

Kansas Board of Regents Mandatory Retirement Plan

Retirement Plan Committee Meeting
Fall 2019



Prepared as of June 30, 2019

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Industry Trends

Industry Trends Update

Higher Education Litigation

- Approximately 25 Colleges and Universities have faced lawsuits from groups of 403(b) retirement plan participants since 2016.
- Since the September 2018 RPC meeting, 5 Universities have experienced activity related to lawsuits.
 - *University of Rochester (NY) – Participants Voluntarily dropped complaint – Jan. 2019*
 - *University of Long Island – Participants Voluntarily dropped complaint – Feb. 2019*
 - *Washington University (St. Louis) – Complaints dismissed – Sept. 2018*
 - *Duke University – Settled lawsuit for \$10.65 million – Dec. 2018*
 - *Georgetown University – Complaints dismissed – Jan. 2019*
- Since the Spring 2019 RPC meeting, another University settled their 403(b) lawsuit
 - *Johns Hopkins University – Settled lawsuit for \$14 million – August 6, 2019*

Private Higher Education Litigation Claims

University	Plans	Plan Providers	Claims	Status
Columbia University New York City, NY	<ul style="list-style-type: none"> Retirement Plan for Officers of Columbia University Columbia University Voluntary Retirement Savings Plan 	TIAA Calvert Investments Vanguard	<ul style="list-style-type: none"> Excessive fees for recordkeeping and administrative services Too many investment options in its retirement plan Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> 8/16/16: Doe v. Columbia Univ., US District Court (S.D.N.Y.), No. 1:16-cv-06488, complaint filed (counsel: Sanford Heisler LLP) 8/17/16: Cates v. Trs. of Columbia Univ., US District Court (S.D.N.Y.), No. 1:16-cv-06524, complaint filed (counsel: Schlichter, Bogard & Denton LLP) Dismissal Denied
Cornell University Ithaca, NY	<ul style="list-style-type: none"> Cornell University Retirement Plan for the Employees of the Endowed Colleges of Ithaca Cornell University Tax Deferred Annuity Plan 	TIAA Fidelity	<ul style="list-style-type: none"> Excessive fees for recordkeeping and administrative services Too many investment options in its retirement plan Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account Using multiple Recordkeepers 	<ul style="list-style-type: none"> 8/11/16: University issued statement prior to lawsuit at: http://www.news.cornell.edu/stories/2016/08/cornell-continues-monitor-retirement-funds-and-fees 8/17/16: Cunningham v. Cornell Univ., US District Court (S.D.N.Y.), No. 1:16-cv-06525, complaint filed (counsel: Schlichter, Bogard & Denton LLP) Dismissal Denied

<p>Duke University Durham, NC</p>	<ul style="list-style-type: none"> • Duke Faculty and Staff Retirement Plan 	<p>TIAA Fidelity VALIC Vanguard</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 8/10/16: Clark v. Duke Univ., US District Court (M.D. NC) No. 1:16-cv-01044, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • 5/11/17: Duke's motion to dismiss suit was denied (Clark v. Duke Univ. M.D. N.C No. 1:16-cv-044 (5/10/17)) • Settled – December 2018, \$10.65 mil
<p>Emory University Atlanta, GA</p>	<ul style="list-style-type: none"> • Emory University Retirement Plan • Emory Healthcare, Inc. Retirement Savings and Matching Plan 	<p>TIAA Fidelity Vanguard</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account 	<ul style="list-style-type: none"> • 8/11/16: Henderson v. Emory Univ., U.S District Court (N.D. Ga), No. 1:16-cv-02920, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • 5/10/17: Emory's motion to dismiss suit was denied (Henderson v. Emory Univ., N.D. Ga No. 1:16-cv-02920-CAP, 5/10/17). • Dismissal Denied
<p>Massachusetts Institute of Technology (MIT) Cambridge, MA</p>	<ul style="list-style-type: none"> • MIT Supplemental 401(k) Plan 	<p>Fidelity</p>	<ul style="list-style-type: none"> • Potential Conflict of interest – Abby Johnson- President and CEO of Fidelity Investments, is on Board of Trustees 	<ul style="list-style-type: none"> • 8/9/16: Tracey v. Mass. Inst. of Tech., U.S District Court (D. Mass.), No. 1:16-cv-11620-NMG, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • Dismissal Denied

<p>New York University New York City</p>	<ul style="list-style-type: none"> • New York University Retirement Plan for Members of the Faculty, Professional Research Staff and Administration • NYU School of Medicine Retirement Plan for Members of the Faculty, Professional Research Staff and Administration 	<p>TIAA Vanguard</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 8/9/16: Sacerdote v. N.Y Univ., US District Court (S.D.N.Y), No. 1:16-cv-06284, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • 7-31-18: Judge dismisses lawsuit against NYU. • Dismissed - July 2018
<p>Northwestern University Evanston, IL</p>	<ul style="list-style-type: none"> • Northwestern University Retirement Plan • Northwestern University Voluntary Savings Plan 	<p>TIAA Fidelity</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 8/17/16: Divane v. NW Univ., US District Court (N.D. IL), No. 1:16-cv-08157, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • 6/18 Judge dismisses lawsuit against Northwestern University. Denied Plaintiffs motion to amend. • Dismissed - May 2018

<p>University of Chicago Chicago, IL</p>	<ul style="list-style-type: none"> University of Chicago Retirement Income Plan University of Chicago Contributory Retirement Plan 	<p>TIAA Vanguard</p>	<ul style="list-style-type: none"> Excessive fees for recordkeeping and administrative services Too many investment options in its retirement plan Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account 	<ul style="list-style-type: none"> 5/18/17: Daugherty v. The University of Chicago, US District Court (N.D. IL., No. 1:17-cv-03736, complaint filed (counsel: Wexler Wallace LLP; Schneider Wallace Cottrell Konecky Wotkyns LLP; and Berger & Montague) 5/18: The University of Chicago Settles lawsuit for \$6.5 mil. The university claims no wrong doing. In addition to the financial settlement, the university must not increase per-participant record-keeping fees for three years, and make "reasonable best efforts" to continue trying to reduce them. The university also implemented a new investment menu in April, which included reducing the number of fund options. Settled - May 2018 \$6.5 mil
<p>University of Southern California Los Angeles, CA</p>	<ul style="list-style-type: none"> University of Southern California Defined Contribution Retirement Plan University of Southern California Tax Deferred Annuity Plan 	<p>TIAA Fidelity Prudential Vanguard</p>	<ul style="list-style-type: none"> Excessive fees for recordkeeping and administrative services Too many investment options in its retirement plan Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> 8/17/16: Munro v. Univ. of S. Cal., US District Court (C.D. Cal.), No. 2:16-cv-06191, complaint filed (counsel: Schlichter, Bogard & Denton LLP) USC proposed arbitration proceedings with court oversight. Pending

<p>Yale University New Haven, CT</p>	<ul style="list-style-type: none"> • Yale University Retirement Account Plan 	<p>TIAA</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 8/9/16: Vellali v. Yale Univ., US District Court (D. Conn.), No. 3:16-cv-01345, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • Pending
<p>Brown University Providence, RI</p>	<ul style="list-style-type: none"> • Deferred Vesting Retirement Plan • Legacy Retirement Plan • Voluntary 403(b) Retirement Plan 	<p>TIAA Fidelity</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 7/6/17: Short v. Brown Univ., US District Court (D.R.I), No. 1:17-cv-00318-WES-PAS, complaint filed (counsel: Schneider, Wallace, Cottrell, Konecky, Wotkyns LLP and Sonja L. Deyoe) • 7/11/18: Judge orders partial dismissal of claims, which include multiple layers of fees, too many investment options, loan program. Claims allowed are admin. Fees and poor performance. • Partial Dismissal – July 2018 • Settled – March 2019 \$3.5 mil
<p>Georgetown University Washington, DC</p>	<ul style="list-style-type: none"> • Georgetown University Retirement Plan • Voluntary Contribution Plan 	<p>TIAA Fidelity Vanguard</p>	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan 	<ul style="list-style-type: none"> • 2/23/18: US District Court (D.D.C., No. 1:18-cv-00442), complaint filed (counsel: Schneider Wallace Cottrell Konecky Wotkyns LLP; and Berger & Montague)

Georgetown University Washington, DC (cont.)			<ul style="list-style-type: none"> • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • Dismissed – January 2019
Washington University St. Louis, MO	<ul style="list-style-type: none"> • Wash U Retirement Savings Plan 	TIAA Vanguard	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account 	<ul style="list-style-type: none"> • 6/8/17: Davis v. Washington Univ.US District Court (E.D.MO), No. 4-17-cv-01641, complaint filed (counsel: Schneider Wallace Cottrell Konecky Wotkyns LLP; and Berger & Montague) • Dismissed - September 2018
Vanderbilt University Nashville, TN	<ul style="list-style-type: none"> • Vanderbilt University New Faculty Plan • Vanderbilt University Retirement Plan 	Fidelity TIAA (legacy) VALIC (legacy)	<ul style="list-style-type: none"> • Excessive fees for recordkeeping and administrative services • Too many investment options in its retirement plan • Offering "historically underperforming" CREF Stock Fund and TIAA Real Estate Account • Utilizing multiple recordkeepers increased cost 	<ul style="list-style-type: none"> • 8/10/16: Cassell v. Vanderbilt Univ., US District Court (M.D. TN.), No. 3:16-cv-02086, complaint filed (counsel: Schlichter, Bogard & Denton LLP) • 6/10/18 New allegations filed related to the defendants' alleged failure to protect plan assets by allowing third parties to market services to participants. • Dismissed - April 2019
Johns Hopkins University	<ul style="list-style-type: none"> • Johns Hopkins University 403(b) Plan 	Transamerica	<ul style="list-style-type: none"> • University fiduciaries did not prudently manage its 403(b) plan in accordance with ERISA. 	<ul style="list-style-type: none"> • 10/12/17: Partial dismissal • 4/11/19: Mediation • 6/17/19: Settled \$14 million

Sources: ACG, Bloomberg Law, Drinker Biddle, Groom Law



Plan Document Review

Executive Summary – Plan Documents

Mandatory Plan Document

- Recommend changing cover page date to add “Reviewed with no suggested changes – Date TBD, 2019.”
- https://kansasregents.org/about/regents_retirement_plans

Voluntary Plan Document

- Reviewed by KBOR counsel
- https://kansasregents.org/about/regents_retirement_plans

Investment Policy Statement

- Recommend changing fund analysis benchmarking source from Lipper to Morningstar. Prior Investment Consultant utilized Lipper and ACG utilizes Morningstar.
- https://kansasregents.org/about/regents_retirement_plans/mandatory_retirement_plan

Executive Summary – Plan Documents

Vendor Management Document

- Recommend minor cursory updates related to Mandatory Vendor names, and consistent terms relate to investment consultant.
- https://kansasregents.org/about/regents_retirement_plans/mandatory_retirement_plan

Retirement Plan Committee Charter

- KBOR counsel updated language to reflect the appropriate section in the Board's Policy Manual which defines the Committee Composition and that the RPC is to have oversight of both the Mandatory and Voluntary Plans.
- https://kansasregents.org/about/councils_committees/retirement_plan_committee

KBOR Policy Manual

KBOR counsel updated language to specify that the RPC is to have oversight of both the Mandatory and Voluntary Plans.

- <https://kansasregents.org/about/policies-by-laws-missions>

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Market Overview

Quarter 2 2019

Overview

The second quarter of 2019 can be characterized as subdued optimism following a historically strong first quarter. The U.S. economy continued to exhibit signs of mid to late-stage growth including moderating GDP growth, gradual increases in inventories and declining profit margins. Investors turned their attention toward U.S. Federal Reserve interest rate policy and global trade policy.

Trade continued to dominate the headlines as the U.S. implemented several tariffs on Chinese manufactured components and finished goods. Given the strength of U.S. employment and corporate earnings, consumers and companies alike may be able to absorb increased prices in the short-term. However, the long-term impact is less transparent. A bilateral trade war between large economies can have a significant impact on global economic growth as companies may delay production or shift to other economies. This sets the stage for divergent equity performance across global economies and/or sectors.

Fixed Income Markets

The fixed income markets posted positive returns across most sectors amid falling interest rates and near-term credit optimism. The bond market priced in interest rate cuts in the latter half of 2019 as the U.S. Federal Reserve remains concerned over below-target inflation rates.

During the quarter, U.S. Treasury yields declined 25-50 basis points across all maturities. The belly of the curve remained inverted. The one-month U.S. T-Bill rate decreased to 2.18%, while the 3-year yield sank to 1.71%, an inversion of 47 basis points. The spread between the 2-year and 10-year U.S. Treasury rates ended the quarter at 25 basis points, which is an 11 basis point increase from the previous quarter.

With rates falling, investors favored higher-yielding fixed income assets like investment-grade credit and EM debt. Naturally, as yields fell, bond prices increased, and the largest gains experienced among longer maturities.

Domestic Equity Markets

The S&P 500 returned +4.3% for the quarter and +18.5% for the first half of the year. Large cap stocks outperformed small cap stocks across style groups, and growth returned to favor across all market capitalizations.

Financials was the strongest sector, advancing 8% for the quarter. Momentum and cyclical factors continued to be in favor with consumer discretionary, materials and information technology posting strong relative returns. Energy, real estate and healthcare were among the weakest-performing sectors as valuation, dividend and defensive factors lagged for the quarter.

Equity valuations fell slightly during the quarter but remained at a level above the long-term median. The forward P/E of the S&P 500 decreased from 16.9 last quarter to 16.7. The 25-year median P/E ratio was 15.9.

International Equity Markets

International equities rose during the quarter despite concerns over global trade negotiations. Similar to U.S. markets, growth and momentum-oriented stocks outperformed their valuation-based counterparts across all market capitalizations.

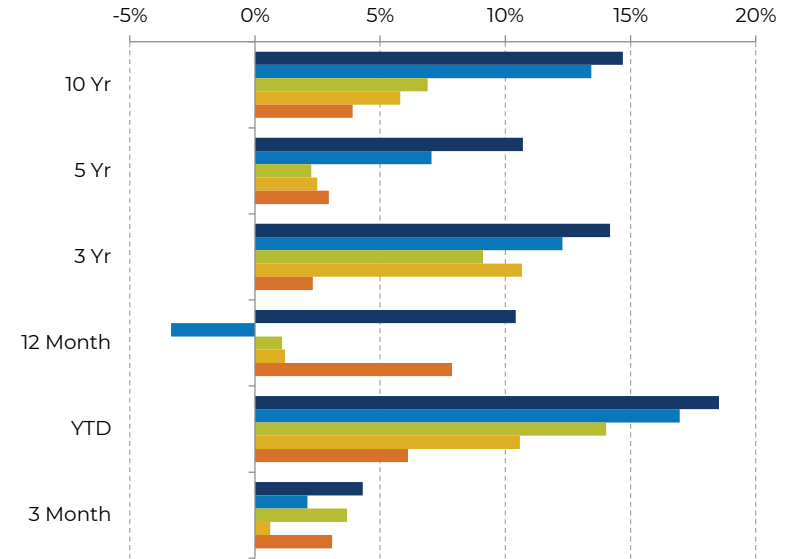
European markets fared well as Germany, France and Switzerland posted solid returns. Chinese equities declined 4% for the quarter and was one of the weakest markets for the period.

Global market currencies strengthened relative to the U.S. Dollar, boosting international returns for U.S.-based investors. This trend is a reversal from recent U.S. Dollar strength.

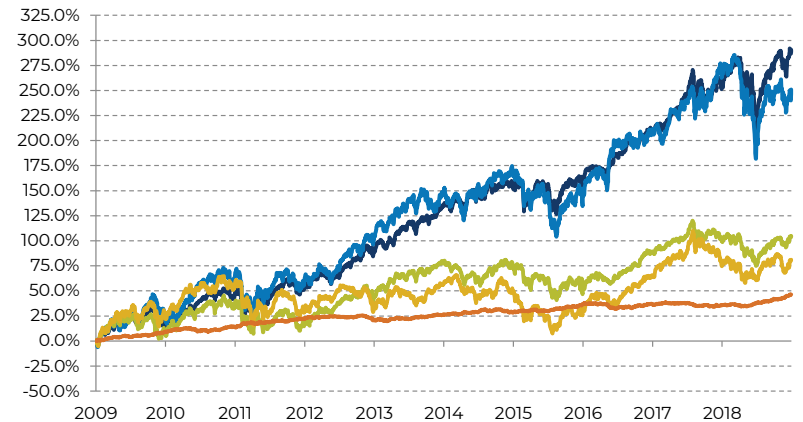
Economic Overview

GDP growth increased to 3.1% in the first quarter of 2019 from 2.2% in the fourth quarter of 2018. A strong employment market combined with real wage growth continued to fuel personal consumption, although the positive impact of fiscal stimulus from the 2018 tax reform is waning. As of July 1, 2019, GDP now is forecasting Q2 GDP growth to be 1.5%.

Labor markets remained tight as the unemployment rate dropped to 3.6%, which is well-below the 50-year average rate of 6.2%. The tight market led to a 3.4% increase in hourly wages, which translates to an increase of 1.6% in real terms (inflation adjusted). Currently core inflation is running at 1.8%, approximately 0.2% lower than the Fed's target rate of 2.0%



	3 Month	YTD	12 Month	3 Yr	5 Yr	10 Yr
■ US Large Stocks	4.3%	18.5%	10.4%	14.2%	10.7%	14.7%
■ US Small Stocks	2.1%	17.0%	-3.3%	12.3%	7.0%	13.4%
■ Intl Developed	3.7%	14.0%	1.1%	9.1%	2.2%	6.9%
■ Intl Emerging	0.6%	10.6%	1.2%	10.7%	2.5%	5.8%
■ Bonds	3.1%	6.1%	7.9%	2.3%	2.9%	3.9%



— US Large Stocks — US Small Stocks — Intl Developed
— Intl Emerging — Bonds



Fixed Income Markets Summary

Quarter 2 2019

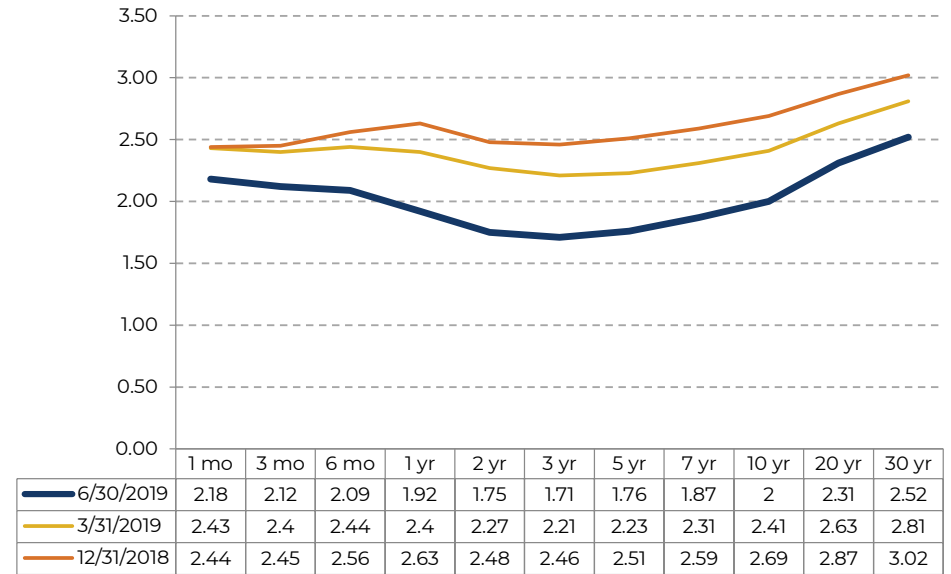
Broad Fixed Income Sectors

	Qtr	1 Year	3 Year	5 Year	10 Year
Aggregate Bond Index	3.1	7.9	2.3	2.9	3.9
Government	3.0	7.2	1.4	2.5	3.0
Mortgage-Backed	2.0	6.2	2.1	2.6	3.2
Corporate	4.3	10.3	3.7	3.9	5.8
High Yield Corporate	2.5	7.5	7.5	4.7	9.2
Global ex US	3.4	4.1	1.0	(0.1)	2.1
EM Debt	3.8	11.0	5.0	4.6	7.7
TIPS	2.9	4.8	2.1	1.8	3.6
Municipal	2.0	6.7	2.3	3.1	4.2
Inflation	0.4	1.6	2.0	1.5	1.7

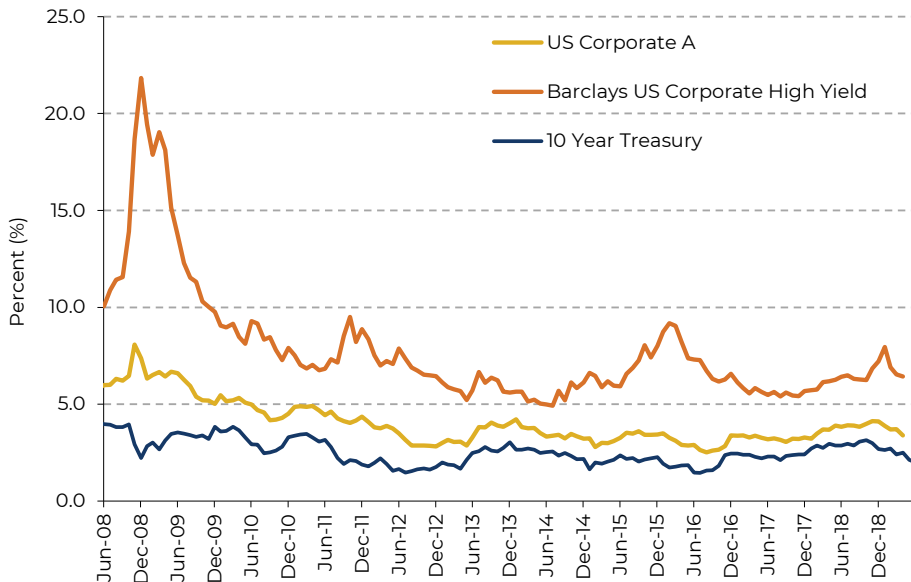
Maturity

1-3 Year US Aggregate	1.5	4.3	1.6	1.5	1.6
3-5 Year US Aggregate	2.2	6.5	2.0	2.3	3.1
5-7 Year US Aggregate	2.6	7.5	2.1	2.7	4.0
7-10 Year US Aggregate	3.6	9.0	2.1	3.3	5.0
10+ Year US Aggregate	6.6	13.9	3.7	5.7	7.2

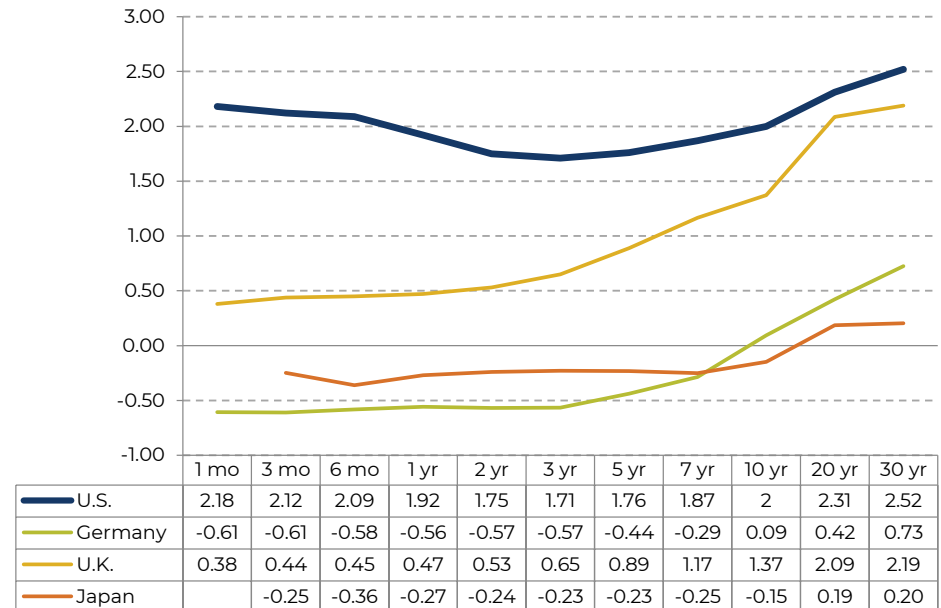
US Treasury Yield Curve



Historical Yields



Global Yield Curve





Domestic Capital Markets Summary

Quarter 2 2019

Quarter

	Value	Blend	Growth
Large	3.8	4.2	4.6
Mid	3.2	4.1	5.4
Small	1.4	2.1	2.7

YTD

	Value	Blend	Growth
Large	16.2	18.8	21.5
Mid	18.0	21.3	26.1
Small	13.5	17.0	20.3

1 Yr

	Value	Blend	Growth
Large	8.5	10.0	11.6
Mid	3.7	7.8	13.9
Small	(6.3)	(3.3)	(0.5)

3 Yrs

	Value	Blend	Growth
Large	10.2	14.1	18.1
Mid	8.9	12.1	16.5
Small	9.8	12.3	14.7

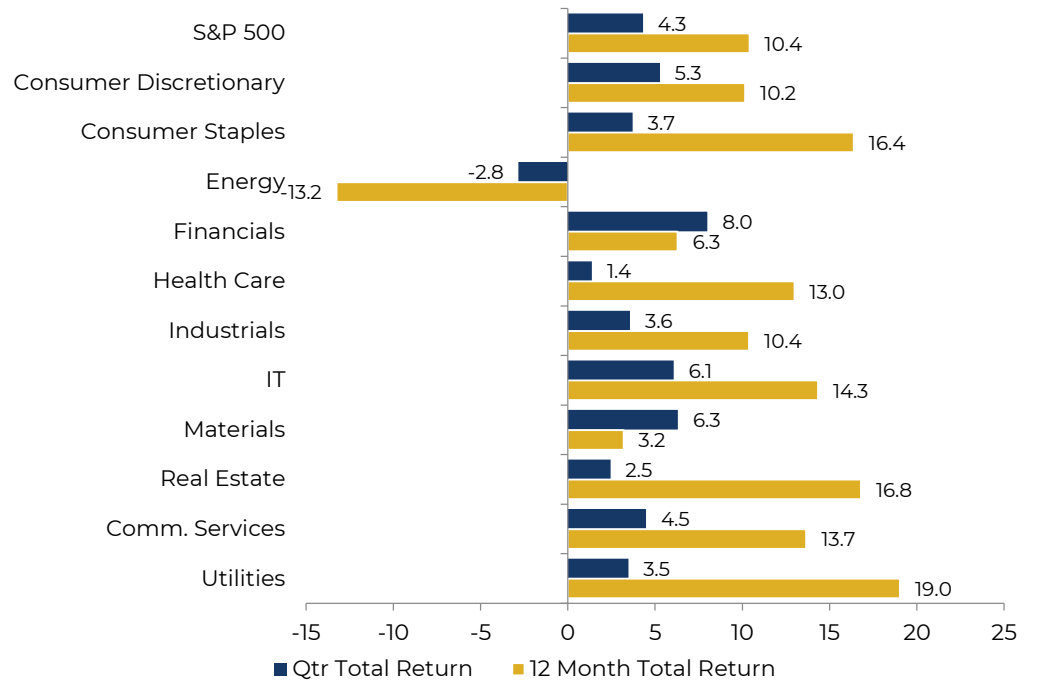
5 Yrs

	Value	Blend	Growth
Large	7.4	10.4	13.4
Mid	6.7	8.6	11.1
Small	5.4	7.0	8.6

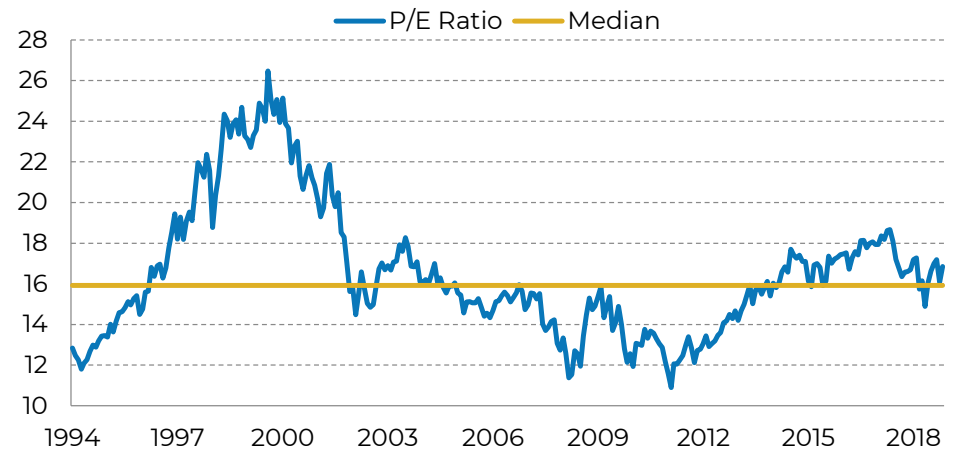
10 Yrs

	Value	Blend	Growth
Large	13.2	14.8	16.3
Mid	14.6	15.1	16.0
Small	12.4	13.4	14.4

S&P 500 Sector Total Returns



S&P 500 P/E Ratio



* Based on 12 month forward looking P/E Estimate

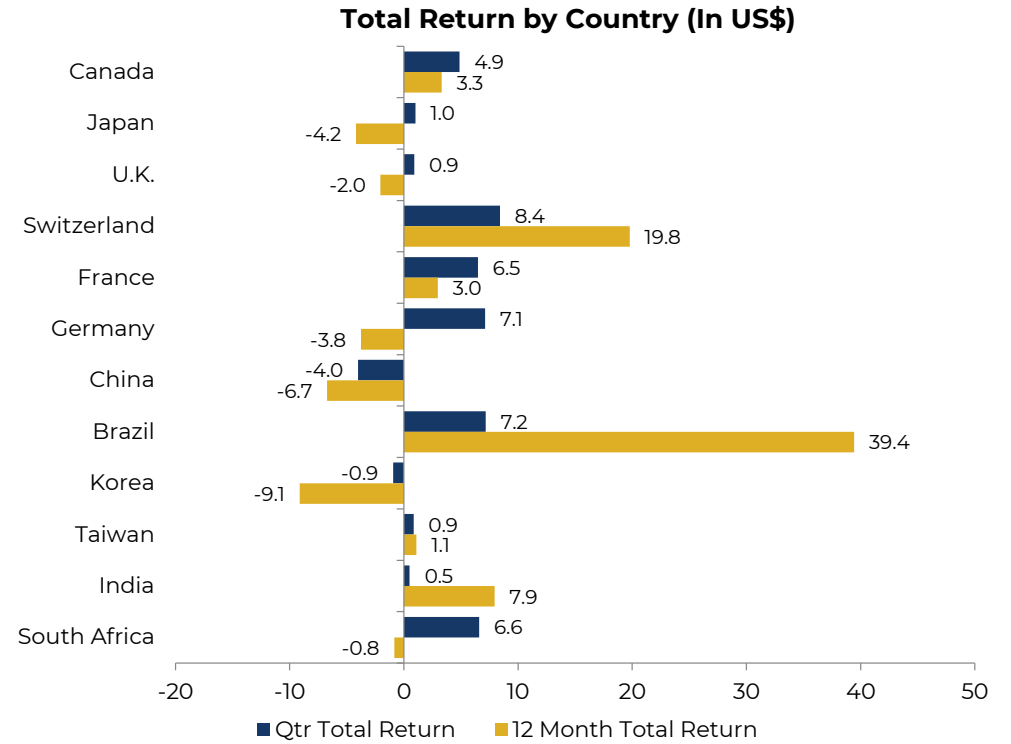
Style box returns represented by Russell Indices



International Capital Markets Summary

Quarter 2 2019

	<u>Quarter</u>			<u>YTD</u>		
	Value	Blend	Growth	Value	Blend	Growth
Large	1.8	3.0	4.3	10.1	13.6	17.7
Mid	0.1	2.9	4.6	9.8	13.4	15.7
Small	0.6	1.2	1.8	9.7	11.6	13.6
	<u>1 Yr</u>			<u>3 Yrs</u>		
	Value	Blend	Growth	Value	Blend	Growth
Large	0.3	2.1	4.1	8.9	9.6	10.3
Mid	(2.1)	(2.0)	(1.8)	8.7	8.5	8.3
Small	(5.5)	(5.9)	(6.4)	7.9	7.8	7.6
	<u>5 Yrs</u>			<u>10 Yrs</u>		
	Value	Blend	Growth	Value	Blend	Growth
Large	0.0	2.0	4.1	5.1	6.3	7.6
Mid	1.6	2.8	3.7	7.2	7.5	7.7
Small	2.0	2.8	3.5	8.1	8.5	8.8



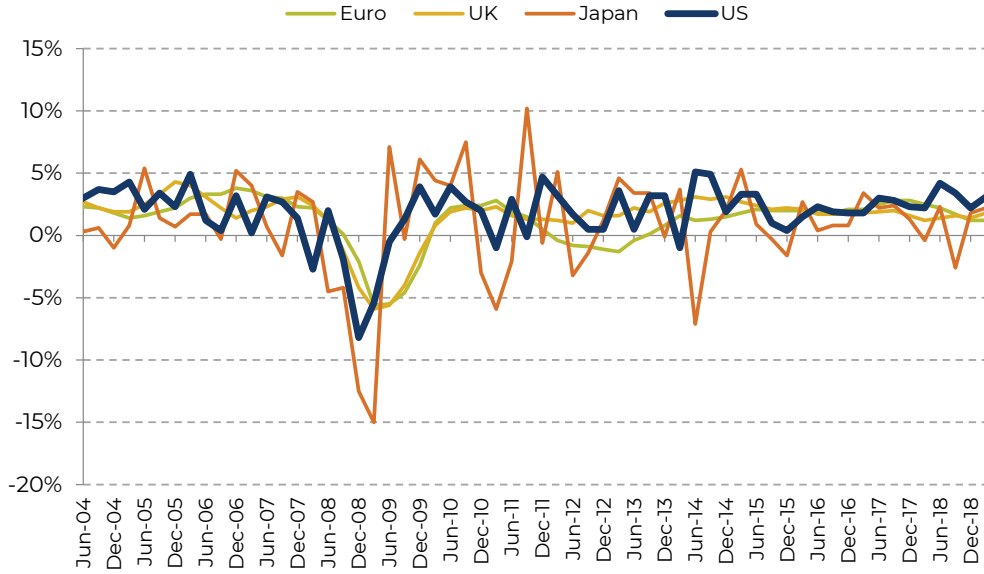
Foreign Currency

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	
Baskets	Global ex-US	0.9	-0.9	-0.6	-3.6	-1.5
	EAFE	0.9	-1.1	-0.7	-3.6	-1.4
	Emerging	0.4	-0.6	-0.4	-3.6	-2.0
Majors	USD/JPY	-2.7	-2.6	1.5	1.3	1.1
	USD/EUR	-1.4	2.7	-0.8	3.8	2.1
	USD/GBP	2.7	4.0	1.6	6.1	2.6

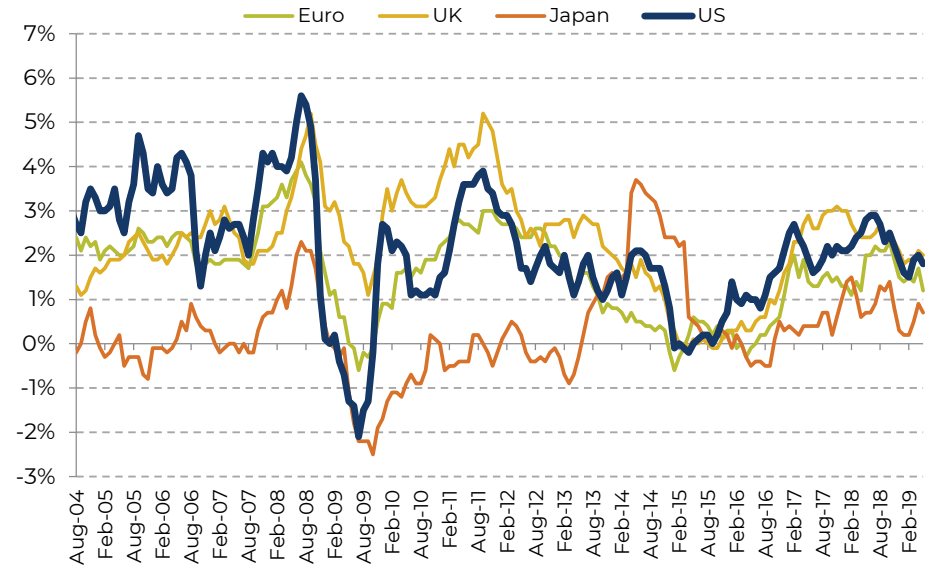
Style box returns represented by MSCI ACWI ex USA Indices



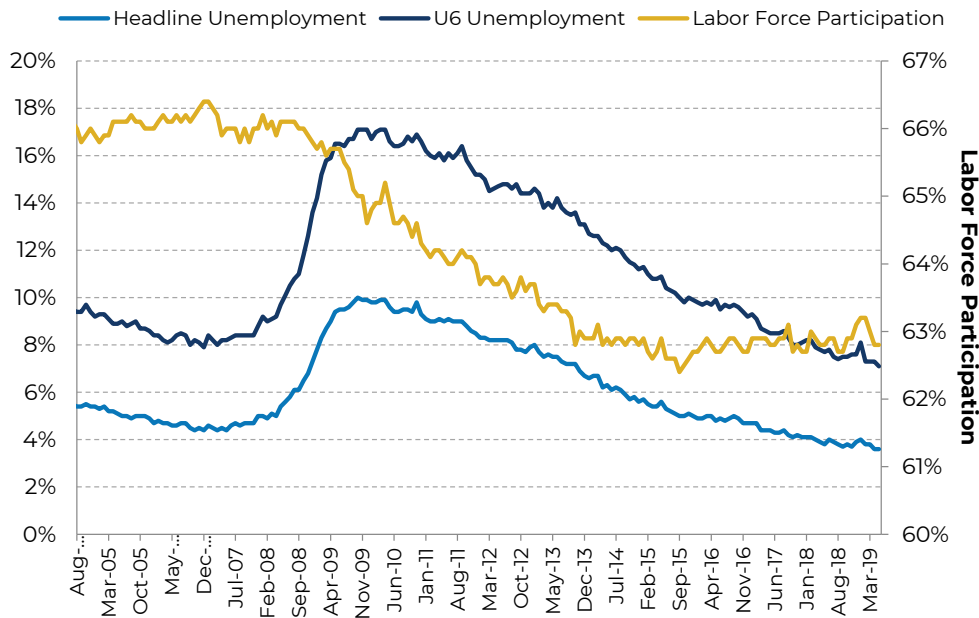
Gross Domestic Product



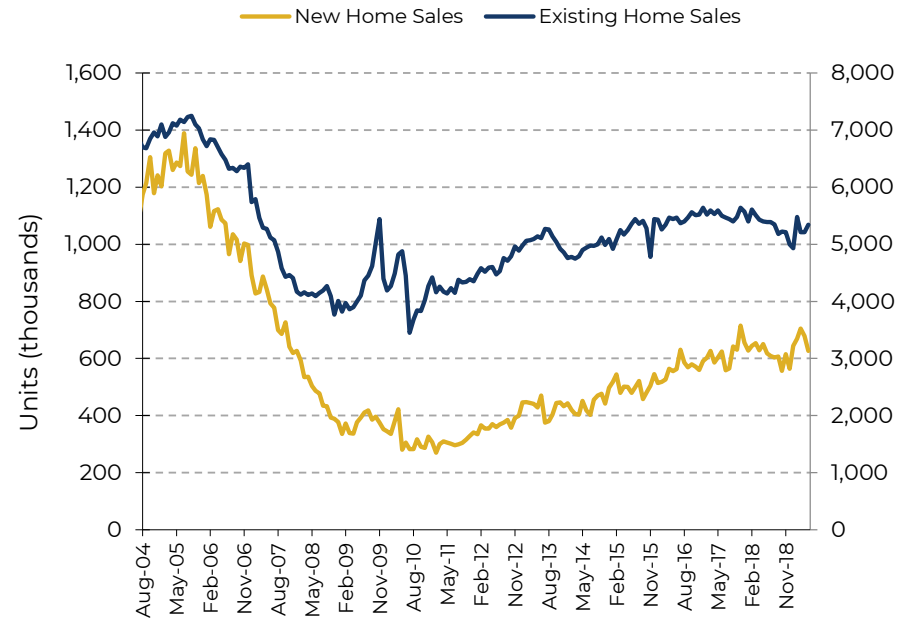
Consumer Prices (Year over Year in Percent)



Employment

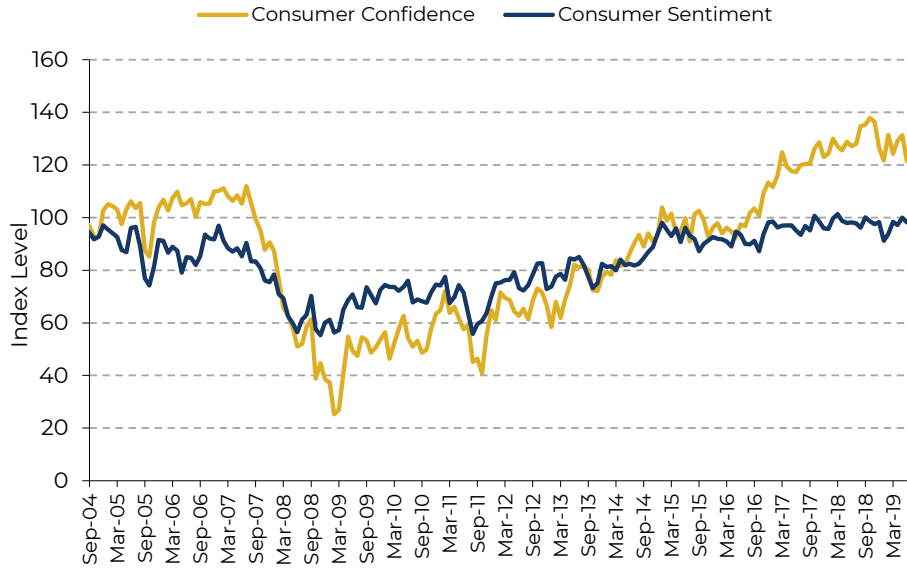


New and Existing Home Sales

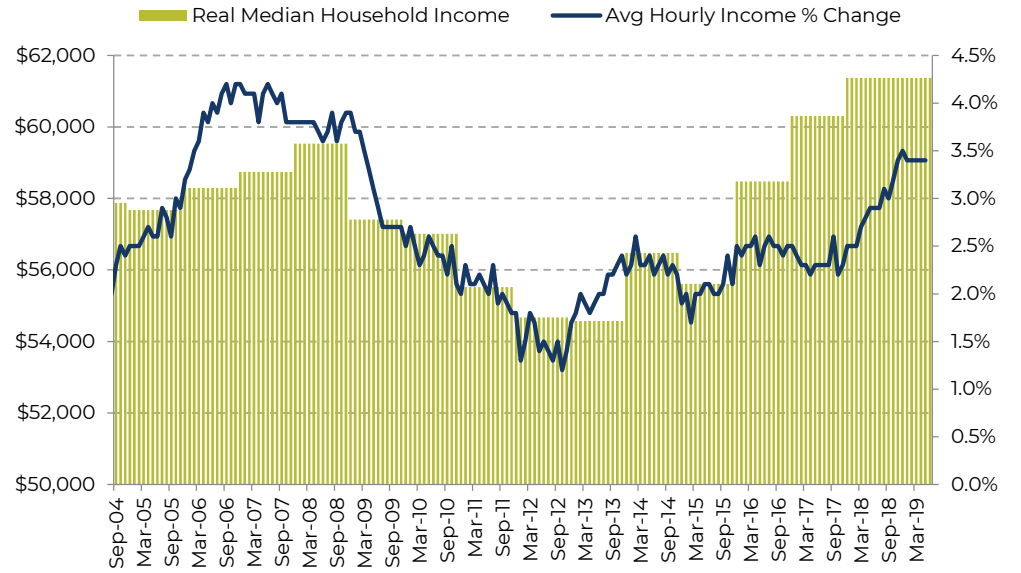




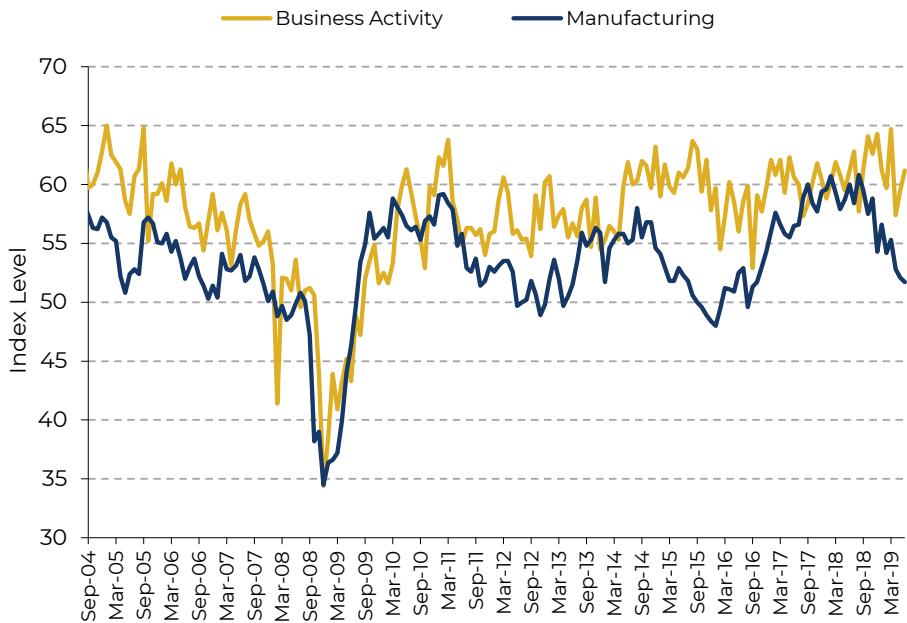
Consumer Confidence



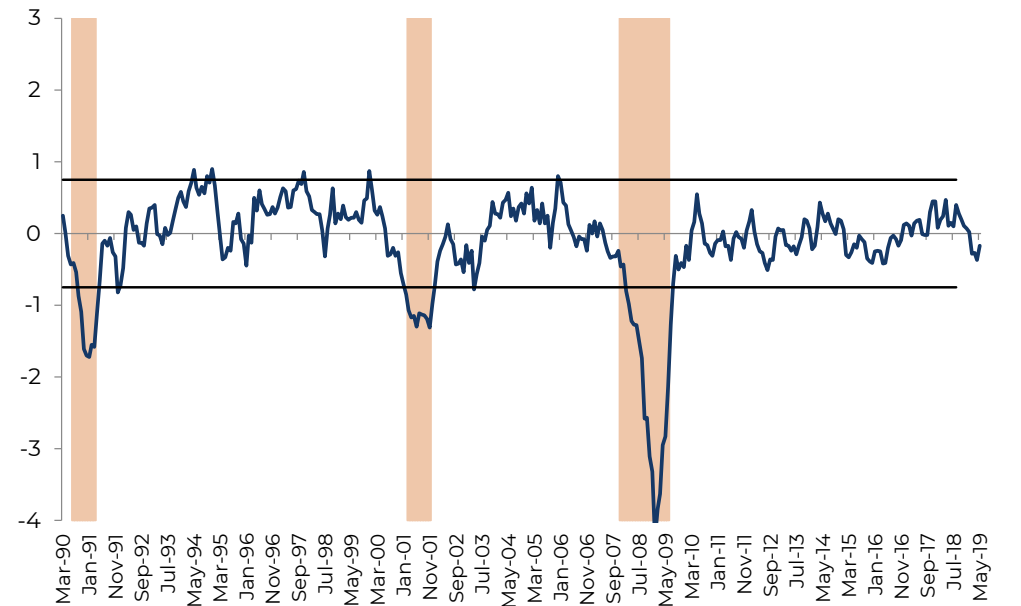
Income and Wages



ISM Business Activity & Manufacturing



CFNAI: (3-Month Moving Average)



Asset Classes - Annual Returns

Data as of 6/30/2019.



<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>YTD</u>
5%	79%	27%	8%	18%	39%	14%	1%	21%	37%	2%	19%
2%	58%	27%	4%	18%	34%	10%	1%	21%	25%	2%	18%
0%	37%	19%	3%	17%	32%	6%	1%	17%	22%	0%	17%
-26%	32%	15%	2%	16%	23%	5%	0%	12%	16%	-2%	14%
-34%	27%	15%	0%	16%	7%	2%	-1%	11%	15%	-4%	11%
-36%	26%	8%	-2%	16%	2%	1%	-2%	3%	7%	-11%	10%
-37%	6%	7%	-4%	4%	0%	0%	-4%	2%	4%	-11%	6%
-43%	3%	1%	-12%	2%	-2%	-2%	-5%	1%	2%	-14%	1%
-53%	0%	0%	-18%	0%	-3%	-5%	-15%	0%	1%	-15%	1%

US Large Cap Stocks
US Mid Cap Stocks
US Small Cap Stocks
Developed Intl Stocks
Emerging Market Stocks

Intermediate-term Bonds
High Yield Bond
Cash
Inflation



Executive Summary

Kansas Board of Regents Mandatory Retirement Plan

Fall 2019 RPC Meeting

- **Outstanding Items from Last Meeting - Update on Current Watch List Funds**

Background: At the spring 2019 KBOR RPC meeting, ACG recommended and the RPC approved placing the following funds on Watch: TIAA-CREF Large-Cap Value, TIAA-CREF Mid Cap Value, Voya SmallCap Opportunities. On the following pages we summarize the reasons for the fund being placed on Watch and provide an update on performance since the spring RPC meeting.

- **TIAA**

- **TIAA-CREF Large-Cap Value Institutional (Large Cap Value Option)**

- Rationale for being placed on Watch at Spring 2019 RPC Meeting:

- The second half of 2018 turned out to be quite challenging for the fund. When we met in September to review the 6/30 performance results the fund was down -1.16% for the first six months of the year, which outpaced the Russell 1000 Value Index by 0.54% and placed in the 51st percentile relative to its large-cap value peers. At the end of December, the fund's one-year return of -14.10% underperformed the benchmark by -5.83% and peer group average by -5.58%. Much of the weakness was due in large part to poor stock selection in energy, financials, industrials, and materials sectors. As a result of the poor 2018 results as well as poor relative returns in 2017, the fund is trailing both the benchmark index and average large-cap value peer group manager by a wide margin on a one, three, and five-year basis.
- There was also a manager change in November with Tom Kolefas retiring on November 15, 2018. He had been on the fund for the previous 14 years. The co-manager on TIAA Large-Cap Value Fund, Rich Cutler became the Lead Portfolio Manager on the TIAA Mid-Cap Value Fund which was also impacted by Mr. Kolefas' retirement. Charles Carr was named the lead Portfolio Manager of the TIAA-CREF Large Cap Value Fund and will be supported by Mr. Cutler on a go-forward basis. Although Mr. Carr has been at TIAA for less than five years, he has over 23 years of equity investment industry experience. The fund under Mr. Carr is expected to remain in the large-cap value style box, he does intend to reduce the total number of holdings in the fund, focus more heavily on larger companies, and reduce the fund's overall foreign exposure.

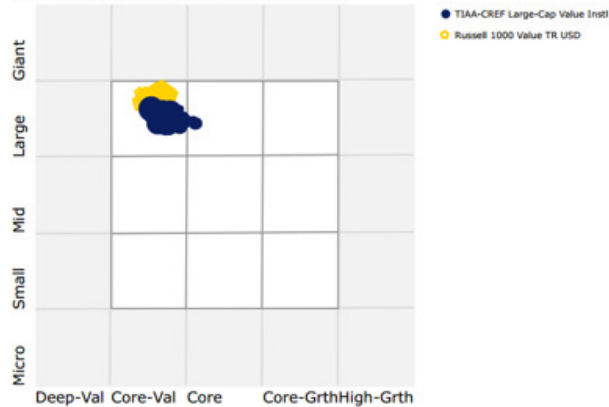
- Update Since Spring 2019 RPC Meeting (Plan assets in fund = \$58.6M or 1.8% of TIAA Assets)
 - Lead Portfolio Manager Charles Carr has gotten off to a solid start since taking over in November of 2018. In his first two full quarters on the fund (1st & 2nd) it surpassed both the returns of the benchmark (Russell 1000 Value) and median large-cap value peer group manager. As of 6.30.2019

Name	1 Mo. Rank		2 Mo. Rank		3 Mo. Rank		6 Mo. Rank	
TIAA-CREF Large-Cap Value Instl	7.49	25	0.35	25	4.53	13	17.00	16
Russell 1000 Value TR USD	7.18		0.29		3.84		16.24	
US Fund Large Value	6.79		-0.42		3.02		14.59	

- ACG can also confirm Mr. Carr has implemented the following changes to the investment process.
 - Focusing on larger-cap companies
 - Reducing the number of holdings
 - Reducing the foreign equity exposure

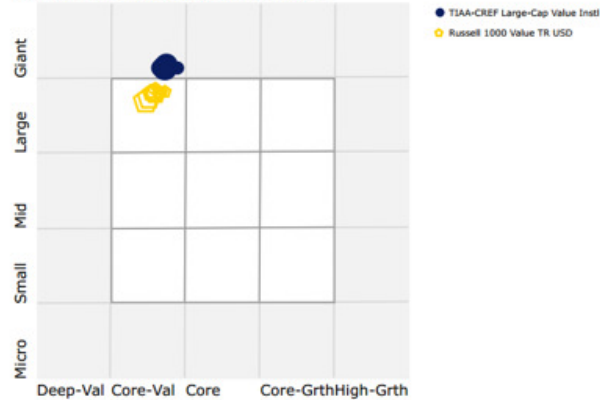
Holdings-Based Style Trail

Time Period: 11/30/2013 to 10/31/2018



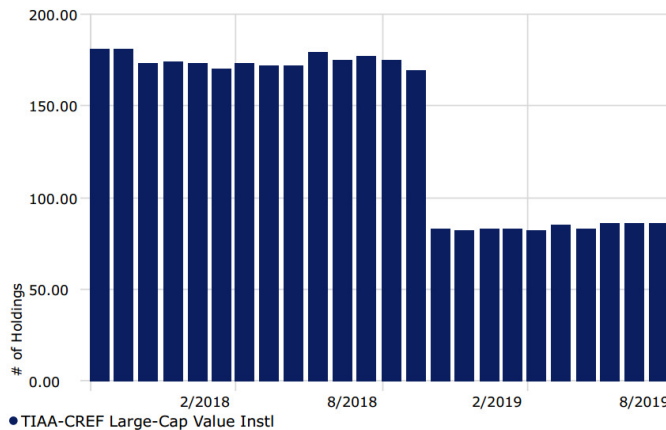
Holdings-Based Style Trail

Time Period: 11/30/2018 to 8/31/2019



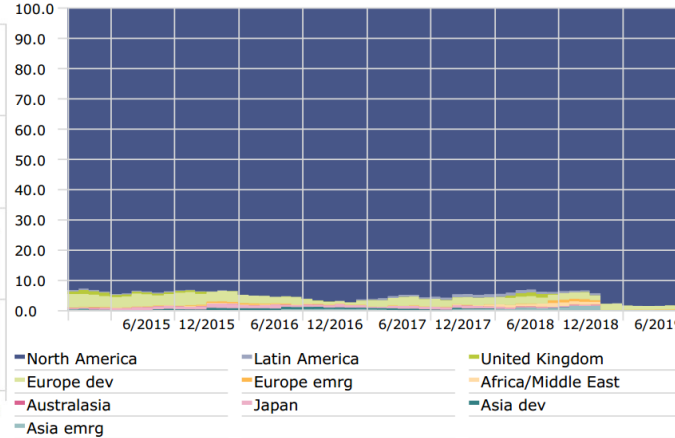
Holding Fundamentals

Time Period: 9/1/2017 to 8/31/2019



TIAA-CREF Large-Cap Value Instl - Equity Regional Exposure

Time Period: 9/1/2014 to 6/30/2019



- *ACG Recommendation: Maintain fund on Watch. Re-evaluate at the Spring RPC Meeting.*

▪ TIAA-CREF Mid-Cap Value Institutional (Mid-Cap Value Option)

- Rationale for being placed on Watch at Spring 2019 RPC Meeting:
 - This fund was also impacted by the retirement of Tom Kolefas on November 15, 2018. Mr. Kolefas had been the lead portfolio manager on the fund since July 2004. Rich Cutler who served as a co-portfolio manager on the Mid-Cap Value Fund will relinquish his lead portfolio manager responsibilities on the TIAA-CREF Large-Cap Value Fund to become the Lead Portfolio Manager on this fund. He will use the same investment process used on the TIAA-CREF Large-Cap Value fund and apply it to this one. Although his investment process is similar to that of Mr. Kolefas, we would expect Mr. Cutler to be more willing to invest in lower-quality stocks which are more heavily leveraged. These types of companies tend to perform well coming out of a bear market. However, they will introduce more volatility into the fund.
 - Performance has been trailing the benchmark and average mid-cap value peer group manager across most trailing time periods. Hopefully, the change in management will lead to better results.
- Update Since Spring 2019 RPC Meeting (Plan assets in fund = \$57.0M or 1.7% of TIAA Assets)

- Portfolio Manager Rich Cutler has also gotten off to a good start at the helm of the TIAA-CREF Mid-Cap Value Fund. His tenure as Lead Portfolio Manager began on November 15, 2018. In the first six months of 2019, Mr. Cutler easily surpassed the median mid-cap value peer group manager performance by 2.50%, placing it in the 27th percentile of its peers. The fund has also outpaced the Russell Mid-Cap Value Index by 0.28% over the same time period.

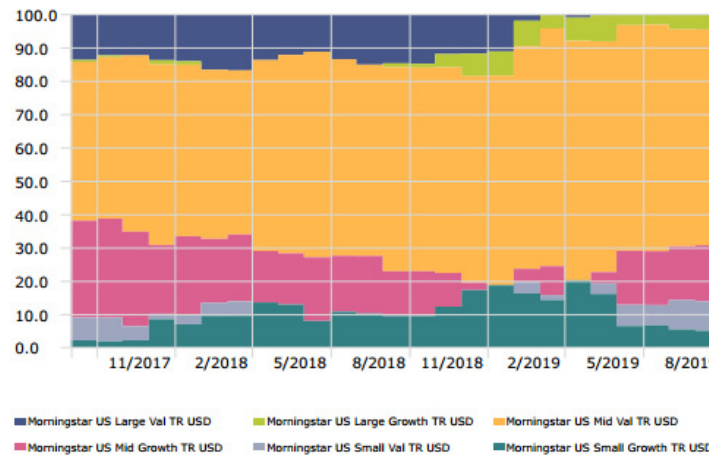
As of 6.30.2019

Name	1 Mo. Rank		2 Mo. Rank		3 Mo. Rank		6 Mo. Rank	
TIAA-CREF Mid-Cap Value Instl	7.07	46	-0.54	32	3.15	43	18.30	27
Russell Mid Cap Value TR USD	6.75		-0.10		3.19		18.02	
US Fund Mid-Cap Value	7.06		-1.35		2.52		15.80	

- Mr. Cutler indicated a willingness to reduce the fund's historic quality bias in order to uncover more investment opportunities. A quick review of the fund's holdings suggests that this is happening with an increase in funds overall debt/capital ratio.

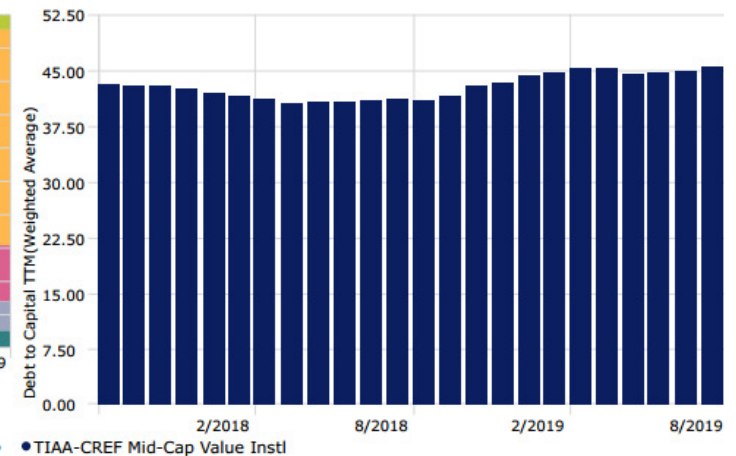
TIAA-CREF Mid-Cap Value Instl - Historical Style Exposure

Time Period: 9/1/2014 to 8/31/2019



Holding Fundamentals

Time Period: 9/1/2017 to 8/31/2019



- ACG Recommendation: Maintain fund on Watch. Re-evaluate at the Spring RPC Meeting.

- VOYA

- Voya Small-Cap Opportunities Portfolio I (Small Cap Growth Option)**

- Rationale for being placed on Watch at Spring 2019 RPC Meeting:
 - Modest underperformance relative to both the Russell 2000 Growth benchmark and average small-cap growth manager in 2017 was followed by significant underperformance to both in 2018. As a result, the fund now trails the benchmark and lands in the fourth quartile of its peers on a one, three, and five-year basis.
 - The management team and investment process have not changed. However, there has been significant turnover in their dedicated analyst ranks over the past couple of years. Management has recently replaced both the technology and health care analysts for underlying performance reasons.
 - Update: Since Spring 2019 RPC Meeting (Plan Assets in Fund = \$19.3M or 2.9% of Voya Assets)
 - The fund continues to struggle relative to both the benchmark and median peer group manager.

As of 6.30.2019

Name	1 Mo.	Rank	2 Mo.	Rank	3 Mo.	Rank	6 Mo.	Rank	1 Yr.	Rank	3 Yrs.	Rank	5 Yrs.	Rank	10 Yrs.	Rank
Voya SmallCap Opportunities Port I	8.02	19	-0.64	66	2.57	71	20.47	58	-4.50	87	10.62	87	6.86	81	14.10	62
Russell 2000 Growth TR USD	7.70		-0.29		2.75		20.36		-0.49		14.69		8.63		14.41	
US Fund Small Growth	7.04		0.37		4.12		21.82		3.22		16.12		9.18		14.47	

- The recent underperformance, which has had a meaningful impact on longer-term results, can be categorized into two buckets.
 - Bucket One: A quality bias, which accounts for approximately 1/3 of the fund's underperformance. The Portfolio Management team focuses on companies with low average debt levels that trade at a discount to their industry peers, which was out of favor in recent periods. The team has no desire to change their current investment process and point to the cyclicity of the market for their desire to continue with the strategy.
 - Bucket Two: stock selection in technology and health care sectors, which accounts for approximately 2/3 of the funds underperformance. Voya has taken steps to improve results in those areas by replacing the Senior Technology Analyst who was slow to embrace many technology industry disruptors that have performed well over the past several years. Voya has also added a dedicated pharmaceutical/biotech analyst who came from the medical field. According to Voya, these were generally overlooked industries as the existing analyst in this space spends most of his time covering healthcare and equipment companies.
- ACG Recommendation: Maintain fund on Watch. Re-evaluate at the Spring RPC Meeting.

