

State of Wisconsin Deferred Compensation Plan

Investment Performance and Expense Ratio Review

Performance as of June 30, 2019

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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, Federated US Gov Securities, Vanguard Long-Term Investment Grade	American Beacon Bridgeway Large Cap 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 Ret	Total Ret	Total Ret	Total Ret	Total Net Assets \$M	Expense Ratio
	3 Mth	1 Yr	3 Yr	5 Yr	10 Yr		
American Funds EuroPacific Gr R6	3.87	1.91	10.84	4.45	8.15	157,004	0.49
Morningstar Foreign Large Growth Avg	4.81	2.25	9.63	4.09	8.20	-	1.13
MSCI EAFE Index	3.68	1.08	9.11	2.25	6.90	-	-
MSCI ACWI ex U.S.	2.98	1.29	9.39	2.16	6.54	-	-
Blackrock EAFE Equity Index Coll T	3.90	1.40	9.44	2.52	7.15	-	0.06
MSCI EAFE Index	3.68	1.08	9.11	2.25	6.90	-	-
DFA US Micro Cap I	0.85	-7.48	10.54	6.33	13.91	6,292	0.52
Morningstar Small Cap Blend Avg	2.21	-3.76	10.09	5.65	12.70	-	1.15
Russell 2000 Index	2.10	-3.31	12.30	7.06	13.45	-	-
Blackrock Russell 2000 Index Coll T	2.10	-3.23	12.46	7.25	13.61	-	0.05
Russell 2000 Index	2.10	-3.31	12.30	7.06	13.45	-	-
T. Rowe Price Mid-Cap Growth	6.93	15.93	16.75	12.88	16.98	33,831	0.75
Morningstar Mid Cap Growth Avg	5.61	9.88	15.59	9.78	14.53	-	1.19
Russell Mid Cap Growth Index	5.40	13.94	16.49	11.10	16.02	-	-
S&P Midcap 400 Index	3.05	1.36	10.90	8.02	14.64	-	-
Blackrock Midcap Equity Index Coll F	3.05	1.40	10.97	8.09	14.71	-	0.04
S&P MidCap 400 Index	3.05	1.36	10.90	8.02	14.64	-	-
Calvert US Large Cap Core Rspnb Idx R6	4.55	12.11	14.61	10.91	14.93	3,030	0.19
S&P 500 Index	4.30	10.42	14.19	10.71	14.70	-	-
Morningstar Socially Resp Large Cap Avg**	4.24	9.57	13.97	9.51	13.62	-	0.95
Morningstar Large Cap Growth Avg	4.63	10.02	16.97	11.33	14.71	-	1.08
Fidelity Contrafund Commingled Pool CI 2	5.55	8.44	18.38	12.80	-	-	0.38
Morningstar Large Cap Growth Avg	4.63	10.02	16.97	11.33	14.71	-	1.08
Russell 1000 Growth Index	4.64	11.56	18.07	13.39	16.28	-	-
S&P 500 Index	4.30	10.42	14.19	10.71	14.70	-	-
American Beacon Bridgeway Lg Cap Value I CIT*	4.15	2.38	9.49	7.25	13.96	4,000	0.55
Morningstar Large Cap Value Avg	3.84	8.46	10.19	7.46	13.19	-	-
Russell 1000 Value Index	3.02	5.79	10.12	6.84	12.20	-	-

* The American Beacon CIT returns presented in italics are linked to mutual fund performance.

**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 3 Mth	Total Ret 1 Yr	Total Ret 3 Yr	Total Ret 5 Yr	Total Ret 10 Yr	Total Net Assets \$M	Expense Ratio
Vanguard Institutional 500 Index Trust*	4.30	10.42	14.19	<i>10.70</i>	<i>14.70</i>		0.01
S&P 500 Index	4.30	10.42	14.19	10.71	14.70	-	-
Vanguard Wellington Adm	3.91	10.38	9.84	7.55	10.75	106,286	0.17
Morningstar Moderate Allocation Avg	2.95	5.73	7.79	5.04	8.93	-	1.11
Composite 65% S&P 500 / 35% Barclay's Aggregate	3.88	9.53	10.03	7.99	10.92	-	-
Composite 65% S&P 500 / 35% Barclay's U.S. Credit A or Better Idx	4.25	10.31	10.38	8.35	11.58	-	-
Vanguard Long-Term Investment-Grade Adm	6.48	14.77	4.63	6.19	8.41	18,947	0.12
Barclay's LT Corporate A	4.16	10.12	3.29	3.96	5.78	-	-
Morningstar Corp Bond	3.82	9.33	3.84	3.63	5.70	-	0.82
Blackrock US Debt Index Fund Coll W	3.08	7.92	2.36	3.01	3.96	-	0.04
BarCap US Agg Bond TR USD	3.08	7.87	2.31	2.95	3.90	-	-
Federated US Govt 2-5 Yr Instl	2.25	5.57	0.95	1.16	1.61	266	0.59
Morningstar Short Government Avg	1.30	3.54	1.02	1.03	1.35	-	0.76
Barclay's US Treas/Agency 3-5 Yr	2.47	6.44	1.38	2.05	2.60	-	-
BofA Merrill Lynch US Treas 3-5 Yr	2.42	6.34	1.38	2.03	2.55	-	-
Vanguard Admiral Treasury Money Mkt Inv	0.58	2.21	1.30	0.80	0.41	27,712	0.09
Morningstar Taxable Money Mkt Avg	0.49	1.84	0.98	0.60	0.30	-	0.47
U.S. Treasury 90-Day T-Bill	0.57	2.26	1.41	0.88	0.48	-	-
iMoney Net Average Treasury MM	0.46	1.72	0.87	0.52	0.26	-	-
Stable Value Fund	0.64	2.45	2.13	2.01	2.49	673	0.32
5 Yr. Constant Maturity Treasury Yield	0.53	2.57	2.16	1.90	1.69	-	-

* 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.



3-Year Percentile Ranks

6/28/2019

Group/Investment	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
	2019	2019	2018	2018	2018	2018	2017	2017	2017	2017	2016	2016
	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten	% of Peer Group Beaten
Amer Beacon Bridge Lg Cp Val Inst	21	15	21	62	68	78	84	74	82	89	95	96
American Funds Europac Gro R6	73	72	69	56	59	66	68	69	73	74	77	78
BlackRock EAFE® Equity Index F	79	59	59	56	58	46	68	65	69	56	65	67
Blackrock Mid Cap Eq Idx Fund CF	61	68	90	73	90	90	93					
BlackRock Russell 2000® Index F	81	85	73	85	81	82	75	80	76	72	66	62
Blackrock US Debt Idx Fund CF	63	61	66	64	70	73	66	72	74	77	80	75
Calvert US Lg Cap Core Res Idx I	90	88	74	70	54	69	68	86	94	93	89	92
DFA US Micro Cap I	54	60	71	83	82	79	73	81	72	51	63	54
Federated US Govt 2-5 Yr Instl	48	33	40	16	24	23	45	55	49	58	46	66
Fidelity Contrafund Commingled PI 2	63	43	53	46	70	71	59	53	48	30	60	61
T. Rowe Price Mid-Cap Growth	62	57	72	55	68	86	89	95	96	96	95	97
Vanguard Institutional Index Instl PI	84	87	89	92	93	91	89	90	91	94	94	95
Vanguard Long-Term Invst-Grd Adm	55	68	67	69	81	76	83	92	92	88	92	92
Vanguard Target Retire 2015 Trust I	67	65	65	62	64	65	63	65	72	70	80	71
Vanguard Target Retire 2025 Trust I	81	76	87	85	87	85	82	74	75	76	78	73
Vanguard Target Retire 2035 Trust I	81	78	77	74	75	76	67	62	63	61	61	68
Vanguard Target Retire 2045 Trust I	79	76	79	82	83	88	81	63	67	66	60	66
Vanguard Target Retire 2055 Trust I	72	69	80	69	67	75	63	47	55	57	50	58
Vanguard Target Retire Inc Trust I	58	51	68	57	67	75	67	69	78	80	83	83
Vanguard Wellington™ Admiral™	90	92	95	92	93	97	97	97	95	96	96	93

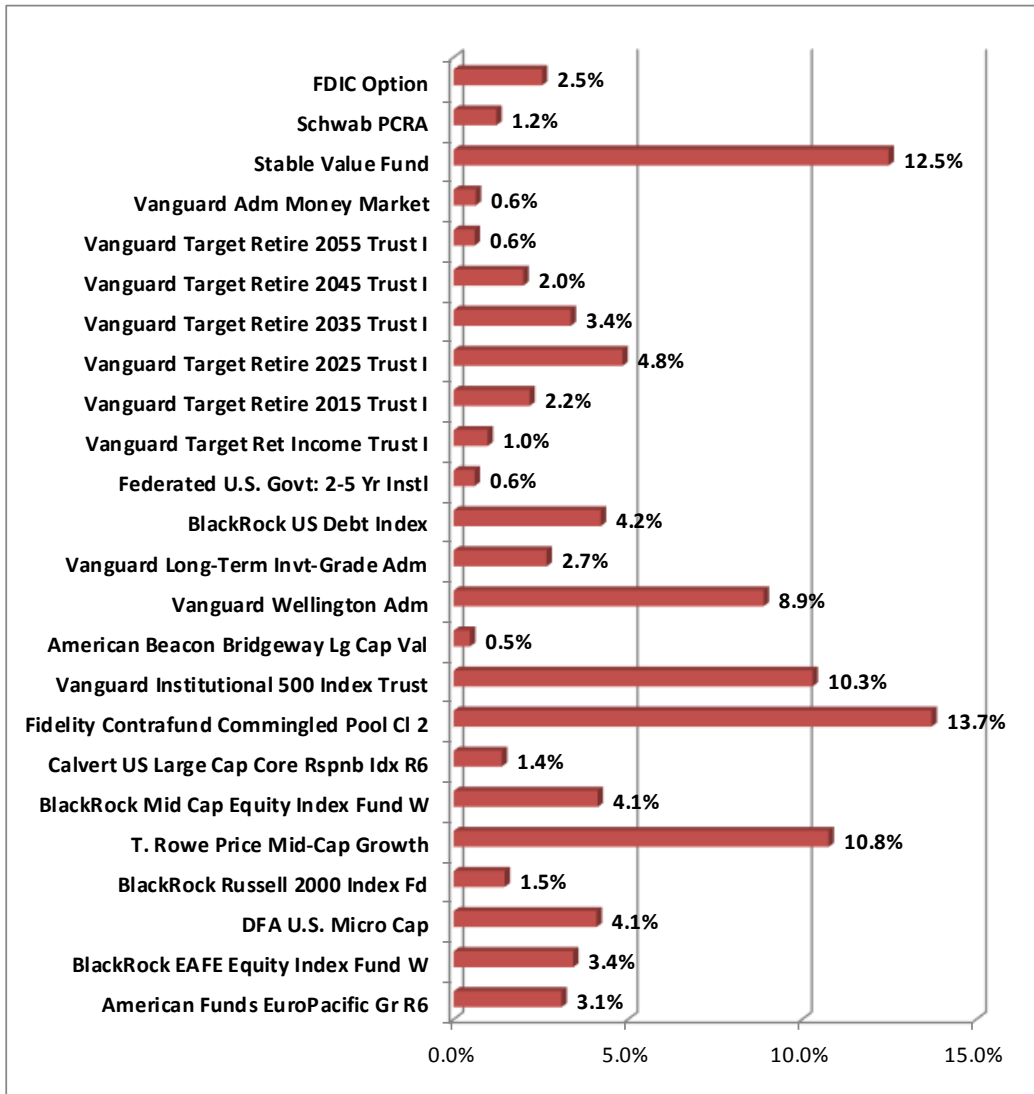


* Percentile ranks shown for American Beacon Bridgeway and Calvert US Large Cap Responsible Index are taken from oldest share class of their respective mutual funds.

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.

	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	\$157,003,811,319	\$166,779,995	0.11%	3.09%	16,072	24.81%
BlackRock EAFE Equity Index Fund W	2/1/2001	\$267,510,000	\$184,780,140	69.07%	3.43%	20,826	32.14%
DFA U.S. Micro Cap	2/1/1997	\$6,291,574,613	\$221,004,485	3.51%	4.10%	12,546	19.36%
BlackRock Russell 2000 Index Fd	2/20/2004	\$348,240,000	\$78,807,579	22.63%	1.46%	14,422	22.26%
T. Rowe Price Mid-Cap Growth	2/1/1998	\$33,831,311,429	\$579,735,912	1.71%	10.75%	31,500	48.62%
BlackRock Mid Cap Equity Index Fund W	2/1/2001	\$5,601,970,000	\$222,761,428	3.98%	4.13%	22,562	34.82%
Calvert US Large Cap Core Rspnb Idx R6	4/18/2003	\$3,029,995,597	\$74,307,901	2.45%	1.38%	18,100	27.94%
Fidelity Contrafund Commingled Pool CI 2	1/31/1994	\$120,889,859,357	\$739,246,918	0.61%	13.71%	32,890	50.77%
Vanguard Institutional 500 Index Trust	9/9/1990	\$69,808,000,000	\$554,845,072	0.79%	10.29%	28,414	43.86%
American Beacon Bridgeway Lg Cap Val	11/1/2017	\$181,838,149	\$25,358,237	13.95%	0.47%	15,751	24.31%
Vanguard Wellington Adm	10/26/2001	\$106,285,682,552	\$479,404,430	0.45%	8.89%	25,025	38.63%
Vanguard Long-Term Invnt-Grade Adm	10/26/2001	\$18,947,313,648	\$143,665,670	0.76%	2.66%	16,000	24.70%
BlackRock US Debt Index	2/1/2001	\$11,793,280,000	\$227,394,251	1.93%	4.22%	18,918	29.20%
Federated U.S. Govt: 2-5 Yr Instl	2/3/1992	\$266,069,025	\$32,345,424	12.16%	0.60%	5,818	8.98%
Vanguard Target Ret Income Trust I	7/29/2005	\$1,965,000,000	\$52,265,891	2.66%	0.97%	1,855	2.86%
Vanguard Target Retire 2015 Trust I	7/29/2005	\$2,288,000,000	\$117,355,656	5.13%	2.18%	2,906	4.49%
Vanguard Target Retire 2025 Trust I	7/29/2005	\$9,866,000,000	\$261,133,432	2.65%	4.84%	6,515	10.06%
Vanguard Target Retire 2035 Trust I	7/29/2005	\$8,222,000,000	\$181,066,749	2.20%	3.36%	6,780	10.46%
Vanguard Target Retire 2045 Trust I	7/29/2005	\$5,898,000,000	\$107,698,334	1.83%	2.00%	6,387	9.86%
Vanguard Target Retire 2055 Trust I	8/18/2010	\$2,172,000,000	\$32,254,853	1.49%	0.60%	3,763	5.81%
Vanguard Adm Money Market	10/1/1993	\$27,711,500,000	\$34,050,323	0.12%	0.63%	6,473	9.99%
Stable Value Fund	9/1/1996	N/A	\$672,518,508	N/A	12.47%	25,984	40.11%
Schwab PCRA	2/17/2000	N/A	\$65,844,906	N/A	1.22%	1,197	1.85%
FDIC Option	12/31/1996	N/A	\$136,684,807	N/A	2.54%	10,843	16.74%





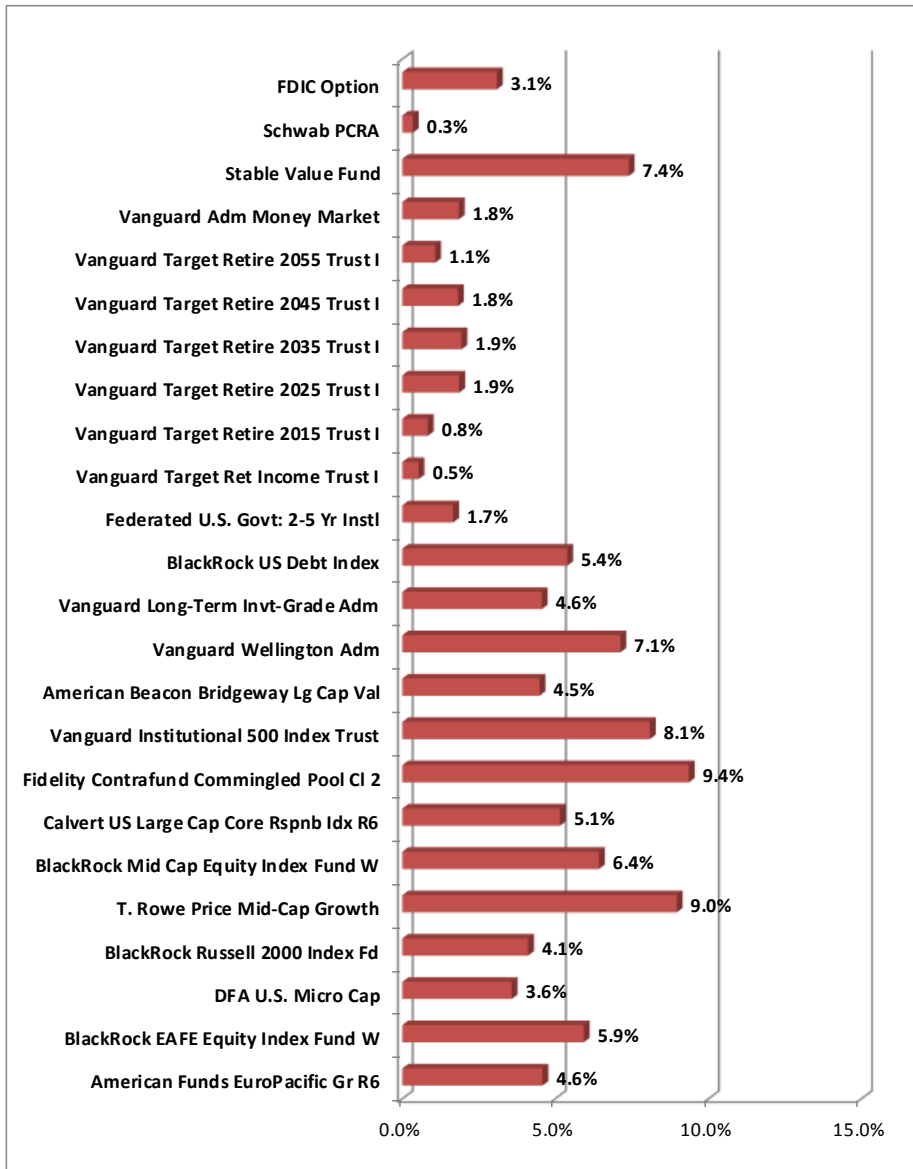
Total WDC Assets

\$5,391,310,904

Domestic Equity	\$2,496,067,533	46%
Intl Equity	\$351,560,136	7%
Asset Allocation	\$1,231,179,346	23%
Fixed Income	\$403,405,345	7%
Cash Equiv.	\$843,253,638	16%
Self-Directed Brok.	\$65,844,906	1%



Total WDC Participants
64,788



Expense Summary

6/28/2019

Name	Expense Ratio	Annual Expense per \$1000
American Funds EuroPacific Gr R6	0.49	\$4.90
Cat: Foreign Large Growth	1.13	
Blackrock EAFE Equity Index Fund W	0.06	\$0.60
Cat: Foreign Large Blend Index	0.41	
DFA U.S. Micro Cap	0.52	\$5.20
Cat: Small Blend	1.15	
Blackrock Russell 2000 Index Fd	0.05	\$0.50
Cat: Small Cap Blend Index	0.41	
T. Rowe Price Mid-Cap Growth	0.75	\$7.50
Cat: Mid Growth	1.19	
Blackrock Mid Cap Equity Index Fund W	0.04	\$0.40
Cat: Mid Cap Blend Index	0.48	
Calvert US Large Cap Core Rspnb Idx R6	0.19	\$1.90
Cat: Socially Resp Large Cap	0.95	
Fidelity Contrafund Commingled Pool CI 2	0.38	\$3.80
Cat: Large Growth	1.08	
Vanguard Institutional 500 Index Trust	0.01	\$0.10
Cat: Large Cap Blend Index	0.45	
American Beacon Bridgeway Lg Cap Val	0.55	\$5.50
Cat: Large Value	1.00	
Stable Value Fund	0.32	\$3.20
Cat: Stable Value	0.70	

Asset-Weighted Average Expense Ratio: 0.21%

Name	Expense Ratio	Annual Expense per \$1000
Vanguard Wellington Adm	0.17	\$1.70
Cat: Moderate Allocation	1.11	
Vanguard Target Retirement 2055 Inv	0.07	\$0.70
Cat: Target Date 2050+	0.78	
Vanguard Target Retirement 2045 Inv	0.07	\$0.70
Cat: Target Date 2041-2045	0.78	
Vanguard Target Retirement 2035 Inv	0.07	\$0.70
Cat: Target Date 2031-2035	0.77	
Vanguard Target Retirement 2025 Inv	0.07	\$0.70
Cat: Target Date 2021-2025	0.75	
Vanguard Target Retirement 2015 Inv	0.07	\$0.70
Cat: Target Date 2011-2015	0.68	
Vanguard Target Retirement Income Inv	0.07	\$0.70
Cat: Retirement Income	0.76	
Vanguard Long-Term Invmt-Grade Adm	0.12	\$1.20
Cat: Corporate Bond	0.82	
Blackrock US Debt Index	0.04	\$0.40
Cat: Intermediate Bond Index	0.32	
Federated U.S. Govt: 2-5 Yr Instl*	0.59	\$5.90
Cat: Short Government	0.76	
Vanguard Adm Money Market	0.09	\$0.90
Average US Taxable Money Market Fund	0.47	

* The Federated U.S. Govt. 2-5 Yr Fund shares revenue back to the plan's participants, which is not reflected in the expense ratios above. The expense ratio of the fund including this reimbursement would be 0.43 for the Federated fund.



