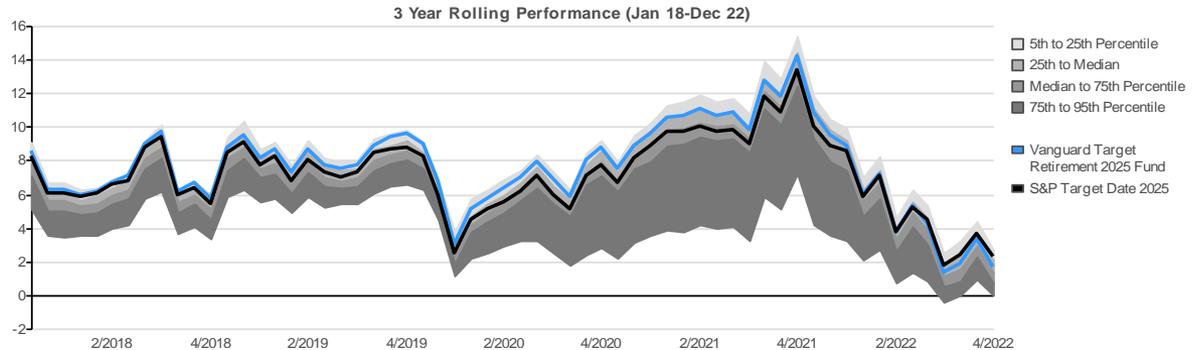
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2025 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI	
Fund	6.03	-15.55	-15.55 / 53	1.66 / 39	3.58 / 31	5.82 / 28	6.43 / 17	6.13	
Benchmark	6.34	-13.13	-13.13 / 16	2.26 / 19	3.75 / 21	5.81 / 29	6.23 / 24		
Peer Group Median	5.74	-15.48	-15.48 / 50	1.31 / 50	3.23 / 50	5.33 / 50	5.65 / 50		
Number of Funds			222	212	187	171	145		
CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-15.55	9.80	13.30	19.63	-5.15	15.94	7.48	-0.85	7.17
Benchmark	-13.13	10.67	11.22	18.38	-5.02	14.55	7.82	-0.25	5.56
Peer Group Median	-15.48	9.75	12.44	18.29	-5.39	14.96	6.96	-1.27	5.42

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.62	0.00	-0.92
Beta	1.06	1.00	1.02
R-Squared	99.33	100.00	98.62
Sharpe Ratio	0.13	0.18	0.11
Up Market Capture	104.53	100.00	100.83
Down Market Capture	107.63	100.00	104.82
5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.26	0.00	-0.51
Beta	1.05	1.00	1.02
R-Squared	99.34	100.00	98.41
Sharpe Ratio	0.25	0.28	0.23
Up Market Capture	103.93	100.00	98.63
Down Market Capture	105.52	100.00	102.86

## NOTES



# Vanguard Target Retirement 2035 Fund VTTHX (Proxy for Vanguard Tgt Ret Tr Plus 2035) 12/30/2022

<b>Fund Incep Date:</b> 10/27/2003	<b>Benchmark:</b> S&P Target Date 2035	<b>Category:</b> Target-Date 2035	<b>Net Assets:</b> \$74,833.00M	<b>Manager Name:</b> William A. Coleman	<b>Manager Start Date:</b> 02/22/2013	<b>Expense Ratio:</b> 0.08%	<b>Expense Rank:</b> 1
---------------------------------------	---	--------------------------------------	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



## Sector Breakdown

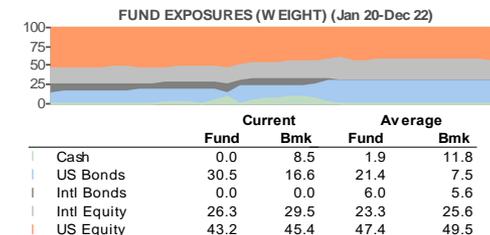
Sensitive	
Communication Services	6.40%
Industrials	11.33%
Technology	18.46%
Energy	5.42%
Cyclical	
Basic Materials	5.06%
Consumer Cyclical	10.67%
Real Estate	3.49%
Financial Services	16.10%
Defensive	
Consumer Defensive	7.24%
Healthcare	12.81%
Utilities	3.01%

## TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Instl Pls	42.54%
Vanguard Total Intl Stock Index Inv	29.24%
Vanguard Total Bond Market II Idx Inv	18.77%
Vanguard Total Intl Bd II Idx Instl	8.17%

**Total:** 98.71%

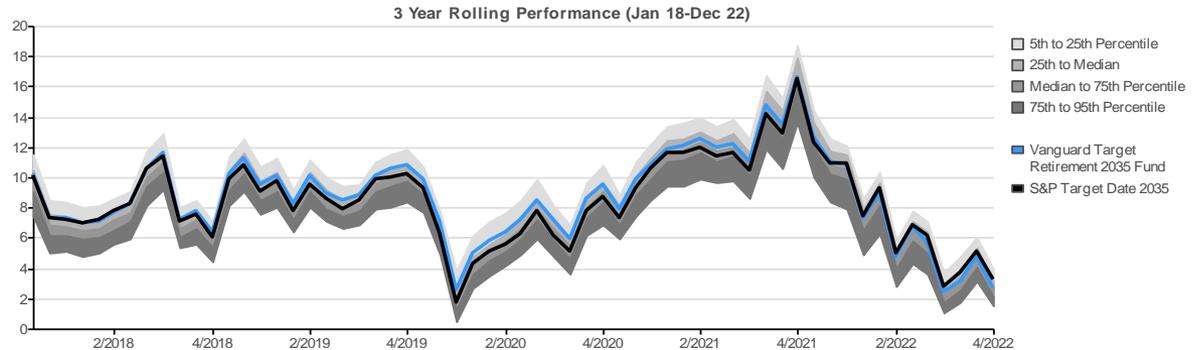
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2035 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	7.45	-16.62	-16.62 / 38	2.64 / 52	4.34 / 42	6.90 / 38	7.57 / 29	6.83
Benchmark	8.31	-14.99	-14.99 / 10	3.29 / 15	4.63 / 27	7.01 / 35	7.42 / 34	
Peer Group Median	7.64	-17.13	-17.13 / 50	2.68 / 50	4.19 / 50	6.68 / 50	7.00 / 50	
Number of Funds			215	205	181	165	139	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-16.62	12.96	14.79	22.44	-6.58	19.12	8.26	-1.26	7.24
Benchmark	-14.99	14.93	12.79	22.18	-6.88	17.78	8.85	-0.35	5.69
Peer Group Median	-17.13	13.86	14.04	22.22	-7.28	18.69	7.83	-1.50	5.58

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.60	0.00	-0.56
Beta	0.98	1.00	1.01
R-Squared	99.38	100.00	99.09
Sharpe Ratio	0.20	0.23	0.20
Up Market Capture	96.44	100.00	100.30
Down Market Capture	99.42	100.00	102.91

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.21	0.00	-0.40
Beta	0.98	1.00	1.00
R-Squared	99.40	100.00	98.97
Sharpe Ratio	0.28	0.30	0.27
Up Market Capture	96.70	100.00	99.26
Down Market Capture	98.00	100.00	101.25

## NOTES

# Vanguard Target Retirement 2045 Fund VTIVX (Proxy for Vanguard Tgt Ret Tr Plus 2045) 12/30/2022

<b>Fund Incep Date:</b> 10/27/2003	<b>Benchmark:</b> S&P Target Date 2045	<b>Category:</b> Target-Date 2045	<b>Net Assets:</b> \$60,449.00M	<b>Manager Name:</b> William A. Coleman	<b>Manager Start Date:</b> 02/22/2013	<b>Expense Ratio:</b> 0.08%	<b>Expense Rank:</b> 1
---------------------------------------	---	--------------------------------------	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



## Sector Breakdown

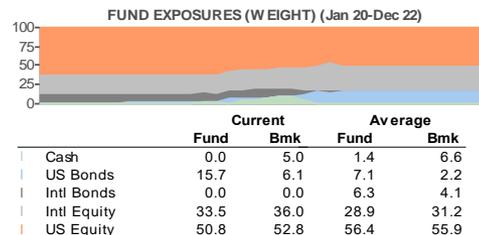
Sensitive	
Communication Services	6.40%
Industrials	11.33%
Technology	18.44%
Energy	5.42%
Cyclical	
Basic Materials	5.08%
Consumer Cyclical	10.68%
Real Estate	3.49%
Financial Services	16.11%
Defensive	
Consumer Defensive	7.24%
Healthcare	12.80%
Utilities	3.01%

## TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Instl Pls	50.84%
Vanguard Total Intl Stock Index Inv	35.22%
Vanguard Total Bond Market II Idx Inv	8.89%
Vanguard Total Intl Bd II Idx Instl	3.80%

Total: 98.75%

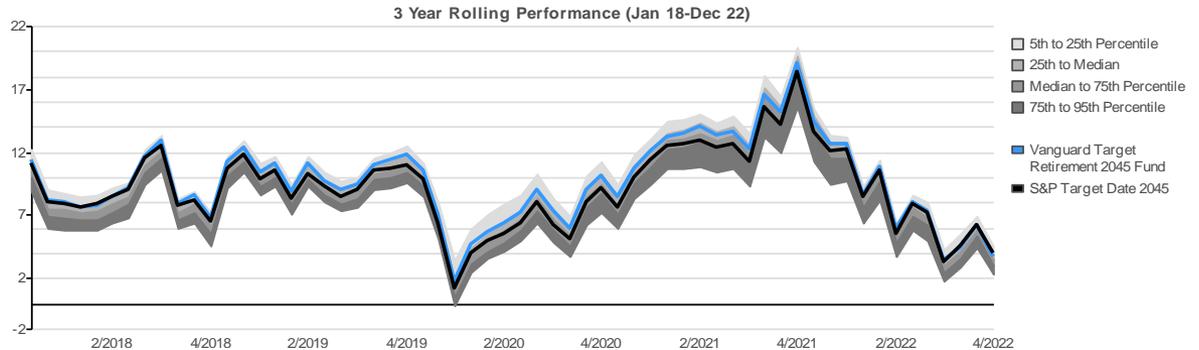
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2045 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	8.89	-17.36	-17.36 / 31	3.74 / 32	5.14 / 27	7.86 / 24	8.34 / 19	7.40
Benchmark	9.77	-15.84	-15.84 / 12	3.98 / 20	5.16 / 27	7.73 / 32	8.11 / 28	
Peer Group Median	8.92	-18.18	-18.18 / 50	3.44 / 50	4.81 / 50	7.37 / 50	7.71 / 50	
Number of Funds			215	205	181	165	138	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-17.36	16.16	16.30	24.94	-7.90	21.42	8.87	-1.57	7.16
Benchmark	-15.84	17.51	13.66	24.02	-7.74	19.56	9.54	-0.46	5.67
Peer Group Median	-18.18	16.73	15.35	24.56	-8.30	20.58	8.20	-1.60	5.67

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.23	0.00	-0.46
Beta	1.00	1.00	1.02
R-Squared	99.47	100.00	98.97
Sharpe Ratio	0.25	0.26	0.24
Up Market Capture	100.49	100.00	102.39
Down Market Capture	101.29	100.00	103.58
5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.04	0.00	-0.32
Beta	1.01	1.00	1.02
R-Squared	99.51	100.00	99.02
Sharpe Ratio	0.31	0.31	0.29
Up Market Capture	101.07	100.00	101.31
Down Market Capture	101.18	100.00	102.29

## NOTES



# Vanguard Target Retirement 2055 Fund VFFVX (Proxy for Vanguard Tgt Ret Tr Plus 2055) 12/30/2022

<b>Fund Incep Date:</b> 08/18/2010	<b>Benchmark:</b> S&P Target Date 2055	<b>Category:</b> Target-Date 2055	<b>Net Assets:</b> \$30,271.00M	<b>Manager Name:</b> William A. Coleman	<b>Manager Start Date:</b> 02/22/2013	<b>Expense Ratio:</b> 0.08%	<b>Expense Rank:</b> 1
---------------------------------------	---	--------------------------------------	------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



## Sector Breakdown

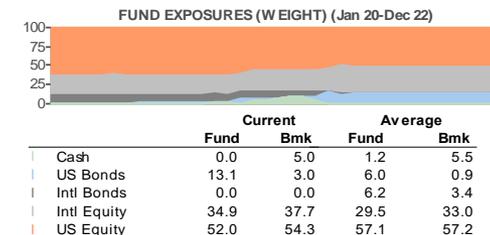
Sensitive	
Communication Services	6.39%
Industrials	11.34%
Technology	18.42%
Energy	5.43%
Cyclical	
Basic Materials	5.09%
Consumer Cyclical	10.68%
Real Estate	3.49%
Financial Services	16.12%
Defensive	
Consumer Defensive	7.24%
Healthcare	12.79%
Utilities	3.02%

## TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Instl Pls	52.67%
Vanguard Total Intl Stock Index Inv	36.78%
Vanguard Total Bond Market II Idx Inv	6.46%
Vanguard Total Intl Bd II Idx Instl	2.76%

Total: 98.67%

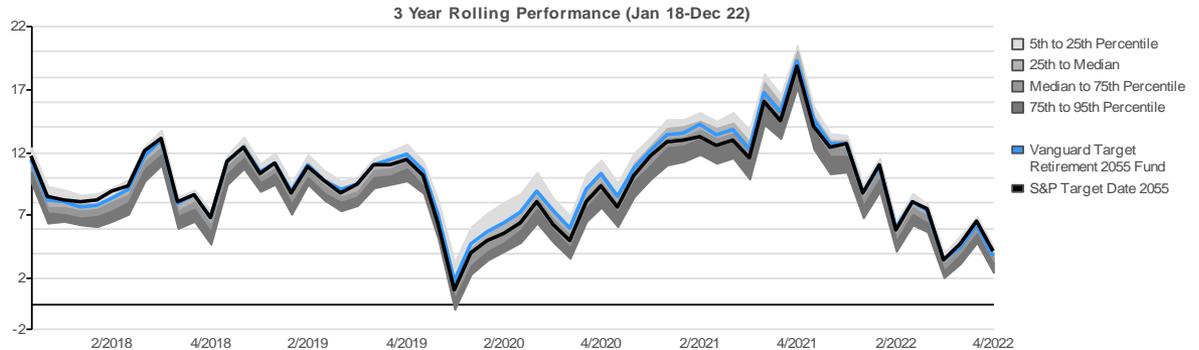
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in a mix of Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2055 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	9.23	-17.46	-17.46 / 25	3.79 / 36	5.18 / 29	7.88 / 27	8.34 / 25	8.97
Benchmark	10.11	-15.97	-15.97 / 10	4.18 / 12	5.31 / 19	8.02 / 18	8.46 / 18	
Peer Group Median	9.21	-18.38	-18.38 / 50	3.58 / 50	4.91 / 50	7.53 / 50	7.96 / 50	
Number of Funds			215	205	181	161	113	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-17.46	16.44	16.32	24.98	-7.89	21.38	8.88	-1.72	7.19
Benchmark	-15.97	18.19	13.86	24.48	-7.97	20.48	9.94	-0.54	5.64
Peer Group Median	-18.38	17.19	15.68	24.79	-8.60	21.09	8.26	-1.62	5.75

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.35	0.00	-0.57
Beta	0.99	1.00	1.01
R-Squared	99.47	100.00	98.96
Sharpe Ratio	0.25	0.27	0.24
Up Market Capture	98.33	100.00	100.74
Down Market Capture	99.87	100.00	102.65
5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.09	0.00	-0.41
Beta	0.99	1.00	1.01
R-Squared	99.51	100.00	99.00
Sharpe Ratio	0.31	0.32	0.29
Up Market Capture	98.67	100.00	99.82
Down Market Capture	99.25	100.00	101.42