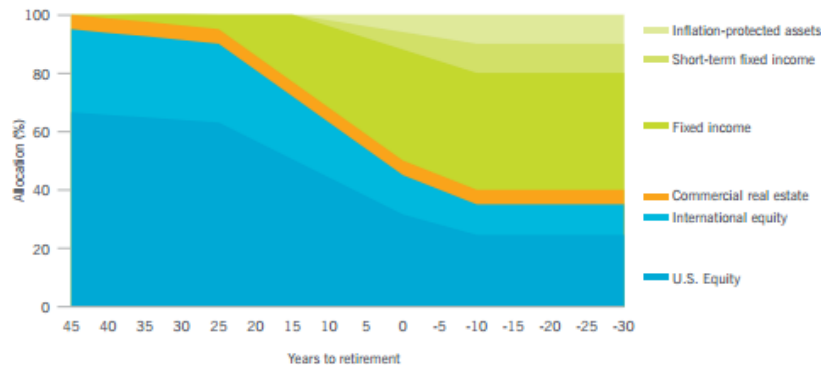
- **Current Investment Lineup Recommendations as of 6/30/2019**

- **TIAA**
 - None
- **Voya**
 - None

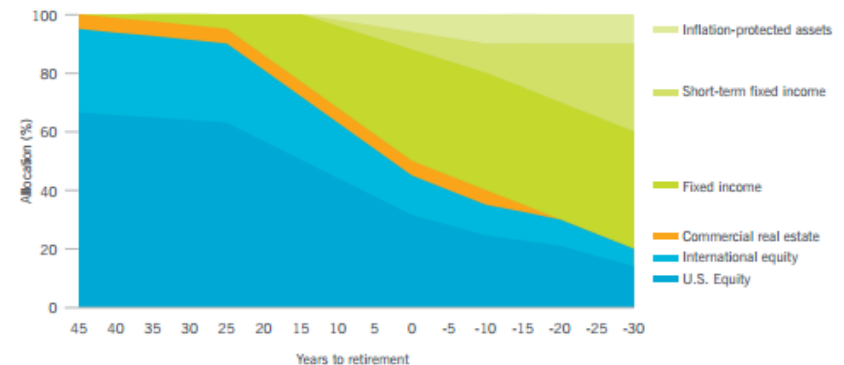
- **Other Fund Notes**

- **TIAA**
 - On October 1, 2019, the TIAA-CREF Lifecycle and Lifecycle Index Funds will be extending the final landing point for their glidepaths from 10 years past retirement to 30 years past retirement.
 - According to TIAA, the extension will result in a glidepath during the second and third decades of retirement that is better adapted to the shortening time horizon of remaining life expectancy as individuals age in retirement. The Lifecycle Funds will be positioned to experience a better balance between market, longevity, and inflation risk during participants' retirement years.
 - The enhancements are being driven by:
 - Capital markets assumptions: evolving capital market assumptions reflect expectations for continued volatility going forward, similar to recent past
 - Shareholder use of the target date funds: participants have been observed to continue to remain invested in the Funds well into retirement
 - Comparison of the Glidepaths:

TIAA-CREF Lifecycle Funds – Current

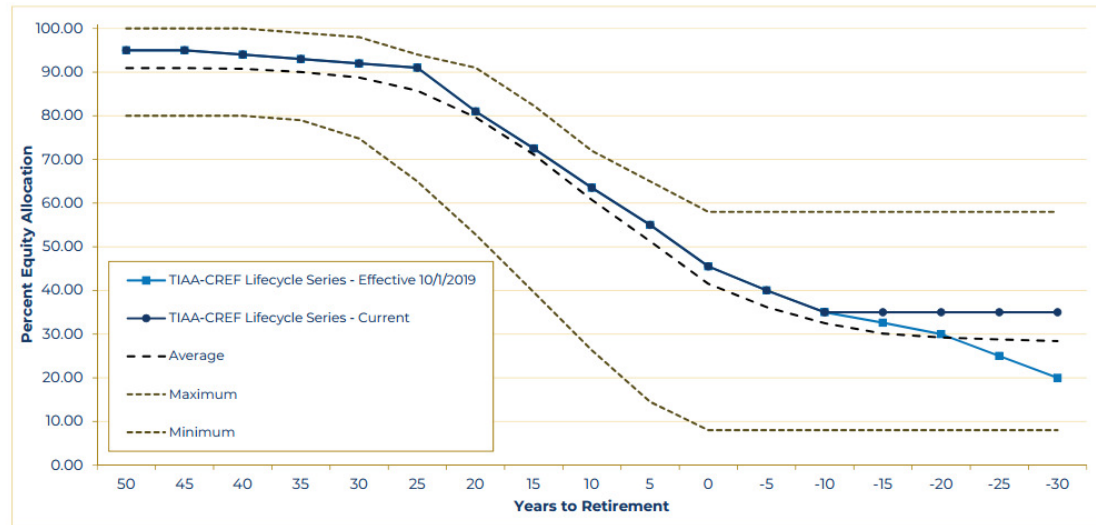


TIAA-CREF Lifecycle Funds – Updated/Forthcoming



- Overlay of the Equity Glidepaths:

TIAA-CREF Lifecycle Series Glidepath Changes: Effective October 1, 2019



	50	45	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30
TIAA-CREF Lifecycle Series - Current	95.0	95.0	94.0	93.0	92.0	91.0	81.0	72.5	63.5	55.0	45.5	40.0	35.0	35.0	35.0	35.0	35.0
TIAA-CREF Lifecycle Series - Effective 10/1/2019	95.0	95.0	94.0	93.0	92.0	91.0	81.0	72.5	63.5	55.0	45.5	40.0	35.0	32.6	30.0	25.0	20.0
Average	90.9	90.9	90.8	90.0	88.8	85.8	79.6	71.1	60.7	51.3	41.5	36.2	32.5	30.1	29.2	28.8	28.4
Maximum	100.0	100.0	100.0	99.0	98.0	94.0	91.0	82.4	72.0	65.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0
Minimum	80.0	80.0	80.0	79.0	74.8	65.0	52.8	39.6	26.3	14.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0

- The current glidepath (e.g., up until 10 years past retirement), will remain unchanged
- *ACG's Take: TIAA's rationale for changing the glidepath seems reasonable and prudent, especially for those participants in their second or third decade of retirement.*

- **Voya**
 - None

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**Kansas Board of Regents
TIAA Mandatory Plan Summary**

TIAA Asset Class Coverage - Effective July 2019

Domestic Equity			
	Value	Blend	Growth
Large	TIAA-CREF Large-Cap Value	CREF Stock CREF Equity Index TIAA-CREF S&P 500 Index	Amana Growth CREF Growth Wells Fargo Growth
Mid	TIAA-CREF Mid-Cap Value	Vanguard Mid Cap Index	TIAA-CREF Mid-Cap Growth
Small	Royce Opportunity	TIAA-CREF Small-Cap Blend Index	AB Small Cap Growth
International Equity			
	Value	Blend	Growth
Large		TIAA-CREF International Equity Index	American Funds EuroPacific Growth
Mid			
Small	Pear Tree Polaris Foreign Val Small Cap		
Emerging		DFA Emerging Markets	
Global			CREF Global Equities
Domestic Fixed Income			
	Short	Intermediate	Long
High	CREF Money Market TIAA Stable Value TIAA Traditional		CREF Inflation-Linked Bond
Medium		CREF Bond Market PGIM Total Return Bond Fund	
Low			
Other			
	Real Estate	Balanced	Foreign Bond
	TIAA Real Estate Account	CREF Social Choice TIAA-CREF Lifecycle Ret Income, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060	Amana Participation
	Other Sectors	Absolute Return	Self-Directed Brokerage

Gold = Passively Managed Index Funds

Navy = Actively Managed Funds

Performance: TIAA-CREF

January 1, 2019 - June 30, 2019

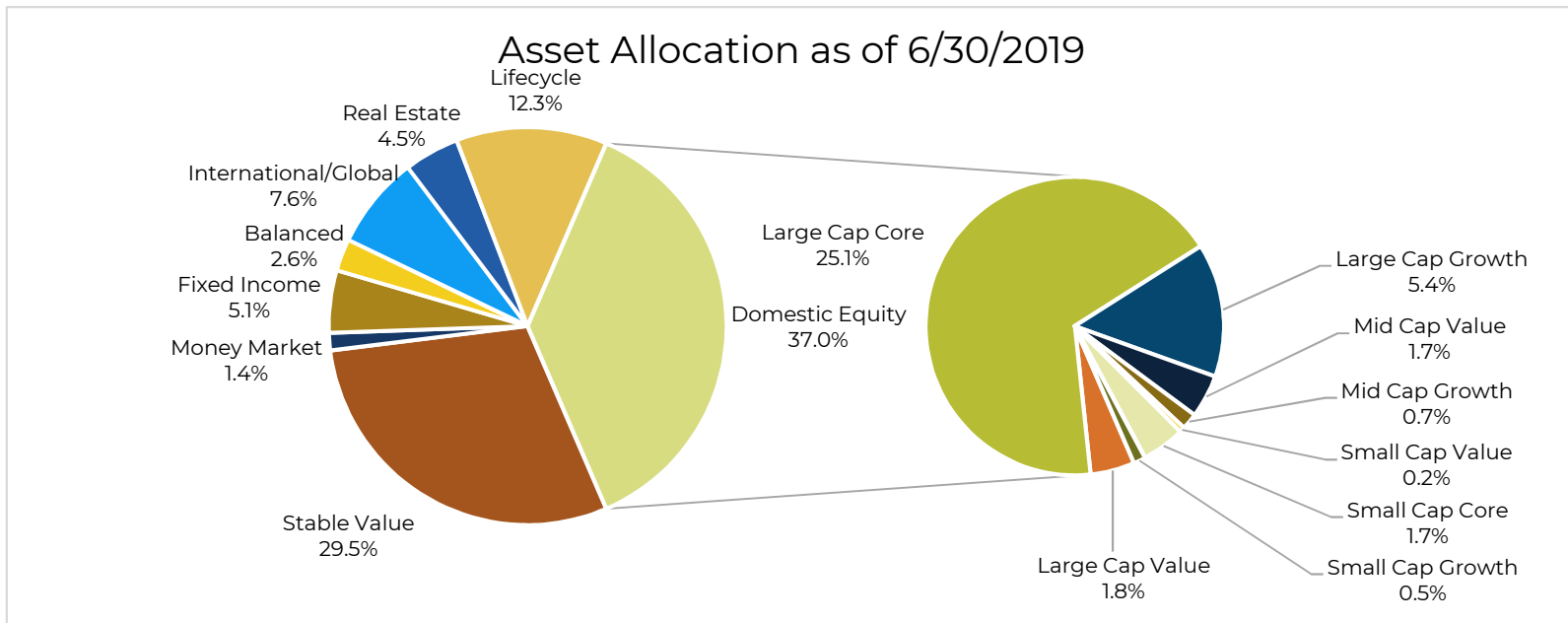
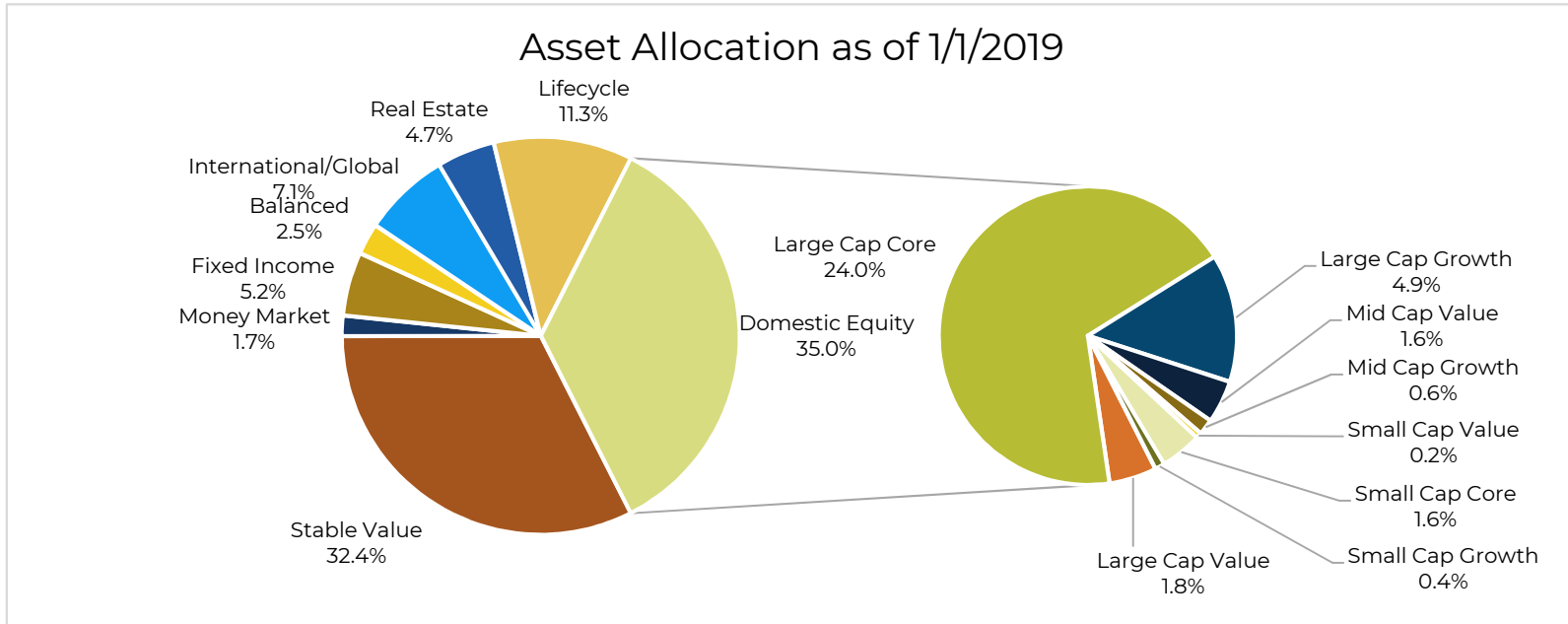
Fund	Beginning Balance: 1/1/2019	Ending Balance: 6/30/2019	Six Month Return
TIAA Traditional	\$ 918,490,386	\$ 921,549,916	1.86%
TIAA Stable Value	\$ 54,912,461	53,086,239	0.92%
CREF Money Market R3	\$ 49,851,059	46,478,758	1.10%
CREF Bond Market R3	\$ 104,774,963	112,689,257	6.40%
Amana Participation Institutional	\$ 394,214	451,397	4.56%
CREF Inflation-Linked Bond R3	\$ 50,634,755	54,292,741	4.98%
TIAA-CREF Large-Cap Value Instl	\$ 54,211,098	58,615,322	17.00%
CREF Stock R3	\$ 527,463,958	593,435,051	17.27%
CREF Equity Index R3	\$ 78,162,042	89,383,551	18.56%
TIAA-CREF S&P 500 Index Instl	\$ 114,076,114	144,334,551	18.50%
Amana Growth Institutional	\$ 567,615	1,660,668	21.63%
Wells Fargo Growth Inst	\$ 27,742,053	34,458,026	28.65%
CREF Growth R3	\$ 117,602,484	140,989,047	21.91%
TIAA-CREF Mid-Cap Value Instl	\$ 48,791,299	57,016,361	18.30%
TIAA-CREF Mid-Cap Growth Instl	\$ 17,946,752	21,723,422	28.78%
Royce Opportunity Instl	\$ 6,532,231	6,880,146	15.70%
TIAA-CREF Small-Cap Blend Idx Inst	\$ 47,246,636	57,431,102	16.95%
AB Small Cap Growth I	\$ 11,064,526	15,995,049	30.50%
CREF Global Equities R3	\$ 81,579,271	92,304,508	17.05%
TIAA-CREF International Eq Idx Instl	\$ 51,260,883	66,354,900	14.06%
American Funds Europacific Growth R6	\$ 53,047,949	58,795,259	17.59%
DFA Emerging Markets I	\$ 26,874,676	32,459,957	9.11%
TIAA Real Estate Account	\$ 142,256,584	147,846,451	3.06%
Cref Social Choice R3	\$ 76,292,055	86,157,231	12.76%
TIAA-CREF Lifecycle Retire Income Instl	\$ 3,587,120	4,145,340	10.13%
TIAA-CREF Lifecycle 2010 Institutional	\$ 8,147,174	8,045,652	10.15%
TIAA-CREF Lifecycle 2015 Institutional	\$ 19,323,481	23,816,172	10.87%
TIAA-CREF Lifecycle 2020 Institutional	\$ 26,297,697	30,524,131	11.60%
TIAA-CREF Lifecycle 2025 Institutional	\$ 34,651,264	40,492,644	12.66%
TIAA-CREF Lifecycle 2030 Institutional	\$ 42,178,971	49,576,014	13.74%
TIAA-CREF Lifecycle 2035 Institutional	\$ 51,245,109	60,933,421	14.75%
TIAA-CREF Lifecycle 2040 Institutional	\$ 74,385,685	88,992,948	15.55%
TIAA-CREF Lifecycle 2045 Institutional	\$ 43,524,020	54,315,178	16.21%
TIAA-CREF Lifecycle 2050 Institutional	\$ 30,432,827	38,448,143	16.42%
TIAA-CREF Lifecycle 2055 Institutional	\$ 3,404,150	5,226,784	16.51%
TIAA-CREF Lifecycle 2060 Institutional	\$ 1,057,194	1,460,357	16.77%
Totals/Weighted Average Return	\$ 3,000,010,755	\$ 3,300,365,694	11.20%
Weighted Average Variable Funds Return			15.13%
Weighted Average Fixed Income Return			1.81%

Fee Analysis: TIAA-CREF

January 1, 2019 - June 30, 2019

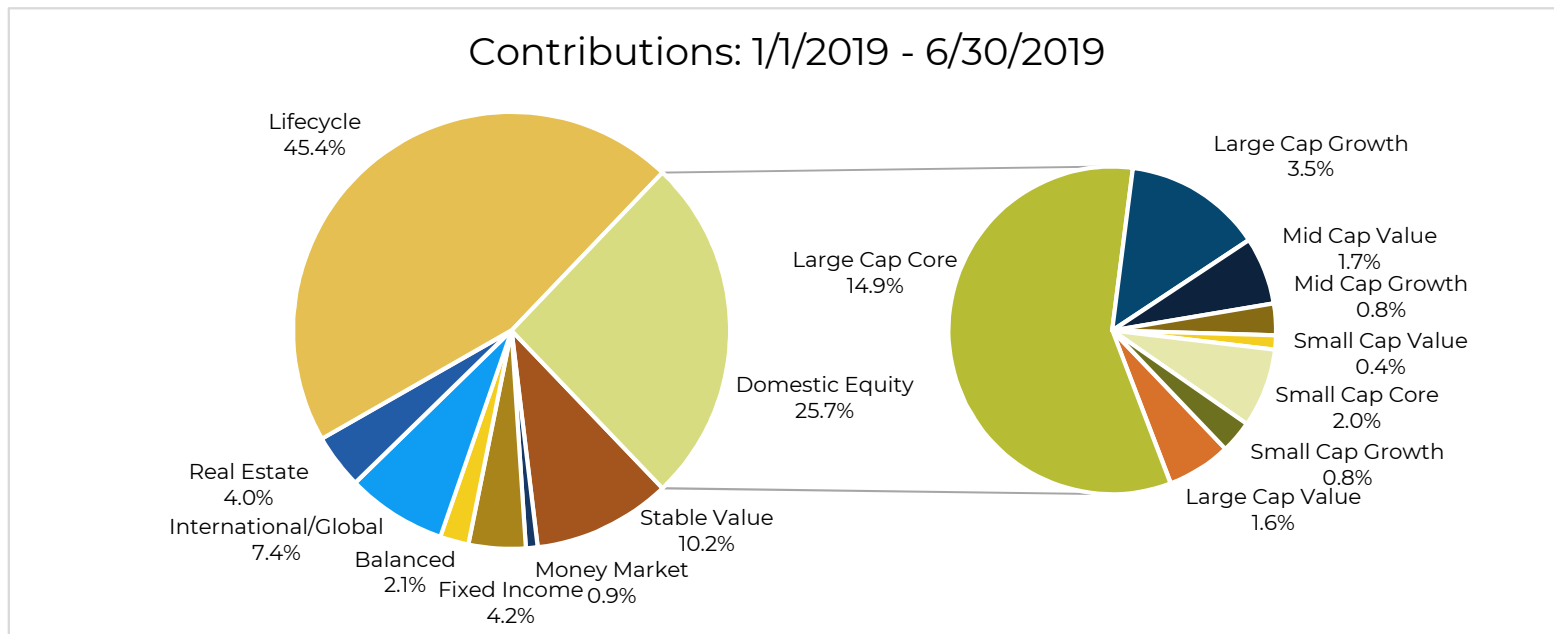
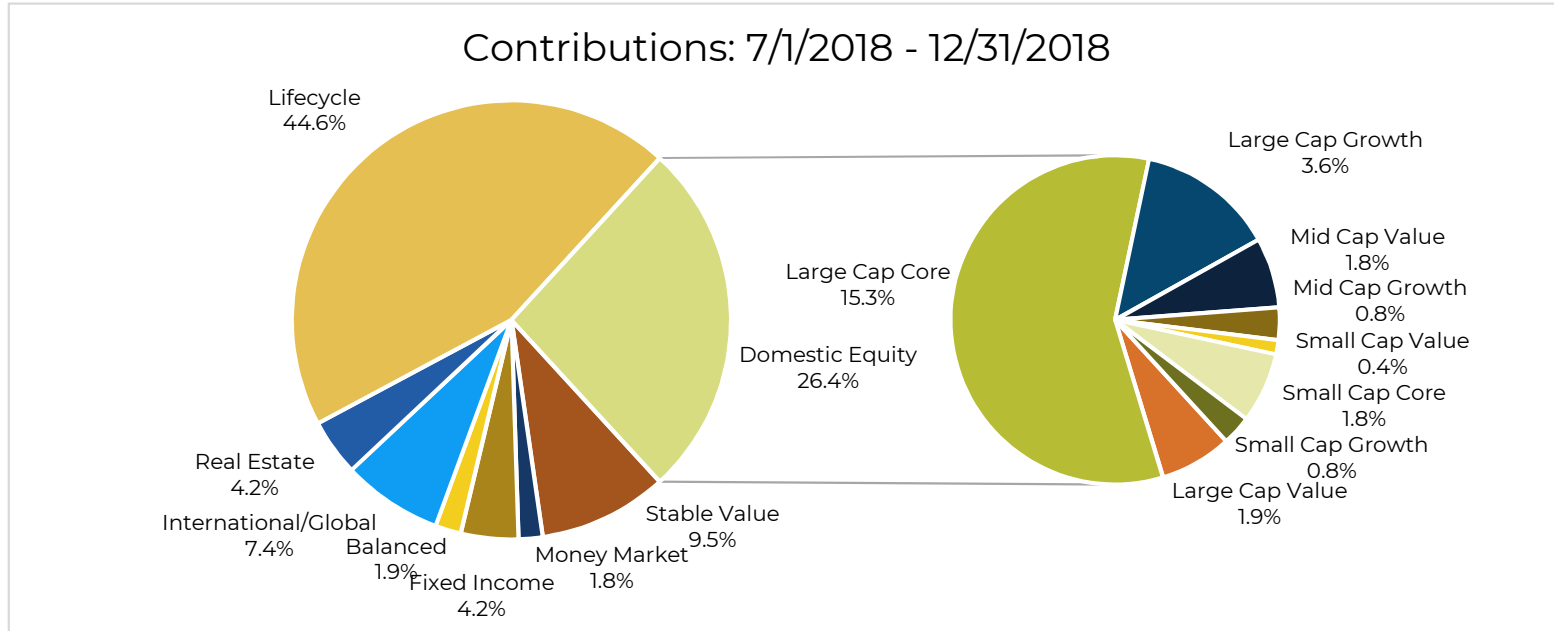
Fund	Ticker	Percent of Balance	Expense Ratio
TIAA Traditional	-	27.9%	0.49%
TIAA Stable Value	-	1.6%	0.74%
CREF Money Market R3	QCMMIX	1.4%	0.23%
CREF Bond Market R3	QCBMIX	3.4%	0.27%
Amana Participation Institutional	AMIPX	0.0%	0.62%
CREF Inflation-Linked Bond R3	QCILIX	1.6%	0.22%
TIAA-CREF Large-Cap Value Instl	TRLIX	1.8%	0.40%
CREF Stock R3	QCSTIX	18.0%	0.30%
CREF Equity Index R3	QCEQIX	2.7%	0.22%
TIAA-CREF S&P 500 Index Instl	TISPX	4.4%	0.05%
Amana Growth Institutional	AMIGX	0.1%	0.85%
Wells Fargo Growth Inst	SGRNX	1.0%	0.75%
CREF Growth R3	QCGRIX	4.3%	0.24%
TIAA-CREF Mid-Cap Value Instl	TIMVX	1.7%	0.42%
TIAA-CREF Mid-Cap Growth Instl	TRPWX	0.7%	0.47%
Royce Opportunity Instl	ROFIX	0.2%	1.08%
TIAA-CREF Small-Cap Blend Idx Inst	TISBX	1.7%	0.06%
AB Small Cap Growth I	QUAIX	0.5%	0.91%
CREF Global Equities R3	QCGLIX	2.8%	0.27%
TIAA-CREF International Eq Idx Instl	TCIEX	2.0%	0.06%
American Funds Europacific Growth R6	RERGX	1.8%	0.49%
DFA Emerging Markets I	DFEMX	1.0%	0.47%
TIAA Real Estate Account	QREARX	4.5%	0.83%
Cref Social Choice R3	QCSCIX	2.6%	0.24%
TIAA-CREF Lifecycle Retire Income Instl	TLRIX	0.1%	0.37%
TIAA-CREF Lifecycle 2010 Institutional	TCTIX	0.2%	0.37%
TIAA-CREF Lifecycle 2015 Institutional	TCNIX	0.7%	0.38%
TIAA-CREF Lifecycle 2020 Institutional	TCWIX	0.9%	0.39%
TIAA-CREF Lifecycle 2025 Institutional	TCYIX	1.2%	0.41%
TIAA-CREF Lifecycle 2030 Institutional	TCRIX	1.5%	0.42%
TIAA-CREF Lifecycle 2035 Institutional	TCIIX	1.8%	0.43%
TIAA-CREF Lifecycle 2040 Institutional	TCOIX	2.7%	0.44%
TIAA-CREF Lifecycle 2045 Institutional	TTFIX	1.6%	0.45%
TIAA-CREF Lifecycle 2050 Institutional	TFTIX	1.2%	0.45%
TIAA-CREF Lifecycle 2055 Institutional	TTRIX	0.2%	0.45%
TIAA-CREF Lifecycle 2060 Institutional	TLXNX	0.0%	0.45%
Totals/Weighted Average Expense Ratio			0.39%
Weighted Average Expense Ratio ex- Stable Value			0.34%

Asset Allocation: TIAA-CREF



*Note: CREF Stock is included in the large cap core allocation, but this strategy has the ability to invest in both domestic and international stocks.

Contributions: TIAA-CREF



*Note: CREF Stock is included in the large cap core allocation, but this strategy has the ability to invest in both domestic and international stocks.

Number of Participants: TIAA-CREF

January 1, 2019 - June 30, 2019

Fund	Number of Participants
TIAA Traditional	10,845
TIAA Stable Value	1,841
CREF Money Market R3	1,573
CREF Bond Market R3	3,872
Amana Participation Instl	22
CREF Inflation-Linked Bond R3	2,948
TIAA-CREF Lg Cap Val Inst	2,465
CREF Equity Index R3	1,877
TIAA-CREF S&P 500 Index Instl	3,258
Amana Growth Institutional	172
Wells Fargo Advantage Growth	802
CREF Growth R3	3,117
TIAA-CREF Mid Cap Val Inst	2,819
TIAA-CREF Mid Cap Gr Inst	1,107
Royce Opportunity Fd	542
TIAA-CREF Sm Cap Bl Idx Inst	3,063
AB Small Cap Growth R6	1,090
CREF Stock R3	7,143
CREF Global Equities R3	3,377
TIAA-CREF International Eq Idx Inst	2,792
American Funds Europacific Growth R6	2,651
DFA Emerging Markets I	2,342
TIAA Real Estate	6,163
Cref Social Choice R3	2,023
TIAA-Cref Lifecycle Retirement Inc Inst	83
TIAA-Cref Lifecycle 2010 Inst	811
TIAA-Cref Lifecycle 2015 Inst	652
TIAA-Cref Lifecycle 2020 Inst	711
TIAA-Cref Lifecycle 2025 Inst	798
TIAA-Cref Lifecycle 2030 Inst	912
TIAA-Cref Lifecycle 2035 Inst	1,212
TIAA-Cref Lifecycle 2040 Inst	1,934
TIAA-Cref Lifecycle 2045 Inst	1,836
TIAA-Cref Lifecycle 2050 Inst	1,982
TIAA-Cref Lifecycle 2055 Inst	626
TIAA-Cref Lifecycle 2060 Inst	174

Total Unique Participants

24,373


Asset Summary (in thousands)

	Current Quarter		December 2018		1 Year Ago	
	(\$)	%	(\$)	%	(\$)	%
Total Plan	3,300,366	100.0	3,000,011	100.0	3,214,064	100.0
Cash Equivalents	1,021,115	30.9	1,023,254	34.1	1,008,196	31.4
CREF Money Market R3 (QCMMIX)	46,479	1.4	49,851	1.7	41,103	1.3
TIAA Stable Value	53,086	1.6	54,912	1.8	50,671	1.6
TIAA Traditional	921,550	27.9	918,490	30.6	916,423	28.5
Fixed Income	167,433	5.1	155,804	5.2	152,860	4.8
CREF Inflation-Linked Bond R3 (QCILIX)	54,293	1.6	50,635	1.7	48,941	1.5
CREF Bond Market R3 (QCBMIX)	112,689	3.4	104,775	3.5	103,583	3.2
Amana Participation Institutional (AMIPX)	451	0.0	394	0.0	336	0.0
Domestic Equity	628,487	19.0	523,943	17.5	612,270	19.0
Large Cap	469,441	14.2	392,361	13.1	450,547	14.0
TIAA-CREF Large-Cap Value Instl (TRLIX)	58,615	1.8	54,211	1.8	66,504	2.1
CREF Equity Index R3 (QCEQIX)	89,384	2.7	78,162	2.6	90,993	2.8
TIAA-CREF S&P 500 Index Instl (TISPX)	144,335	4.4	114,076	3.8	121,814	3.8
Amana Growth Institutional (AMIGX)	1,661	0.1	568	0.0	108	0.0
CREF Growth R3 (QCGRIX)	140,989	4.3	117,602	3.9	138,904	4.3
Wells Fargo Growth Inst (SGRNX)	34,458	1.0	27,742	0.9	32,223	1.0
Mid Cap	78,740	2.4	66,738	2.2	84,258	2.6
TIAA-CREF Mid-Cap Value Instl (TIMVX)	57,016	1.7	48,791	1.6	66,184	2.1
TIAA-CREF Mid-Cap Growth Instl (TRPWX)	21,723	0.7	17,947	0.6	18,073	0.6
Small Cap	80,306	2.4	64,843	2.2	77,465	2.4
Royce Opportunity Instl (ROFIX)	6,880	0.2	6,532	0.2	8,595	0.3
TIAA-CREF Small-Cap Blend Idx Inst (TISBX)	57,431	1.7	47,247	1.6	54,585	1.7
AB Small Cap Growth I (QUAIX)	15,995	0.5	11,065	0.4	14,285	0.4
International Equity	249,915	7.6	212,763	7.1	237,002	7.4
CREF Global Equities R3 (QCGLIX)	92,305	2.8	81,579	2.7	91,315	2.8
TIAA-CREF International Eq Idx Instl (TCIEX)	66,355	2.0	51,261	1.7	55,176	1.7
American Funds Europacific Growth R6 (RERGX)	58,795	1.8	53,048	1.8	63,140	2.0
DFA Emerging Markets I (DFEMX)	32,460	1.0	26,875	0.9	27,371	0.9
Specialty	827,439	25.1	746,013	24.9	847,944	26.4
TIAA Real Estate Account (QREARX)	147,846	4.5	142,257	4.7	140,803	4.4
Balanced	679,592	20.6	603,756	20.1	707,140	22.0
CREF Social Choice R3 (QCSCIX)	86,157	2.6	76,292	2.5	85,124	2.6
CREF Stock R3 (QCSTIX)	593,435	18.0	527,464	17.6	622,016	19.4



Asset Summary (in thousands)

Target Date	Current Quarter		December 2018		1 Year Ago	
	(\$)	%	(\$)	%	(\$)	%
Target Date	405,977	12.3	338,235	11.3	355,791	11.1
TIAA-CREF Lifecycle Retire Income Instl (TLRIX)	4,145	0.1	3,587	0.1	3,633	0.1
TIAA-CREF Lifecycle 2010 Institutional (TCTIX)	8,046	0.2	8,147	0.3	8,681	0.3
TIAA-CREF Lifecycle 2015 Institutional (TCNIX)	23,816	0.7	19,323	0.6	19,760	0.6
TIAA-CREF Lifecycle 2020 Institutional (TCWIX)	30,524	0.9	26,298	0.9	26,967	0.8
TIAA-CREF Lifecycle 2025 Institutional (TCYIX)	40,493	1.2	34,651	1.2	37,241	1.2
TIAA-CREF Lifecycle 2030 Institutional (TCRIX)	49,576	1.5	42,179	1.4	45,172	1.4
TIAA-CREF Lifecycle 2035 Institutional (TCIIX)	60,933	1.8	51,245	1.7	53,913	1.7
TIAA-CREF Lifecycle 2040 Institutional (TCOIX)	88,993	2.7	74,386	2.5	79,933	2.5
TIAA-CREF Lifecycle 2045 Institutional (TTFIX)	54,315	1.6	43,524	1.5	45,679	1.4
TIAA-CREF Lifecycle 2050 Institutional (TFTIX)	38,448	1.2	30,433	1.0	31,242	1.0
TIAA-CREF Lifecycle 2055 Institutional (TTRIX)	5,227	0.2	3,404	0.1	2,646	0.1
TIAA-CREF Lifecycle 2060 Institutional (TLXNX)	1,460	0.0	1,057	0.0	924	0.0

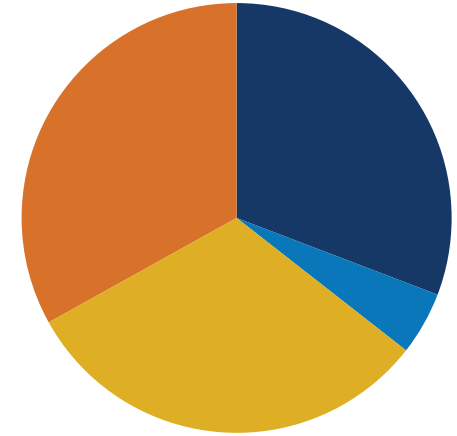
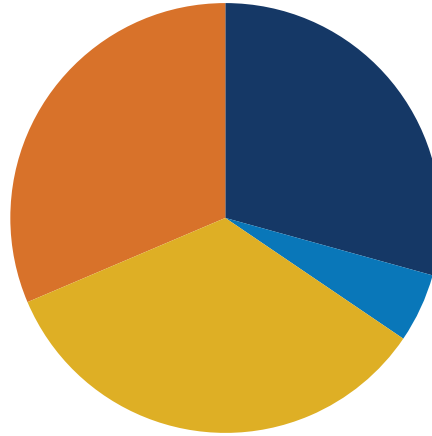
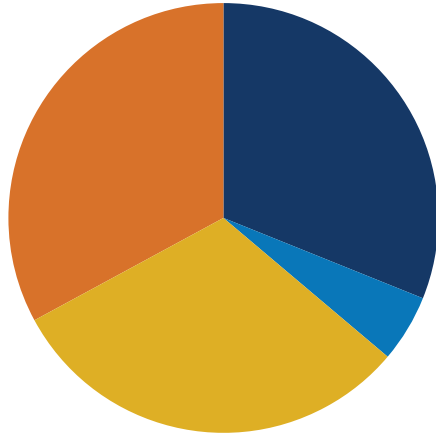


Historical Asset Allocation (in thousands)

June 30, 2019 | \$3,300,366

December 31, 2018 | \$3,000,011

June 30, 2018 | \$3,214,064

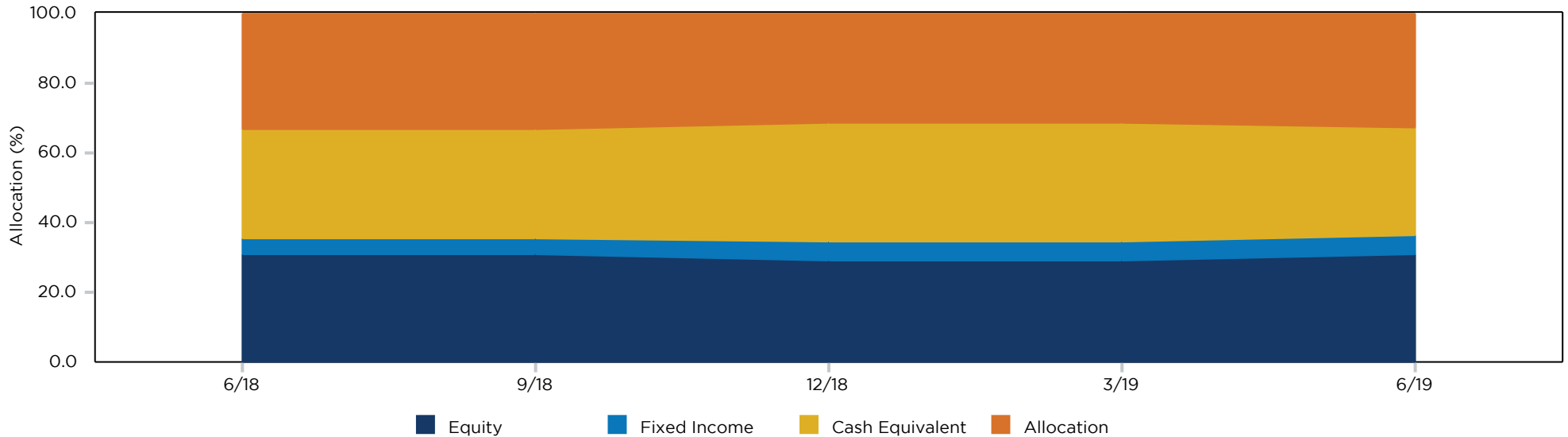


Asset Class	Market Value	Allocation (%)
Equity	1,026,248	31.1
Fixed Income	167,433	5.1
Cash Equivalent	1,021,115	30.9
Allocation	1,085,569	32.9

Asset Class	Market Value	Allocation (%)
Equity	878,962	29.3
Fixed Income	155,804	5.2
Cash Equivalent	1,023,254	34.1
Allocation	941,991	31.4

Asset Class	Market Value	Allocation (%)
Equity	990,076	30.8
Fixed Income	152,860	4.8
Cash Equivalent	1,008,196	31.4
Allocation	1,062,932	33.1

As of June 30, 2019





Fiduciary Scorecard

Fund Name	Mgmt.	Operations	Style	Near-Term Result	Long-Term Return	Long-Term Alpha	Long-Term Up Mkt.	Long-Term Down Mkt.	Long-Term Sharpe	Overall Long-Term Result
CREF Money Market R3 (QCMMIX)	Pass	Pass	Pass	✓	✓	✓	✓		✓	✓
TIAA Stable Value	Pass	Pass	Pass							
TIAA Traditional	Pass	Pass	Pass							
CREF Inflation-Linked Bond R3 (QCILIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
CREF Bond Market R3 (QCBMIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Amana Participation Institutional (AMIPX)	Pass	Pass	Pass							
TIAA-CREF Large-Cap Value Instl (TRLIX)	Pass	Pass	Note	✓	✓	✗	✓	✗	✗	✗
CREF Equity Index R3 (QCEQIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF S&P 500 Index Instl (TISPX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Amana Growth Institutional (AMIGX)	Pass	Pass	Pass	✓	✓	✓	✗	✓	✓	✓
CREF Growth R3 (QCGRIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Wells Fargo Growth Inst (SGRNX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Mid-Cap Value Instl (TIMVX)	Pass	Pass	Note	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Mid-Cap Growth Instl (TRPWX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Royce Opportunity Instl (ROFIX)	Pass	Pass	Pass	✓	✓	✗	✓	✗	✗	✗
TIAA-CREF Small-Cap Blend Idx Inst (TISBX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
AB Small Cap Growth I (QUAIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
CREF Global Equities R3 (QCGLIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF International Eq Idx Instl (TCIEIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
American Funds Europacific Growth R6 (REERGX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
DFA Emerging Markets I (DFEMX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA Real Estate Account (QREARX)	Pass	Pass	Pass							
CREF Social Choice R3 (QCSCIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
CREF Stock R3 (QCSTIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Lifecycle Retire Income Instl (TLRIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2010 Institutional (TCTIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Lifecycle 2015 Institutional (TCNIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Lifecycle 2020 Institutional (TCWIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2025 Institutional (TCYIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
TIAA-CREF Lifecycle 2030 Institutional (TCRIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2035 Institutional (TCIIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2040 Institutional (TCOIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2045 Institutional (TTFIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2050 Institutional (TFTIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
TIAA-CREF Lifecycle 2055 Institutional (TTRIX)	Pass	Pass	Pass	✓						
TIAA-CREF Lifecycle 2060 Institutional (TLXNX)	Pass	Note	Pass	✓						



Scorecard Definitions

Qualitative Factors

Management: An evaluation of an investment's organization and/or personnel.
Operations: An evaluation of an investment's asset size and change. Appropriate expenses.
Style: An evaluation of an investment's style, philosophy and/or consistency.

Near-Term Result : An evaluation of relative performance to the investment's designated peer group. A three-year period or a time period that more appropriately represents the Designated Investment Alternative's investment style is typically used.

Long-Term Performance : A ten-year period is typically be used.

Return: An evaluation of relative performance to the investment's designated peer group.
Alpha: An evaluation of risk-adjusted return relative to the investment's designated peer group.
Up Market: An evaluation of return relative to the investment's designated peer group in positive market periods.
Down Market: An evaluation of return relative to the investment's designated peer group in negative market periods.
Sharpe Ratio: An evaluation of the Sharpe ratio (return per unit of risk) relative to the investment's designated peer group.

Overall Long-Term Result : Aggregate evaluation of relative performance to the investment's designated peer group across factors including return, alpha, up market capture, down market capture and Sharpe ratio.

Amana Participation Institutional

Since the fund's inception in 2015, the fund has ranked among the bottom decile of the emerging market bond peer group in two of the three annual periods. The fund outperformed in 2018 as spreads widened particularly among export-oriented economies. This fund invests much of the portfolio in Sukuk, an interest-free substitute to traditional Western bonds, which are Sharia-law compliant. Many of these are domiciled within the middle east and produce income from the ownership in businesses with tangible assets. 2Q19

Recommendation: No Action

TIAA-CREF Large-Cap Value

This fund trailed the peer group median and the Russell 1000 Value index in four of the trailing five years, including bottom-decile performance in 2018. The strategy has been adjusted recently following a change in lead portfolio manager. The current lead manager, Charlie Carr, joined the strategy in November 2018 when longtime co-manager Tom Kolefas retired. Former lead PM Rich Cutler remains on the fund as a co-manager. While Carr has managed value strategies before, this is his first time managing an open-end mutual fund. Upon taking over the lead, Carr reduced the number of holdings from 175 to 83 and raised the average market cap significantly. Going forward, non-U.S. stock exposure is likely to be lower as well. Carr also implements a "pragmatic value" approach to investing, characterized by a willingness to invest in low-quality, deeper value names early in the business cycle but favoring high-quality names later in the cycle. Sector weightings will likely remain close to benchmark, similar to the previous manager. Before this change, the fund tended to be a diffuse portfolio comprised of deeper value names that management believed could turn around in the next 18-24 months. Over the trailing decade the fund often failed to distinguish itself from the benchmark, and management's deep value stock selection underperformed in the relative value-led market. Near-term performance was driven by poor stock selection in energy and health care. Year-to-date returns beat the benchmark by 2.4%, but the adjusted strategy and recent manager change warrant careful monitoring. 2Q19

Recommendation: Placed on Watch at the Spring 2019 RPC Committee Meeting

TIAA-CREF Mid-Cap Value

TIAA-CREF Mid-Cap Value has underperformed the peer group and the Russell Mid Cap Value index in five of the past six calendar years, which is affecting performance on a near-term and long-term basis. Over the trailing decade, the strategy was focused on adding value through stock selection rather than sector allocation. As a result, the portfolio had 200-250 holdings and near-benchmark sector allocation, resulting in a 0.99 correlation to the benchmark on a ten-year basis. The fund underperformed during a strong bull market in 2013, when a holding in McDermott International detracted significantly from performance. On a near-term basis, underperformance can be attributed to poor stock selection in consumer discretionary and industrials.

This fund underwent a change in lead management in November 2018 when long-time manager Tom Kolefas retired. This change could affect strategy execution. The current manager, Richard Cutler, has managed or co-managed the strategy since its inception in 2002. Following the management change, the number of holdings declined from 244 to around 200, but sector weightings stayed relatively close to the benchmark. Cutler is likely to focus less on companies with strong free cash flows and has historically been more willing to invest in companies with higher debt levels than other mid-cap value peers. The slight strategy adjustment following the lead management change warrants monitoring. 2Q19

Recommendation: Placed on Watch at the Spring 2019 RPC Committee Meeting

Royce Opportunity

Despite ten-year returns in the top quintile of the small value peer group, the risk profile of the portfolio ranks below peers. Fund management tends to invest in smaller-cap companies than many of its peers, which tend to be more volatile than more established names. Almost 40% of the portfolio is currently in micro-cap names, compared to a category average allocation of 1%. This leads to higher volatility as well as returns that tend to be near the top or the bottom of its peer group. The fund has historically outperformed in bull markets, including five years of top-decile performance over the trailing ten calendar years. The fund has underperformed in every down market over the trailing ten years, including returns of -24.0% (5.4% less than the benchmark) during the fourth quarter of 2018. The strategy has remained consistent. 2Q19

Recommendation: No Action

TIAA-CREF Lifecycle 2060 Institutional

The fund's assets increased by 40% over the past year. The fund's assets are \$0.14 billion. 2Q19

Recommendation: No Action



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
Total Plan	3,300,366	100.0	-	-	-	-	-	-
CREF Money Market R3 (QCMMIX)	46,479	1.4	0.55 (26)	2.06 (27)	1.04 (41)	0.64 (41)	0.32 (44)	0.23
+/- Blmbg. Barc. U.S. Treasury Bills: 1-3 Months			-0.07	-0.21	-0.29	-0.19	-0.13	-
Money Market-Taxable Median			0.51	1.89	0.98	0.59	0.30	-
TIAA Stable Value	53,086	1.6	0.46	1.88	1.65	1.63	-	-
+/- Ryan 3 Yr GIC Master Index			-0.12	-0.32	-0.16	0.07	-	-
TIAA Traditional	921,550	27.9	0.92	3.84	3.87	3.92	4.00	-
+/- Blmbg. Barc. U.S. Treasury: 7-10 Year			-3.03	-6.22	2.57	0.60	-0.39	-
CREF Inflation-Linked Bond R3 (QCILIX)	54,293	1.6	2.36 (70)	4.40 (40)	1.72 (66)	1.28 (46)	3.19 (49)	0.22
+/- Blmbg. Barc. U.S. TIPS 1-10 Year			-0.17	-0.27	-0.21	-0.14	0.26	-
Inflation-Protected Bond Median			2.58	4.24	1.94	1.23	3.16	0.75
CREF Bond Market R3 (QCBMIX)	112,689	3.4	3.05 (39)	7.99 (17)	2.73 (15)	3.13 (13)	4.09 (40)	0.27
+/- Blmbg. Barc. U.S. Aggregate Index			-0.03	0.12	0.42	0.18	0.19	-
Intermediate Core Bond Median			2.98	7.57	2.21	2.70	3.90	0.66
Amana Participation Institutional (AMIPX)	451	0.0	2.09	5.65	2.31	-	-	0.62
+/- Dow Jones Sukuk Index			-1.09	-3.12	-1.46			
TIAA-CREF Large-Cap Value Instl (TRLIX)	58,615	1.8	4.53 (13)	1.68 (84)	8.55 (85)	5.66 (82)	11.83 (64)	0.40
+/- Russell 1000 Value Index			0.69	-6.78	-1.64	-1.80	-1.36	-
Large Value Median			3.37	6.00	10.28	6.88	12.21	1.00
CREF Equity Index R3 (QCEQIX)	89,384	2.7	4.04 (55)	8.80 (52)	13.79 (36)	9.94 (38)	14.32 (28)	0.22
+/- Russell 3000 Index			-0.06	-0.18	-0.23	-0.25	-0.35	-
Large Blend Median			4.10	8.93	13.27	9.42	13.67	0.96
TIAA-CREF S&P 500 Index Instl (TISPX)	144,335	4.4	4.29 (36)	10.35 (27)	14.12 (22)	10.64 (13)	14.62 (15)	0.05
+/- S&P 500 Index			-0.01	-0.07	-0.07	-0.07	-0.08	-
Large Blend Median			4.10	8.93	13.27	9.42	13.67	0.96
Amana Growth Institutional (AMIGX)	1,661	0.1	3.48 (80)	20.28 (3)	18.65 (34)	13.29 (28)	14.09 (73)	0.85
+/- S&P 500 Index			-0.82	9.86	4.46	2.58	-0.61	-
Large Growth Median			4.63	10.24	17.14	12.00	14.96	1.08



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
CREF Growth R3 (QCGRIX)	140,989	4.3	4.27 (61)	9.97 (53)	18.15 (38)	13.07 (32)	15.90 (26)	0.24
+/- Russell 1000 Growth Index			-0.37	-1.59	0.08	-0.32	-0.38	-
Large Growth Median			4.63	10.24	17.14	12.00	14.96	1.08
Wells Fargo Growth Inst (SGRNX)	34,458	1.0	7.37 (6)	14.34 (16)	21.19 (11)	13.27 (28)	17.88 (5)	0.75
+/- Russell 3000 Growth Index			2.87	3.74	3.38	0.25	1.75	-
Large Growth Median			4.63	10.24	17.14	12.00	14.96	1.08
TIAA-CREF Mid-Cap Value Instl (TIMVX)	57,016	1.7	3.15 (51)	0.83 (46)	7.65 (79)	5.26 (55)	12.53 (59)	0.42
+/- Russell Midcap Value Index			-0.04	-2.85	-1.30	-1.46	-2.03	-
Mid-Cap Value Median			3.16	0.59	8.80	5.48	12.80	1.11
TIAA-CREF Mid-Cap Growth Instl (TRPWX)	21,723	0.7	5.62 (60)	12.23 (51)	15.52 (56)	9.49 (68)	14.99 (47)	0.47
+/- Russell Midcap Growth Index			0.22	-1.71	-0.97	-1.61	-1.03	-
Mid-Cap Growth Median			6.29	12.34	15.95	10.31	14.84	1.19
Royce Opportunity Instl (ROFIX)	6,880	0.2	1.21 (61)	-10.91 (87)	12.51 (3)	4.24 (52)	13.51 (14)	1.08
+/- Russell 2000 Value Index			-0.17	-4.67	2.70	-1.15	1.11	-
Small Value Median			1.49	-6.85	8.24	4.32	12.13	1.25
TIAA-CREF Small-Cap Blend Idx Inst (TISBX)	57,431	1.7	2.10 (53)	-3.22 (43)	12.45 (16)	7.27 (25)	13.59 (32)	0.06
+/- Russell 2000 Index			0.00	0.09	0.15	0.21	0.14	-
Small Blend Median			2.13	-3.53	10.85	6.30	13.08	1.16
AB Small Cap Growth I (QUAIX)	15,995	0.5	7.11 (16)	10.60 (17)	24.55 (6)	12.35 (13)	18.27 (2)	0.91
+/- Russell 2000 Growth Index			4.36	11.09	9.86	3.72	3.86	-
Small Growth Median			4.12	3.80	15.92	9.28	14.73	1.24
CREF Global Equities R3 (QCGLIX)	92,305	2.8	3.12 (61)	3.31 (67)	10.99 (50)	5.96 (49)	10.44 (47)	0.27
+/- MSCI World Index			-1.08	-3.63	-1.40	-1.24	-0.89	-
World Large Stock Median			3.58	4.74	10.96	5.85	10.24	1.14
TIAA-CREF International Eq Idx Instl (TCIEX)	66,355	2.0	3.65 (35)	1.46 (29)	9.05 (28)	2.40 (32)	7.03 (31)	0.06
+/- MSCI EAFE (Net) Index			-0.03	0.38	-0.06	0.15	0.13	-
Foreign Large Blend Median			3.26	0.28	8.37	2.04	6.62	1.03
American Funds Europacific Growth R6 (RERGX)	58,795	1.8	3.87 (71)	1.91 (48)	10.84 (32)	4.45 (36)	8.15 (48)	0.49
+/- MSCI AC World ex USA (Net)			0.89	0.62	1.45	2.29	1.61	-
Foreign Large Growth Median			4.70	1.66	9.67	3.76	8.06	1.13



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
DFA Emerging Markets I (DFEMX)	32,460	1.0	0.85 (66)	1.94 (39)	9.60 (49)	2.30 (45)	6.12 (41)	0.47
+/- MSCI Emerging Markets (Net) Index			0.24	0.73	-1.06	-0.19	0.31	-
Diversified Emerging Mkts Median			1.46	0.98	9.49	2.10	5.73	1.36
TIAA Real Estate Account (QREARX)	147,846	4.5	1.32	5.26	4.74	6.36	6.91	0.83
+/- NCREIF Fund Index-Open End Diversified Core (EW)			-0.02	-1.64	-3.13	-3.67	-2.83	-
CREF Social Choice R3 (QCSCIX)	86,157	2.6	3.71 (16)	7.84 (16)	8.54 (31)	5.83 (33)	9.19 (45)	0.24
+/- 40% BBg US Agg 42% R3000 18% MSCI EAFE + Can			-0.05	0.26	0.00	-0.16	0.07	-
Allocation--50% to 70% Equity Median			3.04	5.66	7.90	5.22	9.01	1.11
CREF Stock R3 (QCSTIX)	593,435	18.0	3.58 (32)	4.97 (38)	12.01 (14)	7.31 (13)	11.86 (12)	0.30
+/- 70% R3000 30% ACWI ex US			-0.18	-1.72	-0.67	-0.48	-0.38	-
Allocation--85%+ Equity Median			3.28	4.18	10.63	6.15	10.77	1.30
TIAA-CREF Lifecycle Retire Income Instl (TLRIX)	4,145	0.1	3.08 (22)	5.85 (52)	6.76 (3)	4.82 (2)	7.43 (7)	0.37
+/- CREF Lifecycle Composite Income			-0.15	-1.14	0.36	0.09	0.23	-
Target-Date Retirement Median			2.81	5.88	5.12	3.62	5.88	0.77
TIAA-CREF Lifecycle 2010 Institutional (TCTIX)	8,046	0.2	3.05 (28)	5.75 (61)	7.09 (6)	4.98 (5)	8.07 (18)	0.37
+/- CREF Lifecycle Composite 2010			-0.20	-2.59	-0.09	-0.20	0.10	-
Target-Date 2000-2010 Median			2.84	5.99	5.96	4.24	7.49	0.69
TIAA-CREF Lifecycle 2015 Institutional (TCNIX)	23,816	0.7	3.16 (23)	5.77 (57)	7.62 (19)	5.27 (15)	8.63 (20)	0.38
+/- CREF Lifecycle Composite 2015			-0.17	-1.30	0.34	0.05	0.21	-
Target-Date 2015 Median			2.94	5.91	6.38	4.48	8.13	0.71
TIAA-CREF Lifecycle 2020 Institutional (TCWIX)	30,524	0.9	3.06 (49)	5.51 (67)	8.29 (13)	5.61 (9)	9.25 (18)	0.39
+/- CREF Lifecycle Composite 2020			-0.35	-1.61	0.26	0.00	0.14	-
Target-Date 2020 Median			3.06	5.96	6.91	4.65	8.55	0.77
TIAA-CREF Lifecycle 2025 Institutional (TCYIX)	40,493	1.2	3.30 (29)	5.25 (75)	9.13 (11)	5.99 (10)	9.91 (23)	0.41
+/- CREF Lifecycle Composite 2025			-0.19	-1.87	0.25	-0.06	0.09	-
Target-Date 2025 Median			3.17	5.98	7.85	5.22	9.38	0.76
TIAA-CREF Lifecycle 2030 Institutional (TCRIX)	49,576	1.5	3.29 (44)	4.89 (79)	9.89 (18)	6.32 (19)	10.50 (25)	0.42
+/- CREF Lifecycle Composite 2030			-0.29	-2.21	0.17	-0.15	0.00	-
Target-Date 2030 Median			3.24	5.92	8.73	5.64	9.95	0.79



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
TIAA-CREF Lifecycle 2035 Institutional (TCIIX)	60,933	1.8	3.35 (42)	4.56 (87)	10.63 (17)	6.63 (21)	11.03 (16)	0.43
+/- CREF Lifecycle Composite 2035			-0.29	-2.46	0.07	-0.22	-0.10	-
Target-Date 2035 Median			3.26	5.73	9.51	6.01	10.43	0.77
TIAA-CREF Lifecycle 2040 Institutional (TCOIX)	88,993	2.7	3.35 (47)	4.01 (88)	11.32 (12)	6.89 (17)	11.31 (17)	0.44
+/- CREF Lifecycle Composite 2040			-0.31	-2.81	-0.05	-0.31	-0.18	-
Target-Date 2040 Median			3.31	5.49	10.07	6.21	10.58	0.80
TIAA-CREF Lifecycle 2045 Institutional (TTFIX)	54,315	1.6	3.27 (56)	3.59 (95)	11.60 (8)	7.04 (15)	11.38 (18)	0.45
+/- CREF Lifecycle Composite 2045			-0.41	-3.07	-0.12	-0.36	-0.22	-
Target-Date 2045 Median			3.33	5.50	10.40	6.40	10.79	0.78
TIAA-CREF Lifecycle 2050 Institutional (TFTIX)	38,448	1.2	3.34 (54)	3.60 (91)	11.71 (7)	7.11 (11)	11.42 (18)	0.45
+/- CREF Lifecycle Composite 2050			-0.34	-3.02	-0.13	-0.38	-0.22	-
Target-Date 2050 Median			3.36	5.40	10.48	6.44	10.91	0.81
TIAA-CREF Lifecycle 2055 Institutional (TTRIX)	5,227	0.2	3.36 (48)	3.51 (94)	11.81 (6)	7.16 (12)	-	0.45
+/- CREF Lifecycle Composite 2055			-0.32	-3.07	-0.16	-0.41	-	-
Target-Date 2055 Median			3.34	5.48	10.60	6.48	-	0.79
TIAA-CREF Lifecycle 2060 Institutional (TLXNX)	1,460	0.0	3.41 (52)	3.44 (94)	11.90 (7)	-	-	0.45
+/- CREF Lifecycle Composite 2060			-0.28	-3.11	-0.19	-	-	-
Target-Date 2060+ Median			3.42	5.50	10.77	-	-	0.78



Performance Summary - Calendar Year

	Performance (%)															
	2018		2017		2016		2015		2014		2013		2012		2011	
CREF Money Market R3 (QCMMIX)	1.46	(53)	0.50	(44)	0.13	(29)	0.00	(84)	0.00	(79)	0.00	(78)	0.00	(75)	0.00	(81)
+/- Blmbg. Barc. U.S. Treasury Bills: 1-3 Months	-0.36		-0.32		-0.13		-0.03		-0.02		-0.05		-0.08		-0.07	
Money Market-Taxable Median	1.47		0.46		0.03		0.01		0.01		0.01		0.01		0.01	
TIAA Stable Value	1.81		1.51		1.46		1.60		1.77		-		-		-	
+/- Ryan 3 Yr GIC Master Index	-0.15		-0.09		0.07		0.44		0.74		-		-		-	
TIAA Traditional	3.86		3.80		4.11		3.91		4.08		4.08		4.09		4.16	
+/- Blmbg. Barc. U.S. Treasury: 7-10 Year	2.96		1.25		3.06		2.28		-4.92		10.12		-0.07		-11.43	
CREF Inflation-Linked Bond R3 (QCILIX)	-0.49	(17)	1.85	(77)	4.23	(56)	-1.68	(42)	3.32	(29)	-9.02	(70)	6.40	(59)	13.16	(23)
+/- Blmbg. Barc. U.S. TIPS 1-10 Year	-0.24		-0.05		0.22		-1.16		2.41		-3.44		1.36		4.23	
Inflation-Protected Bond Median	-1.51		2.74		4.42		-1.90		2.74		-8.67		6.52		12.05	
CREF Bond Market R3 (QCBMIX)	-0.19	(43)	4.12	(16)	3.47	(17)	0.51	(33)	5.52	(55)	-2.01	(44)	5.29	(49)	6.96	(51)
+/- Blmbg. Barc. U.S. Aggregate Index	-0.20		0.58		0.82		-0.04		-0.45		0.01		1.08		-0.88	
Intermediate Core Bond Median	-0.31		3.40		2.59		0.27		5.59		-2.11		5.17		6.96	
Amana Participation Institutional (AMIPX)	0.11		2.68		2.56		-		-		-		-		-	
+/- Dow Jones Sukuk Index	-0.01		-1.79		-1.80		-		-		-		-		-	
TIAA-CREF Large-Cap Value Instl (TRLIX)	-14.10	(94)	12.52	(87)	18.60	(16)	-4.69	(69)	9.16	(79)	34.43	(28)	19.68	(7)	-5.67	(88)
+/- Russell 1000 Value Index	-5.83		-1.14		1.26		-0.86		-4.29		1.90		2.17		-6.06	
Large Value Median	-8.90		16.17		14.59		-3.54		11.01		31.87		15.38		-0.23	
CREF Equity Index R3 (QCEQIX)	-5.37	(47)	20.84	(58)	12.49	(22)	0.24	(50)	12.17	(52)	32.99	(36)	15.98	(40)	0.66	(52)
+/- Russell 3000 Index	-0.13		-0.29		-0.25		-0.24		-0.39		-0.56		-0.44		-0.37	
Large Blend Median	-5.62		21.15		11.15		0.22		12.21		32.18		15.73		0.83	
TIAA-CREF S&P 500 Index Instl (TISPX)	-4.45	(24)	21.77	(31)	11.87	(32)	1.35	(22)	13.60	(21)	32.24	(49)	15.94	(43)	2.01	(24)
+/- S&P 500 Index	-0.07		-0.06		-0.09		-0.03		-0.09		-0.15		-0.06		-0.10	
Large Blend Median	-5.62		21.15		11.15		0.22		12.21		32.18		15.73		0.83	
Amana Growth Institutional (AMIGX)	2.67	(11)	29.29	(46)	7.85	(16)	-0.21	(87)	14.29	(10)	22.95	(100)	11.21	(92)	-1.86	(55)
+/- S&P 500 Index	7.05		7.46		-4.11		-1.59		0.60		-9.44		-4.79		-3.97	
Large Growth Median	-1.81		28.69		2.90		4.49		10.54		34.40		15.52		-1.45	



Performance Summary - Calendar Year

	Performance (%)															
	2018		2017		2016		2015		2014		2013		2012		2011	
CREF Growth R3 (QCGRIX)	-2.46	(56)	31.83	(28)	2.92	(50)	6.46	(31)	13.66	(16)	35.00	(44)	15.87	(45)	1.19	(26)
+/- Russell 1000 Growth Index	-0.95		1.62		-4.16		0.79		0.61		1.52		0.61		-1.45	
Large Growth Median	-1.81		28.69		2.90		4.49		10.54		34.40		15.52		-1.45	
Wells Fargo Growth Inst (SGRNX)	0.55	(25)	35.14	(10)	-0.56	(82)	2.94	(63)	4.12	(96)	33.72	(57)	17.14	(32)	8.44	(1)
+/- Russell 3000 Growth Index	2.67		5.55		-7.95		-2.15		-8.32		-0.51		1.93		6.26	
Large Growth Median	-1.81		28.69		2.90		4.49		10.54		34.40		15.52		-1.45	
TIAA-CREF Mid-Cap Value Instl (TIMVX)	-14.15	(59)	11.13	(77)	17.40	(52)	-5.35	(59)	12.85	(22)	32.55	(73)	16.60	(44)	-2.17	(33)
+/- Russell Midcap Value Index	-1.86		-2.21		-2.60		-0.57		-1.90		-0.91		-1.91		-0.79	
Mid-Cap Value Median	-13.46		13.23		17.59		-4.55		10.17		34.61		16.39		-3.86	
TIAA-CREF Mid-Cap Growth Instl (TRPWX)	-8.17	(77)	26.21	(35)	1.95	(80)	-0.63	(55)	7.74	(48)	36.78	(40)	17.96	(18)	-5.23	(62)
+/- Russell Midcap Growth Index	-3.42		0.94		-5.38		-0.43		-4.16		1.04		2.15		-3.58	
Mid-Cap Growth Median	-5.54		24.67		5.85		-0.19		7.54		35.88		14.93		-3.89	
Royce Opportunity Instl (ROFIX)	-19.83	(91)	22.02	(1)	29.94	(24)	-13.46	(93)	-0.41	(92)	43.69	(6)	22.70	(7)	-12.86	(97)
+/- Russell 2000 Value Index	-6.97		14.18		-1.80		-5.99		-4.63		9.17		4.65		-7.36	
Small Value Median	-15.31		8.86		26.01		-6.40		4.36		36.24		16.37		-4.27	
TIAA-CREF Small-Cap Blend Idx Inst (TISBX)	-10.84	(31)	14.83	(24)	21.58	(39)	-4.14	(46)	5.15	(46)	38.98	(38)	16.61	(34)	-4.12	(59)
+/- Russell 2000 Index	0.17		0.18		0.27		0.27		0.26		0.16		0.26		0.06	
Small Blend Median	-11.94		13.20		20.81		-4.36		4.94		38.14		15.89		-3.30	
AB Small Cap Growth I (QUAIX)	-0.67	(18)	34.91	(6)	6.80	(78)	-0.91	(34)	-1.41	(85)	45.72	(23)	15.42	(35)	4.53	(6)
+/- Russell 2000 Growth Index	8.64		12.74		-4.52		0.47		-7.01		2.42		0.83		7.44	
Small Growth Median	-6.09		21.87		10.91		-2.14		3.21		41.34		14.32		-2.31	
CREF Global Equities R3 (QCGLIX)	-12.36	(77)	24.81	(39)	5.11	(55)	-0.34	(40)	4.17	(37)	27.27	(38)	18.45	(32)	-7.74	(59)
+/- MSCI World Index	-4.16		1.74		-3.04		-0.02		-1.33		-0.10		1.91		-2.72	
World Large Stock Median	-9.71		23.71		5.53		-1.35		3.25		25.74		16.44		-7.25	
TIAA-CREF International Eq Idx Instl (TCIEX)	-13.25	(17)	25.32	(52)	1.22	(49)	-0.49	(34)	-5.51	(54)	21.96	(27)	19.09	(27)	-12.09	(32)
+/- MSCI EAFE (Net) Index	0.54		0.29		0.22		0.32		-0.61		-0.82		1.77		0.05	
Foreign Large Blend Median	-14.64		25.41		1.12		-1.22		-5.34		20.33		17.99		-13.11	
American Funds Europacific Growth R6 (RERGX)	-14.91	(55)	31.17	(47)	1.01	(27)	-0.48	(63)	-2.29	(30)	20.58	(50)	19.64	(44)	-13.31	(56)
+/- MSCI AC World ex USA (Net)	-0.71		3.98		-3.49		5.18		1.58		5.29		2.81		0.40	
Foreign Large Growth Median	-14.47		30.93		-1.45		0.48		-4.20		20.47		19.21		-12.66	



Performance Summary - Calendar Year

	Performance (%)															
	2018		2017		2016		2015		2014		2013		2012		2011	
DFA Emerging Markets I (DFEMX)	-13.62	(20)	36.57	(48)	12.09	(24)	-15.81	(68)	-1.71	(38)	-3.12	(65)	19.16	(47)	-17.41	(27)
+/- MSCI Emerging Markets (Net) Index	0.96		-0.71		0.90		-0.89		0.48		-0.52		0.93		1.01	
Diversified Emerging Mkts Median	-16.32		35.93		8.87		-14.01		-2.85		-1.34		18.98		-18.81	
TIAA Real Estate Account (QREARX)	4.79		4.37		5.20		8.16		12.22		9.65		10.06		12.99	
+/- NCREIF Fund Index-Open End Diversified Core (EW)	-3.46		-3.43		-4.07		-7.01		-0.06		-3.69		-0.97		-2.97	
CREF Social Choice R3 (QCSCIX)	-4.29	(26)	14.27	(50)	7.40	(39)	-0.87	(44)	6.83	(38)	16.67	(56)	10.98	(76)	1.82	(26)
+/- 40% BBg US Agg 42% R3000 18% MSCI EAFE + Can	0.27		-0.07		0.38		-0.99		0.01		0.54		-0.66		0.29	
Allocation--50% to 70% Equity Median	-5.67		14.21		6.81		-1.14		6.01		17.18		12.22		0.06	
CREF Stock R3 (QCSTIX)	-9.65	(57)	23.43	(10)	9.17	(28)	-0.84	(29)	6.41	(29)	27.83	(37)	17.26	(15)	-4.94	(53)
+/- 70% R3000 30% ACWI ex US	-1.72		0.47		-1.11		0.51		-1.01		-0.06		0.63		-1.36	
Allocation--85%+ Equity Median	-9.39		20.28		7.53		-1.83		5.10		27.08		15.18		-4.83	
TIAA-CREF Lifecycle Retire Income Instl (TLRIX)	-3.84	(73)	12.10	(2)	6.04	(21)	0.25	(3)	4.53	(44)	9.85	(11)	11.51	(5)	2.78	(49)
+/- CREF Lifecycle Composite Income	-0.90		1.55		0.23		0.43		-1.33		0.84		2.14		-1.25	
Target-Date Retirement Median	-3.35		8.85		5.26		-1.12		4.35		5.49		8.69		2.64	
TIAA-CREF Lifecycle 2010 Institutional (TCTIX)	-3.92	(79)	12.76	(2)	6.20	(44)	0.38	(5)	4.59	(61)	12.00	(18)	12.67	(5)	1.69	(37)
+/- CREF Lifecycle Composite 2010	-2.08		1.57		0.11		0.61		-1.54		0.71		2.30		-1.41	
Target-Date 2000-2010 Median	-3.17		10.10		5.97		-0.63		4.75		10.46		10.41		1.09	
TIAA-CREF Lifecycle 2015 Institutional (TCNIX)	-4.41	(70)	13.85	(7)	6.40	(52)	0.42	(3)	4.78	(63)	13.96	(24)	13.47	(10)	0.74	(52)
+/- CREF Lifecycle Composite 2015	-0.93		1.60		-0.07		0.70		-1.58		0.64		2.25		-1.59	
Target-Date 2015 Median	-3.82		11.43		6.46		-0.91		5.26		12.19		11.50		0.97	
TIAA-CREF Lifecycle 2020 Institutional (TCWIX)	-5.18	(76)	15.58	(6)	6.66	(45)	0.42	(4)	4.86	(65)	16.50	(19)	14.62	(5)	-0.29	(57)
+/- CREF Lifecycle Composite 2020	-1.21		1.90		-0.35		0.82		-1.77		0.57		2.41		-1.76	
Target-Date 2020 Median	-4.39		12.68		6.52		-1.13		5.46		13.33		11.99		0.05	
TIAA-CREF Lifecycle 2025 Institutional (TCYIX)	-6.05	(75)	17.40	(5)	7.00	(54)	0.36	(3)	4.87	(74)	19.33	(21)	15.60	(5)	-1.29	(49)
+/- CREF Lifecycle Composite 2025	-1.39		2.04		-0.61		0.89		-2.02		0.73		2.41		-1.89	
Target-Date 2025 Median	-5.37		14.88		7.12		-1.19		5.69		16.68		13.48		-1.46	
TIAA-CREF Lifecycle 2030 Institutional (TCRIX)	-7.09	(74)	19.21	(6)	7.33	(57)	0.38	(4)	4.71	(78)	22.07	(15)	16.53	(6)	-2.32	(55)
+/- CREF Lifecycle Composite 2030	-1.74		2.14		-0.88		1.05		-2.41		0.80		2.34		-2.04	
Target-Date 2030 Median	-6.24		16.75		7.60		-1.32		5.84		18.58		14.06		-2.21	



Performance Summary - Calendar Year

	Performance (%)									
	2018	2017	2016	2015	2014	2013	2012	2011		
TIAA-CREF Lifecycle 2035 Institutional (TCIIX)	-8.04 (80)	21.11 (5)	7.52 (67)	0.24 (5)	4.67 (81)	24.76 (11)	17.32 (3)	-3.37 (60)		
+/- CREF Lifecycle Composite 2035	-2.01	2.38	-1.27	1.10	-2.55	0.83	2.14	-2.20		
Target-Date 2035 Median	-7.14	18.49	8.04	-1.43	5.96	20.77	15.04	-2.99		
TIAA-CREF Lifecycle 2040 Institutional (TCOIX)	-8.92 (85)	22.91 (1)	7.78 (65)	0.09 (7)	4.63 (81)	26.33 (8)	17.52 (4)	-3.58 (56)		
+/- CREF Lifecycle Composite 2040	-2.20	2.54	-1.59	1.16	-2.67	0.81	1.98	-2.19		
Target-Date 2040 Median	-7.87	19.56	8.30	-1.56	6.03	21.82	15.22	-3.39		
TIAA-CREF Lifecycle 2045 Institutional (TTFIX)	-9.59 (92)	23.62 (1)	8.06 (61)	0.13 (7)	4.61 (83)	26.25 (9)	17.56 (4)	-3.63 (54)		
+/- CREF Lifecycle Composite 2045	-2.32	2.44	-1.66	1.21	-2.69	0.73	2.02	-2.24		
Target-Date 2045 Median	-8.20	20.38	8.47	-1.55	6.08	22.99	15.67	-3.45		
TIAA-CREF Lifecycle 2050 Institutional (TFTIX)	-9.82 (90)	24.04 (2)	8.10 (61)	0.18 (7)	4.59 (82)	26.25 (12)	17.53 (5)	-3.56 (42)		
+/- CREF Lifecycle Composite 2050	-2.44	2.60	-1.81	1.26	-2.71	0.73	1.99	-2.17		
Target-Date 2050 Median	-8.38	20.61	8.57	-1.53	6.13	23.08	15.73	-3.89		
TIAA-CREF Lifecycle 2055 Institutional (TTRIX)	-9.86 (91)	24.23 (1)	8.27 (61)	0.13 (7)	4.58 (83)	26.24 (10)	17.65 (1)	-		
+/- CREF Lifecycle Composite 2055	-2.38	2.53	-1.84	1.21	-2.72	0.72	2.11	-		
Target-Date 2055 Median	-8.47	20.82	8.54	-1.55	6.28	23.36	15.95	-		
TIAA-CREF Lifecycle 2060 Institutional (TLXNX)	-10.06 (87)	24.40 (1)	8.39 (61)	0.19 (11)	-	-	-	-		
+/- CREF Lifecycle Composite 2060	-2.47	2.43	-1.92	1.27	-	-	-	-		
Target-Date 2060+ Median	-8.49	20.95	8.82	-1.30	-	-	-	-		

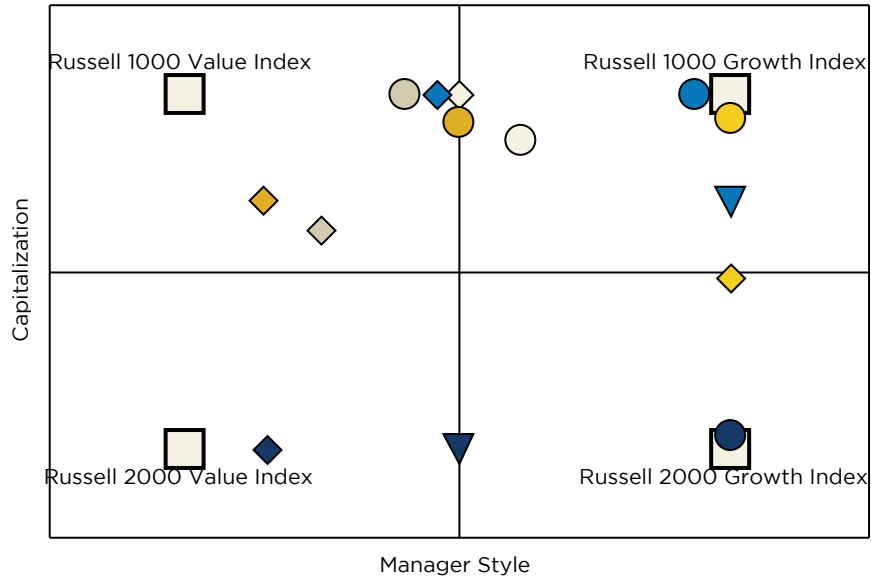
	Beta			Alpha			Up Market			Down Market			Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
CREF Money Market R3 (QCMMIX)	0.97	0.89	0.87	-0.25	-0.10	-0.08	78.33	76.74	70.10				0.38	0.39	0.32
Money Market-Taxable Median	0.92	0.85	0.83	-0.25	-0.10	-0.07	73.51	71.27	66.66				0.36	0.37	0.30
Blmbg. Barc. U.S. Treasury Bills: 1-3 Months													0.39	0.43	0.36
TIAA Stable Value	0.57	0.23		0.62	1.27		91.31	104.83					0.09	0.08	
Ryan 3 Yr GIC Master Index													0.15	0.20	0.46
TIAA Traditional	-0.01	0.00	0.00	3.88	3.93	4.00	42.14	38.77	32.55	-64.00	-60.13	-57.10	0.07	0.07	0.07
Blmbg. Barc. U.S. Treasury: 7-10 Year													4.99	4.98	6.19
CREF Inflation-Linked Bond R3 (QCILIX)	1.01	1.04	1.21	-0.24	-0.19	-0.34	98.13	103.19	114.85	117.07	115.17	124.98	2.31	2.96	4.31
Inflation-Protected Bond Median	1.29	1.18	1.26	-0.45	-0.32	-0.40	124.73	120.63	121.30	178.48	138.68	142.72	3.06	3.45	4.44
Blmbg. Barc. U.S. TIPS 1-10 Year													2.27	2.76	3.34
CREF Bond Market R3 (QCBMIX)	0.98	0.98	0.96	0.45	0.22	0.32	108.43	102.72	103.08	94.86	96.10	97.08	3.20	3.11	3.12
Intermediate Core Bond Median	0.99	0.97	1.00	-0.03	-0.11	0.12	97.34	94.29	100.24	98.70	99.66	99.17	3.24	3.10	3.26
Blmbg. Barc. U.S. Aggregate Index													3.24	3.14	3.18
Amana Participation Institutional (AMIPX)	0.70			-0.29			66.05			80.02			2.14		
Dow Jones Sukuk Index													2.41	2.40	4.30
TIAA-CREF Large-Cap Value Instl (TRLIX)	1.17	1.13	1.12	-2.93	-2.53	-2.58	101.45	96.00	101.00	129.98	121.14	121.26	13.13	11.86	15.38
Large Value Median	1.01	0.99	0.99	-0.07	-0.48	-0.73	102.56	96.65	95.70	103.91	99.16	103.77	11.37	10.41	13.60
Russell 1000 Value Index													10.99	10.19	13.55
CREF Equity Index R3 (QCEQIX)	1.00	1.00	1.00	-0.16	-0.20	-0.27	98.94	98.52	98.54	100.26	100.34	100.60	12.53	11.09	13.62
Large Blend Median	0.97	0.96	0.97	-0.14	-0.26	-0.44	96.26	94.28	95.85	96.99	96.96	99.34	12.21	10.82	13.42
Russell 3000 Index													12.58	11.12	13.67
TIAA-CREF S&P 500 Index Instl (TISPX)	1.00	1.00	1.00	-0.05	-0.05	-0.06	99.72	99.59	99.59	100.28	100.15	99.98	12.19	10.72	13.10
Large Blend Median	1.00	1.00	1.01	-0.66	-1.04	-0.98	96.89	93.40	97.37	101.53	103.88	104.74	12.21	10.82	13.42
S&P 500 Index													12.21	10.74	13.12
Amana Growth Institutional (AMIGX)	1.09	1.06	0.93	3.00	1.82	0.48	116.07	110.31	93.94	76.31	77.01	87.69	14.02	12.12	12.88
Large Growth Median	1.11	1.10	1.07	1.46	0.23	-0.46	113.63	107.74	104.46	90.72	93.91	106.69	14.31	12.65	14.93
S&P 500 Index													12.21	10.74	13.12