Target Date Fund Summary

Target Date Performance

3/31/2019

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
Vanguard Target Retire Inc Trust I	2.96	6.62	5.24	4.18	6.36	2,288	0.07	4	18	11	67	0
S&P Target Date Retirement Income TR USD	2.82	5.90	5.02	3.94	6.03	-	-	-	-	-	-	-
Composite Returns*	3.15	6.71	4.78	3.72	5.67	-	-	-	-	-	-	-
Vanguard Target Retire 2015 Trust I	3.05	6.50	6.66	4.89	8.33	9,866	0.07	3	25	16	56	0
S&P Target Date 2015 TR USD	2.79	5.77	6.54	4.77	7.89	-	-	-	-	-	-	-
Composite Returns*	3.22	6.35	5.76	4.05	6.43	-	-	-	-	-	-	-
Vanguard Target Retire 2025 Trust I	3.39	6.70	8.69	5.94	9.79	8,222	0.07	2	38	24	36	0
S&P Target Date 2025 TR USD	2.99	5.70	8.09	5.52	9.33	-	-	-	-	-	-	-
Composite Returns*	3.35	5.71	7.55	4.68	7.82	-	-	-	-	-	-	-
Vanguard Target Retire 2035 Trust I	3.45	6.32	10.09	6.48	10.87	5,898	0.07	2	46	30	22	0
S&P Target Date 2035 TR USD	3.18	5.36	9.50	6.23	10.39	-	-	-	-	-	-	-
Composite Returns*	3.42	5.21	8.72	5.05	8.69	-	-	-	-	-	-	-
Vanguard Target Retire 2045 Trust I	3.51	5.94	11.05	6.86	11.24	2,172	0.07	2	53	35	10	0
S&P Target Date 2045 TR USD	3.32	5.15	10.32	6.61	10.94	-	-	-	-	-	-	-
Composite Returns*	3.48	4.79	9.72	5.37	9.43	-	-	-	-	-	-	-
Vanguard Target Retire 2055 Trust I	3.50	5.96	11.04	6.82	-	#REF!	0.07	2	54	34	10	0
S&P Target Date 2055+ TR USD	3.34	5.03	10.80	6.79	-	-	-	-	-	-	-	-
Composite Returns*	3.47	4.83	9.74	5.41	9.48	-	-	-	-	-	-	-

*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

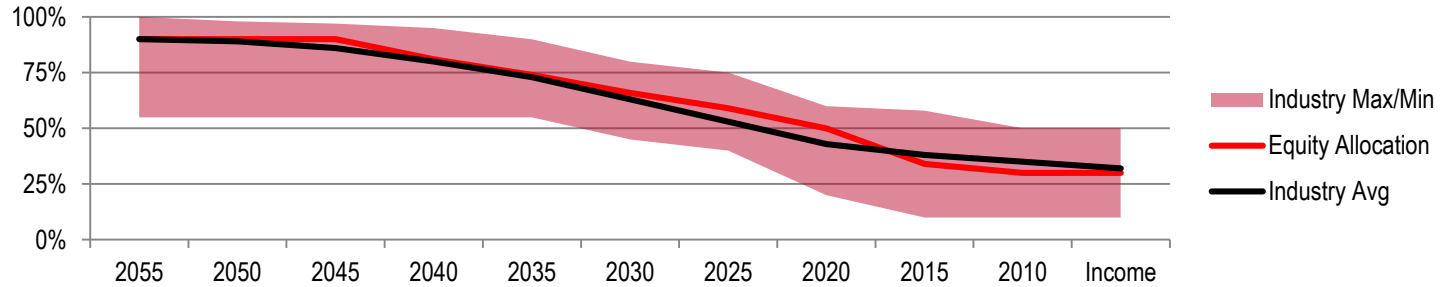
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Glide Path Summary

6/28/2019

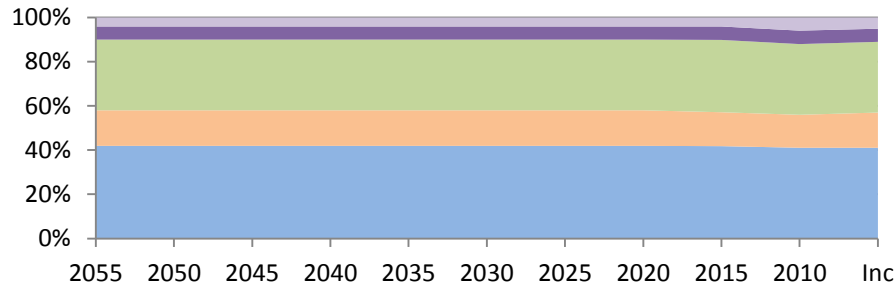
Data as of June 30, 2019



	<u>2055</u>	<u>2050</u>	<u>2045</u>	<u>2040</u>	<u>2035</u>	<u>2030</u>	<u>2025</u>	<u>2020</u>	<u>2015</u>	<u>2010</u>	<u>Income</u>
Equity %	90%	90%	90%	81%	74%	66%	59%	50%	34%	30%	30%
Industry Avg	89%	88%	85%	79%	71%	62%	53%	43%	38%	35%	32%

Equity Diversification

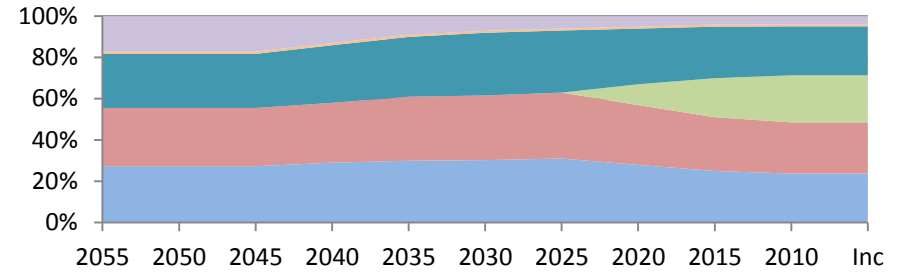
US Large Cap US Mid/Small Non-US - Dev Non-US - Emrg Other



	<u>2055</u>	<u>2050</u>	<u>2045</u>	<u>2040</u>	<u>2035</u>	<u>2030</u>	<u>2025</u>	<u>2020</u>	<u>2015</u>	<u>2010</u>	<u>Inc</u>
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



	<u>2055</u>	<u>2050</u>	<u>2045</u>	<u>2040</u>	<u>2035</u>	<u>2030</u>	<u>2025</u>	<u>2020</u>	<u>2015</u>	<u>2010</u>	<u>Inc</u>
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
Cash Equiv				
Stable Value				
Stable Value (Wisconsin)	0.32		0.32	
Fixed Income				
Money Market-Taxable				
Vanguard Treasury Money Market Investor	0.09	1	0.09	1
Money Market-Taxable Median	0.50		0.60	
Short Government				
Federated US Govt 2-5 Yr Instl	0.59	32	0.92	50
Short Government Median	0.76		0.92	
Intermediate Core Bond				
BlackRock US Debt Index-W	0.04	3	0.04	2
Intermediate Core Bond Median	0.81		0.98	
Long-term Bond				
Vanguard Long-Term Investment-Grade Adm	0.12	15	0.12	15
Long-Term Bond Median	0.76		0.87	
Balanced				
Allocation--50% to 70% Equity				
Vanguard Wellington Admiral	0.17	1	0.17	1
Allocation--50% to 70% Equity Median	1.16		1.30	
Target-Date Retirement				
The Vanguard Target Retire Inc Trust I	0.07	1	0.07	1
Target-Date Retirement Median	0.80		1.11	
Target-Date 2015				
The Vanguard Target Retire 2015 Trust I	0.07	1	0.07	1
Target-Date 2015 Median	0.84		1.16	
Target-Date 2025				
The Vanguard Target Retire 2025 Trust I	0.07	1	0.07	1
Target-Date 2025 Median	0.82		1.08	
Target-Date 2035				
The Vanguard Target Retire 2035 Trust I	0.07	1	0.07	1
Target-Date 2035 Median	0.82		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
Target-Date 2045				
The Vanguard Target Retire 2045 Trust I	0.07	1	0.07	1
<i>Target-Date 2045 Median</i>	<i>0.81</i>		<i>1.16</i>	
Target-Date 2055				
The Vanguard Target Retire 2055 Trust I	0.07	1	0.07	1
<i>Target-Date 2055 Median</i>	<i>0.79</i>		<i>1.25</i>	
Equity				
Large Value				
Bridgeway Large Cap Value CIT Class I	0.55	10	0.55	8
<i>Large Value Median</i>	<i>1.03</i>		<i>1.21</i>	
Large Blend				
Vanguard Institutional 500 Index	0.01	1	0.01	1
Calvert US Large Cap Core Rspnb Idx R6	0.19	6	0.32	9
<i>Large Blend Median</i>	<i>1.02</i>		<i>1.18</i>	
Large Growth				
Fidelity Contrafund Commingled Pool CI 2	0.38	4	0.38	3
<i>Large Growth Median</i>	<i>1.13</i>		<i>1.27</i>	
Mid-Cap Blend				
BlackRock Mid Cap Equity Index- F	0.04	1	0.04	1
<i>Mid-Cap Blend Median</i>	<i>1.11</i>		<i>1.25</i>	
Mid-Cap Growth				
T. Rowe Price Instl Mid-Cap Equity Gr	0.75	5	0.75	4
<i>Mid-Cap Growth Median</i>	<i>1.25</i>		<i>1.45</i>	
Small Blend				
DFA US Micro Cap I	0.52	11	0.52	9
BlackRock Russell 2000 Index-T	0.06	2	0.06	2
<i>Small Blend Median</i>	<i>1.18</i>		<i>1.31</i>	
International				
Foreign Large Blend				
BlackRock EAFE Equity Index-T	0.06	2	0.08	3
<i>Foreign Large Blend 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.



	Net Expense Ratio	Peer Rank	Gross Expense Ratio	Peer Rank
Foreign Large Growth				
American Funds Europacific Growth R6	0.49	4	0.49	3
<i>Foreign Large Growth Median</i>	<i>1.16</i>		<i>1.32</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.

Fund Incep Date: 07/01/1998	Benchmark: ML 3-month T-Bill	Category: Stable Value	Net Assets: \$672.64M	Manager Name: Team Managed	Manager Start Date: 07/01/1998	Expense Ratio: 0.32%	Expense Rank: NA
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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

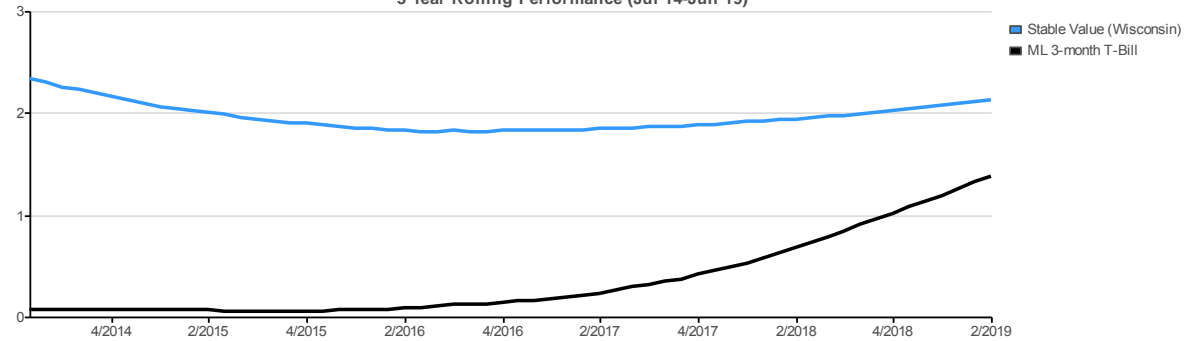
Consumer Defensive	0.00%
Healthcare	0.00%
Utilities	0.00%

TOP 10 HOLDINGS

INVESTMENT OVERVIEW

PERFORMANCE

3 Year Rolling Performance (Jul 14-Jun 19)

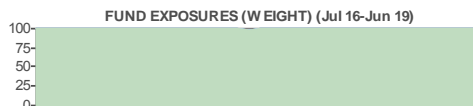


	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	0.64	1.25	2.45 / NA	2.13 / NA	2.01 / NA	2.04 / NA	2.49 / NA	4.09
Benchmark	0.64	1.24	2.31 / NA	1.38 / NA	0.87 / NA	0.65 / NA	0.49 / NA	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	2.26	1.90	1.90	1.85	1.73	2.10	2.63	3.13	3.93
Benchmark	1.87	0.86	0.33	0.05	0.03	0.07	0.11	0.10	0.13

Total: NA%

ASSET LOADINGS (Returns-based)



	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	100.0	100.0	99.9	100.0
Mortgages	0.0	0.0	0.0	0.0
Gov/Corp Bonds	0.0	0.0	0.1	0.0

RISK & PERFORMANCE STATISTICS

	Fund	Benchmark
3 Yr		
Alpha	0.73	0.00
Beta	0.00	0.00
R-Squared	0.00	0.00
Sharpe Ratio	8.83	0.00
Up Market Capture	153.58	100.00
Down Market Capture	NA	NA
5 Yr		
Alpha	1.12	0.00
Beta	0.00	0.00
R-Squared	0.00	0.00
Sharpe Ratio	14.20	0.00
Up Market Capture	222.26	100.00
Down Market Capture	-2787.19	100.00

NOTES



Fund Incep Date: 12/14/1992	Benchmark: FTSE Treasury Bill 3 Mon	Category: Money Market-Taxable	Net Assets: \$26,947.00M	Manager Name:	Manager Start Date:	Expense Ratio: 0.09%	Expense Rank: 1
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



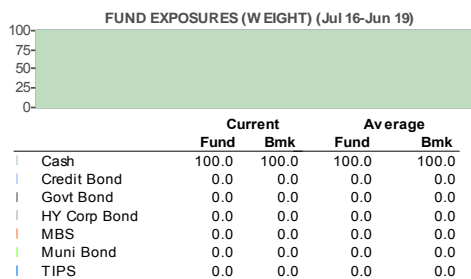
Credit Quality (%)

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

Sector (%)

% Government	4.58%
% Municipal	0.00%
% Corporate	0.00%
% Securitized	0.00%
% Cash and Equivalent	95.42%
% Derivative	0.00%
Total:	100.00%

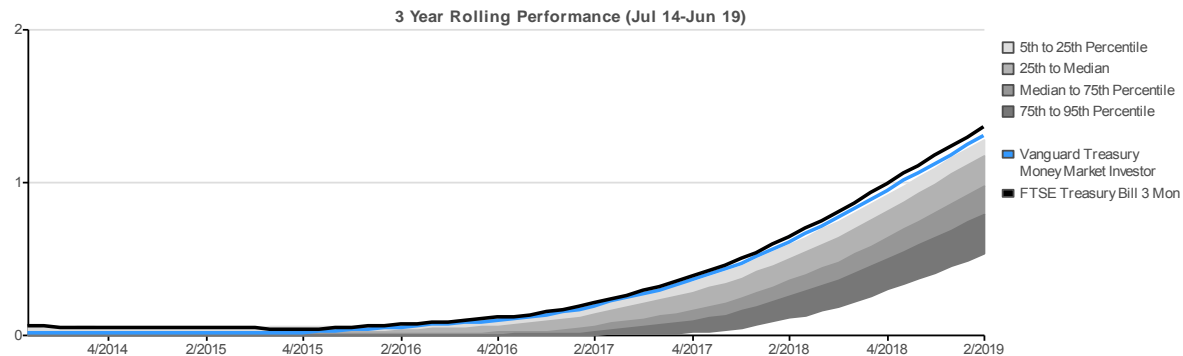
ASSET LOADINGS (Returns-based)



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 securities 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; the remainder of the assets may be invested in securities issued by U.S. governmental agencies. The fund maintains a dollar-weighted average maturity of 60 days or less and a dollar-weighted average life of 120 days or less.

PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	0.58	1.16	2.21 / 3	1.30 / 3	0.80 / 3	0.58 / 4	0.41 / 6	2.47
Benchmark	0.61	1.21	2.30 / 2	1.36 / 2	0.84 / 1	0.62 / 1	0.46 / 1	
Peer Group Median	0.51	1.01	1.88 / 50	0.98 / 50	0.59 / 50	0.42 / 50	0.30 / 50	
Number of Funds			556	509	444	430	396	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	1.80	0.79	0.25	0.02	0.01	0.01	0.02	0.02	0.01
Benchmark	1.86	0.84	0.27	0.03	0.03	0.05	0.07	0.08	0.13
Peer Group Median	1.47	0.46	0.03	0.01	0.01	0.01	0.01	0.01	0.01

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.06	0.00	-0.38
Beta	1.03	1.00	1.02
R-Squared	95.79	100.00	70.05
Sharpe Ratio	-0.39	-0.12	-1.85
Up Market Capture	95.59	100.00	71.90
Down Market Capture	NA	NA	NA

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.04	0.00	-0.25
Beta	1.01	1.00	1.08
R-Squared	93.32	100.00	37.33
Sharpe Ratio	-0.27	-0.11	-1.27
Up Market Capture	95.39	100.00	70.00
Down Market Capture	NA	NA	NA

NOTES



Fund Incep Date: 02/18/1983	Benchmark: BofAML US Treasuries 3-5 Yr TR USD	Category: Short Government	Net Assets: \$266.00M	Manager Name: J. Andrew Kirschler	Manager Start Date: 07/05/2013	Expense Ratio: 0.59%	Expense Rank: 32
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



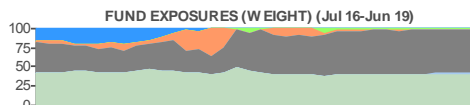
Credit Quality (%)

AAA	100.00%
AA	0.00%
A	0.00%
BBB	0.00%
BB	0.00%
B	0.00%
Below B	0.00%
NR/NA	0.00%
Total:	100.00%

Sector (%)

% Government	83.01%
% Municipal	0.00%
% Corporate	0.00%
% Securitized	12.03%
% Cash and Equivalent	4.96%
% Derivative	0.00%
Total:	100.00%

ASSET LOADINGS (Returns-based)

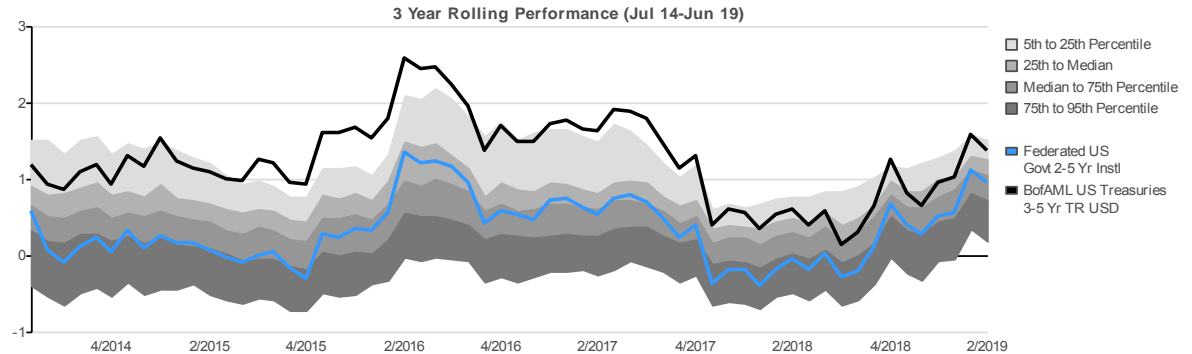


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	39.9	34.2	41.4	30.9
Credit Bond	1.5	0.0	0.2	0.0
Govt Bond	56.4	57.6	44.7	51.9
HY Corp Bond	0.0	0.0	0.0	0.0
MBS	0.7	8.2	6.8	13.4
Muni Bond	1.5	0.0	1.2	1.1
TIPS	0.0	0.0	5.7	2.6

INVESTMENT OVERVIEW

The investment seeks current income. The fund buys and sells portfolio securities based primarily on the Adviser's market outlook and analysis of how securities may perform under different market conditions. It may also use derivative contracts and/or hybrid instruments to implement elements of its strategies, particularly to manage duration and hedge against potential losses. The fund may also invest in government securities that are supported by the full faith and credit of the U.S. government.

PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	2.25	3.72	5.57 / 2	0.95 / 58	1.16 / 31	0.79 / 56	1.61 / 34	5.52
Benchmark	2.42	4.04	6.34 / 1	1.38 / 17	2.03 / 1	1.62 / 1	2.55 / 3	
Peer Group Median	1.34	2.38	3.54 / 50	1.04 / 50	1.07 / 50	0.88 / 50	1.34 / 50	
Number of Funds			105	105	105	101	94	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	0.94	0.28	0.80	0.13	0.83	-1.84	1.16	4.67	4.26
Benchmark	1.47	0.95	1.34	1.59	2.14	-0.91	1.58	6.23	5.70
Peer Group Median	1.12	0.49	0.64	0.27	0.82	-0.64	1.07	1.83	2.91

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.42	0.00	-0.34
Beta	0.88	1.00	0.38
R-Squared	97.71	100.00	88.23
Sharpe Ratio	-0.21	0.01	-0.29
Up Market Capture	84.84	100.00	50.65
Down Market Capture	94.99	100.00	31.86

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.67	0.00	-0.28
Beta	0.84	1.00	0.36
R-Squared	96.69	100.00	88.34
Sharpe Ratio	0.15	0.51	0.19
Up Market Capture	76.20	100.00	41.19
Down Market Capture	95.15	100.00	35.34

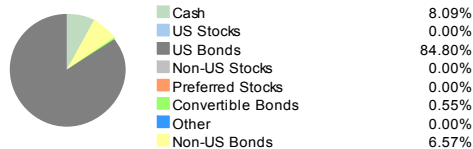
NOTES



Fund Incep Date: 07/02/1993 Benchmark : BBgBarc US Aggregate Bond Index Category : Intermediate Core Bond Net Assets : \$1,615.00M Manager Name : Scott Radell Manager Start Date : 05/01/2009 Expense Ratio : 0.05% Expense Rank: 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



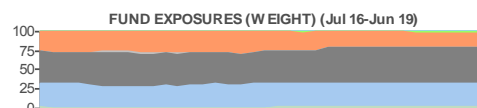
Credit Quality (%)

AAA	73.03%
AA	2.70%
A	10.66%
BBB	13.61%
BB	0.00%
B	0.00%
Below B	0.00%
NR/NA	0.00%
Total:	100.00%

Sector (%)

% Government	41.67%
% Municipal	0.58%
% Corporate	23.29%
% Securitized	26.37%
% Cash and Equivalent	8.10%
% Derivative	0.00%
Total:	100.01%

ASSET LOADINGS (Returns-based)

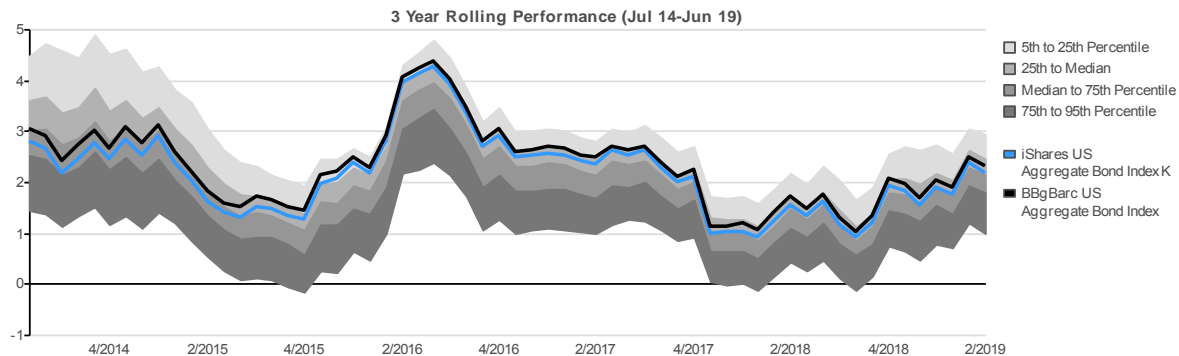


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	2.0	0.7	1.1	0.5
Credit Bond	30.4	30.2	30.4	30.3
Govt Bond	47.4	41.5	43.5	41.0
HY Corp Bond	0.0	0.0	0.4	0.1
MBS	18.7	26.8	24.1	27.6
Muni Bond	1.5	0.8	0.5	0.4
TIPS	0.0	0.0	0.0	0.0

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 Barclays 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 Barclays U.S. Aggregate Index.

PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.05	6.11	7.86 / 23	2.19 / 44	2.82 / 28	2.46 / 50	3.73 / 62	5.03
Benchmark	3.08	6.11	7.87 / 23	2.31 / 35	2.95 / 17	2.62 / 33	3.90 / 52	
Peer Group Median	2.97	6.02	7.46 / 50	2.14 / 50	2.61 / 50	2.45 / 50	3.94 / 50	
Number of Funds			405	377	359	348	324	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-0.08	3.39	2.53	0.38	5.93	-2.35	3.93	7.54	6.79
Benchmark	0.01	3.54	2.65	0.55	5.97	-2.02	4.22	7.84	6.54
Peer Group Median	-0.39	3.28	2.50	0.16	5.38	-2.12	5.71	6.43	6.90

RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	-0.12	0.00	-0.12
Beta	1.00	1.00	0.95
R-Squared	99.80	100.00	96.84
Sharpe Ratio	0.27	0.32	0.27
Up Market Capture	98.69	100.00	93.94
Down Market Capture	101.92	100.00	93.89
5 Yr			
Alpha	-0.14	0.00	-0.17
Beta	1.01	1.00	0.95
R-Squared	99.75	100.00	95.88
Sharpe Ratio	0.66	0.71	0.63
Up Market Capture	99.66	100.00	92.58
Down Market Capture	103.92	100.00	97.18

NOTES



Fund Incep Date: 02/12/2001	Benchmark: BBgBarc US Credit A+ Long TR USD	Category: Long-term Bond	Net Assets: \$18,637.00M	Manager Name: Scott I. St. John	Manager Start Date: 05/28/2014	Expense Ratio: 0.12%	Expense Rank: 15
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Cash	4.34%
US Stocks	0.00%
US Bonds	89.19%
Non-US Stocks	0.00%
Preferred Stocks	0.00%
Convertible Bonds	0.02%
Other	0.36%
Non-US Bonds	6.09%

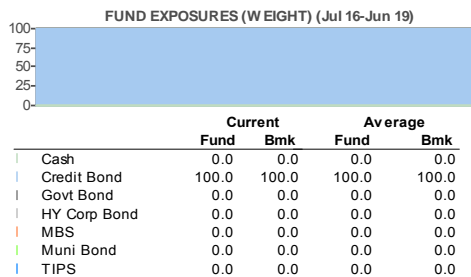
Credit Quality (%)

AAA	13.70%
AA	17.20%
A	59.99%
BBB	6.91%
BB	0.12%
B	0.07%
Below B	0.00%
NR/NA	2.01%
Total:	100.00%

Sector (%)

% Government	6.98%
% Municipal	10.53%
% Corporate	76.12%
% Securitized	2.01%
% Cash and Equivalent	4.35%
% Derivative	0.00%
Total:	99.99%

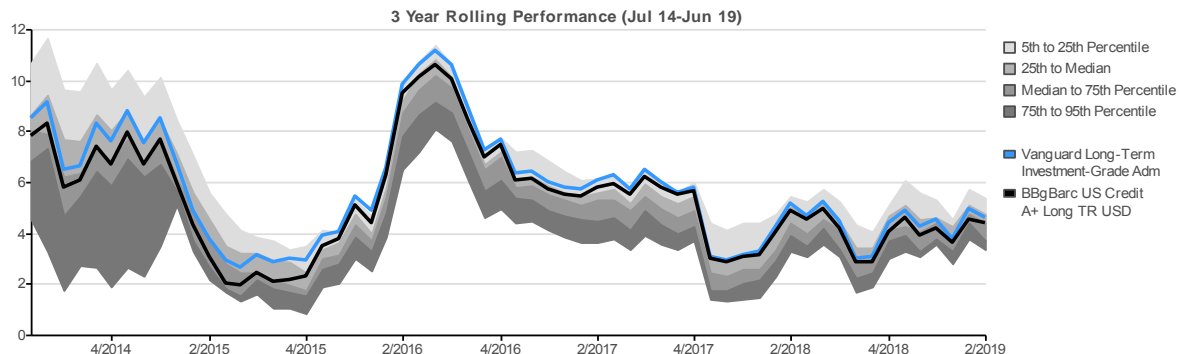
ASSET LOADINGS (Returns-based)



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



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	6.48	14.02	14.77 / 25	4.63 / 43	6.19 / 6	5.88 / 6	8.41 / 25	7.27
Benchmark	6.63	14.16	14.28 / 36	4.39 / 50	5.90 / 18	5.38 / 38	8.07 / 40	
Peer Group Median	6.41	13.99	13.71 / 50	4.38 / 50	5.57 / 50	5.24 / 50	7.75 / 50	
Number of Funds			42	41	39	38	30	

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-5.86	12.04	7.92	-2.11	18.28	-5.77	11.77	17.30	10.84
Benchmark	-6.32	11.49	7.88	-1.95	17.22	-6.79	11.10	18.42	10.02
Peer Group Median	-5.24	11.54	6.76	-3.44	16.61	-5.82	11.77	16.90	10.84

RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	0.22	0.00	0.26
Beta	1.01	1.00	0.98
R-Squared	99.24	100.00	95.18
Sharpe Ratio	0.48	0.45	0.48
Up Market Capture	100.00	100.00	97.59
Down Market Capture	96.99	100.00	88.06
5 Yr			
Alpha	0.17	0.00	-0.17
Beta	1.02	1.00	0.98
R-Squared	98.98	100.00	95.38
Sharpe Ratio	0.72	0.70	0.66
Up Market Capture	103.09	100.00	98.13
Down Market Capture	101.41	100.00	98.16

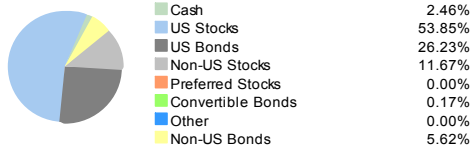
NOTES



Fund Incep Date: 05/14/2001	Benchmark: S&P 500 Index	Category: Allocation~50% to 70% Equity	Net Assets: \$105,381.00M	Manager Name: Edward P. Bousa	Manager Start Date: 12/31/2002	Expense Ratio: 0.17%	Expense Rank: 1
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	8.46%
Industrials	10.95%
Technology	15.53%
Energy	8.76%

Cyclical

Basic Materials	2.28%
Consumer Cyclical	6.10%
Real Estate	1.26%
Financial Services	21.19%

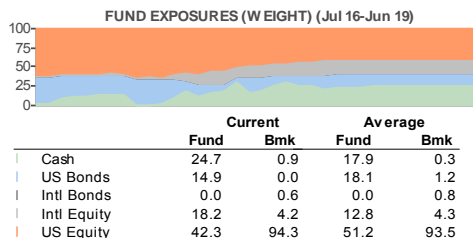
Defensive

Consumer Defensive	6.72%
Healthcare	13.93%
Utilities	4.82%

TOP 10 HOLDINGS

Microsoft Corp	2.97%
Verizon Communications Inc	2.47%
JPMorgan Chase & Co	2.17%
Bank of America Corporation	2.09%
Alphabet Inc A	1.91%
Chevron Corp	1.85%
Comcast Corp Class A	1.62%
Chubb Ltd	1.45%
Intel Corp	1.25%
Prudential Financial Inc	1.22%
Total:	19.01%

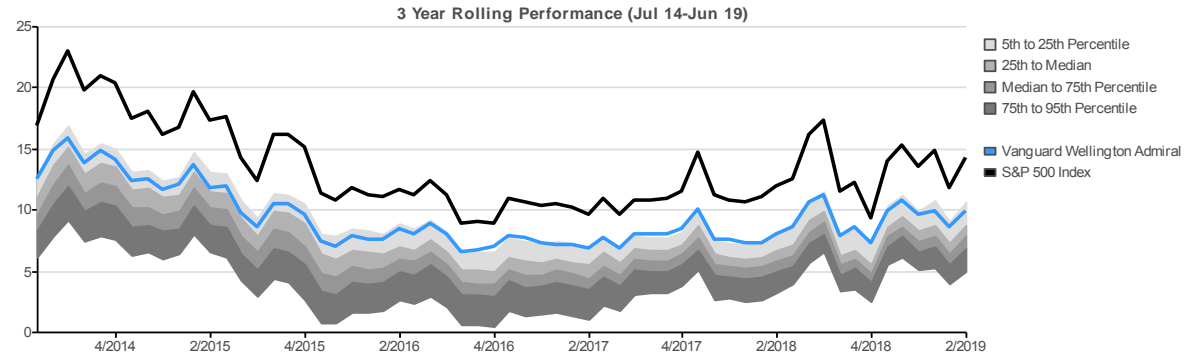
ASSET LOADINGS (Returns-based)



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	3.93	12.92	10.39 / 5	9.84 / 10	7.55 / 7	9.94 / 6	10.75 / 8	7.69
Benchmark	4.30	18.54	10.42 / 5	14.19 / 1	10.71 / 1	13.98 / 1	14.70 / 1	
Peer Group Median	3.06	12.38	5.71 / 50	7.84 / 50	5.18 / 50	7.77 / 50	8.99 / 50	
Number of Funds			751	729	684	660	558	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-3.35	14.82	11.09	0.14	9.90	19.76	12.67	3.95	11.04
Benchmark	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Peer Group Median	-5.77	13.97	6.74	-1.35	6.21	17.21	12.17	0.04	12.00

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.93	0.00	-1.09
Beta	0.58	1.00	0.59
R-Squared	93.84	100.00	91.81
Sharpe Ratio	1.14	1.04	0.85
Up Market Capture	61.86	100.00	56.03
Down Market Capture	58.06	100.00	61.61

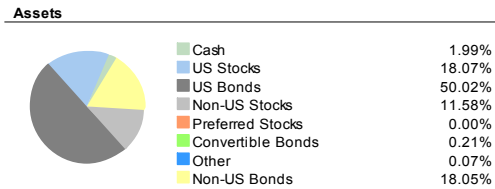
5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.56	0.00	-1.64
Beta	0.61	1.00	0.61
R-Squared	94.45	100.00	91.27
Sharpe Ratio	0.89	0.84	0.58
Up Market Capture	64.19	100.00	57.15
Down Market Capture	63.47	100.00	68.44

NOTES



Fund Incep Date: 10/27/2003 **Benchmark :** S&P Target Date Retirement Income **Category :** Target-Date Retirement **Net Assets :** \$16,765.00M **Manager Name :** William A. Coleman **Manager Start Date :** 02/22/2013 **Expense Ratio :** 0.12% **Expense Rank:** 2

PORTFOLIO COMPOSITION (Holdings-based)



Sector Breakdown

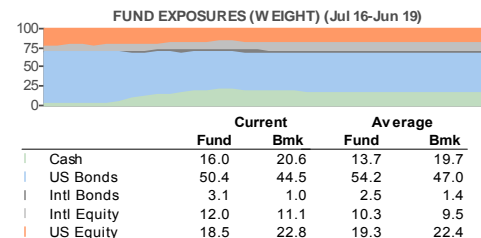
Sensitive	
Communication Services	3.47%
Industrials	11.38%
Technology	18.06%
Energy	5.53%
Cyclical	
Basic Materials	4.64%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.76%
Defensive	
Consumer Defensive	8.15%
Healthcare	11.64%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Bond Market II Idx Inv	37.13%
Vanguard Total Stock Mkt Idx Inv	18.30%
Vanguard Shrt-Term Infl-Prot Sec Idx Inv	16.62%
Vanguard Total Intl Bd Idx Investor	15.85%
Vanguard Total Intl Stock Index Inv	12.05%

Total: 99.95%

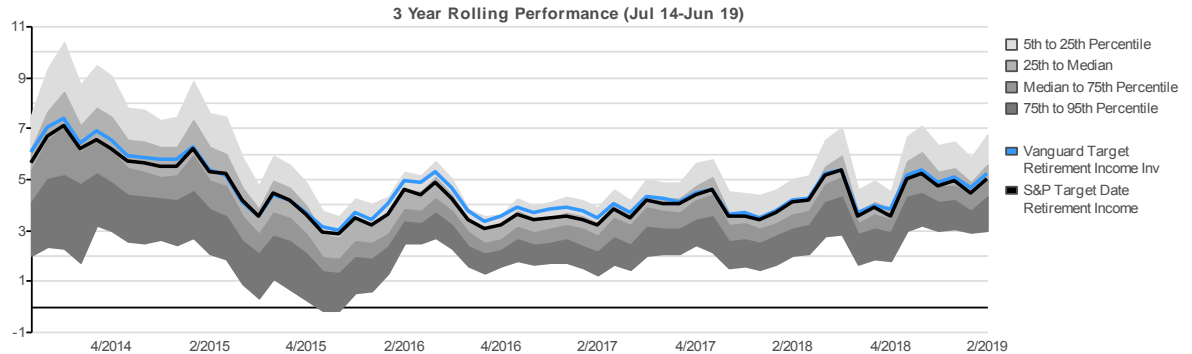
ASSET LOADINGS (Returns-based)



INVESTMENT OVERVIEW

The investment seeks to provide current income and some capital appreciation. The fund invests in other 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	2.97	8.63	6.54 / 29	5.24 / 37	4.18 / 15	5.00 / 34	6.36 / 31	5.28
Benchmark	2.82	8.55	5.90 / 46	5.02 / 45	3.94 / 26	4.84 / 41	6.03 / 52	
Peer Group Median	2.82	8.79	5.85 / 50	4.92 / 50	3.50 / 50	4.60 / 50	6.08 / 50	
Number of Funds			190	177	151	140	125	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-1.99	8.47	5.25	-0.17	5.54	5.87	8.23	5.25	9.39
Benchmark	-2.54	8.54	5.01	-0.18	4.86	6.28	7.51	3.98	9.09
Peer Group Median	-3.40	8.70	5.06	-1.26	4.07	5.61	8.86	2.53	9.33

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.46	0.00	0.00
Beta	0.93	1.00	0.95
R-Squared	97.98	100.00	96.01
Sharpe Ratio	1.01	0.89	0.86
Up Market Capture	97.13	100.00	97.37
Down Market Capture	87.05	100.00	96.71

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.37	0.00	-0.57
Beta	0.95	1.00	1.07
R-Squared	98.19	100.00	94.67
Sharpe Ratio	0.86	0.77	0.62
Up Market Capture	97.90	100.00	97.88
Down Market Capture	89.94	100.00	110.62

NOTES

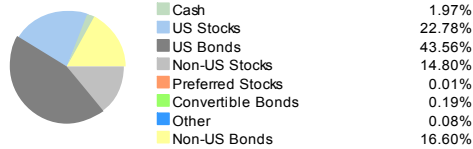


Vanguard Target Retirement 2015 Inv VTXVX (Vanguard Target Retirement 2015 Tr) 6/28/2019

Fund Incep Date: 10/27/2003 Benchmark: S&P Target Date 2015 Category: Target-Date 2015 Net Assets: \$15,775.00M Manager Name: William A. Coleman Manager Start Date: 02/22/2013 Expense Ratio: 0.13% Expense Rank: 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.48%
Industrials	11.39%
Technology	18.03%
Energy	5.54%

Cyclical

Basic Materials	4.66%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.77%

Defensive

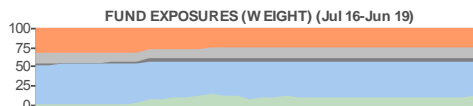
Consumer Defensive	8.16%
Healthcare	11.62%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Bond Market II Idx Inv	33.86%
Vanguard Total Stock Mkt Idx Inv	23.06%
Vanguard Total Intl Stock Index Inv	15.41%
Vanguard Total Intl Bd Idx Investor	14.59%
Vanguard Sht-Term Infl-Prot Sec Idx Inv	13.04%

Total: 99.96%

ASSET LOADINGS (Returns-based)



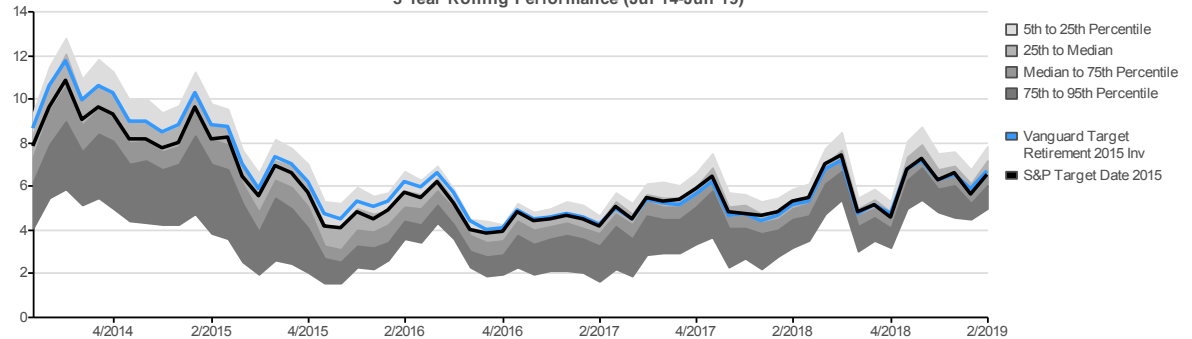
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	10.5	16.1	7.5	11.8
US Bonds	45.5	38.3	47.5	42.1
Intl Bonds	4.0	0.0	3.6	0.2
Intl Equity	15.0	13.9	14.1	13.0
US Equity	25.0	31.7	27.4	32.9

INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in other 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 2015 (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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.05	9.74	6.48 / 29	6.66 / 43	4.89 / 31	6.89 / 35	8.33 / 35	6.15
Benchmark	2.79	9.87	5.77 / 54	6.54 / 46	4.77 / 34	6.60 / 51	7.89 / 66	
Peer Group Median	2.90	10.00	5.82 / 50	6.44 / 50	4.48 / 50	6.63 / 50	8.14 / 50	
Number of Funds			140	121	97	88	79	

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-2.97	11.50	6.16	-0.46	6.56	13.00	11.37	1.71	12.47
Benchmark	-3.67	11.39	6.56	-0.16	5.49	12.16	10.32	1.53	11.85
Peer Group Median	-3.96	11.47	6.40	-1.13	4.78	11.49	11.02	-0.11	11.51

RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	0.65	0.00	0.07
Beta	0.89	1.00	1.01
R-Squared	97.99	100.00	97.62
Sharpe Ratio	1.08	0.95	0.96
Up Market Capture	94.18	100.00	99.54
Down Market Capture	84.13	100.00	100.51
5 Yr			
Alpha	0.37	0.00	-0.30
Beta	0.93	1.00	1.03
R-Squared	98.45	100.00	97.18
Sharpe Ratio	0.76	0.70	0.63
Up Market Capture	95.89	100.00	100.12
Down Market Capture	90.71	100.00	106.56

NOTES

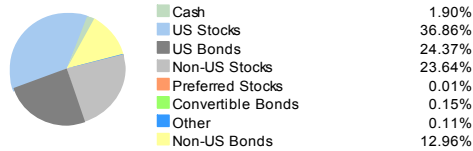


Vanguard Target Retirement 2025 Inv VTTVX (Vanguard Target Retirement 2025 Tr) 6/28/2019

Fund Incep Date: 10/27/2003 Benchmark: S&P Target Date 2025 Category: Target-Date 2025 Net Assets: \$43,560.00M Manager Name: William A. Coleman Manager Start Date: 02/22/2013 Expense Ratio: 0.13% Expense Rank: 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.48%
Industrials	11.39%
Technology	18.06%
Energy	5.53%

Cyclical

Basic Materials	4.65%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.76%

Defensive

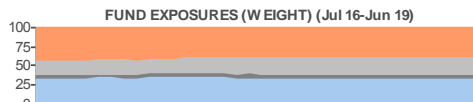
Consumer Defensive	8.15%
Healthcare	11.64%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Inv	37.31%
Vanguard Total Bond Market II Idx Inv	26.68%
Vanguard Total Intl Stock Index Inv	24.61%
Vanguard Total Intl Bd Idx Investor	11.37%

Total: 99.97%

ASSET LOADINGS (Returns-based)



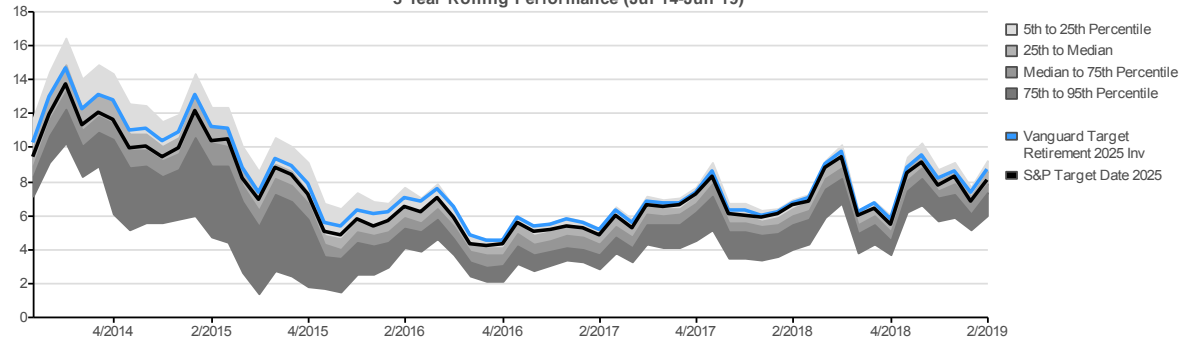
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	9.5	0.1	6.1
US Bonds	32.3	29.6	32.9	32.5
Intl Bonds	5.3	0.5	5.0	0.5
Intl Equity	23.0	18.9	21.6	17.5
US Equity	39.4	41.5	40.5	43.4

INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in other 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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.35	12.46	6.61 / 22	8.69 / 21	5.94 / 5	8.58 / 14	9.79 / 21	6.79
Benchmark	2.99	11.61	5.70 / 61	8.09 / 40	5.52 / 25	8.06 / 37	9.33 / 45	
Peer Group Median	3.16	11.91	5.98 / 50	7.88 / 50	5.11 / 50	7.69 / 50	9.21 / 50	
Number of Funds			234	206	179	152	114	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-5.15	15.94	7.48	-0.85	7.17	18.14	13.29	-0.37	13.84
Benchmark	-5.02	14.55	7.82	-0.25	5.56	17.03	12.51	-0.28	13.82
Peer Group Median	-5.42	15.02	6.95	-1.33	5.35	16.50	13.18	-1.99	13.40

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.40	0.00	0.01
Beta	1.03	1.00	0.99
R-Squared	99.14	100.00	98.06
Sharpe Ratio	1.00	0.95	0.93
Up Market Capture	104.67	100.00	97.17
Down Market Capture	100.68	100.00	98.61

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.30	0.00	-0.33
Beta	1.02	1.00	0.99
R-Squared	99.28	100.00	98.02
Sharpe Ratio	0.69	0.65	0.60
Up Market Capture	104.10	100.00	98.02
Down Market Capture	101.23	100.00	100.26

NOTES

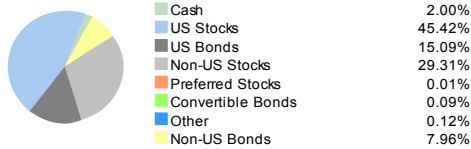


Vanguard Target Retirement 2035 Inv VTTHX (Vanguard Target Retirement 2035 Tr) 6/28/2019