## NOTES

<b>Fund Incep Date:</b> 11/02/2015	<b>Benchmark:</b> Russell 1000 Value Index	<b>Category:</b> Large Value	<b>Net Assets:</b> \$3,879.00M	<b>Manager Name:</b> Clare A. Hart	<b>Manager Start Date:</b> 03/01/2004	<b>Expense Ratio:</b> 0.44%	<b>Expense Rank:</b> 9
---------------------------------------	---	---------------------------------	-----------------------------------	---------------------------------------	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



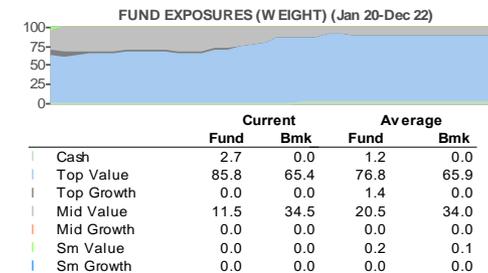
## Sector Breakdown

<b>Sensitive</b>	
Communication Services	4.21%
Industrials	11.58%
Technology	7.01%
Energy	8.69%
<b>Cyclical</b>	
Basic Materials	4.17%
Consumer Cyclical	8.58%
Real Estate	1.38%
Financial Services	24.47%
<b>Defensive</b>	
Consumer Defensive	7.11%
Healthcare	18.94%
Utilities	3.86%

## TOP 10 HOLDINGS

JPMorgan Prime Money Market Inst	3.85%
ConocoPhillips	2.69%
Exxon Mobil Corp	2.53%
Wells Fargo & Co	2.42%
Bristol-Myers Squibb Co	2.26%
UnitedHealth Group Inc	2.12%
Berkshire Hathaway Inc Class B	1.85%
BlackRock Inc	1.82%
Morgan Stanley	1.78%
EOG Resources Inc	1.76%
<b>Total:</b>	<b>23.08%</b>

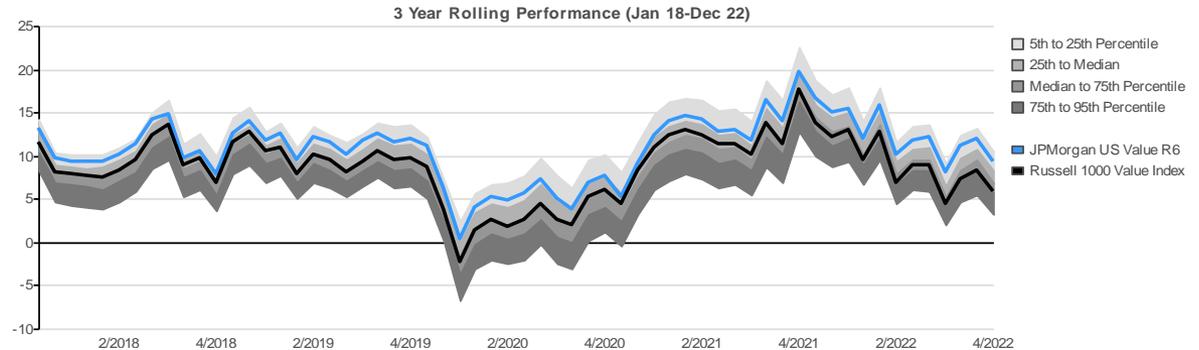
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide capital growth over the long-term. Under normal circumstances, the fund invests at least 80% of its assets in common stocks issued by U.S. companies. "Assets" means net assets, plus the amount of borrowings for investment purposes. The fund's adviser applies an active equity management style focused on identifying attractively valued securities given their growth potential over a long-term time horizon.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	12.80	-2.08	-2.08 / 18	9.38 / 12	9.29 / 7	11.31 / 8	12.18 / 5	10.60
Benchmark	12.42	-7.54	-7.54 / 68	5.96 / 71	6.67 / 62	9.12 / 58	10.29 / 47	
Peer Group Median	12.77	-5.56	-5.56 / 50	6.96 / 50	7.10 / 50	9.38 / 50	10.20 / 50	
Number of Funds			1242	1193	1168	1112	1037	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-2.08	27.50	4.80	28.48	-7.25	17.71	15.35	-2.48	14.10
Benchmark	-7.54	25.16	2.80	26.54	-8.27	13.66	17.34	-3.83	13.45
Peer Group Median	-5.56	26.02	2.79	25.56	-8.81	16.23	14.26	-3.48	10.92

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	3.29	0.00	1.15
Beta	0.97	1.00	0.98
R-Squared	99.07	100.00	96.89
Sharpe Ratio	0.50	0.34	0.39
Up Market Capture	103.35	100.00	99.21
Down Market Capture	92.49	100.00	96.35

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	2.53	0.00	0.54
Beta	0.98	1.00	0.99
R-Squared	98.86	100.00	96.57
Sharpe Ratio	0.50	0.37	0.39
Up Market Capture	104.69	100.00	99.37
Down Market Capture	94.89	100.00	98.33

## NOTES



# Vanguard 500 Index Institutional Select VFFSX(Proxy for Vanguard Institutional 500 Index Trust) 12/30/2022

<b>Fund Inception Date:</b> 06/24/2016	<b>Benchmark:</b> S&P 500 Index	<b>Category:</b> Large Blend	<b>Net Assets:</b> \$744,770.00M	<b>Manager Name:</b> Donald M. Butler	<b>Manager Start Date:</b> 04/27/2016	<b>Expense Ratio:</b> 0.01%	<b>Expense Rank:</b> 1
---	------------------------------------	---------------------------------	-------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



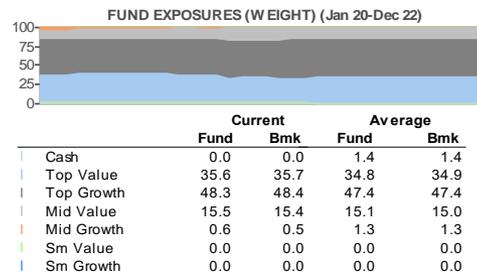
## Sector Breakdown

<b>Sensitive</b>	
Communication Services	7.46%
Industrials	8.86%
Technology	23.74%
Energy	5.13%
<b>Cyclical</b>	
Basic Materials	2.40%
Consumer Cyclical	10.17%
Real Estate	2.76%
Financial Services	13.75%
<b>Defensive</b>	
Consumer Defensive	7.40%
Healthcare	15.32%
Utilities	3.00%

## TOP 10 HOLDINGS

Apple Inc	6.50%
Microsoft Corp	5.53%
Amazon.com Inc	2.49%
Alphabet Inc Class A	1.76%
Berkshire Hathaway Inc Class B	1.67%
Alphabet Inc Class C	1.58%
Tesla Inc	1.51%
UnitedHealth Group Inc	1.49%
Johnson & Johnson	1.36%
Exxon Mobil Corp	1.35%
<b>Total:</b>	<b>25.25%</b>

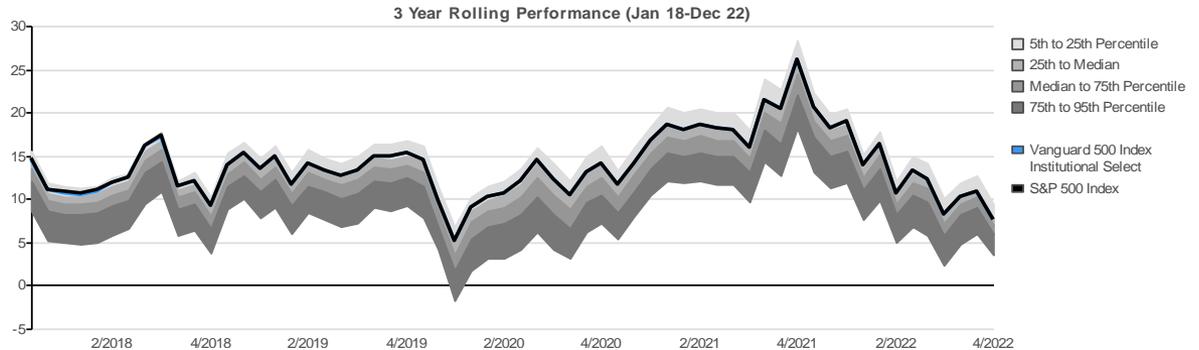
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to track the performance of the Standard & Poor's 500 Index that measures the investment return of large-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the Standard & Poor's 500 Index, a widely recognized benchmark of U.S. stock market performance that is dominated by the stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	7.56	-18.13	-18.13 / 50	7.65 / 30	9.42 / 20	11.47 / 15	12.50 / 14	12.24
Benchmark	7.56	-18.11	-18.11 / 49	7.66 / 30	9.42 / 20	11.48 / 14	12.56 / 12	
Peer Group Median	7.93	-18.14	-18.14 / 50	7.10 / 50	8.59 / 50	10.58 / 50	11.62 / 50	
Number of Funds			1365	1259	1188	1116	1017	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-18.13	28.70	18.40	31.49	-4.40	21.83	11.89	1.25	13.51
Benchmark	-18.11	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69
Peer Group Median	-18.14	26.78	17.25	29.89	-5.59	21.15	10.43	0.02	11.87

## RISK & PERFORMANCE STATISTICS

	3 Yr	Fund	Benchmark	Peer Group Median
Alpha		-0.01	0.00	-0.42
Beta		1.00	1.00	0.99
R-Squared		100.00	100.00	97.75
Sharpe Ratio		0.42	0.42	0.39
Up Market Capture		99.99	100.00	98.09
Down Market Capture		100.01	100.00	99.98

	5 Yr	Fund	Benchmark	Peer Group Median
Alpha		-0.01	0.00	-0.66
Beta		1.00	1.00	1.00
R-Squared		100.00	100.00	97.61
Sharpe Ratio		0.51	0.51	0.47
Up Market Capture		99.98	100.00	96.87
Down Market Capture		100.00	100.00	100.19

## NOTES

<b>Fund Incep Date:</b> 10/03/2017	<b>Benchmark:</b> S&P 500 Index	<b>Category:</b> Large Blend	<b>Net Assets:</b> \$3,838.00M	<b>Manager Name:</b> Thomas C. Seto	<b>Manager Start Date:</b> 12/31/2016	<b>Expense Ratio:</b> 0.19%	<b>Expense Rank:</b> 7
---------------------------------------	------------------------------------	---------------------------------	-----------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	7.06%
Industrials	10.35%
Technology	26.76%
Energy	0.24%

#### Cyclical

Basic Materials	2.51%
Consumer Cyclical	11.36%
Real Estate	0.31%
Financial Services	15.26%

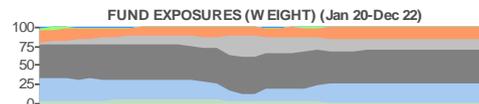
#### Defensive

Consumer Defensive	7.44%
Healthcare	16.14%
Utilities	2.57%

### TOP 10 HOLDINGS

Apple Inc	6.59%
Microsoft Corp	5.23%
Alphabet Inc Class A	3.26%
Amazon.com Inc	2.44%
Tesla Inc	1.48%
JPMorgan Chase & Co	1.26%
NVIDIA Corp	1.26%
Visa Inc Class A	1.12%
Procter & Gamble Co	1.08%
The Home Depot Inc	1.01%
<b>Total:</b>	<b>24.75%</b>

### ASSET LOADINGS (Returns-based)

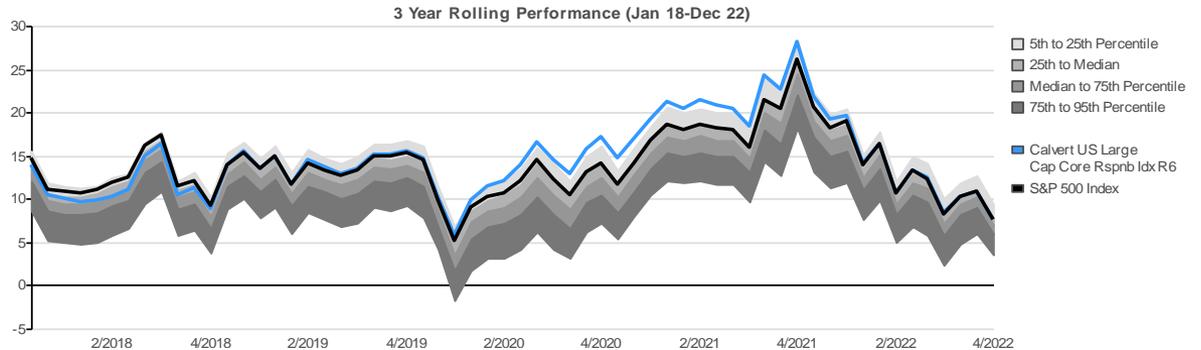


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	2.0	1.4
Top Value	25.3	35.7	23.5	34.9
Top Growth	43.3	48.4	45.2	47.4
Mid Value	14.4	15.4	14.2	15.0
Mid Growth	17.0	0.5	14.0	1.3
Sm Value	0.0	0.0	0.5	0.0
Sm Growth	0.0	0.0	0.7	0.0

## INVESTMENT OVERVIEW

The investment seeks to track the performance of the Calvert US Large-Cap Core Responsible Index, which measures the investment return of large-capitalization stocks. The fund normally invests at least 95% of its net assets, including borrowings for investment purposes, in securities contained in the index. The index is composed of the common stocks of large companies that operate their businesses in a manner consistent with the Calvert Principles for Responsible Investment.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	6.78	-21.61	-21.61 / 91	7.53 / 35	9.64 / 15	11.37 / 18	12.75 / 8	10.28
Benchmark	7.56	-18.11	-18.11 / 49	7.66 / 30	9.42 / 20	11.48 / 14	12.56 / 12	
Peer Group Median	7.93	-18.14	-18.14 / 50	7.10 / 50	8.59 / 50	10.58 / 50	11.62 / 50	
Number of Funds			1365	1259	1188	1116	1017	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-21.61	25.70	26.18	32.85	-4.06	21.12	10.71	1.14	14.41
Benchmark	-18.11	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69
Peer Group Median	-18.14	26.78	17.25	29.89	-5.59	21.15	10.43	0.02	11.87

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.16	0.00	-0.42
Beta	1.01	1.00	0.99
R-Squared	99.02	100.00	97.75
Sharpe Ratio	0.41	0.42	0.39
Up Market Capture	100.17	100.00	98.09
Down Market Capture	100.56	100.00	99.98

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.12	0.00	-0.66
Beta	1.02	1.00	1.00
R-Squared	99.02	100.00	97.61
Sharpe Ratio	0.51	0.51	0.47
Up Market Capture	101.53	100.00	96.87
Down Market Capture	100.84	100.00	100.19

## NOTES

<b>Fund Incep Date:</b> 05/17/1967	<b>Benchmark:</b> Russell 1000 Growth Index	<b>Category:</b> Large Growth	<b>Net Assets:</b> \$91,033.00M	<b>Manager Name:</b> William Danoff	<b>Manager Start Date:</b> 09/17/1990	<b>Expense Ratio:</b> 0.81%	<b>Expense Rank:</b> 27
---------------------------------------	--	----------------------------------	------------------------------------	--	--	--------------------------------	----------------------------

### PORTFOLIO COMPOSITION (Holdings-based)

#### Assets



#### Sector Breakdown

##### Sensitive

Communication Services	13.13%
Industrials	4.34%
Technology	21.40%
Energy	7.04%

##### Cyclical

Basic Materials	3.42%
Consumer Cyclical	10.44%
Real Estate	0.10%
Financial Services	18.24%