	Beta			Alpha			3 Yrs	Up Market			Down Market			Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs		3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
CREF Growth R3 (QCGRIX)	1.04	1.06	1.04	-0.60	-1.01	-0.94	102.06	101.19	100.36	105.61	109.16	106.21	15.15	13.23	14.60	
Large Growth Median	0.97	0.99	1.03	-0.07	-1.26	-1.46	95.67	93.80	97.08	98.89	104.63	107.67	14.31	12.65	14.93	
Russell 1000 Growth Index													14.47	12.37	13.94	
Wells Fargo Growth Inst (SGRNX)	1.12	1.15	1.11	1.21	-1.42	0.13	116.06	107.55	110.87	107.17	116.18	108.27	17.12	15.35	16.58	
Large Growth Median	0.96	0.97	1.02	0.28	-0.78	-1.14	95.88	94.29	96.81	96.20	99.52	104.57	14.31	12.65	14.93	
Russell 3000 Growth Index													14.61	12.57	14.16	
TIAA-CREF Mid-Cap Value Instl (TIMVX)	1.07	1.04	0.99	-1.68	-1.61	-1.71	95.06	92.06	92.88	105.43	104.30	104.96	13.81	12.13	15.44	
Mid-Cap Value Median	1.03	1.01	1.00	-0.27	-1.15	-1.89	101.29	95.17	95.27	104.43	105.13	110.49	13.61	12.15	15.87	
Russell Midcap Value Index													12.87	11.53	15.39	
TIAA-CREF Mid-Cap Growth Instl (TRPWX)	1.14	1.12	1.08	-2.75	-2.64	-1.97	101.66	96.79	99.01	116.38	113.59	107.49	17.32	15.12	17.11	
Mid-Cap Growth Median	1.00	1.02	1.01	-0.52	-1.08	-1.04	99.57	99.00	96.32	106.34	107.23	103.59	15.64	14.21	16.44	
Russell Midcap Growth Index													15.20	13.30	15.70	
Royce Opportunity Instl (ROFIX)	1.14	1.13	1.24	1.66	-1.40	-1.18	117.19	101.77	116.44	99.05	109.98	119.41	19.30	17.84	22.13	
Small Value Median	0.97	0.93	0.98	-1.04	-0.64	0.03	91.59	89.16	97.53	101.43	93.19	97.22	16.13	14.47	17.38	
Russell 2000 Value Index													16.23	15.09	17.49	
TIAA-CREF Small-Cap Blend Idx Inst (TISBX)	1.00	1.00	1.00	0.15	0.20	0.15	100.48	100.86	100.36	99.52	99.32	99.41	16.13	15.28	17.35	
Small Blend Median	0.96	0.93	0.97	-0.80	-0.31	0.02	92.77	89.71	97.06	100.40	89.40	94.68	15.80	14.62	17.27	
Russell 2000 Index													16.16	15.30	17.38	
AB Small Cap Growth I (QUAIX)	1.11	1.10	1.07	7.57	2.96	2.73	140.72	126.84	118.45	103.19	112.93	106.83	19.39	18.92	19.72	
Small Growth Median	0.97	0.95	0.98	1.69	1.24	0.85	101.45	99.53	100.03	96.19	92.97	95.57	17.27	16.35	17.91	
Russell 2000 Growth Index													17.15	16.44	17.88	
CREF Global Equities R3 (QCGLIX)	1.09	1.06	1.06	-2.27	-1.56	-1.38	96.08	96.38	98.92	109.42	112.60	108.60	12.90	11.50	14.50	
World Large Stock Median	0.99	1.00	1.04	-0.82	-1.14	-0.97	92.33	91.98	97.18	91.61	101.86	103.86	12.07	11.18	14.51	
MSCI World Index													11.73	10.71	13.64	
TIAA-CREF International Eq Idx Instl (TCIEX)	1.00	0.99	1.02	-0.04	0.16	0.04	100.16	100.14	101.39	101.46	98.45	100.70	11.38	11.39	15.31	
Foreign Large Blend Median	1.03	1.00	1.02	-0.88	-0.19	-0.28	100.03	98.53	99.92	109.61	100.49	102.26	11.95	11.70	15.46	
MSCI EAFE (Net) Index													11.37	11.44	15.04	
American Funds Europacific Growth R6 (RERGX)	1.17	1.05	1.01	-0.03	2.21	1.55	115.05	118.27	106.59	112.21	94.78	93.37	13.63	12.56	15.45	
Foreign Large Growth Median	1.17	1.04	1.00	-0.79	1.58	1.63	112.16	116.40	108.39	123.19	100.57	96.71	13.85	12.76	15.58	
MSCI AC World ex USA (Net)													11.43	11.55	15.11	

	Beta			Alpha			Up Market			Down Market			Standard Deviation			
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	
DFA Emerging Markets I (DFEMX)	0.98	0.96	0.99	-0.74	-0.11	0.33	94.67	96.03	100.77	100.57	97.12	98.37	12.97	13.70	16.99	
Diversified Emerging Mkts Median	1.04	0.99	1.01	-1.54	-0.25	-0.01	101.28	99.96	101.17	115.08	103.83	103.23	14.07	14.36	17.63	
MSCI Emerging Markets (Net) Index													13.11	14.03	16.99	
TIAA Real Estate Account (QREARX)	-0.12	0.55	0.96	5.66	0.92	-2.27	60.94	64.30	75.49				102.67	0.58	1.46	4.57
NCREIF Fund Index-Open End Diversified Core (EW)													0.53	1.49	4.48	
CREF Social Choice R3 (QCSCIX)	0.97	0.97	0.98	0.28	-0.01	0.21	97.44	97.34	99.82	90.82	97.53	97.39	7.29	6.55	8.06	
Allocation--50% to 70% Equity Median	1.03	1.05	1.10	-0.76	-0.89	-0.96	96.69	96.51	104.03	103.81	108.64	113.75	7.97	7.22	9.15	
40% BBg US Agg 42% R3000 18% MSCI EAFE + Can													7.53	6.71	8.16	
CREF Stock R3 (QCSTIX)	1.05	1.03	1.04	-1.19	-0.67	-0.72	98.37	98.28	99.94	105.26	103.83	104.56	12.44	11.15	14.18	
Allocation--85%+ Equity Median	0.97	0.97	0.97	-1.47	-1.29	-0.89	88.84	87.66	92.55	98.56	101.63	99.37	11.55	10.51	13.45	
70% R3000 30% ACWI ex US													11.81	10.78	13.69	
TIAA-CREF Lifecycle Retire Income Instl (TLRIX)	1.07	1.07	1.09	-0.11	-0.24	-0.39	106.02	104.01	105.85	106.83	107.79	114.18	5.74	5.19	6.14	
Target-Date Retirement Median	0.86	0.86	0.88	-0.56	-0.49	-0.30	83.26	82.27	84.90	96.41	100.01	93.61	4.63	4.25	5.04	
CREF Lifecycle Composite Income													5.30	4.78	5.59	
TIAA-CREF Lifecycle 2010 Institutional (TCTIX)	1.15	1.12	1.11	-1.11	-0.77	-0.69	105.29	103.24	105.70	130.81	119.71	119.15	5.87	5.38	7.18	
Target-Date 2000-2010 Median	1.00	0.99	1.08	-1.03	-0.75	-0.92	88.01	89.10	98.05	115.31	110.09	112.89	5.06	4.72	7.00	
CREF Lifecycle Composite 2010													5.01	4.73	6.44	
TIAA-CREF Lifecycle 2015 Institutional (TCNIX)	1.07	1.07	1.09	-0.14	-0.29	-0.47	104.95	103.14	105.30	105.35	107.05	112.40	6.47	5.93	8.14	
Target-Date 2015 Median	0.98	1.00	1.02	-0.22	-0.47	-0.51	90.97	91.14	98.65	97.22	105.77	105.57	5.90	5.50	7.63	
CREF Lifecycle Composite 2015													6.01	5.48	7.45	
TIAA-CREF Lifecycle 2020 Institutional (TCWIX)	1.09	1.08	1.08	-0.39	-0.40	-0.55	104.00	102.26	104.56	105.32	105.64	111.15	7.28	6.66	9.23	
Target-Date 2020 Median	0.94	0.93	0.98	-0.44	-0.44	-0.49	87.58	88.73	96.15	93.32	98.77	100.80	6.34	5.80	8.45	
CREF Lifecycle Composite 2020													6.66	6.12	8.47	
TIAA-CREF Lifecycle 2025 Institutional (TCYIX)	1.09	1.08	1.08	-0.47	-0.50	-0.67	103.97	101.98	104.10	105.99	106.22	110.44	8.24	7.54	10.41	
Target-Date 2025 Median	0.98	0.97	1.02	-0.59	-0.57	-0.60	91.47	92.60	98.23	96.24	102.31	104.13	7.41	6.86	9.86	
CREF Lifecycle Composite 2025													7.53	6.91	9.55	
TIAA-CREF Lifecycle 2030 Institutional (TCRIX)	1.09	1.09	1.08	-0.68	-0.67	-0.74	103.49	101.57	103.42	106.65	107.00	109.73	9.27	8.48	11.54	
Target-Date 2030 Median	1.00	1.00	1.02	-0.69	-0.68	-0.52	93.52	94.06	97.70	99.03	104.53	101.44	8.42	7.86	10.93	
CREF Lifecycle Composite 2030													8.41	7.72	10.64	

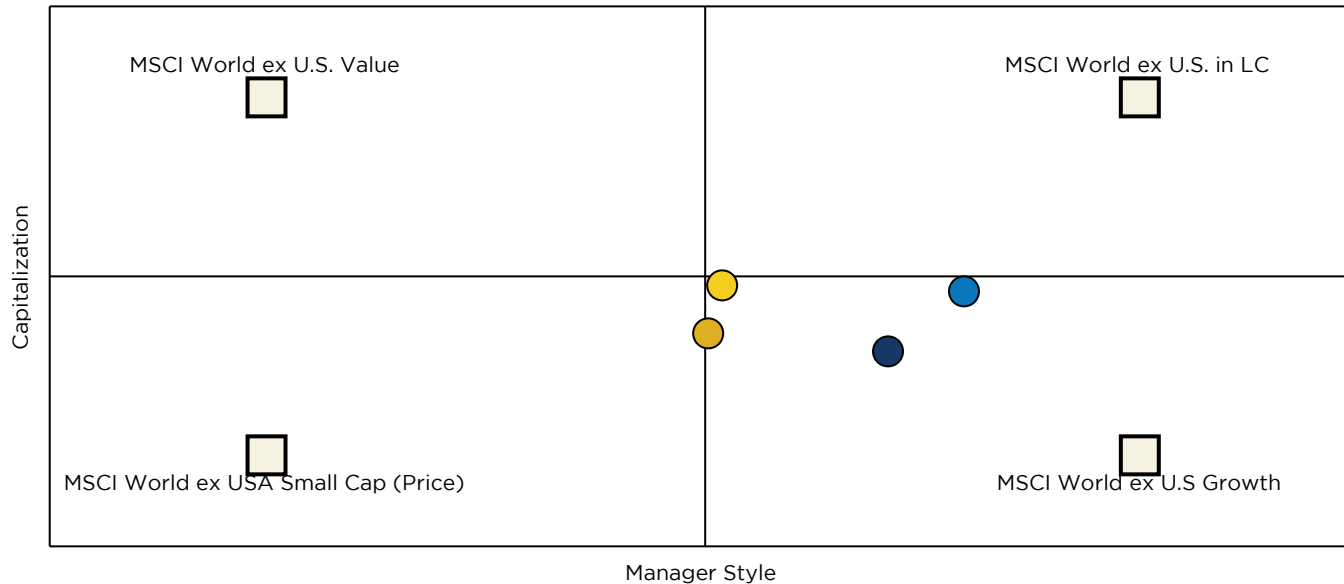
	Beta			Alpha			Up Market			Down Market			Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
TIAA-CREF Lifecycle 2035 Institutional (TCIIX)	1.10	1.09	1.08	-0.93	-0.76	-0.86	103.39	101.38	102.98	108.45	107.13	109.53	10.32	9.40	12.69
Target-Date 2035 Median	1.00	1.00	1.01	-0.82	-0.74	-0.61	93.80	94.10	96.48	99.34	105.29	102.45	9.35	8.64	11.93
CREF Lifecycle Composite 2035													9.29	8.54	11.72
TIAA-CREF Lifecycle 2040 Institutional (TCOIX)	1.10	1.09	1.07	-1.06	-0.83	-0.91	102.53	101.88	102.87	107.68	109.83	110.42	11.26	10.26	13.13
Target-Date 2040 Median	0.98	0.98	1.01	-0.95	-0.71	-0.70	91.57	91.77	95.70	96.98	100.71	102.64	10.00	9.21	12.37
CREF Lifecycle Composite 2040													10.18	9.37	12.16
TIAA-CREF Lifecycle 2045 Institutional (TTFIX)	1.10	1.09	1.08	-1.18	-0.93	-0.98	102.56	101.90	102.78	108.66	110.52	110.60	11.99	10.78	13.33
Target-Date 2045 Median	0.97	0.98	1.02	-0.81	-0.78	-0.82	91.84	92.29	96.76	96.76	102.22	103.10	10.56	9.65	12.63
CREF Lifecycle Composite 2045													10.80	9.81	12.32
TIAA-CREF Lifecycle 2050 Institutional (TFTIX)	1.10	1.09	1.08	-1.21	-0.94	-0.99	102.53	101.70	102.75	108.67	110.20	110.61	12.15	10.88	13.37
Target-Date 2050 Median	0.97	0.98	1.04	-0.87	-0.83	-0.99	91.93	92.06	97.59	96.22	102.07	105.47	10.65	9.77	12.94
CREF Lifecycle Composite 2050													10.94	9.90	12.35
TIAA-CREF Lifecycle 2055 Institutional (TTRIX)	1.10	1.09		-1.18	-0.95		102.17	101.36		107.91	109.91		12.25	10.96	
Target-Date 2055 Median	0.97	0.98		-0.84	-0.86		91.47	92.04		96.09	102.45		10.75	9.82	13.10
CREF Lifecycle Composite 2055													11.08	10.00	
TIAA-CREF Lifecycle 2060 Institutional (TLXNX)	1.10			-1.26			102.09			108.27			12.44		
Target-Date 2060+ Median	0.95			-0.73			91.74			94.81			10.77	10.33	
CREF Lifecycle Composite 2060													11.22		

Domestic Equity Style Analysis | Time Period: 5 Years



- AB Small Cap Growth I (QUAIX)
- CREF Equity Index R3 (QCEQIX)
- CREF Social Choice R3 (QCSCIX)
- CREF Stock R3 (QCSTIX)
- Royce Opportunity Instl (ROFIX)
- TIAA-CREF Large-Cap Value Instl (TRLIX)
- TIAA-CREF Mid-Cap Value Instl (TIMVX)
- TIAA-CREF Small-Cap Blend Idx Inst (TISBX)
- Amana Growth Institutional (AMIGX)
- CREF Growth R3 (QCGRIX)
- TIAA Real Estate Account (QREARX)
- TIAA-CREF Mid-Cap Growth Instl (TRPWX)
- TIAA-CREF S&P 500 Index Instl (TISPX)
- Wells Fargo Growth Inst (SGRNX)

International Equity Style Analysis | Time Period: 5 Years



- American Funds Europacific Growth R6 (RERGX)
- CREF Global Equities R3 (QCGLIX)
- DFA Emerging Markets I (DFEMX)
- TIAA-CREF International Eq Idx Instl (TCIEX)

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**Kansas Board of Regents
Voya Mandatory Plan Summary**

Voya Asset Class Coverage - Effective July 2019

Domestic Equity			
	Value	Blend	Growth
Large	BlackRock Equity Dividend	American Fds Fundamental Inv. Parnassus Core Equity Vanguard Institutional Index	Amana Growth Voya Large Cap Growth
Mid	American Century Mid Cap Value	Vanguard Mid Cap Index	Champlain Mid Cap
Small	American Beacon Small Cap Value	Vanguard Small Cap Index	Voya SmallCap Opportunities
International Equity			
	Value	Blend	Growth
Large		Vanguard Total Intl Stock Idx.	American Fds EuroPacific Growth
Mid			
Small			
Emerging			Invesco Oppenheimer Dev Markets
Global			VY Invesco Oppenheimer Global
Domestic Fixed Income			
	Short	Intermediate	Long
High	Vanguard Treasury Money Market Voya Fixed Plus III	Fidelity U.S. Bond Index	American Funds Inflation Linked Bds
Medium		PIMCO Total Return	
Low			
Other			
	Real Estate	Balanced	Foreign Bond
	Vanguard Real Estate Index	VY T. Rowe Price Cap. App. Vanguard Target Retirement Income, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060	Amana Participation
	Other Sectors	Absolute Return	Self-Directed Brokerage

Gold = Passively Managed Index Funds

Navy = Actively Managed Funds

Plan Activity: Voya

January 1, 2019 - June 30, 2019

Fund	Beginning Balance 1/1/2019	Contributions	Withdrawals	Exchanges	Intra Vendor Transfers	Fees	Investment Earnings	Plan Servicing Credit	Ending Balance 6/30/2019	Difference Between Beginning and Ending Balances
Voya Fixed Plus Fund 4020	\$ 95,009,118	\$ 2,040,458	\$ (3,919,197)	\$ 3,635,177	\$ 369,127	\$ (50)	\$ 662,573	\$ -	\$ 97,797,206	\$ 2,788,088
Vanguard Treasury Money Market Investor	3,654,386	138,183	(328,567)	2,212,656	172,344	-	64,499	-	5,913,500	2,259,114
Amana Participation Institutional	32,688	4,260	(1,331)	634	-	-	1,741	-	37,992	5,304
PIMCO Total Return Instl	15,144,390	393,675	(1,057,957)	690,179	51,385	-	939,429	-	16,161,102	1,016,712
PIMCO Real Return Instl	7,146,781	209,565	(174,544)	26,735	10,501	-	455,033	-	7,674,071	527,290
Blackrock Equity Dividend Instl	11,712,321	409,725	(151,389)	(318,375)	34,937	-	1,799,129	-	13,486,347	1,774,026
American Funds Fundamental Invs R6	56,849,611	1,168,988	(1,190,742)	(1,083,917)	70,518	-	8,665,831	-	64,480,288	7,630,677
Vanguard Institutional Index I	14,294,280	658,724	(124,196)	88,320	133,107	-	2,717,214	-	17,767,450	3,473,170
Parnassus Core Equity Institutional	14,678,298	501,005	(398,804)	(470,330)	126,623	-	2,985,149	-	17,421,941	2,743,643
Amana Growth Institutional	1,003,917	70,374	(2,052)	945,153	82,234	-	291,922	-	2,391,548	1,387,631
Voya Large Cap Growth Port I	63,574,889	1,884,356	(1,057,387)	(3,564,085)	86,163	-	12,043,296	-	72,967,232	9,392,343
American Century Mid Cap Value I	18,668,198	555,106	(370,580)	(1,209,090)	19,495	-	3,202,030	-	20,865,159	2,196,961
Vanguard Mid Cap Index Institutional	24,074,052	833,176	(716,848)	(485,153)	72,155	-	5,244,411	-	29,021,793	4,947,741
Champlain Mid Cap Institutional	10,180,023	480,036	(224,926)	1,506,809	83,289	-	2,090,698	-	14,115,929	3,935,906
American Beacon Small Cp Val Inst	1,489,663	59,326	(47,086)	(211,310)	5,965	-	199,272	-	1,495,830	6,167
Vanguard Small Cap Index I	27,166,062	1,059,852	(360,537)	(656,697)	214,242	-	5,283,015	-	32,705,937	5,539,876
Voya SmallCap Opportunities Port I	16,739,266	545,185	(406,104)	(1,016,503)	16,110	-	3,400,724	-	19,278,678	2,539,412
VY® Invesco Oppenheimer Global I	18,419,870	705,406	(314,378)	(282,847)	79,335	-	3,978,075	-	22,585,461	4,165,591
American Funds Europacific Growth R6	29,739,730	937,647	(557,336)	(541,811)	51,219	-	5,231,773	-	34,861,222	5,121,493
Invesco Oppenheimer Developing Mkts R6	10,109,523	549,350	(207,186)	(126,047)	37,813	-	1,610,727	-	11,974,181	1,864,658
Vanguard Real Estate Index Institutional	16,713,902	477,569	(390,824)	(331,218)	40,597	-	3,240,404	-	19,750,430	3,036,528
VY® T. Rowe Price Capital Apprec I	51,219,331	2,010,907	(1,258,637)	3,122,312	533,760	-	9,171,495	-	64,799,168	13,579,838
Vanguard Target Retirement Income Inv	19,143,169	396,163	(168,299)	(943,524)	12,749	-	1,621,897	-	20,062,155	918,986
Vanguard Target Retirement 2015 Inv	3,273,069	53,815	(281,639)	(249,568)	2,844	-	307,148	-	3,105,670	(167,399)
Vanguard Target Retirement 2020 Inv	2,199,254	58,714	(12,674)	124,034	-	-	261,808	-	2,631,137	431,883
Vanguard Target Retirement 2025 Inv	10,000,268	312,220	(281,415)	(229,273)	21,711	-	1,249,926	-	11,073,435	1,073,168
Vanguard Target Retirement 2030 Inv	2,461,322	454,124	(47,904)	79,208	30,346	-	368,752	-	3,345,847	884,525
Vanguard Target Retirement 2035 Inv	10,273,222	536,919	(14,739)	(590,338)	-	-	1,451,260	-	11,656,324	1,383,102
Vanguard Target Retirement 2040 Inv	3,431,458	322,435	(12,981)	(42,114)	39,478	-	529,671	-	4,267,948	836,489
Vanguard Target Retirement 2045 Inv	8,403,247	535,915	(427,082)	(48,583)	60,009	-	1,297,369	-	9,820,875	1,417,628
Vanguard Target Retirement 2050 Inv	3,180,509	462,119	(53,563)	(44,368)	5,511	-	499,887	-	4,050,095	869,586
Vanguard Target Retirement 2055 Inv	438,436	174,686	(3,955)	84	715	-	75,147	-	685,114	246,678
Vanguard Target Retirement 2060 Inv	608,005	166,417	(13,897)	13,848	-	-	101,789	-	876,162	268,157
Totals	\$ 571,032,257	\$ 19,166,399	\$ (14,578,757)	\$ 0	\$ 2,464,284	\$ (50)	\$ 81,043,097	\$ -	\$ 659,127,230	\$ 88,094,973

Performance: Voya

January 1, 2019 - June 30, 2019

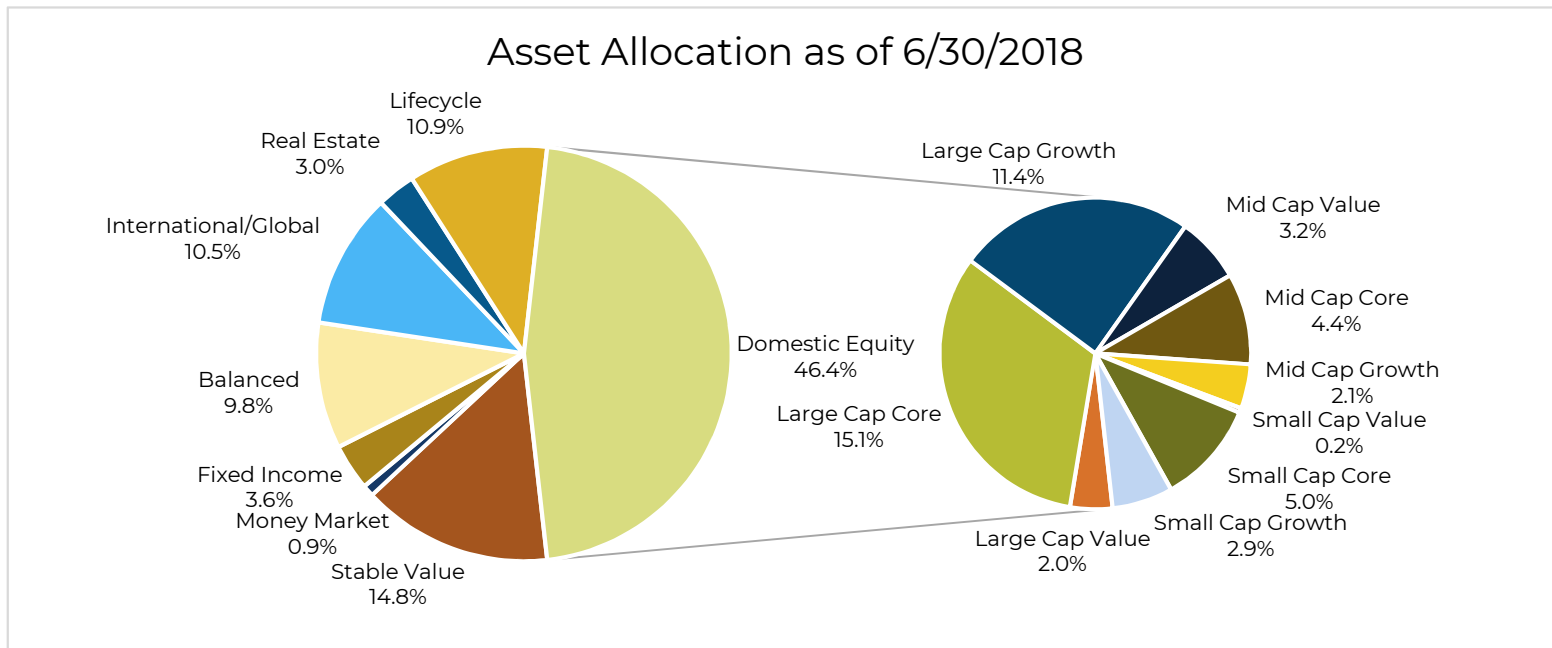
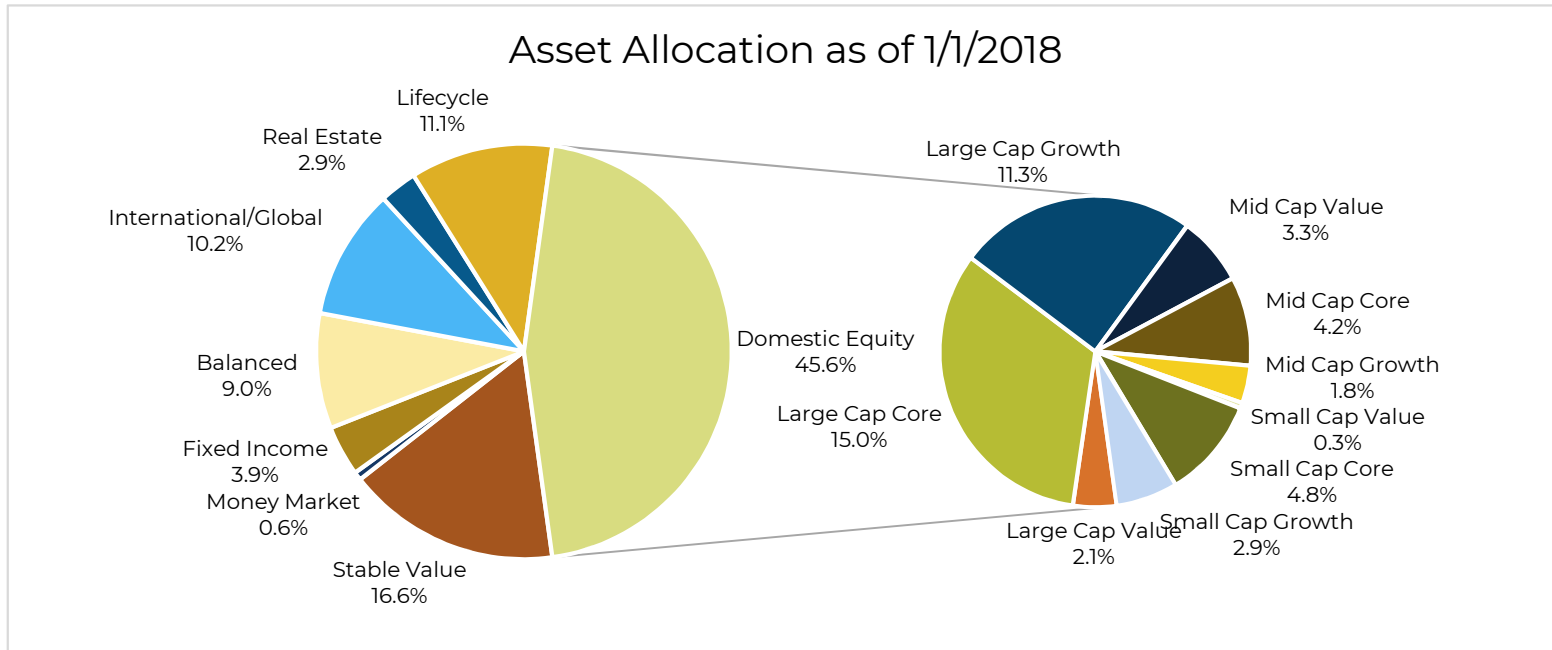
Fund	Beginning Balance: 1/1/2019	Ending Balance: 6/30/2019	Six Month Return
Voya Fixed Plus Fund 4020	\$ 95,009,118	\$ 97,797,206	0.99%
Vanguard Treasury Money Market Investor	\$ 3,654,386	\$ 5,913,500	1.16%
Amana Participation Institutional	\$ 32,688	\$ 37,992	4.56%
PIMCO Total Return Instl	\$ 15,144,390	\$ 16,161,102	6.08%
PIMCO Real Return Instl	\$ 7,146,781	\$ 7,674,071	6.33%
Blackrock Equity Dividend Instl	\$ 11,712,321	\$ 13,486,347	15.42%
American Funds Fundamental Invs R6	\$ 56,849,611	\$ 64,480,288	15.27%
Vanguard Institutional Index I	\$ 14,294,280	\$ 17,767,450	18.54%
Parnassus Core Equity Institutional	\$ 14,678,298	\$ 17,421,941	20.31%
Amana Growth Institutional	\$ 1,003,917	\$ 2,391,548	21.63%
Voya Large Cap Growth Port I	\$ 63,574,889	\$ 72,967,232	19.29%
American Century Mid Cap Value I	\$ 18,668,198	\$ 20,865,159	17.26%
Vanguard Mid Cap Index Institutional	\$ 24,074,052	\$ 29,021,793	21.88%
Champlain Mid Cap Institutional	\$ 10,180,023	\$ 14,115,929	19.76%
American Beacon Small Cp Val Inst	\$ 1,489,663	\$ 1,495,830	14.26%
Vanguard Small Cap Index I	\$ 27,166,062	\$ 32,705,937	19.54%
Voya SmallCap Opportunities Port I	\$ 16,739,266	\$ 19,278,678	20.47%
VY® Invesco Oppenheimer Global I	\$ 18,419,870	\$ 22,585,461	21.50%
American Funds Europacific Growth R6	\$ 29,739,730	\$ 34,861,222	17.59%
Invesco Oppenheimer Developing Mkts R6	\$ 10,109,523	\$ 11,974,181	15.65%
Vanguard Real Estate Index Institutional	\$ 16,713,902	\$ 19,750,430	19.35%
VY® T. Rowe Price Capital Apprec I	\$ 51,219,331	\$ 64,799,168	17.44%
Vanguard Target Retirement Income Inv	\$ 19,143,169	\$ 20,062,155	8.63%
Vanguard Target Retirement 2015 Inv	\$ 3,273,069	\$ 3,105,670	9.74%
Vanguard Target Retirement 2020 Inv	\$ 2,199,254	\$ 2,631,137	11.28%
Vanguard Target Retirement 2025 Inv	\$ 10,000,268	\$ 11,073,435	12.46%
Vanguard Target Retirement 2030 Inv	\$ 2,461,322	\$ 3,345,847	13.27%
Vanguard Target Retirement 2035 Inv	\$ 10,273,222	\$ 11,656,324	13.97%
Vanguard Target Retirement 2040 Inv	\$ 3,431,458	\$ 4,267,948	14.79%
Vanguard Target Retirement 2045 Inv	\$ 8,403,247	\$ 9,820,875	15.39%
Vanguard Target Retirement 2050 Inv	\$ 3,180,509	\$ 4,050,095	15.38%
Vanguard Target Retirement 2055 Inv	\$ 438,436	\$ 685,114	15.38%
Vanguard Target Retirement 2060 Inv	\$ 608,005	\$ 876,162	15.36%
Totals/Weighted Average Return	\$ 571,032,257	\$ 659,127,230	14.55%
Weighted Average Variable Funds Return			16.91%
Weighted Average Fixed Income Return			0.99%

Fee Analysis: Voya

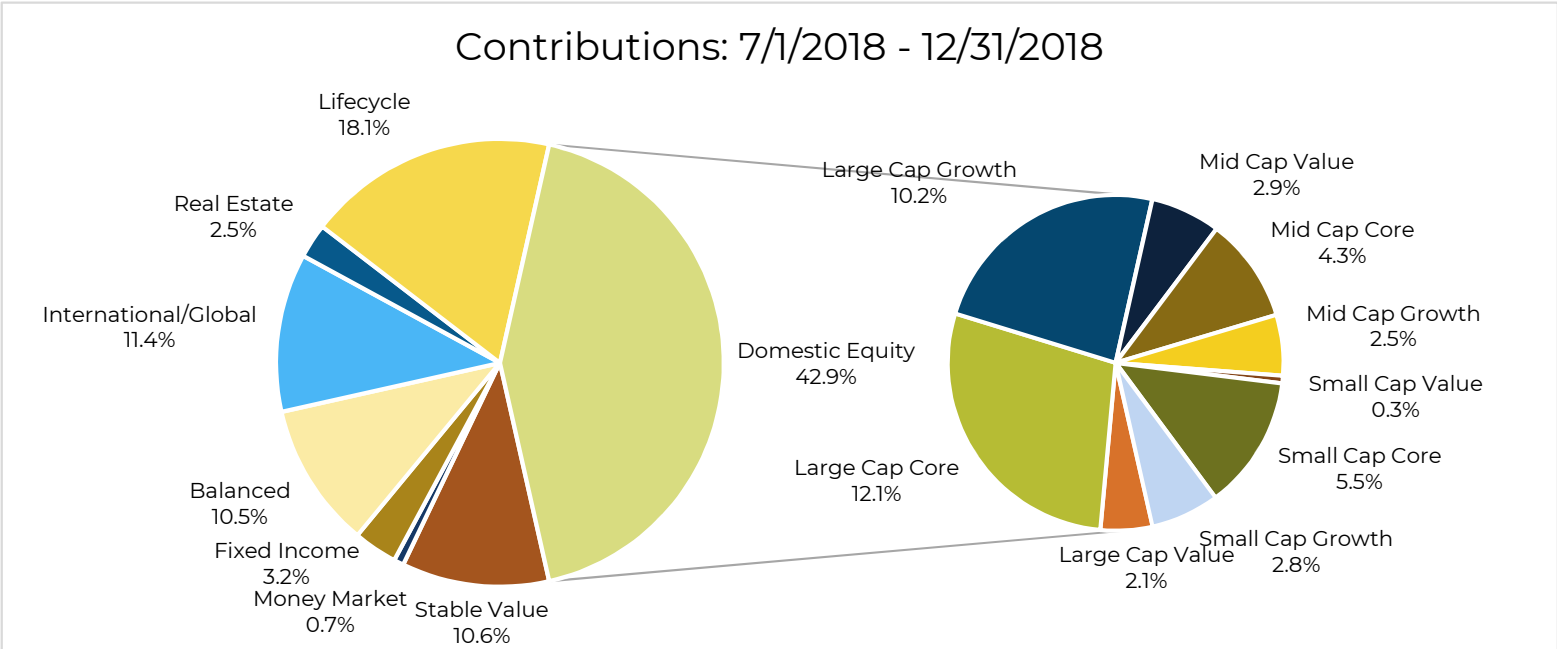
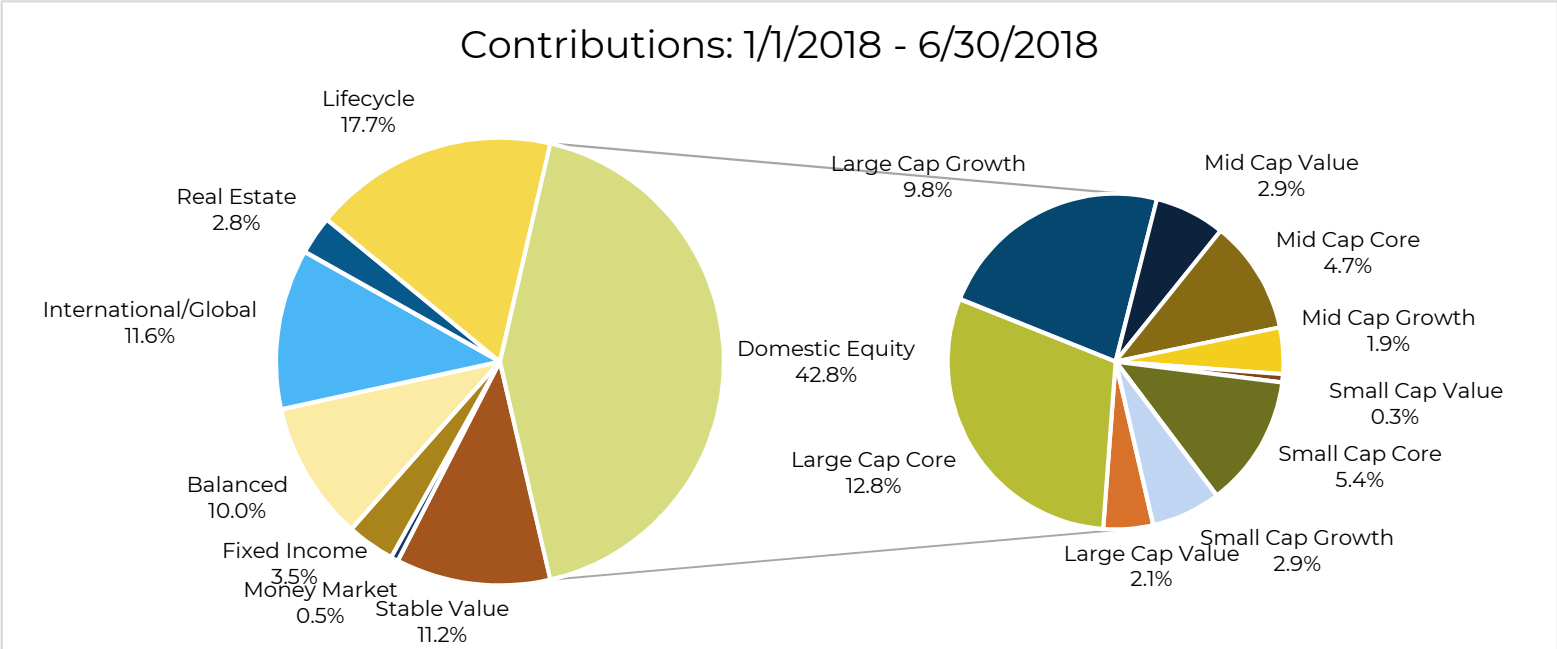
January 1, 2019 - June 30, 2019

Fund	Ticker	Percent of Balance	Expense Ratio
Voya Fixed Plus Fund 4020	-	14.8%	0.36%
Vanguard Treasury Money Market Investor	VUSXX	0.9%	0.09%
Amana Participation Institutional	AMIPX	0.0%	0.62%
PIMCO Total Return Instl	PTTRX	2.5%	0.55%
PIMCO Real Return Instl	PRRIX	1.2%	0.88%
Blackrock Equity Dividend Instl	MADVX	2.0%	0.73%
American Funds Fundamental Invs R6	RFNGX	9.8%	0.30%
Vanguard Institutional Index I	VINIX	2.7%	0.04%
Parnassus Core Equity Institutional	PRILX	2.6%	0.63%
Amana Growth Institutional	AMIGX	0.4%	0.85%
Voya Large Cap Growth Port I	IEOHX	11.1%	0.67%
American Century Mid Cap Value I	AVUAX	3.2%	0.78%
Vanguard Mid Cap Index Institutional	VMCIX	4.4%	0.04%
Champlain Mid Cap Institutional	CIPIX	2.1%	0.90%
American Beacon Small Cp Val Inst	AVFIX	0.2%	0.81%
Vanguard Small Cap Index I	VSCIX	5.0%	0.04%
Voya SmallCap Opportunities Port I	IVSOX	2.9%	0.88%
VY® Invesco Oppenheimer Global I	IGMIX	3.4%	0.75%
American Funds Europacific Growth R6	RERGX	5.3%	0.49%
Invesco Oppenheimer Developing Mkts R6	ODVIX	1.8%	0.85%
Vanguard Real Estate Index Institutional	VGSNX	3.0%	0.10%
VY® T. Rowe Price Capital Apprec I	ITRIX	9.8%	0.64%
Vanguard Target Retirement Income Inv	VTINX	3.0%	0.12%
Vanguard Target Retirement 2015 Inv	VTXVX	0.5%	0.13%
Vanguard Target Retirement 2020 Inv	VTWNX	0.4%	0.13%
Vanguard Target Retirement 2025 Inv	VTTVX	1.7%	0.13%
Vanguard Target Retirement 2030 Inv	VTHRXX	0.5%	0.14%
Vanguard Target Retirement 2035 Inv	VTTHX	1.8%	0.14%
Vanguard Target Retirement 2040 Inv	VFORX	0.6%	0.14%
Vanguard Target Retirement 2045 Inv	VTIVX	1.5%	0.15%
Vanguard Target Retirement 2050 Inv	VFIFX	0.6%	0.15%
Vanguard Target Retirement 2055 Inv	VFFVX	0.1%	0.15%
Vanguard Target Retirement 2060 Inv	VTTSX	0.1%	0.15%
Totals/Weighted Average Expense Ratio			0.44%
Weighted Average Expense Ratio ex- Stable Value			0.45%

Asset Allocation: Voya



Contributions by Asset Class: Voya



Number of Participants: Voya

January 1, 2019 - June 30, 2019

Fund	Number of Participants
Voya Fixed Plus Fund 4020	1,547
Vanguard Treasury Money Market Investor	181
Amana Participation Instl	13
PIMCO Total Return Instl	896
PIMCO Real Return Instl	680
Blackrock Equity Dividend	781
American Funds Fundamental Inv R6	1,896
Vanguard Institutional Index I	683
Parnassus Core Equity Instl	1,099
Amana Growth Instl	125
Voya Large Cap Growth Port Inst	2,728
American Century Mid Cap Value Inst	1,054
Vanguard Mid Cap Index Instl	1,758
Champlain Mid Cap Instl	895
American Beacon Small Cap Value Instl	227
Vanguard Small Cap Index Instl	2,135
Voya SmallCap Opportunities Port I	1,154
VY® Invesco Oppenheimer Global I	1,493
American Funds Europacific Growth R6	1,966
Invesco Oppenheimer Developing Mkts R6	1,506
Vanguard Real Estate Index Institutional	1,631
VY® T. Rowe Price Capital Apprec Instl	2,201
Vanguard Target Retirement Income	233
Vanguard Target Retirement 2015	55
Vanguard Target Retirement 2020	48
Vanguard Target Retirement 2025	168
Vanguard Target Retirement 2030	74
Vanguard Target Retirement 2035	255
Vanguard Target Retirement 2040	125
Vanguard Target Retirement 2045	281
Vanguard Target Retirement 2050	209
Vanguard Target Retirement 2055	76
Vanguard Target Retirement 2060	74

Total Unique Participants

5,206


Asset Summary (in thousands)

	Current Quarter		December 2018		1 Year Ago	
	(\$)	%	(\$)	%	(\$)	%
Total Plan	659,127	100.0	633,140	100.0	606,772	100.0
Cash Equivalents	103,711	15.7	99,794	15.8	96,879	16.0
Vanguard Treasury Money Market Investor (VUSXX)	5,914	0.9	5,538	0.9	3,523	0.6
Voya Fixed Plus Account III	97,797	14.8	94,256	14.9	93,356	15.4
Fixed Income	23,873	3.6	23,054	3.6	23,509	3.9
PIMCO Real Return Instl (PRRIX)	7,674	1.2	7,314	1.2	7,577	1.2
PIMCO Total Return Instl (PTTRX)	16,161	2.5	15,698	2.5	15,913	2.6
Amana Participation Institutional (AMIPX)	38	0.0	42	0.0	19	0.0
Domestic Equity	305,998	46.4	296,005	46.8	285,069	47.0
Large Cap	188,515	28.6	182,404	28.8	172,981	28.5
BlackRock Equity Dividend Instl (MADVX)	13,486	2.0	12,747	2.0	12,960	2.1
American Funds Fundamental Invs R6 (RFNGX)	64,480	9.8	63,203	10.0	62,806	10.4
Parnassus Core Equity Institutional (PRILX)	17,422	2.6	16,592	2.6	15,509	2.6
Vanguard Institutional Index I (VINIX)	17,767	2.7	16,649	2.6	13,233	2.1
Amana Growth Institutional (AMIGX)	2,392	0.4	1,673	0.3	497	0.1
Voya Large Cap Growth Port I (IEOHX)	72,967	11.1	71,540	11.3	67,886	11.2
Mid Cap	64,003	9.7	61,258	9.7	58,169	9.6
American Century Mid Cap Value I (AVUAX)	20,865	3.2	20,936	3.3	21,697	3.6
Vanguard Mid Cap Index Institutional (VMCIX)	29,022	4.4	27,666	4.4	27,752	4.6
Champlain Mid Cap Institutional (CIPIX)	14,116	2.1	12,655	2.0	8,721	1.4
Small Cap	53,480	8.1	52,343	8.3	53,919	8.9
American Beacon Small Cp Val Inst (AVFIX)	1,496	0.2	1,536	0.2	1,866	0.3
Vanguard Small Cap Index I (VSCIX)	32,706	5.0	31,526	5.0	30,500	5.0
Voya SmallCap Opportunities Port I (IVSOX)	19,279	2.9	19,280	3.0	21,553	3.6
International Equity	69,421	10.5	66,249	10.5	68,518	11.3
American Funds Europacific Growth R6 (RERGX)	34,861	5.3	33,313	5.3	35,524	5.9
VY® Oppenheimer Global I (IGMIX)	22,585	3.4	21,370	3.4	20,914	3.4
Oppenheimer Developing Markets I (ODVIX)	11,974	1.8	11,566	1.8	12,080	2.0
Specialty	19,750	3.0	19,458	3.1	19,003	3.1
Vanguard Real Estate Index Institutional (VGSNX)	19,750	3.0	19,458	3.1	19,003	3.1
Balanced	64,799	9.8	59,134	9.3	47,539	7.8
VY® T. Rowe Price Capital Apprec I (ITRIX)	64,799	9.8	59,134	9.3	47,539	7.8


Asset Summary (in thousands)

Target Date	Current Quarter		December 2018		1 Year Ago	
	(\$)	%	(\$)	%	(\$)	%
Target Date	71,575	10.9	69,447	11.0	66,255	10.9
Vanguard Target Retirement Income Inv (VTINX)	20,062	3.0	19,577	3.1	20,085	3.3
Vanguard Target Retirement 2015 Inv (VTXVX)	3,106	0.5	3,246	0.5	3,870	0.6
Vanguard Target Retirement 2020 Inv (VTWNX)	2,631	0.4	2,691	0.4	2,648	0.4
Vanguard Target Retirement 2025 Inv (VTTVX)	11,073	1.7	10,966	1.7	10,824	1.8
Vanguard Target Retirement 2030 Inv (VTHRX)	3,346	0.5	3,136	0.5	2,613	0.4
Vanguard Target Retirement 2035 Inv (VTTHX)	11,656	1.8	11,542	1.8	9,828	1.6
Vanguard Target Retirement 2040 Inv (VFORX)	4,268	0.6	3,979	0.6	3,273	0.5
Vanguard Target Retirement 2045 Inv (VTIVX)	9,821	1.5	9,348	1.5	9,402	1.5
Vanguard Target Retirement 2050 Inv (VFIFX)	4,050	0.6	3,641	0.6	3,196	0.5
Vanguard Target Retirement 2055 Inv (VFFVX)	685	0.1	566	0.1	302	0.0
Vanguard Target Retirement 2060 Inv (VTTSX)	876	0.1	757	0.1	215	0.0

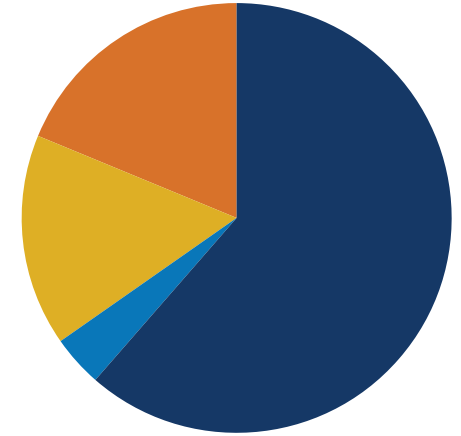
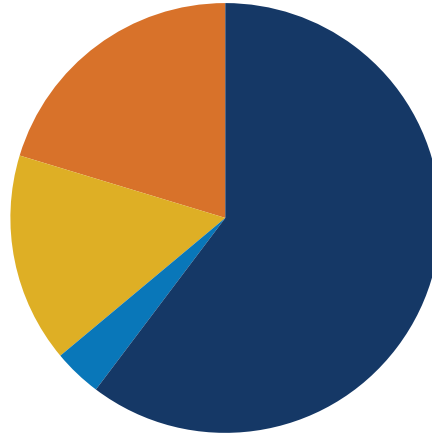
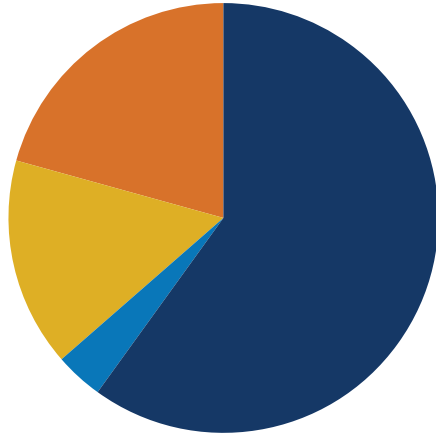


Historical Asset Allocation (in thousands)

June 30, 2019 | \$659,127

March 31, 2019 | \$633,140

June 30, 2018 | \$606,772

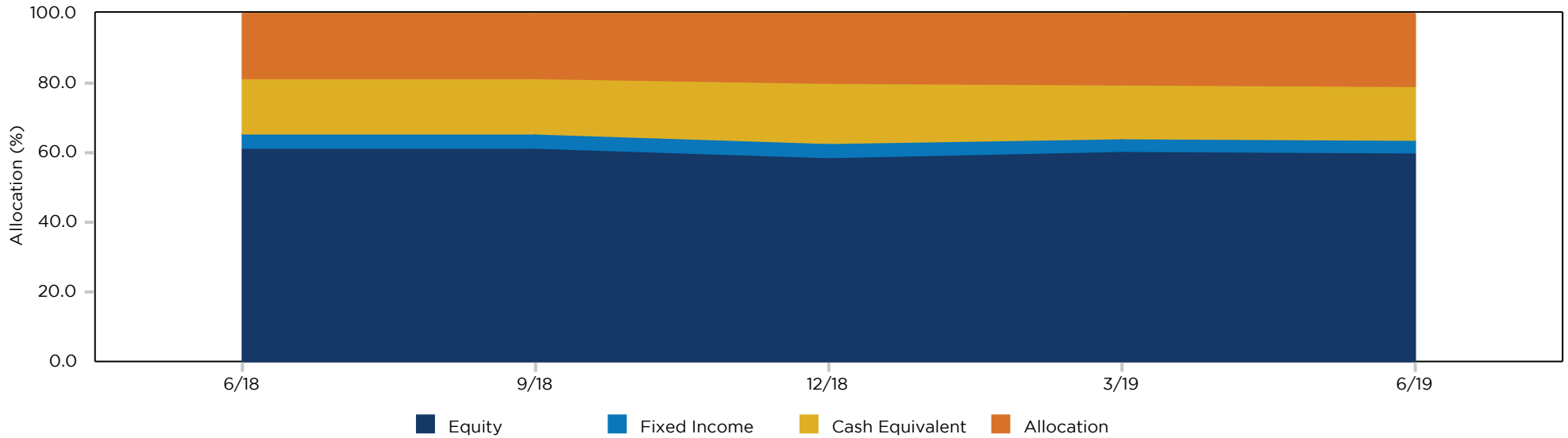


Asset Class	Market Value	Allocation (%)
Equity	395,169	60.0
Fixed Income	23,873	3.6
Cash Equivalent	103,711	15.7
Allocation	136,374	20.7

Asset Class	Market Value	Allocation (%)
Equity	381,712	60.3
Fixed Income	23,054	3.6
Cash Equivalent	99,794	15.8
Allocation	128,581	20.3

Asset Class	Market Value	Allocation (%)
Equity	372,590	61.4
Fixed Income	23,509	3.9
Cash Equivalent	96,879	16.0
Allocation	113,794	18.8

As of June 30, 2019





Fiduciary Scorecard

Fund Name	Mgmt.	Operations	Style	Near-Term Result	Long-Term Return	Long-Term Alpha	Long-Term Up Mkt.	Long-Term Down Mkt.	Long-Term Sharpe	Overall Long-Term Result
Vanguard Treasury Money Market Investor (VUSXX)	Pass	Pass	Pass	✓	✓	✓	✓		✓	✓
Voya Fixed Plus Account III	Pass	Pass	Pass							
PIMCO Real Return Instl (PRRIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
PIMCO Total Return Instl (PTTRX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Amana Participation Institutional (AMIPX)	Pass	Pass	Pass							
BlackRock Equity Dividend Instl (MADVX)	Pass	Pass	Pass	✓	✓	✓	✗	✓	✓	✓
American Funds Fundamental Invs R6 (RFNGX)	Pass	Pass	Note	✓	✓	✓	✓	✓	✓	✓
Parnassus Core Equity Institutional (PRILX)	Pass	Pass	Note	✓	✓	✓	✗	✓	✓	✓
Vanguard Institutional Index I (VINIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Amana Growth Institutional (AMIGX)	Pass	Pass	Pass	✓	✓	✓	✗	✓	✓	✓
Voya Large Cap Growth Port I (IEOHX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
American Century Mid Cap Value I (AVUAX)	Pass	Pass	Pass	✓	✓	✓	✗	✓	✓	✓
Vanguard Mid Cap Index Institutional (VMCIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Champlain Mid Cap Institutional (CIPIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
American Beacon Small Cp Val Inst (AVFIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
Vanguard Small Cap Index I (VSCIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Voya SmallCap Opportunities Port I (IVSOX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
American Funds Europacific Growth R6 (RERGX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
VY® Oppenheimer Global I (IGMIX)	Pass	Pass	Pass	✓	✓	✓	✓	✗	✓	✓
Oppenheimer Developing Markets I (ODVIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Real Estate Index Institutional (VGSNX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
VY® T. Rowe Price Capital Apprec I (ITRIX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement Income Inv (VTINX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2015 Inv (VTXVX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2020 Inv (VTWNX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2025 Inv (VTTVX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2030 Inv (VTHRXX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2035 Inv (VTTHX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2040 Inv (VFORX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2045 Inv (VTIVX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2050 Inv (VFIXX)	Pass	Pass	Pass	✓	✓	✓	✓	✓	✓	✓
Vanguard Target Retirement 2055 Inv (VFFVX)	Pass	Pass	Pass	✓						
Vanguard Target Retirement 2060 Inv (VTTSX)	Pass	Pass	Pass	✓						

PIMCO Total Return

Despite strong performance over the past five years, the fund's long-term score falls below median due to weak relative results in 2011, 2013 & 2014. The fund's ten year ranking is now rolling off its strong relative results during the 2008 financial crisis. Relative to its core-plus peers, the fund is underweight high yield credit and has an overweight position in securitized bonds and emerging market debt. The underweight to high yield has been a source of underperformance relative to its peers throughout the recovery. 2Q19

Recommendation: No Action

Amana Participation Institutional

Since the fund's inception in 2015, the fund has ranked among the bottom decile of the emerging market bond peer group in two of the three annual periods. The fund outperformed in 2018 as spreads widened particularly among export-oriented economies. This fund invests much of the portfolio in Sukuk, an interest-free substitute to traditional Western bonds, which are Sharia-law compliant. Many of these are domiciled within the middle east and produce income from the ownership in businesses with tangible assets. 2Q19

Recommendation: No Action

American Funds Fundamental Invs

According to Morningstar, the investment style of the fund has drifted toward large cap growth from large cap blend. This fund has a very broad mandate, allowing the management team to invest in both growth and value stocks as well as overseas. Management has favored growth characteristics over value characteristics in recent years as they look for companies with a dominant market position in their industries on a global level. Drift between style boxes is not an indication of strategy change. 2Q19

Recommendation: No Action

Parnassus Core Equity

This fund's ESG-focused mandate leads it to invest in companies with sustainable competitive advantages, relevant industries, good management, and an ethical business culture. While management does look to buy growth at a reasonable price, the focus on quality results in a portfolio that tends to fall near the line between the large cap blend and large cap growth style boxes in Morningstar. The fund style currently falls into the large growth style box while its category remains large blend, but that is not indicative of a strategy change. 2Q19

Recommendation: No Action

Voya SmallCap Opportunity

Voya SmallCap fund ranked in the bottom decile of the peer group for near term performance and below the median of the peer group for risk adjusted long term performance. Poor stock selection in technology and healthcare were the source of recent underperformance as management's focus on quality and price underperformed as lower quality and momentum-based strategies were in favor. Since James Hasso became portfolio manager in 2014, turnover in the analyst team has been significant. Seven of the ten analysts were hired after Hasso became portfolio manager. And while Hasso added a biotech analyst, Hasso has stated that the fund will maintain an underweight to biotechnology. The fund's assets decreased by 44% over the past year. The fund's assets are \$0.72 billion. 2Q19

Recommendation: Placed on Watch at the Spring 2019 RPC Committee Meeting



Scorecard Definitions

Qualitative Factors

Management: An evaluation of an investment's organization and/or personnel.
Operations: An evaluation of an investment's asset size and change. Appropriate expenses.
Style: An evaluation of an investment's style, philosophy and/or consistency.

Near-Term Result : An evaluation of relative performance to the investment's designated peer group. A three-year period or a time period that more appropriately represents the Designated Investment Alternative's investment style is typically used.

Long-Term Performance : A ten-year period will be used.

Return: An evaluation of relative performance to the investment's designated peer group.
Alpha: An evaluation of risk-adjusted return relative to the investment's designated peer group.
Up Market: An evaluation of return relative to the investment's designated peer group in positive market periods.
Down Market: An evaluation of return relative to the investment's designated peer group in negative market periods.
Sharpe Ratio: An evaluation of the Sharpe ratio (return per unit of risk) relative to the investment's designated peer group.

Overall Long-Term Result : Aggregate evaluation of relative performance to the investment's designated peer group across factors including return, alpha, up market capture, down market capture and Sharpe ratio.



Performance Summary

	Allocation		Performance (%) as of 06/30/2019							Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years			
Total Plan	659,127	100.0	-	-	-	-	-	-	-	
Vanguard Treasury Money Market Investor (VUSXX)	5,914	0.9	0.58 (5)	2.21 (3)	1.30 (3)	0.80 (3)	0.41 (6)		0.09	
+/- Blmbg. Barc. U.S. Treasury Bills: 1-3 Months			-0.04	-0.06	-0.03	-0.03	-0.04		-	
Money Market-Taxable Median			0.51	1.89	0.98	0.59	0.30		-	
Voya Fixed Plus Account III	97,797	14.8	0.49	2.00	2.04	2.17	2.52		0.36	
+/- Ryan 3 Yr GIC Master Index			-0.09	-0.20	0.23	0.61	0.63		-	
PIMCO Real Return Instl (PRRIX)	7,674	1.2	2.70 (34)	4.50 (36)	2.36 (17)	1.44 (34)	3.96 (5)		0.98	
+/- Bloomberg Barclays U.S. TIPS Index			-0.16	-0.34	0.28	-0.32	0.32			
Inflation-Protected Bond Median			2.58	4.24	1.94	1.23	3.16		0.75	
PIMCO Total Return Instl (PTTRX)	16,161	2.5	3.21 (16)	7.64 (47)	3.18 (3)	3.02 (19)	4.69 (15)		0.71	
+/- Blmbg. Barc. U.S. Aggregate Index			0.13	-0.23	0.87	0.07	0.79			
Intermediate Core Bond Median			2.98	7.57	2.21	2.70	3.90		0.66	
Amana Participation Institutional (AMIPX)	38	0.0	2.09	5.65	2.31	-	-		0.62	
+/- Dow Jones Sukuk Index			-1.09	-3.12	-1.46	-	-		-	
BlackRock Equity Dividend Instl (MADVX)	13,486	2.0	4.67 (11)	7.57 (37)	11.54 (21)	8.68 (13)	12.42 (43)		0.73	
+/- Russell 1000 Value Index			0.83	-0.89	1.35	1.22	-0.77			
Large Value Median			3.37	6.00	10.28	6.88	12.21		1.00	
American Funds Fundamental Invs R6 (RFNGX)	64,480	9.8	2.88 (81)	5.72 (75)	13.16 (53)	10.12 (33)	13.82 (47)		0.30	
+/- S&P 500 Index			-1.42	-4.70	-1.03	-0.59	-0.88		-	
Large Blend Median			4.10	8.93	13.27	9.42	13.67		0.96	
Parnassus Core Equity Institutional (PRILX)	17,422	2.6	6.13 (4)	17.43 (2)	14.57 (11)	10.40 (21)	14.35 (26)		0.63	
+/- S&P 500 Index			1.83	7.01	0.38	-0.31	-0.35		-	
Large Blend Median			4.10	8.93	13.27	9.42	13.67		0.96	
Vanguard Institutional Index I (VINIX)	17,767	2.7	4.30 (34)	10.39 (26)	14.15 (19)	10.68 (11)	14.68 (12)		0.04	
+/- S&P 500 Index			0.00	-0.03	-0.04	-0.03	-0.02		-	
Large Blend Median			4.10	8.93	13.27	9.42	13.67		0.96	
Amana Growth Institutional (AMIGX)	2,392	0.4	3.48 (80)	20.28 (3)	18.65 (34)	13.29 (28)	14.09 (73)		0.85	
+/- S&P 500 Index			-0.82	9.86	4.46	2.58	-0.61		-	
Large Growth Median			4.63	10.24	17.14	12.00	14.96		1.08	



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
Voya Large Cap Growth Port I (IEOHX)	72,967	11.1	3.82 (74)	11.01 (43)	16.95 (53)	12.65 (39)	16.01 (24)	0.67
+/- Russell 1000 Growth Index			-0.82	-0.55	-1.12	-0.74	-0.27	-
Large Growth Median			4.63	10.24	17.14	12.00	14.96	1.08
American Century Mid Cap Value I (AVUAX)	20,865	3.2	3.47 (43)	2.97 (30)	8.29 (64)	7.96 (7)	13.97 (17)	0.78
+/- Russell Midcap Value Index			0.28	-0.71	-0.66	1.24	-0.59	-
Mid-Cap Value Median			3.16	0.59	8.80	5.48	12.80	1.11
Vanguard Mid Cap Index Institutional (VMCIX)	29,022	4.4	4.36 (23)	7.85 (13)	12.34 (22)	8.83 (8)	15.23 (4)	0.04
+/- CRSP U.S. Mid Cap TR Index			-0.01	0.00	-0.02	-0.02	0.07	-
Mid-Cap Blend Median			3.04	1.37	10.47	6.94	13.39	1.08
Champlain Mid Cap Institutional (CIPIX)	14,116	2.1	3.00 (92)	14.58 (31)	17.50 (33)	12.90 (14)	15.91 (26)	0.90
+/- Russell Midcap Growth Index			-2.40	0.64	1.01	1.80	-0.11	-
Mid-Cap Growth Median			6.29	12.34	15.95	10.31	14.84	1.19
American Beacon Small Cp Val Inst (AVFIX)	1,496	0.2	1.78 (43)	-7.61 (60)	8.60 (42)	4.77 (39)	13.04 (21)	0.81
+/- Russell 2000 Value Index			0.40	-1.37	-1.21	-0.62	0.64	-
Small Value Median			1.49	-6.85	8.24	4.32	12.13	1.25
Vanguard Small Cap Index I (VSCIX)	32,706	5.0	2.87 (34)	2.27 (11)	12.39 (18)	7.73 (17)	14.81 (5)	0.04
+/- CRSP U.S. Small Cap TR Index			0.01	-0.02	0.02	0.03	-0.33	-
Small Blend Median			2.13	-3.53	10.85	6.30	13.08	1.16
Voya SmallCap Opportunities Port I (IVSOX)	19,279	2.9	2.57 (75)	-4.50 (90)	10.62 (89)	6.86 (84)	14.10 (66)	0.88
+/- Russell 2000 Growth Index			-0.18	-4.01	-4.07	-1.77	-0.31	-
Small Growth Median			4.12	3.80	15.92	9.28	14.73	1.24
American Funds Europacific Growth R6 (RERGX)	34,861	5.3	3.87 (71)	1.91 (48)	10.84 (32)	4.45 (36)	8.15 (48)	0.49
+/- MSCI AC World ex USA (Net)			0.89	0.62	1.45	2.29	1.61	-
Foreign Large Growth Median			4.70	1.66	9.67	3.76	8.06	1.13
VY® Invesco Oppenheimer Global I (IGMIX)	22,585	3.4	3.98 (39)	3.57 (63)	16.21 (7)	7.98 (22)	12.17 (15)	0.75
+/- MSCI World Index			-0.22	-3.37	3.82	0.78	0.84	-
World Large Stock Median			3.58	4.74	10.96	5.85	10.24	1.14
Invesco Oppenheimer Developing Markets I (ODVIX)	11,974	1.8	2.86 (23)	3.14 (30)	12.57 (8)	2.89 (29)	8.29 (4)	0.85
+/- MSCI Emerging Markets (Net) Index			2.25	1.93	1.91	0.40	2.48	-
Diversified Emerging Mkts Median			1.46	0.98	9.49	2.10	5.73	1.36



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
Vanguard Real Estate Index Institutional (VGSNX)	19,750	3.0	1.76 (56)	12.26 (29)	4.05 (51)	7.71 (37)	15.49 (21)	0.10
+/- Spliced Index*			0.01	0.06	-0.07	-0.09	-0.05	-
Real Estate Median			1.97	10.58	4.05	7.35	14.75	1.19
VY® T. Rowe Price Capital Apprec I (ITRIX)	64,799	9.8	4.92 (2)	15.26 (1)	11.98 (2)	10.37 (1)	13.03 (1)	0.64
+/- 40% BBg US Agg 60% SP500			0.96	5.39	2.47	2.62	2.53	-
Allocation--50% to 70% Equity Median			3.04	5.66	7.90	5.22	9.01	1.11
Vanguard Target Retirement Income Inv (VTINX)	20,062	3.0	2.97 (34)	6.54 (25)	5.24 (45)	4.18 (21)	6.36 (33)	0.12
+/- Vanguard Target Income Composite Index			-0.07	-0.15	-0.18	-0.17	-0.14	-
Target-Date Retirement Median			2.81	5.88	5.12	3.62	5.88	0.77
Vanguard Target Retirement 2015 Inv (VTXVX)	3,106	0.5	3.05 (36)	6.48 (32)	6.66 (44)	4.89 (36)	8.33 (37)	0.13
+/- Vanguard Target 2015 Composite Index			-0.09	-0.17	-0.20	-0.20	-0.13	-
Target-Date 2015 Median			2.94	5.91	6.38	4.48	8.13	0.71
Vanguard Target Retirement 2020 Inv (VTWNX)	2,631	0.4	3.21 (28)	6.50 (27)	7.81 (23)	5.54 (13)	9.15 (21)	0.13
+/- Vanguard Target 2020 Composite Index			-0.10	-0.21	-0.24	-0.21	-0.23	-
Target-Date 2020 Median			3.06	5.96	6.91	4.65	8.55	0.77
Vanguard Target Retirement 2025 Inv (VTTVX)	11,073	1.7	3.35 (25)	6.61 (18)	8.69 (24)	5.94 (11)	9.79 (29)	0.13
+/- Vanguard Target 2025 Composite Index			-0.10	-0.18	-0.25	-0.21	-0.23	-
Target-Date 2025 Median			3.17	5.98	7.85	5.22	9.38	0.76
Vanguard Target Retirement 2030 Inv (VTHR X)	3,346	0.5	3.41 (31)	6.42 (26)	9.39 (30)	6.22 (23)	10.35 (31)	0.14
+/- Vanguard Target 2030 Composite Index			-0.07	-0.18	-0.27	-0.22	-0.24	-
Target-Date 2030 Median			3.24	5.92	8.73	5.64	9.95	0.79
Vanguard Target Retirement 2035 Inv (VTTHX)	11,656	1.8	3.42 (34)	6.22 (27)	10.09 (32)	6.48 (25)	10.87 (26)	0.14
+/- Vanguard Target 2035 Composite Index			-0.10	-0.18	-0.29	-0.24	-0.26	-
Target-Date 2035 Median			3.26	5.73	9.51	6.01	10.43	0.77
Vanguard Target Retirement 2040 Inv (VFORX)	4,268	0.6	3.46 (35)	6.00 (30)	10.79 (25)	6.72 (24)	11.17 (23)	0.14
+/- Vanguard Target 2040 Composite Index			-0.09	-0.19	-0.29	-0.26	-0.27	-
Target-Date 2040 Median			3.31	5.49	10.07	6.21	10.58	0.80
Vanguard Target Retirement 2045 Inv (VTIVX)	9,821	1.5	3.51 (31)	5.90 (34)	11.05 (25)	6.86 (24)	11.24 (24)	0.15
+/- Vanguard Target 2045 Composite Index			-0.06	-0.16	-0.28	-0.26	-0.27	-
Target-Date 2045 Median			3.33	5.50	10.40	6.40	10.79	0.78

*Spliced Index: MSCI US REIT Index through 1/31/2018; MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018; MSCI US Investable Market Real Estate 25/50 Index thereafter.