Fund Incep Date: 10/27/2003 Benchmark: S&P Target Date 2035 Category: Target-Date 2035 Net Assets: \$36,493.00M Manager Name: William A. Coleman Manager Start Date: 02/22/2013 Expense Ratio: 0.14% Expense Rank: 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.48%
Industrials	11.39%
Technology	18.04%
Energy	5.53%

Cyclical

Basic Materials	4.66%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.77%

Defensive

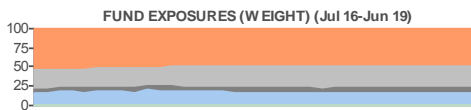
Consumer Defensive	8.16%
Healthcare	11.63%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Inv	45.96%
Vanguard Total Intl Stock Index Inv	30.50%
Vanguard Total Bond Market II Idx Inv	16.52%
Vanguard Total Intl Bd Idx Investor	6.97%

Total: 99.96%

ASSET LOADINGS (Returns-based)



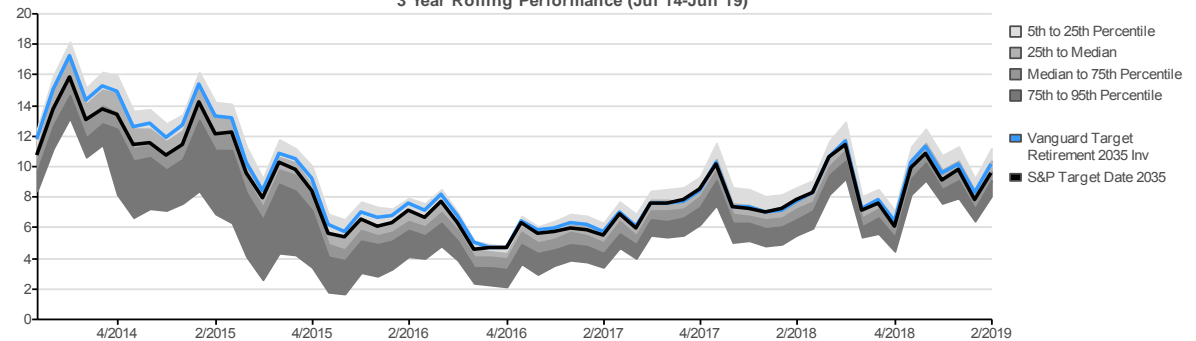
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	1.8	0.0	1.4
US Bonds	16.7	17.9	17.3	20.3
Intl Bonds	5.7	1.0	5.6	0.9
Intl Equity	29.4	24.9	27.6	22.5
US Equity	48.2	54.4	49.5	54.9

INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in other 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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.47	14.03	6.27 / 24	10.11 / 33	6.49 / 21	9.80 / 16	10.88 / 16	7.39
Benchmark	3.18	13.78	5.36 / 59	9.50 / 54	6.23 / 32	9.27 / 36	10.39 / 42	
Peer Group Median	3.28	14.03	5.60 / 50	9.60 / 50	5.86 / 50	8.90 / 50	10.17 / 50	
Number of Funds			229	201	174	147	109	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-6.58	19.12	8.26	-1.26	7.24	22.82	15.16	-2.24	15.14
Benchmark	-6.88	17.78	8.85	-0.35	5.69	20.84	14.12	-1.71	15.02
Peer Group Median	-7.28	18.71	7.83	-1.50	5.57	21.04	14.89	-3.34	14.46

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.74	0.00	0.20
Beta	0.97	1.00	1.00
R-Squared	99.22	100.00	98.64
Sharpe Ratio	0.97	0.89	0.91
Up Market Capture	101.32	100.00	100.74
Down Market Capture	95.84	100.00	97.83

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.20	0.00	-0.45
Beta	1.01	1.00	1.03
R-Squared	99.12	100.00	98.47
Sharpe Ratio	0.63	0.61	0.56
Up Market Capture	102.17	100.00	100.91
Down Market Capture	100.72	100.00	103.66

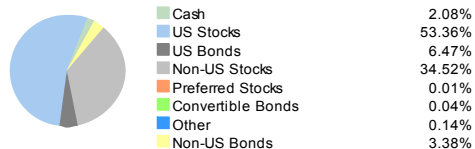
NOTES



Fund Incep Date: 10/27/2003 Benchmark: S&P Target Date 2045 Category: Target-Date 2045 Net Assets: \$26,144.00M Manager Name: William A. Coleman Manager Start Date: 02/22/2013 Expense Ratio: 0.15% Expense Rank: 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.48%
Industrials	11.39%
Technology	18.04%
Energy	5.53%

Cyclical

Basic Materials	4.66%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.77%

Defensive

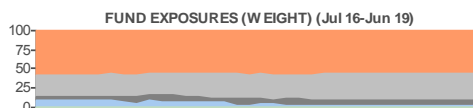
Consumer Defensive	8.16%
Healthcare	11.63%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Inv	54.01%
Vanguard Total Intl Stock Index Inv	35.92%
Vanguard Total Bond Market II Idx Inv	7.08%
Vanguard Total Intl Bd Idx Investor	2.95%

Total: 99.97%

ASSET LOADINGS (Returns-based)



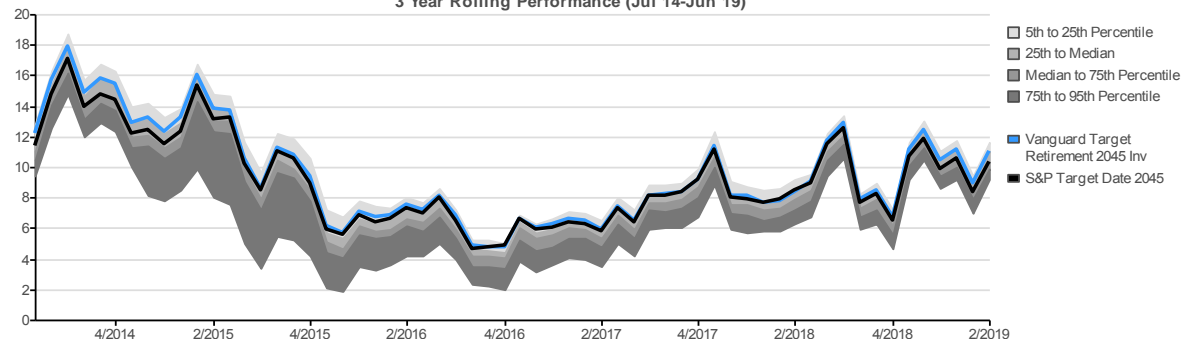
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.0	0.7
US Bonds	3.0	10.3	5.2	12.4
Intl Bonds	7.0	1.9	6.6	1.3
Intl Equity	33.1	28.1	31.2	25.2
US Equity	56.9	59.8	56.9	60.5

INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in other 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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.51	15.39	5.90 / 28	11.05 / 24	6.86 / 21	10.31 / 15	11.24 / 14	7.82
Benchmark	3.32	14.78	5.15 / 60	10.32 / 52	6.61 / 30	9.96 / 26	10.94 / 29	
Peer Group Median	3.35	15.28	5.41 / 50	10.36 / 50	6.19 / 50	9.56 / 50	10.63 / 50	
Number of Funds			229	201	174	146	108	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-7.90	21.42	8.87	-1.57	7.16	24.37	15.58	-2.51	15.19
Benchmark	-7.74	19.56	9.54	-0.46	5.67	23.14	15.15	-2.56	15.62
Peer Group Median	-8.31	20.65	8.20	-1.61	5.65	23.11	15.49	-4.07	14.93

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.49	0.00	-0.06
Beta	1.02	1.00	1.02
R-Squared	99.38	100.00	98.80
Sharpe Ratio	0.94	0.89	0.88
Up Market Capture	104.63	100.00	101.66
Down Market Capture	101.41	100.00	101.68

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.06	0.00	-0.50
Beta	1.03	1.00	1.03
R-Squared	99.32	100.00	98.70
Sharpe Ratio	0.60	0.60	0.55
Up Market Capture	103.86	100.00	100.97
Down Market Capture	103.29	100.00	104.21

NOTES

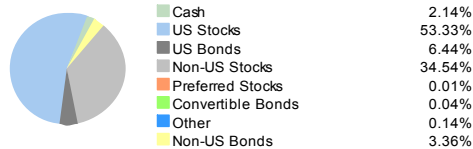


Vanguard Target Retirement 2055 Inv VFFVX (Vanguard Target Retirement 2055 Tr) 6/28/2019

Fund Incept Date: 08/18/2010 Benchmark: S&P Target Date 2055 Category: Target-Date 2055 Net Assets: \$9,695.00M Manager Name: William A. Coleman Manager Start Date: 02/22/2013 Expense Ratio: 0.15% Expense Rank: 4

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.48%
Industrials	11.39%
Technology	18.03%
Energy	5.54%

Cyclical

Basic Materials	4.66%
Consumer Cyclical	11.87%
Real Estate	4.18%
Financial Services	17.77%

Defensive

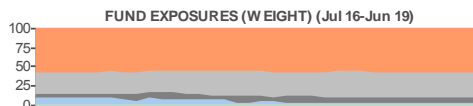
Consumer Defensive	8.16%
Healthcare	11.63%
Utilities	3.30%

TOP 10 HOLDINGS

Vanguard Total Stock Mkt Idx Inv	53.97%
Vanguard Total Intl Stock Index Inv	35.94%
Vanguard Total Bond Market II Idx Inv	7.06%
Vanguard Total Intl Bd Idx Investor	2.94%

Total: 99.91%

ASSET LOADINGS (Returns-based)



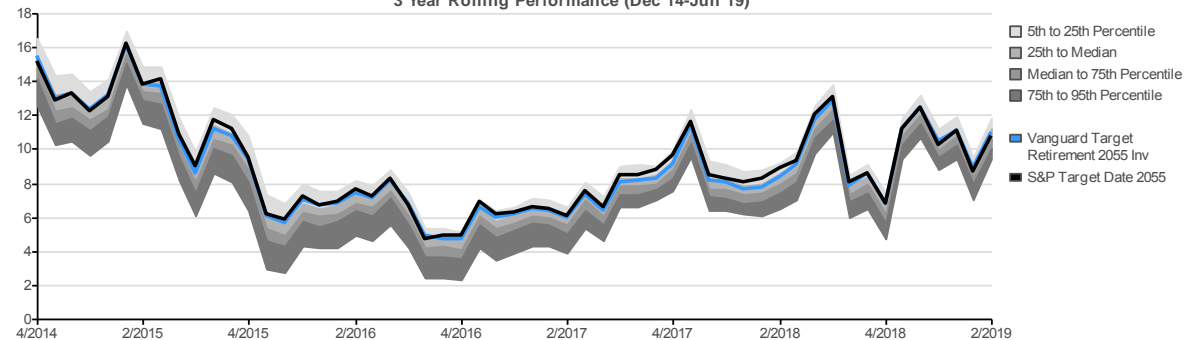
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.0	0.7
US Bonds	2.8	7.3	5.3	8.8
Intl Bonds	7.3	2.4	6.8	1.4
Intl Equity	32.7	28.9	31.1	26.2
US Equity	57.2	61.4	56.9	63.0

INVESTMENT OVERVIEW

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation. The fund invests in other 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

3 Year Rolling Performance (Dec 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	3.48	15.38	5.88 / 28	11.04 / 32	6.82 / 26	10.29 / 25		10.33
Benchmark	3.34	15.02	5.03 / 60	10.80 / 43	6.79 / 28	10.41 / 21		
Peer Group Median	3.36	15.48	5.35 / 50	10.62 / 50	6.33 / 50	9.80 / 50	10.61 / 50	
Number of Funds			230	199	167	113	17	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-7.89	21.38	8.88	-1.72	7.19	24.33	15.58	-2.27	
Benchmark	-7.97	20.48	9.94	-0.54	5.64	24.96	15.81		
Peer Group Median	-8.60	21.16	8.26	-1.62	5.70	23.27	15.60	-4.59	14.75

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.32	0.00	-0.23
Beta	0.99	1.00	1.00
R-Squared	99.31	100.00	98.78
Sharpe Ratio	0.94	0.91	0.88
Up Market Capture	100.29	100.00	99.81
Down Market Capture	98.31	100.00	99.68

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.08	0.00	-0.45
Beta	0.99	1.00	1.01
R-Squared	99.31	100.00	98.72
Sharpe Ratio	0.60	0.59	0.55
Up Market Capture	99.18	100.00	98.44
Down Market Capture	98.63	100.00	101.70

NOTES



American Beacon Bridgeway Lg Cp Val Y BWLYX

6/28/2019

Fund Incep Date: 02/03/2012 Benchmark : Russell 1000 Value Index Category : Large Value Net Assets : \$4,233.00M Manager Name : John N.R. Montgomery Manager Start Date : 10/31/2003 Expense Ratio : 0.79% Expense Rank: 29

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	4.59%
Industrials	7.57%
Technology	12.29%
Energy	6.93%

Cyclical

Basic Materials	4.45%
Consumer Cyclical	9.79%
Real Estate	4.54%
Financial Services	27.10%

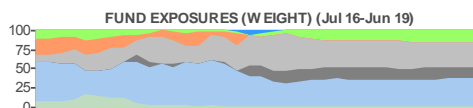
Defensive

Consumer Defensive	6.87%
Healthcare	11.56%
Utilities	4.31%

TOP 10 HOLDINGS

HCA Healthcare Inc	1.94%
Micron Technology Inc	1.87%
Intel Corp	1.85%
Bank of America Corporation	1.81%
Pfizer Inc	1.66%
Procter & Gamble Co	1.65%
Ameren Corp	1.64%
Coming Inc	1.63%
AT&T Inc	1.54%
Marathon Petroleum Corp	1.50%
Total:	17.10%

ASSET LOADINGS (Returns-based)



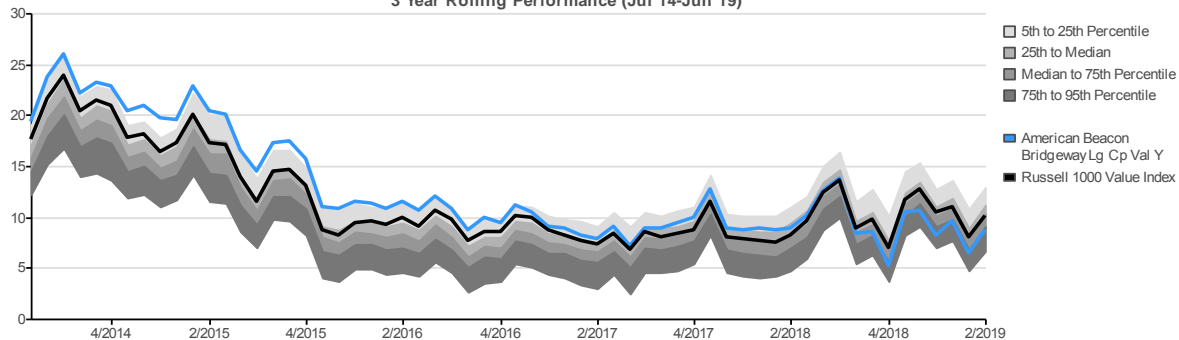
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	2.6	0.1
Top Value	36.4	67.8	41.8	68.2
Top Growth	14.4	0.1	8.4	0.1
Mid Value	32.7	31.9	30.5	31.5
Mid Growth	0.0	0.1	6.7	0.0
Sm Value	16.5	0.0	9.4	0.0
Sm Growth	0.0	0.1	0.5	0.1

INVESTMENT OVERVIEW

The investment seeks to provide long-term total return on capital, primarily through capital appreciation and some income. The fund invests in a diversified portfolio of stocks of large capitalization companies that are listed on the New York Stock Exchange, NYSE American, or NASDAQ. Under normal market conditions, at least 80% of Fund net assets (plus borrowings for investment purposes) are invested in stocks from among those in the large-cap value category at the time of purchase.

PERFORMANCE

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	4.31	15.84	1.19 / 89	8.80 / 81	6.99 / 46	12.51 / 14	13.80 / 9	12.14
Benchmark	3.84	16.24	8.46 / 31	10.19 / 53	7.46 / 36	12.09 / 22	13.19 / 20	
Peer Group Median	3.37	14.92	6.10 / 50	10.25 / 50	6.82 / 50	11.26 / 50	12.15 / 50	
Number of Funds			1257	1191	1108	1031	967	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-13.35	15.81	16.16	-1.24	14.15	37.55	17.98	2.33	14.51
Benchmark	-8.27	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51
Peer Group Median	-8.88	16.07	14.34	-3.60	10.94	31.61	14.95	-0.76	13.59

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-1.92	0.00	0.09
Beta	1.09	1.00	1.00
R-Squared	95.66	100.00	95.37
Sharpe Ratio	0.59	0.75	0.74
Up Market Capture	96.68	100.00	99.51
Down Market Capture	105.54	100.00	99.52

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.64	0.00	-0.54
Beta	1.04	1.00	0.99
R-Squared	95.13	100.00	94.67
Sharpe Ratio	0.53	0.59	0.53
Up Market Capture	96.32	100.00	97.08
Down Market Capture	98.36	100.00	100.12

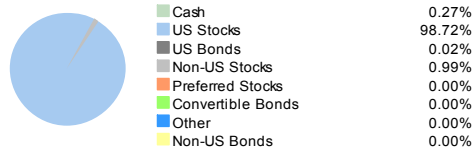
NOTES



Fund Incep Date: 07/07/1997
Benchmark: S&P 500 Index
Category: Large Blend
Net Assets: \$228,885.00M
Manager Name: Donald M. Butler
Manager Start Date: 12/31/2000
Expense Ratio: 0.02%
Expense Rank: 1

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.49%
Industrials	10.11%
Technology	22.91%
Energy	5.05%

Cyclical

Basic Materials	2.46%
Consumer Cyclical	12.22%
Real Estate	2.69%
Financial Services	15.93%

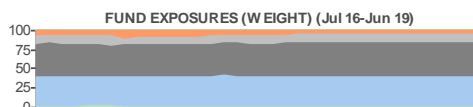
Defensive

Consumer Defensive	7.73%
Healthcare	14.09%
Utilities	3.31%

TOP 10 HOLDINGS

Microsoft Corp	4.19%
Apple Inc	3.53%
Amazon.com Inc	3.20%
Facebook Inc A	1.89%
Berkshire Hathaway Inc B	1.69%
Johnson & Johnson	1.51%
JPMorgan Chase & Co	1.48%
Alphabet Inc Class C	1.35%
Exxon Mobil Corp	1.32%
Alphabet Inc A	1.32%
Total:	21.49%

ASSET LOADINGS (Returns-based)

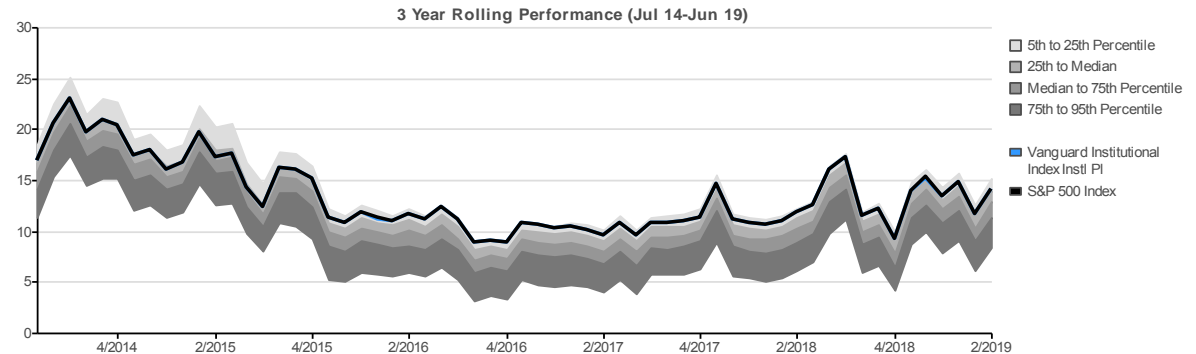


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.3	0.3
Top Value	39.8	39.9	39.6	39.6
Top Growth	42.9	42.9	42.3	42.3
Mid Value	12.6	12.5	11.2	11.3
Mid Growth	4.7	4.7	6.6	6.6
Sm Value	0.0	0.0	0.0	0.0
Sm Growth	0.0	0.0	0.0	0.0

INVESTMENT OVERVIEW

The investment seeks to track the performance of a benchmark 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	4.30	18.54	10.41 / 26	14.17 / 17	10.70 / 9	13.97 / 11	14.70 / 9	7.52
Benchmark	4.30	18.54	10.42 / 26	14.19 / 16	10.71 / 9	13.98 / 11	14.70 / 9	
Peer Group Median	4.09	17.86	8.72 / 50	12.93 / 50	9.01 / 50	12.85 / 50	13.43 / 50	
Number of Funds			1429	1306	1217	1149	1054	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-4.41	21.82	11.95	1.39	13.68	32.37	16.00	2.12	15.07
Benchmark	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Peer Group Median	-5.97	20.98	10.64	-0.24	11.78	31.94	15.43	-0.16	14.16

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.01	0.00	-1.05
Beta	1.00	1.00	1.00
R-Squared	100.00	100.00	95.93
Sharpe Ratio	1.04	1.04	0.93
Up Market Capture	99.95	100.00	95.71
Down Market Capture	100.03	100.00	101.05

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.01	0.00	-1.38
Beta	1.00	1.00	1.00
R-Squared	100.00	100.00	95.80
Sharpe Ratio	0.84	0.84	0.70
Up Market Capture	99.97	100.00	94.85
Down Market Capture	100.02	100.00	103.02

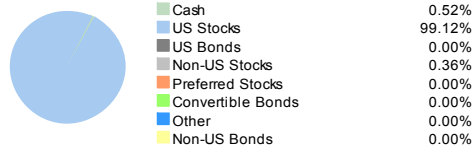
NOTES



Fund Incep Date: 10/03/2017	Benchmark: S&P 500 Index	Category: Large Blend	Net Assets: \$1,843.00M	Manager Name: Thomas C. Seto	Manager Start Date: 12/31/2016	Expense Ratio: 0.19%	Expense Rank: 6
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.41%
Industrials	11.77%
Technology	25.18%
Energy	0.24%

Cyclical

Basic Materials	2.16%
Consumer Cyclical	13.89%
Real Estate	0.35%
Financial Services	18.27%

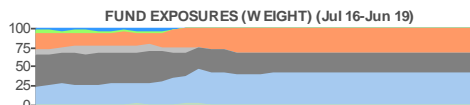
Defensive

Consumer Defensive	7.70%
Healthcare	14.51%
Utilities	2.53%

TOP 10 HOLDINGS

Microsoft Corp	3.89%
Apple Inc	3.40%
Amazon.com Inc	3.07%
Alphabet Inc A	2.89%
Visa Inc Class A	1.54%
JPMorgan Chase & Co	1.53%
Procter & Gamble Co	1.17%
Bank of America Corporation	1.17%
Pfizer Inc	1.11%
Mastercard Inc A	1.07%
Total:	20.85%

ASSET LOADINGS (Returns-based)