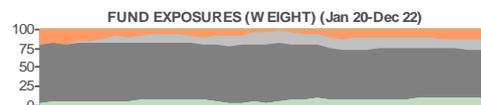
##### Defensive

Consumer Defensive	3.67%
Healthcare	17.81%
Utilities	0.40%

#### TOP 10 HOLDINGS

Berkshire Hathaway Inc Class A	9.25%
Microsoft Corp	5.97%
UnitedHealth Group Inc	5.82%
Amazon.com Inc	5.41%
Meta Platforms Inc Class A	5.02%
Apple Inc	4.23%
Alphabet Inc Class A	2.75%
Fidelity Revere Str Tr	2.54%
Eli Lilly and Co	2.47%
Alphabet Inc Class C	2.45%
<b>Total:</b>	<b>45.92%</b>

#### ASSET LOADINGS (Returns-based)

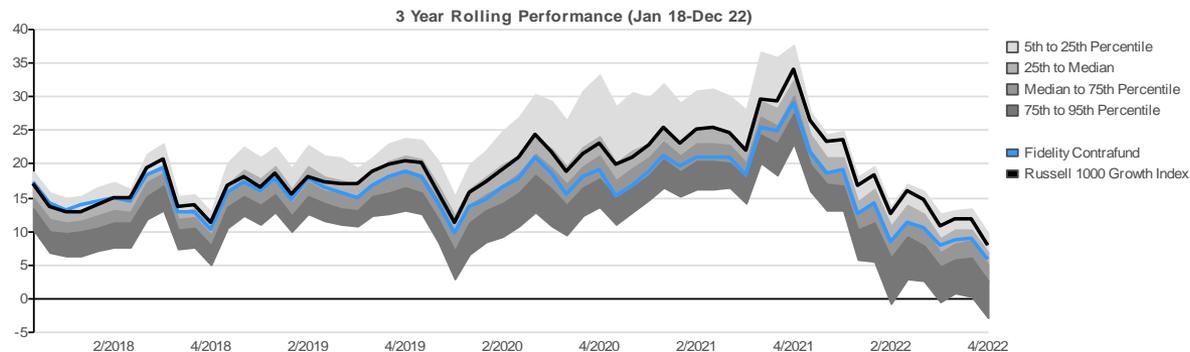


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	8.8	0.0	6.1	0.0
Top Value	0.0	0.2	0.0	0.1
Top Growth	64.2	81.8	71.6	81.8
Mid Value	13.7	0.0	11.1	0.0
Mid Growth	13.3	18.0	11.3	17.8
Sm Value	0.0	0.0	0.0	0.0
Sm Growth	0.0	0.1	0.0	0.3

### INVESTMENT OVERVIEW

The investment seeks capital appreciation. The fund normally invests primarily in common stocks. It invests in securities of companies whose value the advisor believes is not fully recognized by the public. The fund invests in domestic and foreign issuers. It invests in either "growth" stocks or "value" stocks or both. The advisor uses fundamental analysis of factors such as each issuer's financial condition and industry position, as well as market and economic conditions to select investments.

### PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.89	-28.26	-28.26 / 34	5.76 / 40	8.52 / 48	10.85 / 37	12.40 / 39	12.20
Benchmark	2.20	-29.14	-29.14 / 39	7.79 / 16	10.96 / 12	12.95 / 9	14.10 / 8	
Peer Group Median	2.97	-30.75	-30.75 / 50	5.05 / 50	8.41 / 50	10.31 / 50	11.93 / 50	
Number of Funds			1246	1170	1126	1082	1035	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-28.26	24.36	32.58	29.98	-2.13	32.21	3.36	6.46	9.56
Benchmark	-29.14	27.60	38.49	36.39	-1.51	30.21	7.08	5.67	13.05
Peer Group Median	-30.75	22.06	34.85	32.77	-1.64	28.66	2.99	4.14	10.39

### RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-1.47	0.00	-2.27
Beta	0.91	1.00	0.97
R-Squared	97.94	100.00	95.42
Sharpe Ratio	0.33	0.40	0.29
Up Market Capture	86.04	100.00	87.69
Down Market Capture	92.57	100.00	98.52

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-1.72	0.00	-2.06
Beta	0.93	1.00	0.98
R-Squared	97.44	100.00	95.48
Sharpe Ratio	0.45	0.54	0.43
Up Market Capture	87.97	100.00	90.47
Down Market Capture	94.95	100.00	98.79

### NOTES

<b>Fund Incep Date:</b> 05/13/2015	<b>Benchmark:</b> Russell Mid-Cap Index	<b>Category:</b> Mid-Cap Blend	<b>Net Assets:</b> \$1,570.00M	<b>Manager Name:</b> Jennifer Hsui	<b>Manager Start Date:</b> 04/08/2016	<b>Expense Ratio:</b> 0.06%	<b>Expense Rank:</b> 3
---------------------------------------	--	-----------------------------------	-----------------------------------	---------------------------------------	--	--------------------------------	---------------------------

### PORTFOLIO COMPOSITION (Holdings-based)

#### Assets



#### Sector Breakdown

##### Sensitive

Communication Services	3.42%
Industrials	15.30%
Technology	15.95%
Energy	5.47%

##### Cyclical

Basic Materials	5.12%
Consumer Cyclical	12.74%
Real Estate	8.02%
Financial Services	13.66%

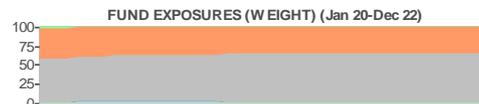
##### Defensive

Consumer Defensive	3.95%
Healthcare	10.63%
Utilities	5.75%

#### TOP 10 HOLDINGS

iShares Russell Mid-Cap ETF	0.98%
BlackRock Cash Funds Treasury SL Agency	0.62%
O'Reilly Automotive Inc	0.54%
Phillips 66	0.52%
Synopsys Inc	0.51%
AutoZone Inc	0.50%
Corteva Inc	0.48%
Amphenol Corp Class A	0.47%
Cadence Design Systems Inc	0.46%
Agilent Technologies Inc	0.46%
<b>Total:</b>	<b>5.54%</b>

#### ASSET LOADINGS (Returns-based)

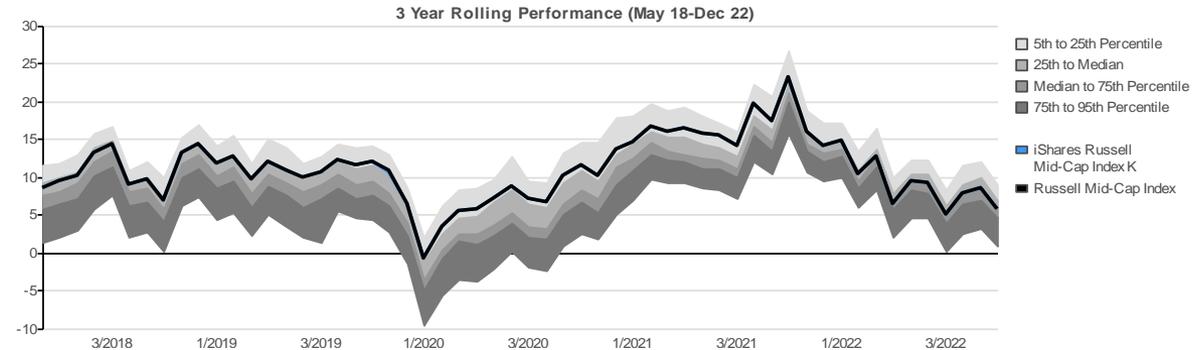


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.1	0.1
Top Value	0.0	0.0	0.8	0.3
Top Growth	0.0	0.0	0.1	0.0
Mid Value	65.8	65.8	63.0	63.6
Mid Growth	34.1	34.2	35.6	35.8
Sm Value	0.1	0.0	0.3	0.0
Sm Growth	0.0	0.0	0.2	0.2

### INVESTMENT OVERVIEW

The investment seeks to track the investment results of the Russell Midcap® Index (the "underlying index"), which measures the performance of the mid-capitalization sector of the U.S. equity market. The fund generally invests at least 90% of its assets, plus the amount of any borrowing for investment purposes, in securities of the underlying index. The underlying index is a float-adjusted, capitalization-weighted index of equity securities issued by approximately 800 of the smallest issuers in the Russell 1000® Index.

### PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	9.20	-17.24	-17.24 / 70	5.91 / 55	7.10 / 30	9.59 / 31		7.94
Benchmark	9.18	-17.32	-17.32 / 71	5.88 / 56	7.10 / 30	9.61 / 30	10.96 / 15	
Peer Group Median	9.54	-14.78	-14.78 / 50	6.12 / 50	6.23 / 50	8.95 / 50	9.95 / 50	
Number of Funds			408	380	354	318	278	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-17.24	22.57	17.12	30.43	-9.05	18.40	13.76		
Benchmark	-17.32	22.58	17.10	30.54	-9.06	18.52	13.80	-2.44	13.22
Peer Group Median	-14.78	24.13	12.93	26.85	-11.26	15.90	15.34	-3.25	9.20

### RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.03	0.00	0.38
Beta	1.00	1.00	0.96
R-Squared	100.00	100.00	95.93
Sharpe Ratio	0.33	0.33	0.34
Up Market Capture	99.83	100.00	97.20
Down Market Capture	99.76	100.00	97.11

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.01	0.00	-0.71
Beta	1.00	1.00	0.98
R-Squared	100.00	100.00	95.95
Sharpe Ratio	0.37	0.37	0.33
Up Market Capture	99.87	100.00	95.65
Down Market Capture	99.86	100.00	99.27

### NOTES

# T. Rowe Price Instl Mid-Cap Equity Gr PMEGX

12/30/2022

<b>Fund Incep Date:</b> 07/31/1996	<b>Benchmark:</b> Russell Mid-Cap Growth Index	<b>Category:</b> Mid-Cap Growth	<b>Net Assets:</b> \$4,846.00M	<b>Manager Name:</b> Brian W.H. Berghuis	<b>Manager Start Date:</b> 07/31/1996	<b>Expense Ratio:</b> 0.61%	<b>Expense Rank:</b> 6
---------------------------------------	---	------------------------------------	-----------------------------------	---	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



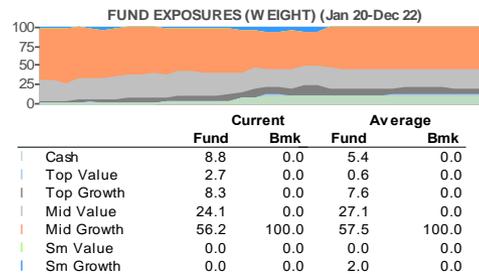
## Sector Breakdown

<b>Sensitive</b>	
Communication Services	1.80%
Industrials	16.15%
Technology	26.58%
Energy	2.16%
<b>Cyclical</b>	
Basic Materials	3.32%
Consumer Cyclical	15.13%
Real Estate	1.16%
Financial Services	6.11%
<b>Defensive</b>	
Consumer Defensive	3.58%
Healthcare	24.01%
Utilities	0.00%

## TOP 10 HOLDINGS

Hologic Inc	3.03%
Microchip Technology Inc	2.73%
Textron Inc	2.52%
Ingersoll Rand Inc	2.37%
Agilent Technologies Inc	2.28%
Teleflex Inc	2.05%
Marvell Technology Inc	1.97%
Reserve Invnt Fds	1.89%
JB Hunt Transport Services Inc	1.66%
Keysight Technologies Inc	1.63%
<b>Total:</b>	<b>22.15%</b>

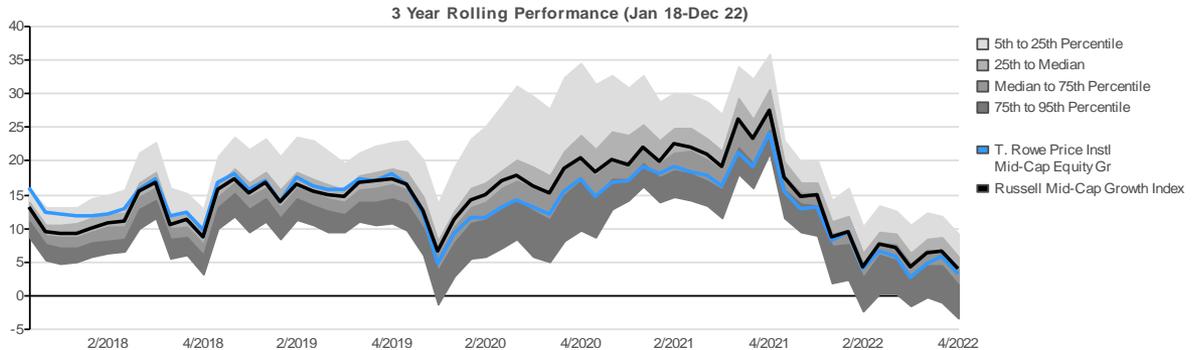
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to provide long-term capital appreciation. The fund will normally invest at least 80% of its net assets (including any borrowings for investment purposes) in a diversified portfolio of common stocks of mid-cap companies whose earnings T. Rowe Price expects to grow at a faster rate than the average company. The advisor defines mid-cap companies as those whose market capitalization (number of shares outstanding multiplied by share price) falls within the range of either the S&P MidCap 400® Index or the Russell Midcap® Growth Index.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	8.46	-23.17	-23.17 / 17	3.21 / 62	7.42 / 47	9.83 / 39	12.46 / 14	11.44
Benchmark	6.90	-26.72	-26.72 / 39	3.85 / 51	7.64 / 45	9.95 / 38	11.41 / 35	
Peer Group Median	5.42	-28.27	-28.27 / 50	3.88 / 50	7.24 / 50	9.34 / 50	10.62 / 50	
Number of Funds			589	553	533	516	496	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-23.17	15.52	23.87	33.09	-2.23	26.02	6.94	6.94	13.79
Benchmark	-26.72	12.73	35.59	35.47	-4.75	25.27	7.33	-0.20	11.90
Peer Group Median	-28.27	12.07	35.78	33.31	-5.55	24.81	5.26	-0.52	7.45

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.44	0.00	0.26
Beta	0.91	1.00	0.98
R-Squared	95.19	100.00	94.45
Sharpe Ratio	0.22	0.24	0.25
Up Market Capture	87.40	100.00	99.10
Down Market Capture	91.23	100.00	99.61

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.27	0.00	-0.08
Beta	0.91	1.00	0.98
R-Squared	95.14	100.00	94.36
Sharpe Ratio	0.39	0.39	0.37
Up Market Capture	88.86	100.00	97.81
Down Market Capture	89.67	100.00	100.19

## NOTES

<b>Fund Incep Date:</b> 12/23/1981	<b>Benchmark:</b> Russell 2000 Index	<b>Category:</b> Small Blend	<b>Net Assets:</b> \$6,235.00M	<b>Manager Name:</b> Jed S. Fogdall	<b>Manager Start Date:</b> 02/28/2012	<b>Expense Ratio:</b> 0.41%	<b>Expense Rank:</b> 11
---------------------------------------	---	---------------------------------	-----------------------------------	--	--	--------------------------------	----------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	2.48%
Industrials	17.88%
Technology	12.77%
Energy	6.68%

#### Cyclical

Basic Materials	4.79%
Consumer Cyclical	12.38%
Real Estate	0.77%
Financial Services	22.79%