Performance Summary

	Allocation		Performance (%) as of 06/30/2019					Net Expense Ratio
	Market Value (\$000)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	
Vanguard Target Retirement 2050 Inv (VFIFX)	4,050	0.6	3.47 (37)	5.86 (35)	11.03 (30)	6.85 (26)	11.23 (26)	0.15
+/- Vanguard Target 2050 Composite Index			-0.10	-0.20	-0.30	-0.27	-0.28	-
Target-Date 2050 Median			3.36	5.40	10.48	6.44	10.91	0.81
Vanguard Target Retirement 2055 Inv (VFFVX)	685	0.1	3.48 (36)	5.88 (34)	11.04 (32)	6.82 (34)	-	0.15
+/- Vanguard Target 2055 Composite Index			-0.09	-0.18	-0.29	-0.30	-	-
Target-Date 2055 Median			3.34	5.48	10.60	6.48	-	0.79
Vanguard Target Retirement 2060 Inv (VTTSX)	876	0.1	3.48 (45)	5.86 (35)	11.03 (41)	6.81 (44)	-	0.15
+/- Vanguard Target 2060 Composite Index			-0.09	-0.20	-0.30	-0.31	-	-
Target-Date 2060+ Median			3.42	5.50	10.77	6.76	-	0.78



Performance Summary - Calendar Year

	Performance (%)								
	2018	2017	2016	2015	2014	2013	2012	2011	
Vanguard Treasury Money Market Investor (VUSXX)	1.80 (2)	0.79 (4)	0.25 (8)	0.02 (20)	0.01 (52)	0.01 (26)	0.02 (23)	0.02 (25)	
+/- Blmbg. Barc. U.S. Treasury Bills: 1-3 Months	-0.02	-0.03	-0.01	-0.01	-0.01	-0.04	-0.06	-0.05	
Money Market-Taxable Median	1.47	0.46	0.03	0.01	0.01	0.01	0.01	0.01	
Voya Fixed Plus Account III	2.00	2.00	2.06	2.12	2.12	2.24	2.50	2.86	
+/- Ryan 3 Yr GIC Master Index	0.04	0.40	0.67	0.96	1.09	1.18	1.02	0.42	
PIMCO Real Return Instl (PRRIX)	-1.97 (69)	3.92 (7)	5.04 (20)	-2.75 (79)	3.42 (27)	-9.05 (72)	9.25 (6)	11.57 (63)	
+/- Bloomberg Barclays U.S. TIPS Index	-0.71	0.91	0.36	-1.31	-0.22	-0.44	2.27	-1.99	
Inflation-Protected Bond Median	-1.51	2.74	4.42	-1.90	2.74	-8.67	6.52	12.05	
PIMCO Total Return Instl (PTTRX)	-0.26 (48)	5.13 (2)	2.60 (49)	0.73 (17)	4.69 (76)	-1.92 (38)	10.36 (2)	4.16 (97)	
+/- Blmbg. Barc. U.S. Aggregate Index	-0.27	1.59	-0.05	0.18	-1.28	0.10	6.15	-3.68	
Intermediate Core Bond Median	-0.31	3.40	2.59	0.27	5.59	-2.11	5.17	6.96	
Amana Participation Institutional (AMIPX)	0.11	2.68	2.56	-	-	-	-	-	
+/- Dow Jones Sukuk Index	-0.01	-1.79	-1.80	-	-	-	-	-	
BlackRock Equity Dividend Instl (MADVX)	-7.17 (27)	16.76 (41)	16.21 (33)	-0.10 (10)	9.35 (76)	24.67 (95)	12.18 (81)	5.92 (13)	
+/- Russell 1000 Value Index	1.10	3.10	-1.13	3.73	-4.10	-7.86	-5.33	5.53	
Large Value Median	-8.90	16.17	14.59	-3.54	11.01	31.87	15.38	-0.23	
American Funds Fundamental Invs R6 (RFNGX)	-6.33 (60)	23.72 (10)	12.88 (17)	3.71 (5)	9.27 (84)	31.94 (57)	17.53 (15)	-1.57 (75)	
+/- S&P 500 Index	-1.95	1.89	0.92	2.33	-4.42	-0.45	1.53	-3.68	
Large Blend Median	-5.62	21.15	11.15	0.22	12.21	32.18	15.73	0.83	
Parnassus Core Equity Institutional (PRILX)	0.05 (2)	16.81 (88)	10.60 (57)	-0.33 (59)	14.70 (9)	34.15 (23)	15.64 (54)	3.38 (13)	
+/- S&P 500 Index	4.43	-5.02	-1.36	-1.71	1.01	1.76	-0.36	1.27	
Large Blend Median	-5.62	21.15	11.15	0.22	12.21	32.18	15.73	0.83	
Vanguard Institutional Index I (VINIX)	-4.42 (23)	21.79 (30)	11.93 (30)	1.37 (21)	13.65 (19)	32.35 (45)	15.98 (41)	2.09 (21)	
+/- S&P 500 Index	-0.04	-0.04	-0.03	-0.01	-0.04	-0.04	-0.02	-0.02	
Large Blend Median	-5.62	21.15	11.15	0.22	12.21	32.18	15.73	0.83	
Amana Growth Institutional (AMIGX)	2.67 (11)	29.29 (46)	7.85 (16)	-0.21 (87)	14.29 (10)	22.95 (100)	11.21 (92)	-1.86 (55)	
+/- S&P 500 Index	7.05	7.46	-4.11	-1.59	0.60	-9.44	-4.79	-3.97	
Large Growth Median	-1.81	28.69	2.90	4.49	10.54	34.40	15.52	-1.45	



Performance Summary - Calendar Year

	Performance (%)									
	2018	2017	2016	2015	2014	2013	2012	2011		
Voya Large Cap Growth Port I (IEOHX)	-1.48 (46)	29.74 (42)	3.96 (44)	6.38 (32)	13.62 (17)	30.95 (79)	18.10 (23)	2.48 (15)		
+/- Russell 1000 Growth Index	0.03	-0.47	-3.12	0.71	0.57	-2.53	2.84	-0.16		
Large Growth Median	-1.81	28.69	2.90	4.49	10.54	34.40	15.52	-1.45		
American Century Mid Cap Value I (AVUAX)	-12.84 (40)	11.79 (70)	23.07 (14)	-1.36 (14)	16.55 (4)	30.26 (91)	16.66 (43)	-0.52 (20)		
+/- Russell Midcap Value Index	-0.55	-1.55	3.07	3.42	1.80	-3.20	-1.85	0.86		
Mid-Cap Value Median	-13.46	13.23	17.59	-4.55	10.17	34.61	16.39	-3.86		
Vanguard Mid Cap Index Institutional (VMCIX)	-9.24 (22)	19.29 (16)	11.23 (79)	-1.33 (15)	13.78 (10)	35.17 (40)	16.01 (70)	-1.96 (39)		
+/- CRSP U.S. Mid Cap TR Index	-0.02	-0.01	-0.02	-0.05	-0.05	-0.10	-0.69	-0.17		
Mid-Cap Blend Median	-11.33	16.08	15.95	-2.95	9.27	33.56	17.42	-2.31		
Champlain Mid Cap Institutional (CIPIX)	3.76 (6)	19.50 (88)	18.68 (3)	1.41 (33)	7.98 (44)	37.56 (31)	11.88 (78)	2.52 (12)		
+/- Russell Midcap Growth Index	8.51	-5.77	11.35	1.61	-3.92	1.82	-3.93	4.17		
Mid-Cap Growth Median	-5.54	24.67	5.85	-0.19	7.54	35.88	14.93	-3.89		
American Beacon Small Cp Val Inst (AVFIX)	-15.63 (54)	8.67 (53)	26.77 (40)	-5.04 (35)	4.70 (45)	40.06 (19)	16.52 (50)	-4.05 (48)		
+/- Russell 2000 Value Index	-2.77	0.83	-4.97	2.43	0.48	5.54	-1.53	1.45		
Small Value Median	-15.31	8.86	26.01	-6.40	4.36	36.24	16.37	-4.27		
Vanguard Small Cap Index I (VSCIX)	-9.32 (19)	16.25 (13)	18.32 (73)	-3.63 (38)	7.53 (17)	37.80 (54)	18.26 (18)	-2.65 (42)		
+/- CRSP U.S. Small Cap TR Index	0.01	0.01	0.06	0.05	-0.01	-0.68	-0.33	-0.80		
Small Blend Median	-11.94	13.20	20.81	-4.36	4.94	38.14	15.89	-3.30		
Voya SmallCap Opportunities Port I (IVSOX)	-15.87 (95)	18.73 (68)	13.40 (32)	-0.91 (33)	5.62 (27)	39.07 (68)	15.18 (38)	0.85 (23)		
+/- Russell 2000 Growth Index	-6.56	-3.44	2.08	0.47	0.02	-4.23	0.59	3.76		
Small Growth Median	-6.09	21.87	10.91	-2.14	3.21	41.34	14.32	-2.31		
American Funds Europacific Growth R6 (RERGX)	-14.91 (55)	31.17 (47)	1.01 (27)	-0.48 (63)	-2.29 (30)	20.58 (50)	19.64 (44)	-13.31 (56)		
+/- MSCI AC World ex USA (Net)	-0.71	3.98	-3.49	5.18	1.58	5.29	2.81	0.40		
Foreign Large Growth Median	-14.47	30.93	-1.45	0.48	-4.20	20.47	19.21	-12.66		
VY® Oppenheimer Global I (IGMIX)	-13.19 (82)	36.49 (5)	0.22 (87)	4.13 (13)	2.32 (62)	27.12 (39)	21.70 (9)	-8.13 (63)		
+/- MSCI World Index	-4.99	13.42	-7.93	4.45	-3.18	-0.25	5.16	-3.11		
World Large Stock Median	-9.71	23.71	5.53	-1.35	3.25	25.74	16.44	-7.25		
Oppenheimer Developing Markets I (ODVIX)	-11.79 (8)	35.33 (54)	7.38 (60)	-13.67 (46)	-4.39 (69)	8.85 (14)	21.43 (25)	-18.10 (37)		
+/- MSCI Emerging Markets (Net) Index	2.79	-1.95	-3.81	1.25	-2.20	11.45	3.20	0.32		
Diversified Emerging Mkts Median	-16.32	35.93	8.87	-14.01	-2.85	-1.34	18.98	-18.81		



Performance Summary - Calendar Year

	Performance (%)								
	2018	2017	2016	2015	2014	2013	2012	2011	
Vanguard Real Estate Index Institutional (VGSNX)	-5.93 (58)	4.93 (60)	8.51 (17)	2.45 (65)	30.28 (37)	2.48 (29)	17.65 (30)	8.70 (42)	
+/- Spliced Index	0.05	-0.14	-0.09	-0.07	-0.10	0.01	-0.13	0.02	
Real Estate Median	-5.41	5.37	6.31	3.09	29.75	1.75	16.92	8.05	
VY® T. Rowe Price Capital Apprec I (ITRIX)	0.74 (1)	15.39 (27)	8.31 (26)	5.47 (1)	12.47 (2)	22.49 (7)	14.78 (7)	3.16 (12)	
+/- 40% BBg US Agg 60% SP500	3.09	1.18	0.00	4.19	1.85	4.93	3.47	-1.53	
Allocation--50% to 70% Equity Median	-5.67	14.21	6.81	-1.14	6.01	17.18	12.22	0.06	
Vanguard Target Retirement Income Inv (VTINX)	-1.99 (15)	8.47 (59)	5.25 (51)	-0.17 (12)	5.54 (11)	5.87 (43)	8.23 (61)	5.25 (5)	
+/- Vanguard Target Income Composite Index	-0.02	-0.21	-0.10	-0.30	-0.22	-0.16	-0.19	-0.05	
Target-Date Retirement Median	-3.35	8.85	5.26	-1.12	4.35	5.49	8.69	2.64	
Vanguard Target Retirement 2015 Inv (VTXVX)	-2.97 (17)	11.50 (48)	6.16 (62)	-0.46 (26)	6.56 (6)	13.00 (37)	11.37 (54)	1.71 (37)	
+/- Vanguard Target 2015 Composite Index	-0.10	-0.11	-0.24	-0.24	-0.21	-0.27	-0.09	0.15	
Target-Date 2015 Median	-3.82	11.43	6.46	-0.91	5.26	12.19	11.50	0.97	
Vanguard Target Retirement 2020 Inv (VTWNX)	-4.24 (45)	14.08 (19)	6.95 (35)	-0.68 (37)	7.11 (4)	15.85 (26)	12.35 (43)	0.60 (41)	
+/- Vanguard Target 2020 Composite Index	-0.11	-0.14	-0.22	-0.28	-0.26	-0.36	-0.12	-0.39	
Target-Date 2020 Median	-4.39	12.68	6.52	-1.13	5.46	13.33	11.99	0.05	
Vanguard Target Retirement 2025 Inv (VTTVX)	-5.15 (45)	15.94 (22)	7.48 (34)	-0.85 (38)	7.17 (7)	18.14 (29)	13.29 (55)	-0.37 (35)	
+/- Vanguard Target 2025 Composite Index	-0.15	-0.14	-0.19	-0.27	-0.28	-0.38	-0.10	-0.44	
Target-Date 2025 Median	-5.37	14.88	7.12	-1.19	5.69	16.68	13.48	-1.46	
Vanguard Target Retirement 2030 Inv (VTHR30)	-5.86 (38)	17.52 (33)	7.85 (41)	-1.03 (42)	7.17 (11)	20.49 (30)	14.24 (45)	-1.27 (36)	
+/- Vanguard Target 2030 Composite Index	-0.14	-0.14	-0.26	-0.24	-0.34	-0.39	-0.07	-0.38	
Target-Date 2030 Median	-6.24	16.75	7.60	-1.32	5.84	18.58	14.06	-2.21	
Vanguard Target Retirement 2035 Inv (VTTH35)	-6.58 (33)	19.12 (35)	8.26 (43)	-1.26 (47)	7.24 (11)	22.82 (28)	15.16 (46)	-2.24 (36)	
+/- Vanguard Target 2035 Composite Index	-0.12	-0.13	-0.29	-0.24	-0.33	-0.45	-0.07	-0.38	
Target-Date 2035 Median	-7.14	18.49	8.04	-1.43	5.96	20.77	15.04	-2.99	
Vanguard Target Retirement 2040 Inv (VFOR30)	-7.32 (38)	20.71 (26)	8.73 (38)	-1.59 (52)	7.15 (17)	24.37 (24)	15.56 (40)	-2.55 (31)	
+/- Vanguard Target 2040 Composite Index	-0.10	-0.15	-0.25	-0.34	-0.46	-0.42	-0.02	-0.44	
Target-Date 2040 Median	-7.87	19.56	8.30	-1.56	6.03	21.82	15.22	-3.39	
Vanguard Target Retirement 2045 Inv (VTIV30)	-7.90 (40)	21.42 (21)	8.87 (40)	-1.57 (51)	7.16 (15)	24.37 (30)	15.58 (57)	-2.51 (26)	
+/- Vanguard Target 2045 Composite Index	-0.13	-0.13	-0.26	-0.32	-0.45	-0.42	0.00	-0.40	
Target-Date 2045 Median	-8.20	20.38	8.47	-1.55	6.08	22.99	15.67	-3.45	



Performance Summary - Calendar Year

	Performance (%)									
	2018	2017	2016	2015	2014	2013	2012	2011		
Vanguard Target Retirement 2050 Inv (VFIFX)	-7.90 (34)	21.39 (27)	8.85 (43)	-1.58 (52)	7.18 (18)	24.34 (33)	15.58 (57)	-2.54 (23)		
+/- Vanguard Target 2050 Composite Index	-0.13	-0.16	-0.28	-0.33	-0.43	-0.45	0.00	-0.43		
Target-Date 2050 Median	-8.38	20.61	8.57	-1.53	6.13	23.08	15.73	-3.89		
Vanguard Target Retirement 2055 Inv (VFFVX)	-7.89 (29)	21.38 (31)	8.88 (41)	-1.72 (58)	7.19 (20)	24.33 (33)	15.58 (68)	-2.27 (10)		
+/- Vanguard Target 2055 Composite Index	-0.12	-0.17	-0.25	-0.47	-0.42	-0.46	0.00	-0.16		
Target-Date 2055 Median	-8.47	20.82	8.54	-1.55	6.28	23.36	15.95	-4.15		
Vanguard Target Retirement 2060 Inv (VTTSX)	-7.87 (29)	21.36 (35)	8.84 (50)	-1.68 (67)	7.16 (41)	24.35 (-)	10.68 (-)	-		
+/- Vanguard Target 2060 Composite Index	-0.10	-0.19	-0.29	-0.43	-0.45	-0.44	-4.90	-		
Target-Date 2060+ Median	-8.49	20.95	8.82	-1.30	6.36	-	-	-		

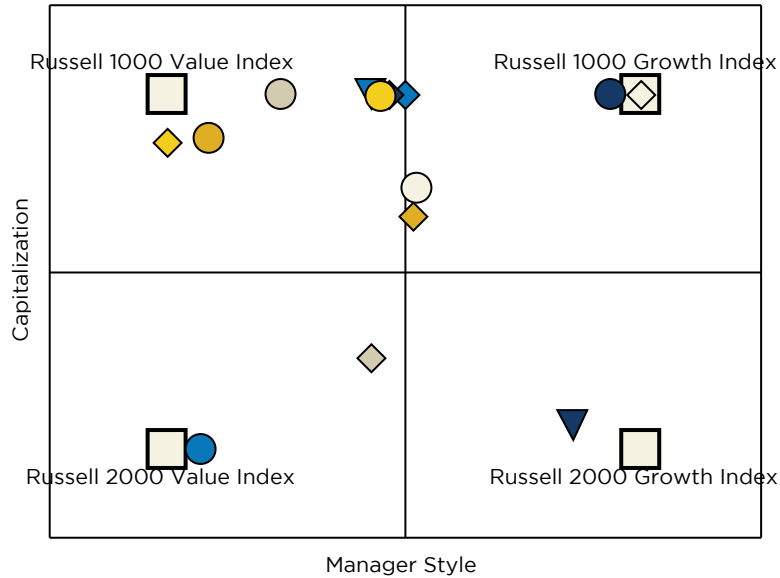
	Beta			Alpha			3 Yrs	Up Market 5 Yrs	10 Yrs	3 Yrs	Down Market 5 Yrs	10 Yrs	Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs							3 Yrs	5 Yrs	10 Yrs
Vanguard Treasury Money Market Investor (VUSXX)	0.97	0.97	0.99	0.01	0.00	-0.04	97.28	97.16	90.42				0.38	0.42	0.35
Blmbg. Barc. U.S. Treasury Bills: 1-3 Months													0.39	0.43	0.36
Money Market-Taxable Median	0.92	0.85	0.83	-0.25	-0.10	-0.07	73.51	71.27	66.66				0.36	0.37	0.30
Voya Fixed Plus Account III	0.03	-0.26	0.31	1.79	2.36	1.70	101.35	125.05	120.61				0.06	0.08	0.21
Ryan 3 Yr GIC Master Index													0.15	0.20	0.46
PIMCO Real Return Instl (PRRIX)	1.06	1.06	1.10	0.15	-0.41	-0.02	112.48	107.27	113.04	111.20	129.21	120.28	3.29	3.71	5.00
Inflation-Protected Bond Median	0.99	0.98	1.00	-0.01	-0.33	-0.29	95.67	94.46	95.68	100.93	105.77	109.63	3.06	3.45	4.44
Bloomberg Barclays U.S. TIPS Index													3.05	3.44	4.44
PIMCO Total Return Instl (PTTRX)	0.94	0.87	0.87	0.98	0.46	1.29	118.04	95.42	113.26	90.70	80.69	88.39	3.15	2.96	3.61
Intermediate Core Bond Median	0.99	0.97	1.00	-0.03	-0.11	0.12	97.34	94.29	100.24	98.70	99.66	99.17	3.24	3.10	3.26
Blmbg. Barc. U.S. Aggregate Index													3.24	3.14	3.18
Amana Participation Institutional (AMIPX)	0.70			-0.29			66.05			80.02			2.14		
Dow Jones Sukuk Index													2.41	2.40	4.30
BlackRock Equity Dividend Instl (MADVX)	0.99	0.96	0.84	1.36	1.46	1.24	108.96	105.61	90.04	102.08	91.06	82.36	11.12	10.01	11.76
Large Value Median	1.01	0.99	0.99	-0.07	-0.48	-0.73	102.56	96.65	95.70	103.91	99.16	103.77	11.37	10.41	13.60
Russell 1000 Value Index													10.99	10.19	13.55
American Funds Fundamental Invs R6 (RFNGX)	0.89	0.92	0.99	0.44	0.26	-0.60	91.88	94.83	96.15	90.03	96.03	100.32	11.08	10.10	13.17
Large Blend Median	1.00	1.00	1.01	-0.66	-1.04	-0.98	96.89	93.40	97.37	101.53	103.88	104.74	12.21	10.82	13.42
S&P 500 Index													12.21	10.74	13.12
Parnassus Core Equity Institutional (PRILX)	0.82	0.82	0.84	2.66	1.50	1.85	92.58	87.54	90.31	68.28	65.87	71.74	10.27	9.19	11.48
Large Blend Median	1.00	1.00	1.01	-0.66	-1.04	-0.98	96.89	93.40	97.37	101.53	103.88	104.74	12.21	10.82	13.42
S&P 500 Index													12.21	10.74	13.12
Vanguard Institutional Index I (VINIX)	1.00	1.00	1.00	-0.04	-0.03	-0.02	99.87	99.87	99.92	100.13	100.13	100.11	12.21	10.74	13.12
Large Blend Median	1.00	1.00	1.01	-0.66	-1.04	-0.98	96.89	93.40	97.37	101.53	103.88	104.74	12.21	10.82	13.42
S&P 500 Index													12.21	10.74	13.12
Amana Growth Institutional (AMIGX)	1.09	1.06	0.93	3.00	1.82	0.48	116.07	110.31	93.94	76.31	77.01	87.69	14.02	12.12	12.88
Large Growth Median	1.11	1.10	1.07	1.46	0.23	-0.46	113.63	107.74	104.46	90.72	93.91	106.69	14.31	12.65	14.93
S&P 500 Index													12.21	10.74	13.12

	Beta			Alpha			Up Market			Down Market			Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
Voya Large Cap Growth Port I (IEOHX)	0.93	0.96	1.01	0.04	-0.19	-0.44	93.14	94.72	99.18	91.13	95.01	100.40	13.58	11.98	14.28
Large Growth Median	0.97	0.99	1.03	-0.07	-1.26	-1.46	95.67	93.80	97.08	98.89	104.63	107.67	14.31	12.65	14.93
Russell 1000 Growth Index													14.47	12.37	13.94
American Century Mid Cap Value I (AVUAX)	0.97	0.95	0.83	-0.40	1.53	1.75	95.19	100.91	90.24	98.42	83.27	80.71	12.63	11.06	12.93
Mid-Cap Value Median	1.03	1.01	1.00	-0.27	-1.15	-1.89	101.29	95.17	95.27	104.43	105.13	110.49	13.61	12.15	15.87
Russell Midcap Value Index													12.87	11.53	15.39
Vanguard Mid Cap Index Institutional (VMCIX)	1.00	1.00	1.03	-0.03	-0.02	-0.30	99.89	99.84	101.48	100.05	99.98	103.18	13.75	12.01	15.54
Mid-Cap Blend Median	0.98	1.00	1.03	-1.32	-1.68	-1.51	93.82	93.01	95.91	111.72	122.73	113.36	14.04	12.59	15.81
CRSP U.S. Mid Cap TR Index													13.75	12.01	15.11
Champlain Mid Cap Institutional (CIPIX)	0.75	0.80	0.83	4.63	3.77	2.35	95.17	102.27	92.98	71.97	80.11	80.99	11.86	11.37	13.55
Mid-Cap Growth Median	1.00	1.02	1.01	-0.52	-1.08	-1.04	99.57	99.00	96.32	106.34	107.23	103.59	15.64	14.21	16.44
Russell Midcap Growth Index													15.20	13.30	15.70
American Beacon Small Cp Val Inst (AVFIX)	1.03	0.97	1.05	-1.27	-0.40	0.14	95.16	91.37	104.50	101.75	92.09	102.33	16.79	14.81	18.49
Small Value Median	0.97	0.93	0.98	-1.04	-0.64	0.03	91.59	89.16	97.53	101.43	93.19	97.22	16.13	14.47	17.38
Russell 2000 Value Index													16.23	15.09	17.49
Vanguard Small Cap Index I (VSCIX)	1.00	1.00	1.00	0.01	0.02	-0.30	100.10	100.12	98.96	100.02	99.94	100.65	15.07	13.80	16.91
Small Blend Median	1.00	1.01	1.00	-1.34	-1.39	-1.68	96.28	96.00	94.24	109.82	108.73	106.73	15.80	14.62	17.27
CRSP U.S. Small Cap TR Index													15.06	13.79	16.87
Voya SmallCap Opportunities Port I (IVSOX)	1.04	0.98	0.98	-4.09	-1.46	0.02	86.22	88.64	95.16	106.05	94.93	90.05	17.92	16.27	17.67
Small Growth Median	0.97	0.95	0.98	1.69	1.24	0.85	101.45	99.53	100.03	96.19	92.97	95.57	17.27	16.35	17.91
Russell 2000 Growth Index													17.15	16.44	17.88
American Funds Europacific Growth R6 (RERGX)	1.17	1.05	1.01	-0.03	2.21	1.55	115.05	118.27	106.59	112.21	94.78	93.37	13.63	12.56	15.45
Foreign Large Growth Median	1.17	1.04	1.00	-0.79	1.58	1.63	112.16	116.40	108.39	123.19	100.57	96.71	13.85	12.76	15.58
MSCI AC World ex USA (Net)													11.43	11.55	15.11
VY® Oppenheimer Global I (IGMIX)	1.25	1.28	1.16	0.77	-0.90	-0.65	125.54	126.24	116.41	110.29	141.28	128.92	15.34	14.69	16.41
World Large Stock Median	0.99	1.00	1.04	-0.82	-1.14	-0.97	92.33	91.98	97.18	91.61	101.86	103.86	12.07	11.18	14.51
MSCI World Index													11.73	10.71	13.64
Oppenheimer Developing Markets I (ODVIX)	0.95	0.97	0.96	2.28	0.52	2.61	108.65	104.56	106.43	97.34	101.92	87.77	12.99	14.14	16.72
Diversified Emerging Mkts Median	1.04	0.99	1.01	-1.54	-0.25	-0.01	101.28	99.96	101.17	115.08	103.83	103.23	14.07	14.36	17.63
MSCI Emerging Markets (Net) Index													13.11	14.03	16.99

	Beta			Alpha			3 Yrs	Up Market		3 Yrs	Down Market		Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs		5 Yrs	10 Yrs		5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
Vanguard Real Estate Index Institutional (VGSNX)	1.00	1.00	1.00	-0.09	-0.10	-0.05	98.51	99.08	99.61	98.61	99.25	99.47	12.73	13.42	16.83
Real Estate Median	0.95	0.95	0.96	0.10	-0.09	-0.22	95.04	94.91	95.86	93.49	94.76	97.82	12.15	12.98	16.30
Spliced Index													12.65	13.38	16.82
VY® T. Rowe Price Capital Apprec I (ITRIX)	1.02	1.02	1.15	2.11	2.36	0.86	111.66	115.74	120.09	68.89	65.19	105.71	8.05	6.99	9.30
Allocation--50% to 70% Equity Median	1.02	1.04	1.13	-1.50	-2.49	-2.71	90.62	82.92	96.88	108.75	121.82	128.28	7.97	7.22	9.15
40% BBg US Agg 60% SP500													7.60	6.62	7.77
Vanguard Target Retirement Income Inv (VTINX)	0.99	0.99	1.00	-0.11	-0.12	-0.12	97.64	97.37	98.43	100.52	100.78	100.64	4.20	3.81	4.32
Target-Date Retirement Median	1.08	1.07	1.15	-0.84	-1.05	-1.39	100.48	94.71	99.68	123.94	130.94	135.13	4.63	4.25	5.04
Vanguard Target Income Composite Index													4.25	3.86	4.32
Vanguard Target Retirement 2015 Inv (VTXVX)	1.00	0.99	1.00	-0.19	-0.14	-0.11	98.39	97.79	99.05	102.79	101.25	100.75	5.25	4.92	7.39
Target-Date 2015 Median	1.12	1.10	1.02	-0.74	-0.82	-0.63	99.28	96.17	99.02	115.75	117.61	108.64	5.90	5.50	7.63
Vanguard Target 2015 Composite Index													5.25	4.97	7.40
Vanguard Target Retirement 2020 Inv (VTWNX)	1.00	0.99	1.00	-0.22	-0.16	-0.25	98.23	97.90	98.76	101.73	100.92	101.79	6.60	6.09	8.59
Target-Date 2020 Median	0.95	0.92	0.97	-0.54	-0.57	-0.67	89.29	87.91	94.29	99.73	101.58	100.11	6.34	5.80	8.45
Vanguard Target 2020 Composite Index													6.61	6.13	8.56
Vanguard Target Retirement 2025 Inv (VTTVX)	1.00	0.99	1.00	-0.23	-0.16	-0.25	97.84	97.65	98.74	99.24	99.61	100.99	7.58	6.94	9.67
Target-Date 2025 Median	0.98	0.96	1.02	-0.61	-0.61	-0.72	91.64	91.74	96.84	99.12	103.04	104.20	7.41	6.86	9.86
Vanguard Target 2025 Composite Index													7.58	7.00	9.63
Vanguard Target Retirement 2030 Inv (VTHR30)	1.00	0.99	1.00	-0.26	-0.17	-0.27	97.86	97.78	98.85	99.25	99.73	101.17	8.38	7.70	10.71
Target-Date 2030 Median	1.00	0.99	1.02	-0.71	-0.63	-0.60	94.68	94.56	97.30	102.30	105.34	101.97	8.42	7.86	10.93
Vanguard Target 2030 Composite Index													8.38	7.75	10.66
Vanguard Target Retirement 2035 Inv (VTTH35)	1.00	0.99	1.00	-0.24	-0.18	-0.27	97.91	97.72	98.84	99.24	99.68	101.00	9.17	8.45	11.72
Target-Date 2035 Median	1.01	1.01	1.01	-0.78	-0.64	-0.65	95.86	95.00	96.73	102.82	104.80	103.18	9.35	8.64	11.93
Vanguard Target 2035 Composite Index													9.18	8.51	11.68
Vanguard Target Retirement 2040 Inv (VFOR30)	1.00	0.99	1.00	-0.25	-0.21	-0.29	97.98	97.69	98.79	99.00	99.72	100.91	9.99	9.23	12.15
Target-Date 2040 Median	1.00	0.99	1.02	-0.88	-0.57	-0.71	94.21	93.76	96.22	100.57	101.59	103.38	10.00	9.21	12.37
Vanguard Target 2040 Composite Index													10.00	9.28	12.10
Vanguard Target Retirement 2045 Inv (VTIV30)	1.00	0.99	1.00	-0.25	-0.21	-0.28	98.16	97.71	98.81	99.37	99.62	100.84	10.54	9.61	12.29
Target-Date 2045 Median	1.00	1.00	1.03	-0.73	-0.61	-0.81	95.12	94.91	97.52	100.79	103.38	103.97	10.56	9.65	12.63
Vanguard Target 2045 Composite Index													10.54	9.66	12.25

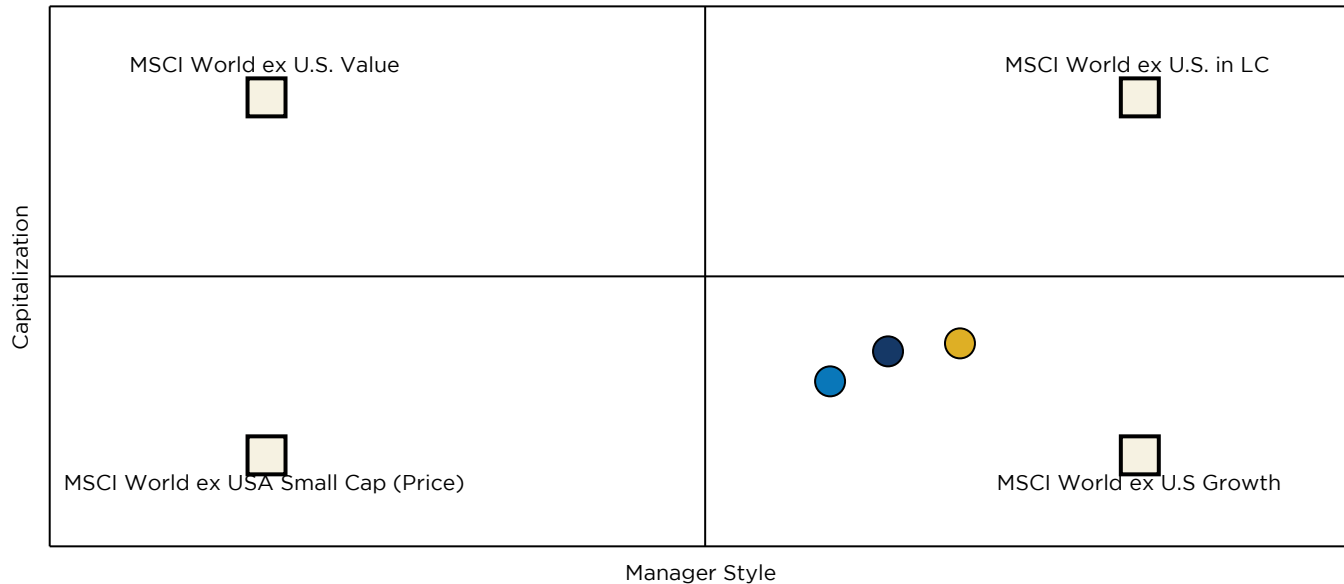
	Beta			Alpha			Up Market			Down Market			Standard Deviation		
	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs	3 Yrs	5 Yrs	10 Yrs
Vanguard Target Retirement 2050 Inv (VFIFX)	1.00	0.99	1.00	-0.28	-0.21	-0.28	98.01	97.66	98.73	99.28	99.60	100.78	10.54	9.61	12.28
Target-Date 2050 Median	1.01	1.00	1.05	-0.79	-0.67	-0.96	96.34	95.65	98.73	101.62	104.07	106.74	10.65	9.77	12.94
Vanguard Target 2050 Composite Index													10.54	9.66	12.25
Vanguard Target Retirement 2055 Inv (VFFVX)	1.00	0.99		-0.25	-0.25		97.99	97.50		99.06	99.82		10.52	9.61	
Target-Date 2055 Median	1.02	1.01		-0.80	-0.68		96.98	96.61		102.85	105.29		10.75	9.82	13.10
Vanguard Target 2055 Composite Index													10.54	9.66	
Vanguard Target Retirement 2060 Inv (VTTSX)	1.00	0.99		-0.25	-0.25		97.87	97.36		98.80	99.63		10.52	9.61	
Target-Date 2060+ Median	1.02	1.06		-0.72	-0.61		98.38	98.11		102.86	107.07		10.77	10.33	
Vanguard Target 2060 Composite Index													10.54	9.66	

Domestic Equity Style Analysis | Time Period: 5 Years



- Amana Growth Institutional (AMIGX)
- American Century Mid Cap Value I (AVUAX)
- BlackRock Equity Dividend Instl (MADVX)
- ◆ Parnassus Core Equity Institutional (PRILX)
- ◆ Vanguard Mid Cap Index Institutional (VMCIX)
- ◆ Vanguard Small Cap Index I (VSCIX)
- ▼ Voya SmallCap Opportunities Port I (IVSOX)
- American Beacon Small Cp Val Inst (AVFIX)
- American Funds Fundamental Invs R6 (RFNGX)
- Champlain Mid Cap Institutional (CIPIX)
- ◆ Vanguard Institutional Index I (VINIX)
- ◆ Vanguard Real Estate Index Institutional (VGSNX)
- ◇ Voya Large Cap Growth Port I (IEOHX)
- ▼ VY® T. Rowe Price Capital Apprec I (ITRIX)

International Equity Style Analysis | Time Period: 5 Years



- American Funds Europacific Growth R6 (RERGX)
- Oppenheimer Developing Markets I (ODVIX)
- VY® Oppenheimer Global I (IGMIX)

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Fund Factsheets: TIAA Mandatory Plan



CREF Money Market R3 (QCOMMIX)

Index: Blmbg. Barc. U.S. Treasury Bills: 1-3 Months

Category: Money Market-Taxable

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	0.55 (26)	1.10 (29)	2.06 (27)	1.04 (41)	0.64 (41)	0.32 (44)	1.46 (53)	0.50 (44)	0.13 (29)	0.00 (84)
Benchmark	0.62	1.22	2.27	1.33	0.83	0.45	1.82	0.82	0.26	0.03
Peer Group	0.51	1.01	1.89	0.98	0.59	0.30	1.47	0.46	0.03	0.01
Population	595	591	586	538	468	421	586	591	587	570

Fund Information

Fund Inception	04/24/2015
Fund Assets	9,869 Million
Portfolio Assets	5,057 Million
Total # of Holdings	195
% Assets in Top 10 Holdings	13.80 %
PM	Rolston,J
PM Tenure	7 Years 10 Months
Turnover	-
Gross Expense (%)	0.23 %
Net Expense (%)	0.23 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	-
Avg. Effective Maturity	-
Avg. Credit Quality	-
Avg. Weighted Coupon	-

Top Holdings (%)

United States Treasury Notes 2.36%	1.60
United States Treasury Bills 0.01%	1.53
United States Treasury Bills 0.01%	1.52
United States Treasury Bills 0.01%	1.44
Federal Home Loan Banks 0.01%	1.42
Federal Home Loan Banks 0.01%	1.31
Federal Home Loan Banks 0.01%	1.27
Federal Home Loan Banks 0.01%	1.26
United States Treasury Bills 0.01%	1.23
United States Treasury Bills 0.01%	1.22

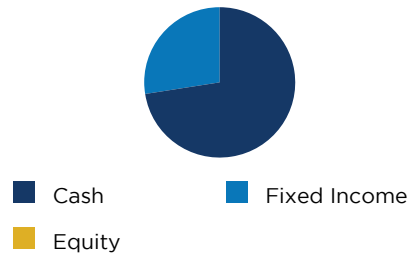
Fund Statistics

	3 Years	10 Years
Standard Deviation	0.22	0.18
vs. Blmbg. Barc. U.S. Treasury Bills: 1-3 Months		
Beta	0.96	0.87
Alpha	-0.24	-0.08
Information Ratio	-6.02	-3.20
Tracking Error	0.05	0.04
R-Squared	0.96	0.97
Up Market Capture	78.35	69.94
Down Market Capture	-	-3.90
Consistency	2.78	7.50

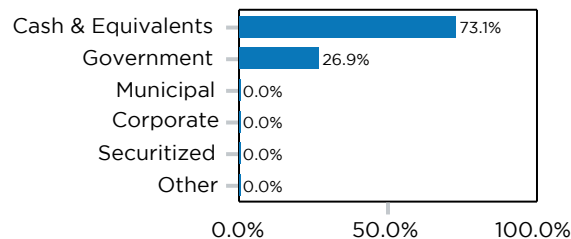
vs. Risk Free

Sharpe Ratio	-5.07	-2.75
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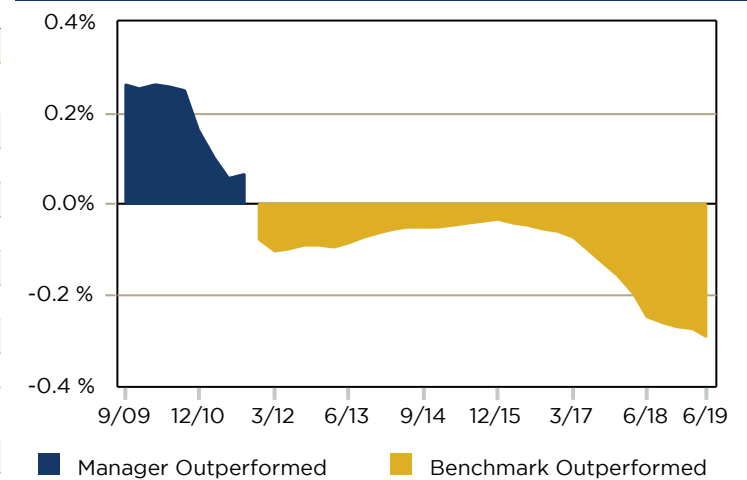
Asset Allocation



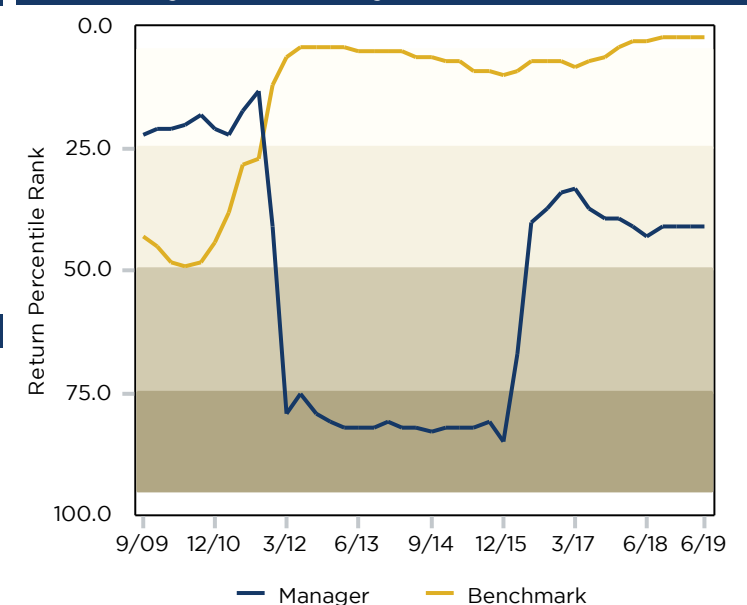
Sector Allocation



3 Years Rolling Excess Performance

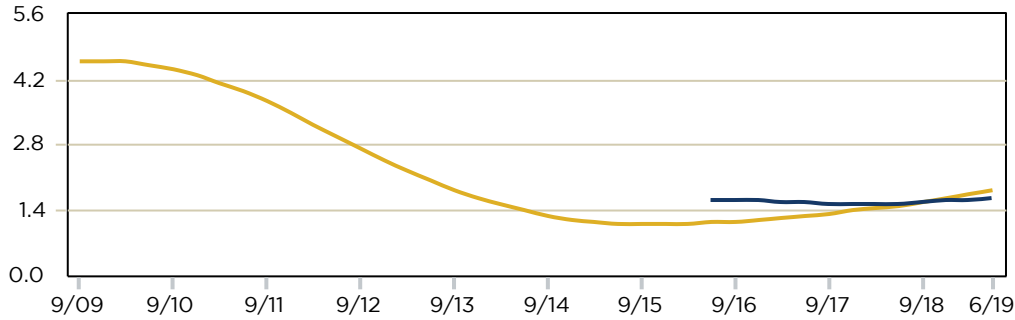
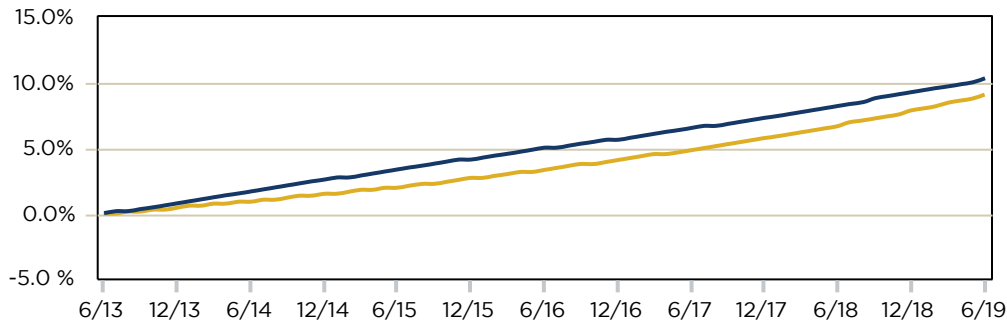
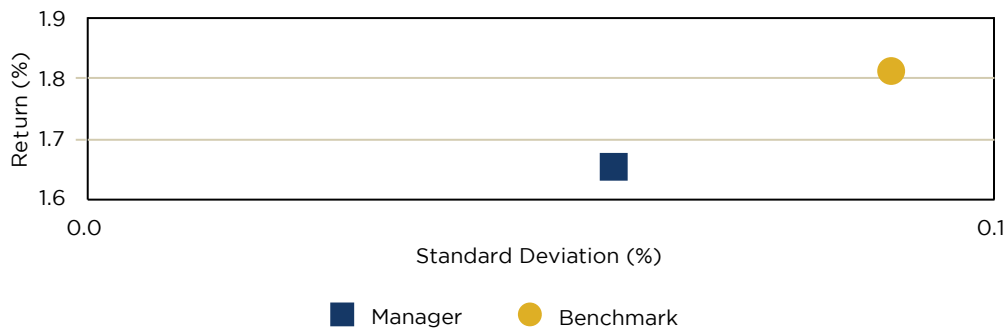


3 Years Rolling Percentile Ranking



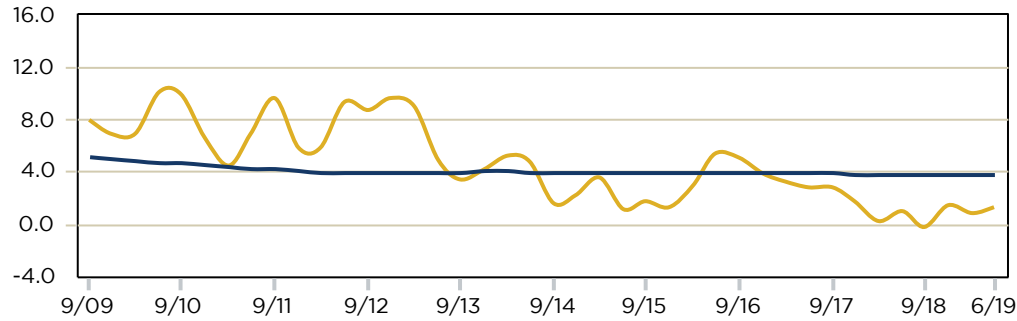
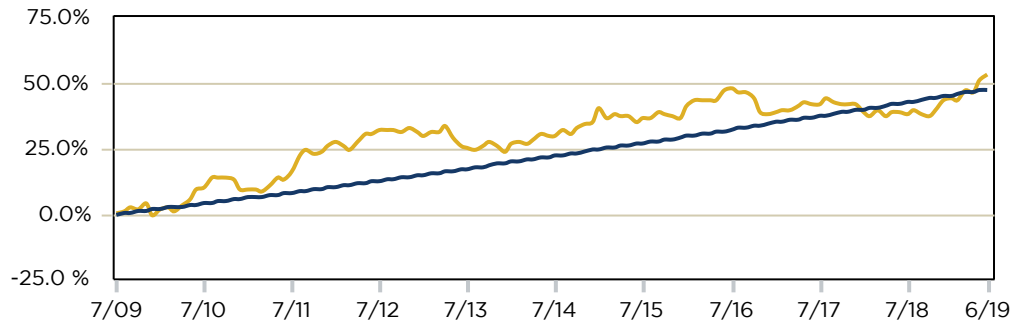
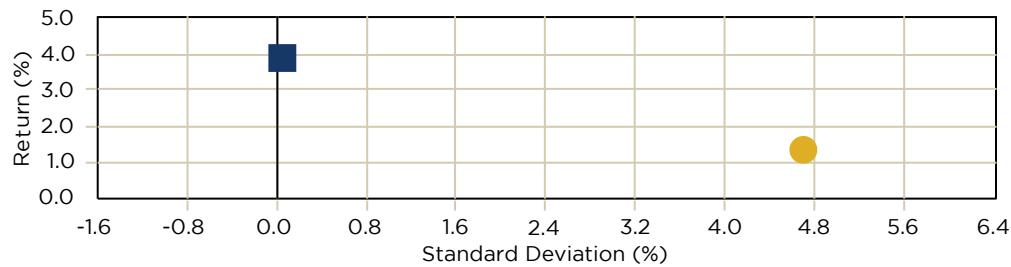
Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	0.46	0.92	1.88	1.65	1.63	-	1.81	1.51	1.46	1.60
Benchmark	0.58	1.15	2.20	1.81	1.56	-	1.96	1.60	1.39	1.16

Return (Rolling 36 Months)

Growth of a Dollar

Risk-Reward


Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	0.92	1.86	3.84	3.87	3.92	4.00	3.86	3.80	4.11	3.91
Benchmark	3.95	6.93	10.06	1.30	3.32	4.39	0.90	2.55	1.05	1.63

Return (Rolling 36 Months)

Growth of a Dollar

Risk-Reward


■ Manager ● Benchmark



CREF Inflation-Linked Bond R3 (QCILIX)

Index: Blmbg. Barc. U.S. TIPS 1-10 Year

Category: Inflation-Protected Bond

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.36 (70)	4.98 (76)	4.40 (40)	1.72 (66)	1.28 (46)	3.19 (49)	-0.49 (17)	1.85 (77)	4.23 (56)	-1.68 (42)
Benchmark	2.53	5.17	4.67	1.93	1.42	2.93	-0.25	1.90	4.01	-0.52
Peer Group	2.58	5.88	4.24	1.94	1.23	3.16	-1.51	2.74	4.42	-1.90
Population	329	328	323	297	288	187	325	331	337	338

Fund Information

Fund Inception	04/24/2015
Fund Assets	6,601 Million
Portfolio Assets	3,490 Million
Total # of Holdings	45
% Assets in Top 10 Holdings	46.10 %
PM	Cerra,J/Travaglino,N
PM Tenure	15 Years 6 Months
Turnover	21.00 %
Gross Expense (%)	0.22 %
Net Expense (%)	0.22 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	4.84 Years
Avg. Effective Maturity	5.18 Years
Avg. Credit Quality	AA
Avg. Weighted Coupon	0.97 %

Top Holdings (%)

United States Treasury Notes 0.12%	5.41
United States Treasury Notes 0.12%	5.19
United States Treasury Notes 0.62%	5.16
United States Treasury Notes 0.12%	5.02
United States Treasury Notes 0.12%	4.94
United States Treasury Bonds 2.38%	4.55
United States Treasury Notes 0.12%	4.21
United States Treasury Notes 1.12%	3.98
United States Treasury Bonds 3.88%	3.96
United States Treasury Notes 0.62%	3.68

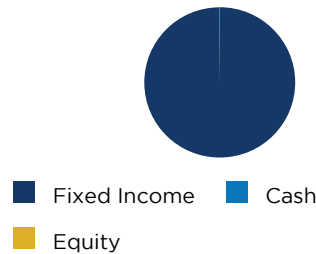
Fund Statistics

	3 Years	10 Years
Standard Deviation	2.18	4.26
vs. Blmbg. Barc. U.S. TIPS 1-10 Year		
Beta	1.01	1.25
Alpha	-0.22	-0.45
Information Ratio	-0.87	0.19
Tracking Error	0.24	1.55
R-Squared	0.99	0.90
Up Market Capture	96.54	118.67
Down Market Capture	102.87	127.14
Consistency	44.44	53.33

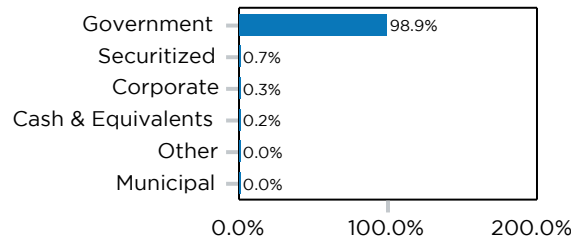
vs. Risk Free

Sharpe Ratio	0.18	0.65
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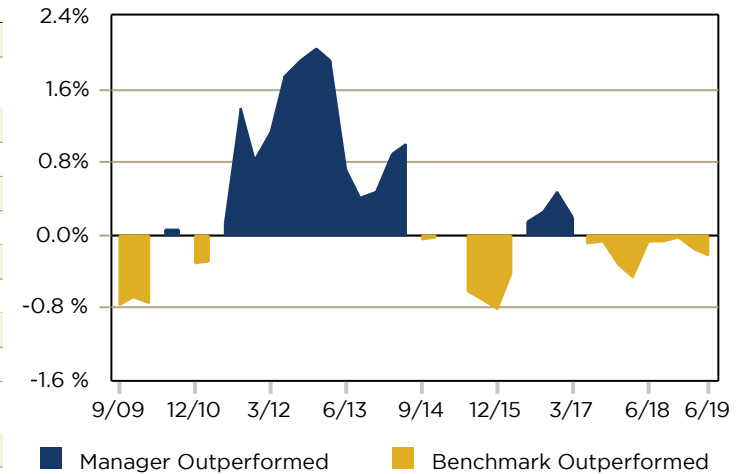
Asset Allocation



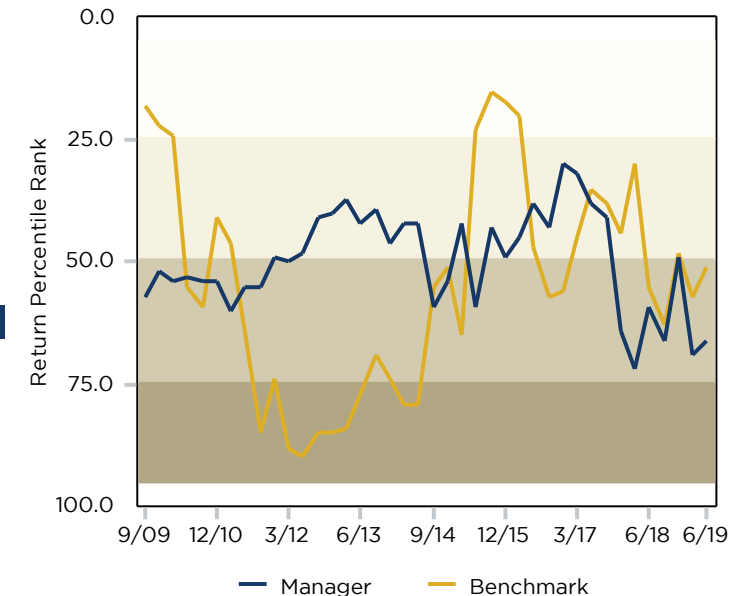
Sector Allocation



3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





CREF Bond Market R3 (QCBMIX)

Index: Blmbg. Barc. U.S. Aggregate Index

Category: Intermediate Core Bond

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.05 (39)	6.40 (32)	7.99 (17)	2.73 (15)	3.13 (13)	4.09 (40)	-0.19 (43)	4.12 (16)	3.47 (17)	0.51 (33)
Benchmark	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55
Peer Group	2.98	6.08	7.57	2.21	2.70	3.90	-0.31	3.40	2.59	0.27
Population	920	900	829	660	613	532	817	783	822	832

Fund Information

Fund Inception	04/24/2015
Fund Assets	13,874 Million
Portfolio Assets	6,931 Million
Total # of Holdings	1775
% Assets in Top 10 Holdings	8.75 %
PM	Cerra,J/Higgins,J
PM Tenure	7 Years 10 Months
Turnover	106.00 %
Gross Expense (%)	0.27 %
Net Expense (%)	0.27 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	5.49 Years
Avg. Effective Maturity	7.77 Years
Avg. Credit Quality	A
Avg. Weighted Coupon	3.45 %

Top Holdings (%)

Federal National Mortgage Asso	1.32
United States Treasury Notes 0.03%	0.96
Federal National Mortgage Asso	0.94
United States Treasury Bonds 0.03%	0.92
United States Treasury Notes 0.03%	0.91
Government National Mortgage A	0.82
Federal National Mortgage Asso	0.76
United States Treasury Bonds 0.02%	0.74
Federal Home Loan Mortgage Cor	0.71
United States Treasury Bonds 0.03%	0.68

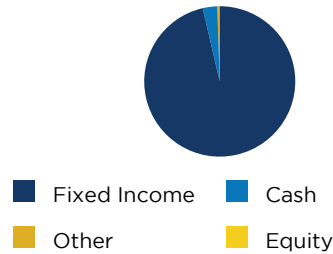
Fund Statistics

	3 Years	10 Years
Standard Deviation	2.79	2.82
vs. Blmbg. Barc. U.S. Aggregate Index		
Beta	0.93	0.96
Alpha	0.57	0.32
Information Ratio	0.99	0.37
Tracking Error	0.40	0.49
R-Squared	0.99	0.97
Up Market Capture	98.62	100.88
Down Market Capture	83.41	94.37
Consistency	69.44	59.17

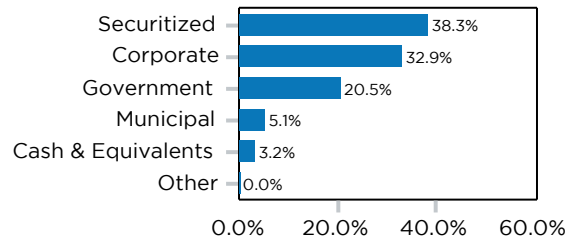
vs. Risk Free

Sharpe Ratio	0.51	1.28
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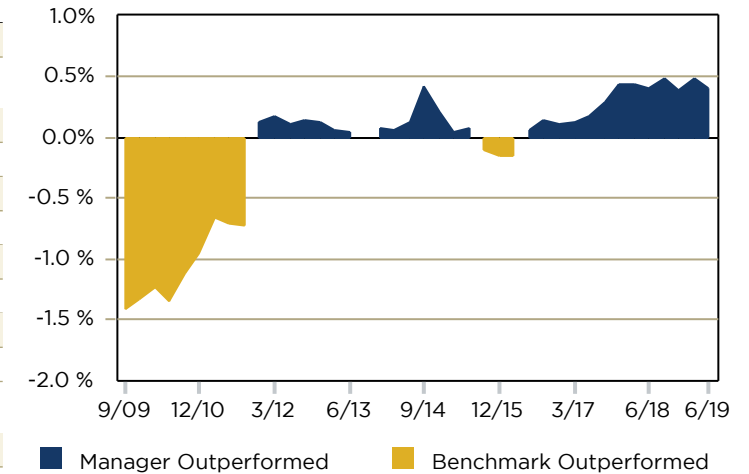
Asset Allocation



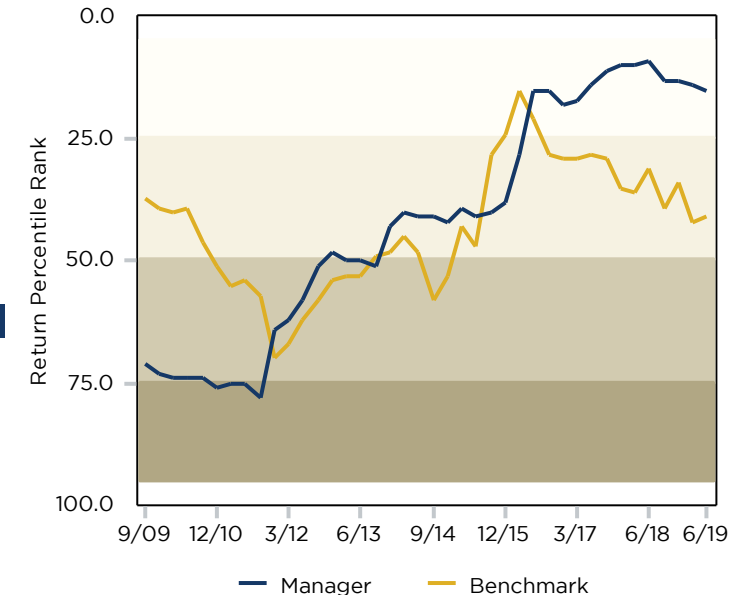
Sector Allocation



3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.09	4.56	5.65	2.31	-	-	0.11	2.68	2.56	-
Benchmark	3.16	6.98	8.74	3.73	-	-	0.27	4.31	4.01	-

Fund Information

Fund Inception	09/28/2015
Fund Assets	85 Million
Portfolio Assets	63 Million
Total # of Holdings	29
% Assets in Top 10 Holdings	40.38 %
PM	Drum,P/Fegley,B
PM Tenure	3 Years 9 Months
Turnover	23.00 %
Gross Expense (%)	0.62 %
Net Expense (%)	0.62 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	3.39 Years
Avg. Effective Maturity	3.89 Years
Avg. Credit Quality	BB
Avg. Weighted Coupon	3.81 %

Top Holdings (%)

EMG Sukuk Ltd. 4.56%	4.28
KSA Sukuk Limited 3.63%	4.28
Equate Sukuk Spc	4.25
Oman Sovereign Sukuk S.A.O.C 4.4%	4.02
MAF Sukuk Ltd 4.64%	4.01
MAF Sukuk Ltd 4.5%	4.01
SoQ Sukuk A Q.S.C. 3.24%	3.96
Eib Sukuk	3.88
QIB Sukuk Ltd. 2.75%	3.85
Al Shindagha Sukuk Ltd 3.78%	3.84

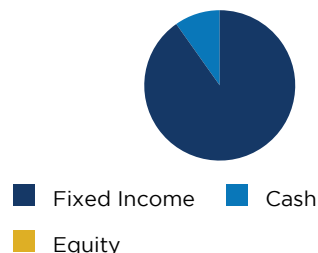
Fund Statistics

	3 Years	10 Years
Standard Deviation	1.69	-
vs. Sukuk Index		
Beta	0.70	-
Alpha	-0.27	-
Information Ratio	-1.59	-
Tracking Error	0.88	-
R-Squared	0.90	-
Up Market Capture	64.49	-
Down Market Capture	69.57	-
Consistency	30.56	-

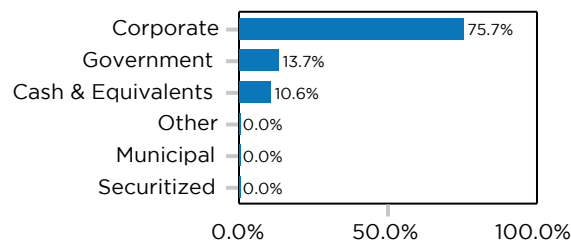
vs. Risk Free

Sharpe Ratio	0.58	-
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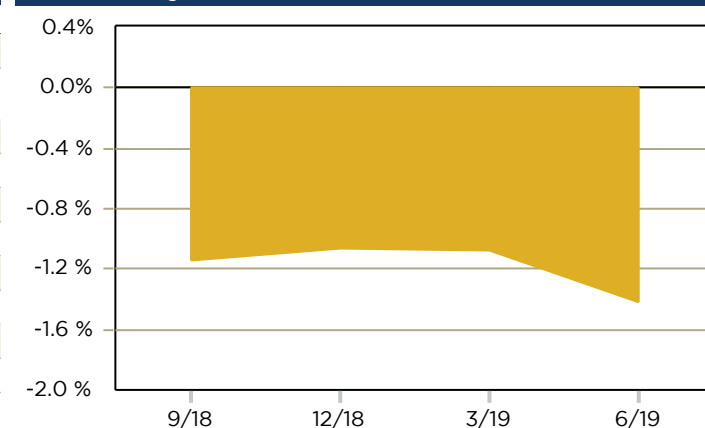
Asset Allocation



Sector Allocation



3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

3 Years Rolling Percentile Ranking



TIAA-CREF Large-Cap Value Instl (TRLIX)

Index: Russell 1000 Value Index

Category: Large Value

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.53 (13)	17.00 (16)	1.68 (84)	8.55 (85)	5.66 (82)	11.83 (64)	-14.10 (94)	12.52 (87)	18.60 (16)	-4.69 (69)
Benchmark	3.84	16.24	8.46	10.19	7.46	13.19	-8.27	13.66	17.34	-3.83
Peer Group	3.37	14.98	6.00	10.28	6.88	12.21	-8.90	16.17	14.59	-3.54
Population	1,843	1,817	1,744	1,491	1,408	1,209	1,774	1,659	1,720	1,670

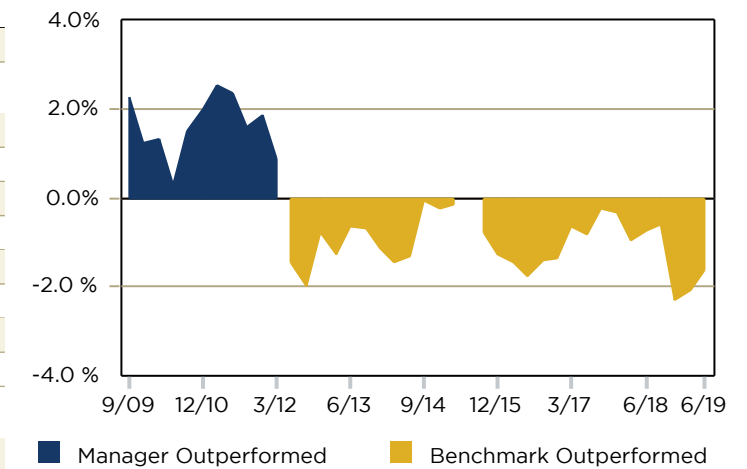
Fund Information

Fund Inception	10/01/2002
Fund Assets	5,989 Million
Portfolio Assets	2,160 Million
Total # of Holdings	86
% in Top 10	28.24 %
PM	Carr,C/Cutler,R
PM Tenure	16 Years 6 Months
Turnover	53.00 %
Gross Expense (%)	0.40 %
Net Expense (%)	0.40 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.13	14.39
vs. Russell 1000 Value Index		
Beta	1.08	1.09
Alpha	-2.17	-2.24
Information Ratio	-0.52	-0.39
Tracking Error	2.62	2.66
R-Squared	0.97	0.97
Up Market Capture	101.53	102.63
Down Market Capture	115.75	114.05
Consistency	44.44	49.17

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	175,183	130,324
Median Mkt. Cap (\$M)	71,685	9,656
Price/Earnings ratio	17.1	17.4
Price/Book ratio	2.6	2.3
5 Yr. EPS Growth Rate (%)	10.1	7.1
Current Yield (%)	2.3	2.6
Beta (5 Years, Monthly)	1.09	1.00
Number of Stocks	80	722
Debt to Equity	0.8	0.8
Forecast P/E	14.4	14.9
Forecast EPS Growth	9.8	9.3
Return on Equity	0.0	0.0

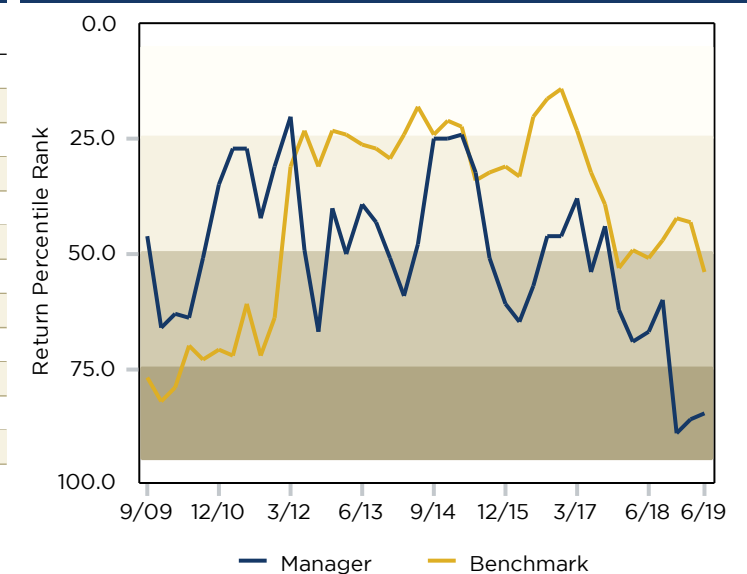
vs. Risk Free

Sharpe Ratio	0.59	0.82
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	6.7	7.1
Consumer Discretionary	3.0	5.3
Consumer Staples	6.2	7.8
Energy	8.4	9.0
Financials	24.4	22.5
Health Care	16.1	15.2
Industrials	10.8	8.0
Information Technology	13.0	9.7
Materials	4.8	4.0
Real Estate	1.6	5.0
Utilities	5.0	6.4
Total	100.0	100.0