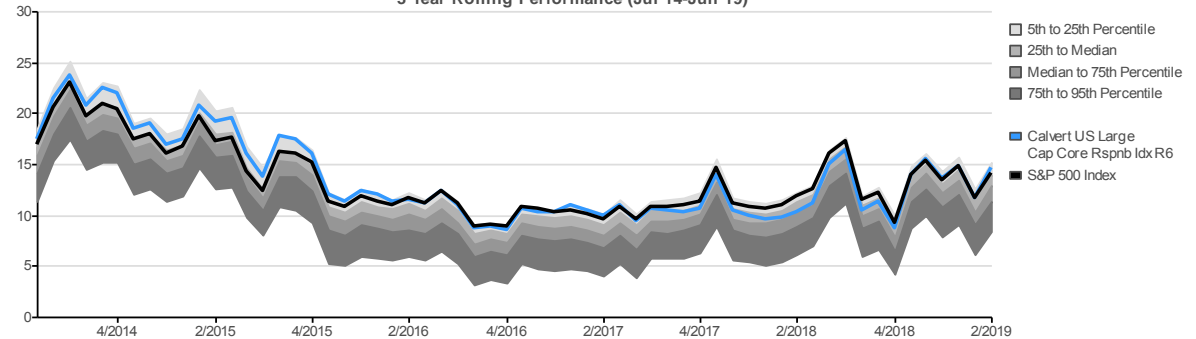
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.3	0.3
Top Value	41.8	39.9	36.5	39.6
Top Growth	26.3	42.9	31.2	42.3
Mid Value	0.0	12.5	3.0	11.3
Mid Growth	31.6	4.7	26.7	6.6
Sm Value	0.0	0.0	1.0	0.0
Sm Growth	0.3	0.0	1.3	0.0

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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	4.55	19.42	12.11 / 15	14.61 / 11	10.91 / 7	14.29 / 6	14.93 / 5	11.45
Benchmark	4.30	18.54	10.42 / 26	14.19 / 16	10.71 / 9	13.98 / 11	14.70 / 9	
Peer Group Median	4.09	17.86	8.72 / 50	12.93 / 50	9.01 / 50	12.85 / 50	13.43 / 50	
Number of Funds			1429	1306	1217	1149	1054	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-4.06	21.12	10.71	1.14	14.41	35.04	17.71	0.05	13.73
Benchmark	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Peer Group Median	-5.97	20.98	10.64	-0.24	11.78	31.94	15.43	-0.16	14.16

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.04	0.00	-1.05
Beta	1.03	1.00	1.00
R-Squared	99.04	100.00	95.93
Sharpe Ratio	1.04	1.04	0.93
Up Market Capture	102.21	100.00	95.71
Down Market Capture	100.90	100.00	101.05

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.10	0.00	-1.38
Beta	1.03	1.00	1.00
R-Squared	98.66	100.00	95.80
Sharpe Ratio	0.82	0.84	0.70
Up Market Capture	102.49	100.00	94.85
Down Market Capture	102.55	100.00	103.02

NOTES



Fund Incep Date: 05/17/1967
Benchmark : Russell 1000 Growth Index
Category : Large Growth
Net Assets : \$121,774.00M
Manager Name : William Danoff
Manager Start Date : 09/17/1990
Expense Ratio : 0.82%
Expense Rank: 25

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	0.95%
Industrials	2.98%
Technology	36.39%
Energy	1.89%

Cyclical

Basic Materials	1.40%
Consumer Cyclical	16.31%
Real Estate	0.31%
Financial Services	22.46%

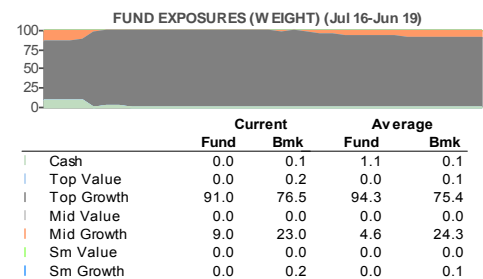
Defensive

Consumer Defensive	3.99%
Healthcare	12.99%
Utilities	0.35%

TOP 10 HOLDINGS

Amazon.com Inc	6.96%
Facebook Inc A	6.89%
Berkshire Hathaway Inc A	5.17%
Microsoft Corp	4.68%
Visa Inc Class A	3.62%
Salesforce.com Inc	3.50%
UnitedHealth Group Inc	3.11%
Alphabet Inc A	2.72%
Netflix Inc	2.71%
Adobe Inc	2.69%
Total:	42.04%

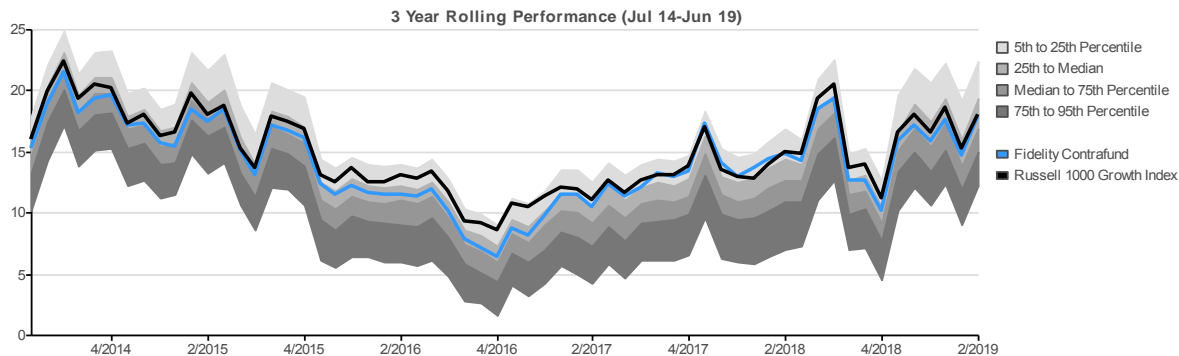
ASSET LOADINGS (Returns-based)



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 fund 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	5.44	20.77	7.92 / 72	17.81 / 39	12.53 / 37	14.93 / 42	15.42 / 37	12.55
Benchmark	4.64	21.49	11.56 / 34	18.07 / 36	13.39 / 22	15.76 / 23	16.28 / 17	
Peer Group Median	4.63	21.33	9.98 / 50	16.86 / 50	11.77 / 50	14.58 / 50	14.86 / 50	
Number of Funds			1403	1343	1287	1263	1116	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-2.13	32.21	3.36	6.46	9.56	34.15	16.26	-0.14	16.93
Benchmark	-1.51	30.21	7.08	5.67	13.05	33.48	15.26	2.64	16.71
Peer Group Median	-2.14	28.30	3.08	3.82	10.34	34.14	15.21	-1.84	15.56

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.25	0.00	-0.60
Beta	1.00	1.00	0.99
R-Squared	95.80	100.00	93.39
Sharpe Ratio	1.17	1.21	1.12
Up Market Capture	97.15	100.00	94.12
Down Market Capture	95.98	100.00	96.41

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.29	0.00	-1.37
Beta	0.96	1.00	0.99
R-Squared	95.32	100.00	93.10
Sharpe Ratio	0.92	0.97	0.83
Up Market Capture	92.76	100.00	95.22
Down Market Capture	93.44	100.00	103.78

NOTES



T. Rowe Price Instl Mid-Cap Equity Gr PMEGX

6/28/2019

Fund Incep Date: 07/31/1996	Benchmark: Russell Mid-Cap Growth Index	Category: Mid-Cap Growth	Net Assets: \$7,971.00M	Manager Name: Brian W.H. Berghuis	Manager Start Date: 07/31/1996	Expense Ratio: 0.61%	Expense Rank: 5
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	0.02%
Industrials	20.98%
Technology	20.71%
Energy	3.41%

Cyclical

Basic Materials	3.91%
Consumer Cyclical	14.34%
Real Estate	0.91%
Financial Services	8.48%

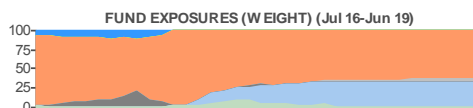
Defensive

Consumer Defensive	6.17%
Healthcare	19.11%
Utilities	1.95%

TOP 10 HOLDINGS

Teleflex Inc	2.51%
The Cooper Companies Inc	2.29%
Ball Corp	2.00%
Hologic Inc	1.89%
Haris	1.75%
Textron Inc	1.69%
Agilent Technologies Inc	1.61%
Microchip Technology Inc	1.60%
IAC/InterActiveCorp	1.54%
Keysight Technologies Inc	1.52%
Total:	18.40%

ASSET LOADINGS (Returns-based)



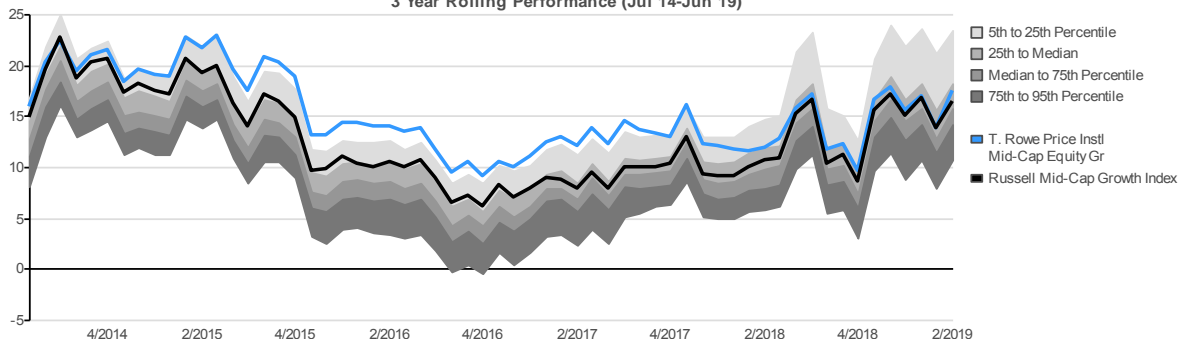
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.5	0.0	2.0	0.0
Top Value	32.2	0.0	16.8	0.0
Top Growth	0.0	0.0	2.7	0.0
Mid Value	4.2	0.0	1.2	0.0
Mid Growth	63.2	100.0	74.6	100.0
Sm Value	0.0	0.0	0.0	0.0
Sm Growth	0.0	0.0	2.8	0.0

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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	7.26	25.41	16.66 / 15	17.52 / 32	13.56 / 9	16.68 / 4	17.68 / 3	12.54
Benchmark	5.40	26.08	13.94 / 35	16.49 / 41	11.10 / 34	14.76 / 30	16.02 / 23	
Peer Group Median	6.29	26.33	12.03 / 50	15.83 / 50	10.26 / 50	13.56 / 50	14.83 / 50	
Number of Funds			610	582	554	531	508	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-2.23	26.02	6.94	6.94	13.79	37.89	14.50	-1.28	29.24
Benchmark	-4.75	25.27	7.33	-0.20	11.90	35.74	15.81	-1.65	26.38
Peer Group Median	-5.66	24.68	5.56	-0.57	7.40	35.43	14.54	-4.15	25.54

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	2.06	0.00	-0.19
Beta	0.91	1.00	0.98
R-Squared	95.41	100.00	93.71
Sharpe Ratio	1.17	1.04	1.00
Up Market Capture	97.43	100.00	96.22
Down Market Capture	87.90	100.00	97.61

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	2.73	0.00	-0.66
Beta	0.94	1.00	0.99
R-Squared	95.48	100.00	92.48
Sharpe Ratio	0.96	0.77	0.70
Up Market Capture	103.83	100.00	97.74
Down Market Capture	90.09	100.00	101.02

NOTES



Fund Incep Date: 05/13/2015	Benchmark : Russell Mid-Cap Index	Category : Mid-Cap Blend	Net Assets : \$1,100.00M	Manager Name : Alan Mason	Manager Start Date : 05/13/2015	Expense Ratio : 0.07%	Expense Rank: 3
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	0.91%
Industrials	13.93%
Technology	18.47%
Energy	4.48%

Cyclical

Basic Materials	4.21%
Consumer Cyclical	13.96%
Real Estate	10.20%
Financial Services	12.69%

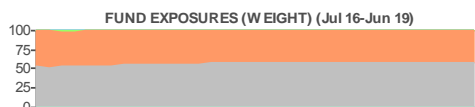
Defensive

Consumer Defensive	4.98%
Healthcare	9.62%
Utilities	6.56%

TOP 10 HOLDINGS

L3Harris Technologies Inc	0.55%
Sempra Energy	0.49%
Fiserv Inc	0.47%
Dollar General Corp	0.46%
Williams Companies Inc	0.44%
Red Hat Inc	0.43%
Welltower Inc	0.43%
Newmont Goldcorp Corp	0.41%
Xcel Energy Inc	0.40%
Ingersoll-Rand PLC	0.40%
Total:	4.48%

ASSET LOADINGS (Returns-based)

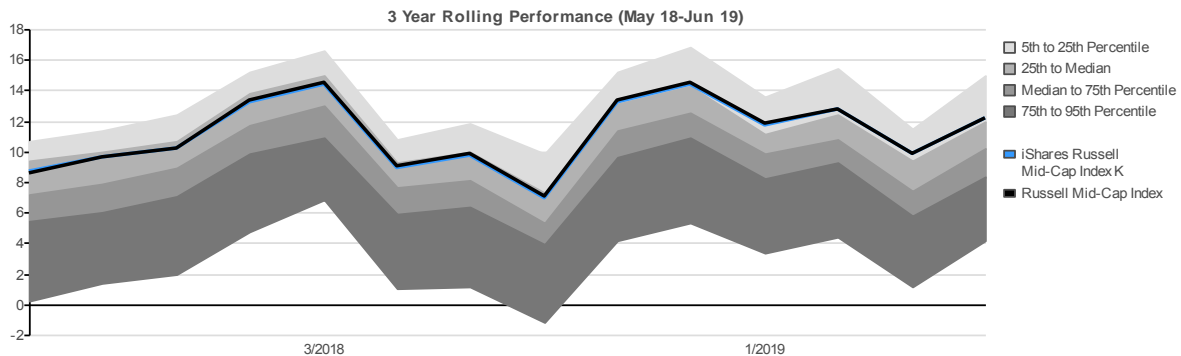


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.1	0.0	0.2	0.1
Top Value	0.3	0.0	0.1	0.2
Top Growth	0.0	0.7	0.0	0.4
Mid Value	58.4	58.0	56.6	56.1
Mid Growth	40.9	40.9	42.7	42.9
Sm Value	0.2	0.4	0.3	0.3
Sm Growth	0.0	0.0	0.1	0.1

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 the 800 smallest issuers in the Russell 1000® Index.

PERFORMANCE



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	4.14	21.36	7.94 / 13	12.13 / 24				8.56
Benchmark	4.13	21.35	7.83 / 15	12.16 / 24	8.63 / 11	13.37 / 7	15.16 / 5	
Peer Group Median	3.05	17.91	2.23 / 50	10.21 / 50	6.22 / 50	11.55 / 50	12.92 / 50	
Number of Funds			443	403	367	340	313	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-9.05	18.40	13.76						
Benchmark	-9.06	18.52	13.80	-2.44	13.22	34.76	17.28	-1.55	25.48
Peer Group Median	-11.46	15.85	15.08	-3.34	9.09	33.89	17.12	-2.55	23.65

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.01	0.00	-2.25
Beta	1.00	1.00	1.02
R-Squared	99.99	100.00	94.12
Sharpe Ratio	0.82	0.82	0.65
Up Market Capture	99.92	100.00	95.42
Down Market Capture	100.05	100.00	103.81

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	NA	0.00	-2.32
Beta	NA	1.00	1.02
R-Squared	NA	100.00	93.52
Sharpe Ratio	NA	0.64	0.44
Up Market Capture	NA	100.00	91.75
Down Market Capture	NA	100.00	105.78

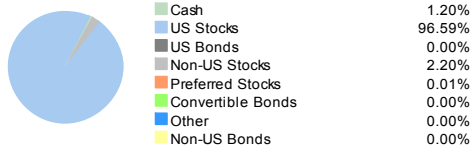
NOTES



Fund Incep Date: 12/23/1981	Benchmark: Russell 2000 Index	Category: Small Blend	Net Assets: \$6,428.00M	Manager Name: Jed S. Fogdall	Manager Start Date: 02/28/2012	Expense Ratio: 0.52%	Expense Rank: 11
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	1.22%
Industrials	17.16%
Technology	14.61%
Energy	5.19%

Cyclical

Basic Materials	6.79%
Consumer Cyclical	15.36%
Real Estate	1.06%
Financial Services	22.56%

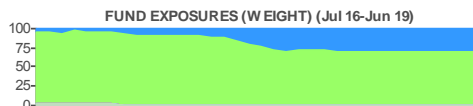
Defensive

Consumer Defensive	4.36%
Healthcare	9.21%
Utilities	2.48%

TOP 10 HOLDINGS

S+p500 Emini Fut Jun19 Xcme 20190621	0.91%
Ensign Group Inc	0.43%
OSI Systems Inc	0.37%
Coca-Cola Consolidated Inc	0.35%
Conmed Corp	0.34%
NMI Holdings Inc A	0.34%
California Water Service Group	0.34%
Chart Industries Inc	0.34%
Innospec Inc	0.33%
Inter Parfums Inc	0.32%
Total:	4.09%

ASSET LOADINGS (Returns-based)



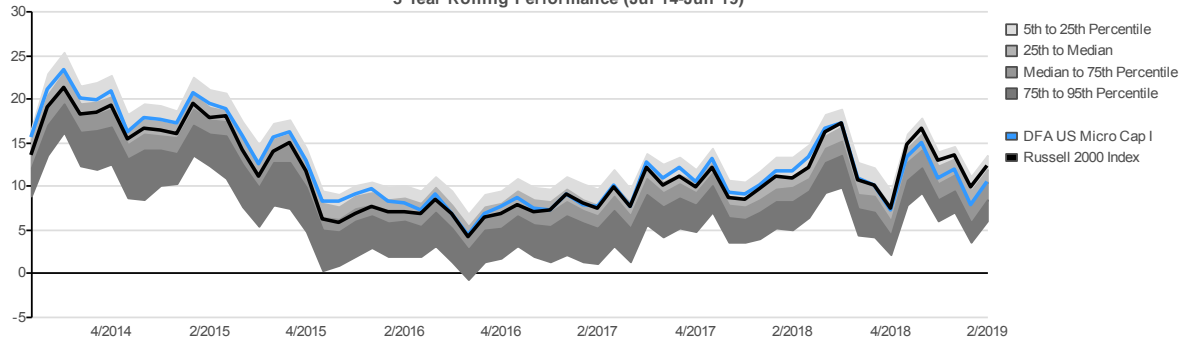
	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	0.4	0.0
Top Value	0.0	0.0	0.0	0.0
Top Growth	0.0	0.0	0.0	0.0
Mid Value	0.0	0.2	0.0	0.1
Mid Growth	0.0	0.0	0.0	0.0
Sm Value	69.4	48.6	80.6	49.5
Sm Growth	30.7	51.3	19.0	50.4

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 adjust market exposure based on actual or expected cash inflows to or outflows from the fund.

PERFORMANCE

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	0.85	12.57	-7.48 / 83	10.54 / 49	6.33 / 44	11.82 / 27	13.91 / 23	11.57
Benchmark	2.10	16.98	-3.31 / 45	12.30 / 19	7.06 / 29	11.63 / 33	13.45 / 36	
Peer Group Median	2.26	16.22	-3.73 / 50	10.42 / 50	5.98 / 50	11.11 / 50	12.98 / 50	
Number of Funds			749	705	634	572	522	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-11.60	11.18	25.63	-3.62	2.92	45.06	18.24	-3.25	31.29
Benchmark	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	-4.18	26.85
Peer Group Median	-12.35	12.90	20.70	-4.38	4.93	37.54	15.66	-3.12	25.87

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	-1.84	0.00	-1.34
Beta	1.03	1.00	0.97
R-Squared	97.09	100.00	95.86
Sharpe Ratio	0.57	0.69	0.59
Up Market Capture	99.17	100.00	91.00
Down Market Capture	107.65	100.00	99.66

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	-0.60	0.00	-0.62
Beta	0.99	1.00	0.95
R-Squared	96.50	100.00	95.02
Sharpe Ratio	0.40	0.44	0.39
Up Market Capture	97.07	100.00	89.78
Down Market Capture	100.12	100.00	94.88

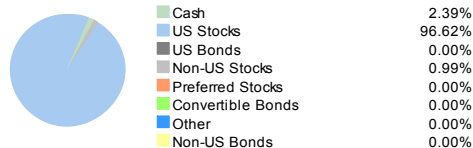
NOTES



Fund Incep Date: 03/31/2011 **Benchmark :** Russell 2000 Index **Category :** Small Blend **Net Assets :** \$2,094.00M **Manager Name :** Greg Savage **Manager Start Date :** 04/27/2012 **Expense Ratio :** 0.07% **Expense Rank:** 3

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	1.05%
Industrials	15.22%
Technology	14.95%
Energy	3.43%

Cyclical

Basic Materials	5.45%
Consumer Cyclical	11.19%
Real Estate	8.94%
Financial Services	16.40%

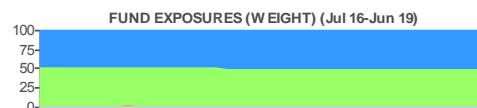
Defensive

Consumer Defensive	3.61%
Healthcare	15.94%
Utilities	3.82%

TOP 10 HOLDINGS

Array BioPharma Inc	0.51%
iShares Russell 2000 ETF	0.40%
Haemonetics Corp	0.31%
NovoCure Ltd	0.27%
Deckers Outdoor Corp	0.25%
Science Applications International Corp	0.25%
EMCOR Group Inc	0.24%
Portland General Electric Co	0.24%
Southwest Gas Holdings Inc	0.24%
Radian Group Inc	0.24%
Total:	2.95%

ASSET LOADINGS (Returns-based)

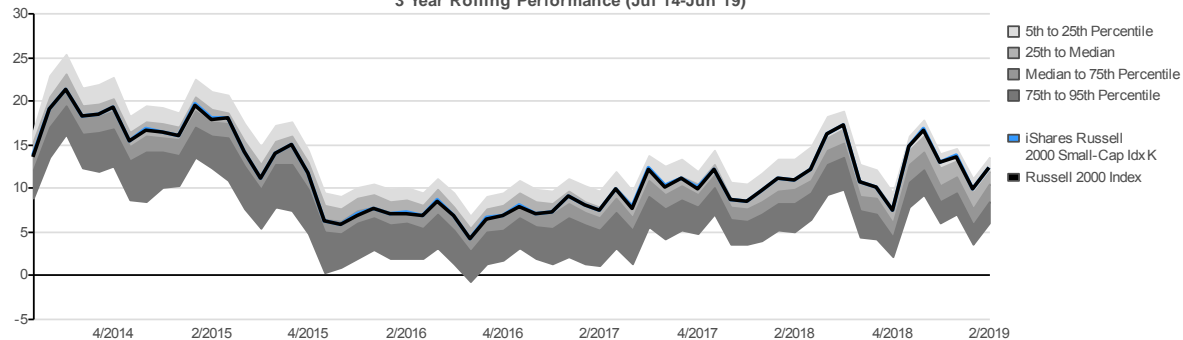


INVESTMENT OVERVIEW

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

3 Year Rolling Performance (Jul 14-Jun 19)



	3M	YTD	1Y	3Y	5Y	7Y	10Y	SI
Fund	2.12	17.03	-3.25 / 44	12.34 / 18	7.13 / 27	11.69 / 31	13.43 / 37	9.32
Benchmark	2.10	16.98	-3.31 / 45	12.30 / 19	7.06 / 29	11.63 / 33	13.45 / 36	
Peer Group Median	2.26	16.22	-3.73 / 50	10.42 / 50	5.98 / 50	11.11 / 50	12.98 / 50	
Number of Funds			749	705	634	572	522	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-10.93	14.69	21.40	-4.41	4.86	39.13	16.30	-4.45	26.77
Benchmark	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	-4.18	26.85
Peer Group Median	-12.35	12.90	20.70	-4.38	4.93	37.54	15.66	-3.12	25.87