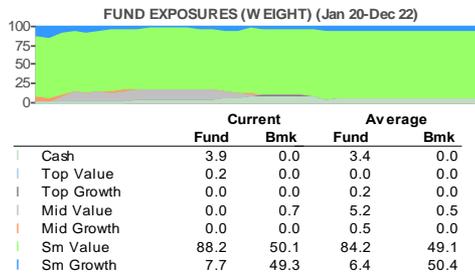
#### Defensive

Consumer Defensive	6.26%
Healthcare	10.91%
Utilities	2.30%

### TOP 10 HOLDINGS

S+p500 Emimi Fut Dec22 Xcme 20221216	1.04%
Comfort Systems USA Inc	0.47%
CorVel Corp	0.42%
Rambus Inc	0.40%
BancFirst Corp	0.36%
First BanCorp	0.36%
Calix Inc	0.35%
Veritiv Corp	0.35%
Badger Meter Inc	0.34%
Encore Wire Corp	0.34%
<b>Total:</b>	<b>4.43%</b>

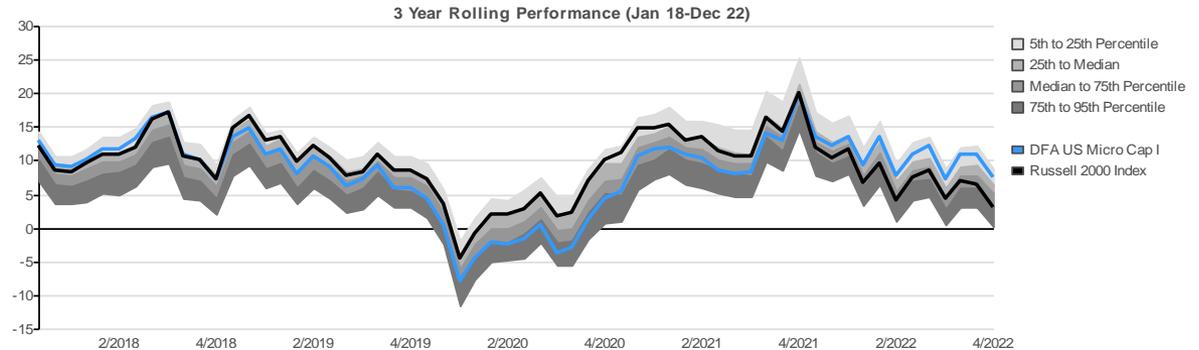
### ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks long-term capital appreciation. The fund, using a market capitalization weighted approach, purchases a broad and diverse group of the securities of U.S. micro cap companies. It may purchase or sell futures contracts and options on futures contracts for U.S. equity securities and indices, to increase or decrease equity market exposure based on actual or expected cash inflows to or outflows from the fund.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	9.96	-12.46	-12.46 / 16	7.60 / 14	5.85 / 25	9.24 / 19	10.32 / 18	11.31
Benchmark	6.23	-20.44	-20.44 / 85	3.10 / 75	4.13 / 66	7.90 / 55	9.01 / 55	
Peer Group Median	8.98	-16.64	-16.64 / 50	5.04 / 50	4.88 / 50	8.07 / 50	9.12 / 50	
Number of Funds			614	596	576	545	471	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-12.46	33.50	6.59	20.66	-11.60	11.18	25.63	-3.62	2.92
Benchmark	-20.44	14.82	19.96	25.52	-11.01	14.65	21.31	-4.41	4.89
Peer Group Median	-16.64	23.19	12.15	24.45	-12.12	13.08	20.65	-4.41	4.95

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	4.48	0.00	2.00
Beta	0.98	1.00	0.96
R-Squared	95.13	100.00	95.22
Sharpe Ratio	0.38	0.22	0.29
Up Market Capture	109.85	100.00	99.97
Down Market Capture	96.55	100.00	95.81

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	1.79	0.00	0.87
Beta	0.98	1.00	0.97
R-Squared	95.66	100.00	95.75
Sharpe Ratio	0.31	0.24	0.27
Up Market Capture	106.06	100.00	98.37
Down Market Capture	100.14	100.00	97.58

## NOTES

# iShares Russell 2000 Small-Cap Idx K BDBKX (Proxy for Blackrock Russell 2000 Index) 12/30/2022

<b>Fund Incep Date:</b> 03/31/2011	<b>Benchmark:</b> Russell 2000 Index	<b>Category:</b> Small Blend	<b>Net Assets:</b> \$2,605.00M	<b>Manager Name:</b> Jennifer Hsui	<b>Manager Start Date:</b> 04/08/2016	<b>Expense Ratio:</b> 0.07%	<b>Expense Rank:</b> 3
---------------------------------------	---	---------------------------------	-----------------------------------	---------------------------------------	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)



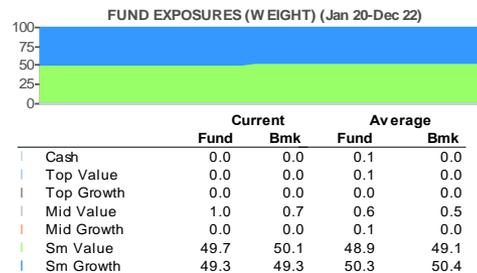
## Sector Breakdown

Sensitive	
Communication Services	2.58%
Industrials	14.83%
Technology	13.62%
Energy	6.71%
Cyclical	
Basic Materials	4.26%
Consumer Cyclical	10.35%
Real Estate	7.72%
Financial Services	15.99%
Defensive	
Consumer Defensive	4.25%
Healthcare	16.21%
Utilities	3.49%

## TOP 10 HOLDINGS

BlackRock Cash Funds Treasury SL Agency	0.54%
ShockWave Medical Inc	0.37%
iShares Russell 2000 ETF	0.35%
Halozyne Therapeutics Inc	0.32%
EMCOR Group Inc	0.31%
Matador Resources Co	0.30%
Karuna Therapeutics Inc	0.29%
Murphy Oil Corp	0.28%
Inspire Medical Systems Inc	0.28%
Iridium Communications Inc	0.27%
<b>Total:</b>	<b>3.31%</b>

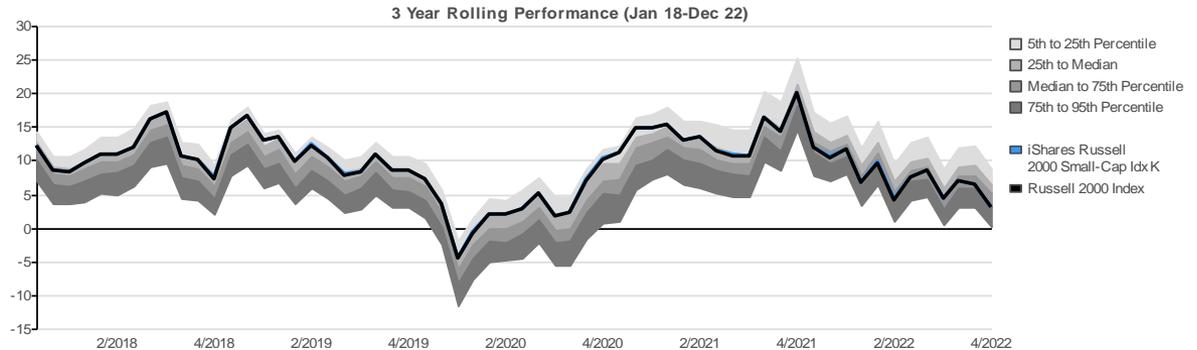
## ASSET LOADINGS (Returns-based)



## INVESTMENT OVERVIEW

The investment seeks to match the performance of the Russell 2000® Index as closely as possible before the deduction of fund expenses. The fund is a "feeder" fund that invests all of its assets in the Series, a series of the Master LLC, which has the same investment objective and strategies as the fund. It will be substantially invested in securities in the Russell 2000, and will invest, under normal circumstances, at least 80% of its assets in securities or other financial instruments that are components of or have economic characteristics similar to the securities included in the Russell 2000.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI	
Fund	6.31	-20.33	-20.33 / 82	3.15 / 74	4.19 / 64	7.96 / 53	9.08 / 52	7.95	
Benchmark	6.23	-20.44	-20.44 / 85	3.10 / 75	4.13 / 66	7.90 / 55	9.01 / 55		
Peer Group Median	8.98	-16.64	-16.64 / 50	5.04 / 50	4.88 / 50	8.07 / 50	9.12 / 50		
Number of Funds			614	596	576	545	471		
CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-20.33	14.78	20.00	25.62	-10.93	14.69	21.40	-4.41	4.86
Benchmark	-20.44	14.82	19.96	25.52	-11.01	14.65	21.31	-4.41	4.89
Peer Group Median	-16.64	23.19	12.15	24.45	-12.12	13.08	20.65	-4.41	4.95

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.05	0.00	2.00
Beta	1.00	1.00	0.96
R-Squared	100.00	100.00	95.22
Sharpe Ratio	0.22	0.22	0.29
Up Market Capture	99.98	100.00	99.97
Down Market Capture	99.86	100.00	95.81
5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.06	0.00	0.87
Beta	1.00	1.00	0.97
R-Squared	100.00	100.00	95.75
Sharpe Ratio	0.24	0.24	0.27
Up Market Capture	100.12	100.00	98.37
Down Market Capture	99.91	100.00	97.58

## NOTES

<b>Fund Incep Date:</b> 03/31/2011	<b>Benchmark:</b> MSCI EAFE	<b>Category:</b> Foreign Large Blend	<b>Net Assets:</b> \$7,771.00M	<b>Manager Name:</b> Jennifer Hsui	<b>Manager Start Date:</b> 04/08/2016	<b>Expense Ratio:</b> 0.04%	<b>Expense Rank:</b> 2
---------------------------------------	--------------------------------	---	-----------------------------------	---------------------------------------	--	--------------------------------	---------------------------

### PORTFOLIO COMPOSITION (Holdings-based)



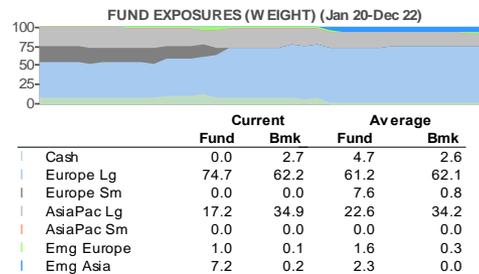
### Sector Breakdown

<b>Sensitive</b>	
Communication Services	5.17%
Industrials	14.76%
Technology	8.11%
Energy	5.07%
<b>Cyclical</b>	
Basic Materials	7.52%
Consumer Cyclical	10.46%
Real Estate	2.91%
Financial Services	17.65%
<b>Defensive</b>	
Consumer Defensive	11.22%
Healthcare	13.95%
Utilities	3.18%

### TOP 10 HOLDINGS

Nestle SA	2.46%
Roche Holding AG	1.85%
Shell PLC	1.49%
AstraZeneca PLC	1.38%
ASML Holding NV	1.36%
Novo Nordisk A/S Class B	1.33%
Novartis AG	1.33%
LVMH Moet Hennessy Louis Vuitton SE	1.32%
Toyota Motor Corp	1.12%
BHP Group Ltd	1.02%
<b>Total:</b>	<b>14.67%</b>

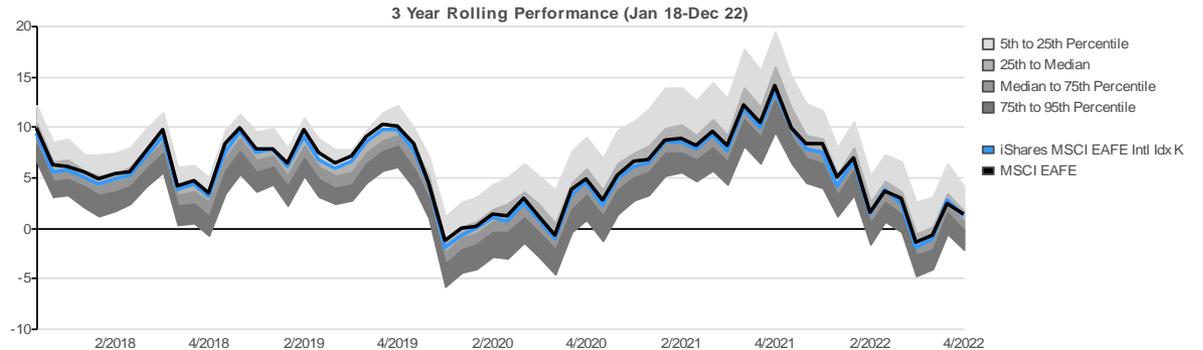
### ASSET LOADINGS (Returns-based)



### INVESTMENT OVERVIEW

The investment seeks to match the performance of the MSCI EAFE Index (Europe, Australasia, Far East) in U.S. dollars with net dividends as closely as possible before the deduction of fund expenses. The fund will be substantially invested in securities in the MSCI EAFE Index, and will invest at least 80% of its assets in securities or other financial instruments that are components of or have economic characteristics similar to the securities included in the MSCI EAFE Index.

### PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	18.23	-14.07	-14.07 / 23	1.12 / 36	1.79 / 29	4.73 / 38	4.58 / 34	3.92
Benchmark	17.40	-14.01	-14.01 / 23	1.34 / 31	2.03 / 21	5.03 / 25	5.16 / 15	
Peer Group Median	16.76	-15.79	-15.79 / 50	0.63 / 50	1.21 / 50	4.41 / 50	4.24 / 50	
Number of Funds			748	718	662	627	538	

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-14.07	11.33	8.07	21.94	-13.33	25.17	1.03	-0.81	-6.12
Benchmark	-14.01	11.78	8.28	22.66	-13.36	25.62	1.51	-0.39	-4.48
Peer Group Median	-15.79	10.21	9.49	22.01	-15.07	25.47	0.69	-0.99	-5.34

### RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
<b>3 Yr</b>			
Alpha	-0.14	0.00	-0.56
Beta	1.03	1.00	1.00
R-Squared	98.28	100.00	94.24
Sharpe Ratio	0.12	0.13	0.10
Up Market Capture	102.62	100.00	98.57
Down Market Capture	102.80	100.00	101.53
<b>5 Yr</b>			
Alpha	-0.20	0.00	-0.73
Beta	1.03	1.00	1.00
R-Squared	98.38	100.00	94.20
Sharpe Ratio	0.12	0.13	0.09
Up Market Capture	101.43	100.00	98.18
Down Market Capture	102.18	100.00	101.33

### NOTES

# American Funds Europacific Growth R6 RERGX

12/30/2022

<b>Fund Incep Date:</b> 05/01/2009	<b>Benchmark:</b> MSCI ACWI ex USA GDP NR USD	<b>Category:</b> Foreign Large Growth	<b>Net Assets:</b> \$130,762.00M	<b>Manager Name:</b> Carl M. Kawaja	<b>Manager Start Date:</b> 06/01/2001	<b>Expense Ratio:</b> 0.46%	<b>Expense Rank:</b> 5
---------------------------------------	--	--	-------------------------------------	--	--	--------------------------------	---------------------------

## PORTFOLIO COMPOSITION (Holdings-based)

### Assets



### Sector Breakdown

#### Sensitive

Communication Services	2.95%
Industrials	12.96%
Technology	15.75%
Energy	9.93%

#### Cyclical

Basic Materials	8.03%
Consumer Cyclical	12.70%
Real Estate	0.67%
Financial Services	13.22%

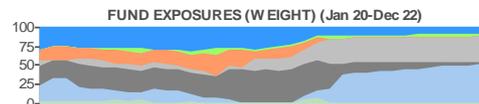
#### Defensive

Consumer Defensive	7.43%
Healthcare	15.08%
Utilities	1.28%

### TOP 10 HOLDINGS

Reliance Industries Ltd	3.12%
Novo Nordisk A/S Class B	2.92%
LVMH Moet Hennessy Louis Vuitton SE	2.46%
ASML Holding NV	2.37%
Daiichi Sankyo Co Ltd	2.20%
Taiwan Semiconductor Manufacturing Co Ltd	1.95%
Canadian Natural Resources Ltd	1.92%
Airbus SE	1.68%
AIA Group Ltd	1.68%
Kotak Mahindra Bank Ltd	1.47%
<b>Total:</b>	<b>21.79%</b>