3 Years Rolling Percentile Ranking

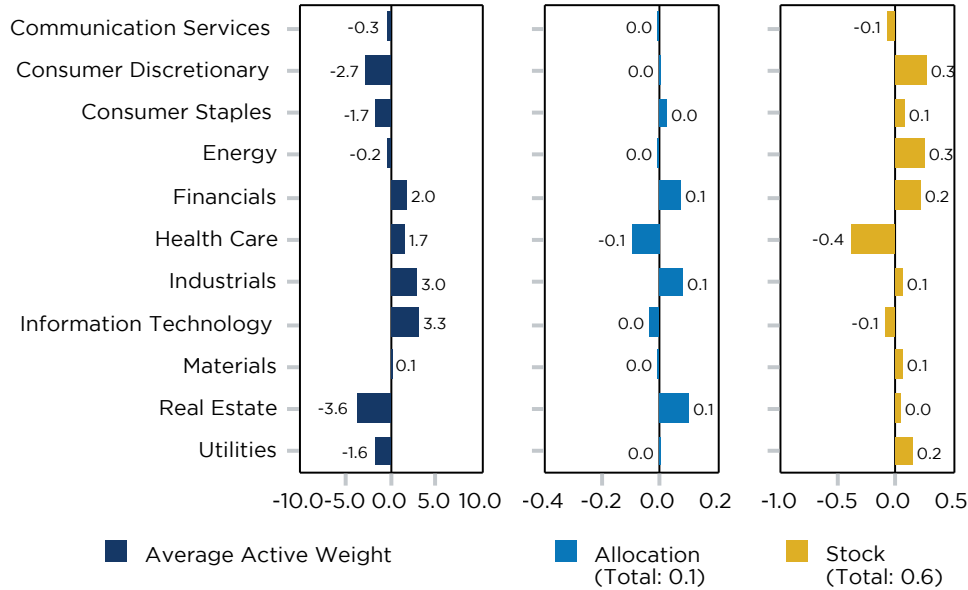


Country/Region Allocation

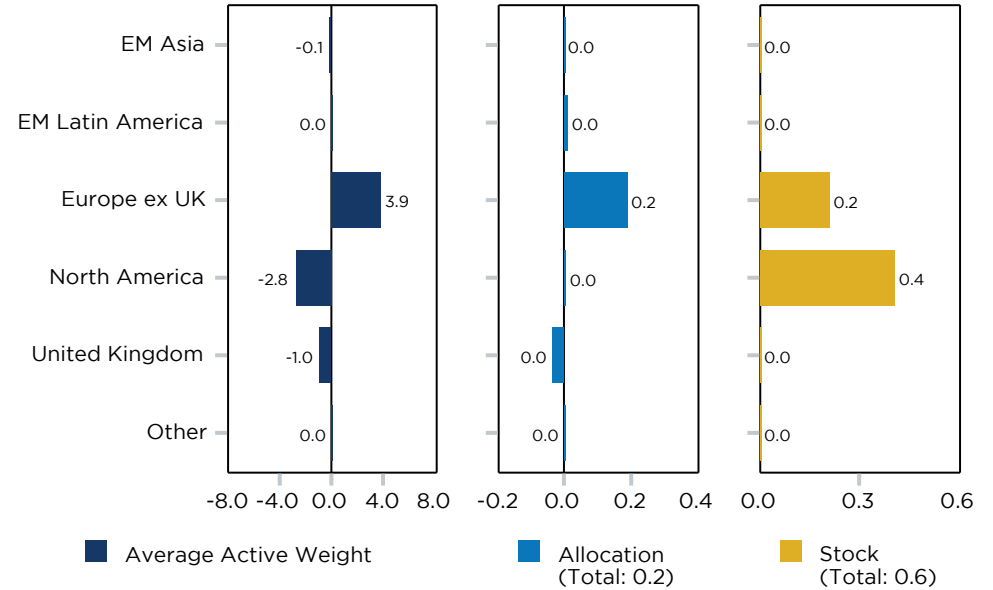
United States	92.4	95.3
Non-US Developed	7.6	4.6
Emerging Markets	0.0	0.1
Other	0.0	0.0
Total	100.0	100.0



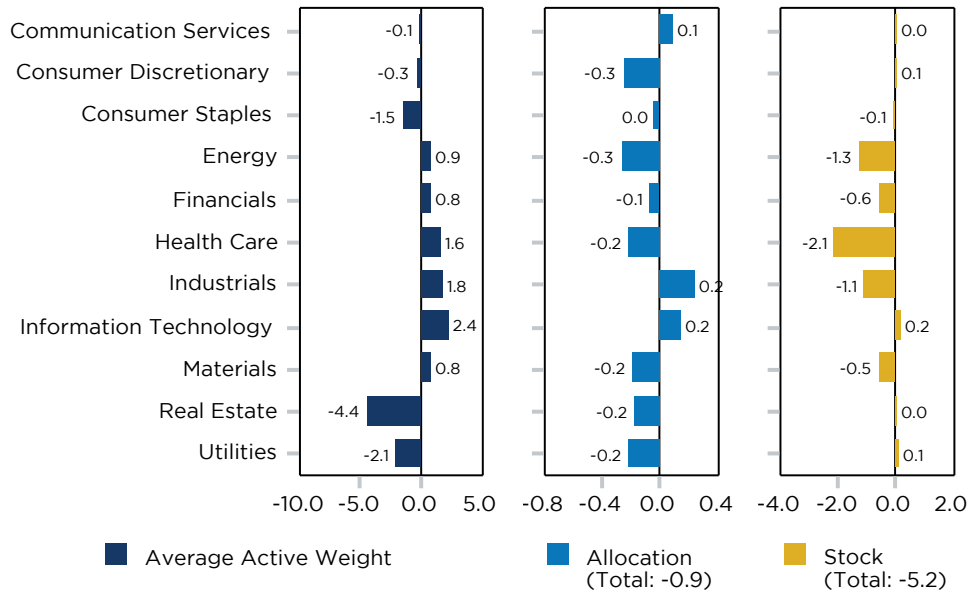
1 Quarter Sector Attribution



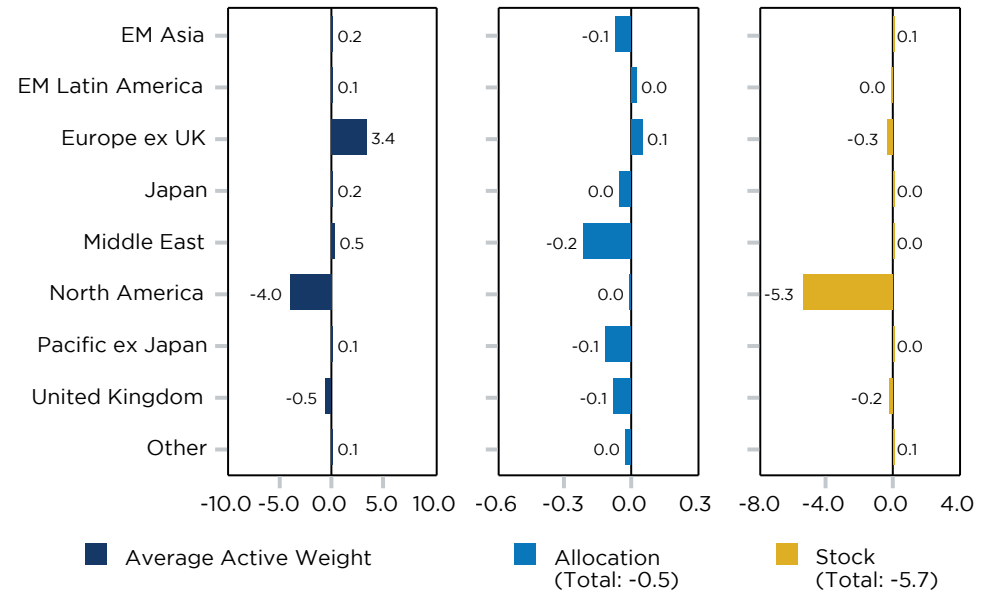
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





TIAA-CREF Large-Cap Value Instl (TRLIX)

Index: Russell 1000 Value Index
Return Date: 06/30/2019

Top Ten Securities

JPMorgan Chase & Co	4.6 %
Bank of America Corporation	3.6 %
Citigroup Inc	3.2 %
Johnson & Johnson	3.2 %
Procter & Gamble Co	2.5 %
Pfizer Inc	2.5 %
Chevron Corp	2.4 %
Verizon Communications Inc	2.3 %
The Walt Disney Co	2.0 %
Comcast Corp Class A	2.0 %
Total	28.2 %

Asset Allocation (%)

Equity	98.7
Cash	1.3
Fixed Income	0.0

Market Capitalization (%)

Giant	61.1
Large	32.1
Medium	6.8
Small	0.0
Micro	0.0

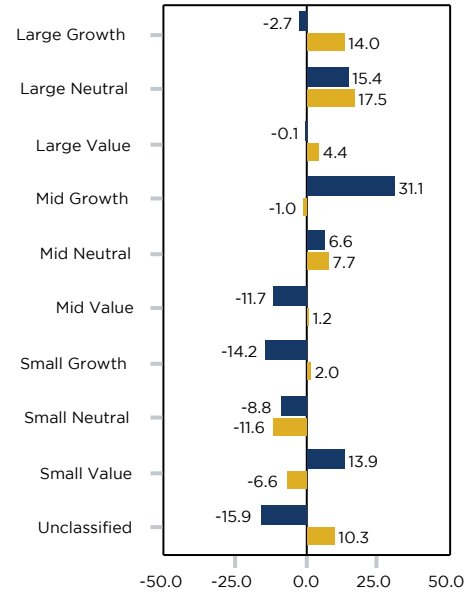
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
American Int'l Group Inc	1.24	0.25	0.20	24.48
Ingersoll-Rand PLC	1.40	0.09	0.18	17.84
Citigroup Inc	3.04	1.13	0.18	13.27
NVR Inc.	0.99	0.00	0.18	21.80
Ball Corp	0.98	0.15	0.14	21.26
JPMorgan Chase & Co	4.45	2.57	0.14	11.28
Microsoft Corp	1.66	0.36	0.13	14.00
Honeywell International Inc	1.72	0.34	0.09	10.40
Comcast Corp	2.79	1.38	0.03	6.31
Bank of America Corp	3.64	1.91	0.03	5.68

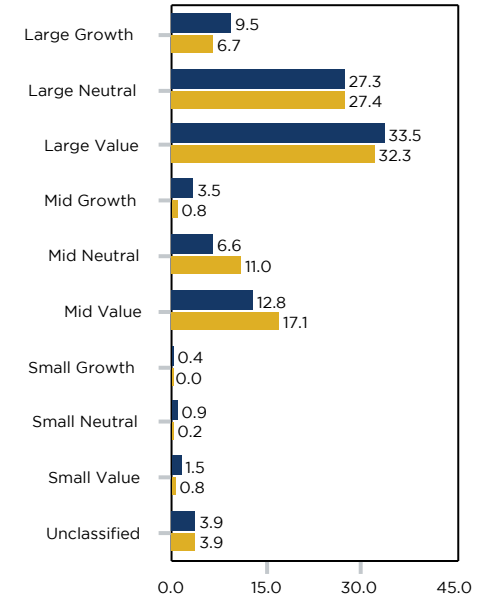
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
DuPont De Nemours Inc	1.81	0.93	-0.22	-20.61
Concho Resources Inc	1.47	0.14	-0.14	-6.91
DXC Technology Co	0.75	0.13	-0.11	-13.87
Zimmer Biomet Holdings Inc	1.15	0.20	-0.11	-7.61
Bank of New York	0.95	0.34	-0.10	-11.95
Philip Morris International Inc	1.50	1.05	-0.06	-9.84
Apergy Corp	0.28	0.02	-0.06	-18.31
Verizon Communications Inc	2.35	1.88	-0.03	-2.39
Intel Corp	1.94	1.86	-0.01	-10.31
Exxon Mobil Corp	1.41	2.63	0.10	-4.08

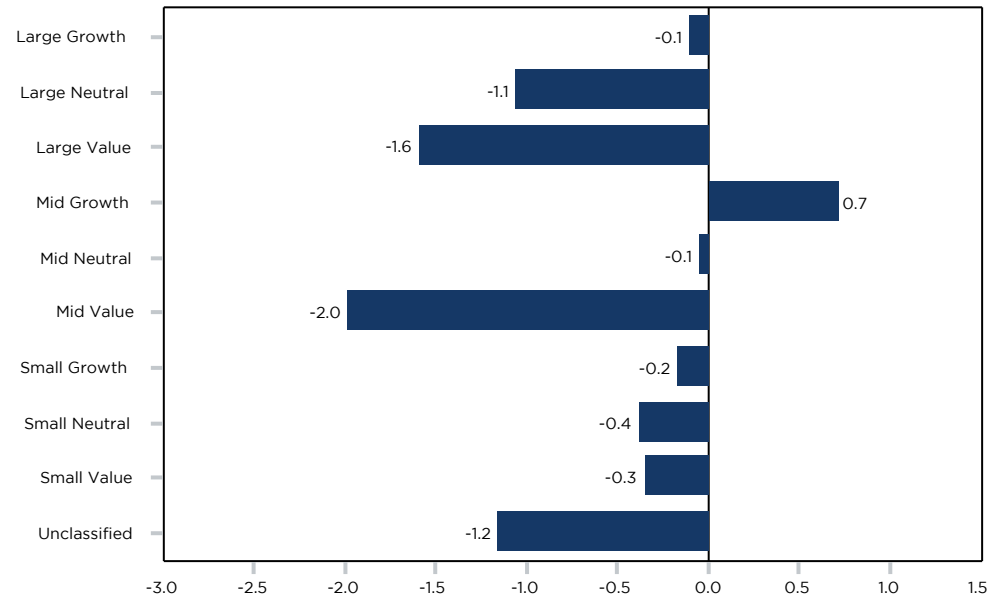
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





CREF Equity Index R3 (QCEQIX)

Index: Russell 3000 Index

Category: Large Blend

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.04 (55)	18.56 (30)	8.80 (52)	13.79 (36)	9.94 (38)	14.32 (28)	-5.37 (47)	20.84 (58)	12.49 (22)	0.24 (50)
Benchmark	4.10	18.71	8.98	14.02	10.19	14.67	-5.24	21.13	12.74	0.48
Peer Group	4.10	18.04	8.93	13.27	9.42	13.67	-5.62	21.15	11.15	0.22
Population	2,339	2,286	2,158	1,791	1,663	1,430	2,153	2,009	2,064	2,049

Fund Information

Fund Inception	04-2015
Fund Assets	19,382 Million
Portfolio Assets	9,009 Million
Total # of Holdings	2791
% Assets in Top 10 Holdings	17.9 %
PM	Campagna,P/Liao,L/Tran,D
PM Tenure	13 Years 6 Months
Turnover	3.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	61,193 (Million)
Price/Earnings	17
Price/Book	3
Dividend Yield	2.1 %

Top Holdings (%)

Microsoft Corp	3.4
Apple Inc	3.0
Amazon.com Inc	2.6
Facebook Inc A	1.5
Berkshire Hathaway Inc B	1.4
Johnson & Johnson	1.3
JPMorgan Chase & Co	1.3
Alphabet Inc Class C	1.2
Alphabet Inc A	1.2
Exxon Mobil Corp	1.1

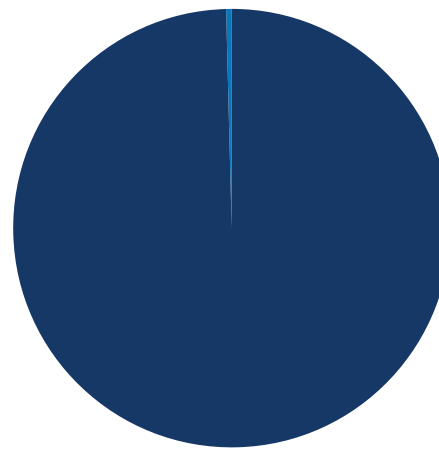
Fund Statistics

	3 Years	10 Years
Standard Deviation	12.33	13.07
vs. Russell 3000 Index		
Beta	1.00	1.00
Alpha	-0.18	-0.28
Information Ratio	-6.08	-7.01
Tracking Error	0.03	0.04
R-Squared	1.00	1.00
Up Market Capture	99.16	99.02
Down Market Capture	100.06	100.48
Consistency	5.56	2.50

vs. Risk Free

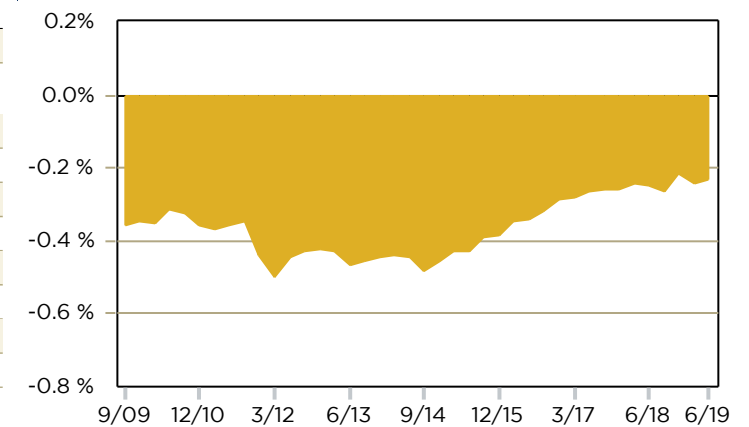
Sharpe Ratio	1.00	1.06
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Asset Allocation



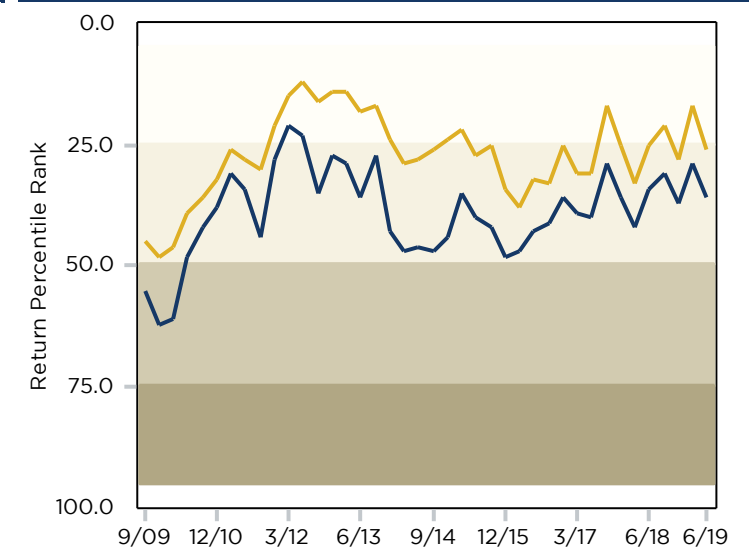
■ Equity
■ Cash
■ Fixed Income

3 Years Rolling Excess Performance



■ Manager Outperformed
■ Benchmark Outperformed

3 Years Rolling Percentile Ranking



— Manager
— Benchmark



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.29 (36)	18.50 (34)	10.35 (27)	14.12 (22)	10.64 (13)	14.62 (15)	-4.45 (24)	21.77 (31)	11.87 (32)	1.35 (22)
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38
Peer Group	4.10	18.04	8.93	13.27	9.42	13.67	-5.62	21.15	11.15	0.22
Population	2,339	2,286	2,158	1,791	1,663	1,430	2,153	2,009	2,064	2,049

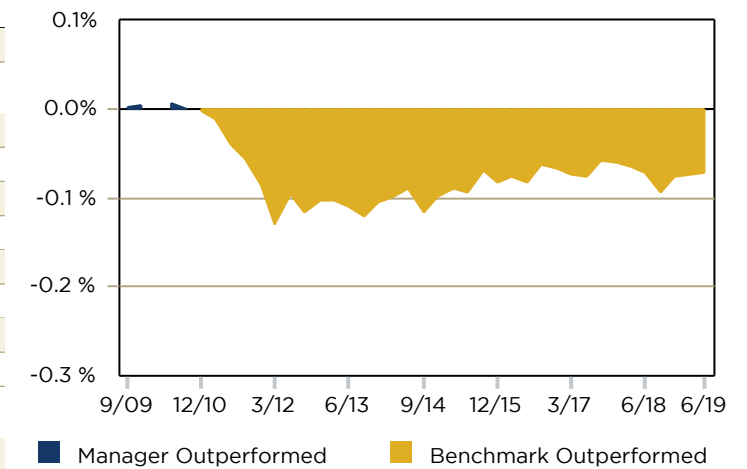
Fund Information

Fund Inception	10/01/2002
Fund Assets	5,253 Million
Portfolio Assets	3,858 Million
Total # of Holdings	510
% in Top 10	21.14 %
PM	Campagna,P/Liao,L/Tran,D
PM Tenure	13 Years 6 Months
Turnover	8.00 %
Gross Expense (%)	0.05 %
Net Expense (%)	0.05 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.02	12.67
vs. S&P 500 Index		
Beta	1.00	1.00
Alpha	-0.06	-0.07
Information Ratio	-1.20	-1.00
Tracking Error	0.05	0.08
R-Squared	1.00	1.00
Up Market Capture	99.79	99.77
Down Market Capture	100.12	100.14
Consistency	25.00	36.67

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	239,649	238,882
Median Mkt. Cap (\$M)	22,381	22,707
Price/Earnings ratio	20.5	20.4
Price/Book ratio	3.5	3.5
5 Yr. EPS Growth Rate (%)	15.3	15.5
Current Yield (%)	2.0	2.0
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	501	505
Debt to Equity	1.9	1.9
Forecast P/E	17.6	17.8
Forecast EPS Growth	12.2	12.1
Return on Equity	0.2	0.2

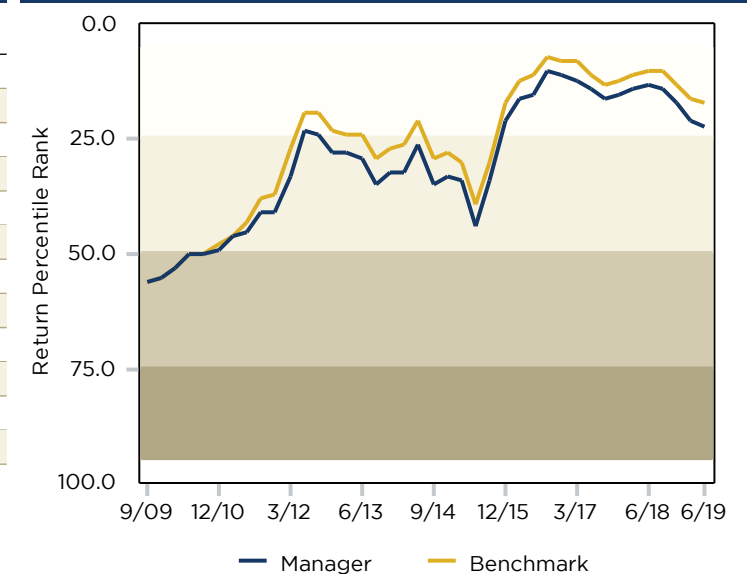
vs. Risk Free

Sharpe Ratio	1.05	1.11
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	10.1	10.2
Consumer Discretionary	10.3	10.2
Consumer Staples	7.3	7.3
Energy	5.0	5.0
Financials	13.2	13.1
Health Care	14.2	14.2
Industrials	9.4	9.4
Information Technology	21.6	21.5
Materials	2.5	2.8
Real Estate	3.0	3.1
Utilities	3.3	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking

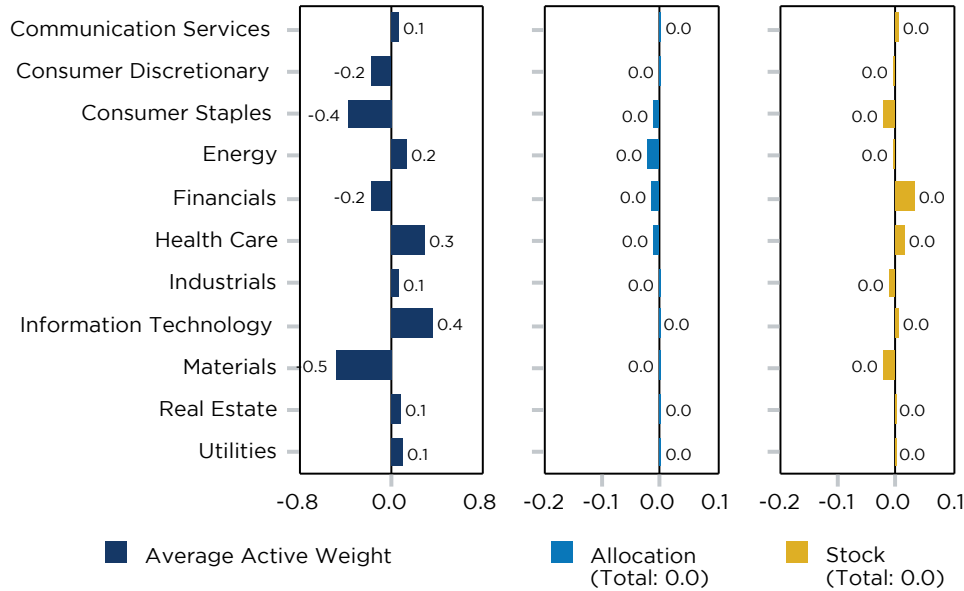


Country/Region Allocation

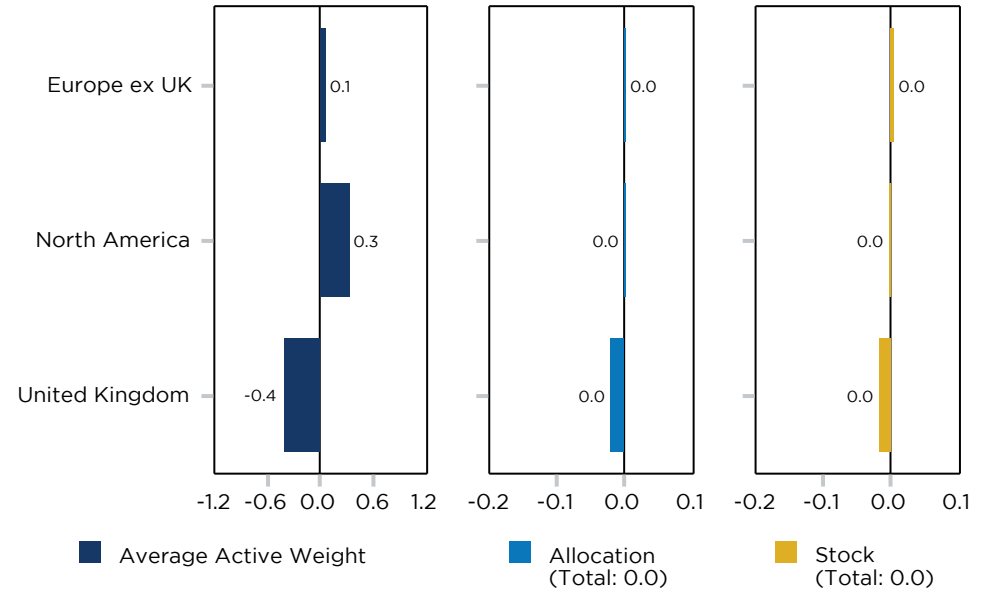
United States	97.0	96.5
Non-US Developed	3.0	3.5
Total	100.0	100.0



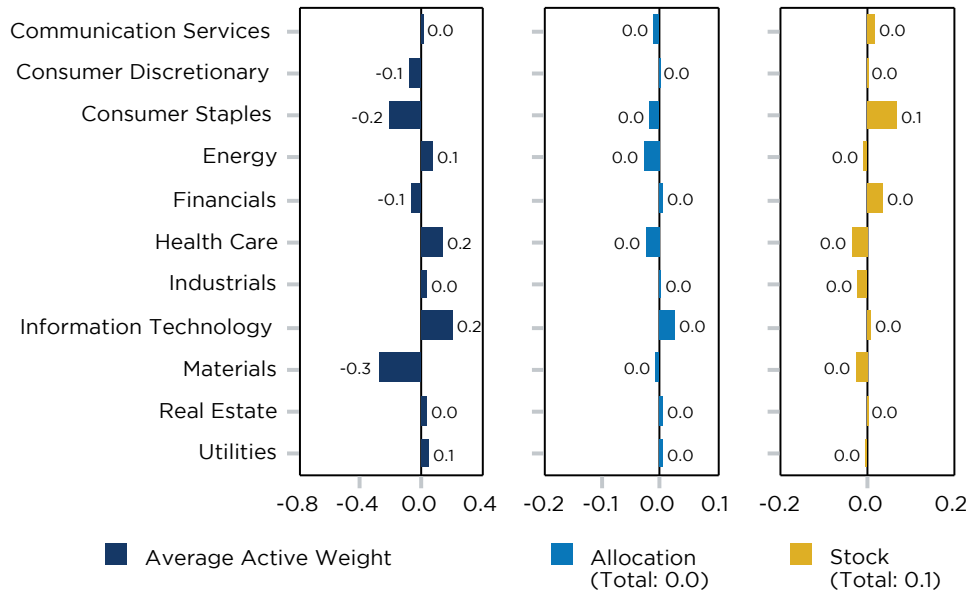
1 Quarter Sector Attribution



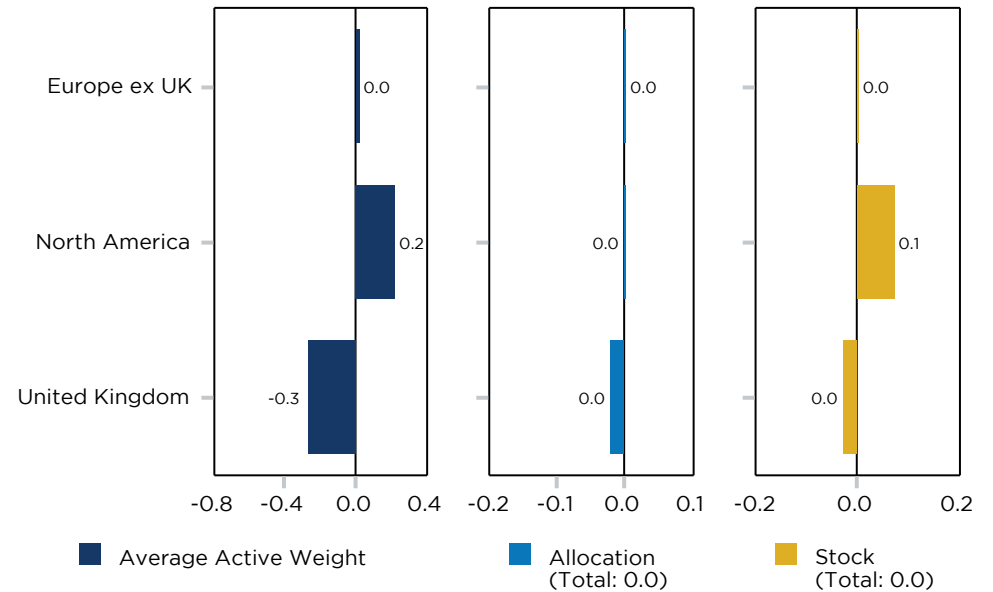
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

Microsoft Corp	4.1 %
Apple Inc	3.5 %
Amazon.com Inc	3.1 %
Facebook Inc A	1.9 %
Berkshire Hathaway Inc B	1.7 %
Johnson & Johnson	1.5 %
JPMorgan Chase & Co	1.5 %
Alphabet Inc Class C	1.3 %
Alphabet Inc A	1.3 %
Exxon Mobil Corp	1.3 %
Total	21.1 %

Asset Allocation (%)

Equity	99.1
Cash	1.0
Fixed Income	0.0
Market Capitalization (%)	
Giant	56.1
Large	34.2
Medium	9.8
Small	0.0
Micro	0.0

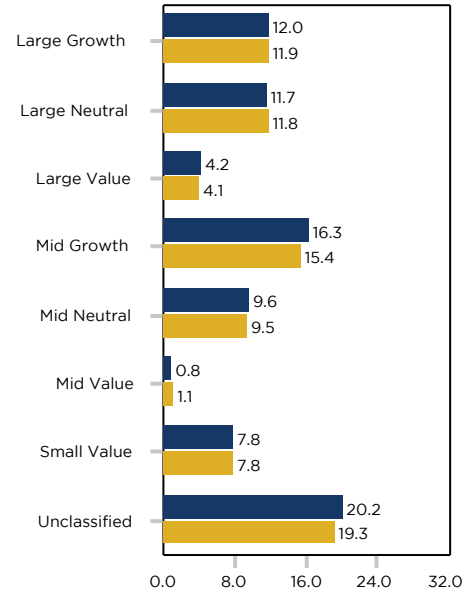
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Microsoft Corp	3.85	3.65	0.02	14.00
Facebook Inc	1.69	1.61	0.01	15.78
Walt Disney Co (The)	0.84	0.81	0.01	25.77
JPMorgan Chase & Co	1.41	1.34	0.00	11.28
Visa Inc	1.16	1.10	0.00	11.28
QUALCOMM Inc.	0.29	0.28	0.00	34.62
Apple Inc	3.62	3.62	0.00	4.60
Mastercard Inc	0.90	0.96	0.00	12.51
Berkshire Hathaway Inc	1.66	2.00	-0.01	6.11
Amazon.com Inc	3.13	3.53	-0.01	6.34

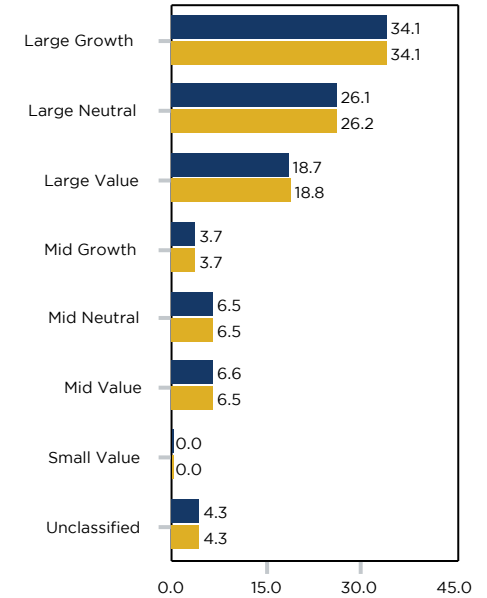
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Alphabet Inc	1.50	1.42	-0.01	-8.00
Intel Corp	1.03	0.98	-0.01	-10.31
Exxon Mobil Corp	1.46	1.38	-0.01	-4.08
Altria Group Inc	0.46	0.43	-0.01	-16.26
3M Co	0.51	0.48	-0.01	-15.85
DuPont De Nemours Inc	0.51	0.49	0.00	-20.61
Philip Morris International Inc	0.58	0.55	0.00	-9.84
Occidental Petroleum Corp	0.21	0.20	0.00	-22.81
Eli Lilly and Co	0.48	0.51	0.01	-14.15
Alphabet Inc	1.53	1.66	0.02	-7.88

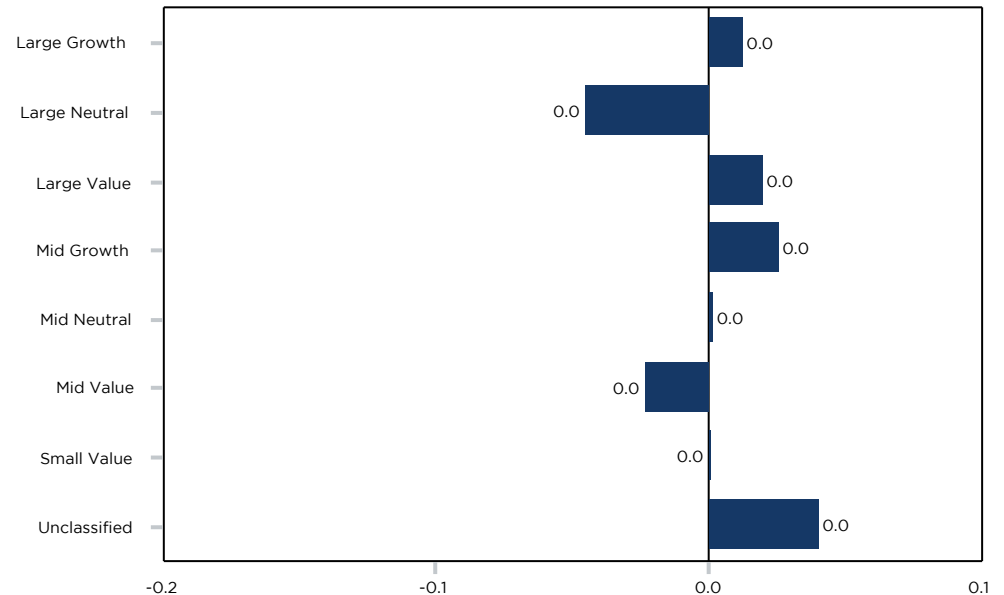
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year

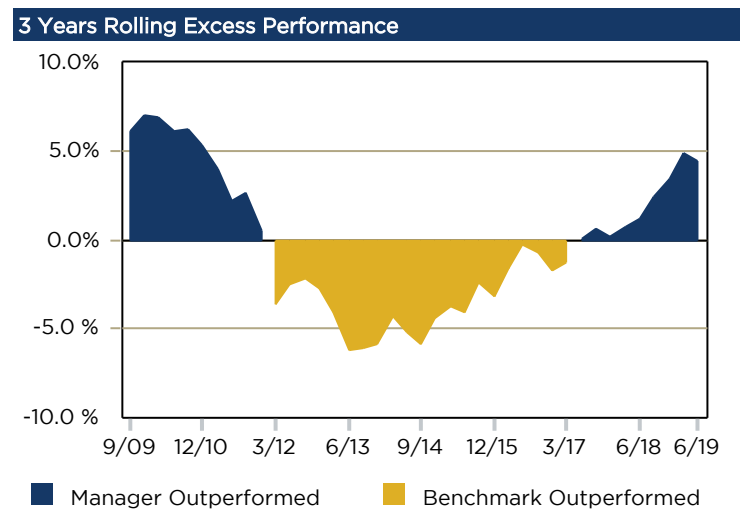




Trailing Performance													
	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015			
Manager	3.48 (80)	21.63 (45)	20.28 (3)	18.65 (34)	13.29 (28)	14.09 (73)	2.67 (11)	29.29 (46)	7.85 (16)	-0.21 (87)			
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38			
Peer Group	4.63	21.27	10.24	17.14	12.00	14.96	-1.81	28.69	2.90	4.49			
Population	2,134	2,089	2,005	1,713	1,635	1,397	2,011	1,881	1,985	1,993			

Fund Information	
Fund Inception	09/25/2013
Fund Assets	2,130 Million
Portfolio Assets	781 Million
Total # of Holdings	34
% in Top 10	42.07 %
PM	Kaiser,N/Klimo,S/Salam,M
PM Tenure	25 Years 4 Months
Turnover	0.00 %
Gross Expense (%)	0.85 %
Net Expense (%)	0.85 %
New Investors	Open

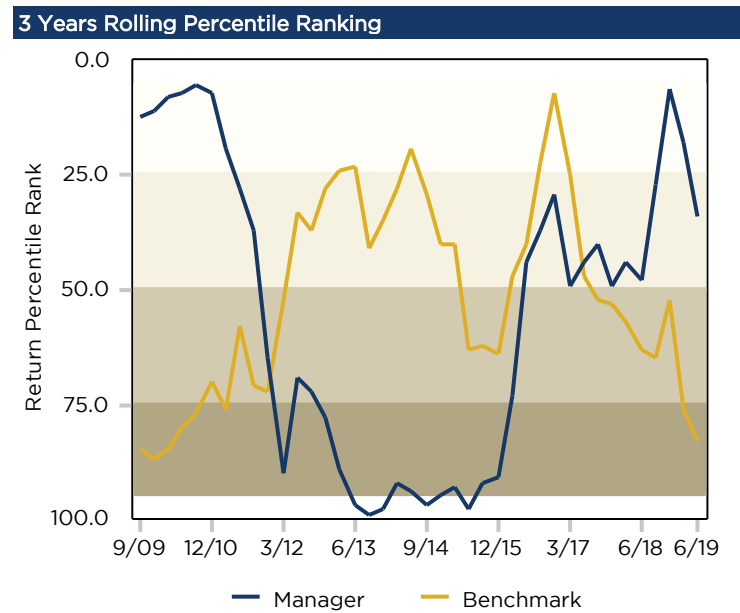
Fund Statistics		
	3 Years	10 Years
Standard Deviation	12.44	12.35
vs. S&P 500 Index		
Beta	0.98	0.93
Alpha	4.30	0.42
Information Ratio	0.98	-0.15
Tracking Error	4.01	3.73
R-Squared	0.90	0.91
Up Market Capture	113.57	95.45
Down Market Capture	93.56	94.66
Consistency	50.00	44.17



Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	131,159	238,882
Median Mkt. Cap (\$M)	67,748	22,707
Price/Earnings ratio	25.6	20.4
Price/Book ratio	7.5	3.5
5 Yr. EPS Growth Rate (%)	13.3	15.5
Current Yield (%)	1.5	2.0
Beta (5 Years, Monthly)	0.99	1.00
Number of Stocks	33	505
Debt to Equity	1.3	1.9
Forecast P/E	19.0	17.8
Forecast EPS Growth	11.9	12.1
Return on Equity	0.1	0.2

vs. Risk Free		
	3 Years	10 Years
Sharpe Ratio	1.34	1.10

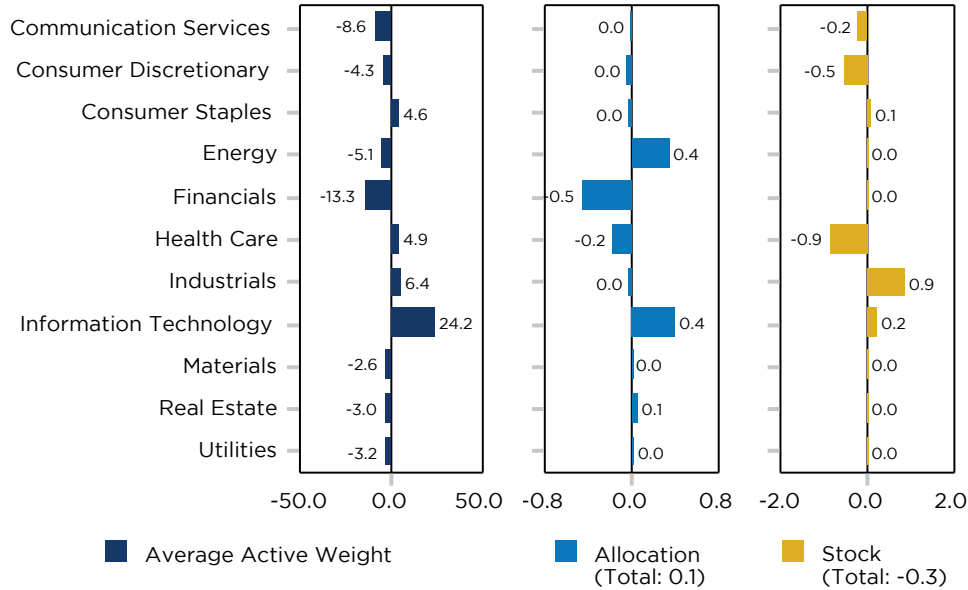
Sector Allocation		
Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	0.0	10.2
Consumer Discretionary	5.9	10.2
Consumer Staples	12.5	7.3
Energy	0.0	5.0
Financials	0.0	13.1
Health Care	18.7	14.2
Industrials	16.2	9.4
Information Technology	46.7	21.5
Materials	0.0	2.8
Real Estate	0.0	3.1
Utilities	0.0	3.3
Total	100.0	100.0



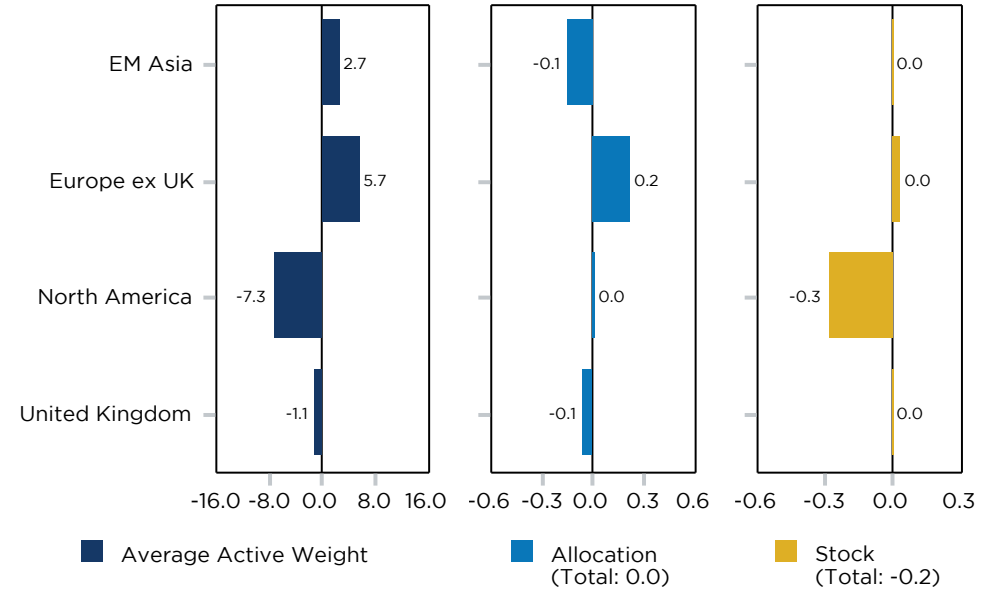
Country/Region Allocation		
	Portfolio	Benchmark
United States	89.3	96.5
Non-US Developed	8.2	3.5
Emerging Markets	2.5	0.0
Total	100.0	100.0



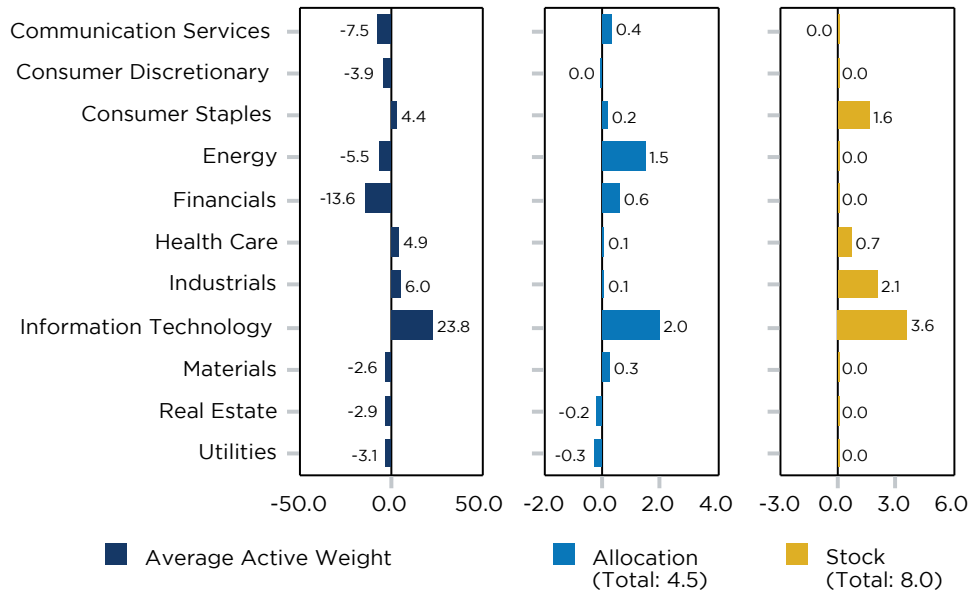
1 Quarter Sector Attribution



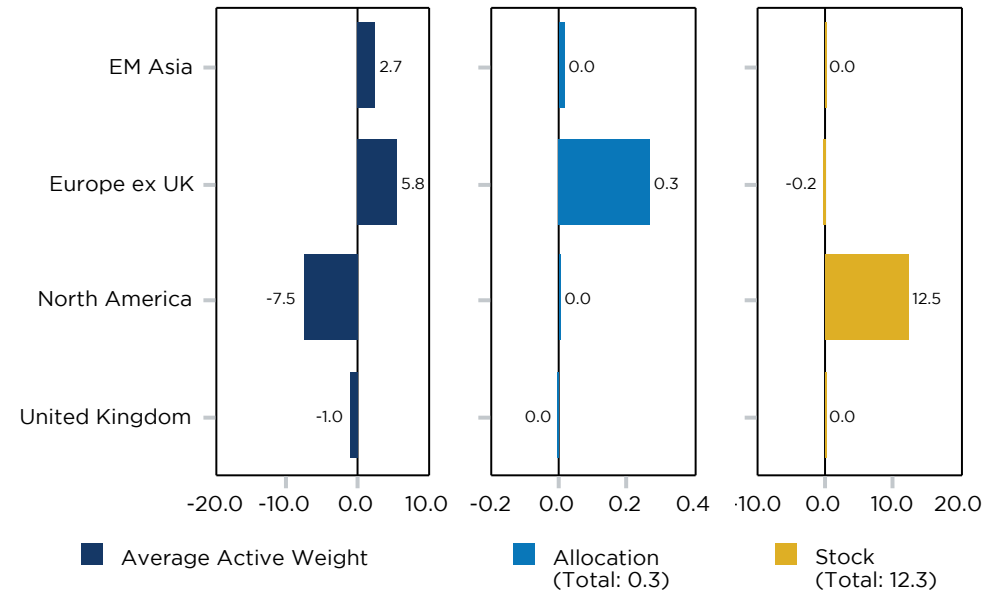
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



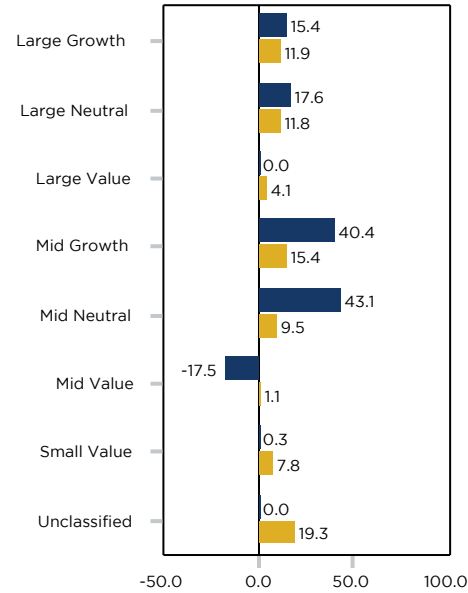


Top Ten Securities		Asset Allocation (%)	
Adobe Inc	6.3 %	Equity	91.3
Intuit Inc	5.6 %	Cash	8.7
Apple Inc	4.7 %	Fixed Income	0.0
Church & Dwight Co Inc	4.1 %		
The Estee Lauder Companies Inc	4.0 %		
Cisco Systems Inc	3.9 %	Market Capitalization (%)	
TJX Companies Inc	3.5 %	Giant	44.7
L3Harris Technologies Inc	3.5 %	Large	36.6
Xilinx Inc	3.3 %	Medium	18.8
Trimble Inc	3.2 %	Small	0.0
Total	42.1 %	Micro	0.0

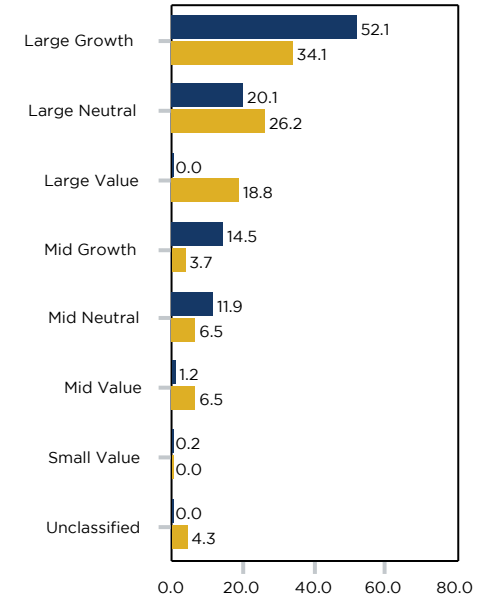
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
QUALCOMM Inc.	2.41	0.28	0.65	34.62
L3Harris Technologies Inc	3.29	0.08	0.47	18.86
EMCOR Group Inc.	2.64	0.00	0.43	20.68
Adobe Inc	6.34	0.52	0.36	10.57
SAP AG	1.93	0.00	0.30	20.02
Estee Lauder Companies Inc	4.02	0.15	0.26	10.89
Trimble Inc	3.20	0.00	0.24	11.66
ASML Holding NV	3.06	0.00	0.23	11.82
Norfolk Southern Corp	2.97	0.20	0.08	7.11
Apple Inc	5.06	3.62	0.00	4.60

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Xilinx Inc.	4.02	0.13	-0.43	-6.70
Agilent Technologies Inc	3.83	0.10	-0.42	-6.92
Eli Lilly and Co	2.40	0.51	-0.35	-14.15
Lowe's Cos Inc	2.32	0.35	-0.23	-7.43
Amgen Inc	3.57	0.48	-0.20	-2.17
Novo Nordisk A/S	2.77	0.00	-0.19	-2.43
Clorox Co (The)	2.12	0.08	-0.17	-3.98
Taiwan Semiconductor	2.65	0.00	-0.15	-1.32
Lincoln Electric Holdings Inc	1.60	0.00	-0.09	-1.27
Alphabet Inc	1.56	1.42	-0.02	-8.00

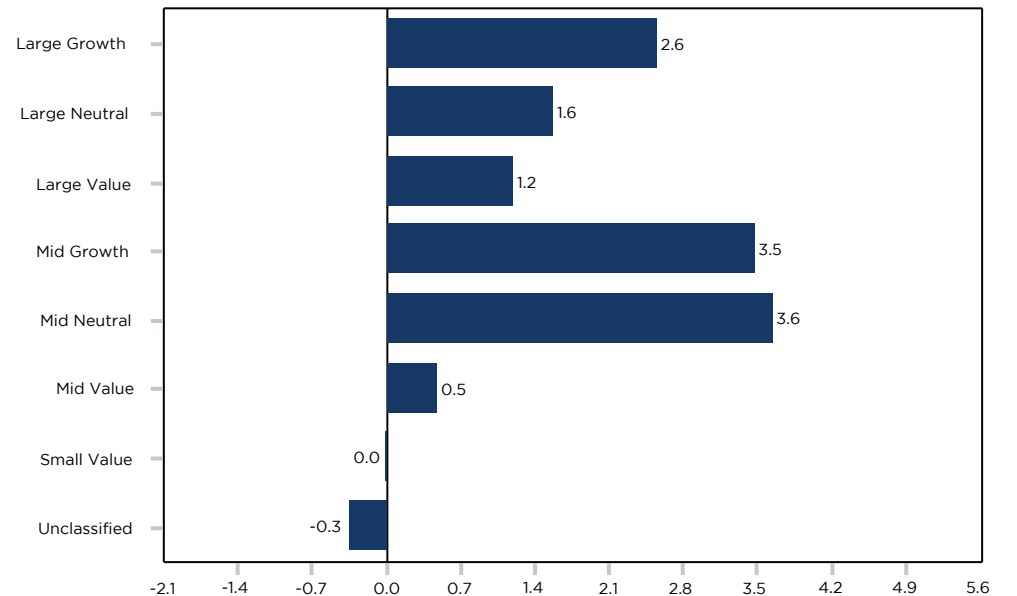
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.27 (61)	21.91 (41)	9.97 (53)	18.15 (38)	13.07 (32)	15.90 (26)	-2.46 (56)	31.83 (28)	2.92 (50)	6.46 (31)
Benchmark	4.64	21.49	11.56	18.07	13.39	16.28	-1.51	30.21	7.08	5.67
Peer Group	4.63	21.27	10.24	17.14	12.00	14.96	-1.81	28.69	2.90	4.49
Population	2,134	2,089	2,005	1,713	1,635	1,397	2,011	1,881	1,985	1,993

Fund Information

Fund Inception	04-2015
Fund Assets	27,369 Million
Portfolio Assets	13,075 Million
Total # of Holdings	596
% Assets in Top 10 Holdings	36.4 %
PM	Franks,T/Hirsch,S/Kontos,T
PM Tenure	13 Years 6 Months
Turnover	62.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	92,558 (Million)
Price/Earnings	23
Price/Book	6
Dividend Yield	1.0 %

Top Holdings (%)

Microsoft Corp	6.2
Amazon.com Inc	5.6
Facebook Inc A	4.2
Alphabet Inc Class C	3.9
Apple Inc	3.4
Visa Inc Class A	3.2
PayPal Holdings Inc	2.8
Salesforce.com Inc	2.6
Intuit Inc	2.5
Mastercard Inc A	1.9

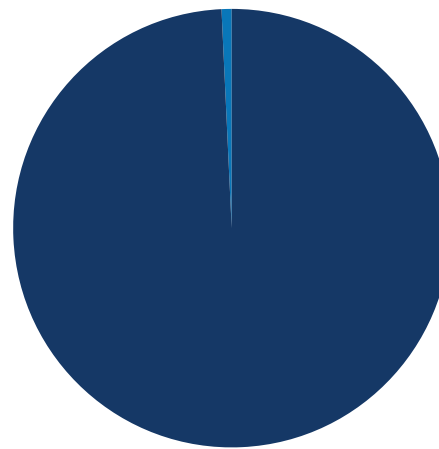
Fund Statistics

	3 Years	10 Years
Standard Deviation	13.50	13.84
vs. Russell 1000 Growth Index		
Beta	1.02	1.04
Alpha	-0.21	-0.83
Information Ratio	0.10	-0.19
Tracking Error	1.17	1.35
R-Squared	0.99	0.99
Up Market Capture	100.89	102.24
Down Market Capture	101.29	107.62
Consistency	50.00	49.17

vs. Risk Free

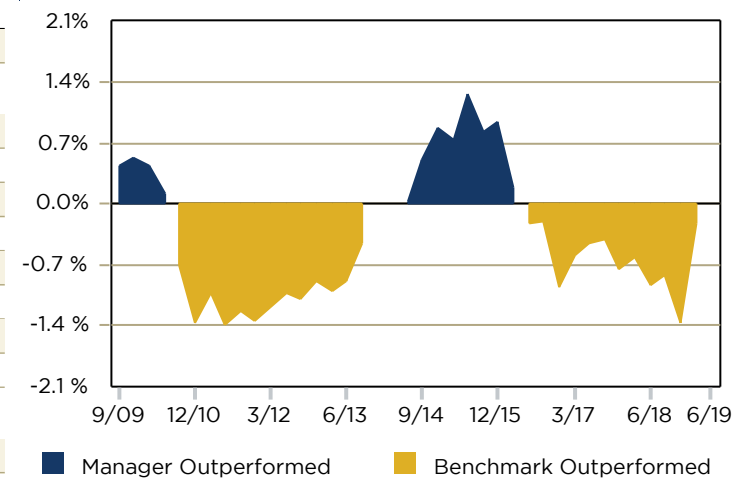
Sharpe Ratio	1.21	1.11
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Asset Allocation

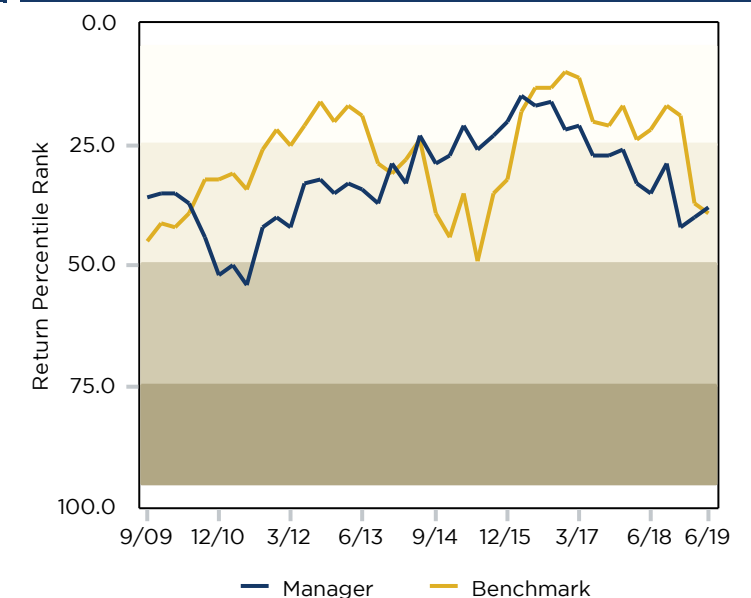


■ Equity ■ Cash
■ Fixed Income

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	7.37 (6)	28.65 (3)	14.34 (16)	21.19 (11)	13.27 (28)	17.88 (5)	0.55 (25)	35.14 (10)	-0.56 (82)	2.94 (63)
Benchmark	4.50	21.41	10.60	17.81	13.02	16.13	-2.12	29.59	7.39	5.09
Peer Group	4.63	21.27	10.24	17.14	12.00	14.96	-1.81	28.69	2.90	4.49
Population	2,134	2,089	2,005	1,713	1,635	1,397	2,011	1,881	1,985	1,993

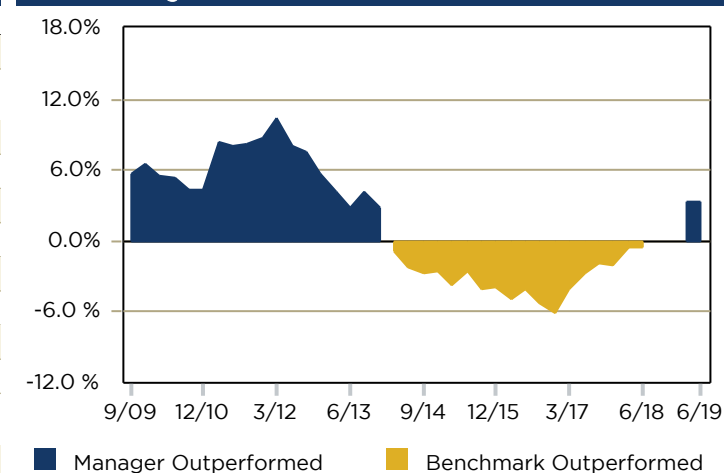
Fund Information

Fund Inception	02/24/2000
Fund Assets	4,677 Million
Portfolio Assets	1,504 Million
Total # of Holdings	102
% in Top 10	34.37 %
PM	Eberhardy,J/Ognar,T
PM Tenure	17 Years 1 Month
Turnover	37.00 %
Gross Expense (%)	0.85 %
Net Expense (%)	0.75 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	15.09	15.40
vs. Russell 3000 Growth Index		
Beta	1.09	1.08
Alpha	1.61	0.53
Information Ratio	0.72	0.35
Tracking Error	4.30	5.06
R-Squared	0.92	0.90
Up Market Capture	108.48	110.21
Down Market Capture	93.43	108.92
Consistency	58.33	56.67

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	231,779	279,357
Median Mkt. Cap (\$M)	16,557	1,670
Price/Earnings ratio	32.5	24.6
Price/Book ratio	6.7	6.5
5 Yr. EPS Growth Rate (%)	28.9	23.2
Current Yield (%)	0.6	1.2
Beta (5 Years, Monthly)	1.06	1.00
Number of Stocks	92	1,774
Debt to Equity	2.9	2.6
Forecast P/E	27.6	22.1
Forecast EPS Growth	18.8	15.3
Return on Equity	0.2	0.3

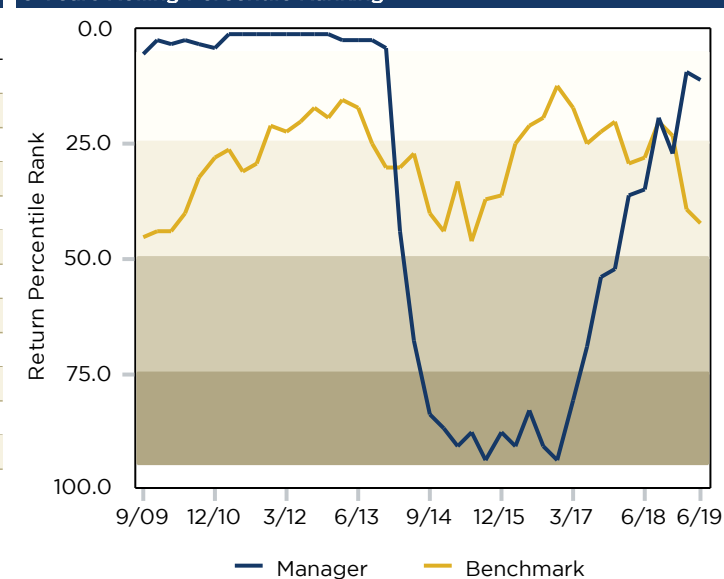
vs. Risk Free

Sharpe Ratio	1.27	1.12
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	8.7	11.4
Consumer Discretionary	18.8	15.2
Consumer Staples	2.6	5.5
Energy	0.4	0.8
Financials	5.2	4.6
Health Care	11.2	13.6
Industrials	13.0	12.0
Information Technology	38.9	32.5
Materials	1.2	2.0
Real Estate	0.0	2.4
Utilities	0.0	0.0
Total	100.0	100.0

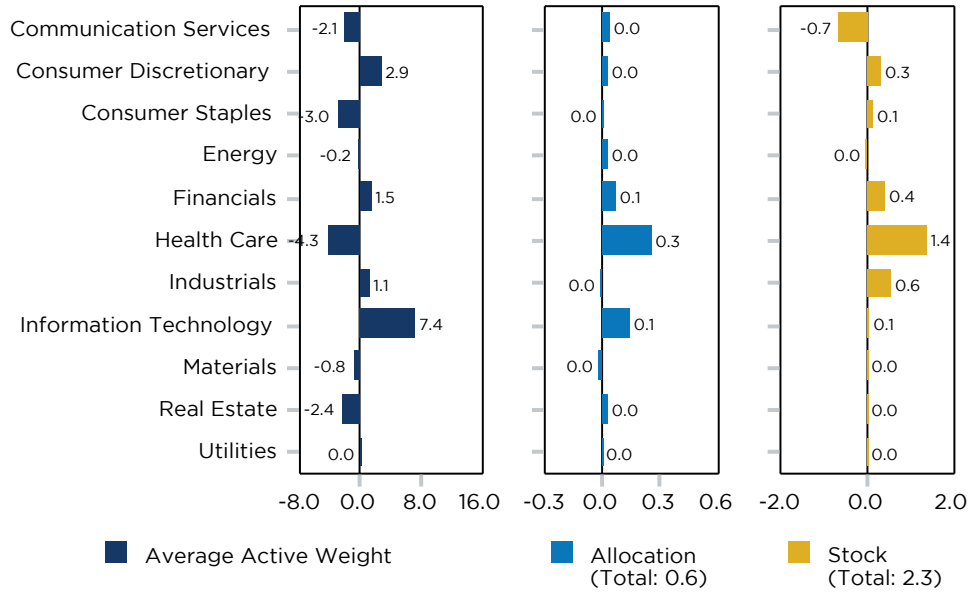
3 Years Rolling Percentile Ranking



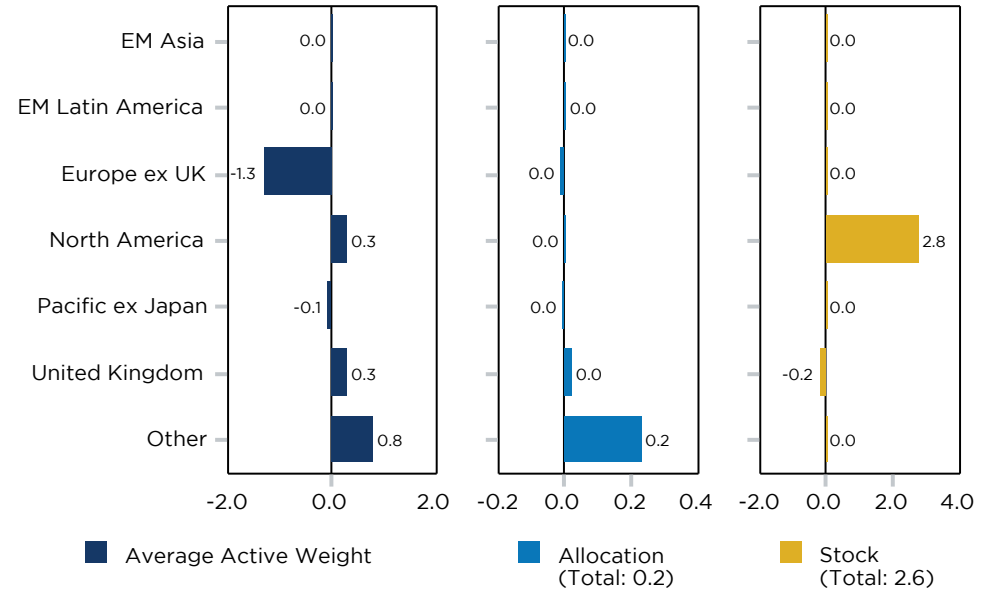
Country/Region Allocation

United States	95.5	97.4
Non-US Developed	3.4	2.5
Emerging Markets	0.0	0.0
Other	1.1	0.0
Total	100.0	100.0