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.04	0.00	-1.34
Beta	1.00	1.00	0.97
R-Squared	100.00	100.00	95.86
Sharpe Ratio	0.69	0.69	0.59
Up Market Capture	100.00	100.00	91.00
Down Market Capture	99.79	100.00	99.66

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.07	0.00	-0.62
Beta	1.00	1.00	0.95
R-Squared	99.99	100.00	95.02
Sharpe Ratio	0.45	0.44	0.39
Up Market Capture	100.04	100.00	89.78
Down Market Capture	99.74	100.00	94.88

NOTES



Fund Incep Date: 03/31/2011 Benchmark : MSCI EAFE Category : Foreign Large Blend Net Assets : \$7,970.00M Manager Name : Greg Savage Manager Start Date : 04/27/2012 Expense Ratio : 0.06% Expense Rank: 2

PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	3.98%
Industrials	13.21%
Technology	8.19%
Energy	5.42%

Cyclical

Basic Materials	7.47%
Consumer Cyclical	11.75%
Real Estate	3.98%
Financial Services	19.58%

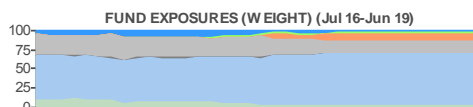
Defensive

Consumer Defensive	12.28%
Healthcare	10.28%
Utilities	3.88%

TOP 10 HOLDINGS

Nestle SA	2.11%
Novartis AG	1.50%
Roche Holding AG	1.40%
HSBC Holdings PLC	1.17%
BP PLC	1.05%
Royal Dutch Shell PLC Class A	1.03%
Toyota Motor Corp	0.97%
Total SA	0.97%
AIA Group Ltd	0.87%
Royal Dutch Shell Plc, Classb	0.85%
Total:	11.93%

ASSET LOADINGS (Returns-based)

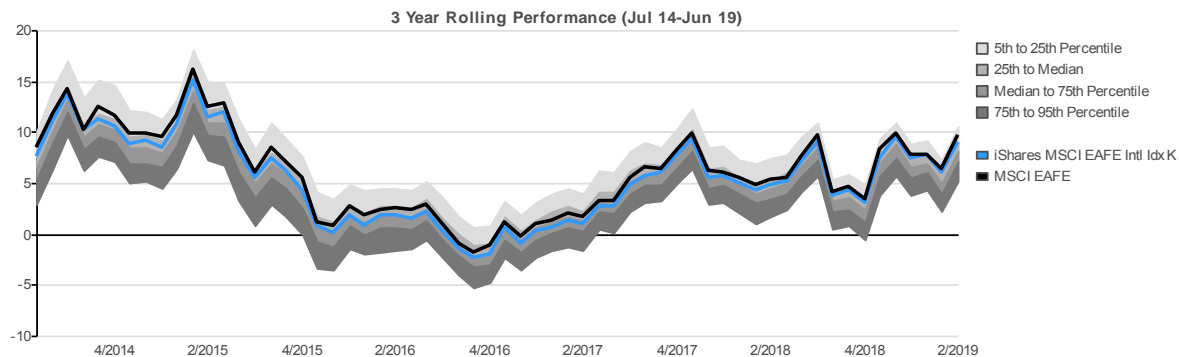


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	2.1	3.3	5.1	2.7
Europe Lg	68.0	61.8	61.7	59.2
Europe Sm	0.0	4.7	0.5	4.3
AsiaPac Lg	16.9	25.6	22.3	31.0
AsiaPac Sm	8.1	3.7	3.7	1.9
Emg Europe	1.8	1.0	1.1	0.9
Emg Asia	3.1	0.0	5.6	0.0

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	3.71	14.20	1.48 / 28	9.02 / 23	2.16 / 41	7.13 / 28	6.69 / 46	4.37
Benchmark	3.97	14.49	1.60 / 26	9.65 / 13	2.74 / 19	7.81 / 9	7.40 / 18	
Peer Group Median	3.26	13.81	-0.01 / 50	8.13 / 50	1.98 / 50	6.57 / 50	6.61 / 50	
Number of Funds			742	683	595	568	504	

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-13.33	25.17	1.03	-0.81	-6.12	21.57	18.65	-12.56	7.26
Benchmark	-13.36	25.62	1.51	-0.39	-4.48	23.29	17.90	-11.73	8.21
Peer Group Median	-15.05	25.32	0.83	-1.11	-5.46	20.08	17.93	-13.55	9.81

RISK & PERFORMANCE STATISTICS

	Fund	Benchmark	Peer Group Median
3 Yr			
Alpha	-0.54	0.00	-1.44
Beta	1.00	1.00	1.01
R-Squared	98.65	100.00	93.74
Sharpe Ratio	0.71	0.76	0.62
Up Market Capture	96.71	100.00	94.83
Down Market Capture	99.70	100.00	101.85
5 Yr			
Alpha	-0.50	0.00	-0.67
Beta	0.96	1.00	0.96
R-Squared	97.86	100.00	92.25
Sharpe Ratio	0.17	0.21	0.15
Up Market Capture	93.91	100.00	91.64
Down Market Capture	97.24	100.00	96.22

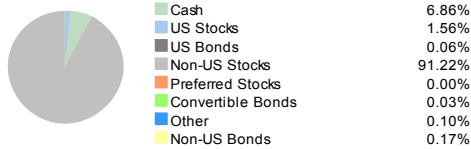
NOTES



Fund Incep Date: 05/01/2009	Benchmark: MSCI ACWI ex USA GDP NR USD	Category: Foreign Large Growth	Net Assets: \$161,594.00M	Manager Name: Mark E. Denning	Manager Start Date: 12/31/1991	Expense Ratio: 0.49%	Expense Rank: 4
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PORTFOLIO COMPOSITION (Holdings-based)

Assets



Sector Breakdown

Sensitive

Communication Services	1.53%
Industrials	11.33%
Technology	18.57%
Energy	6.33%

Cyclical

Basic Materials	8.97%
Consumer Cyclical	13.11%
Real Estate	1.72%
Financial Services	19.48%

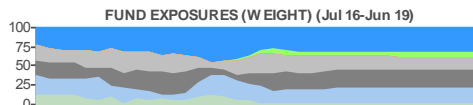
Defensive

Consumer Defensive	5.75%
Healthcare	10.04%
Utilities	3.18%

TOP 10 HOLDINGS

AIA Group Ltd	3.04%
Airbus SE	2.89%
HDFC Bank Ltd	2.46%
Alibaba Group Holding Ltd ADR	2.38%
Nintendo Co Ltd	2.32%
Reliance Industries Ltd	2.21%
Samsung Electronics Co Ltd	1.73%
ASML Holding NV	1.55%
Vale SA ADR	1.52%
Tencent Holdings Ltd	1.38%
Total:	21.49%

ASSET LOADINGS (Returns-based)

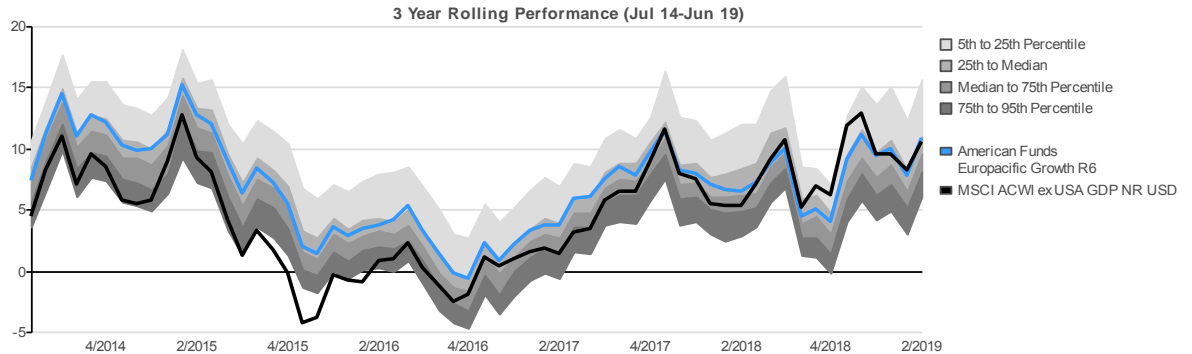


	Current		Average	
	Fund	Bmk	Fund	Bmk
Cash	0.0	0.0	3.7	0.0
Europe Lg	21.8	33.8	19.8	30.6
Europe Sm	23.5	9.3	20.9	4.2
AsiaPac Lg	16.0	2.6	19.3	10.1
AsiaPac Sm	0.0	0.0	0.0	0.0
Emg Europe	6.2	17.9	3.2	16.8
Emg Asia	32.6	36.5	33.1	38.4

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	3.87	17.59	1.91 / 45	10.84 / 29	4.45 / 36	8.44 / 34	8.15 / 47	9.05
Benchmark	2.17	13.02	0.93 / 54	10.54 / 31	2.78 / 75	6.38 / 84	6.20 / 91	
Peer Group Median	4.64	18.15	1.39 / 50	9.54 / 50	3.74 / 50	7.88 / 50	8.06 / 50	
Number of Funds			482	454	414	391	343	

CALENDAR	2018	2017	2016	2015	2014	2013	2012	2011	2010
Fund	-14.91	31.17	1.01	-0.48	-2.29	20.58	19.64	-13.31	9.76
Benchmark	-14.51	31.95	5.95	-7.66	-3.48	11.29	19.07	-16.24	8.79
Peer Group Median	-14.77	30.78	-1.70	0.67	-4.39	20.15	18.97	-12.82	13.36

RISK & PERFORMANCE STATISTICS

3 Yr	Fund	Benchmark	Peer Group Median
Alpha	0.76	0.00	-0.02
Beta	0.95	1.00	0.91
R-Squared	92.99	100.00	80.15
Sharpe Ratio	0.78	0.75	0.68
Up Market Capture	96.14	100.00	90.71
Down Market Capture	92.28	100.00	92.48

5 Yr	Fund	Benchmark	Peer Group Median
Alpha	1.91	0.00	1.29
Beta	0.82	1.00	0.80
R-Squared	87.87	100.00	77.66
Sharpe Ratio	0.35	0.20	0.28
Up Market Capture	87.20	100.00	83.14
Down Market Capture	78.72	100.00	79.08

NOTES



Capital Markets Overview

Second Quarter 2019

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Macroeconomic Summary

U.S. Economy

- The US economy accelerated in Q1, posting 3.1% quarter over quarter annualized growth
 - Advance estimates of 2Q expected to be released July 26th
- Strong labor markets continued with a 3.6% unemployment rate in April which is the lowest it has been since 1969 when it touched 3.4%; it ended the quarter slightly up from the low, at 3.7%
- The US consumer also appears to be in good shape with consumer confidence, consumer spending and consumer net wealth continue their upward trend since the start of this year
- Housing prices hit all-time highs in April by several metrics, though housing price growth slowed to near 2.5%
- The December rate hike to 2.5% has been largely viewed as a policy mistake; in fact, markets are pricing in a near 100% chance of a rate reduction at their July 30-31st, which has sent prices for risky assets higher
 - The US 10Y-3M treasury spread inverted has been inverted since May 23rd; this is of particular import as this is the Fed's preferred spread for recession predictors and relevant in their rate cut calculations

Global Economy

- China is at the center or involved in several high-profile trade global trade topics:
 - 1) China-EU talks were progressing well in April as the two parties agreed to strengthen their trade relationship “based on reciprocity”, said European Council President Donald Tusk
 - 2) China's 2Q19 GDP came in at a surprise low of 6.2% which represents the slowest growth since 1992 due in part to trade tensions with the US
 - 3) This has prompted anxiety in any market that exports to China, both on the inputs and completed goods
 - 4) Of particular note, China is Germany's 3rd largest export partner and imputes slowdown concerns for a major economic member of the EU
- Formal central bank activity was silent this quarter, with central banks from the US, UK, ECB and BoJ making no adjustments to their rates; however:
 - The market is expecting the Fed to cut US rates at least 25bps in July
 - ECB President Mario Draghi indicated rate cuts were possible as early as July 2019
- Christine Lagarde was elected new ECB President at the end of Mario Draghi's term on October 31st, 2019
- Brexit will enter a new chapter when the Conservative party elects new leadership on July 24th which could result in a new tone to UK-EU negotiations



Market Summary

U.S. Markets

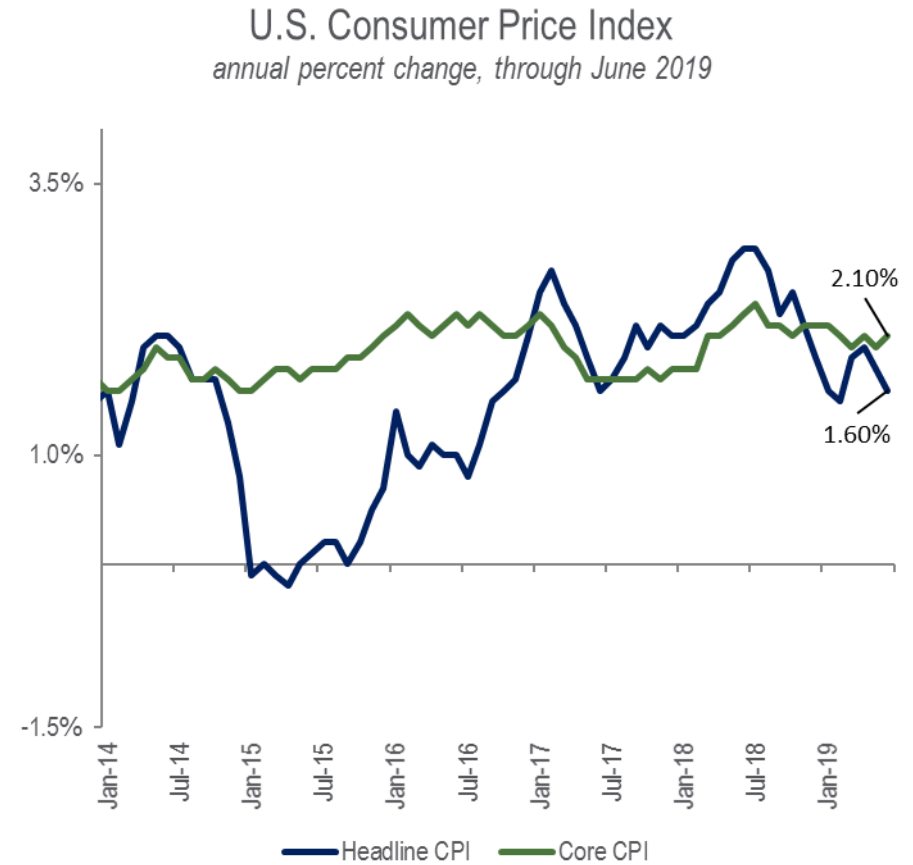
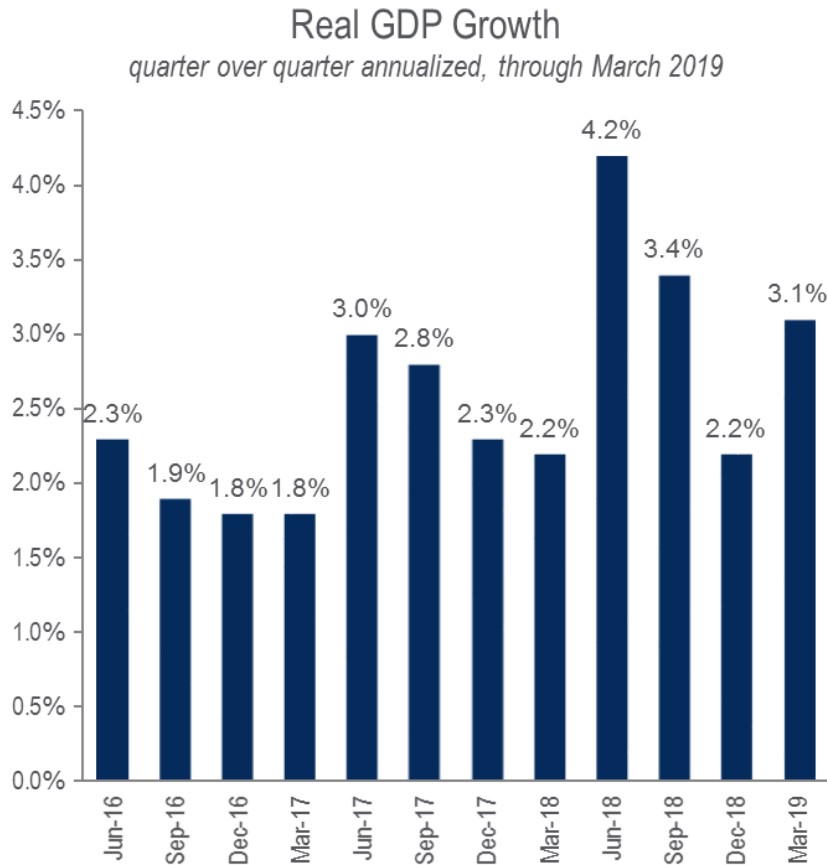
- Equities as represented by the S&P 500 continued their strong YTD performance returning 4.30% in 2Q, surpassing the 2018 all-time high
 - YTD total returns of 18.54%
- Growth stocks also continued their outperformance over value stocks across all capitalization ranges, a theme that has persisted across the entire bull market
- Some segments of value investing, Financials (8.0%) specifically, led S&P 500 sectors in 2Q while Utilities (19.0%) and Real Estate (16.8%) lead the trailing 1-year period
- US large caps outperformed US small caps over the trailing 12 months by over 11% (large cap blend vs. small cap blend), a threshold that has oftentimes signaled outperformance in small caps through this bull market
- Fixed income returns were also broadly positive, rallying off dovish statements from the Fed and pricing in expected lower interest rates from central banks globally
 - As expected in these conditions longer dated assets outperformed with the US Govt/Credit Long leading all categories with a 6.6% 2Q return
 - YTD on “riskier” assets such as US Govt/Credit Long, Corporate High Yield and Emerging Markets Debt lead with 13.5%, 9.9% and 11.3%, respectively

Global Markets

- International equities lagged their US counterparts through 2Q but posted positive returns; the MSCI EAFE Index notched 3.7% returns while the MSCI EM Index returned 0.6%
 - EAFE was led by Switzerland (22.6%), Australia (19.5%) and France (17.9%)
 - UK and Japan were relative detractors with 1.0% and 0.9% returns and are the top 2 weighted countries with over 40% weighting between them
 - Within EM, weakness in China dragged on the index as it returned -4.0% and with its prominence within the index (~31.5%) significantly impacted returns
- As previously mentioned, Emerging Markets Debt as represented by the JPM EMBI Global Diversified, performed well returning 4.1% in 2Q bringing YTD returns to 11.3% in USD returns



State of the U.S. Economy

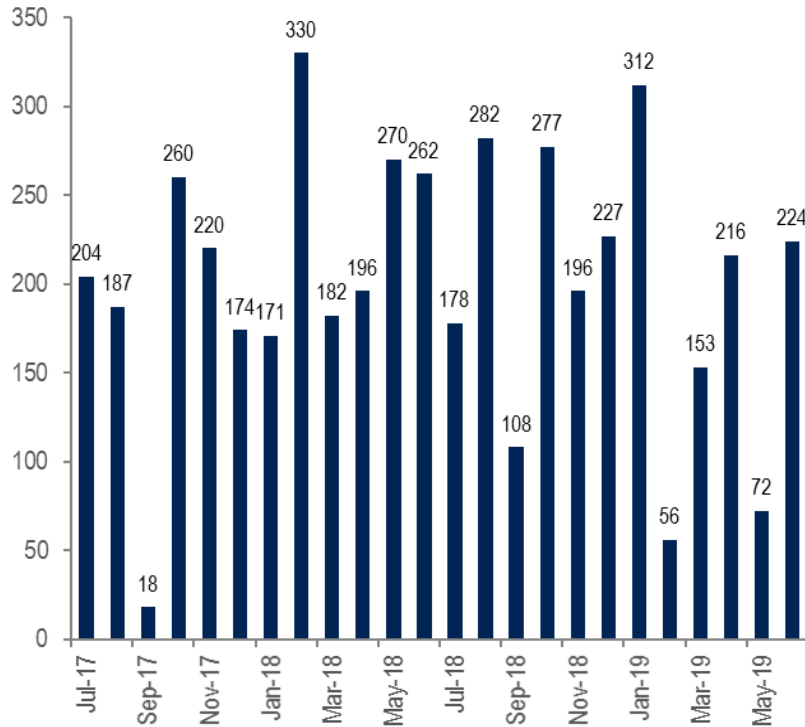


Source: Bloomberg; GWCM Analysis
The core measure of inflation excludes food and energy prices while the headline measure of inflation does not
GDP estimates presented reflect the median estimate provided by Bloomberg