### ASSET LOADINGS (Returns-based)

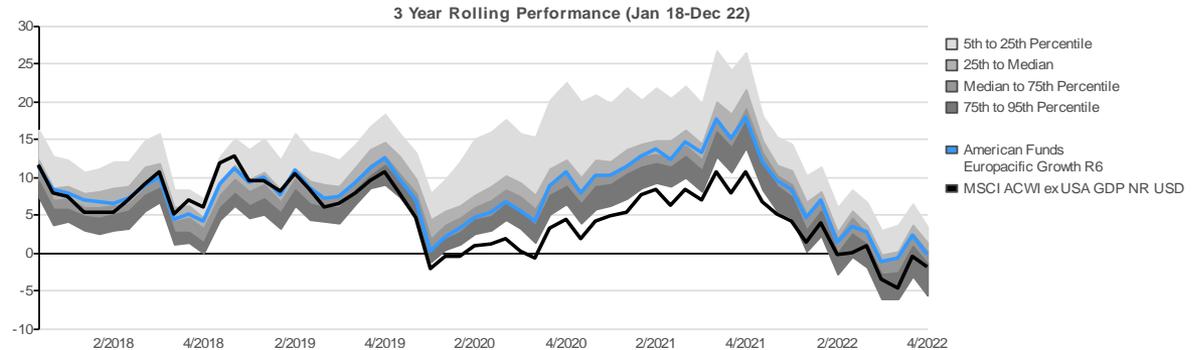


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.7	1.1	0.3
Europe Lg	50.8	38.1	22.6	33.9
Europe Sm	2.6	0.0	24.6	2.5
AsiaPac Lg	33.8	6.2	17.5	9.0
AsiaPac Sm	0.0	0.0	10.2	0.0
Emg Europe	3.0	1.7	2.8	6.9
Emg Asia	9.7	53.3	21.2	47.5

## INVESTMENT OVERVIEW

The investment seeks long-term growth of capital. The fund invests primarily in common stocks of issuers in Europe and the Pacific Basin that the investment adviser believes have the potential for growth. Growth stocks are stocks that the investment adviser believes have the potential for above-average capital appreciation. It normally will invest at least 80% of its net assets in securities of issuers in Europe and the Pacific Basin. The fund may invest a portion of its assets in common stocks and other securities of companies in emerging markets.

## PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	13.78	-22.72	-22.72 / 32	-0.15 / 55	1.54 / 58	5.24 / 40	5.30 / 37	7.25
Benchmark	15.20	-16.14	-16.14 / 6	-1.88 / 79	-0.61 / 94	4.45 / 61	3.01 / 99	
Peer Group Median	13.78	-24.90	-24.90 / 50	0.14 / 50	1.80 / 50	4.87 / 50	4.93 / 50	
Number of Funds			446	411	395	358	328	

CALENDAR	2022	2021	2020	2019	2018	2017	2016	2015	2014
Fund	-22.72	2.84	25.27	27.40	-14.91	31.17	1.01	-0.48	-2.29
Benchmark	-16.14	1.89	10.58	20.09	-14.51	31.95	5.95	-7.66	-3.48
Peer Group Median	-24.90	8.68	22.17	27.95	-14.40	30.86	-2.30	0.46	-4.16

## RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	2.02	0.00	2.26
Beta	1.00	1.00	0.95
R-Squared	88.45	100.00	76.53
Sharpe Ratio	0.06	-0.03	0.08
Up Market Capture	101.07	100.00	97.17
Down Market Capture	94.90	100.00	91.25

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	2.26	0.00	2.57
Beta	0.98	1.00	0.92
R-Squared	89.66	100.00	77.15
Sharpe Ratio	0.11	-0.01	0.12
Up Market Capture	100.26	100.00	94.79
Down Market Capture	92.14	100.00	86.62

## NOTES

# Capital Markets Overview

Fourth Quarter 2022

Circulation, disclosure, or dissemination of all or any part of this material to any unauthorized persons is prohibited. This material is being offered as informational and educational material provided to a Plan Sponsor or a Representative, duly authorized and acting on behalf of a Plan Sponsor, to assist the Plan Sponsor in understanding the general investment environment. This document is not intended as a recommendation, solicitation or offering of any particular securities.

The purpose of this document is to provide investment-related information only for the benefit of the Plan Sponsor in its role as a fiduciary to the plan, not as investment advice for plans or plan participants. Although we believe the data contained in this report is generally from reliable sources, we cannot guarantee its completeness or accuracy. Economic data and information are derived from a variety of financial publications and economic reporting companies. All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed.

Plan fiduciaries should review the educational material provided and consult with their investment advisers if necessary to make investment decisions as the information provided herein is not legal, ERISA, or tax advice. Any discussion of these matters included or related to this document or other educational information is provided for informational purposes only. Such discussion does not purport to be complete or to cover every situation. Current tax and ERISA law are subject to interpretation and legislative change. The appropriateness of any product for any specific taxpayer may vary depending on the particular set of facts and circumstances. You should consult with and rely on your own legal and tax advisers.



# Macroeconomic Summary

The overall macroeconomic backdrop deteriorated further in the fourth quarter amid high inflation and aggressive central bank actions

- Central Banks continue raising rates to ward off inflation as well as a very strong US Dollar despite **growth trajectories having been impacted negatively**
- Geopolitical risks remain due to the ongoing conflict in Ukraine; however, the primary cause of market turmoil remains aggressive Central Bank policy responses **not seen in nearly four decades**
- A theme heading into 2023 will be a **shift from inflation fears to growth concerns** as policy responses begin to take effect
- Both the IMF and World Bank are forecasting a **significant chance of global recession in 2023**

The Fed continues its focus on tackling inflation at the expense of slowing growth and increasing unemployment

- Rate hikes declined from 75 bps to 50 bps at the December FOMC meeting, however, the **pace of Fed tightening remains the highest in decades**
- GDP growth was positive in Q3 and is expected to be positive in Q4, though economic data has **revealed slowing momentum going forward**
- Recession odds remain elevated and **leading economic indicators are now down 4.5% year-over-year**
- While inflation levels have declined, **higher prices remain broad-based and well-entrenched**
- Corporate earnings and consumer spending, both supporting growth, are **expected to deteriorate given the monetary policy and macro environment**

# Market Summary

## US Markets

- Capital market performance ended the year as **one of the worst in decades** with **both equities and bonds down together for just the third time since 1926**
- Equities ended the year close to bear market levels and fixed income total returns were deeply negative across all sectors
- The Bloomberg Aggregate Bond Index **set a record by ending the year down 13%**
- The majority of underperformance for fixed income markets is attributable to the **massive increase in interest rates** and most yield curves in the U.S. are now inverted as the Fed looks to combat inflation
- **Corporate earnings remain healthy**; however, forward guidance is expected to be more conservative as companies are experiencing higher costs
- **Earnings growth will be under pressure** and could be the catalyst for wider spreads moving forward

## Global Markets

- **Similar trends existed in global markets** with the EAFE (“developed markets”) and EM (“emerging markets”) indices both **down for the year**
- **The MSCI ACWI is saw its worst performance since the 2008 financial crisis**
- Global Bonds also continued to sell off sharply amid elevated inflation data, hawkish central banks, and rising interest rates
- Like in the US, inflation concerns will eventually give way to growth and recession worries and the **odds of a global slowdown have increased**

# State of the U.S. Economy

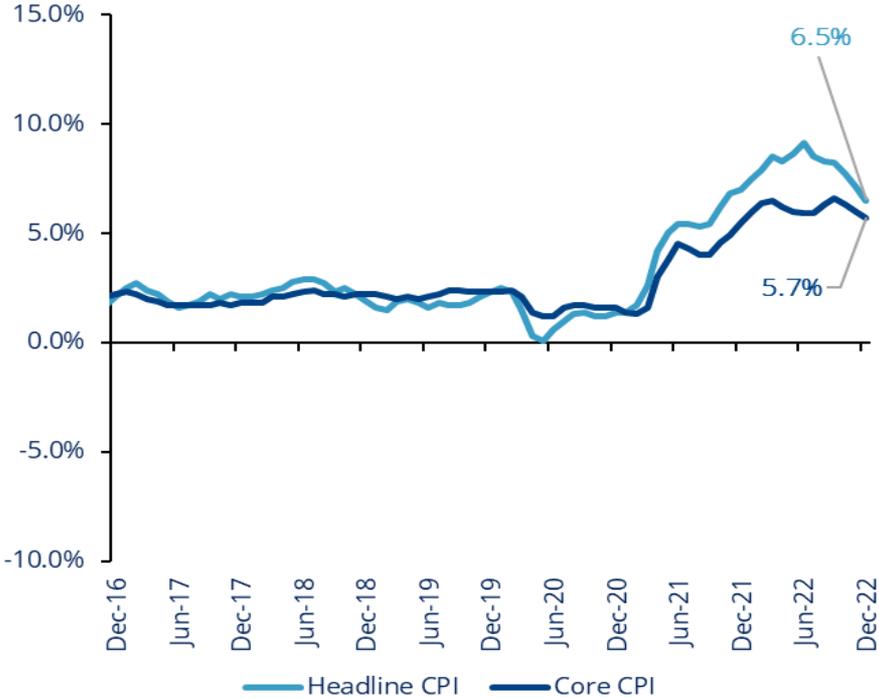
## Real GDP Growth

quarter over quarter annualized, through September 2022



## US Consumer Price Index

annual percent change, through December 2022

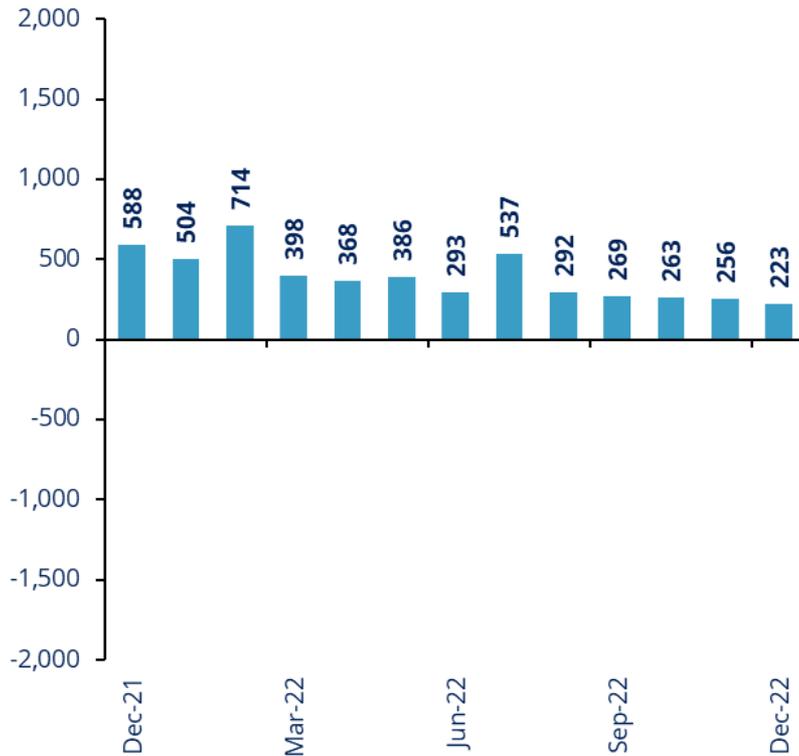


Source: Bloomberg; ECM Analysis  
 The core measure of inflation excludes food and energy prices while the headline measure of inflation does not  
 GDP estimates presented reflect the median estimate provided by Bloomberg  
 FOR FINANCIAL PROFESSIONAL USE ONLY.

# U.S. Labor Market Trends

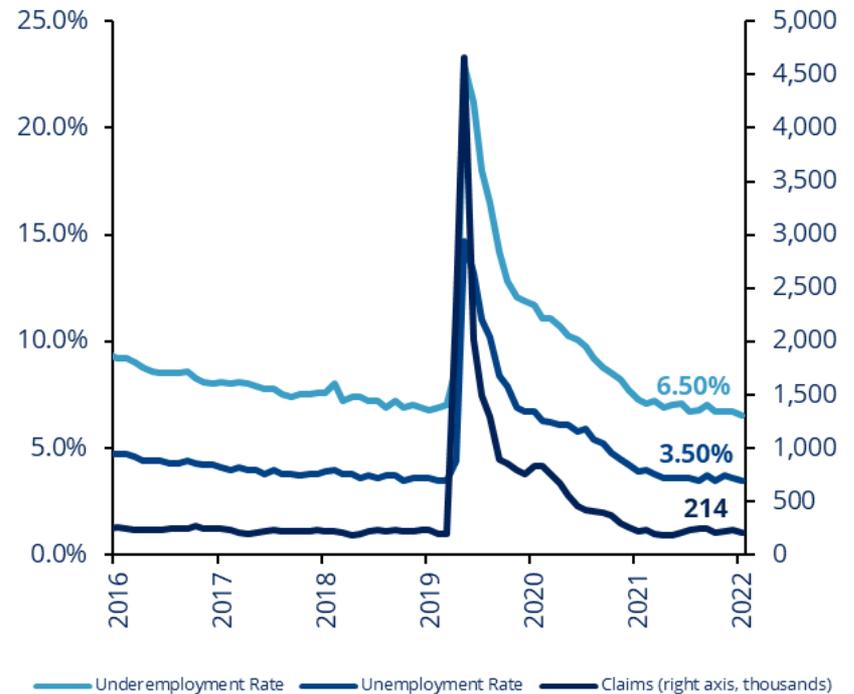
## Number of Jobs Created Per Month

thousands, through December 2022



## Unemployment and Underemployment Rates and Claims

through December 2022



Source: Bloomberg; Bureau of Labor Statistics; ECM Analysis

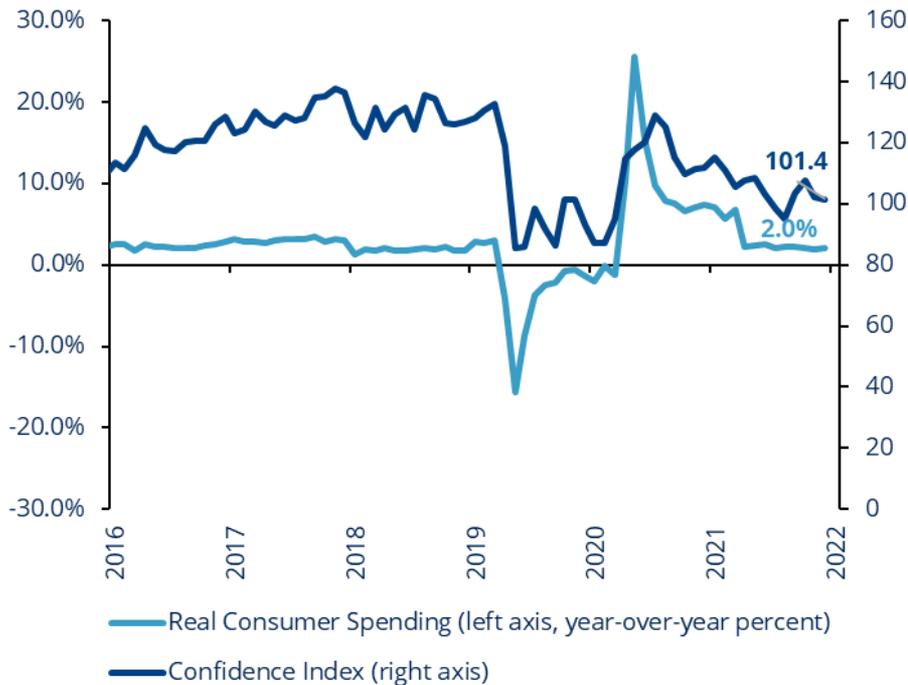
The Unemployment Rate represents total unemployed, as a percent of the civilian labor force

The Underemployment Rate represents total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers

FOR FINANCIAL PROFESSIONAL USE ONLY.