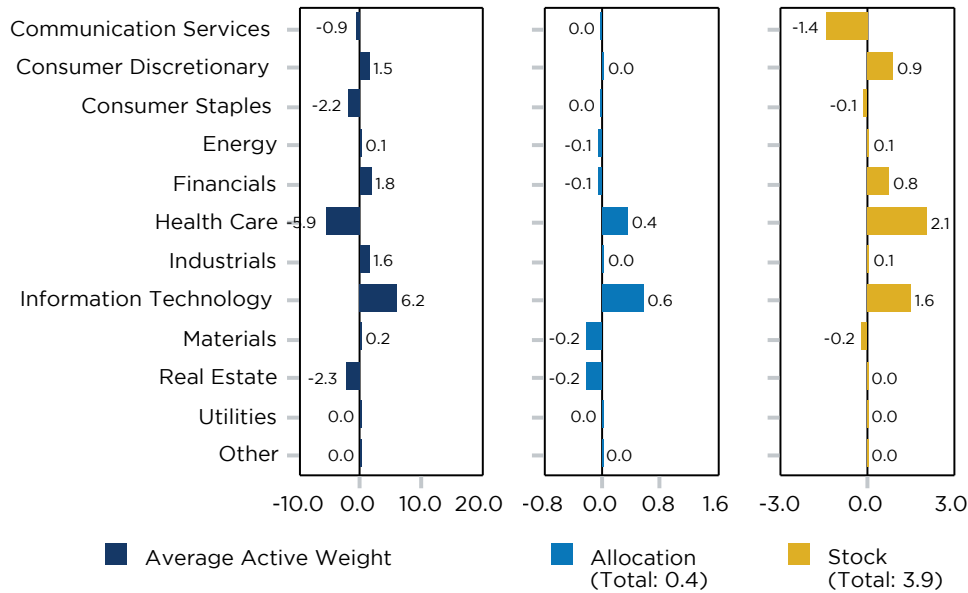
1 Quarter Sector Attribution



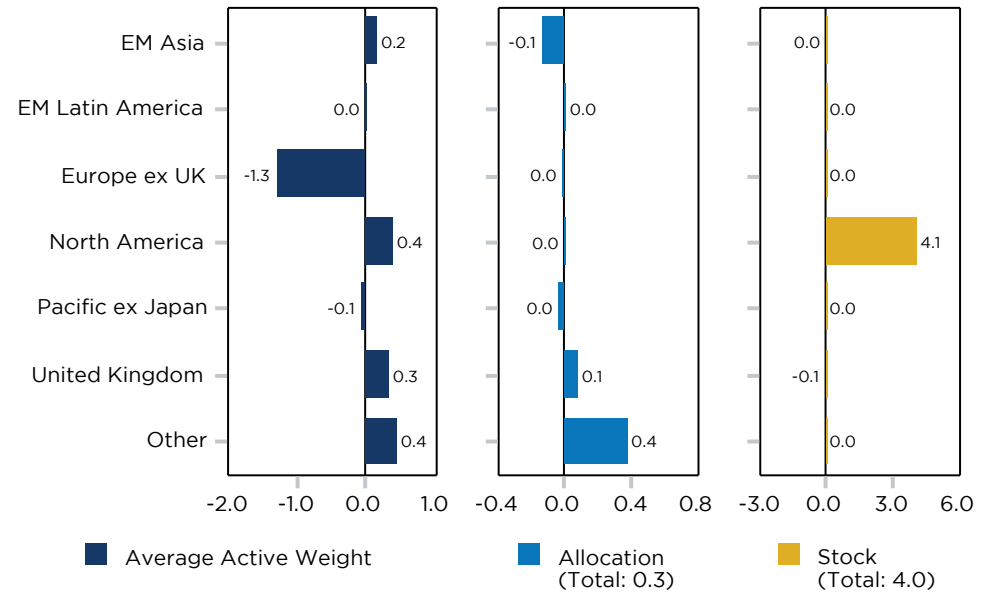
1 Quarter Region Attribution



1 Year Sector Attribution



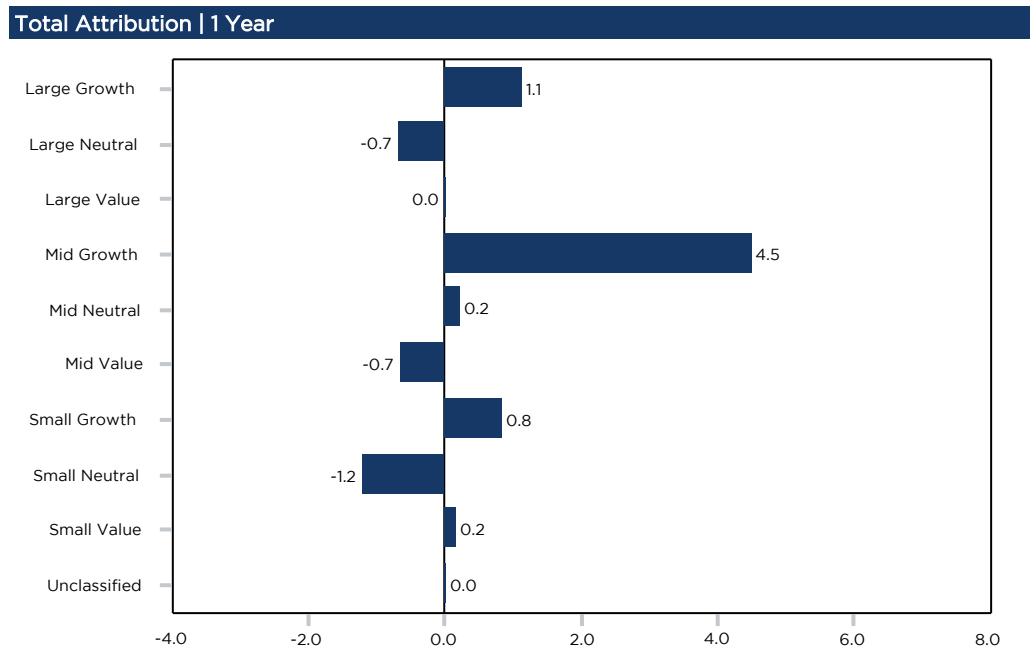
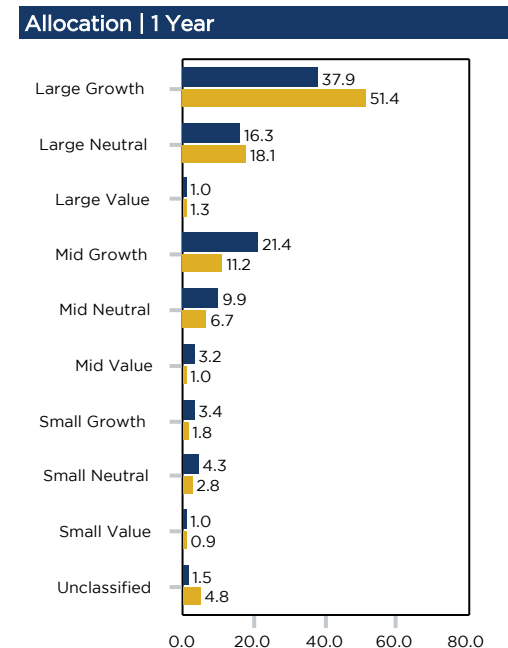
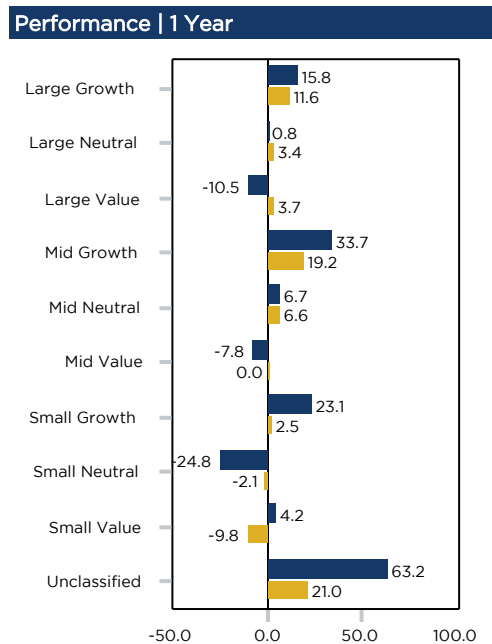
1 Year Region Attribution



Top Ten Securities		Asset Allocation (%)	
Amazon.com Inc	7.3 %	Equity	98.0
Alphabet Inc A	4.7 %	Cash	0.7
Microsoft Corp	4.6 %	Fixed Income	0.0
Mastercard Inc A	3.2 %		
Microchip Technology Inc	3.1 %		
Visa Inc Class A	3.1 %	Market Capitalization (%)	
Burlington Stores Inc	2.3 %	Giant	38.5
Monolithic Power Systems Inc	2.3 %	Large	25.3
Envestnet Inc	1.9 %	Medium	27.5
Apple Inc	1.9 %	Small	8.7
Total	34.4 %	Micro	0.0

Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
MarketAxess Holdings Inc	2.57	0.06	0.66	30.85
Roku Inc	1.41	0.02	0.50	40.41
Veeva Systems Inc	1.58	0.11	0.34	27.79
Shopify Inc	0.72	0.00	0.29	45.27
Global Payments Inc.	1.77	0.15	0.21	17.30
Mastercard Inc	3.55	1.49	0.16	12.51
Visa Inc	3.55	1.91	0.11	11.28
Amazon.com Inc	7.74	5.09	0.05	6.34
Facebook Inc	1.50	2.75	-0.14	15.78
Microsoft Corp	4.34	5.88	-0.15	14.00

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Pivotal Software Inc	0.96	0.00	-0.52	-49.35
Alphabet Inc	6.02	2.44	-0.45	-8.00
SailPoint Technologies Holdings Inc	0.56	0.01	-0.19	-30.22
Talend SA	0.52	0.00	-0.15	-23.69
Concho Resources Inc	0.79	0.02	-0.09	-6.91
Farfetch Ltd	0.29	0.00	-0.08	-22.70
Schwab (Charles) Corp	1.11	0.36	-0.08	-5.65
New Relic Inc	0.43	0.03	-0.07	-12.35
Regeneron Pharma	0.28	0.23	-0.01	-23.77
Boeing Co	1.46	1.42	0.00	-4.01



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.15 (51)	18.30 (32)	0.83 (46)	7.65 (79)	5.26 (55)	12.53 (59)	-14.15 (59)	11.13 (77)	17.40 (52)	-5.35 (59)
Benchmark	3.19	18.02	3.68	8.95	6.72	14.56	-12.29	13.34	20.00	-4.78
Peer Group	3.16	17.16	0.59	8.80	5.48	12.80	-13.46	13.23	17.59	-4.55
Population	595	586	572	491	463	388	591	551	551	547

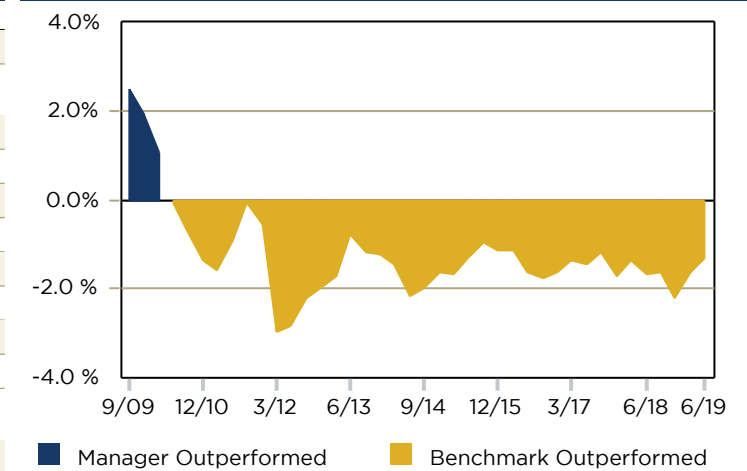
Fund Information

Fund Inception	10/01/2002
Fund Assets	3,085 Million
Portfolio Assets	2,057 Million
Total # of Holdings	199
% in Top 10	13.02 %
PM	Cutler,R
PM Tenure	16 Years 8 Months
Turnover	25.00 %
Gross Expense (%)	0.42 %
Net Expense (%)	0.42 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.92	14.31
vs. Russell Midcap Value Index		
Beta	1.06	1.00
Alpha	-1.63	-1.78
Information Ratio	-0.50	-0.85
Tracking Error	2.15	2.09
R-Squared	0.98	0.98
Up Market Capture	95.58	94.42
Down Market Capture	101.22	102.06
Consistency	47.22	42.50

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	14,502	15,762
Median Mkt. Cap (\$M)	9,318	7,901
Price/Earnings ratio	18.2	18.7
Price/Book ratio	2.1	2.2
5 Yr. EPS Growth Rate (%)	8.3	8.9
Current Yield (%)	2.1	2.4
Beta (5 Years, Monthly)	1.04	1.00
Number of Stocks	194	587
Debt to Equity	0.1	0.6
Forecast P/E	15.1	15.8
Forecast EPS Growth	10.8	9.1
Return on Equity	0.0	0.0

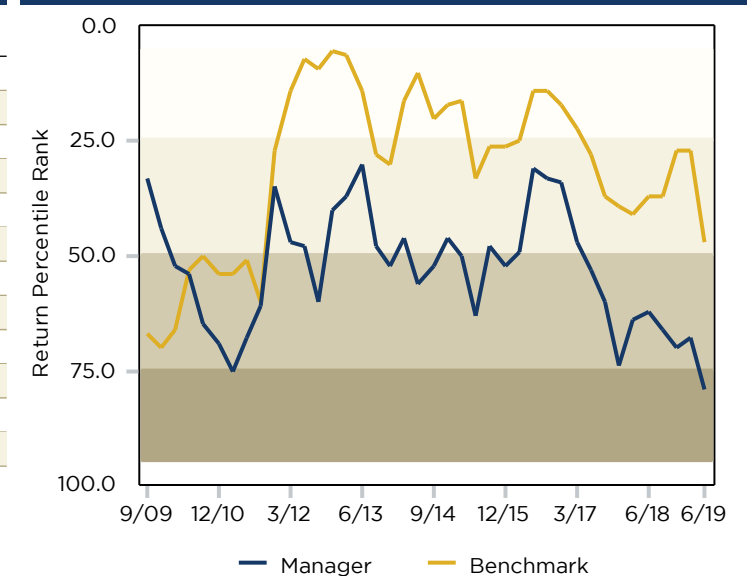
vs. Risk Free

Sharpe Ratio	0.50	0.87
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	3.7	3.2
Consumer Discretionary	11.1	8.4
Consumer Staples	4.4	4.7
Energy	7.5	5.4
Financials	17.7	17.8
Health Care	5.7	7.1
Industrials	12.7	12.7
Information Technology	8.4	9.0
Materials	6.3	6.0
Real Estate	10.7	14.0
Utilities	11.3	11.4
Total	99.6	100.0

3 Years Rolling Percentile Ranking

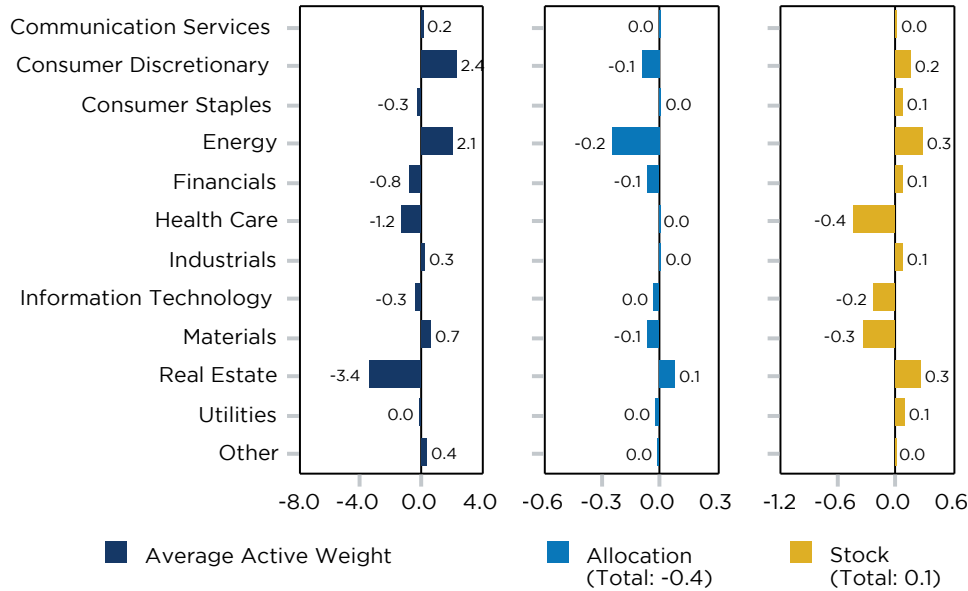


Country/Region Allocation

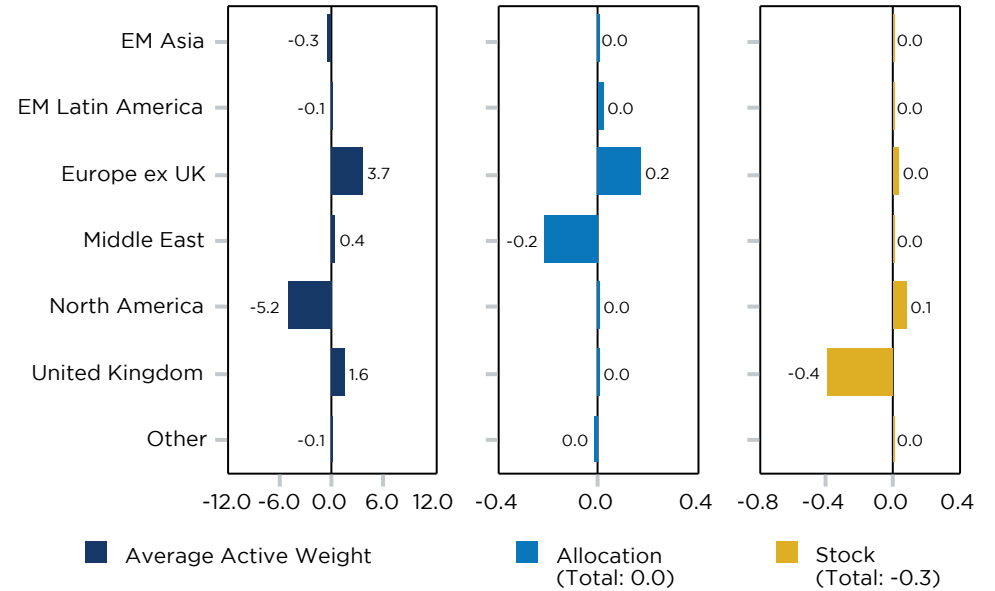
United States	89.3	95.1
Non-US Developed	10.7	4.4
Emerging Markets	0.0	0.4
Other	0.0	0.1
Total	100.0	100.0



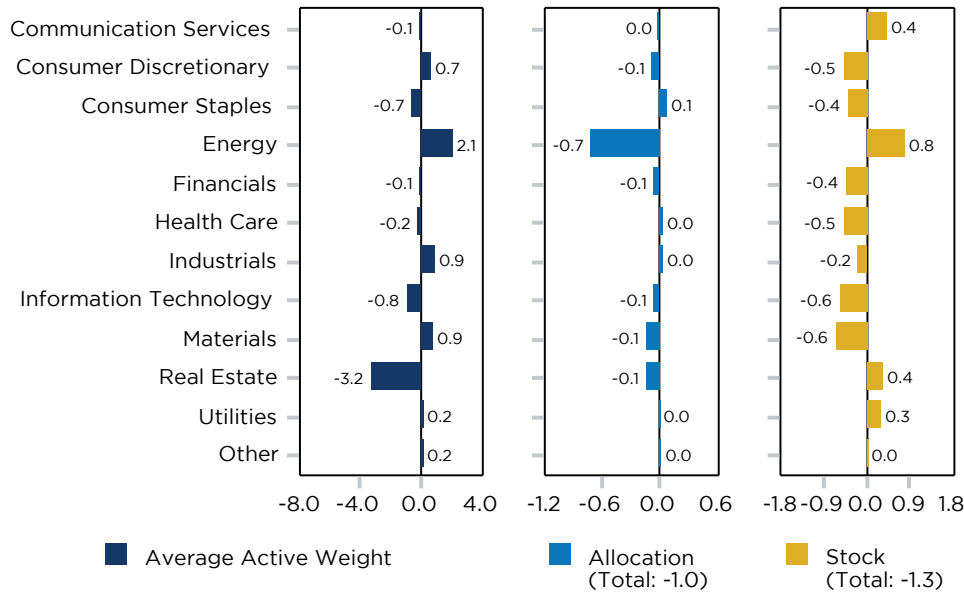
1 Quarter Sector Attribution



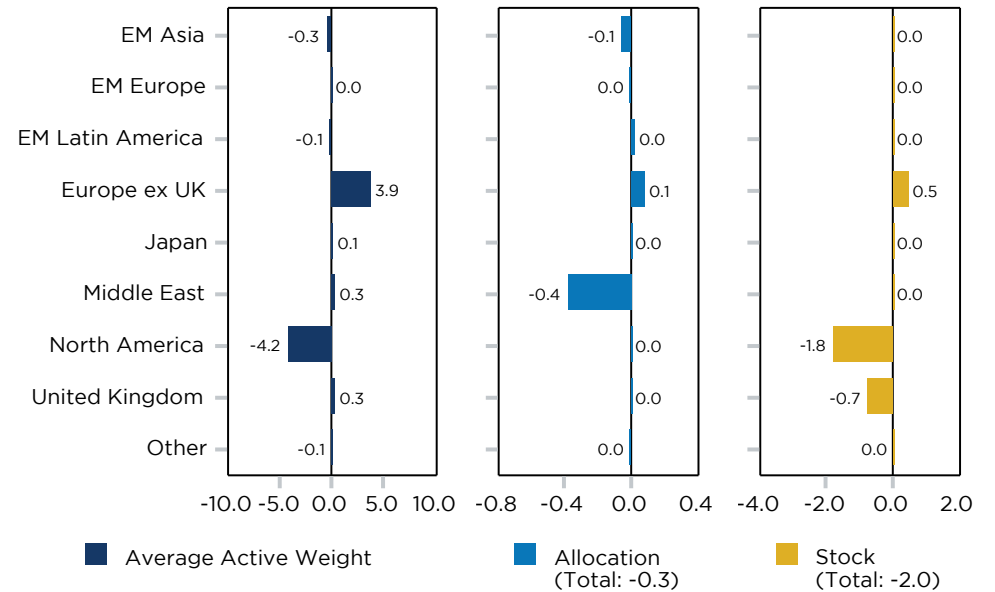
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

Zimmer Biomet Holdings Inc	1.5 %
The Hartford Financial Services	1.5 %
FirstEnergy Corp	1.5 %
Bunge Ltd	1.4 %
Citizens Financial Group Inc	1.3 %
Sempra Energy	1.3 %
Cummins Inc	1.2 %
Dollar Tree Inc	1.2 %
AvalonBay Communities Inc	1.1 %
DTE Energy Co	1.1 %
Total	13.0 %

Asset Allocation (%)

Equity	99.9
Cash	0.1
Fixed Income	0.0

Market Capitalization (%)

Giant	1.0
Large	31.1
Medium	54.4
Small	13.5
Micro	0.0

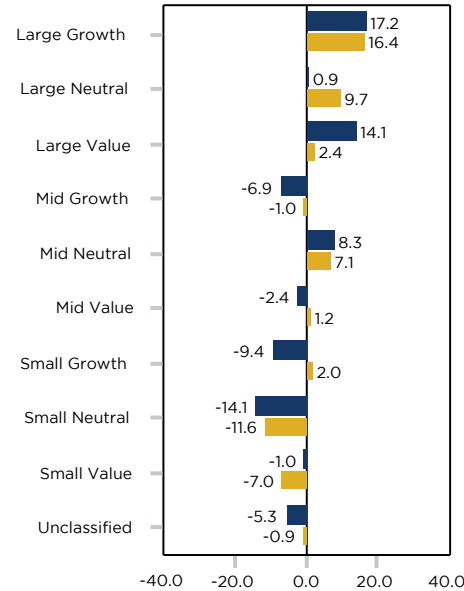
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
L3 Technologies Inc	1.09	0.38	0.11	19.23
Blackstone Group Inc	0.41	0.00	0.10	28.19
Marvell Technology Group Ltd	0.76	0.19	0.10	20.37
Cypress Semiconductor Corp	0.25	0.04	0.10	49.80
ITT Inc	0.95	0.12	0.08	13.17
Hartford Financial	1.21	0.42	0.08	12.71
Mohawk Industries Inc.	0.71	0.19	0.07	16.90
Ingersoll-Rand PLC	0.72	0.29	0.06	17.84
Citizens Financial Group Inc	1.27	0.36	0.06	9.76
Sempra Energy	1.18	0.81	0.02	9.20

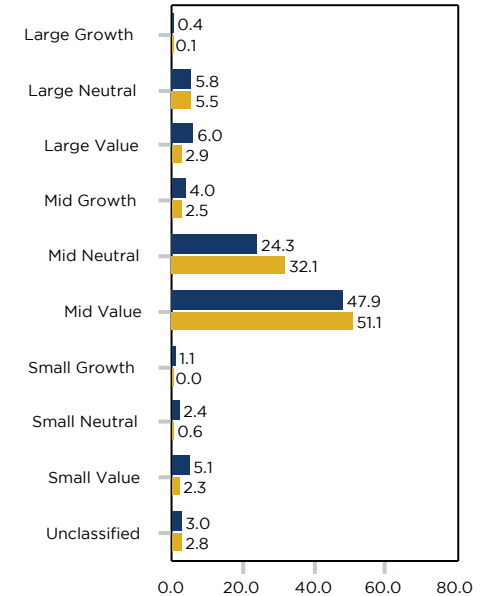
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Capri Holdings Ltd	0.87	0.07	-0.22	-24.20
Teva Pharmaceutical	0.49	0.00	-0.22	-41.14
CommScope Holding Co Inc	0.64	0.10	-0.17	-27.61
WPX Energy Inc	0.86	0.12	-0.11	-12.20
Teradata Corp	0.56	0.04	-0.11	-17.87
Energizer Holdings Inc	0.62	0.03	-0.10	-13.43
Zimmer Biomet Holdings Inc	1.39	0.61	-0.08	-7.61
Transocean Ltd	0.37	0.11	-0.08	-26.41
DXC Technology Co	0.85	0.41	-0.08	-13.87
Mylan NV	0.26	0.34	0.03	-32.82

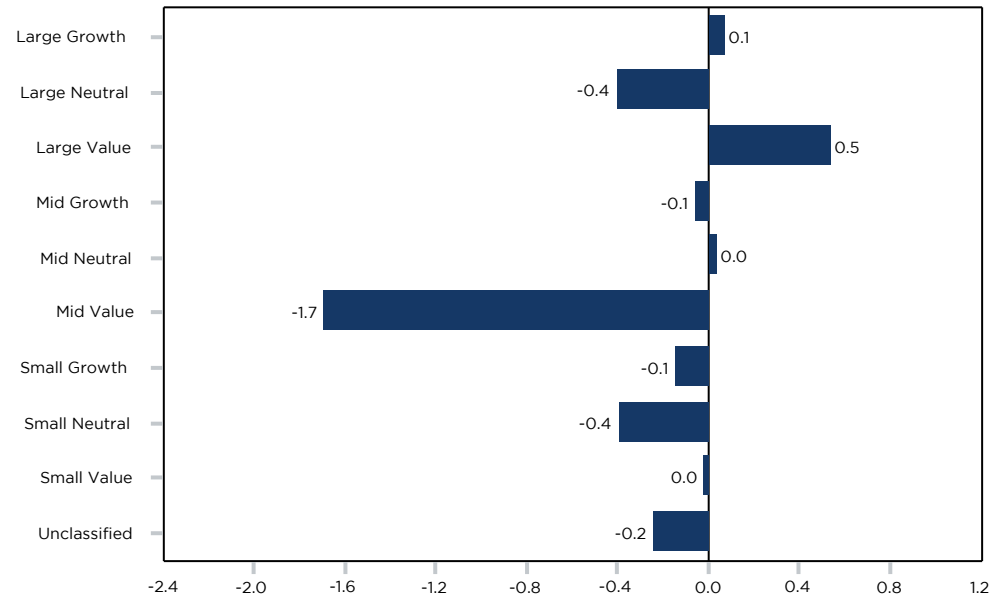
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	5.62 (60)	28.78 (20)	12.23 (51)	15.52 (56)	9.49 (68)	14.99 (47)	-8.17 (77)	26.21 (35)	1.95 (80)	-0.63 (55)
Benchmark	5.40	26.08	13.94	16.49	11.10	16.02	-4.75	25.27	7.33	-0.20
Peer Group	6.29	26.23	12.34	15.95	10.31	14.84	-5.54	24.67	5.85	-0.19
Population	907	891	854	730	693	624	854	793	826	830

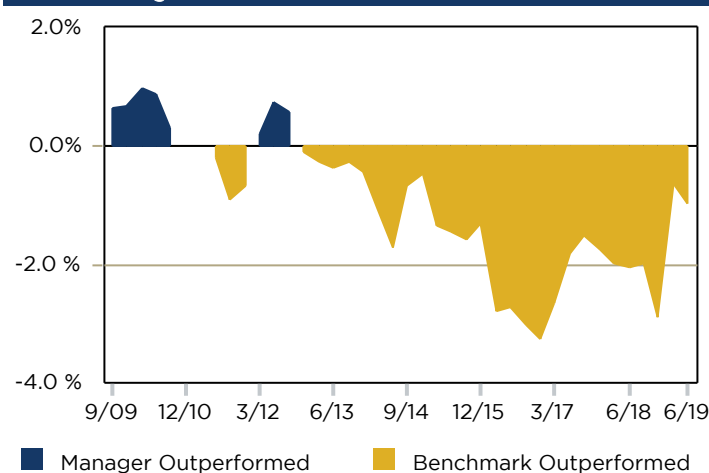
Fund Information

Fund Inception	10/01/2002
Fund Assets	1,536 Million
Portfolio Assets	875 Million
Total # of Holdings	129
% in Top 10	15.53 %
PM	Almazan,A/Scalise,G
PM Tenure	13 Years
Turnover	70.00 %
Gross Expense (%)	0.47 %
Net Expense (%)	0.47 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	14.97	15.63
vs. Russell Midcap Growth Index		
Beta	1.04	1.04
Alpha	-1.41	-1.44
Information Ratio	-0.31	-0.31
Tracking Error	2.37	2.49
R-Squared	0.98	0.98
Up Market Capture	98.59	101.21
Down Market Capture	102.99	108.54
Consistency	38.89	45.00

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	19,169	18,181
Median Mkt. Cap (\$M)	15,337	8,972
Price/Earnings ratio	28.1	24.9
Price/Book ratio	5.8	6.1
5 Yr. EPS Growth Rate (%)	17.7	17.2
Current Yield (%)	0.5	0.9
Beta (5 Years, Monthly)	1.05	1.00
Number of Stocks	109	418
Debt to Equity	0.7	2.1
Forecast P/E	25.1	22.9
Forecast EPS Growth	18.8	15.9
Return on Equity	0.0	0.1

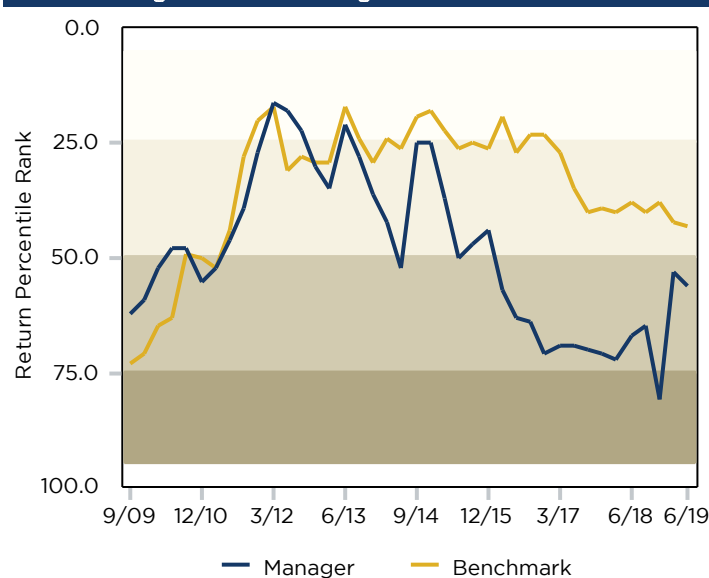
vs. Risk Free

Sharpe Ratio	0.95	0.95
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	4.9	3.9
Consumer Discretionary	16.0	16.3
Consumer Staples	1.5	2.9
Energy	0.8	1.3
Financials	2.2	6.8
Health Care	15.1	14.3
Industrials	16.7	15.7
Information Technology	33.8	32.8
Materials	3.6	3.5
Real Estate	2.8	2.3
Total	97.3	99.9

3 Years Rolling Percentile Ranking

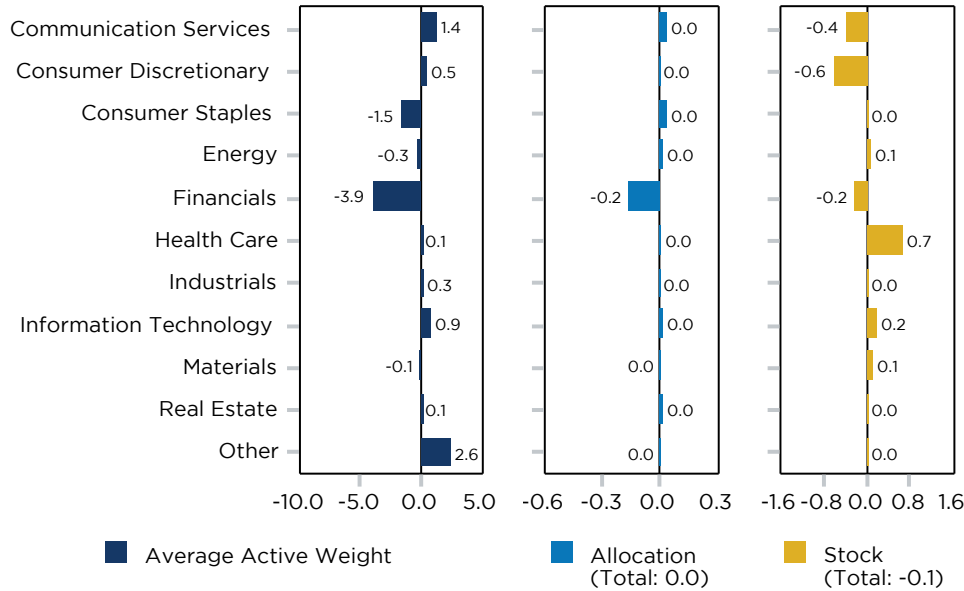


Country/Region Allocation

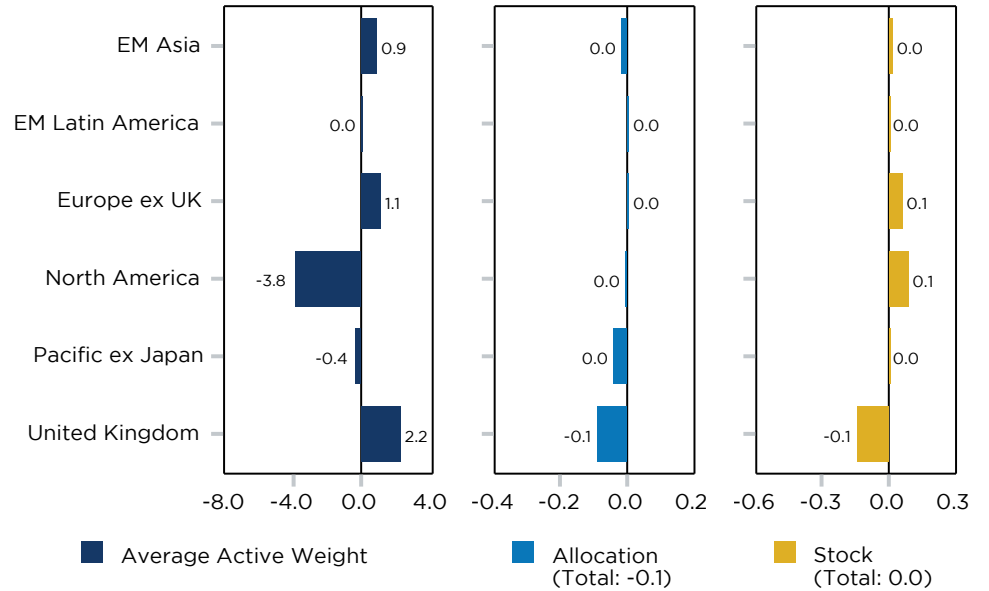
United States	90.7	96.5
Non-US Developed	8.3	3.4
Emerging Markets	1.0	0.1
Total	100.0	100.0



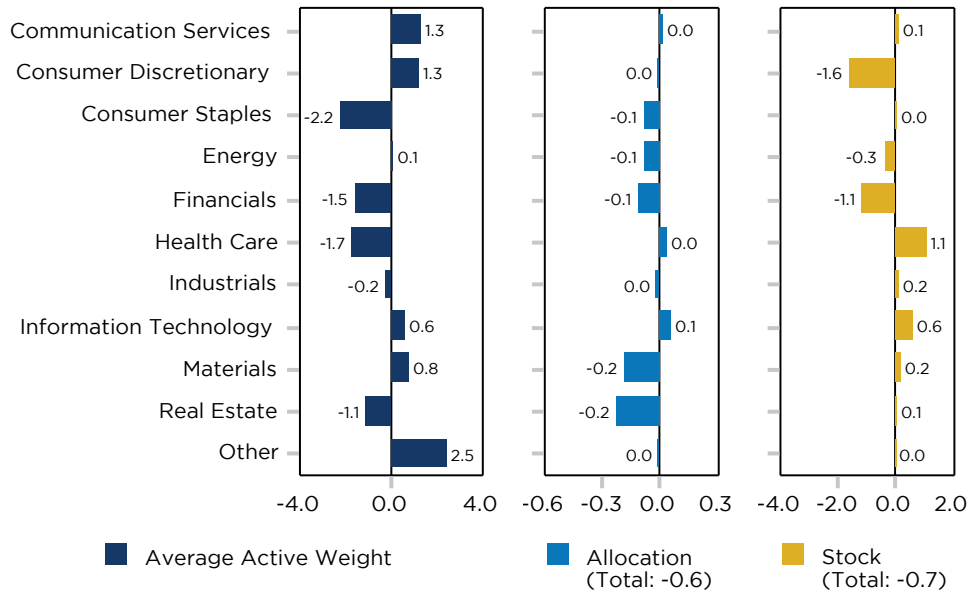
1 Quarter Sector Attribution



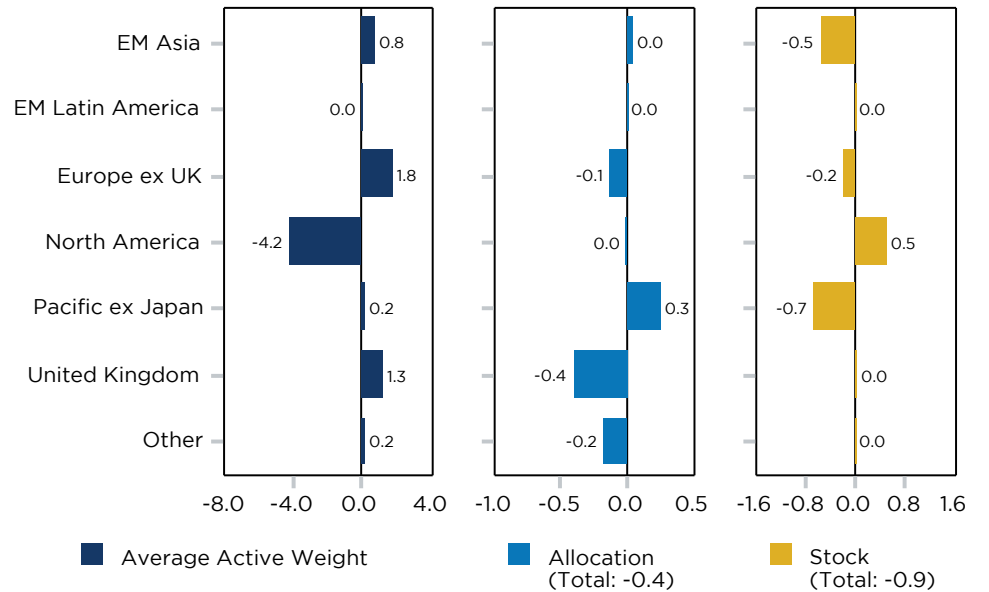
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

iShares Russell Mid-Cap Growth	2.5 %
O'Reilly Automotive Inc	1.7 %
Amphenol Corp Class A	1.6 %
Fortive Corp	1.4 %
Fiserv Inc	1.4 %
Advanced Micro Devices Inc	1.4 %
Vulcan Materials Co	1.4 %
Exact Sciences Corp	1.3 %
L3Harris Technologies Inc	1.3 %
Keysight Technologies Inc	1.3 %
Total	15.5 %

Asset Allocation (%)

Equity	95.5
Cash	4.5
Fixed Income	0.0

Market Capitalization (%)

Giant	0.0
Large	42.5
Medium	53.8
Small	3.8
Micro	0.0

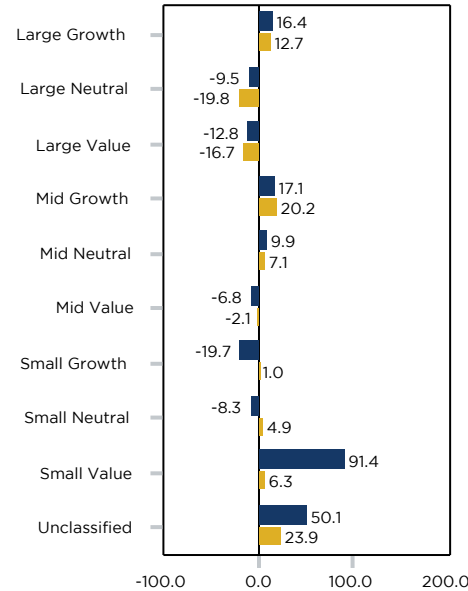
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Coherus BioSciences Inc	0.60	0.00	0.34	62.02
EXACT Sciences Corp	1.03	0.33	0.22	36.27
Shopify Inc	0.52	0.00	0.21	45.27
Ingersoll-Rand PLC	1.33	0.46	0.11	17.84
Vulcan Materials Co	1.44	0.47	0.11	16.26
L3Harris Technologies Inc	1.35	0.61	0.10	18.86
Advanced Micro Devices Inc	1.24	0.77	0.06	19.00
Total System Services Inc.	0.76	0.55	0.06	35.14
FleetCor Technologies Inc	1.37	0.68	0.06	13.89
ServiceNow Inc	2.20	1.41	0.05	11.39

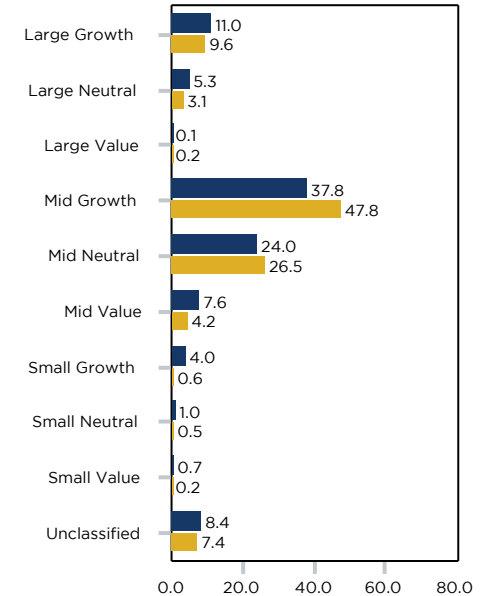
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Farfetch Ltd	0.79	0.00	-0.22	-22.70
Arista Networks Inc	1.47	0.58	-0.20	-17.44
World Wrestling Entertainment Inc.	0.81	0.00	-0.18	-16.66
Biohaven Pharmaceutical Holding Co Ltd	0.71	0.00	-0.14	-14.92
Angi Homeservices Inc	0.63	0.00	-0.13	-15.74
Grainger (W.W.) Inc	1.10	0.44	-0.10	-10.39
O'Reilly Automotive Inc	1.90	0.97	-0.10	-4.89
Rockwell Automation Inc.	1.33	0.68	-0.07	-6.08
Nutanix Inc	0.30	0.17	-0.05	-31.27
Palo Alto Networks Inc	0.87	0.71	-0.03	-16.11

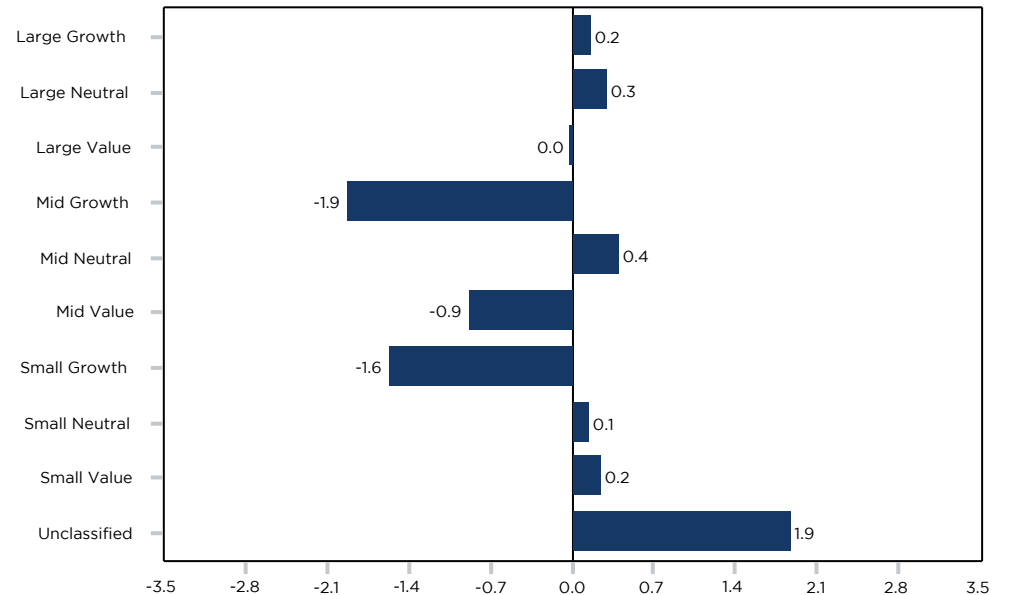
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	1.21 (61)	15.70 (27)	-10.91 (87)	12.51 (3)	4.24 (52)	13.51 (14)	-19.83 (91)	22.02 (1)	29.94 (24)	-13.46 (93)
Benchmark	1.38	13.47	-6.24	9.81	5.39	12.40	-12.86	7.84	31.74	-7.47
Peer Group	1.49	13.82	-6.85	8.24	4.32	12.13	-15.31	8.86	26.01	-6.40
Population	592	585	567	486	459	405	565	515	530	515

Fund Information

Fund Inception	12/12/2001
Fund Assets	924 Million
Portfolio Assets	238 Million
Total # of Holdings	261
% in Top 10	8.71 %
PM	Franks,S/Hench,W/Kosowsky,R
PM Tenure	15 Years 1 Month
Turnover	47.00 %
Gross Expense (%)	1.08 %
Net Expense (%)	1.08 %
New Investors	Open

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	1,316	2,212
Median Mkt. Cap (\$M)	614	697
Price/Earnings ratio	14.9	15.2
Price/Book ratio	1.8	1.7
5 Yr. EPS Growth Rate (%)	7.9	9.3
Current Yield (%)	0.7	2.2
Beta (5 Years, Monthly)	1.14	1.00
Number of Stocks	257	1,347
Debt to Equity	2.1	1.1
Forecast P/E	13.1	14.0
Forecast EPS Growth	12.4	10.5
Return on Equity	0.0	0.0

Country/Region Allocation

United States	95.0	96.6
Non-US Developed	3.6	2.5
Emerging Markets	0.4	0.5
Other	1.0	0.5
Total	100.0	100.0

Fund Statistics

	3 Years	10 Years
Standard Deviation	20.36	20.89
vs. Russell 2000 Value Index		
Beta	1.16	1.18
Alpha	1.37	-0.75
Information Ratio	0.56	0.31
Tracking Error	5.54	5.48
R-Squared	0.94	0.95
Up Market Capture	111.99	114.60
Down Market Capture	101.55	115.98
Consistency	63.89	55.00

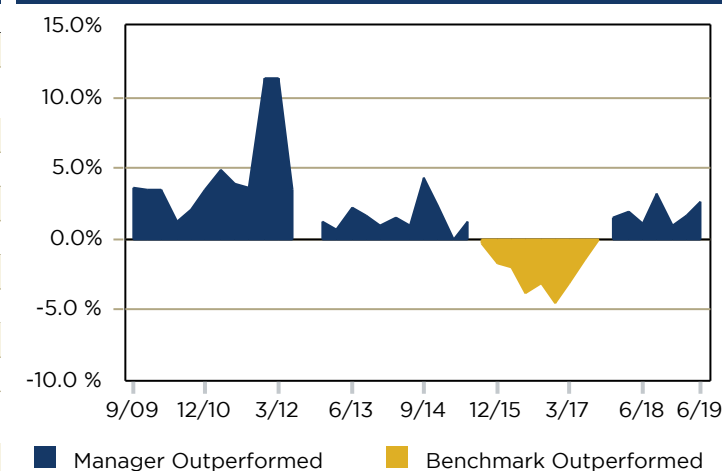
vs. Risk Free

Sharpe Ratio	0.62	0.69
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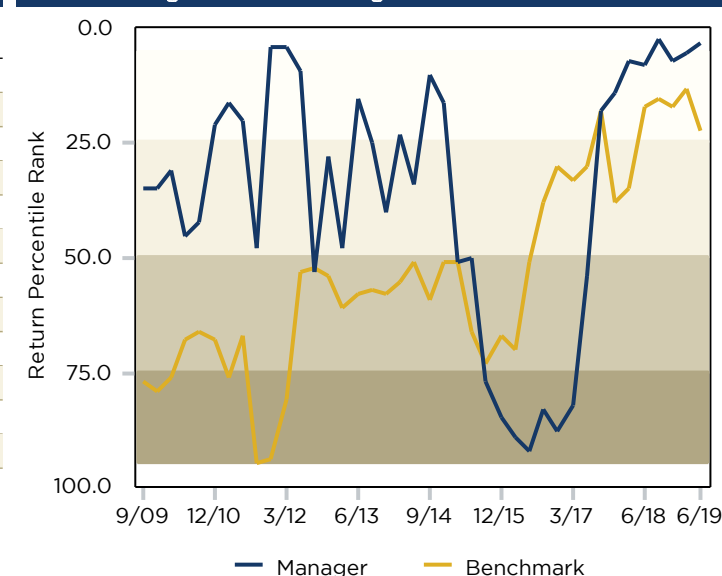
Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	1.3	2.9
Consumer Discretionary	11.7	8.5
Consumer Staples	0.6	2.4
Energy	8.1	5.1
Financials	8.6	29.4
Health Care	10.8	4.0
Industrials	26.5	11.8
Information Technology	22.1	11.8
Materials	9.2	4.2
Real Estate	0.9	12.3
Utilities	0.3	7.6
Total	100.0	100.0

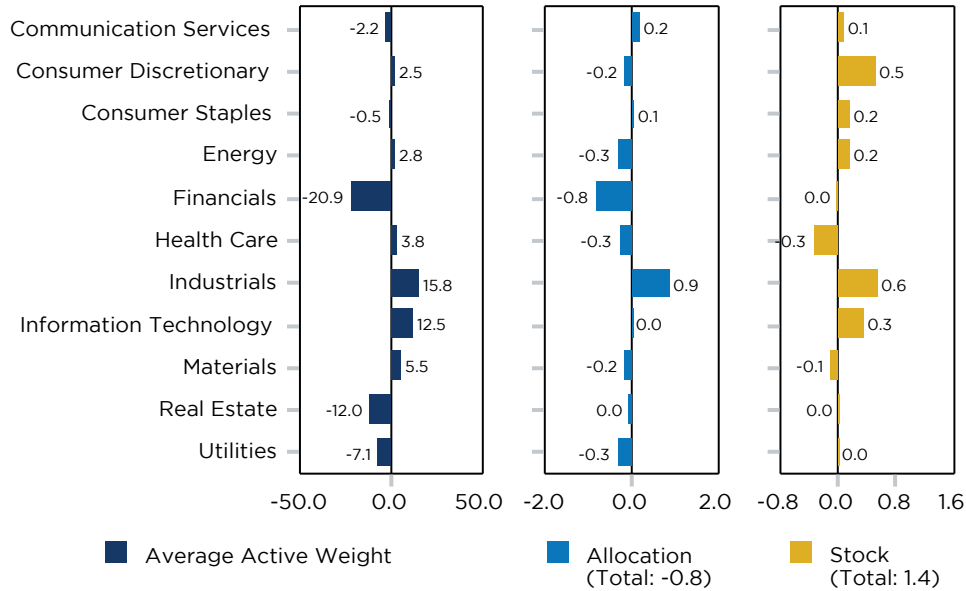
3 Years Rolling Excess Performance



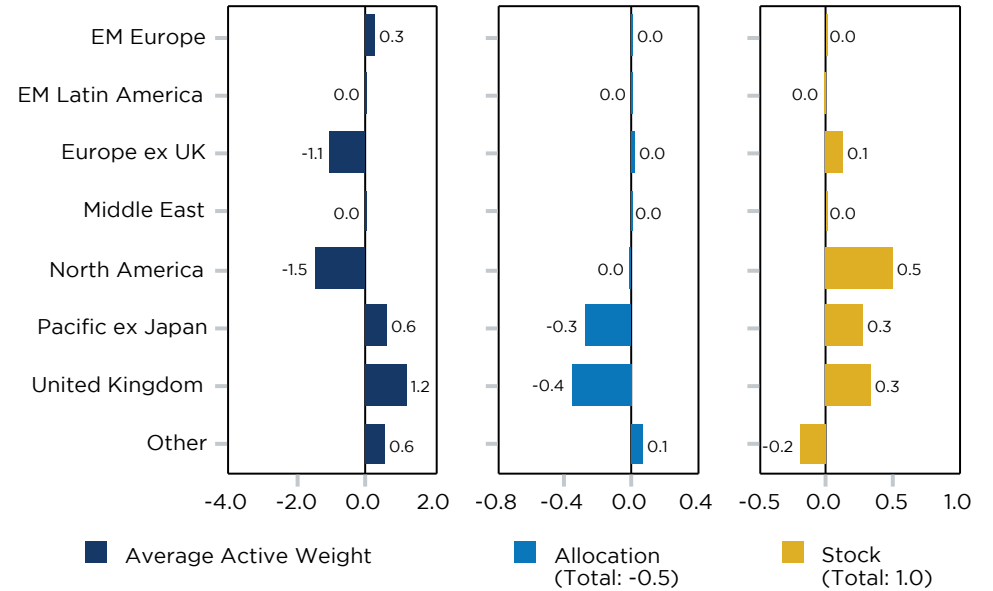
3 Years Rolling Percentile Ranking



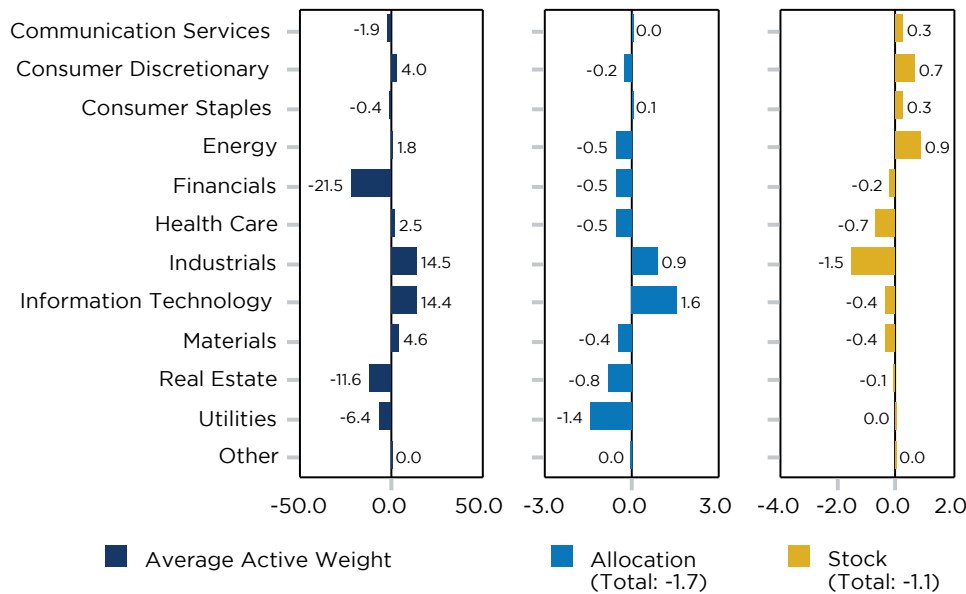
1 Quarter Sector Attribution



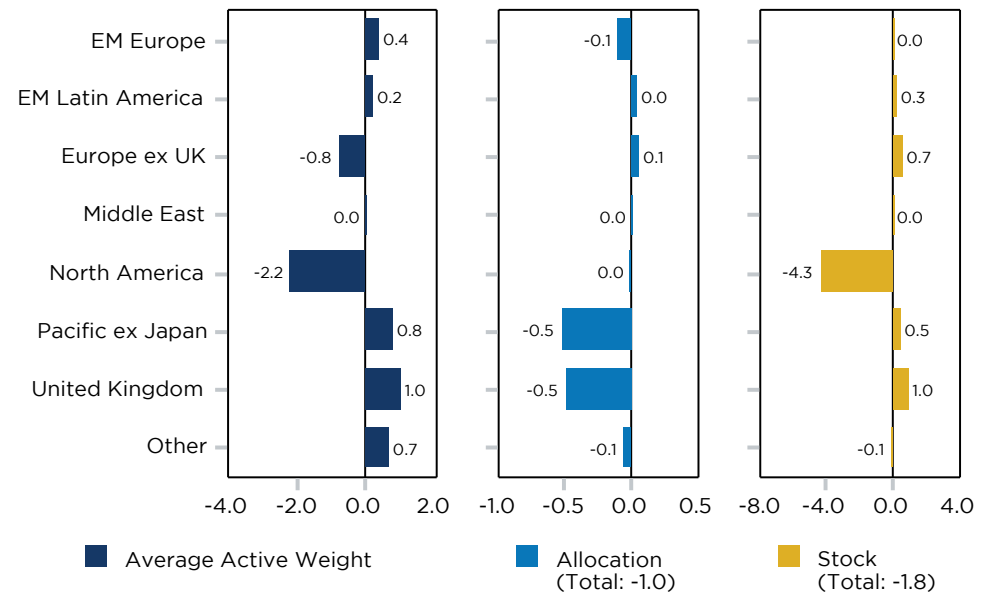
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution

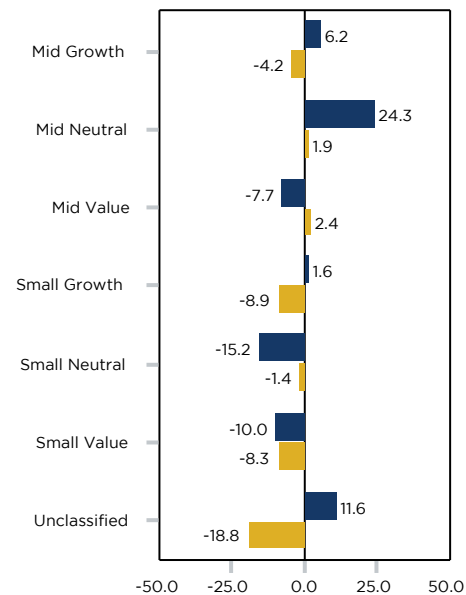


Top Ten Securities		Asset Allocation (%)	
Herc Holdings Inc	1.0 %	Equity	91.5
Comtech Telecommunications Corp	0.9 %	Cash	8.5
Air Lease Corp Class A	0.9 %	Fixed Income	0.0
Kraton Corp	0.9 %		
Northwest Pipe Co	0.9 %		
LGI Homes Inc	0.9 %	Market Capitalization (%)	
Alpha & Omega Semiconductor Ltd	0.8 %	Giant	0.0
Frontdoor Inc	0.8 %	Large	0.0
Granite Construction Inc	0.8 %	Medium	7.8
M.D.C. Holdings Inc	0.8 %	Small	51.5
Total	8.7 %	Micro	40.6

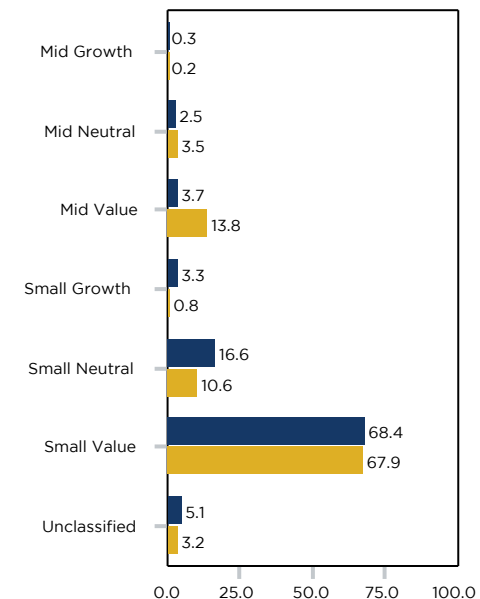
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Westport Fuel Systems Inc	0.44	0.00	0.32	74.84
Kratos Defense & Security	0.74	0.09	0.29	46.45
Cypress Semiconductor Corp	0.60	0.00	0.29	49.80
Cray Inc	0.86	0.09	0.25	33.67
Dorian LPG Ltd	0.56	0.02	0.21	40.50
Avon Products Inc.	0.64	0.00	0.20	31.97
Comtech Telecommunications Corp.	0.95	0.06	0.18	21.57
Meritor Inc	0.94	0.00	0.17	19.17
Herc Holdings Inc	1.00	0.00	0.16	17.57
Wesco Aircraft Holdings Inc	0.69	0.04	0.16	26.28

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Invacare Corp	0.83	0.03	-0.31	-37.89
NeoPhotonics Corp	0.52	0.02	-0.17	-33.54
Mallinckrodt Plc	0.46	0.18	-0.17	-57.77
Avaya Holdings Corp	0.71	0.18	-0.16	-29.23
Newpark Resources Inc.	0.87	0.08	-0.16	-19.00
Alpha and Omega Semiconductor Ltd	0.81	0.02	-0.16	-18.85
Fred's Inc	0.19	0.00	-0.15	-80.10
U S Silica Holdings Inc	0.60	0.06	-0.15	-25.87
United Natural Foods Inc	0.50	0.07	-0.14	-32.15
Tupperware Brands Corp	0.61	0.13	-0.12	-24.60

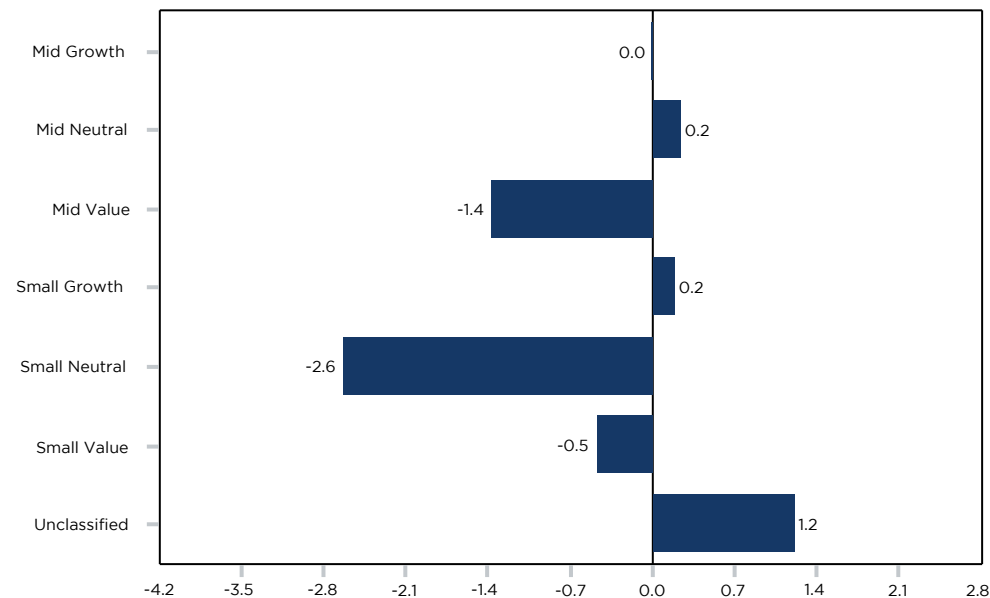
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.10 (53)	16.95 (42)	-3.22 (43)	12.45 (16)	7.27 (25)	13.59 (32)	-10.84 (31)	14.83 (24)	21.58 (39)	-4.14 (46)
Benchmark	2.10	16.98	-3.31	12.30	7.06	13.45	-11.01	14.65	21.31	-4.41
Peer Group	2.13	16.53	-3.53	10.85	6.30	13.08	-11.94	13.20	20.81	-4.36
Population	1,115	1,106	1,076	928	836	691	1,086	1,081	1,073	1,030

Fund Information

Fund Inception	10/01/2002
Fund Assets	3,068 Million
Portfolio Assets	2,295 Million
Total # of Holdings	2013
% in Top 10	4.60 %
PM	Campagna,P/Liao,L/Tran,D
PM Tenure	13 Years 10 Months
Turnover	20.00 %
Gross Expense (%)	0.06 %
Net Expense (%)	0.06 %
New Investors	Open

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,903	2,569
Median Mkt. Cap (\$M)	797	787
Price/Earnings ratio	18.2	18.1
Price/Book ratio	2.4	2.4
5 Yr. EPS Growth Rate (%)	13.8	13.9
Current Yield (%)	1.4	1.4
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	1,943	1,977
Debt to Equity	0.9	0.9
Forecast P/E	16.4	16.5
Forecast EPS Growth	13.7	13.8
Return on Equity	0.0	0.0

Country/Region Allocation

United States	97.1	97.1
Non-US Developed	2.2	2.2
Emerging Markets	0.3	0.3
Other	0.4	0.4
Total	100.0	100.0

Fund Statistics

	3 Years	10 Years
Standard Deviation	16.83	17.35
vs. Russell 2000 Index		
Beta	1.00	1.00
Alpha	0.15	0.16
Information Ratio	1.44	1.01
Tracking Error	0.09	0.12
R-Squared	1.00	1.00
Up Market Capture	100.14	100.13
Down Market Capture	99.47	99.54
Consistency	63.89	64.17

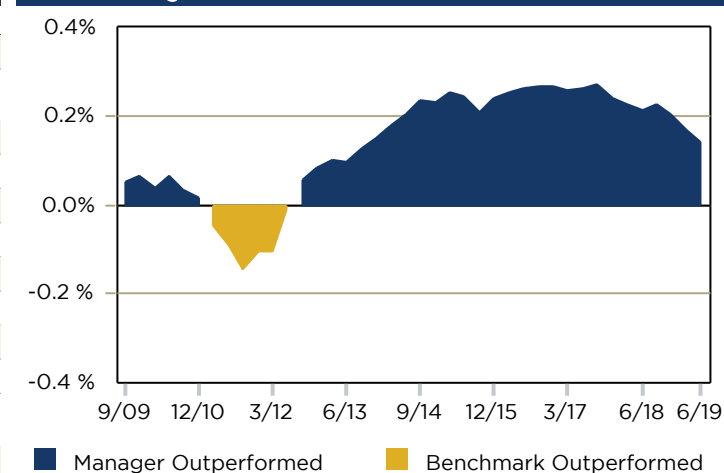
vs. Risk Free

Sharpe Ratio	0.70	0.80
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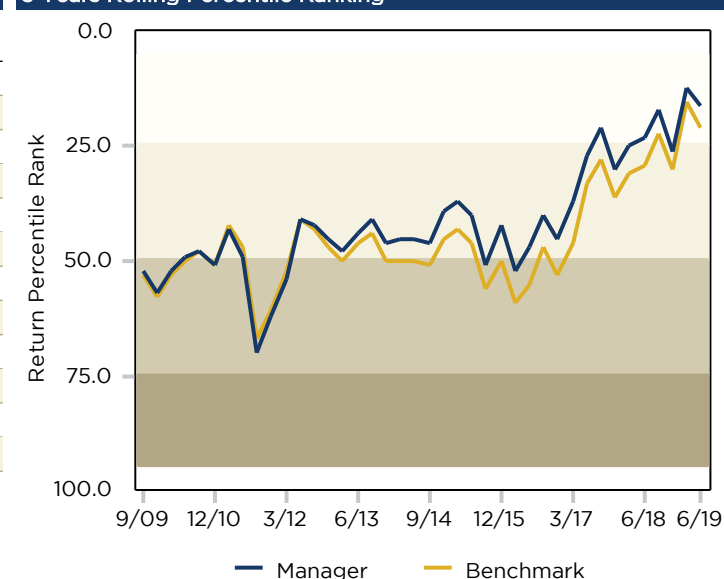
Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	3.0	3.0
Consumer Discretionary	11.6	11.7
Consumer Staples	2.6	2.7
Energy	3.3	3.3
Financials	17.3	17.6
Health Care	15.6	15.9
Industrials	15.2	15.3
Information Technology	15.1	15.3
Materials	3.7	3.8
Real Estate	7.9	7.5
Utilities	3.8	3.9
Total	99.2	100.0