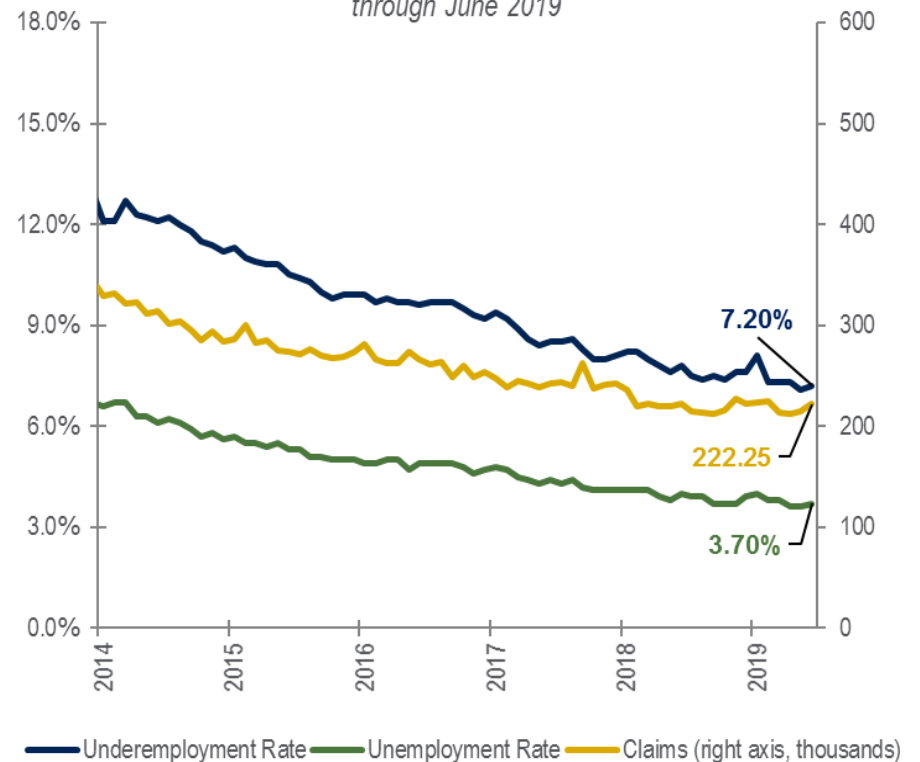


U.S. Labor Market Trends

Number of Jobs Created Per Month
thousands, through June 2019



Unemployment and Underemployment Rates
and Claims
through June 2019



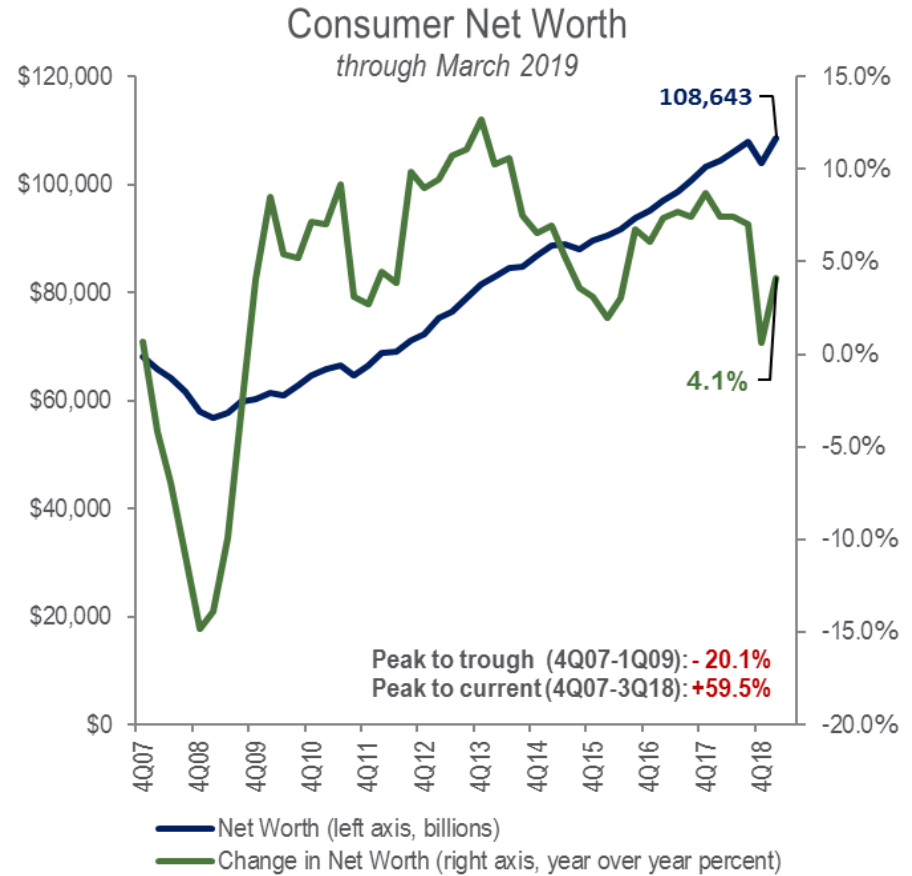
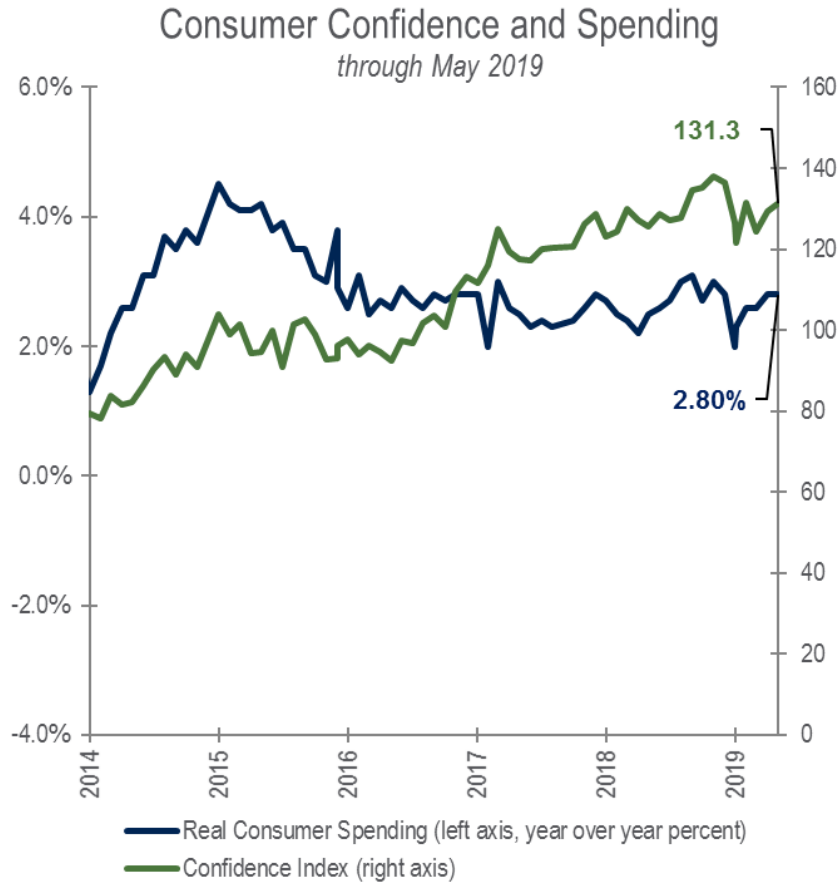
Source: Bloomberg; Bureau of Labor Statistics; GWCM Analysis

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



U.S. Consumer Confidence, Spending and Net Worth

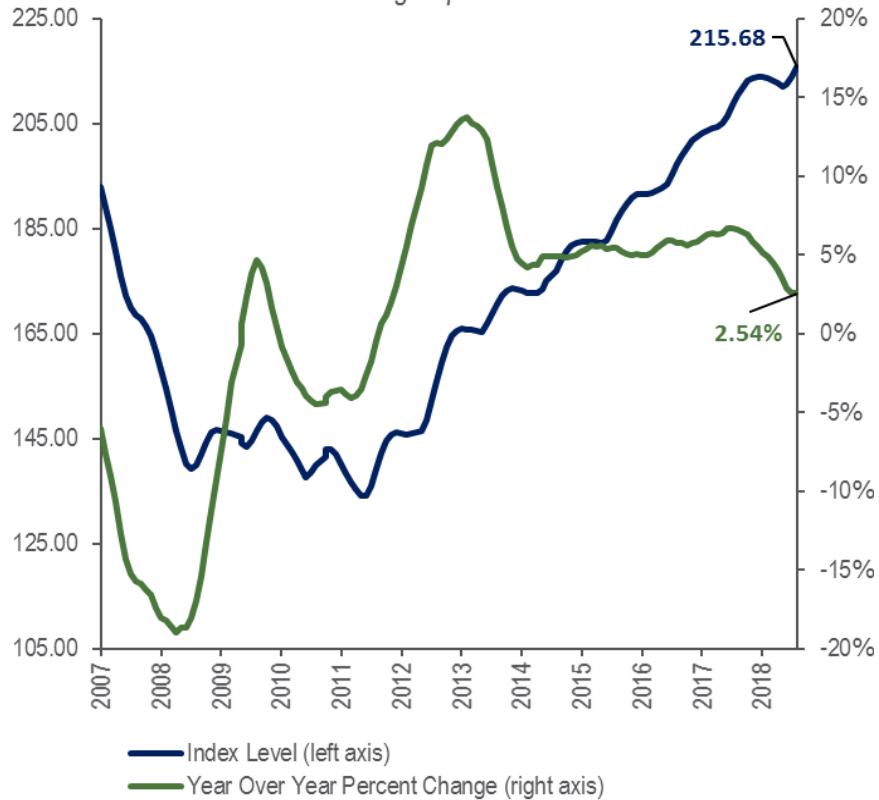


Source: Bloomberg; Federal Reserve; GWCM Analysis

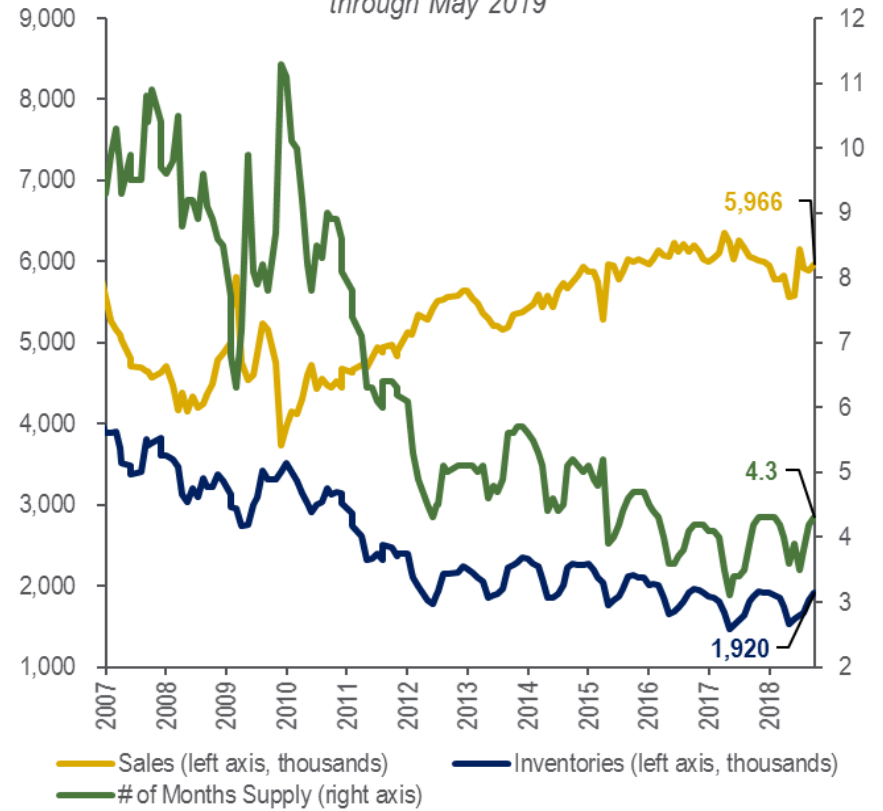


U.S Housing Market Trends

Case Shiller 20 City Home Price Index through April 2019



Housing Supply and Demand through May 2019



Source: Bloomberg; GWCM Analysis



Energy Inflation and Oil

Energy Inflation

year-over-year percent change, through June 2019



Oil

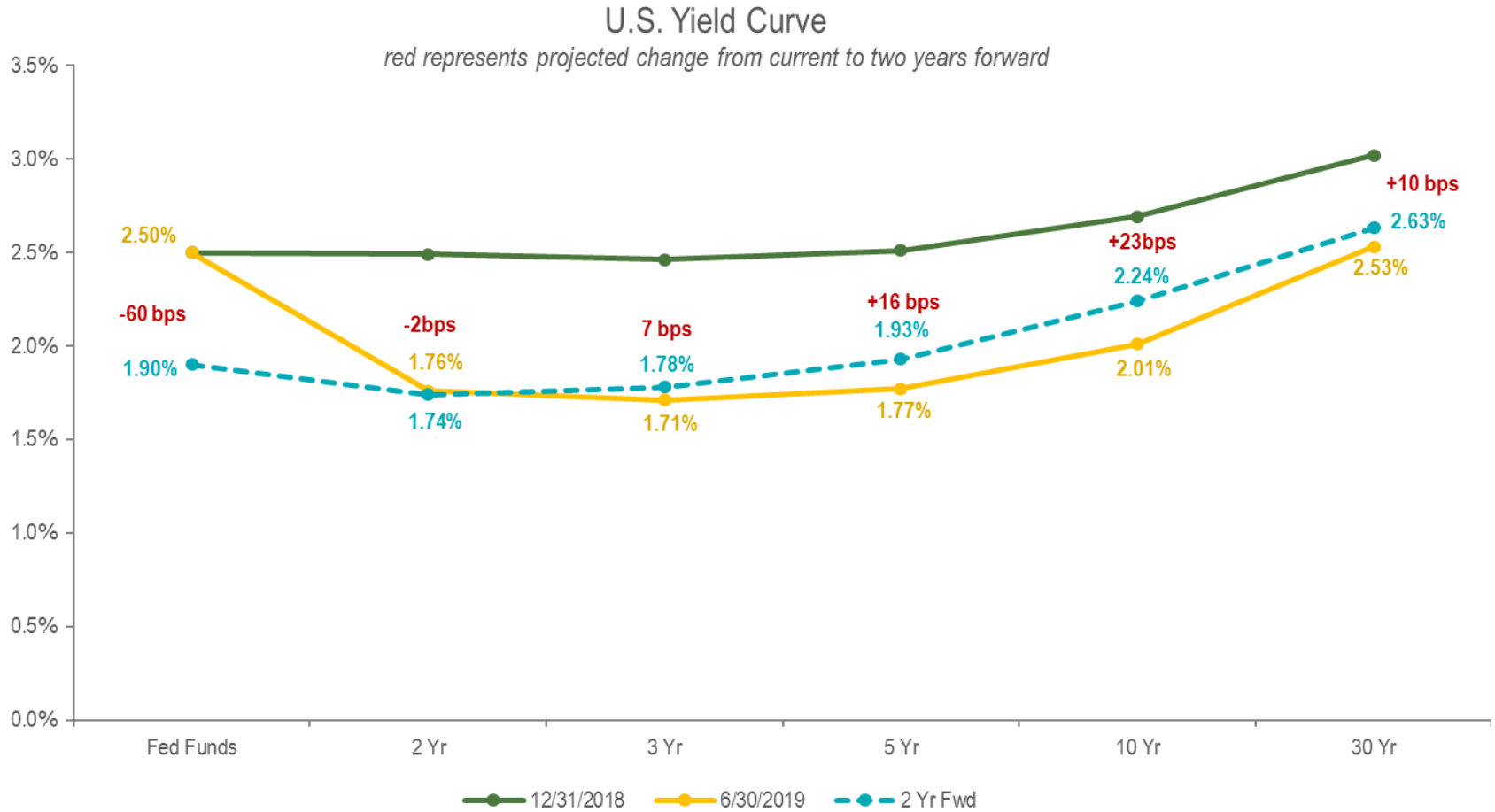
\$/Barrel, through June 2019



Source: Bloomberg; GWCM Analysis
Oil prices shown for West Texas Intermediate (WTI) Crude



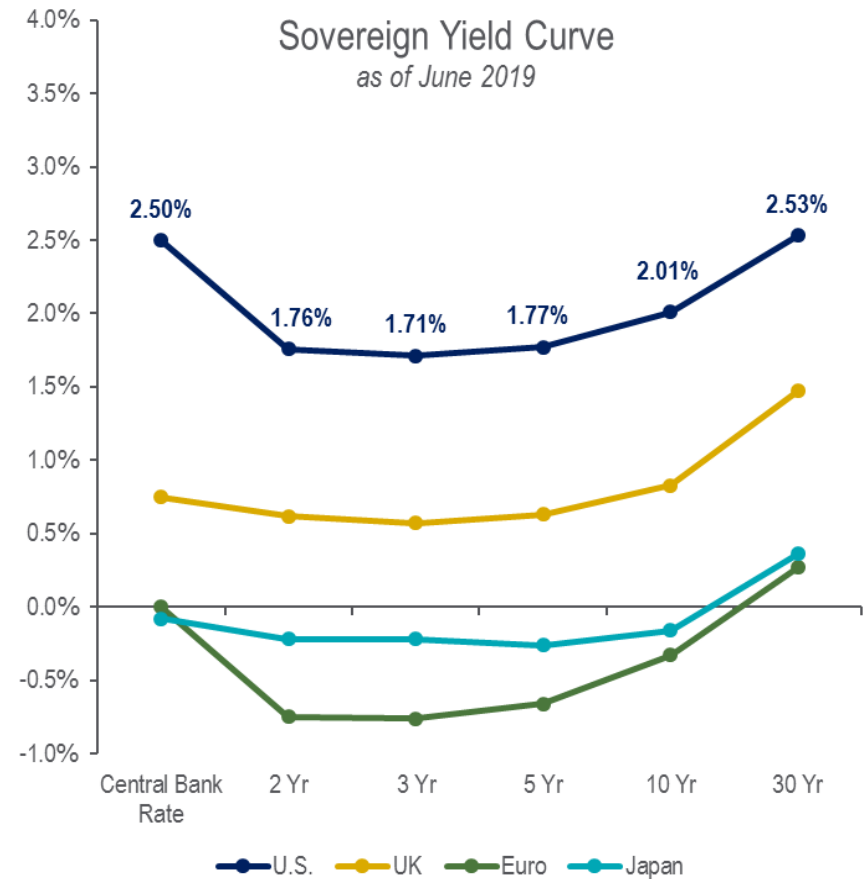
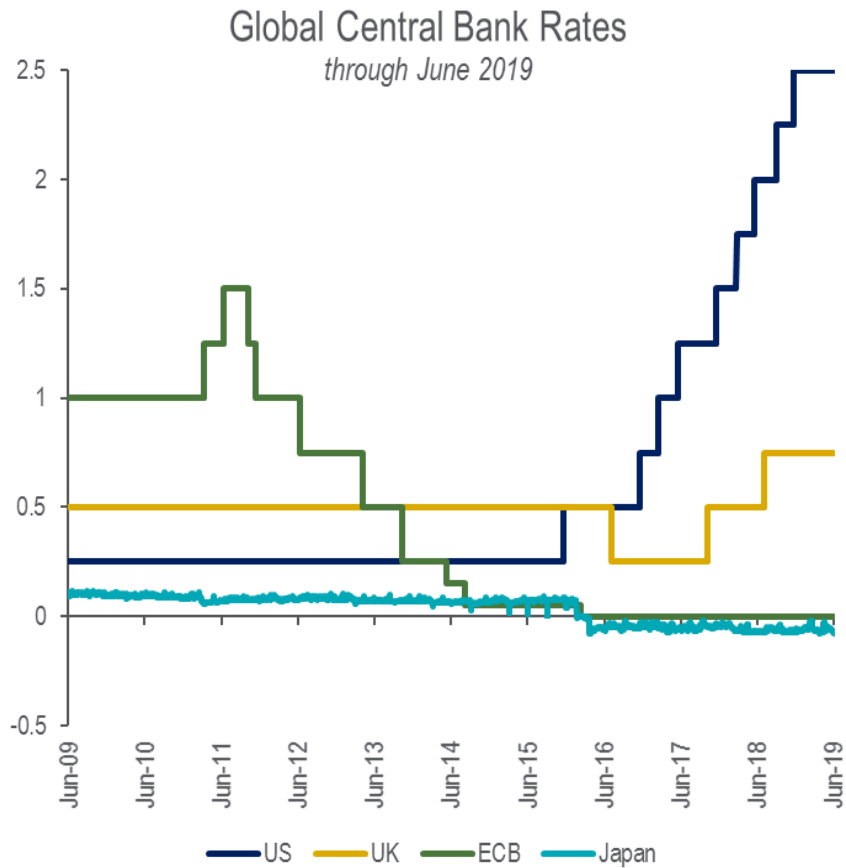
Historical, Current and Forward Rates



Source: Bloomberg; GWCM Analysis



Global Monetary Policies and Interest Rates

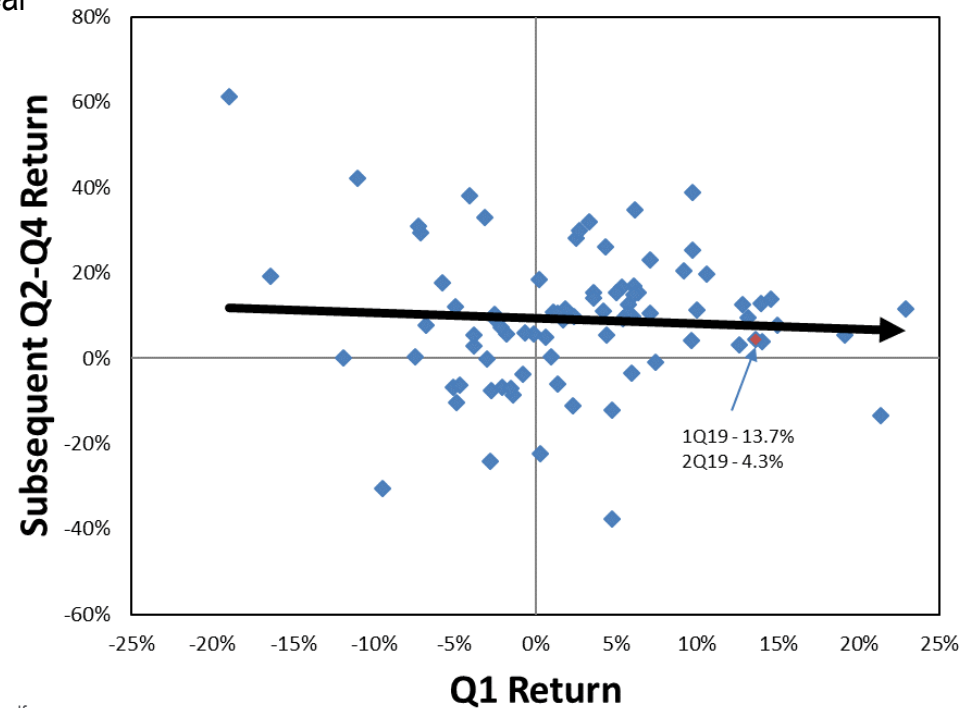


Source: Bloomberg; GWCM Analysis



Does 2019's strong first quarter for the S&P signal weak returns through the end of the year? The data says not necessarily...