# U.S. Consumer Confidence, Spending and Net Worth

Consumer Confidence and Spending through December 2022

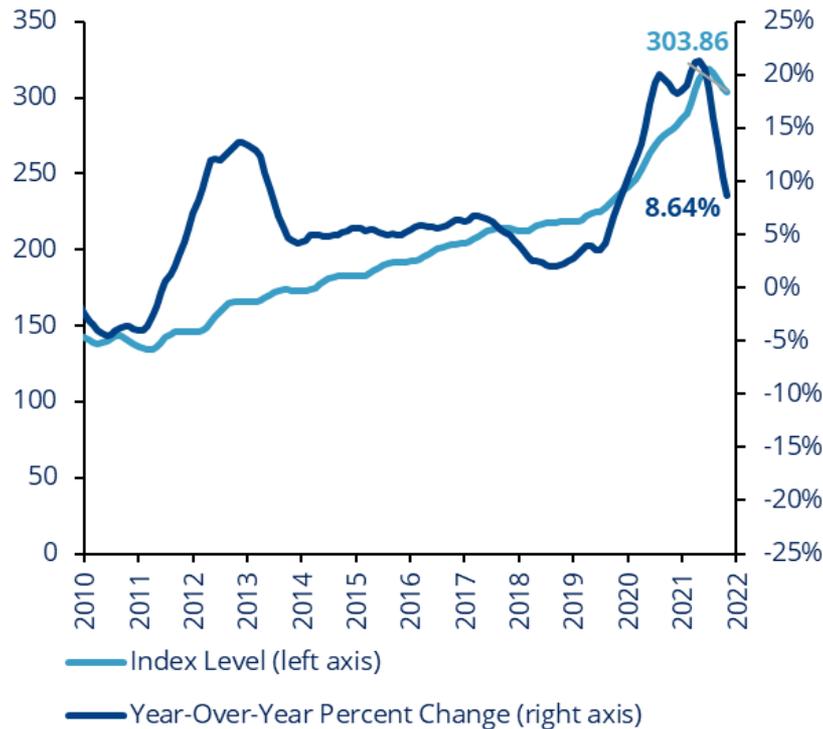


Consumer Net Worth through September 2022



# U.S Housing Market Trends

Case Shiller 20 City Home Price Index  
through October 2022



Housing Supply and Demand  
through November 2022



# Energy Inflation and Oil

## Energy Inflation

year-over-year percent change, through December 2022



## Oil Price

\$/Barrel, through December 2022

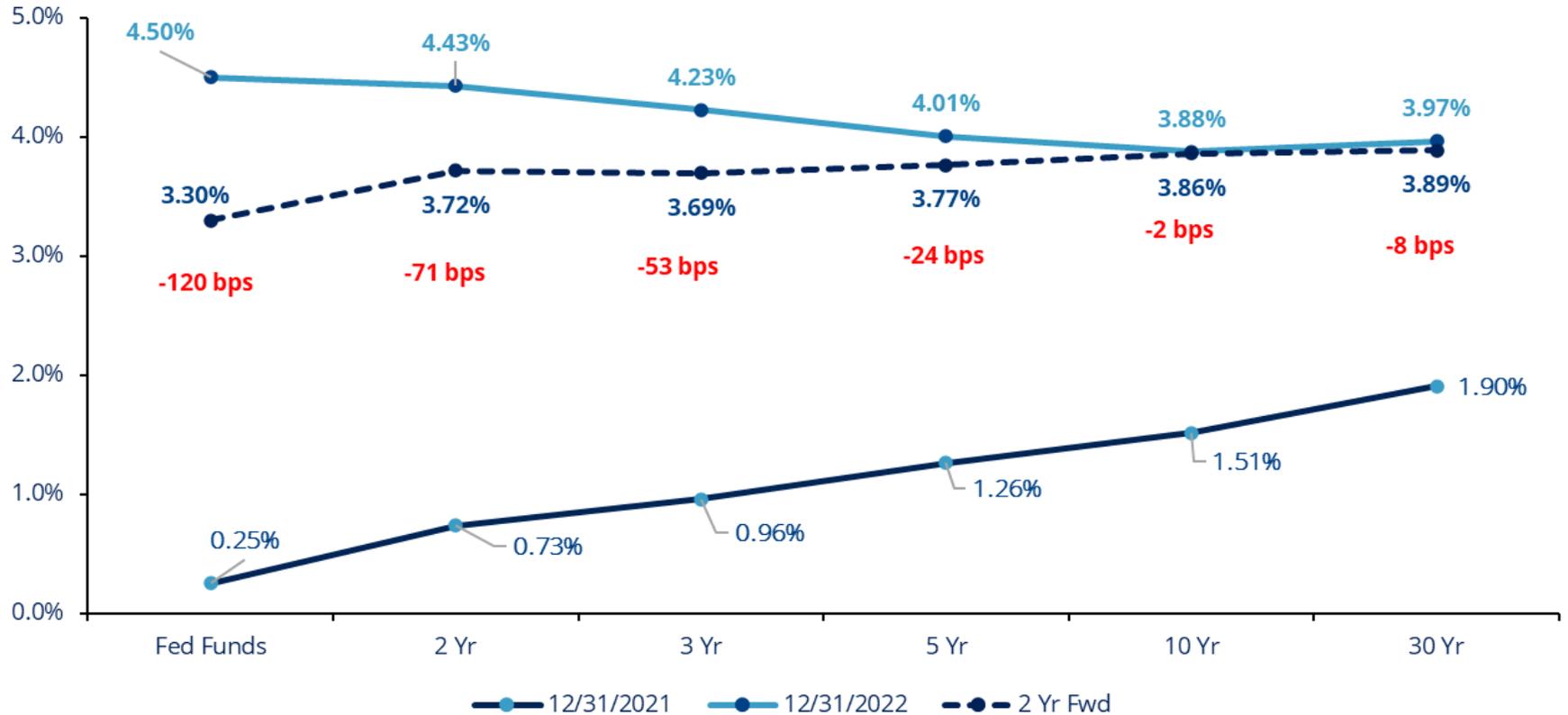


Source: Bloomberg; ECM Analysis  
Oil prices shown for West Texas Intermediate (WTI) Crude  
FOR FINANCIAL PROFESSIONAL USE ONLY.

# Historical, Current and Forward Rates

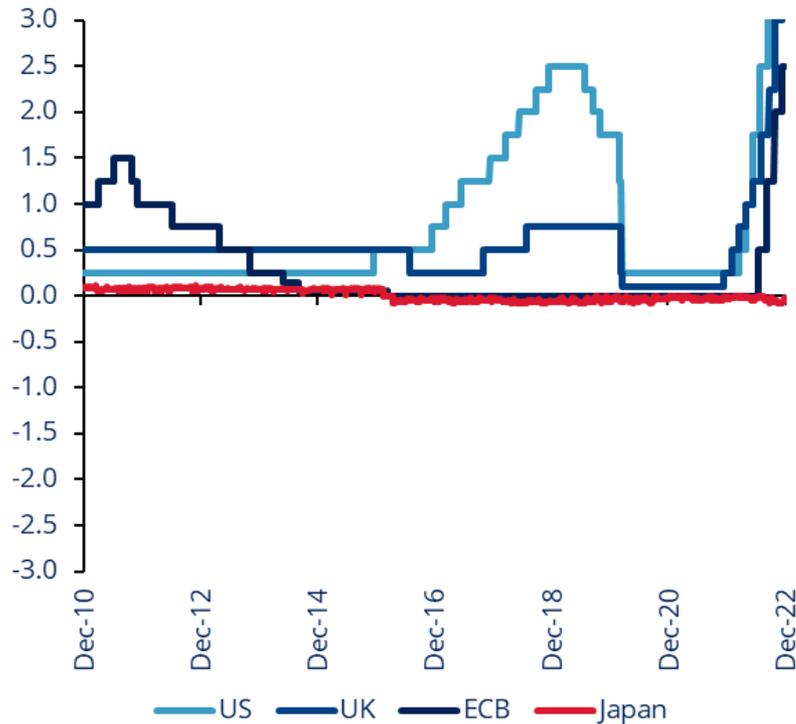
## U.S. Yield Curve

red represents projected change from current to two years forward

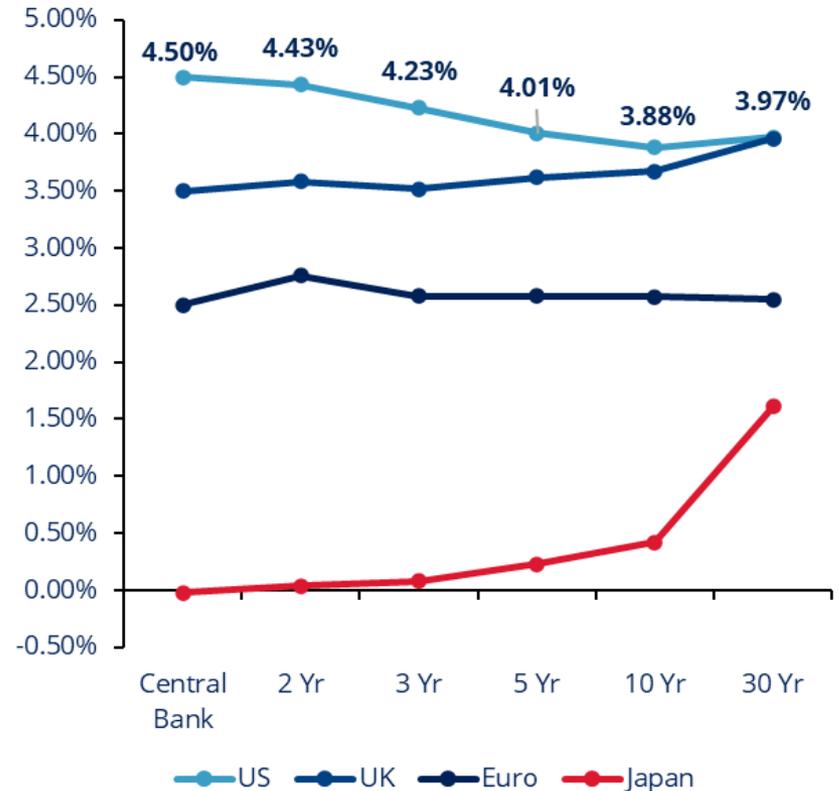


# Global Monetary Policies and Interest Rates

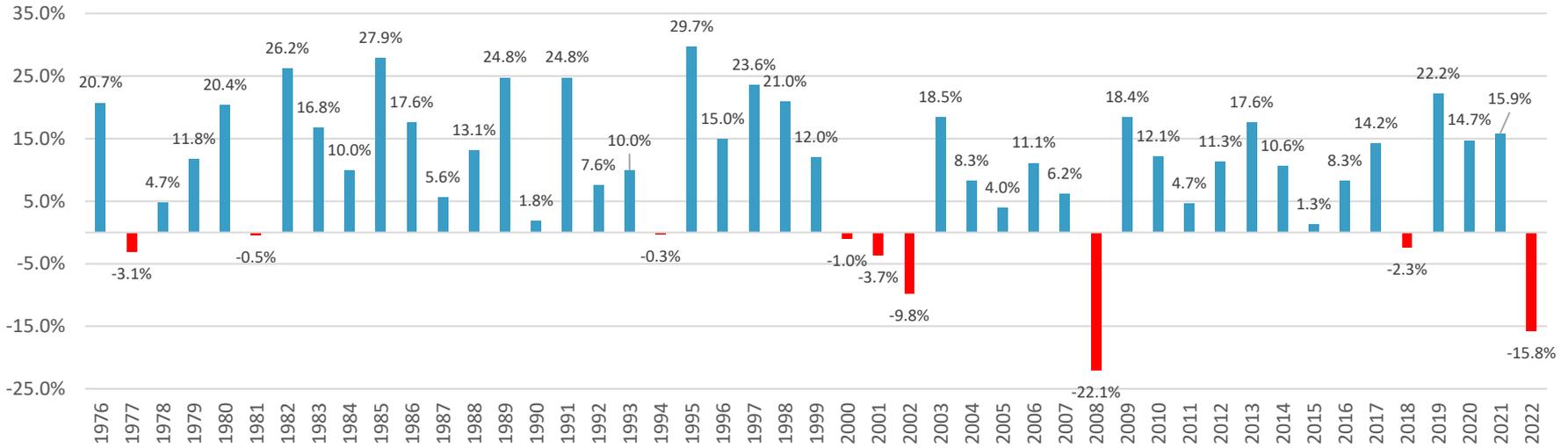
Global Central Bank Rates  
through December 2022



Sovereign Yield Curve  
as of December 2022



# 2022 was a difficult, but rare year for a 60/40 portfolio



In the past 47 years (incl. 2022), the 60/40 portfolio experienced negative returns nine times (19% of total opportunities)

- In this time period, 2022 was the only year in which bonds and equity were both negative
- Since 1926, domestic equity and fixed income markets both posted negative returns in the same calendar year only 2% of the time\*

Over the long term, the 60/40 portfolio has delivered attractive risk-adjusted performance

- Since 1976, the 60/40 portfolio has delivered 85% of the equity market performance with 65% of the risk
- On a risk-adjusted basis, the Sharpe ratio of the 60/40 portfolio is 10% better than an equity only portfolio

1/1/1976 - 12/31/22	Annualized Return	Standard Deviation	Sharpe Ratio
60/40 Portfolio	9.75%	9.80	0.55
Bloomberg US Agg Bond TR USD	6.64%	5.34	0.41
S&P 500 TR USD	11.37%	15.16	0.50

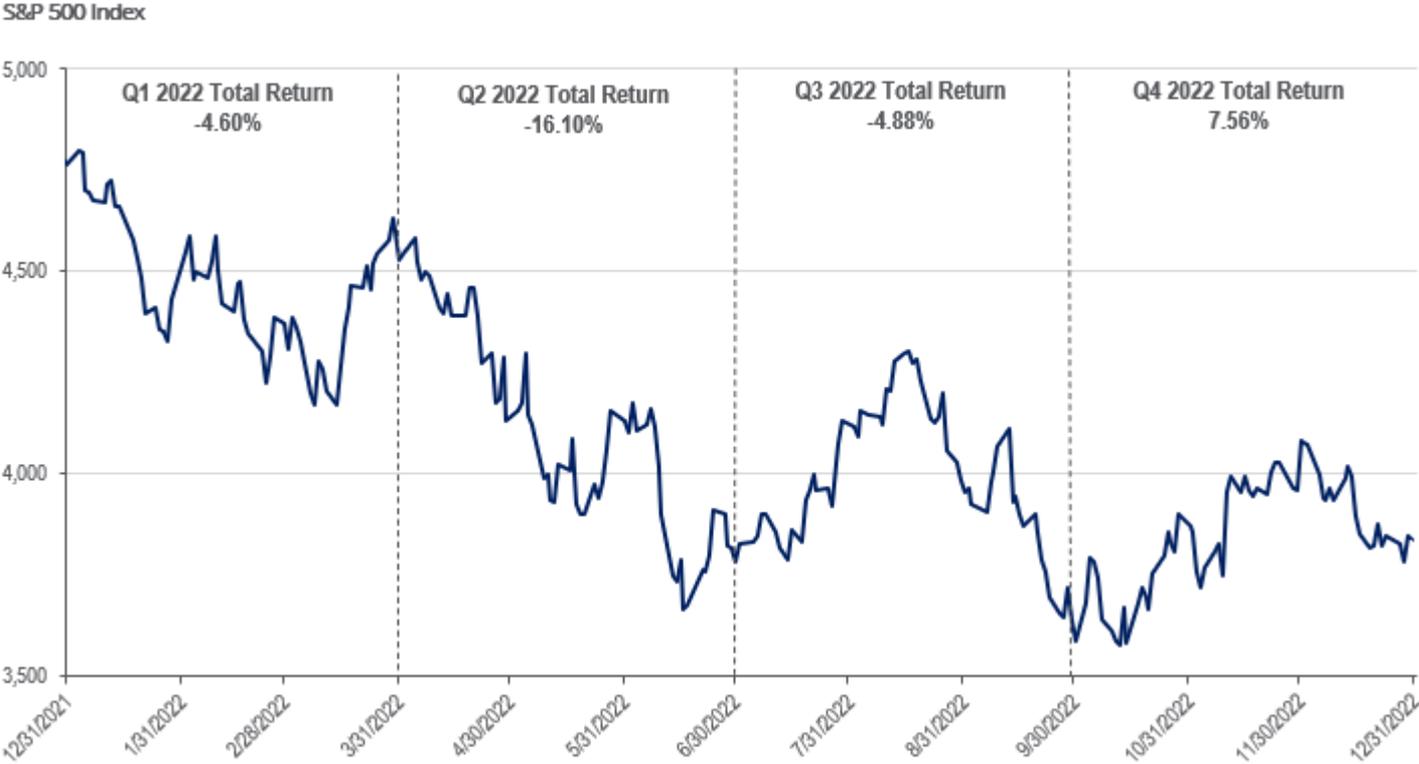
Data: Morningstar Direct. Empower Investments Analysis, Goldman Sachs Investment Strategy Group. Returns are based on portfolio allocation 60% to the S&P 500 and 40% to the Bloomberg US Aggregate Bond Index, rebalanced monthly

\*Based on rolling 12-month periods. US Intermediate bonds are modeled using Bloomberg Barclays US Intermediate Treasury (with Ibbotson backfill). US Equity is modeled by S&P 500

FOR FINANCIAL PROFESSIONAL USE ONLY.