3 Years Rolling Excess Performance

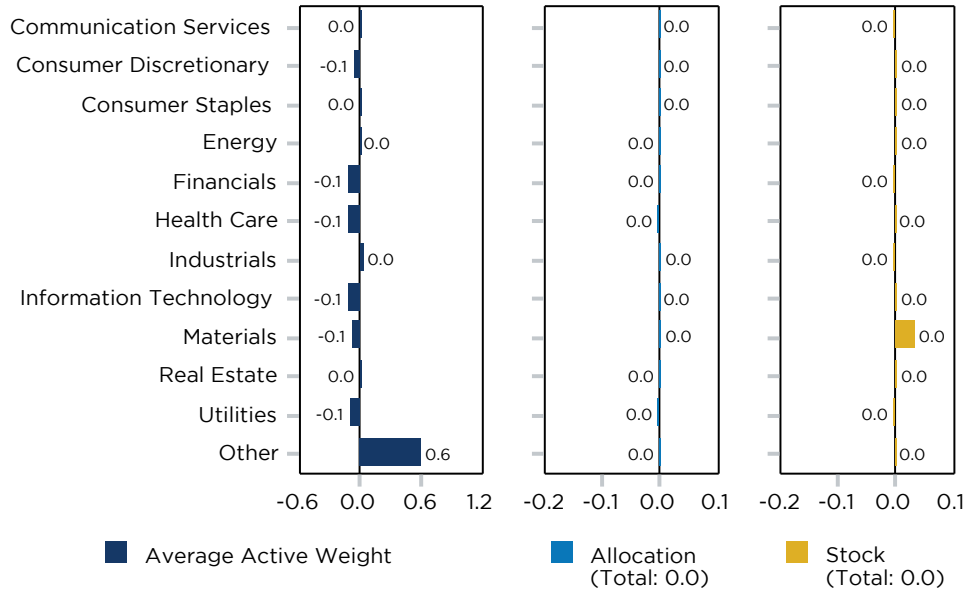


3 Years Rolling Percentile Ranking

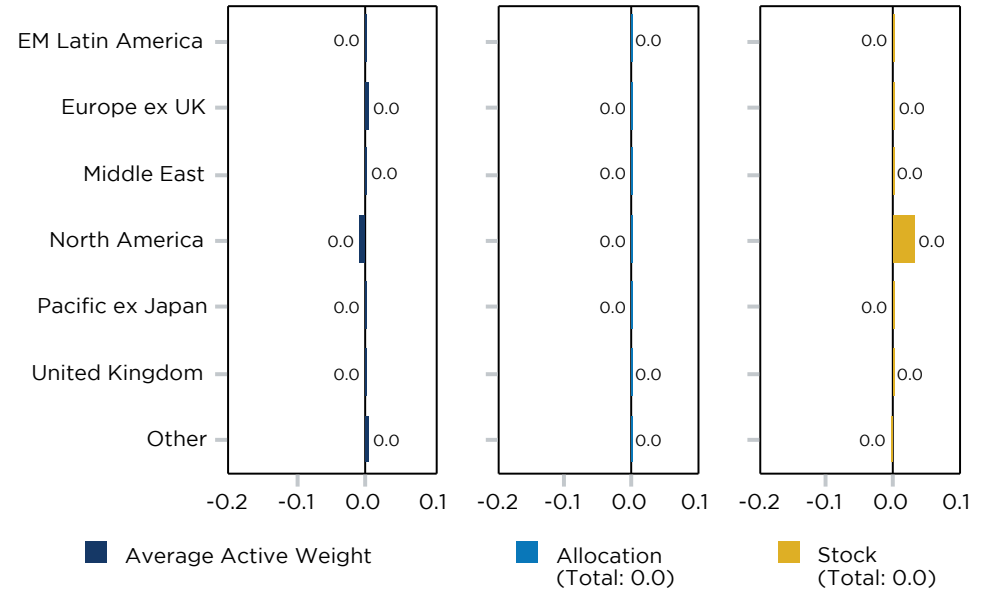




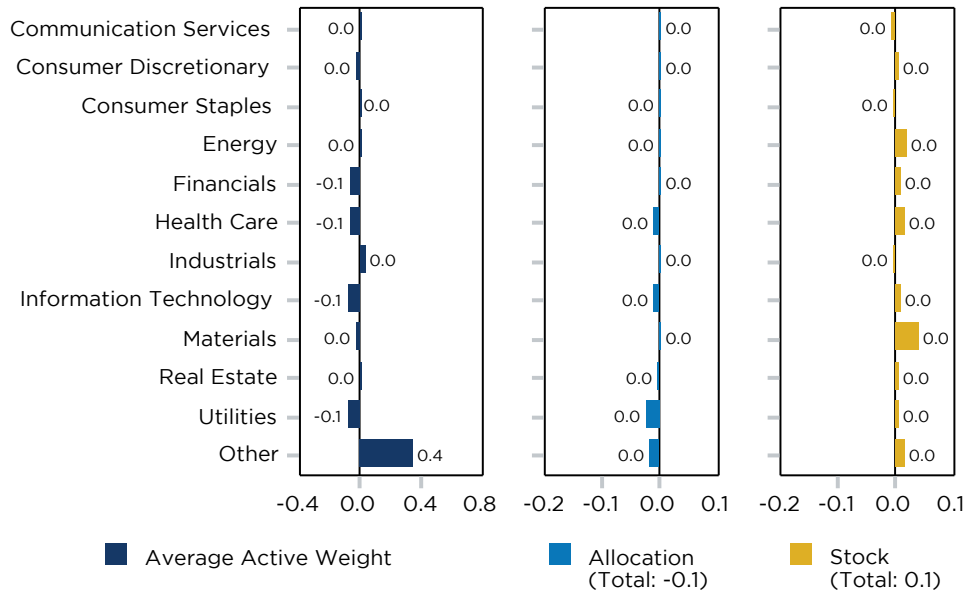
1 Quarter Sector Attribution



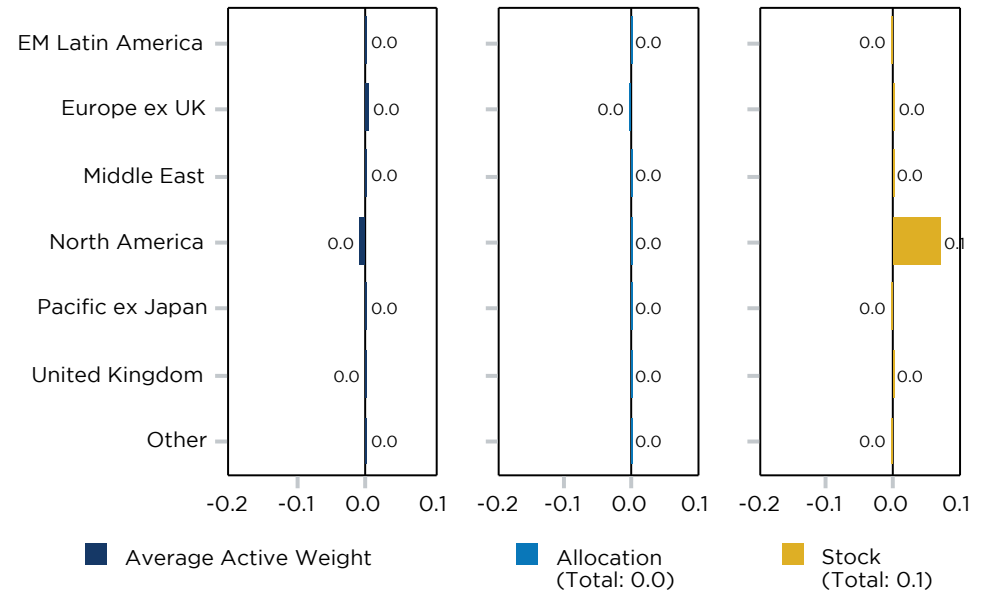
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



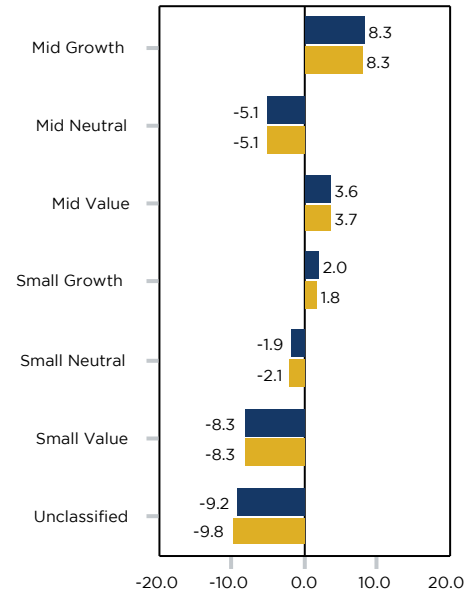


Top Ten Securities		Asset Allocation (%)	
iShares Russell 2000 ETF	2.1 %	Equity	99.8
Array BioPharma Inc	0.5 %	Cash	0.2
Haemonetics Corp	0.3 %	Fixed Income	0.0
NovoCure Ltd	0.3 %		
Deckers Outdoor Corp	0.3 %		
Science Applications International	0.3 %		
EMCOR Group Inc	0.2 %		
Portland General Electric Co	0.2 %		
Radian Group Inc	0.2 %		
Southwest Gas Holdings Inc	0.2 %		
Total	4.6 %		

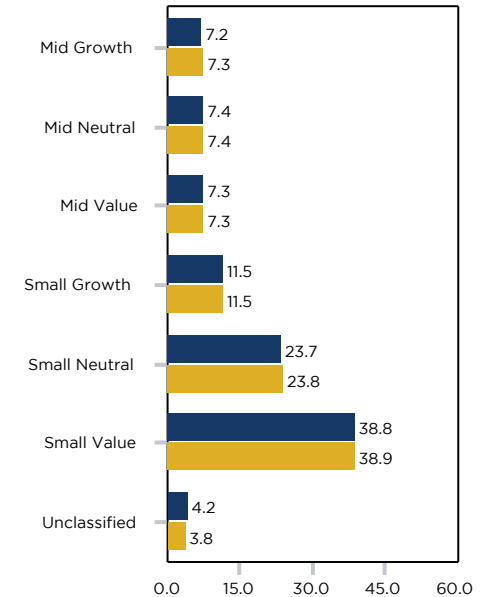
Top Ten Contributors		Market Capitalization (%)		
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Array BioPharma Inc	0.25	0.25	0.00	90.03
Coupa Software Inc	0.25	0.25	0.00	39.16
Haemonetics Corp	0.22	0.22	0.00	37.56
Iovance Biotherapeutics Inc	0.05	0.05	0.00	157.83
Roku Inc	0.14	0.14	0.00	40.41
Generac Holdings Inc	0.15	0.15	0.00	35.49
NovoCure Ltd	0.17	0.17	0.00	31.26
Tetra Tech Inc	0.16	0.16	0.00	32.12
Repligen Corp	0.11	0.11	0.00	45.48
Sinclair Broadcast Group Inc	0.13	0.13	0.00	39.87

Top Ten Detractors		Market Capitalization (%)		
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
LivaNova PLC	0.23	0.23	0.00	-26.01
Cloudera Inc	0.11	0.11	0.00	-51.92
Mallinckrodt Plc	0.09	0.09	0.00	-57.77
Southwestern Energy Co	0.14	0.14	0.00	-32.62
Endo International plc	0.09	0.09	0.00	-48.69
Office Depot Inc	0.10	0.10	0.00	-42.54
Atara Biotherapeutics Inc	0.08	0.08	0.00	-49.41
Immunomedics Inc	0.14	0.14	0.00	-27.80
American Eagle Outfitters Inc.	0.17	0.18	0.00	-23.29
Edgewell Personal Care Co	0.11	0.12	0.00	-38.60

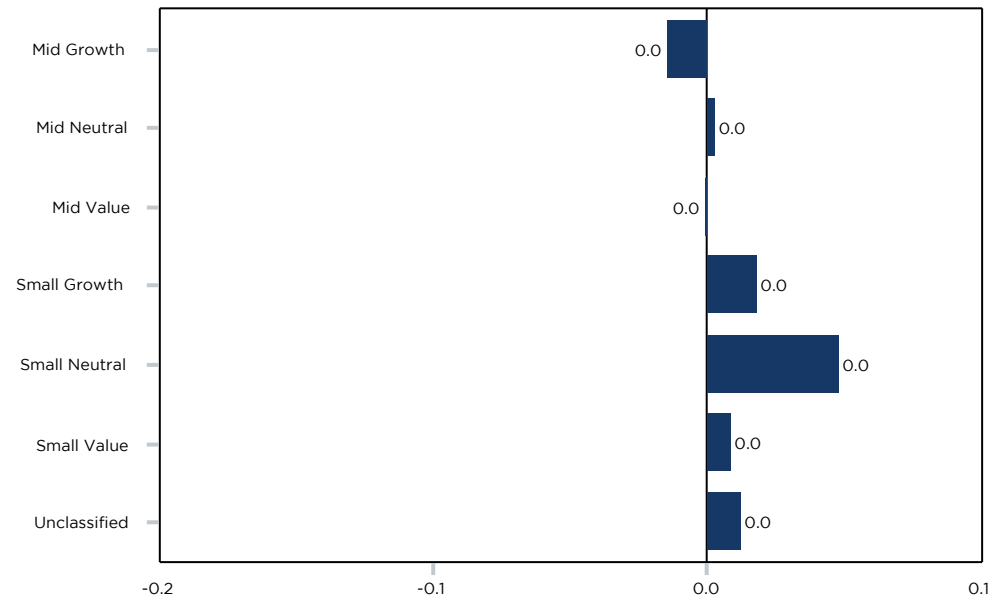
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	7.11 (16)	30.50 (12)	10.60 (17)	24.55 (6)	12.35 (13)	18.27 (2)	-0.67 (18)	34.91 (6)	6.80 (78)	-0.91 (34)
Benchmark	2.75	20.36	-0.49	14.69	8.63	14.41	-9.31	22.17	11.32	-1.38
Peer Group	4.12	21.41	3.80	15.92	9.28	14.73	-6.09	21.87	10.91	-2.14
Population	1,006	988	942	801	773	674	938	875	906	898

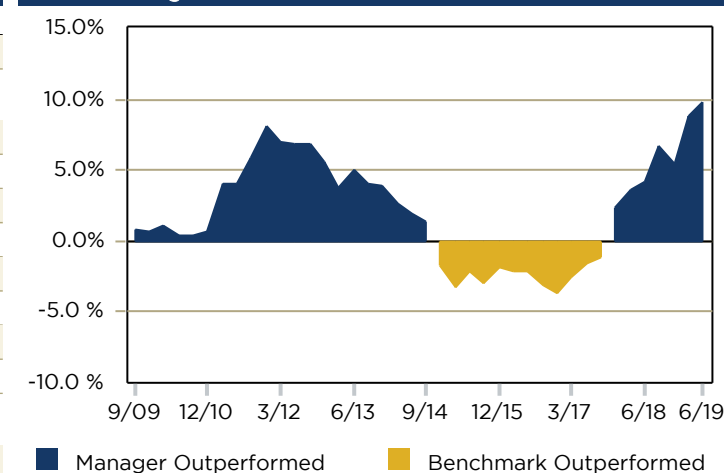
Fund Information

Fund Inception	03/01/2005
Fund Assets	2,137 Million
Portfolio Assets	494 Million
Total # of Holdings	105
% in Top 10	16.24 %
PM	Team Managed
PM Tenure	18 Years 6 Months
Turnover	65.00 %
Gross Expense (%)	0.91 %
Net Expense (%)	0.91 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	17.84	18.86
vs. Russell 2000 Growth Index		
Beta	1.01	1.02
Alpha	8.70	3.33
Information Ratio	1.95	0.75
Tracking Error	4.34	4.69
R-Squared	0.94	0.94
Up Market Capture	115.75	105.87
Down Market Capture	75.85	91.31
Consistency	72.22	55.83

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	4,802	2,889
Median Mkt. Cap (\$M)	4,138	884
Price/Earnings ratio	27.7	22.7
Price/Book ratio	4.8	4.0
5 Yr. EPS Growth Rate (%)	21.5	19.0
Current Yield (%)	0.3	0.7
Beta (5 Years, Monthly)	1.02	1.00
Number of Stocks	97	1,228
Debt to Equity	0.6	0.7
Forecast P/E	27.8	20.2
Forecast EPS Growth	18.8	16.3
Return on Equity	0.0	0.0

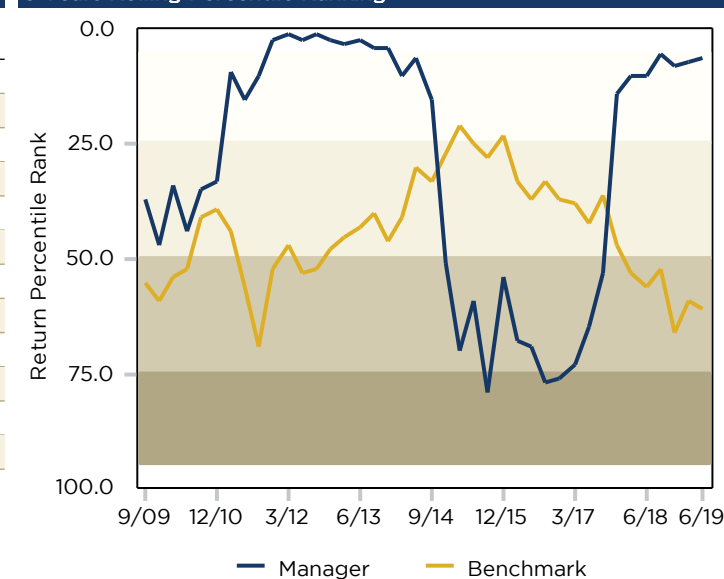
vs. Risk Free

Sharpe Ratio	1.25	0.97
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	0.0	3.1
Consumer Discretionary	22.7	14.6
Consumer Staples	3.0	2.9
Energy	2.0	1.7
Financials	8.1	7.1
Health Care	22.7	26.4
Industrials	17.0	18.6
Information Technology	21.1	18.5
Materials	1.7	3.4
Real Estate	0.0	3.2
Utilities	0.0	0.5
Total	98.2	100.0

3 Years Rolling Percentile Ranking

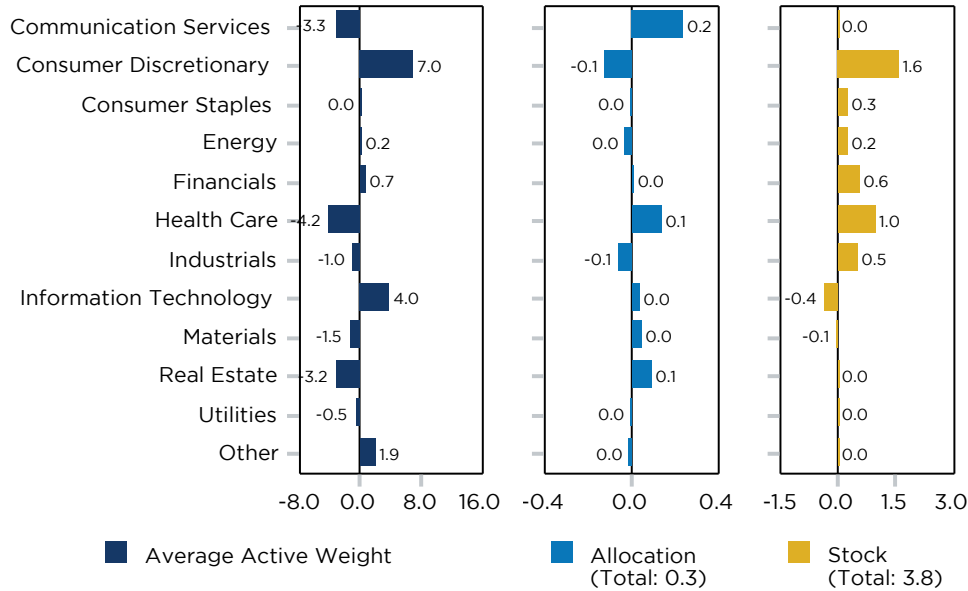


Country/Region Allocation

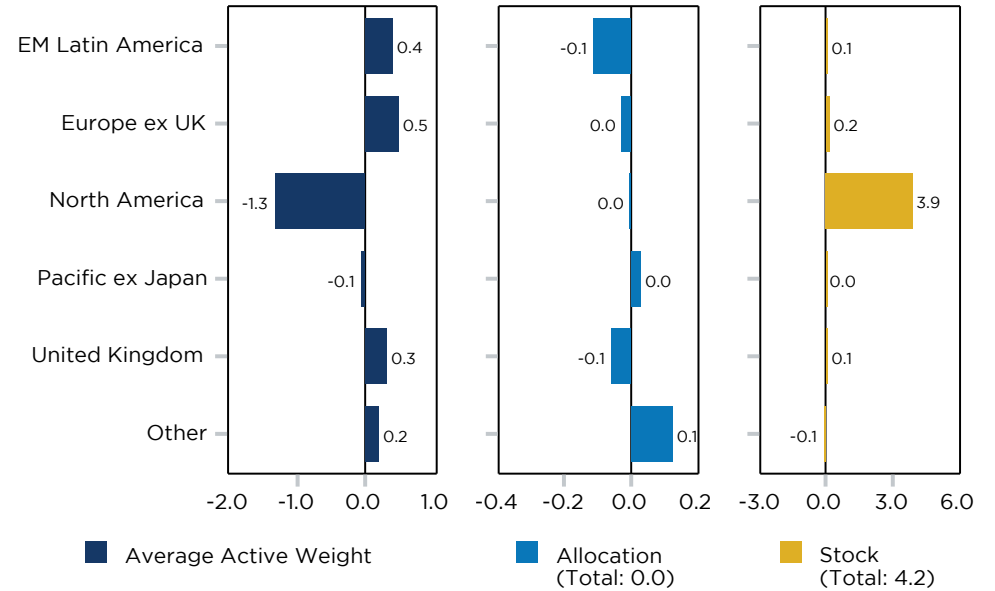
United States	95.9	97.5
Non-US Developed	2.6	2.0
Emerging Markets	0.5	0.1
Other	1.0	0.4
Total	100.0	100.0



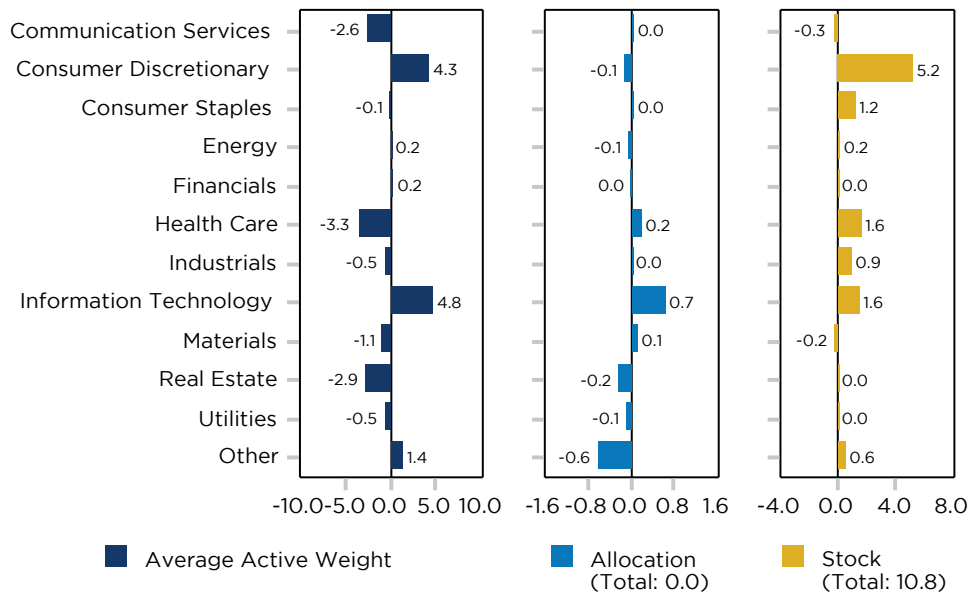
1 Quarter Sector Attribution



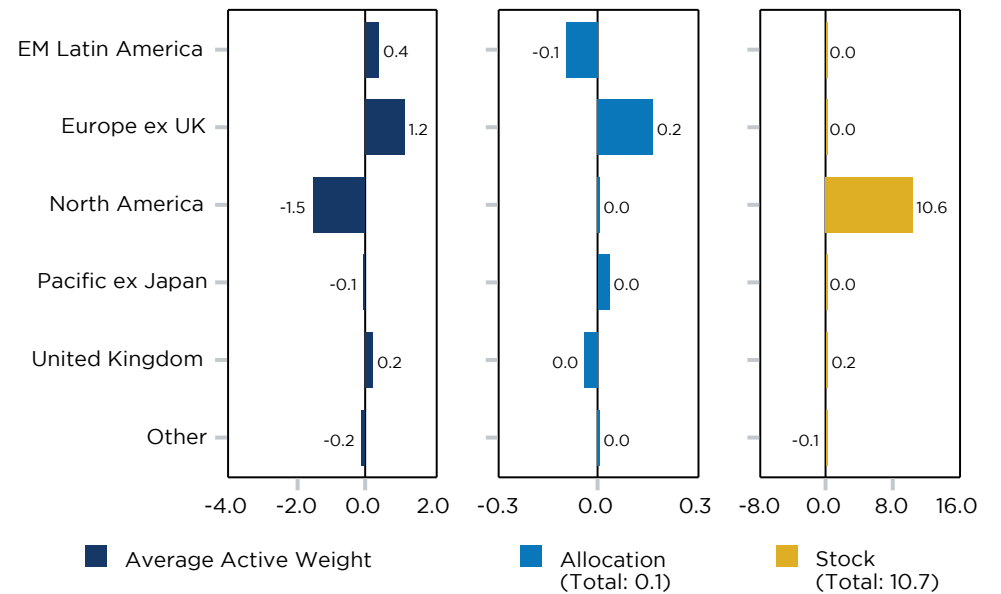
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution

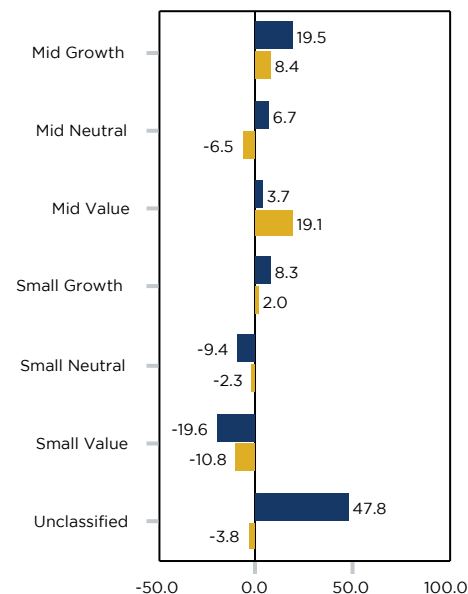


Top Ten Securities		Asset Allocation (%)	
Strategic Education Inc	1.8 %	Equity	96.8
Tetra Tech Inc	1.7 %	Cash	3.1
Chegg Inc	1.7 %	Fixed Income	0.0
iShares Russell 2000 Growth ETF	1.7 %		
Ingevity Corp	1.6 %		
Trupanion Inc	1.6 %		
Teladoc Health Inc	1.6 %		
LHC Group Inc	1.6 %		
Rapid7 Inc	1.5 %		
Novanta Inc	1.5 %		
Total	16.2 %		

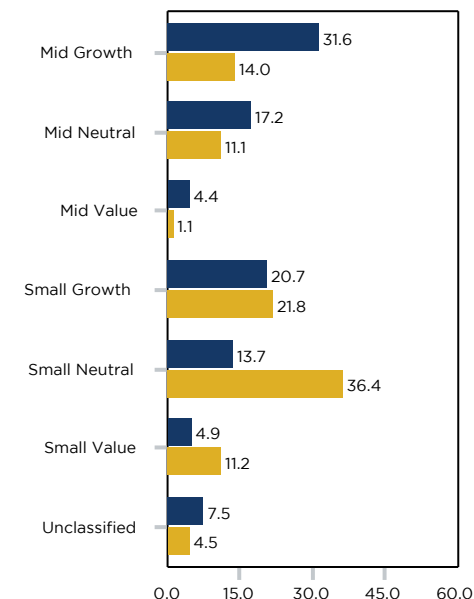
Top Ten Contributors		Market Capitalization (%)		
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Strategic Education Inc	1.54	0.26	0.42	35.93
EXACT Sciences Corp	1.17	0.00	0.39	36.27
Skyline Champion Corp	0.92	0.06	0.36	44.11
Hamilton Lane Inc	1.29	0.07	0.35	31.62
Tetra Tech Inc	1.41	0.29	0.33	32.12
Wingstop Inc	1.58	0.19	0.31	24.75
Gardner Denver Holdings Inc	1.17	0.00	0.25	24.42
Silicon Laboratories Inc	1.24	0.33	0.23	27.88
RBC Bearings Inc	1.03	0.29	0.21	31.17
Teladoc Health Inc	1.43	0.35	0.18	19.44

Top Ten Detractors		Market Capitalization (%)		
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
2U Inc	0.97	0.00	-0.48	-46.87
SailPoint Technologies Holdings Inc	1.27	0.19	-0.36	-30.22
Pure Storage Inc	1.08	0.00	-0.35	-29.92
Intersect ENT Inc	0.88	0.09	-0.25	-29.21
Sleep Number Corp	1.47	0.14	-0.22	-14.06
Chart Industries Inc	1.27	0.11	-0.21	-15.07
New Relic Inc	1.64	0.42	-0.18	-12.35
Aerie Pharmaceuticals Inc	0.61	0.16	-0.18	-37.79
Gates Industrial Corp PLC	0.64	0.00	-0.15	-20.43
Etsy Inc	1.97	0.76	-0.14	-8.70

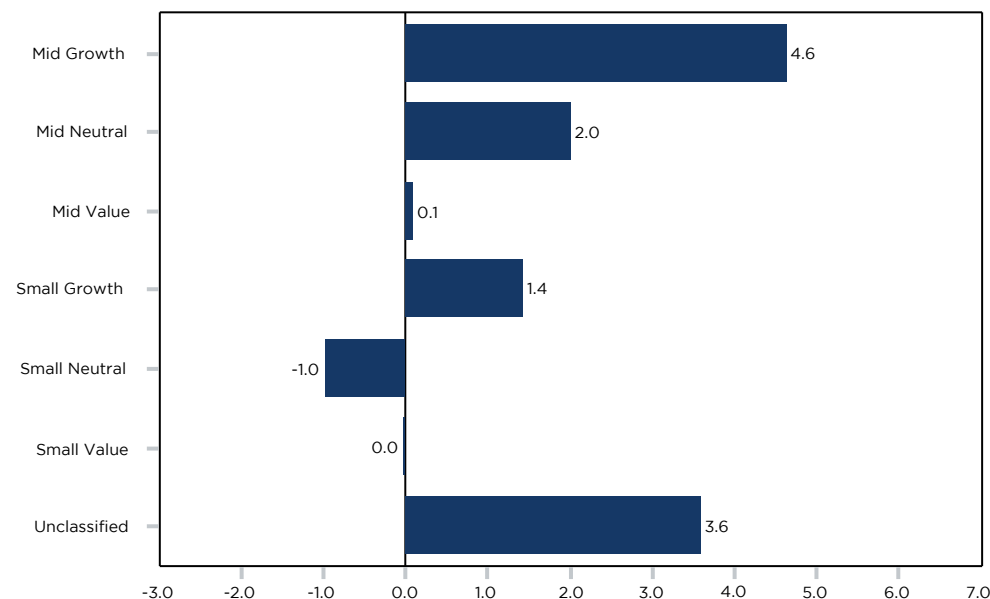
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





CREF Global Equities R3 (QCGLIX)

Index: MSCI World Index
 Category: World Large Stock
 Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.12 (61)	17.05 (44)	3.31 (67)	10.99 (50)	5.96 (49)	10.44 (47)	-12.36 (77)	24.81 (39)	5.11 (55)	-0.34 (40)
Benchmark	4.20	17.38	6.94	12.39	7.20	11.33	-8.20	23.07	8.15	-0.32
Peer Group	3.58	16.29	4.74	10.96	5.85	10.24	-9.71	23.71	5.53	-1.35
Population	1,327	1,302	1,214	964	844	615	1,231	1,095	1,096	1,049

Fund Information

Fund Inception	04-2015
Fund Assets	20,377 Million
Portfolio Assets	10,016 Million
Total # of Holdings	3010
% Assets in Top 10 Holdings	14.4 %
PM	Bagai,H/Franks,T/Tribolet,J
PM Tenure	13 Years 1 Month
Turnover	77.0 %
Gross Expense (%)	0.3 %
Net Expense (%)	0.3 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	66,102 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.4 %

Top Holdings (%)

Microsoft Corp	2.5
Apple Inc	2.3
Amazon.com Inc	2.1
Facebook Inc A	1.2
Boeing Co	1.2
Coca-Cola Co	1.1
Cisco Systems Inc	1.1
Linde PLC	1.0
Visa Inc Class A	1.0
PayPal Holdings Inc	1.0

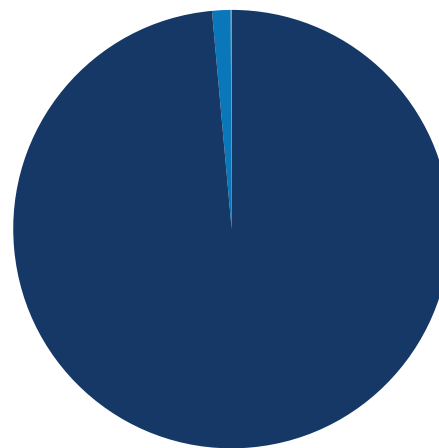
Fund Statistics

	3 Years	10 Years
Standard Deviation	12.18	13.78
vs. MSCI World Index		
Beta	1.09	1.04
Alpha	-2.18	-1.14
Information Ratio	-0.71	-0.45
Tracking Error	1.62	1.62
R-Squared	0.99	0.99
Up Market Capture	100.59	100.52
Down Market Capture	113.31	106.77
Consistency	44.44	49.17

vs. Risk Free

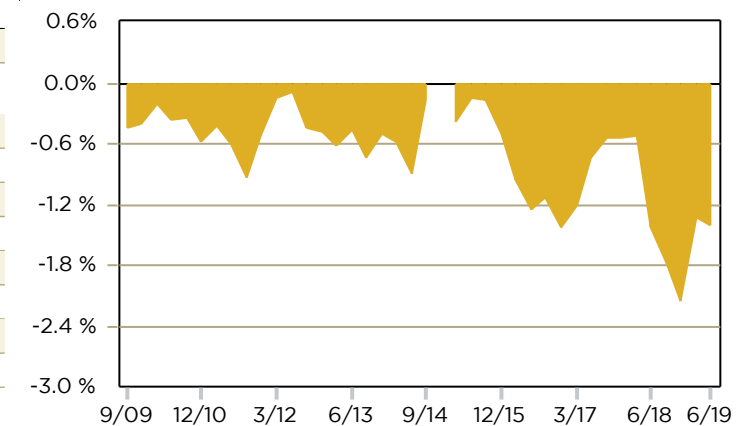
Sharpe Ratio	0.81	0.76
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Asset Allocation



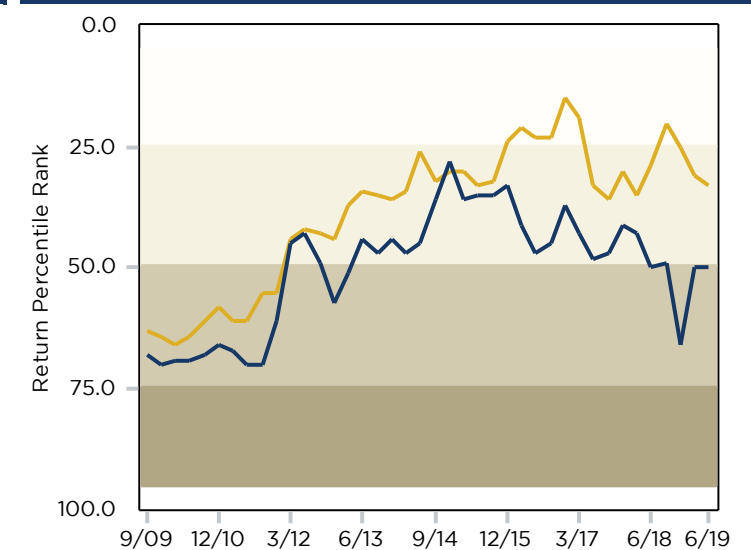
Equity Cash
 Other Fixed Income

3 Years Rolling Excess Performance



Manager Outperformed Benchmark Outperformed

3 Years Rolling Percentile Ranking



Manager Benchmark



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.65 (35)	14.06 (44)	1.46 (29)	9.05 (28)	2.40 (32)	7.03 (31)	-13.25 (17)	25.32 (52)	1.22 (49)	-0.49 (34)
Benchmark	3.68	14.03	1.08	9.11	2.25	6.90	-13.79	25.03	1.00	-0.81
Peer Group	3.26	13.86	0.28	8.37	2.04	6.62	-14.64	25.41	1.12	-1.22
Population	1,234	1,216	1,170	977	837	670	1,160	1,108	1,115	1,028

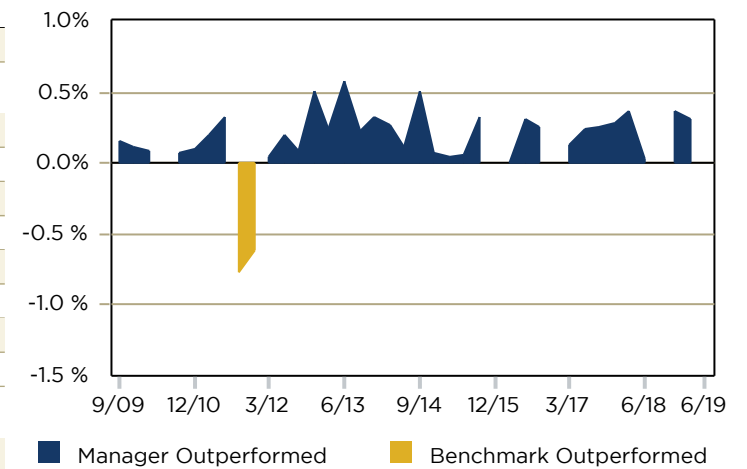
Fund Information

Fund Inception	10/01/2002
Fund Assets	11,911 Million
Portfolio Assets	7,356 Million
Total # of Holdings	942
% in Top 10	12.43 %
PM	Campagna,P/Liao,L/Tran,D
PM Tenure	13 Years 10 Months
Turnover	4.00 %
Gross Expense (%)	0.06 %
Net Expense (%)	0.06 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	10.89	14.80
vs. MSCI EAFE (Net) Index		
Beta	0.99	0.99
Alpha	0.04	0.19
Information Ratio	-0.04	0.06
Tracking Error	1.34	2.00
R-Squared	0.99	0.98
Up Market Capture	98.13	99.96
Down Market Capture	97.06	99.23
Consistency	50.00	50.83

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	65,504	64,588
Median Mkt. Cap (\$M)	10,228	10,228
Price/Earnings ratio	14.9	14.8
Price/Book ratio	2.2	2.3
5 Yr. EPS Growth Rate (%)	7.3	8.1
Current Yield (%)	3.2	3.6
Beta (5 Years, Monthly)	0.96	1.00
Number of Stocks	920	923
Debt to Equity	1.1	1.1
Forecast P/E	13.7	13.7
Forecast EPS Growth	9.2	8.8
Return on Equity	0.0	0.0

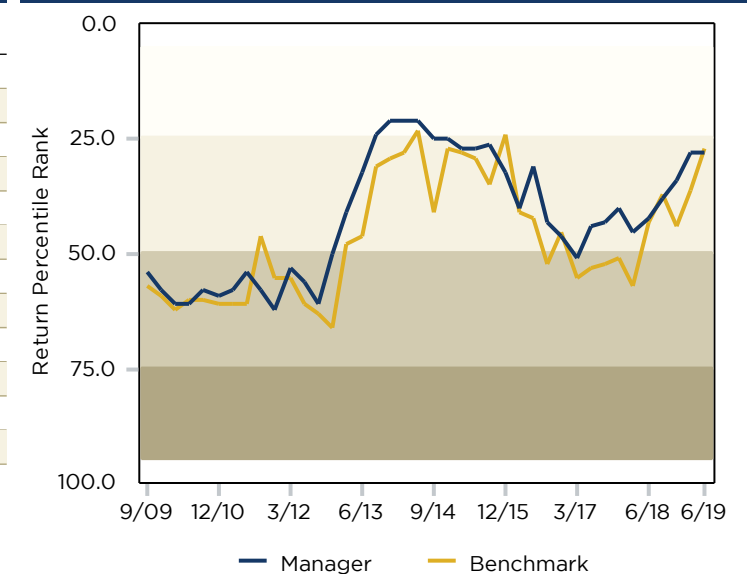
vs. Risk Free

Sharpe Ratio	0.73	0.50
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	5.1	5.4
Consumer Discretionary	11.1	11.1
Consumer Staples	11.2	11.7
Energy	5.7	5.6
Financials	19.5	18.9
Health Care	11.2	11.2
Industrials	14.8	14.8
Information Technology	6.8	6.7
Materials	7.4	7.4
Real Estate	3.6	3.6
Utilities	3.7	3.6
Total	100.0	100.0

3 Years Rolling Percentile Ranking

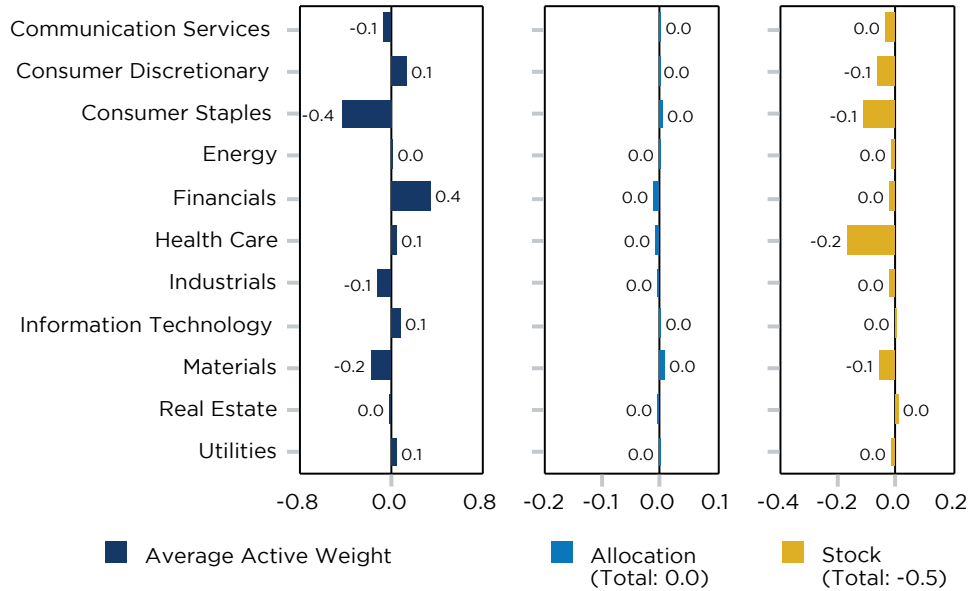


Country/Region Allocation

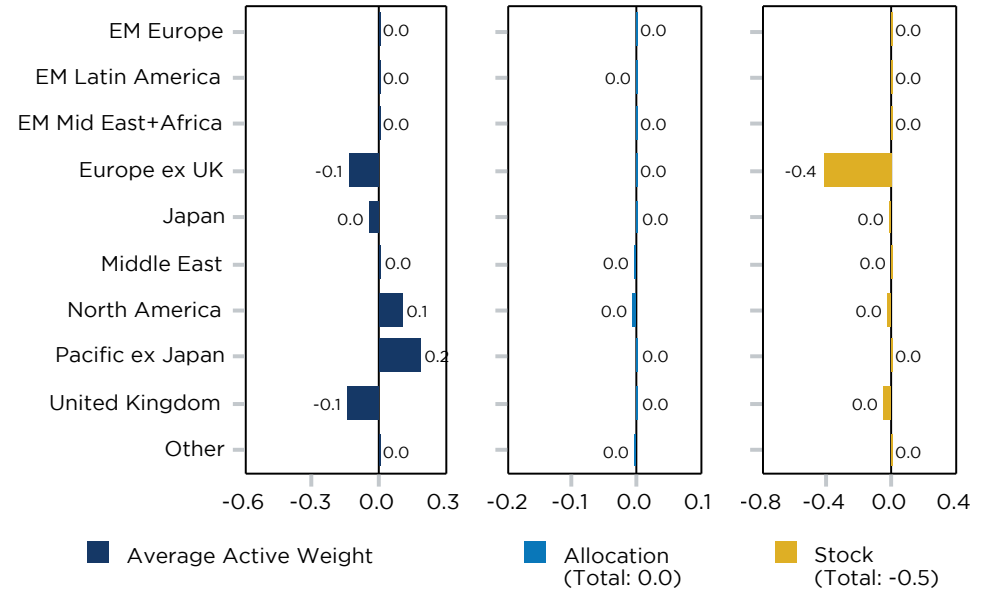
United States	0.2	0.2
Non-US Developed	99.3	99.3
Emerging Markets	0.1	0.1
Other	0.4	0.4
Total	100.0	100.0



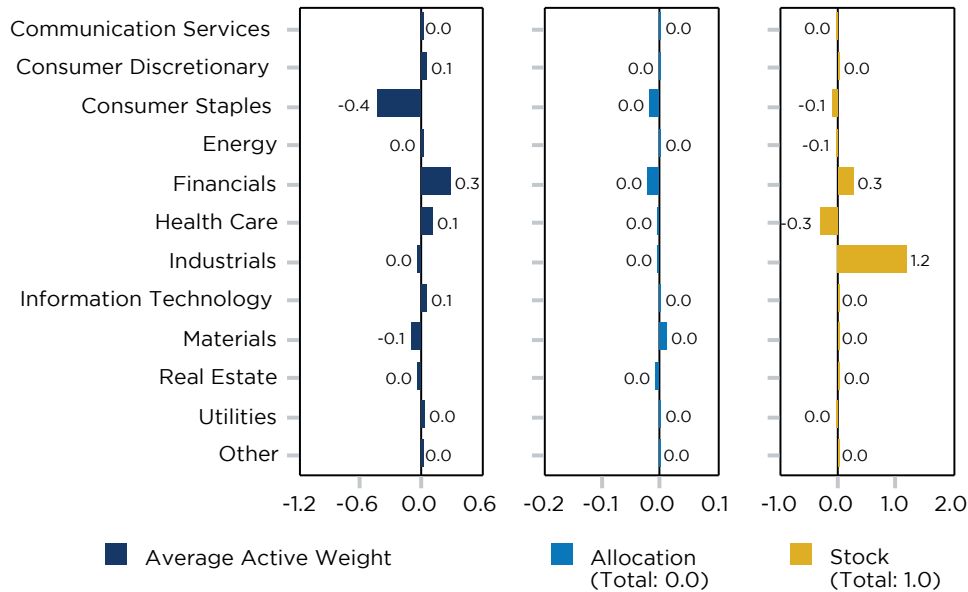
1 Quarter Sector Attribution



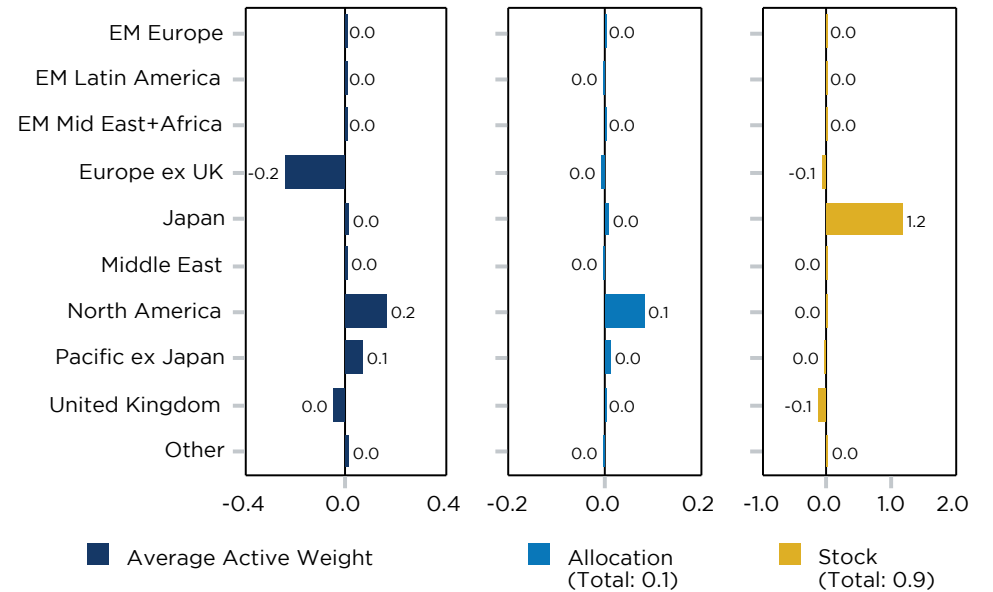
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

Nestle SA	2.2 %
Msci Eafe Sep19 Ifus 20190920	1.6 %
Novartis AG	1.4 %
Roche Holding AG Dividend Right	1.4 %
HSBC Holdings PLC	1.2 %
Royal Dutch Shell PLC Class A	1.0 %
Toyota Motor Corp	1.0 %
BP PLC	1.0 %
SAP SE	0.9 %
Total SA	0.9 %
Total	12.4 %

Asset Allocation (%)

Equity	98.2
Cash	1.8
Fixed Income	0.0

Market Capitalization (%)

Giant	49.7
Large	36.3
Medium	14.0
Small	0.0
Micro	0.0

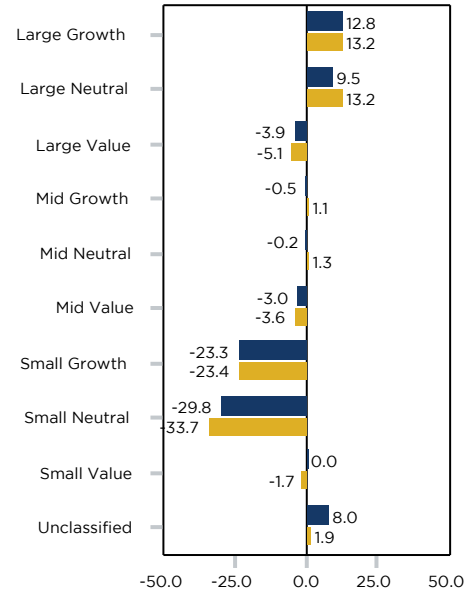
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
SAP AG	0.85	0.83	0.00	20.41
Adidas AG	0.33	0.32	0.00	28.78
Nestle SA	2.17	2.14	0.00	11.47
Louis Vuitton Moet Hennessy	0.76	0.75	0.00	17.07
Commonwealth Bank of Australia	0.66	0.65	0.00	15.74
AIA Group Ltd	0.90	0.88	0.00	9.71
Allianz SE	0.70	0.69	0.00	13.31
ASML Holding NV	0.57	0.56	0.00	12.69
Sony Corp	0.39	0.39	0.00	26.25
Nintendo Co Ltd	0.24	0.24	0.00	28.64

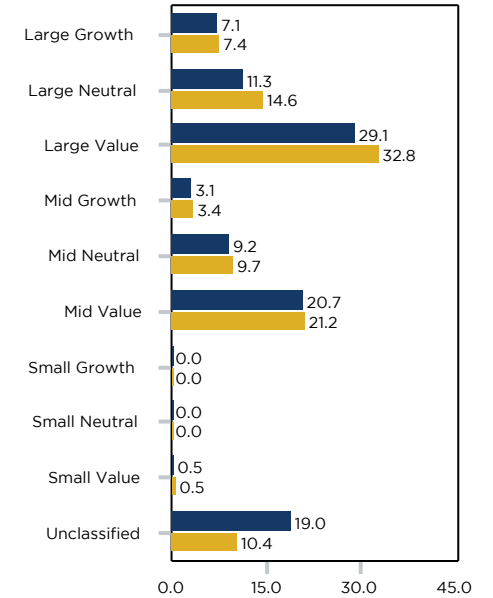
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Glencore Plc	0.35	0.34	0.00	-14.09
Takeda Pharmaceutical Co Ltd	0.45	0.44	0.00	-13.07
Koninklijke Ahold Delhaize NV	0.24	0.23	0.00	-12.78
BP PLC	1.09	1.07	0.00	-2.71
Glaxosmithkline PLC	0.77	0.76	0.00	-4.77
Imperial Brands PLC	0.24	0.24	0.00	-30.29
Teva Pharmaceutical	0.11	0.11	0.00	-41.14
Central Japan Railway Corp	0.25	0.25	0.00	-13.71
Deutsche Wohnen SE	0.13	0.13	0.00	-23.43
British American Tobacco	0.68	0.70	0.00	-12.77

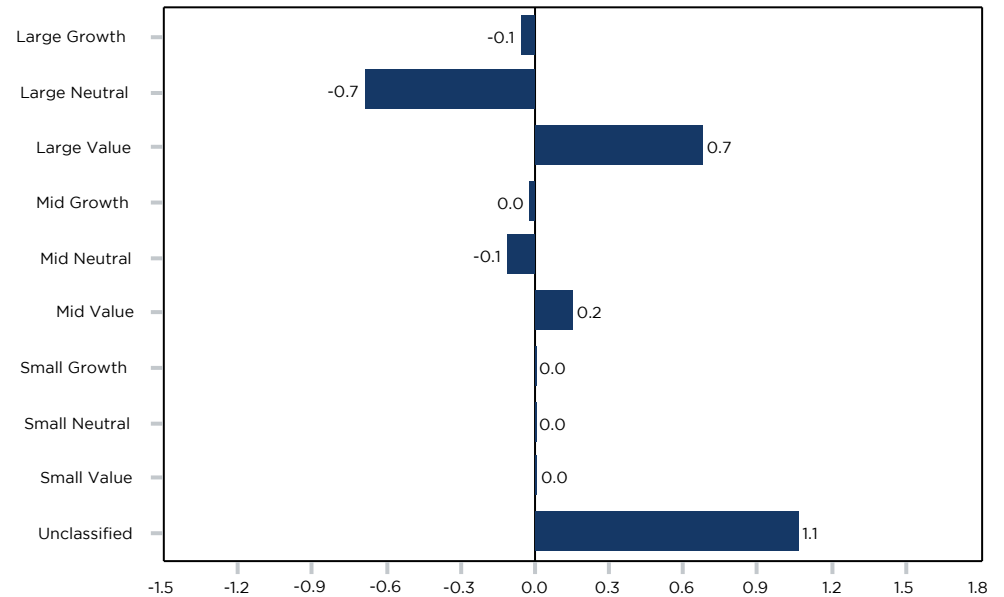
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)

Category: Foreign Large Growth

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.87 (71)	17.59 (60)	1.91 (48)	10.84 (32)	4.45 (36)	8.15 (48)	-14.91 (55)	31.17 (47)	1.01 (27)	-0.48 (63)
Benchmark	2.98	13.60	1.29	9.39	2.16	6.54	-14.20	27.19	4.50	-5.66
Peer Group	4.70	18.15	1.66	9.67	3.76	8.06	-14.47	30.93	-1.45	0.48
Population	725	715	678	580	530	429	672	631	630	606

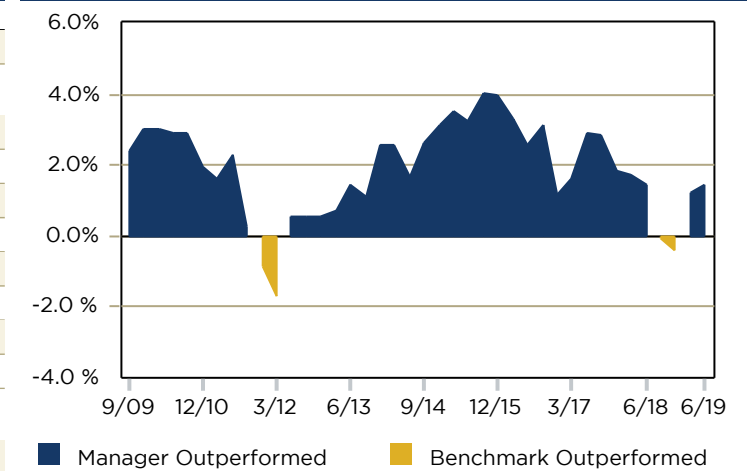
Fund Information

Fund Inception	05/01/2009
Fund Assets	159,588 Million
Portfolio Assets	70,131 Million
Total # of Holdings	330
% in Top 10	21.49 %
PM	Team Managed
PM Tenure	27 Years 6 Months
Turnover	35.00 %
Gross Expense (%)	0.49 %
Net Expense (%)	0.49 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.20	14.41
vs. MSCI AC World ex USA (Net)		
Beta	1.06	0.95
Alpha	0.91	1.85
Information Ratio	0.50	0.45
Tracking Error	2.88	3.23
R-Squared	0.95	0.95
Up Market Capture	107.05	98.51
Down Market Capture	100.46	88.99
Consistency	55.56	50.83

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	79,437	67,766
Median Mkt. Cap (\$M)	19,820	7,982
Price/Earnings ratio	17.4	14.0
Price/Book ratio	2.9	2.2
5 Yr. EPS Growth Rate (%)	18.4	9.7
Current Yield (%)	1.8	3.4
Beta (5 Years, Monthly)	0.93	1.00
Number of Stocks	306	2,206
Debt to Equity	0.5	1.1
Forecast P/E	14.8	13.1
Forecast EPS Growth	16.1	10.4
Return on Equity	0.0	0.0

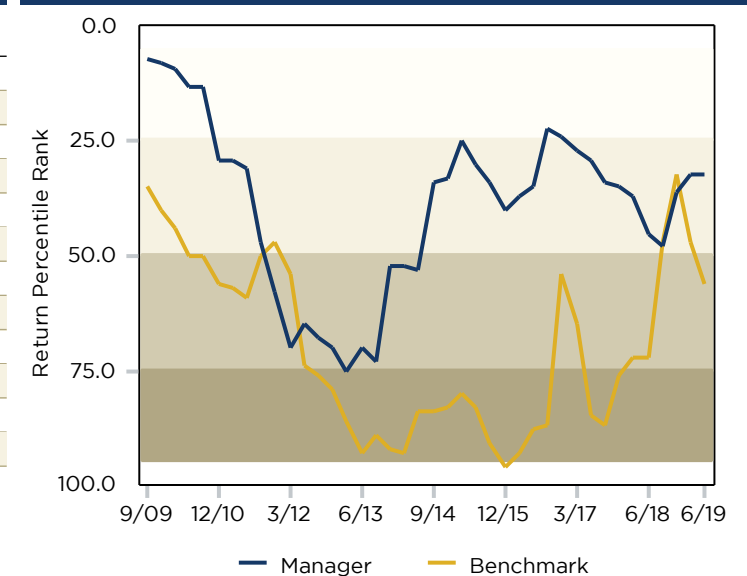
vs. Risk Free

Sharpe Ratio	0.79	0.59
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	6.0	6.9
Consumer Discretionary	16.0	11.3
Consumer Staples	5.4	9.8
Energy	6.3	7.1
Financials	20.1	21.9
Health Care	9.4	8.3
Industrials	11.7	11.9
Information Technology	11.1	8.5
Materials	9.0	7.6
Real Estate	1.6	3.3
Utilities	3.3	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking



Country/Region Allocation

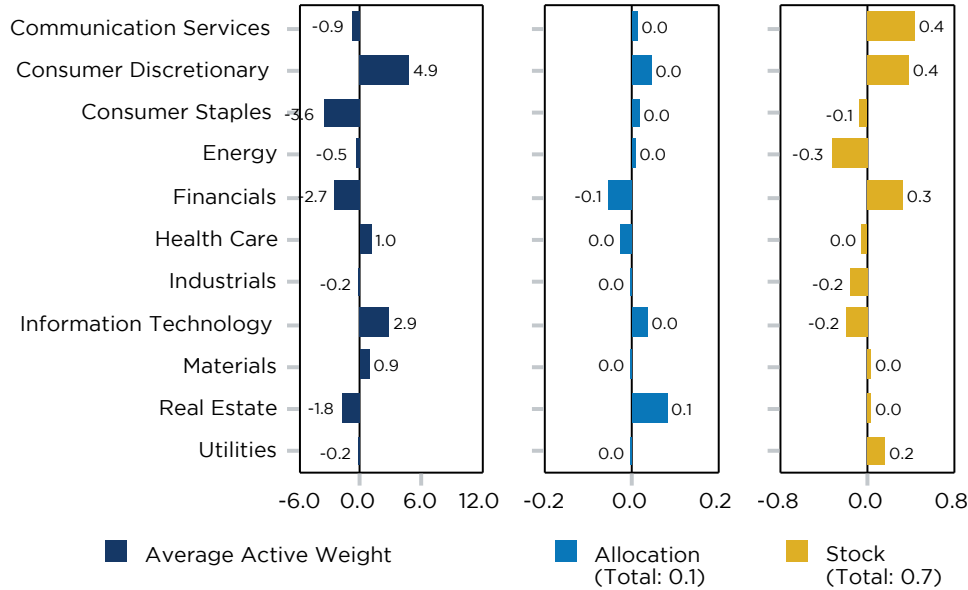
United States	0.6	0.1
Non-US Developed	68.5	76.7
Emerging Markets	29.8	22.9
Frontier Markets	0.1	0.0
Other	1.1	0.3



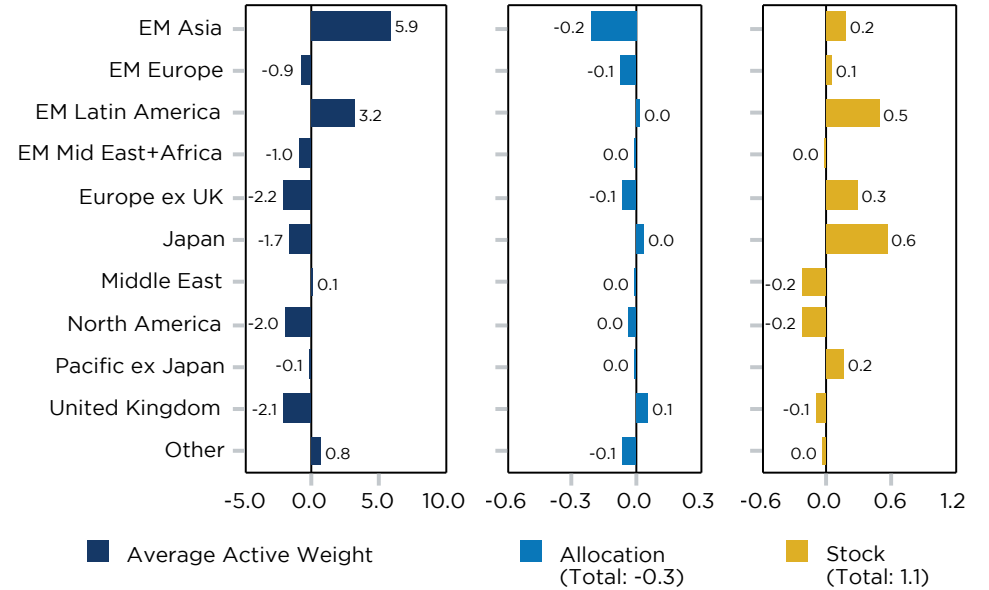
American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)
Return Date: 06/30/2019

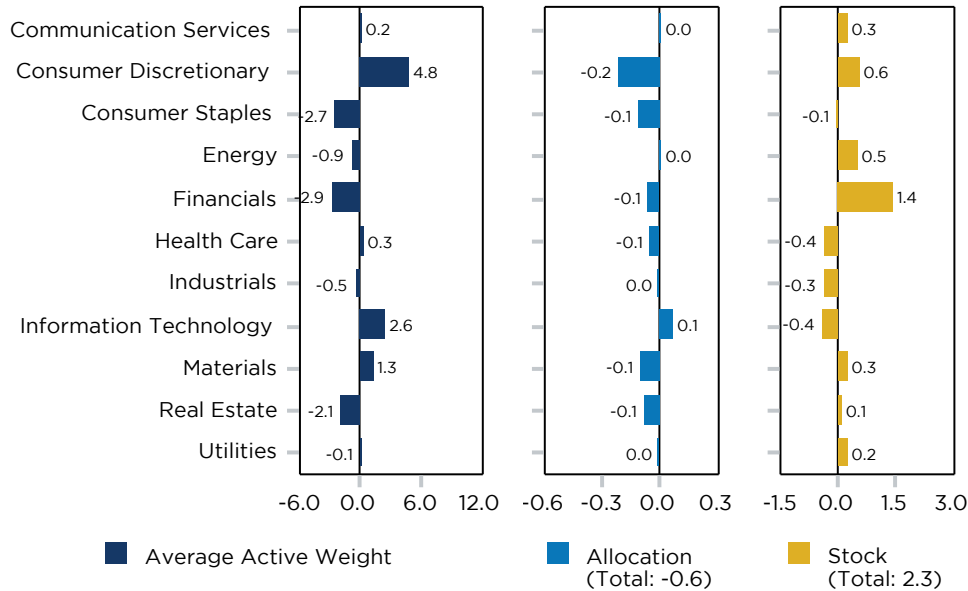
1 Quarter Sector Attribution



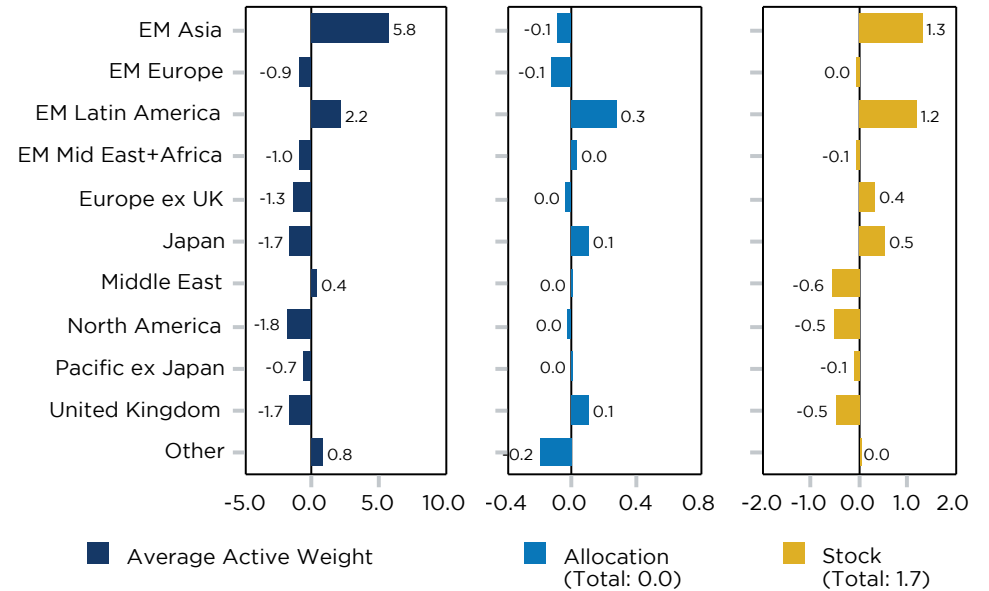
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)
Return Date: 06/30/2019

Top Ten Securities

AIA Group Ltd	3.0 %
Airbus SE	2.9 %
HDFC Bank Ltd	2.5 %
Alibaba Group Holding Ltd ADR	2.4 %
Nintendo Co Ltd	2.3 %
Reliance Industries Ltd	2.2 %
Samsung Electronics Co Ltd	1.7 %
ASML Holding NV	1.6 %
Vale SA ADR	1.5 %
Tencent Holdings Ltd	1.4 %
Total	21.5 %

Asset Allocation (%)

Equity	92.9
Cash	6.9
Fixed Income	0.3

Market Capitalization (%)

Giant	64.4
Large	24.7
Medium	10.7
Small	0.2
Micro	0.0

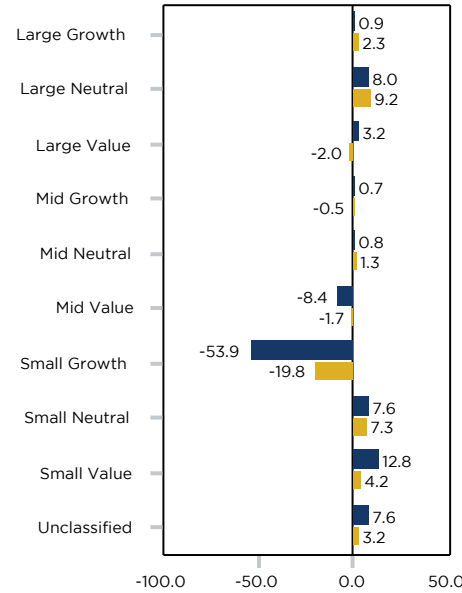
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Nintendo Co Ltd	1.84	0.16	0.43	28.64
MercadoLibre Inc	1.24	0.00	0.22	20.49
AIA Group Ltd	3.22	0.59	0.18	9.71
Adidas AG	0.86	0.22	0.17	28.78
European Aeronautic	3.03	0.38	0.15	8.73
Sony Corp	0.90	0.26	0.15	26.25
PagSeguro Digital Ltd	0.52	0.00	0.14	30.55
ASML Holding NV	1.56	0.38	0.11	12.69
Louis Vuitton Moet Hennessy	1.22	0.50	0.10	17.07
H D F C Bank Ltd	2.68	0.00	0.10	6.59

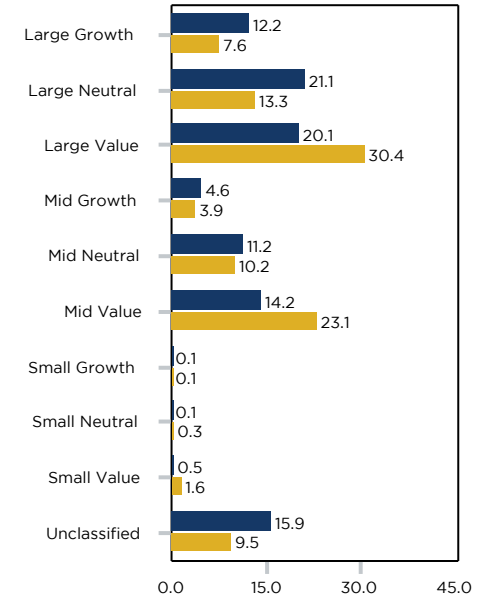
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Reliance Industries Ltd	2.76	0.28	-0.26	-7.60
Teva Pharmaceutical	0.59	0.07	-0.23	-41.14
Alibaba Group Holding Ltd	2.77	1.17	-0.16	-7.13
SK Hynix Inc	1.41	0.19	-0.13	-7.94
Ryohin Keikaku Co Ltd	0.39	0.03	-0.11	-28.65
Yamato Holdings Co	0.47	0.04	-0.10	-21.21
Glencore Plc	0.75	0.23	-0.09	-14.09
Just Eat plc	0.38	0.00	-0.08	-18.79
British American Tobacco	0.89	0.47	-0.07	-12.77
Takeda Pharmaceutical Co Ltd	0.63	0.30	-0.05	-13.07

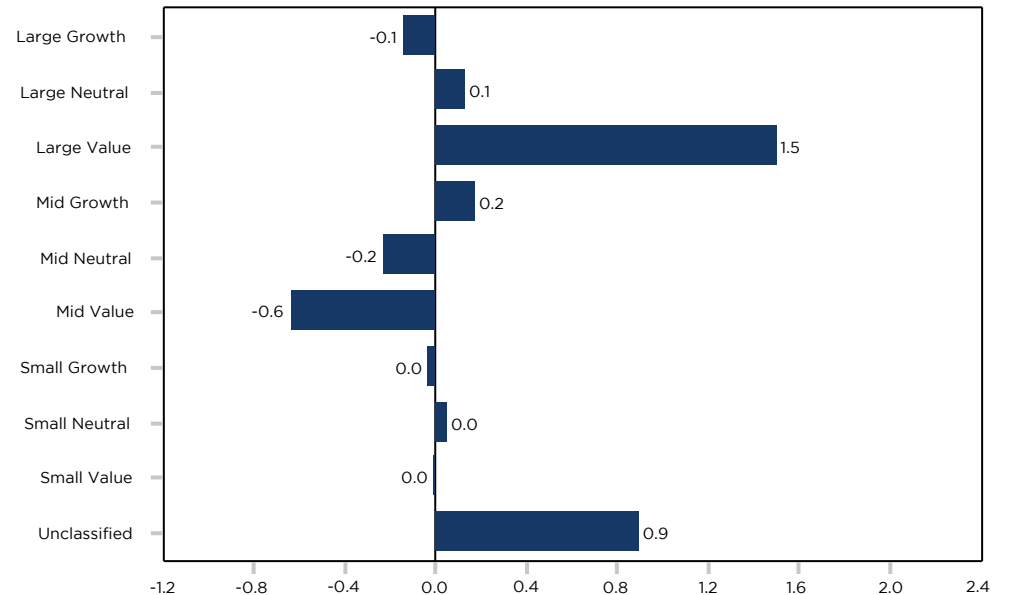
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	0.85 (66)	9.11 (84)	1.94 (39)	9.60 (49)	2.30 (45)	6.12 (41)	-13.62 (20)	36.57 (48)	12.09 (24)	-15.81 (68)
Benchmark	0.61	10.59	1.21	10.66	2.49	5.81	-14.58	37.28	11.19	-14.92
Peer Group	1.46	12.05	0.98	9.49	2.10	5.73	-16.32	35.93	8.87	-14.01
Population	1,196	1,176	1,103	926	794	456	1,116	1,043	1,079	1,009