- After the S&P 500 posted a +12.9% 1Q19 return, many people were wondering whether or not the longest bull market in history could continue its incredible run
- Great-West Investments (GWI) research¹ from April demonstrated that historically there is little correlation to 1Q returns and the subsequent 2Q-4Q returns for any given year
- In fact, in 2Q equity markets continued to rally (+4.3%) off a dovish shift from the fed in response to economic softening
- With central banks around the world poised for accommodative action, market participants have continued to send risky assets higher
- At GWI we believe that robust, well-diversified asset allocation can provide portfolios with the best opportunity to outperform through the long-term and worrying about short-term fluctuations is not productive

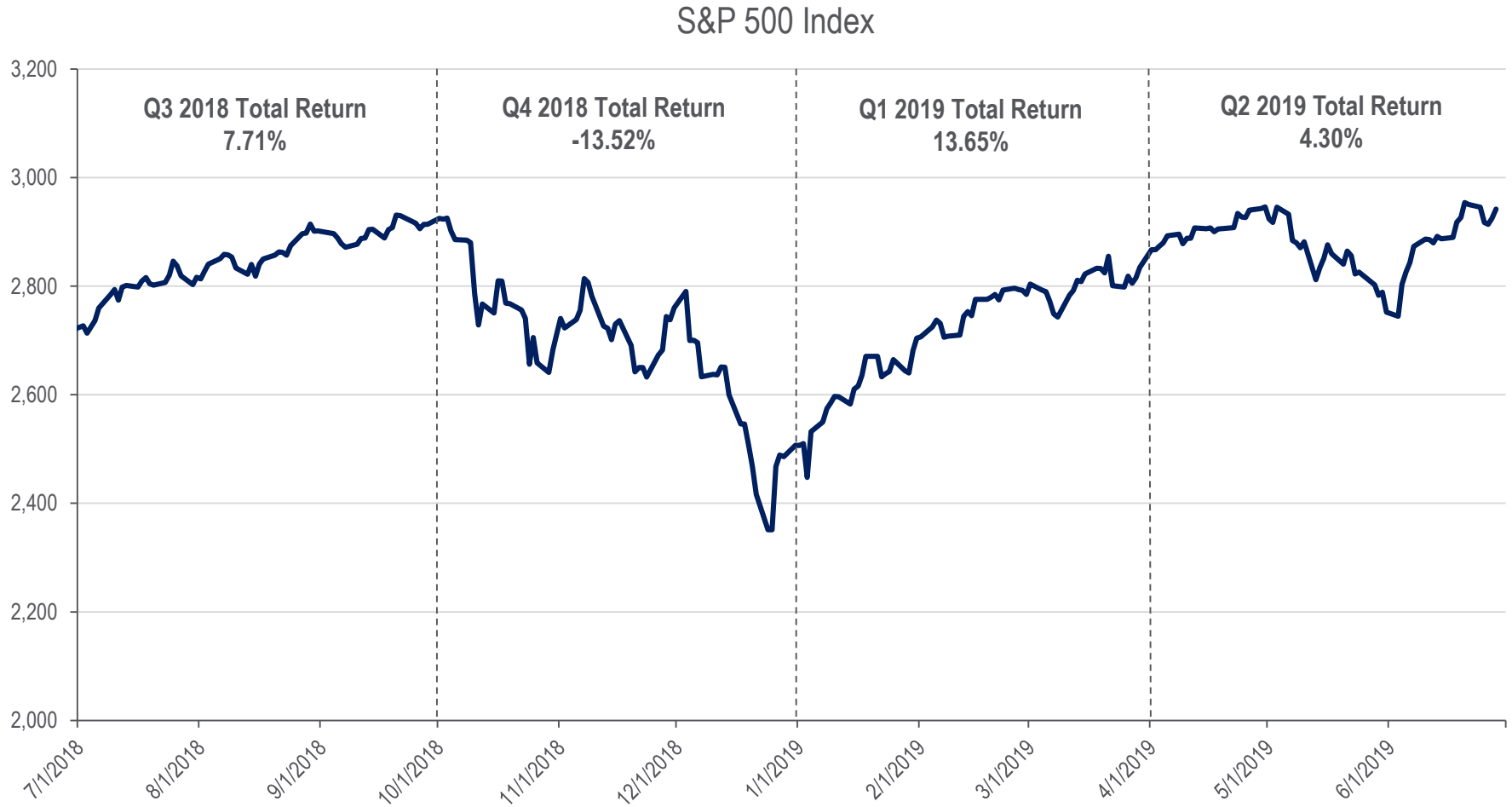


1. http://greatwestfunds.com/pdf/GWI_Research_Note_Fast_Starts_And_Winning_Streaks.pdf

Source: Morningstar Direct, GWCM Analysis



The S&P 500 index continued its strong YTD performance in the 2Q

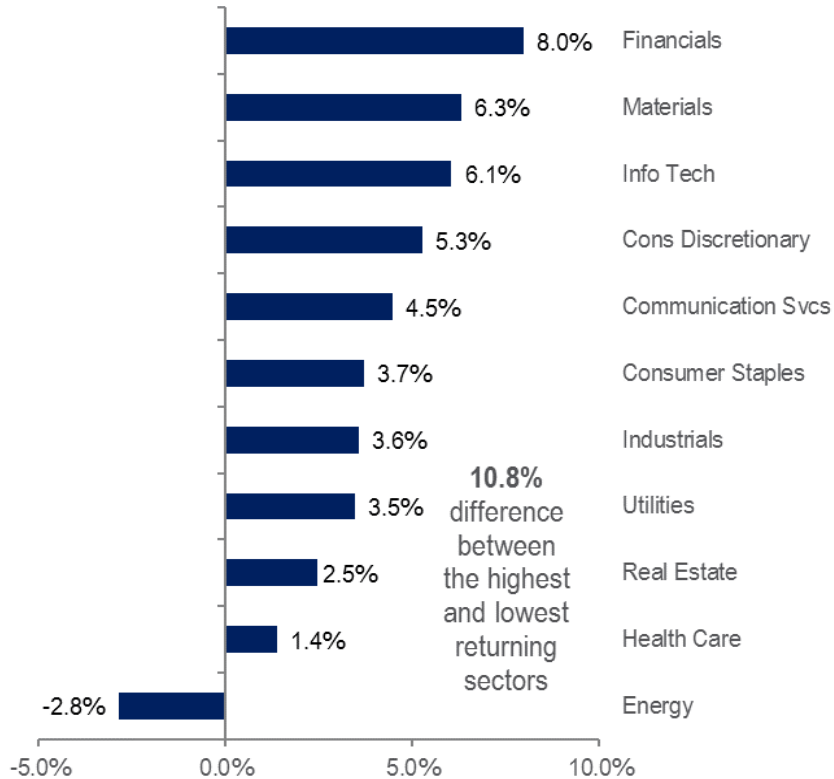


Source: Morningstar Direct; GWCM Analysis

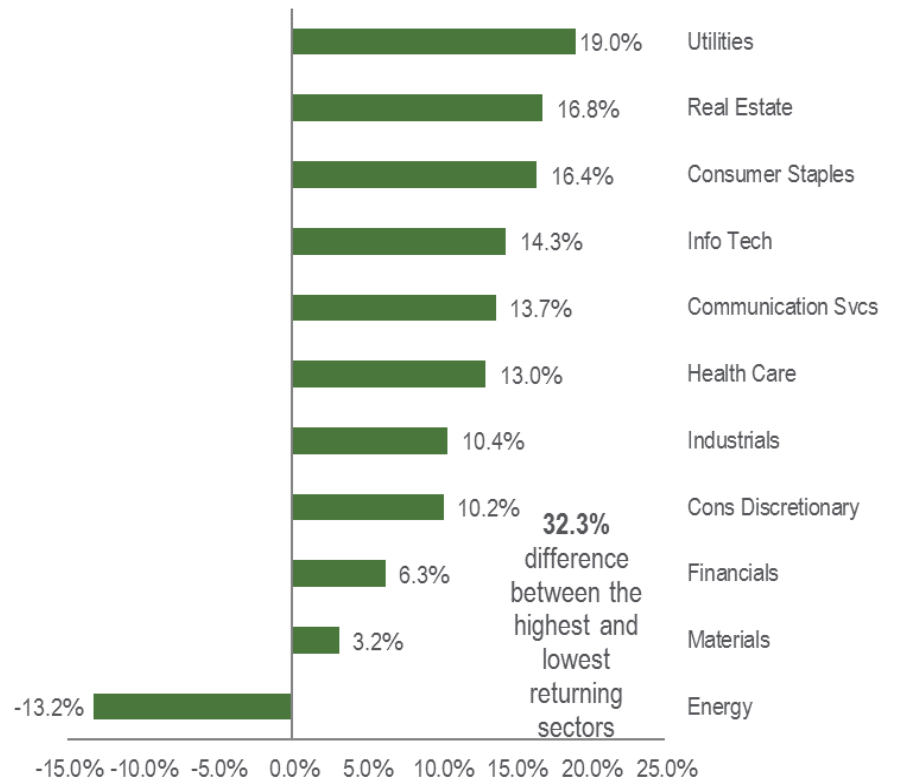


S&P 500 Sector Returns

QTD Returns
as of June 30, 2019



1 Year Trailing Returns
as of June 30, 2019



Source: Morningstar Direct; GWCM Analysis



Equity Market Returns

(as of June 30, 2019)		QTD	YTD	1 Year Trailing	3 Year Trailing	5 Year Trailing	10 Year Trailing	2018	2017	2016	2015	2014	2013	2012
Domestic Equity														
Large Cap	S&P 500	4.3%	18.5%	10.4%	14.2%	10.7%	14.7%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%
	Russell 1000 Value	3.8%	16.2%	8.5%	10.2%	7.5%	13.2%	-8.3%	13.7%	17.3%	-3.8%	13.5%	32.5%	17.5%
	Russell 1000 Growth	4.6%	21.5%	11.6%	18.1%	13.4%	16.3%	-1.5%	30.2%	7.1%	5.7%	13.0%	33.5%	15.3%
Mid Cap	Russell Mid Cap	4.1%	21.3%	7.8%	12.2%	8.6%	15.2%	-9.1%	18.5%	13.8%	-2.4%	13.2%	34.8%	17.3%
	Russell Mid Cap Value	3.2%	18.0%	3.7%	8.9%	6.7%	14.6%	-12.3%	13.3%	20.0%	-4.8%	14.7%	33.5%	18.5%
	Russell Mid Cap Growth	5.4%	26.1%	13.9%	16.5%	11.1%	16.0%	-4.8%	25.3%	7.3%	-0.2%	11.9%	35.7%	15.8%
Small Cap	Russell 2000	2.1%	17.0%	-3.3%	12.3%	7.1%	13.4%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
	Russell 2000 Value	1.4%	13.5%	-6.2%	9.8%	5.4%	12.4%	-12.9%	7.8%	31.7%	-7.5%	4.2%	34.5%	18.1%
	Russell 2000 Growth	2.7%	20.4%	-0.5%	14.7%	8.6%	14.4%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%
International Equity														
Developed Markets	MSCI EAFE	3.7%	14.0%	1.1%	9.1%	2.2%	6.9%	-13.8%	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%
	Australia	7.3%	19.5%	6.5%	11.1%	2.4%	8.3%	-12.0%	19.9%	11.4%	-10.0%	-3.4%	4.2%	22.1%
	Canada	4.9%	21.0%	3.3%	8.0%	0.0%	5.3%	-17.2%	16.1%	24.6%	-24.2%	1.5%	5.6%	9.1%
	France	6.5%	17.9%	3.0%	13.2%	3.6%	7.0%	-12.8%	28.7%	4.9%	-0.1%	-9.9%	26.3%	21.3%
	Germany	7.1%	14.5%	-3.8%	8.3%	0.3%	7.1%	-22.2%	27.7%	2.8%	-1.9%	-10.4%	31.4%	30.9%
	Japan	1.0%	7.7%	-4.2%	8.1%	4.5%	5.8%	-12.9%	24.0%	2.4%	9.6%	-4.0%	27.2%	8.2%
	Switzerland	8.4%	22.6%	19.8%	10.5%	4.0%	10.2%	-9.1%	22.5%	-4.9%	0.4%	-0.1%	26.6%	20.4%
	UK	0.9%	12.9%	-2.0%	6.9%	-0.3%	6.8%	-14.2%	22.3%	-0.1%	-7.6%	-5.4%	20.7%	15.3%
Emerging Markets	MSCI Emerging Markets	0.6%	10.6%	1.2%	10.7%	2.5%	5.8%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
	Brazil	7.2%	15.9%	39.4%	17.6%	1.7%	1.9%	-0.5%	24.1%	66.2%	-41.4%	-14.0%	-16.0%	0.0%
	China	-4.0%	13.0%	-6.7%	14.3%	7.4%	6.2%	-18.9%	54.1%	0.9%	-7.8%	8.0%	3.6%	22.7%
	India	0.5%	7.7%	7.9%	10.5%	5.4%	6.5%	-7.3%	38.8%	-1.4%	-6.1%	23.9%	-3.8%	26.0%
	Indonesia	3.1%	7.6%	20.3%	7.0%	3.5%	9.1%	-9.2%	24.2%	17.0%	-19.5%	26.6%	-23.5%	4.6%
	Korea	-0.9%	3.9%	-9.1%	8.2%	1.0%	7.8%	-20.9%	47.3%	8.7%	-6.7%	-11.1%	3.9%	21.2%
	Mexico	1.1%	6.7%	-7.4%	-2.0%	-6.2%	3.7%	-15.5%	16.0%	-9.2%	-14.4%	-9.3%	0.2%	29.1%
	Russia	16.9%	31.1%	27.1%	20.9%	4.7%	6.2%	-0.4%	5.2%	54.8%	4.2%	-46.3%	0.8%	13.7%

Source: Morningstar Direct; GWCM 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.



Returns by Style

3 Months

	Value	Blend	Growth
Large	3.8%	4.3%	4.6%
Mid	3.2%	4.1%	5.4%
Small	1.4%	2.1%	2.7%

1 Year

	Value	Blend	Growth
Large	8.5%	10.4%	11.6%
Mid	3.7%	7.8%	13.9%
Small	-6.2%	-3.3%	-0.5%

Since Market Peak (October, 2007)

	Value	Blend	Growth
Large	94.4%	141.4%	199.8%
Mid	125.8%	146.9%	173.2%
Small	92.5%	118.1%	144.0%

3 Year

	Value	Blend	Growth
Large	10.2%	14.2%	18.1%
Mid	8.9%	12.2%	16.5%
Small	9.8%	12.3%	14.7%

5 Year

	Value	Blend	Growth
Large	7.5%	10.7%	13.4%
Mid	6.7%	8.6%	11.1%
Small	5.4%	7.1%	8.6%

Since Market Low (March, 2009)

	Value	Blend	Growth
Large	384.7%	439.5%	511.5%
Mid	476.7%	495.8%	531.7%
Small	376.0%	425.8%	475.8%

performance as of June 30, 2019

Source: Morningstar Direct; GWCM 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



Fixed Income and Specialty Returns

(as of June 30, 2019)

	QTD	YTD	1 Year Trailing	3 Year Trailing	5 Year Trailing	10 Year Trailing	2018	2017	2016	2015	2014	2013	2012
Fixed Income													
Bloomberg Barclays US Aggregate	3.1%	6.1%	7.9%	2.3%	2.9%	3.9%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%
Bloomberg Barclays US Treasury	3.0%	5.2%	7.2%	1.3%	2.5%	3.0%	0.9%	2.3%	1.0%	0.8%	5.1%	-2.7%	2.0%
Bloomberg Barclays US Govt/Credit Intermediate	2.6%	5.0%	6.9%	2.0%	2.4%	3.2%	0.9%	2.1%	2.1%	1.1%	3.1%	-0.9%	3.9%
Bloomberg Barclays US Govt/Credit Long	6.6%	13.5%	13.8%	3.8%	5.7%	7.6%	-4.7%	10.7%	6.7%	-3.3%	19.3%	-8.8%	8.8%
Bloomberg Barclays US TIPS	2.9%	6.2%	4.8%	2.1%	1.8%	3.6%	-1.3%	3.0%	4.7%	-1.4%	3.6%	-8.6%	7.0%
Bloomberg Barclays US Corporate High Yield	2.5%	9.9%	7.5%	7.5%	4.7%	9.2%	-2.1%	7.5%	17.1%	-4.5%	2.5%	7.4%	15.8%
FTSE WGBI	3.6%	5.4%	5.5%	1.0%	0.8%	2.2%	-0.8%	7.5%	1.6%	-3.6%	-0.5%	-4.0%	1.6%
JPM EMBI Global Diversified	4.1%	11.3%	12.4%	5.5%	5.3%	7.8%	-4.3%	10.3%	10.2%	1.2%	7.4%	-5.3%	17.4%
FTSE Treasury Bill 3 Month	0.6%	1.2%	2.3%	1.4%	0.8%	0.5%	1.9%	0.8%	0.3%	0.0%	0.0%	0.1%	0.1%
Specialty													
Bloomberg Commodity	-1.2%	5.1%	-6.8%	-2.2%	-9.1%	-3.7%	-11.2%	1.7%	11.8%	-24.7%	-17.0%	-9.5%	-1.1%
DJ US Select REIT	0.8%	16.7%	9.8%	3.7%	7.6%	15.4%	-4.2%	3.8%	6.7%	4.5%	32.0%	1.2%	17.1%
FTSE EPRA/NAREIT Developed Ex US	-0.3%	13.3%	6.7%	7.5%	4.1%	8.8%	-5.8%	20.8%	2.0%	-3.2%	3.2%	6.1%	38.6%

Source: Morningstar Direct; GWCM Analysis

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



Calendar Year Returns by Asset Class

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Cumulative Return*
Agg Bond 5.2	Emrg Mkt 78.5	Sm Growth 29.1	Agg Bond 7.8	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 0.01	Lg Growth 210.25
Balanced -22.1	Mid Growth 46.3	Mid Growth 26.4	Balanced 4.7	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 -1.51	Mid Growth 186.97
Sm Value -28.9	Lg Growth 37.2	Mid Value 24.8	Lg Growth 2.6	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 -2.35	Sm Growth 162.96
Lg Value -36.8	Sm Growth 34.5	Sm Value 24.5	Lg Value 0.4	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 -4.75	Mid Value 147.29
Lg Growth -38.4	Mid Value 34.2	Emrg Mkt 18.9	Mid Value -1.4	International 17.3	Mid Value 33.5	Balanced 10.6	International -0.8	Emrg Mkt 11.2	Sm Growth 22.2	Lg Value -8.27	Balanced 117.96
Mid Value -38.4	International 31.8	Lg Growth 16.7	Mid Growth -1.7	Mid Growth 15.8	Lg Value 32.5	Agg Bond 6.0	Sm Growth -1.4	Balanced 8.3	Balanced 14.2	Sm Growth -9.31	Sm Value 116.89
Sm Growth -38.5	Sm Value 20.6	Lg Value 15.5	Sm Growth -2.9	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 -12.29	Lg Value 111.80
International -43.4	Lg Value 19.7	Balanced 12.1	Sm Value -5.5	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 -12.86	Agg Bond 57.18
Mid Growth -44.3	Balanced 18.4	International 7.8	International -12.1	Balanced 11.3	Agg Bond -2.0	Emrg Mkt -2.2	Sm Value -7.5	Agg Bond 2.6	Sm Value 7.8	International -13.79	International 19.13
Emrg Mkt -53.3	Agg Bond 5.9	Agg Bond 6.5	Emrg Mkt -18.4	Agg Bond 4.2	Emrg Mkt -2.6	International -4.9	Emrg Mkt -14.9	International 1.0	Agg Bond 3.5	Emrg Mkt -14.58	Emrg Mkt 11.63

*Cumulative return is for the time period 1/1/2008-6/30/2019

Source: Morningstar Direct; GWCM 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.



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The Citigroup 3-Month T-Bill Index is an unmanaged index that is generally representative of 3-month Treasury bills and consists of an average of the last 3-month U.S. Treasury Bill issues.

The MSCI Emerging Markets Index represents the performance of stocks in 26 emerging market countries in Europe, Latin America and the Pacific Basin.

The Bloomberg Barclays Capital US Aggregate Bond Index includes fixed rate debt issues rated investment grade or higher by Moody's Investors Service, Standard and Poor's, or Fitch Investor's Service, in that order. All issues must have at least 1 year left to maturity and have an outstanding par value of at least \$100 million. The Aggregate Index is comprised of the Government/Corporate, the Mortgage-Backed Securities, and the Asset-Backed Securities indices.

The Standard & Poor's 500 is a market capitalization-weighted index of 500 widely held stocks often used as a proxy for the stock market. Standard and Poor's chooses the member companies for the 500 based on market size, liquidity and industry group representation. Included are the stocks of industrial, financial, utility, and transportation companies. Since mid-1989, this composition has been more flexible and the number of issues in each sector has varied. The returns presented for the S&P 500 are total returns, including the reinvestment of dividends each month.

The Russell 1000 Value - Market capitalization-weighted index of those firms in the Russell 1000 with lower price-to-book ratios and lower forecasted growth values. The Russell 1000 includes the largest 1000 firms in the Russell 3000, which represents approximately 98% of the investable U.S. equity market.

The Russell 1000 Growth - Market capitalization-weighted index of those firms in the Russell 1000 with higher price-to-book ratios and higher forecasted growth values. The Russell 1000 includes the largest 1000 firms in the Russell 3000, which represents approximately 98% of the investable U.S. equity market.



Disclosures and Benchmark Definitions

The Russell 2000 - Consists of the smallest 2000 companies in the Russell 3000 Index, representing approximately 7% of the Russell 3000 total market capitalization. Returns include reinvestment of dividends.

The Russell 2000 Value - Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values. The Russell 2000 Index includes the 2000 firms from the Russell 3000 Index with the smallest market capitalizations.

The Russell 2000 Growth - Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratios and higher forecasted growth values. The Russell 2000 Index includes the 2000 firms from the Russell 3000 Index with the smallest market capitalizations.

The Russell Mid-Cap - Measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 24% of the total market capitalization of the Russell 1000 Index.

The Russell Mid-Cap Value - Market-weighted total return index that measures the performance of companies within the Russell Mid-Cap Index having lower price-to-book ratios and lower forecasted growth values. The Russell Mid-Cap Index includes firms 201 through 1000, based on market capitalization, from the Russell 3000 Index.

The Russell Mid-Cap Growth - Market-weighted total return index that measures the performance of companies within the Russell Mid-Cap Index having higher price-to-book ratios and higher forecasted growth values. The Russell Mid-Cap Index includes firms 201 through 1000, based on market capitalization, from the Russell 3000 Index.

The Bloomberg Barclays U.S. Treasury Index includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

The Bloomberg Barclays US Corporate High Yield Index measures the US corporate market of non-investment grade, fixed-rate corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below.

The Bloomberg Commodity Index measures price movements of the commodities included in the appropriate sub index. It does not account for effects of rolling futures contracts or costs associated with holding the physical commodity.

The Bloomberg Barclays US Government/Credit Intermediate Index measures the performance of U.S. Dollar denominated U.S. Treasuries, government-related and investment grade U.S. corporate securities that have a remaining maturity of greater than one year and less than ten years.



Disclosures and Benchmark Definitions

The Bloomberg Barclays US Government/Credit Long Index includes publicly issued U.S. Treasury debt, U.S. government agency debt, taxable debt issued by U.S. states and territories and their political subdivisions, debt issued by U.S. and non-U.S. corporations, non-U.S. government debt and supranational debt.

The Citi World Government Bond Index is an index of bonds issued by governments in the U.S., Europe and Asia.

The Citigroup 3-Month T-Bill Index – The Citigroup 3-Month T-Bill Index is an unmanaged index that is generally representative of 3-month Treasury bills and consists of an average of the last 3-month U.S. Treasury Bill issues.

The JPMorgan Emerging Markets Bond Index Global tracks total returns for traded external debt instruments in the emerging markets, and is an expanded version of the JPMorgan EMBI+. As with the EMBI+, the EMBI Global includes U.S. dollar-denominated Brady bonds, loans, and Eurobonds with an outstanding face value of at least \$500 million. It covers more of the eligible instruments than the EMBI+ by relaxing somewhat the strict EMBI+ limits on secondary market trading liquidity.

The Bloomberg Barclays US TIPS Index includes all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade, and have \$250 million or more of outstanding face value.

The Dow Jones U.S. Select REIT Index intends to measure the performance of publicly traded REITs and REIT-like securities. The index is a subset of the Dow Jones U.S. Select Real Estate Securities Index (RESI), which represents equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded in the U.S.

The FTSE EPRA/NAREIT Developed ex US Index is a subset of the FTSE EPRA/NAREIT Developed Index and is designed to track the performance of listed real estate companies and REITS.

Source: Morningstar Direct.

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