# The S&P<sup>®</sup> ended the quarter in positive territory, however, the index ended the year down nearly 20%

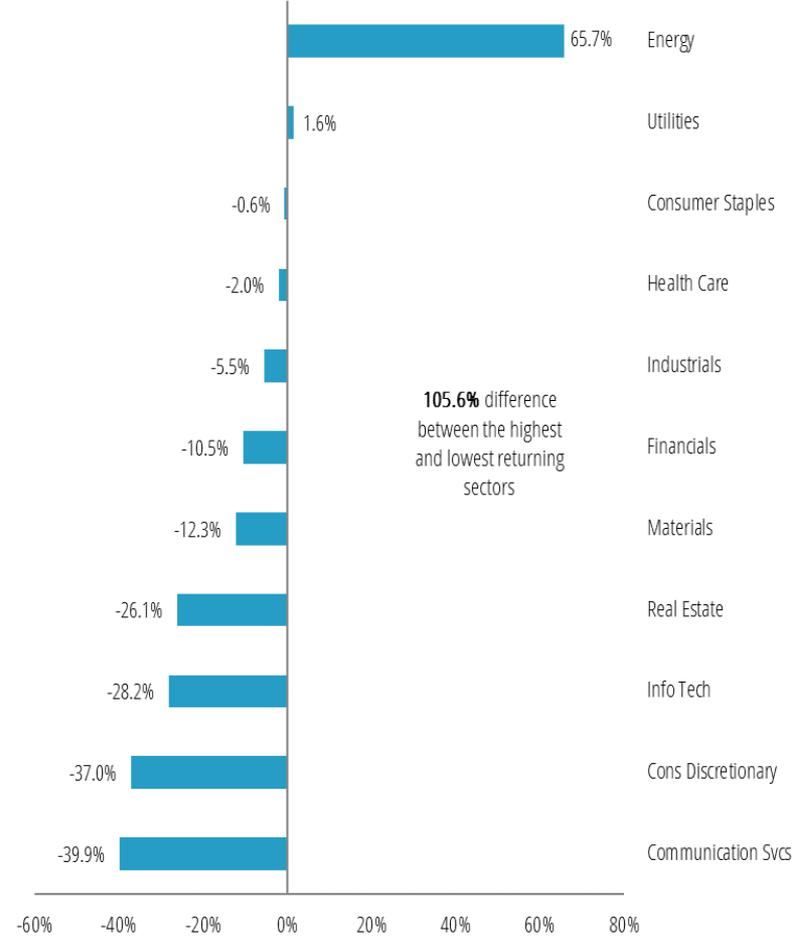
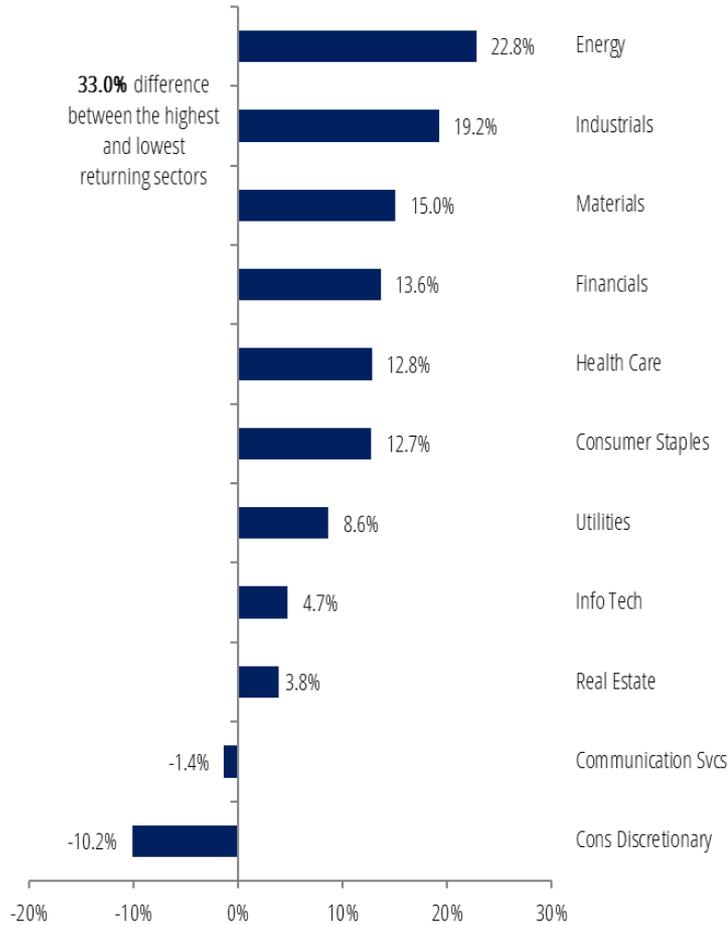


Source: Morningstar Direct; Empower Investments Analysis  
FOR FINANCIAL PROFESSIONAL USE ONLY.

# S&P<sup>®</sup> 500 Sector Returns

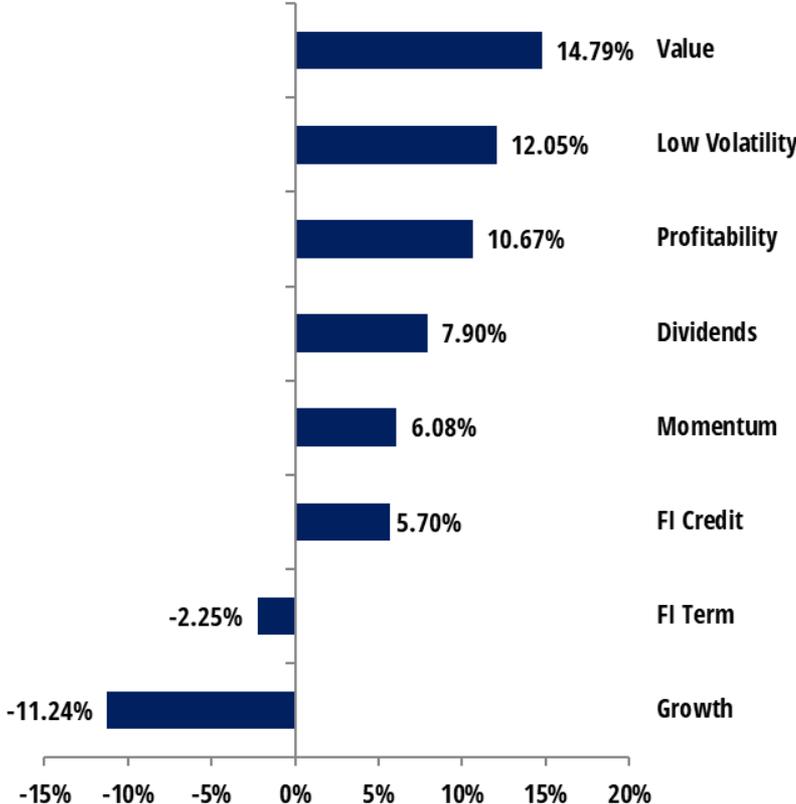
QTD Returns  
as of December 31, 2022

1 Year Trailing Returns  
as of December 31, 2022

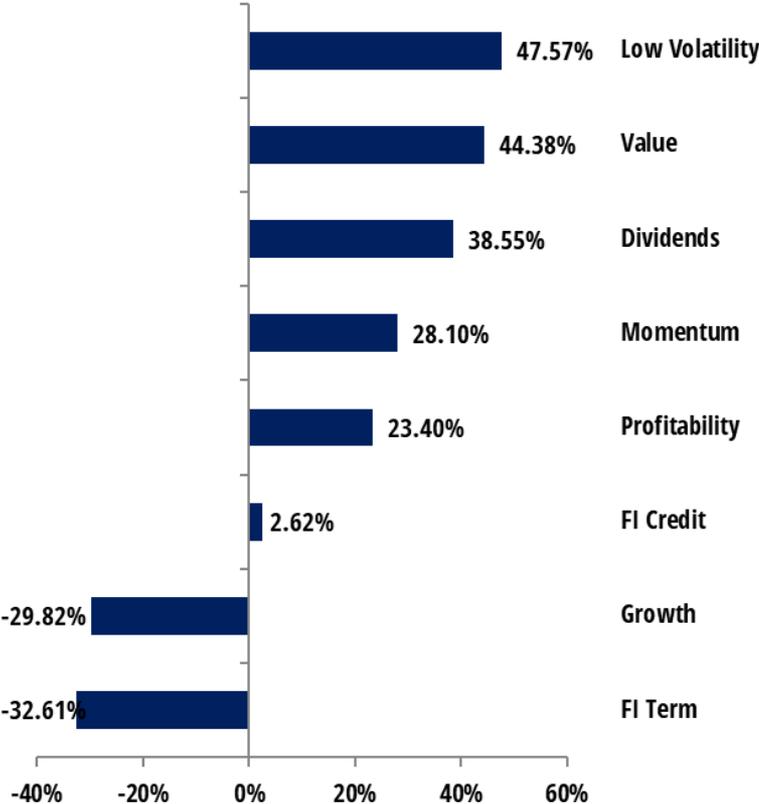


# Style Factor Performance

**QTD Returns**  
as of December 31, 2022



**1-Year Returns**  
as of December 31, 2022



Source: Bloomberg; Empower Investments Analysis. Factor definitions included in the disclosures.

FOR FINANCIAL PROFESSIONAL USE ONLY.



# Equity Market Returns

(as of December 31, 2022)

		QTD	YTD	1 Year Trailing	3 Year Trailing	5 Year Trailing	10 Year Trailing	2022	2021	2020	2019	2018	2017	2016
<b>Domestic Equity</b>														
Large Cap	S&P 500	7.6%	-18.1%	-18.1%	7.7%	9.4%	12.6%	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	12.0%
	Russell 1000 Value	12.4%	-7.5%	-7.5%	6.0%	6.7%	10.3%	-7.5%	25.2%	2.8%	26.5%	-8.3%	13.7%	17.3%
	Russell 1000 Growth	2.2%	-29.1%	-29.1%	7.8%	11.0%	14.1%	-29.1%	27.6%	38.5%	36.4%	-1.5%	30.2%	7.1%
Mid Cap	Russell Mid Cap	9.2%	-17.3%	-17.3%	5.9%	7.1%	11.0%	-17.3%	22.6%	17.1%	30.5%	-9.1%	18.5%	13.8%
	Russell Mid Cap Value	10.5%	-12.0%	-12.0%	5.8%	5.7%	10.1%	-12.0%	28.3%	5.0%	27.1%	-12.3%	13.3%	20.0%
	Russell Mid Cap Growth	6.9%	-26.7%	-26.7%	3.9%	7.6%	11.4%	-26.7%	12.7%	35.6%	35.5%	-4.8%	25.3%	7.3%
Small Cap	Russell 2000	6.2%	-20.4%	-20.4%	3.1%	4.1%	9.0%	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%
	Russell 2000 Value	8.4%	-14.5%	-14.5%	4.7%	4.1%	8.5%	-14.5%	28.3%	4.6%	22.4%	-12.9%	7.8%	31.7%
	Russell 2000 Growth	4.1%	-26.4%	-26.4%	0.6%	3.5%	9.2%	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%
<b>International Equity</b>														
Developed Markets	MSCI EAFE	17.3%	-14.5%	-14.5%	0.9%	1.5%	4.7%	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	1.0%
	Australia	15.7%	-5.3%	-5.3%	4.1%	4.0%	4.0%	-5.3%	9.4%	8.7%	22.9%	-12.0%	19.9%	11.4%
	Canada	7.4%	-12.9%	-12.9%	5.0%	4.1%	3.7%	-12.9%	26.0%	5.3%	27.5%	-17.2%	16.1%	24.6%
	France	22.2%	-13.3%	-13.3%	2.5%	3.4%	6.1%	-13.3%	19.5%	4.1%	25.7%	-12.8%	28.7%	4.9%
	Germany	24.6%	-22.3%	-22.3%	-3.0%	-3.0%	2.7%	-22.3%	5.3%	11.5%	20.8%	-22.2%	27.7%	2.8%
	Japan	13.2%	-16.6%	-16.6%	-1.0%	0.2%	5.6%	-16.6%	1.7%	14.5%	19.6%	-12.9%	24.0%	2.4%
	Switzerland	10.4%	-18.3%	-18.3%	2.8%	5.5%	6.8%	-18.3%	19.3%	11.6%	32.3%	-9.1%	22.5%	-4.9%
	UK	17.0%	-4.8%	-4.8%	0.3%	1.0%	3.1%	-4.8%	18.5%	-10.5%	21.0%	-14.2%	22.3%	-0.1%
Emerging Markets	MSCI Emerging Markets	9.7%	-20.1%	-20.1%	-2.7%	-1.4%	1.4%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%
	Brazil	2.4%	14.2%	14.2%	-8.6%	-0.8%	-1.8%	14.2%	-17.4%	-19.0%	26.3%	-0.5%	24.1%	66.2%
	China	13.5%	-21.9%	-21.9%	-7.5%	-4.5%	2.4%	-21.9%	-21.7%	29.5%	23.5%	-18.9%	54.1%	0.9%
	India	2.0%	-8.0%	-8.0%	10.3%	6.0%	7.4%	-8.0%	26.2%	15.6%	7.6%	-7.3%	38.8%	-1.4%
	Indonesia	-3.6%	3.6%	3.6%	-0.9%	-0.8%	0.9%	3.6%	2.1%	-8.1%	9.1%	-9.2%	24.2%	17.0%
	Korea	18.1%	-29.4%	-29.4%	-2.2%	-3.6%	1.4%	-29.4%	-8.4%	44.6%	12.5%	-20.9%	47.3%	8.7%
	Mexico	12.5%	-2.0%	-2.0%	5.6%	2.1%	-1.0%	-2.0%	22.5%	-1.9%	11.4%	-15.5%	16.0%	-9.2%
	Russia	0.0%	-100.0%	-100.0%	-99.0%	-93.0%	-73.8%	-100.0%	19.0%	-12.5%	50.9%	-0.4%	5.2%	54.8%

Source: Morningstar Direct; Empower Investments Analysis Individual country returns are represented by MSCI indices and shown as USD returns

\*Canada is not part of the EAFE Index

Past performance is not a guarantee or prediction of future results.

FOR FINANCIAL PROFESSIONAL USE ONLY.



# Returns by Style

## 3 Months

	Value	Blend	Growth
Large	12.4%	7.6%	2.2%
Mid	10.5%	9.2%	6.9%
Small	8.4%	6.2%	4.1%

## 1 Year

	Value	Blend	Growth
Large	-7.5%	-18.1%	-29.1%
Mid	-12.0%	-17.3%	-26.7%
Small	-14.5%	-20.4%	-26.4%

## Since Pre-Covid Market Peak (February, 2020)

	Value	Blend	Growth
Large	17.9%	19.3%	15.4%
Mid	16.6%	14.7%	5.4%
Small	17.7%	8.5%	-2.3%

## 3 Year

	Value	Blend	Growth
Large	6.0%	7.7%	7.8%
Mid	5.8%	5.9%	3.9%
Small	4.7%	3.1%	0.6%

## 5 Year

	Value	Blend	Growth
Large	6.7%	9.4%	11.0%
Mid	5.7%	7.1%	7.6%
Small	4.1%	4.1%	3.5%

## Since Covid Market Low (March, 2020)

	Value	Blend	Growth
Large	82.1%	74.1%	64.1%
Mid	97.4%	85.3%	59.7%
Small	100.8%	79.8%	57.8%

performance as of December 31, 2022

Source: Morningstar Direct; Empower Investments Analysis; Large Blend – S&P 500 Index, Large Value – Russell 1000 Value Index, Large Growth – Russell 1000 Growth Index, Mid Blend – Russell Mid Cap Index, Mid Value – Russell Mid Cap Value Index, Mid Growth – Russell Mid Cap Growth Index, Small Blend – Russell 2000 Index, Small Value – Russell 2000 Value Index, Small Growth – Russell 2000 Growth Index

FOR FINANCIAL PROFESSIONAL USE ONLY.

# Fixed Income and Specialty Returns

(as of December 31, 2022)

	QTD	YTD	1 Year Trailing	3 Year Trailing	5 Year Trailing	10 Year Trailing	2022	2021	2020	2019	2018	2017	2016
<b>Fixed Income</b>													
Bloomberg Barclays US Aggregate	1.9%	-13.0%	-13.0%	-2.7%	0.0%	1.1%	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%
Bloomberg Barclays US Treasury	0.7%	-12.5%	-12.5%	-2.6%	-0.1%	0.6%	-12.5%	-2.3%	8.0%	6.9%	0.9%	2.3%	1.0%
Bloomberg Barclays US Govt/Credit Intermediate	1.5%	-8.2%	-8.2%	-1.3%	0.7%	1.1%	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.1%	2.1%
Bloomberg Barclays US Govt/Credit Long	2.6%	-27.1%	-27.1%	-6.2%	-1.2%	1.6%	-27.1%	-2.5%	16.1%	19.6%	-4.7%	10.7%	6.7%
Bloomberg Barclays US TIPS	2.0%	-11.8%	-11.8%	1.2%	2.1%	1.1%	-11.8%	6.0%	11.0%	8.4%	-1.3%	3.0%	4.7%
Bloomberg Barclays US Corporate High Yield	4.2%	-11.2%	-11.2%	0.0%	2.3%	4.0%	-11.2%	5.3%	7.1%	14.3%	-2.1%	7.5%	17.1%
FTSE WGBI	3.8%	-18.3%	-18.3%	-5.7%	-2.5%	-1.2%	-18.3%	-7.0%	10.1%	5.9%	-0.8%	7.5%	1.6%
JPM EMBI Global Diversified	8.1%	-17.8%	-17.8%	-5.3%	-1.3%	1.6%	-17.8%	-1.8%	5.3%	15.0%	-4.3%	10.3%	10.2%
FTSE Treasury Bill 3 Month	0.9%	1.5%	1.5%	0.7%	1.2%	0.7%	1.5%	0.0%	0.6%	2.3%	1.9%	0.8%	0.3%
<b>Specialty</b>													
Bloomberg Commodity	2.2%	16.1%	16.1%	12.7%	6.4%	-1.3%	16.1%	27.1%	-3.1%	7.7%	-11.2%	1.7%	11.8%
DJ US Select REIT	4.8%	-26.0%	-26.0%	-1.4%	2.5%	5.7%	-26.0%	45.9%	-11.2%	23.1%	-4.2%	3.8%	6.7%
FTSE EPRA/NAREIT Developed Ex US	10.5%	-23.8%	-23.8%	-8.2%	-2.3%	1.5%	-23.8%	8.8%	-6.5%	21.8%	-5.8%	20.8%	2.0%

Source: Morningstar Direct; Empower Investments Analysis *Past performance is not a guarantee or prediction of future results.*

FOR FINANCIAL PROFESSIONAL USE ONLY.

# Calendar Year Returns by Asset Class

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Cumulative Return*
Mid Value 18.5	Sm Growth 43.3	Mid Value 14.7	Lg Growth 5.7	Sm Value 31.7	Emrg Mkt 37.3	Agg Bond 0.0	Lg Growth 36.4	Lg Growth 38.5	Sm Value 28.3	Lg Value -7.54	Lg Growth 331.03
Emrg Mkt 18.2	Mid Growth 35.7	Lg Value 13.5	Balanced 1.3	Mid Value 20.0	Lg Growth 30.2	Lg Growth -1.5	Mid Growth 35.5	Mid Growth 35.6	Mid Value 28.3	Mid Value -12.03	Mid Growth 241.12
Sm Value 18.1	Sm Value 34.5	Lg Growth 13.0	Agg Bond 0.5	Lg Value 17.3	Mid Growth 25.3	Balanced -2.4	Sm Growth 28.5	Sm Growth 34.6	Lg Growth 27.6	Agg Bond -13.01	Lg Value 212.95
Lg Value 17.5	Lg Growth 33.5	Mid Growth 11.9	Mid Growth -0.2	Sm Growth 11.3	International 25.0	Mid Growth -4.8	Mid Value 27.1	Emrg Mkt 18.3	Lg Value 25.2	International -14.45	Mid Value 210.40
International 17.3	Mid Value 33.5	Balanced 10.6	International -0.8	Emrg Mkt 11.2	Sm Growth 22.2	Lg Value -8.3	Lg Value 26.5	Balanced 14.7	Balanced 15.9	Sm Value -14.48	Sm Growth 176.30
Mid Growth 15.8	Lg Value 32.5	Agg Bond 6.0	Sm Growth -1.4	Balanced 8.3	Balanced 14.2	Sm Growth -9.3	Sm Value 22.4	International 7.8	Mid Growth 12.7	Balanced -15.79	Sm Value 166.31
Lg Growth 15.3	International 22.8	Sm Growth 5.6	Lg Value -3.8	Mid Growth 7.3	Lg Value 13.7	Mid Value -12.3	Balanced 22.2	Agg Bond 7.5	International 11.3	Emrg Mkt -20.09	Balanced 142.19
Sm Growth 14.6	Balanced 17.6	Sm Value 4.2	Mid Value -4.8	Lg Growth 7.1	Mid Value 13.3	Sm Value -12.9	International 22.0	Mid Value 5.0	Sm Growth 2.8	Sm Growth -26.36	International 85.21
Balanced 11.3	Agg Bond -2.0	Emrg Mkt -2.2	Sm Value -7.5	Agg Bond 2.6	Sm Value 7.8	International -13.8	Emrg Mkt 18.4	Sm Value 4.6	Agg Bond -1.5	Mid Growth -26.72	Emrg Mkt 36.34
Agg Bond 4.2	Emrg Mkt -2.6	International -4.9	Emrg Mkt -14.9	International 1.0	Agg Bond 3.5	Emrg Mkt -14.6	Agg Bond 8.7	Lg Value 2.8	Emrg Mkt -2.5	Lg Growth -29.14	Agg Bond 15.76

\*Cumulative return is for the time period 1/1/2012 – 12/31/2022

Source: Morningstar Direct; Empower Investments Analysis; Lg Growth – Russell 1000 Growth Index, Lg Value – Russell 1000 Value Index, Mid Growth – Russell Mid Cap Growth Index, Mid Value – Russell Mid Cap Value Index, Sm Growth – Russell 2000 Growth Index, Sm Value – Russell 2000 Value Index, International – MSCI EAFE NR Index, Emrg Mkt – MSCI EM NR Index, Agg Bond – Bloomberg Barclays US Aggregate Bond Index, Balanced – 60% S&P 500 Index and 40% Bloomberg Barclays US Aggregate Bond Index.



# Disclosures and Benchmark Definitions

- The opinions expressed herein are subject to change. The opinions are not investment advice and should not be relied on as such. The information presented in this report was developed internally and/or obtained from sources believed to be reliable; however, Empower Financial Services, Inc., and its parent company, Empower Annuity Insurance Company of America, do not guarantee the accuracy, adequacy, or completeness of such information. Predictions, opinions, and other information contained in this report are subject to change continually and without notice of any kind and may no longer be true after the date indicated.
- Any forward-looking statements speak only as of the date they are made. Empower Financial Services, Inc. assumes no duty to and does not undertake to update forward-looking statements. Forward looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results could differ materially from those anticipated in forward-looking statements. No forecast is guaranteed.
- *Past performance, where discussed in this material, is not a guarantee of future results.* As with any investment, there is a potential for profit as well as the possibility of loss.
- For definitions of benchmarks found in this material please refer to the benchmark provider website.

# Disclosures

*Carefully consider the investment option's objectives, risks, fees and expenses. Contact Empower Retirement for a prospectus, summary prospectus for SEC registered products or disclosure document for unregistered products, if available, containing this information. Read each carefully before investing.*

*You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at \$1 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.*

*The performance data contained herein represents past performance and does not guarantee future results. Investment return and principal value of an investment will fluctuate so that shares or units when redeemed may be worth less than their original cost. Current performance may be lower or higher than the return data quoted herein. For more current fund performance, including the most recent completed calendar month, please visit [empower.com](http://empower.com).*

**Securities, when presented, are offered and/or distributed by Empower Financial Services, Inc., Member FINRA/SIPC.** EFSI is an affiliate of Empower Retirement, LLC., Empower Funds, Inc.: and registered investment adviser, Empower Advisory Group, LLC. This material is for informational purposes only and is not intended to provide investment, legal or tax recommendations or advice.

Although data is gathered from reliable sources, the completeness or accuracy of the data shown cannot be guaranteed.

Cash alternatives are not federally guaranteed and may lose value. Cash alternative portfolios have interest rate, inflation, and credit risks that are associated with the underlying assets owned by the portfolio.

Bond prices generally fall when interest rates rise (and vice versa) and are subject to risks, including changes in credit quality, market valuations, inflation, liquidity and default. High-yield bonds have a greater risk of default.

The interest from Treasury inflation-protected securities (TIPS) is adjusted periodically according to the Consumer Price Index. The return from TIPS may understate the actual rate of inflation due to changes in the bond's underlying price.

U.S. Treasury securities are neither issued nor guaranteed by the U.S. government.

Separately managed accounts and collective trusts are not registered investment products and are not required to file a prospectus or registration statement with the SEC and, accordingly, neither is available.

A stable value funds is not federally guaranteed and has interest rate, inflation, and credit risks. Guarantees are subject to the terms and conditions of the group annuity contract or funding agreement and the claims-paying ability of the insurer.

Foreign securities involve risks, such as currency fluctuations, economic changes and political developments. These risks may be heightened in emerging markets, which may also experience liquidity risk.

Copyright ©2022 Citigroup Index LLC (Citi Index). All rights reserved. "Citigroup" is a registered trademark and service mark of Citigroup Inc. or its affiliates and is used and registered throughout the world. Citi Index data and information are the property of Citi Index or its licensors, and reproduction in any form is prohibited except with the prior written permission of Citi Index. Because of the possibility of human or mechanical error, Citi Index does not guarantee the accuracy, adequacy, timeliness, completeness or availability of any data and information and is not responsible for any errors or omissions or for the results obtained from the use of such data and information. CITI INDEX GIVES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. In no event shall Citi Index be liable for damages of any kind in connection with any use of the Citi Index data and information.

The quoted performance may include performance of a predecessor fund/share class prior to the share class commencement of operations. Please refer to the current prospectus for further information.

Funds may impose redemption fees and/or transfer restrictions if assets are held for less than the published holding period. For more information, see the fund's prospectus and/or disclosure documents.

Putnam funds are managed by Putnam Investment Management. Putnam mutual funds are distributed by Putnam Retail Management. Putnam is affiliated with Empower Financial Services, Inc.

Gross expense ratios are the funds' total annual operating costs expressed as a percentage of the funds' average net assets over a given time period. They are gross of any fee waivers or expense reimbursements. Net expense ratios are the expense ratios after the application of any voluntary or contractual waivers or reimbursements and are the actual ratios that investors paid during the funds' most recent fiscal year. Expense ratios are subject to change.

# Disclosures

Morningstar rankings are based on total return and do not reflect of sales charges, which, if reflected, would reduce returns.

The date in a target date fund's name represents an approximate date when an investor is expected to retire (which is assumed to be at age 65) and/or begins withdrawing money. The principal value of the funds is not guaranteed at any time, including the target date. For more information, please refer to the fund prospectus and/or disclosure document. A target date fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date (which is the assumed retirement date for an investor).

Asset allocation and balanced investment options and models are subject to the risks of the underlying investments, which can be a mix of stocks/stock funds and bonds/bond funds. For more information, see the prospectus and/or disclosure documents.

Commodity and real asset investments may be affected by natural disasters and political and economic developments.

Real estate securities and trusts involve risks, including declining property values, changes in zoning laws or losses from casualty. Real estate securities that invest in foreign real estate involve additional risks, including currency fluctuations and political developments.

Securities of small and mid-size companies may be more volatile than those of larger, more established companies.

Investment return and principal value of a variable investment will fluctuate so that an investor's shares when redeemed, may be worth more or less than the original cost.

There is no guarantee that companies that can issue dividends will declare, continue to pay, or increase dividends.

The price of equity securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries selected for the Fund's portfolio or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general (or in particular, the prices of the types of securities in which a fund invests) may decline over short or extended periods of time. When the value of a fund's securities goes down, an investment in a fund decreases in value.

Some of the data may have been obtained from Standard & Poor's ("S&P") © 2022 The McGraw-Hill Companies, Inc. S&P is a division of The McGraw-Hill Companies, Inc.

A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of a fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index.

Empower is not acting as an investment advisor for the plan. The information, analyses and fund alternatives described in this material are intended to provide assistance to the plan sponsor or other fiduciary responsible for plan investments and should not be relied upon as the sole basis for any investment decision. Empower Financial Services, Inc. and its affiliates may receive compensation with respect to proprietary investments and may receive compensation with respect to other plan investments. Other share classes may be available for the investment products described, and the plan sponsor is welcome to request more information on the options available.