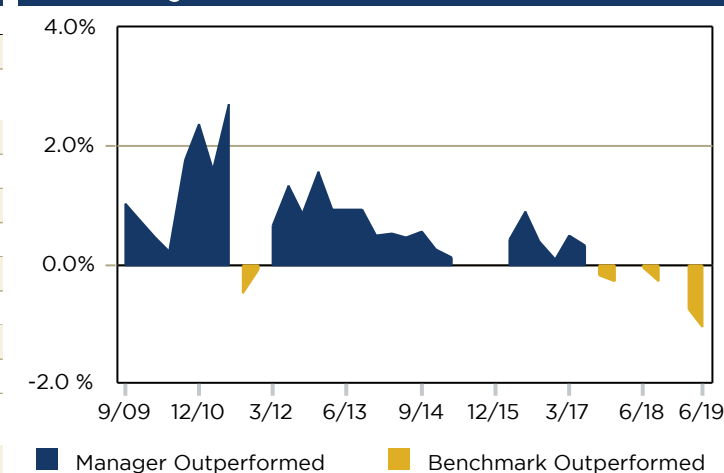
Fund Information

Fund Inception	04/25/1994
Fund Assets	5,801 Million
Portfolio Assets	5,801 Million
Total # of Holdings	1242
% in Top 10	15.88 %
PM	Fogdall,J/Phillips,M/Singh,B
PM Tenure	9 Years 4 Months
Turnover	8.00 %
Gross Expense (%)	0.57 %
Net Expense (%)	0.47 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.22	17.16
vs. MSCI Emerging Markets (Net) Index		
Beta	0.96	0.97
Alpha	-0.54	0.43
Information Ratio	-0.48	0.10
Tracking Error	2.15	2.52
R-Squared	0.98	0.98
Up Market Capture	95.41	98.58
Down Market Capture	99.17	96.82
Consistency	38.89	52.50

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	53,338	81,469
Median Mkt. Cap (\$M)	3,838	5,440
Price/Earnings ratio	13.7	12.0
Price/Book ratio	2.3	2.3
5 Yr. EPS Growth Rate (%)	12.3	14.0
Current Yield (%)	3.0	3.0
Beta (5 Years, Monthly)	0.95	1.00
Number of Stocks	1,185	1,194
Debt to Equity	1.0	0.9
Forecast P/E	12.5	11.6
Forecast EPS Growth	15.7	15.5
Return on Equity	0.0	0.0

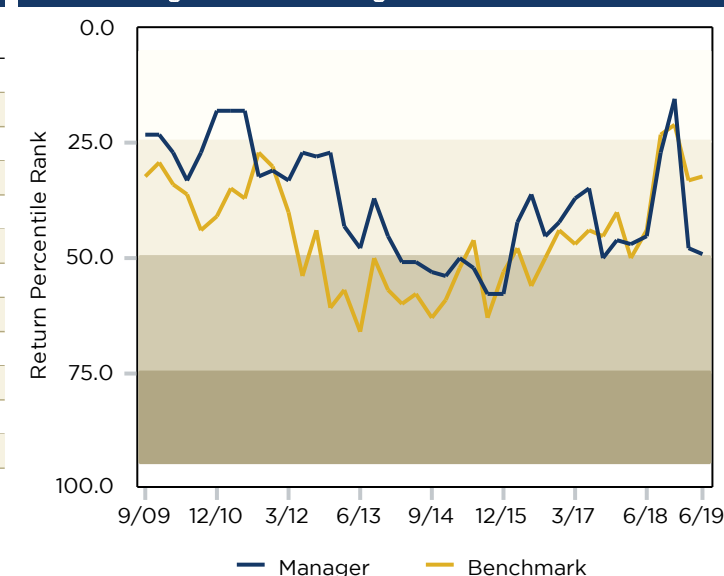
vs. Risk Free

Sharpe Ratio	0.66	0.41
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	9.4	11.7
Consumer Discretionary	10.1	13.4
Consumer Staples	8.3	6.6
Energy	7.8	7.9
Financials	23.9	25.2
Health Care	2.3	2.6
Industrials	7.5	5.3
Information Technology	14.5	13.9
Materials	10.5	7.6
Real Estate	2.7	3.0
Utilities	2.9	2.7
Total	100.0	100.0

3 Years Rolling Percentile Ranking

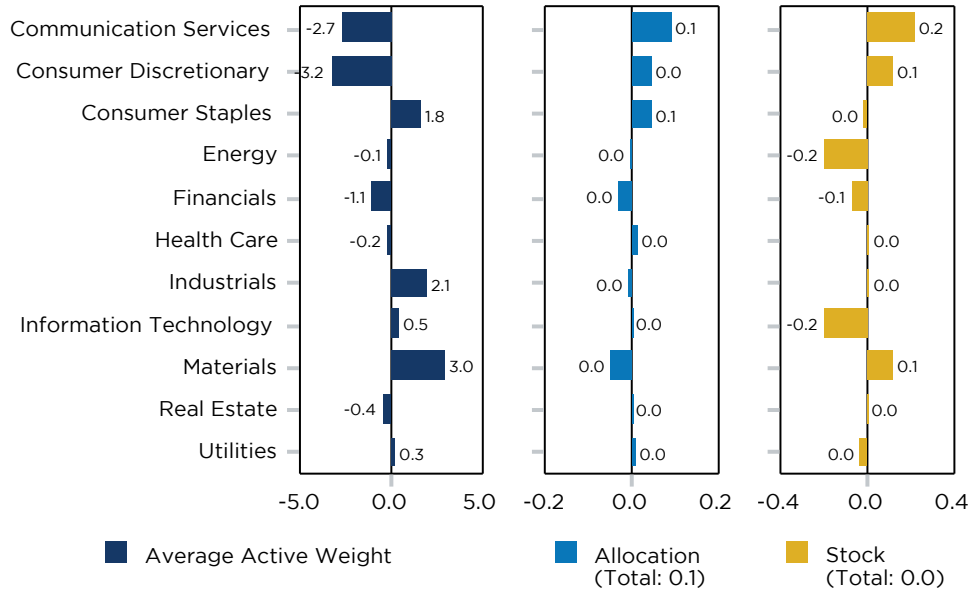


Country/Region Allocation

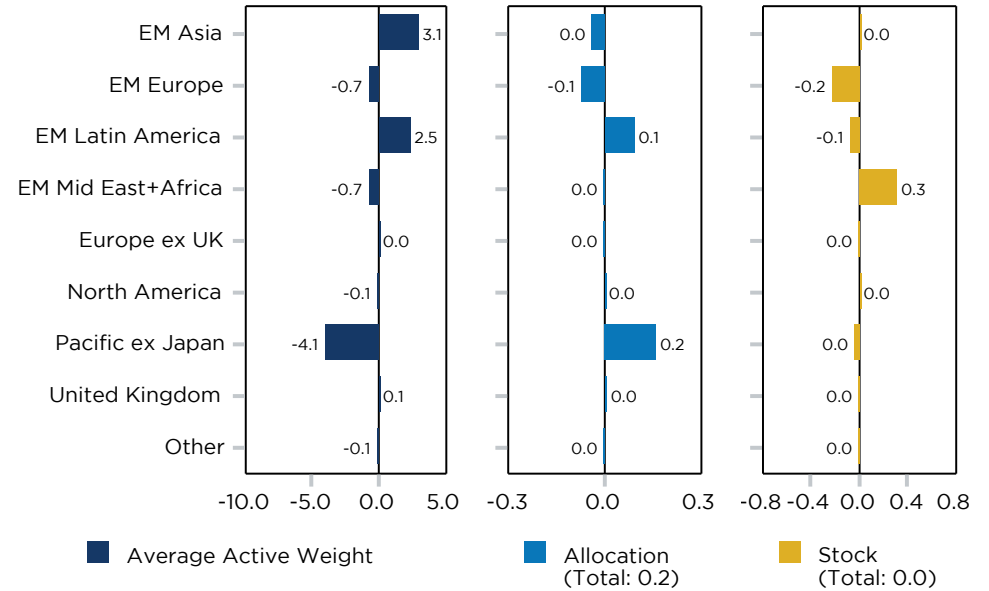
United States	0.0	0.1
Non-US Developed	9.6	13.3
Emerging Markets	90.3	86.5
Other	0.0	0.2
Total	100.0	100.0



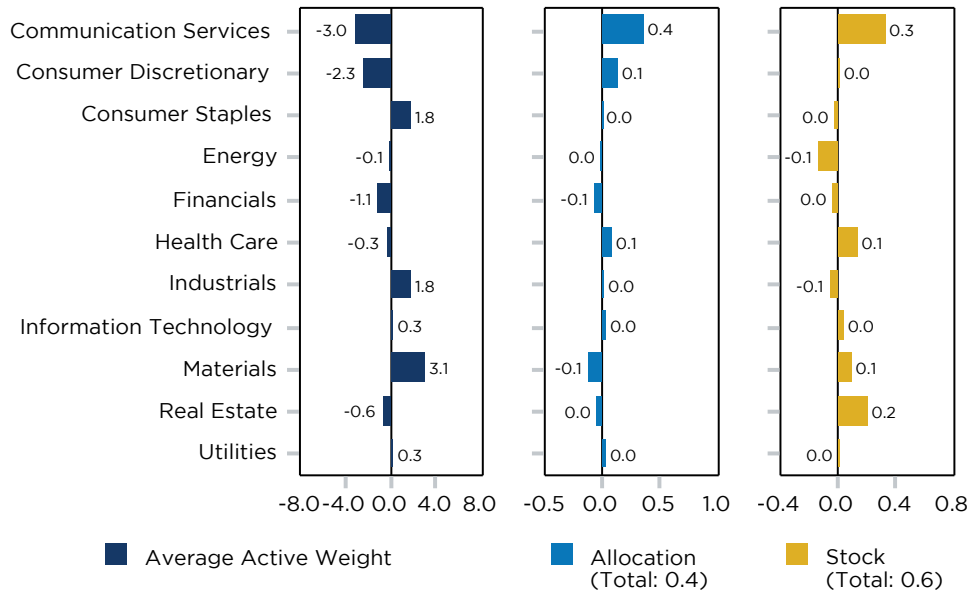
1 Quarter Sector Attribution



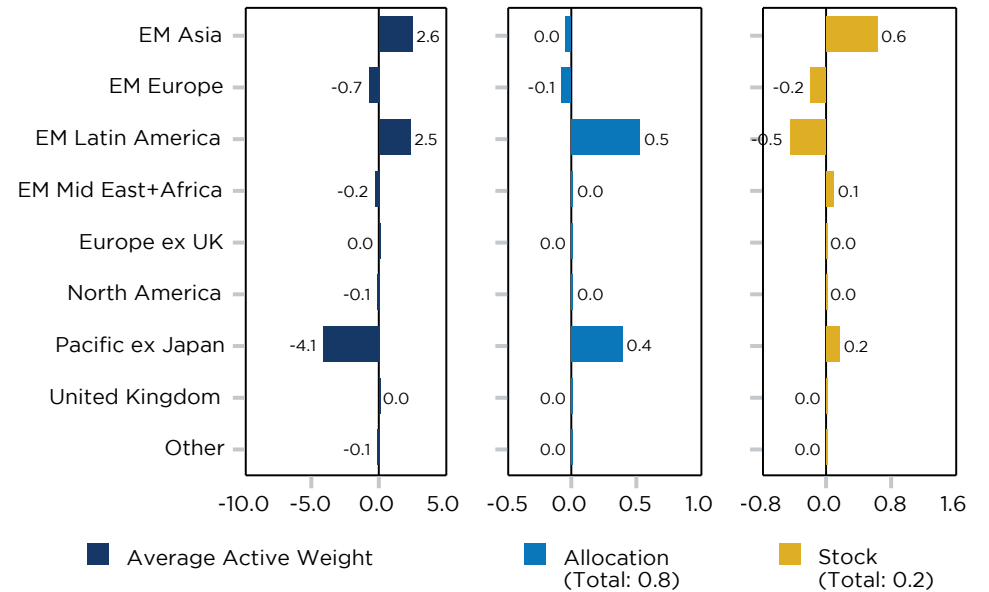
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution

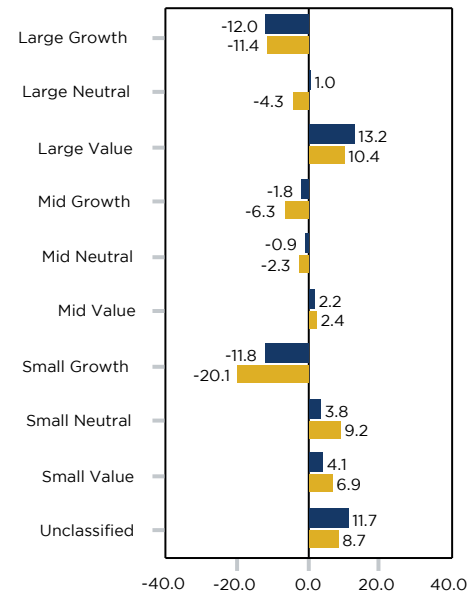


Top Ten Securities		Asset Allocation (%)	
Samsung Electronics Co Ltd	3.3 %	Equity	99.2
Taiwan Semiconductor Manufacturing	2.8 %	Cash	0.6
Tencent Holdings Ltd	2.7 %	Fixed Income	0.0
Alibaba Group Holding Ltd ADR	1.4 %		
Taiwan Semiconductor Manufacturing	1.1 %		
Naspers Ltd Class N	1.1 %	Market Capitalization (%)	
Reliance Industries Ltd	0.9 %	Giant	42.9
Samsung Electronics Co Ltd GDR	0.9 %	Large	36.1
SK Hynix Inc	0.8 %	Medium	19.6
HDFC Bank Ltd	0.8 %	Small	1.4
Total	15.9 %	Micro	0.0

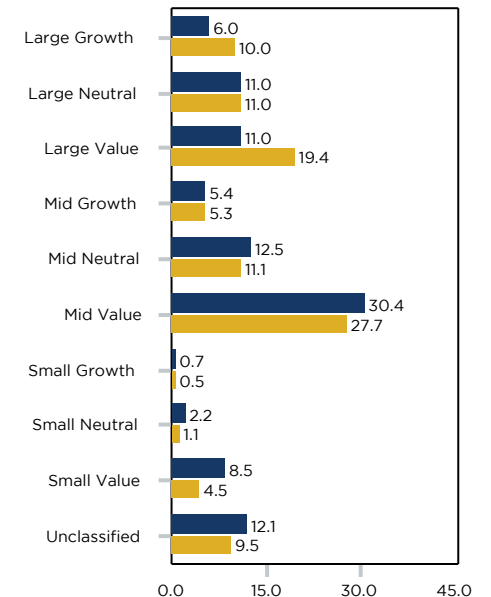
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
AngloGold Ashanti Ltd	0.38	0.10	0.10	35.95
Gold Fields Ltd	0.22	0.06	0.07	45.04
JBS SA	0.23	0.07	0.06	35.64
Absa Group Ltd	0.37	0.14	0.05	22.63
MTN Group Ltd	0.38	0.20	0.04	22.93
Tata Consultancy Serv	0.70	0.49	0.03	12.77
HDFC	0.65	0.88	-0.03	11.96
Ping An Insurance Group	0.72	1.10	-0.03	8.90
Sberbank of Russia OJSC	0.42	0.67	-0.06	23.67
Gazprom PJSC	0.18	0.46	-0.17	62.09

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Yes Bank	0.23	0.13	-0.06	-59.73
Innolux Corp	0.17	0.05	-0.03	-27.03
SK Hynix Inc	0.94	0.72	-0.02	-7.94
Sasol Ltd	0.40	0.33	-0.01	-19.68
Largan Precision Co Ltd	0.35	0.28	-0.01	-16.58
Reliance Industries Ltd	1.08	1.06	0.00	-7.60
China Mobile Ltd	0.81	1.18	0.04	-9.43
Tencent Holdings LTD	2.98	4.96	0.04	-1.56
Baidu Inc	0.31	0.86	0.16	-28.81
Alibaba Group Holding Ltd	1.68	4.46	0.21	-7.13

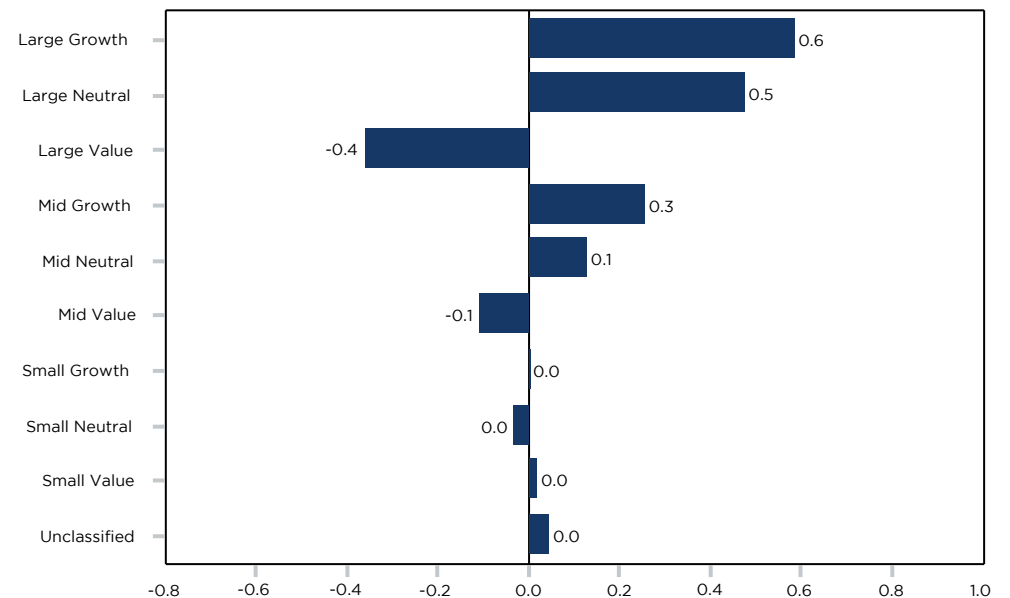
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	1.32	3.06	5.26	4.74	6.36	6.91	4.79	4.37	5.20	8.16
Benchmark	1.34	3.05	6.90	7.87	10.03	9.74	8.25	7.80	9.27	15.17

Fund Information

Fund Inception	10-1995
Fund Assets	26,703 Million
Portfolio Assets	26,703 Million
Total # of Holdings	430
% Assets in Top 10 Holdings	20.1 %
PM	Giraldo,R/McGibbon,G
PM Tenure	3 Years 1 Month
Turnover	11.8 %
Gross Expense (%)	0.8 %
Net Expense (%)	0.8 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	15,074 (Million)
Price/Earnings	38
Price/Book	3
Dividend Yield	4.0 %

Top Holdings (%)

Fashion Show	2.8
1001 Pennsylvania Avenue	2.7
The Florida Mall	2.7
Ddr Joint Venture	2.3
Fourth And Madison	2.0
99 High Street	1.8
425 Park Avenue	1.6
Ontario Industrial Portfolio	1.6
780 Third Avenue	1.4
Simpson Housing Portfolio	1.4

Top Countries (%)

United States	100.0
Canada	0.0

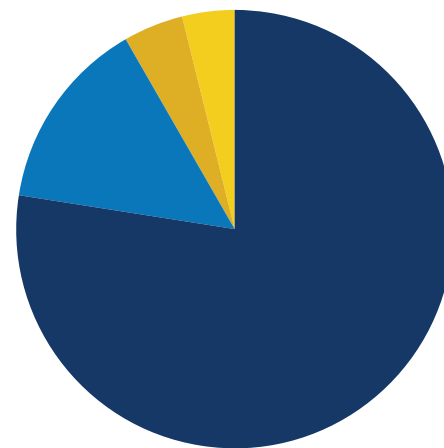
Fund Statistics

	3 Years	10 Years
Standard Deviation	0.58	4.57
vs. NCREIF Fund Index-Open End Diversified Core (EW)		
Beta	-0.12	0.96
Alpha	5.66	-2.27
Information Ratio	-3.59	-1.72
Tracking Error	0.83	1.55
R-Squared	0.01	0.89
Up Market Capture	60.94	75.49
Down Market Capture	-	102.67
Consistency	8.33	17.50

vs. Risk Free

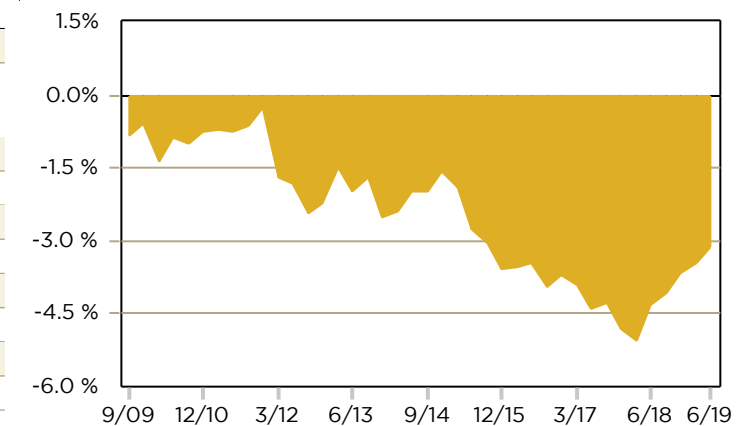
Sharpe Ratio	6.43	1.38
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Asset Allocation



■ Other ■ Cash
■ Equity ■ Fixed Income

3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

3 Years Rolling Percentile Ranking



CREF Social Choice R3 (QCSCIX)

Index: 40% BBg US Agg | 42% R3000 | 18% MSCI

Category: Allocation--50% to 70% Equity

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.71 (16)	12.76 (33)	7.84 (16)	8.54 (31)	5.83 (33)	9.19 (45)	-4.29 (26)	14.27 (50)	7.40 (39)	-0.87 (44)
Benchmark	3.76	13.01	7.58	8.54	5.99	9.12	-4.56	14.34	7.02	0.12
Peer Group	3.04	12.11	5.66	7.90	5.22	9.01	-5.67	14.21	6.81	-1.14
Population	1,595	1,529	1,381	1,135	1,047	797	1,406	1,235	1,279	1,231

Fund Information

Fund Inception	04-2015
Fund Assets	14,261 Million
Portfolio Assets	6,977 Million
Total # of Holdings	1903
% Assets in Top 10 Holdings	7.8 %
PM	Campagna,P/Liao,L/Liberatore,S
PM Tenure	14 Years 6 Months
Turnover	52.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,687 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.5 %

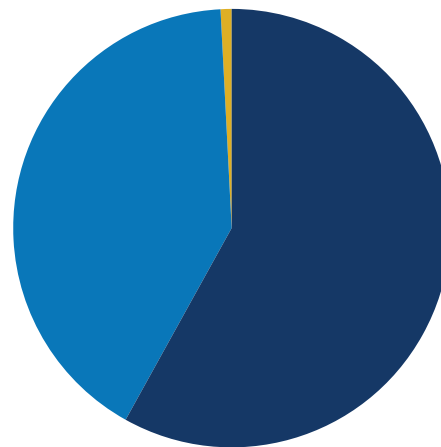
Fund Statistics

	3 Years	10 Years
Standard Deviation	6.80	7.69
vs. 40% BBg US Agg 42% R3000 18% MSCI EAFE + Can		
Beta	0.98	0.98
Alpha	0.18	0.27
Information Ratio	-0.02	0.07
Tracking Error	0.61	0.82
R-Squared	0.99	0.99
Up Market Capture	98.83	98.67
Down Market Capture	97.31	96.06
Consistency	44.44	52.50

vs. Risk Free

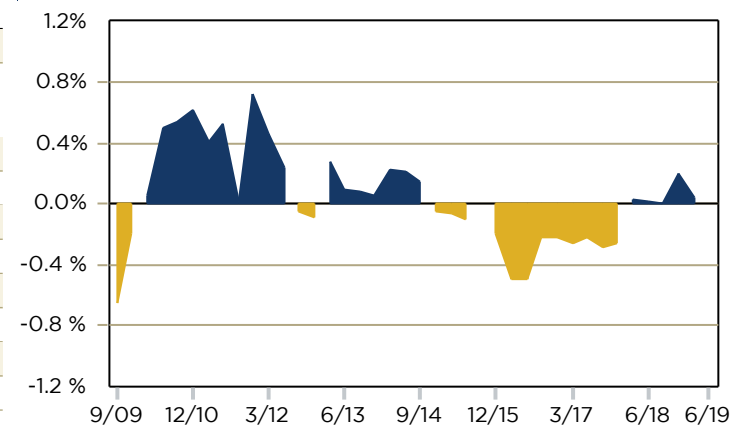
Sharpe Ratio	1.04	1.12
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Asset Allocation



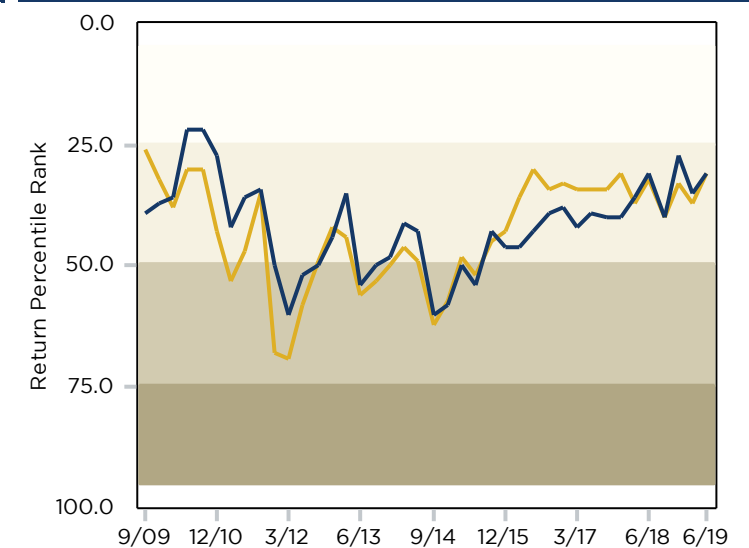
■ Equity ■ Fixed Income
■ Cash

3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

3 Years Rolling Percentile Ranking



— Manager — Benchmark

Top Holdings (%)

Microsoft Corp	1.6
Apple Inc	1.3
Amazon.com Inc	0.8
Facebook Inc A	0.7
Procter & Gamble Co	0.6
Alphabet Inc Class C	0.6
Alphabet Inc A	0.6
United States Treasury Notes 0.02%	0.6
United States Treasury Bonds 0.03%	0.6
Cisco Systems Inc	0.5



CREF Stock R3 (QCSTIX)

Index: 70% R3000 | 30% ACWI ex US

Category: Allocation--85%+ Equity

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.58 (32)	17.27 (17)	4.97 (38)	12.01 (14)	7.31 (13)	11.86 (12)	-9.65 (57)	23.43 (10)	9.17 (28)	-0.84 (29)
Benchmark	3.76	17.17	6.69	12.68	7.79	12.24	-7.93	22.96	10.28	-1.35
Peer Group	3.28	15.92	4.18	10.63	6.15	10.77	-9.39	20.28	7.53	-1.83
Population	395	378	311	253	230	181	325	308	315	312

Fund Information

Fund Inception	04-2015
Fund Assets	115,721 Million
Portfolio Assets	67,248 Million
Total # of Holdings	9617
% Assets in Top 10 Holdings	12.1 %
PM	Team Managed
PM Tenure	9 Years 1 Month
Turnover	55.0 %
Gross Expense (%)	0.3 %
Net Expense (%)	0.3 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,056 (Million)
Price/Earnings	15
Price/Book	2
Dividend Yield	2.4 %

Top Holdings (%)

Microsoft Corp	2.1
Apple Inc	2.0
Amazon.com Inc	1.9
Facebook Inc A	1.2
Alphabet Inc Class C	1.0
Johnson & Johnson	0.8
Mastercard Inc A	0.8
Visa Inc Class A	0.8
JPMorgan Chase & Co	0.8
Berkshire Hathaway Inc B	0.8

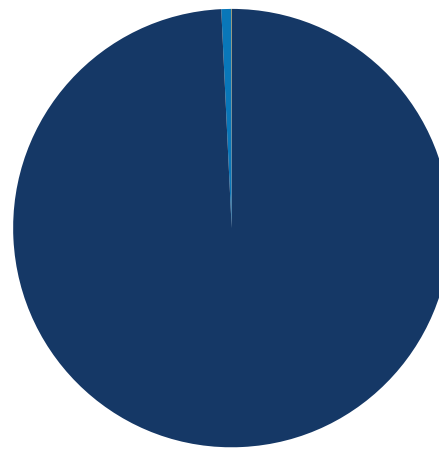
Fund Statistics

	3 Years	10 Years
Standard Deviation	11.85	13.48
vs. 70% R3000 30% ACWI ex US		
Beta	1.03	1.02
Alpha	-0.92	-0.55
Information Ratio	-0.84	-0.37
Tracking Error	0.67	0.81
R-Squared	1.00	1.00
Up Market Capture	99.30	100.17
Down Market Capture	104.15	102.76
Consistency	38.89	45.00

vs. Risk Free

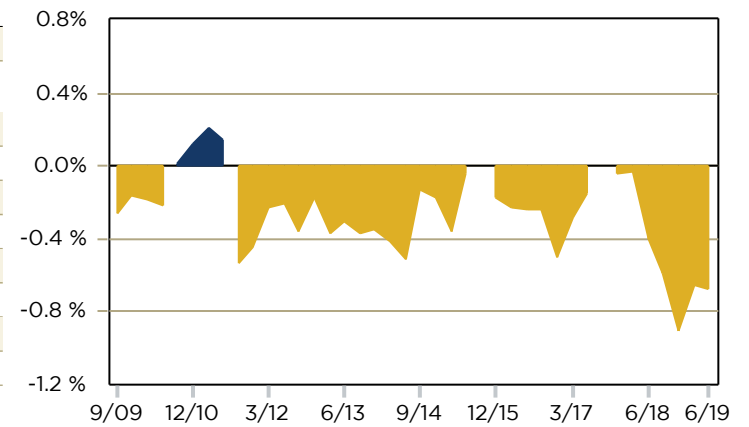
Sharpe Ratio	0.90	0.87
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Asset Allocation



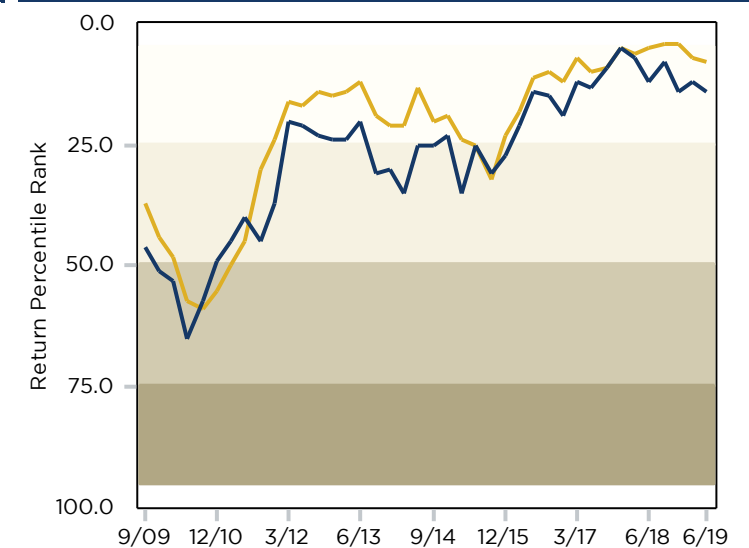
■ Equity ■ Cash
■ Other ■ Fixed Income

3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

3 Years Rolling Percentile Ranking



— Manager — Benchmark



TIAA-CREF Lifecycle Retire Income Instl (TLRIX)

Index: CREF Lifecycle Composite Income

Category: Target-Date Retirement

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.08 (22)	10.13 (13)	5.85 (52)	6.76 (3)	4.82 (2)	7.43 (7)	-3.84 (73)	12.10 (2)	6.04 (21)	0.25 (3)
Benchmark	3.23	10.13	6.99	6.40	4.73	7.20	-2.94	10.55	5.81	-0.18
Peer Group	2.81	8.76	5.88	5.12	3.62	5.88	-3.35	8.85	5.26	-1.12
Population	479	472	435	386	294	226	458	447	453	407

Fund Information

Fund Inception	11-2007
Fund Assets	548 Million
Portfolio Assets	203 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	80.7 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	11 Years 7 Months
Turnover	25.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,038 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

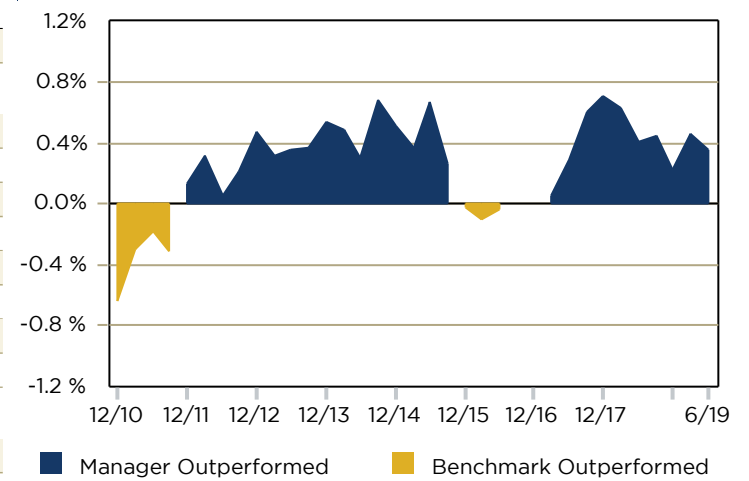
Fund Statistics

	3 Years	10 Years
Standard Deviation	4.93	5.81
vs. CREF Lifecycle Composite Income		
Beta	1.02	1.07
Alpha	0.23	-0.26
Information Ratio	0.51	0.30
Tracking Error	0.68	0.80
R-Squared	0.98	0.99
Up Market Capture	103.83	105.10
Down Market Capture	101.08	107.89
Consistency	47.22	54.17

vs. Risk Free

Sharpe Ratio	1.08	1.18
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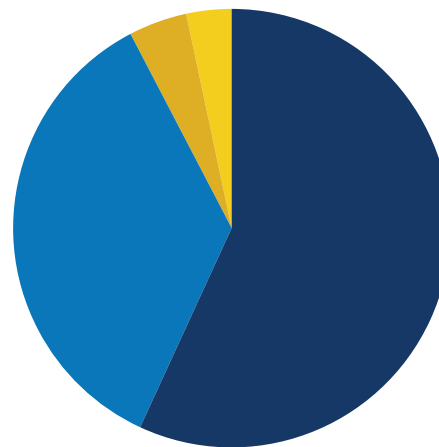
3 Years Rolling Excess Performance



Top Holdings (%)

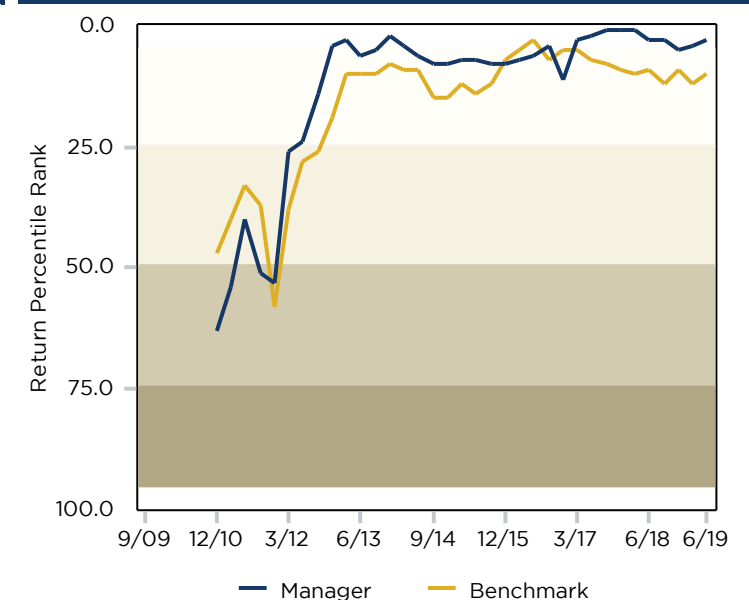
TIAA-CREF Bond W	19.7
TIAA-CREF Bond Plus W	12.8
TIAA-CREF Short-Term Bond W	10.8
TIAA-CREF Inflation Link Bd W	9.9
TIAA-CREF Growth & Income W	5.3
TIAA-CREF Large-Cap Growth W	4.8
Tiaa Cref Real Property Fnd Lp	4.6
TIAA-CREF Large-Cap Value W	4.6
TIAA-CREF Quant Large-Cap Growth	4.2
TIAA-CREF Quant Large-Cap Value	4.0

Asset Allocation



■ Fixed Income ■ Equity
■ Other ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2010 Institutional (TCTIX)

Index: CREF Lifecycle Composite 2010

Category: Target-Date 2000-2010

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.05 (28)	10.15 (15)	5.75 (61)	7.09 (6)	4.98 (5)	8.07 (18)	-3.92 (79)	12.76 (2)	6.20 (44)	0.38 (5)
Benchmark	3.25	10.31	8.34	7.18	5.18	7.97	-1.84	11.19	6.09	-0.23
Peer Group	2.84	9.16	5.99	5.96	4.24	7.49	-3.17	10.10	5.97	-0.63
Population	321	320	297	258	243	185	300	302	313	309

Fund Information

Fund Inception	01-2007
Fund Assets	1,211 Million
Portfolio Assets	709 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	80.5 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	22.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,057 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

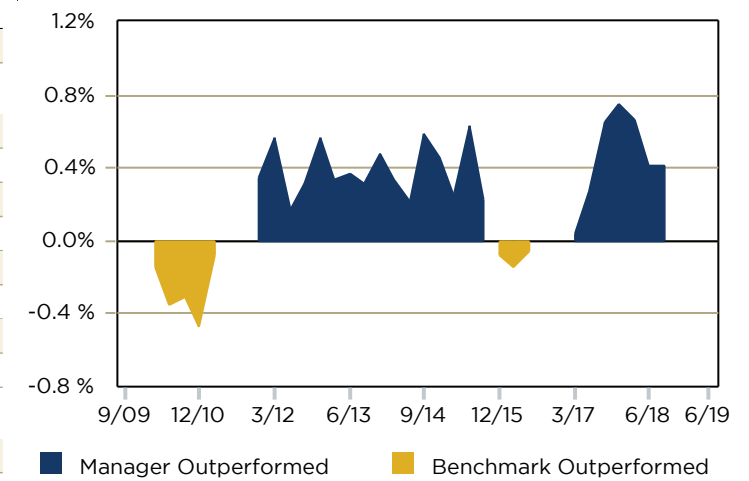
Fund Statistics

	3 Years	10 Years
Standard Deviation	5.87	7.18
vs. CREF Lifecycle Composite 2010		
Beta	1.15	1.11
Alpha	-1.11	-0.69
Information Ratio	-0.03	0.13
Tracking Error	1.32	1.18
R-Squared	0.97	0.98
Up Market Capture	105.29	105.70
Down Market Capture	130.81	119.15
Consistency	50.00	52.50

vs. Risk Free

Sharpe Ratio	0.97	1.06
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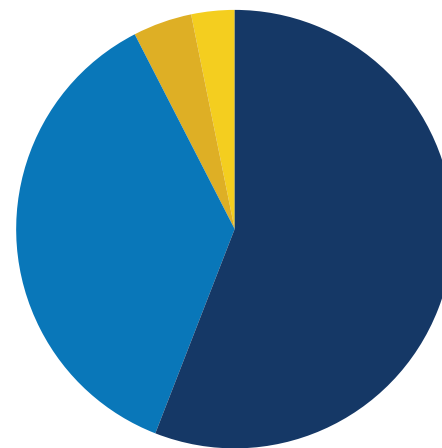
3 Years Rolling Excess Performance



Top Holdings (%)

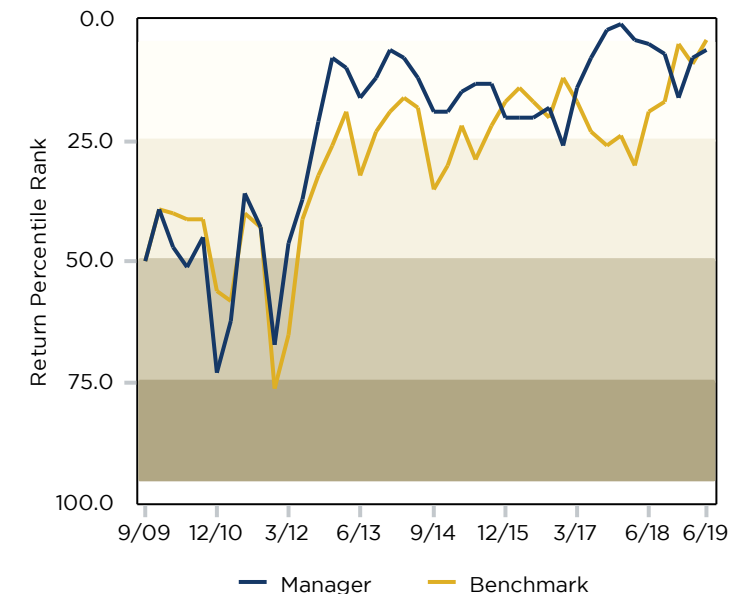
TIAA-CREF Bond W	19.6
TIAA-CREF Bond Plus W	12.8
TIAA-CREF Short-Term Bond W	10.4
TIAA-CREF Inflation Link Bd W	9.4
TIAA-CREF Growth & Income W	5.4
TIAA-CREF Large-Cap Growth W	4.9
TIAA-CREF Large-Cap Value W	4.8
Tiaa Cref Real Property Fnd Lp	4.7
TIAA-CREF Quant Large-Cap Growth	4.3
TIAA-CREF Quant Large-Cap Value	4.2

Asset Allocation



■ Fixed Income ■ Equity
■ Other ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2015 Institutional (TCNIX)

Index: CREF Lifecycle Composite 2015

Category: Target-Date 2015

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.16 (23)	10.87 (17)	5.77 (57)	7.62 (19)	5.27 (15)	8.63 (20)	-4.41 (70)	13.85 (7)	6.40 (52)	0.42 (3)
Benchmark	3.33	10.95	7.07	7.28	5.22	8.42	-3.48	12.25	6.47	-0.28
Peer Group	2.94	9.92	5.91	6.38	4.48	8.13	-3.82	11.43	6.46	-0.91
Population	294	293	280	246	213	156	290	296	321	309

Fund Information

Fund Inception	01-2007
Fund Assets	1,836 Million
Portfolio Assets	1,096 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	78.8 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	21.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,063 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

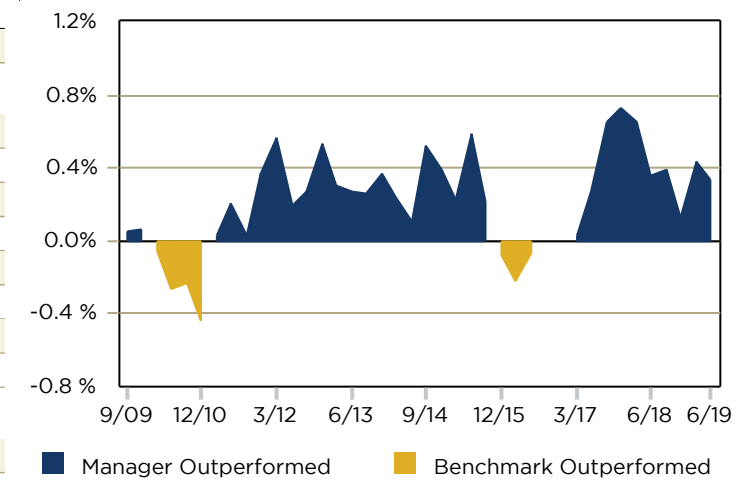
Fund Statistics

	3 Years	10 Years
Standard Deviation	5.72	7.59
vs. CREF Lifecycle Composite 2015		
Beta	1.03	1.07
Alpha	0.13	-0.36
Information Ratio	0.45	0.25
Tracking Error	0.73	0.95
R-Squared	0.98	0.99
Up Market Capture	103.73	104.97
Down Market Capture	102.36	108.04
Consistency	52.78	55.83

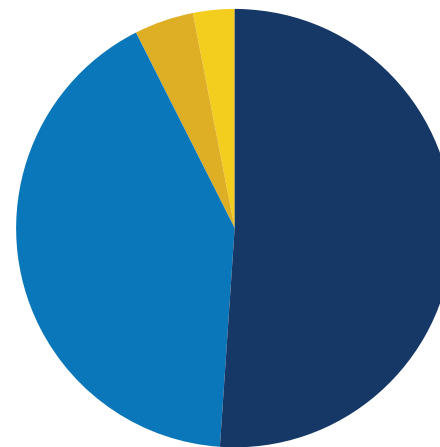
vs. Risk Free

Sharpe Ratio	1.08	1.07
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3 Years Rolling Excess Performance

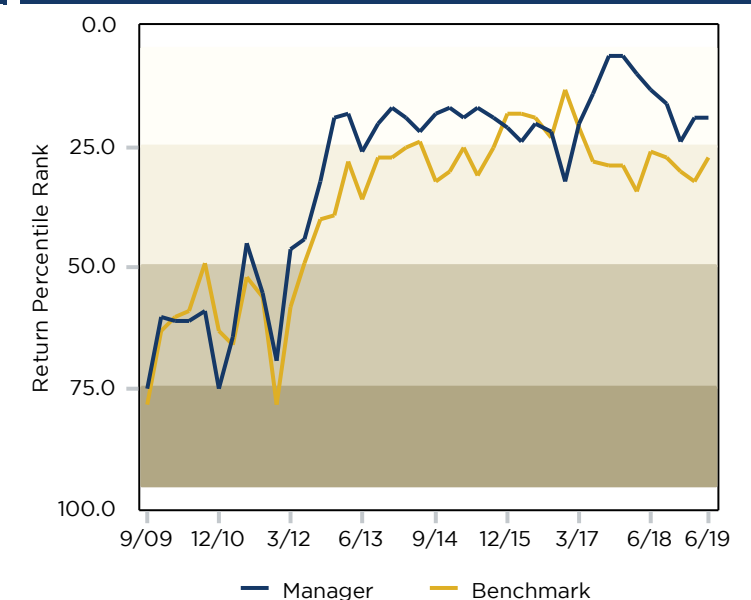


Asset Allocation



■ Fixed Income ■ Equity
■ Other ■ Cash

3 Years Rolling Percentile Ranking



Top Holdings (%)

TIAA-CREF Bond W	19.1
TIAA-CREF Bond Plus W	12.5
TIAA-CREF Short-Term Bond W	8.4
TIAA-CREF Inflation Link Bd W	7.5
TIAA-CREF Growth & Income W	6.2
TIAA-CREF Large-Cap Growth W	5.6
TIAA-CREF Large-Cap Value W	5.4
TIAA-CREF Quant Large-Cap Growth	4.9
TIAA-CREF Quant Large-Cap Value	4.7
Tiaa Cref Real Property Fnd Lp	4.7



TIAA-CREF Lifecycle 2020 Institutional (TCWIX)

Index: CREF Lifecycle Composite 2020

Category: Target-Date 2020

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.06 (49)	11.60 (22)	5.51 (67)	8.29 (13)	5.61 (9)	9.25 (18)	-5.18 (76)	15.58 (6)	6.66 (45)	0.42 (4)
Benchmark	3.41	11.69	7.12	8.03	5.61	9.11	-3.97	13.68	7.01	-0.40
Peer Group	3.06	10.60	5.96	6.91	4.65	8.55	-4.39	12.68	6.52	-1.13
Population	514	512	497	451	388	266	507	515	519	492

Fund Information

Fund Inception	01-2007
Fund Assets	3,812 Million
Portfolio Assets	2,343 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	77.0 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	23.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,082 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

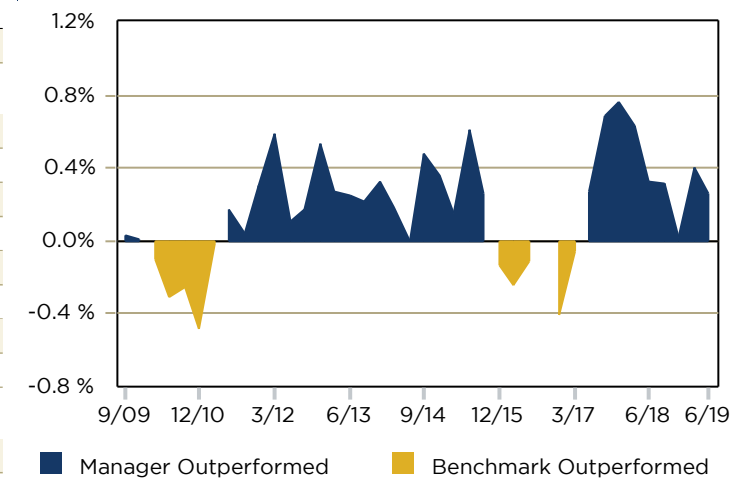
Fund Statistics

	3 Years	10 Years
Standard Deviation	6.40	8.57
vs. CREF Lifecycle Composite 2020		
Beta	1.03	1.07
Alpha	0.03	-0.41
Information Ratio	0.31	0.17
Tracking Error	0.83	1.07
R-Squared	0.98	0.99
Up Market Capture	103.22	104.14
Down Market Capture	103.25	106.92
Consistency	44.44	49.17

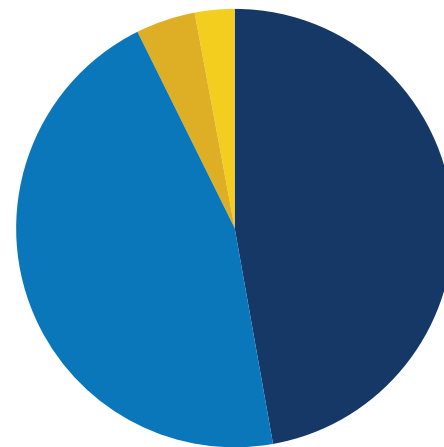
vs. Risk Free

Sharpe Ratio	1.06	1.02
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3 Years Rolling Excess Performance

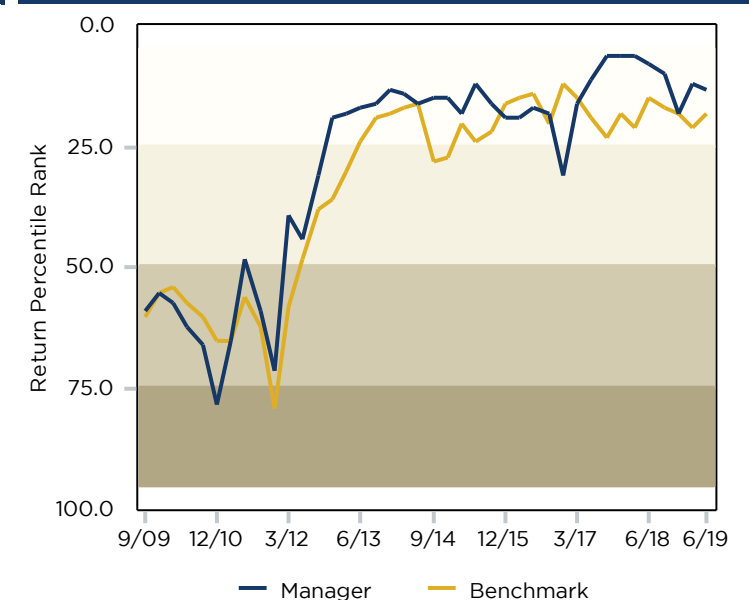


Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking



Top Holdings (%)

TIAA-CREF Bond W	18.1
TIAA-CREF Bond Plus W	11.8
TIAA-CREF Growth & Income W	7.0
TIAA-CREF Short-Term Bond W	6.5
TIAA-CREF Large-Cap Growth W	6.4
TIAA-CREF Large-Cap Value W	6.2
TIAA-CREF Quant Large-Cap Growth	5.5
TIAA-CREF Inflation Link Bd W	5.5
TIAA-CREF Quant Large-Cap Value	5.4
Tiaa Cref Real Property Fnd Lp	4.7



TIAA-CREF Lifecycle 2025 Institutional (TCYIX)

Index: CREF Lifecycle Composite 2025

Category: Target-Date 2025

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.30 (29)	12.66 (21)	5.25 (75)	9.13 (11)	5.99 (10)	9.91 (23)	-6.05 (75)	17.40 (5)	7.00 (54)	0.36 (3)
Benchmark	3.49	12.65	7.12	8.88	6.05	9.82	-4.66	15.36	7.61	-0.53
Peer Group	3.17	11.88	5.98	7.85	5.22	9.38	-5.37	14.88	7.12	-1.19
Population	510	508	491	427	345	224	498	490	494	436

Fund Information

Fund Inception	01-2007
Fund Assets	4,649 Million
Portfolio Assets	2,963 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	75.4 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	20.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,077 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

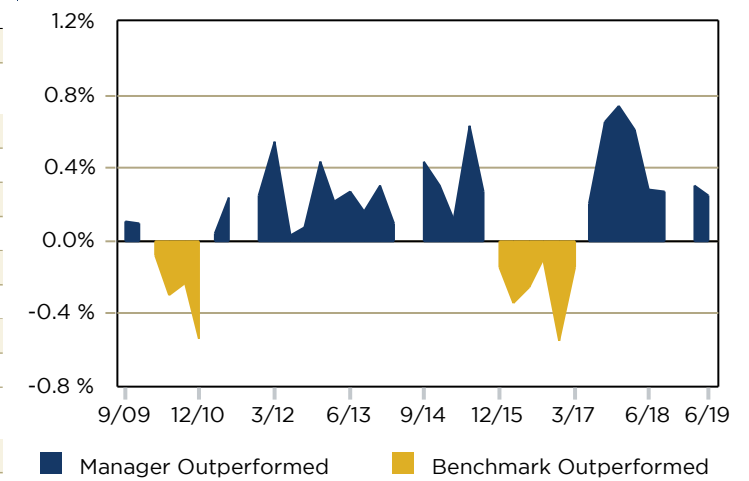
Fund Statistics

	3 Years	10 Years
Standard Deviation	7.38	9.69
vs. CREF Lifecycle Composite 2025		
Beta	1.04	1.07
Alpha	-0.08	-0.52
Information Ratio	0.29	0.12
Tracking Error	0.89	1.17
R-Squared	0.99	0.99
Up Market Capture	103.48	104.61
Down Market Capture	104.34	108.47
Consistency	50.00	52.50

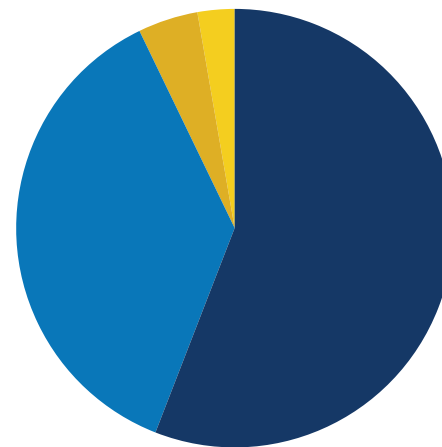
vs. Risk Free

Sharpe Ratio	1.04	0.98
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3 Years Rolling Excess Performance

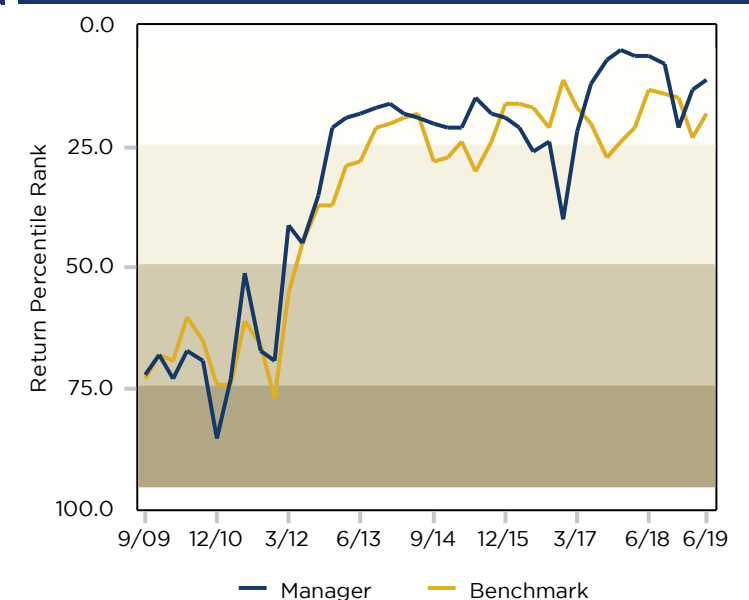


Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking



Top Holdings (%)

TIAA-CREF Bond W	15.5
TIAA-CREF Bond Plus W	10.2
TIAA-CREF Growth & Income W	8.3
TIAA-CREF Large-Cap Growth W	7.5
TIAA-CREF Large-Cap Value W	7.3
TIAA-CREF Quant Large-Cap Growth	6.6
TIAA-CREF Quant Large-Cap Value	6.4
Tiaa Cref Real Property Fnd Lp	4.6
TIAA-CREF Short-Term Bond W	4.5
TIAA-CREF Quant Intl Eq W	4.4



TIAA-CREF Lifecycle 2030 Institutional (TCRIX)

Index: CREF Lifecycle Composite 2030

Category: Target-Date 2030

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.29 (44)	13.74 (27)	4.89 (79)	9.89 (18)	6.32 (19)	10.50 (25)	-7.09 (74)	19.21 (6)	7.33 (57)	0.38 (4)
Benchmark	3.58	13.62	7.10	9.72	6.47	10.50	-5.35	17.07	8.21	-0.67
Peer Group	3.24	13.06	5.92	8.73	5.64	9.95	-6.24	16.75	7.60	-1.32
Population	502	500	485	439	375	256	494	504	507	480

Fund Information

Fund Inception	01-2007
Fund Assets	4,637 Million
Portfolio Assets	2,982 Million
Total # of Holdings	21
% Assets in Top 10 Holdings	77.3 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	20.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,090 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

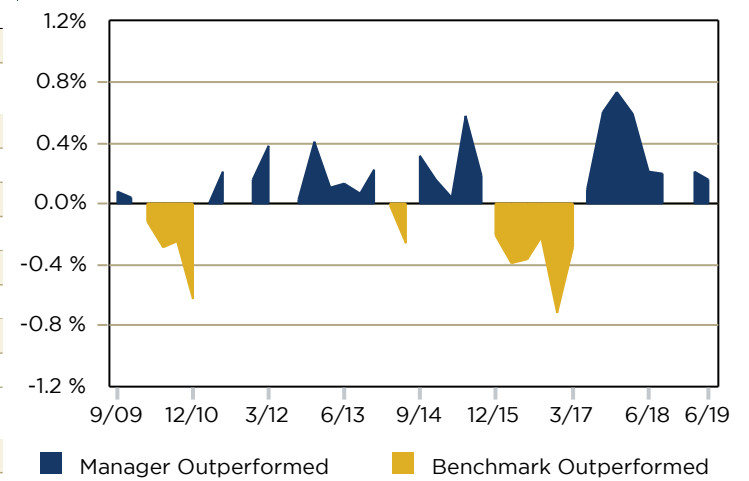
Fund Statistics

	3 Years	10 Years
Standard Deviation	8.42	10.79
vs. CREF Lifecycle Composite 2030		
Beta	1.05	1.07
Alpha	-0.31	-0.62
Information Ratio	0.19	0.06
Tracking Error	1.00	1.26
R-Squared	0.99	0.99
Up Market Capture	103.73	104.07
Down Market Capture	106.23	108.03
Consistency	50.00	54.17

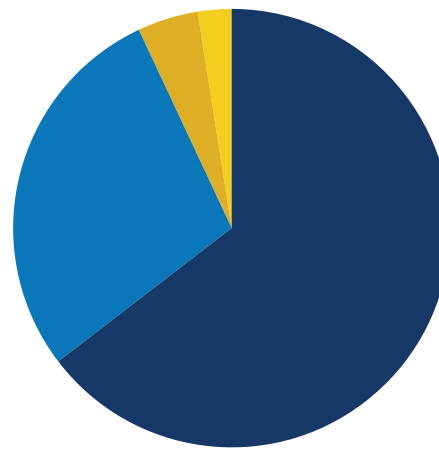
vs. Risk Free

Sharpe Ratio	1.00	0.94
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3 Years Rolling Excess Performance

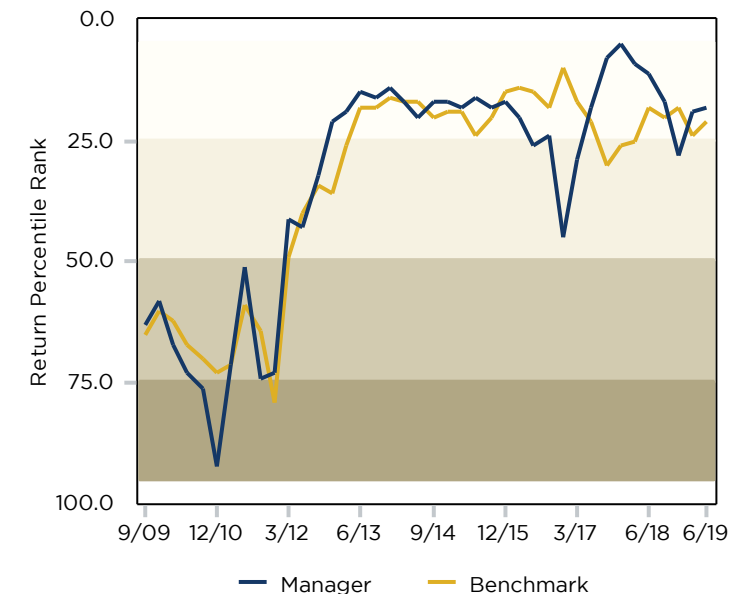


Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking



Top Holdings (%)

TIAA-CREF Bond W	12.9
TIAA-CREF Growth & Income W	9.6
TIAA-CREF Large-Cap Growth W	8.7
TIAA-CREF Bond Plus W	8.6
TIAA-CREF Large-Cap Value W	8.4
TIAA-CREF Quant Large-Cap Growth	7.6
TIAA-CREF Quant Large-Cap Value	7.4
TIAA-CREF Quant Intl Eq W	5.1
Tiaa Cref Real Property Fnd Lp	4.6
TIAA-CREF International Eq W	4.3



TIAA-CREF Lifecycle 2035 Institutional (TCIIX)

Index: CREF Lifecycle Composite 2035

Category: Target-Date 2035

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.35 (42)	14.75 (24)	4.56 (87)	10.63 (17)	6.63 (21)	11.03 (16)	-8.04 (80)	21.11 (5)	7.52 (67)	0.24 (5)
Benchmark	3.64	14.56	7.02	10.56	6.85	11.13	-6.03	18.73	8.79	-0.86
Peer Group	3.26	14.10	5.73	9.51	6.01	10.43	-7.14	18.49	8.04	-1.43
Population	503	501	484	420	337	217	491	483	488	429

Fund Information

Fund Inception	01-2007
Fund Assets	4,686 Million
Portfolio Assets	3,063 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	80.4 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	17.0 %
Gross Expense (%)	0.5 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,097 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

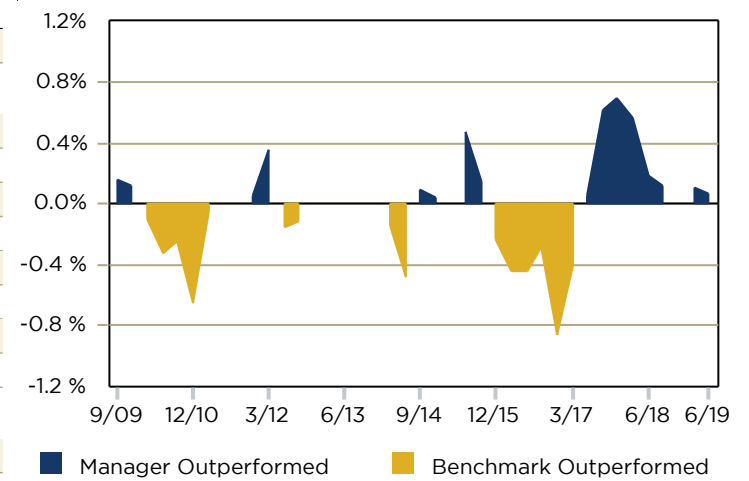
Fund Statistics

	3 Years	10 Years
Standard Deviation	9.41	11.87
vs. CREF Lifecycle Composite 2035		
Beta	1.06	1.06
Alpha	-0.47	-0.70
Information Ratio	0.10	0.00
Tracking Error	1.15	1.37
R-Squared	0.99	0.99
Up Market Capture	103.74	103.62
Down Market Capture	107.43	107.68
Consistency	52.78	53.33

vs. Risk Free

Sharpe Ratio	0.98	0.90
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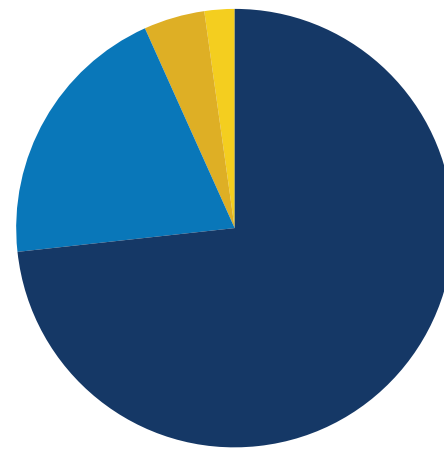
3 Years Rolling Excess Performance



Top Holdings (%)

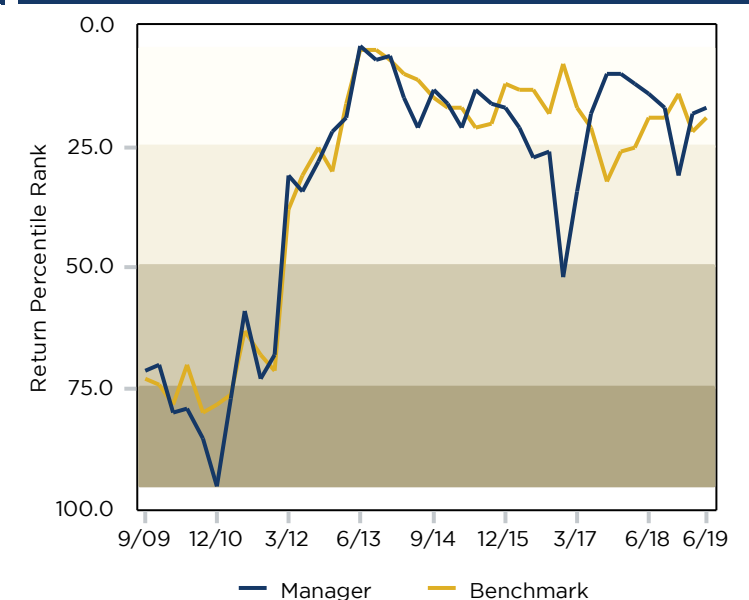
TIAA-CREF Bond W	11.0
TIAA-CREF Growth & Income W	10.9
TIAA-CREF Large-Cap Growth W	9.9
TIAA-CREF Large-Cap Value W	9.6
TIAA-CREF Quant Large-Cap Growth	8.6
TIAA-CREF Quant Large-Cap Value	8.4
TIAA-CREF Bond Plus W	6.8
TIAA-CREF Quant Intl Eq W	5.8
TIAA-CREF International Eq W	4.8
TIAA-CREF International Opps W	4.8

Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2040 Institutional (TCOIX)

Index: CREF Lifecycle Composite 2040

Category: Target-Date 2040

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.35 (47)	15.55 (23)	4.01 (88)	11.32 (12)	6.89 (17)	11.31 (17)	-8.92 (85)	22.91 (1)	7.78 (65)	0.09 (7)
Benchmark	3.66	15.42	6.82	11.37	7.20	11.49	-6.72	20.37	9.37	-1.07
Peer Group	3.31	14.81	5.49	10.07	6.21	10.58	-7.87	19.56	8.30	-1.56
Population	500	498	483	436	374	254	493	503	505	479

Fund Information

Fund Inception	01-2007
Fund Assets	5,567 Million
Portfolio Assets	3,600 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	81.1 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	13 Years 3 Months
Turnover	18.0 %
Gross Expense (%)	0.6 %
Net Expense (%)	0.4 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,098 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

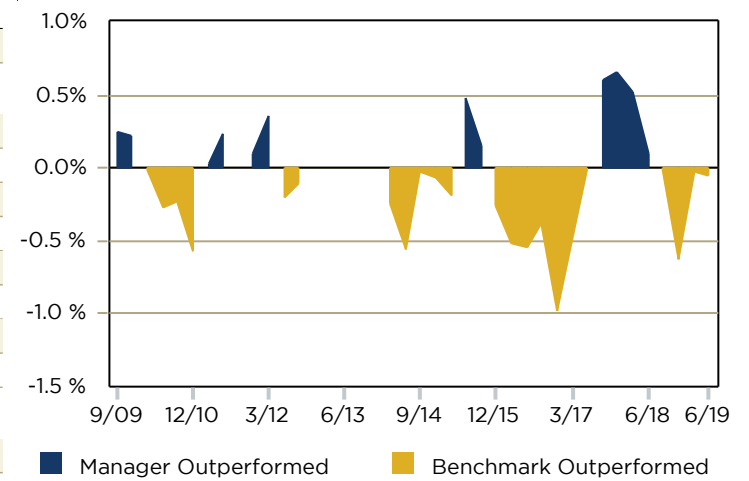
Fund Statistics

	3 Years	10 Years
Standard Deviation	10.41	12.38
vs. CREF Lifecycle Composite 2040		
Beta	1.06	1.06
Alpha	-0.64	-0.74
Information Ratio	0.02	-0.05
Tracking Error	1.31	1.43
R-Squared	0.99	0.99
Up Market Capture	102.86	103.41
Down Market Capture	106.50	107.78
Consistency	50.00	51.67

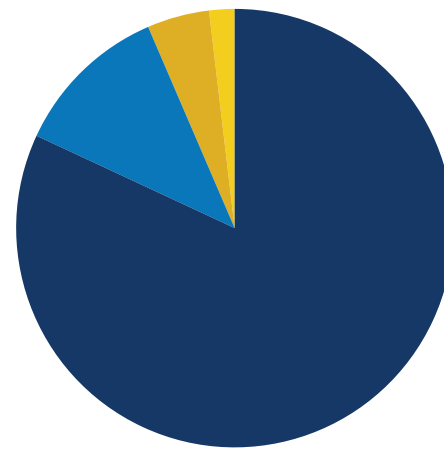
vs. Risk Free

Sharpe Ratio	0.95	0.89
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3 Years Rolling Excess Performance

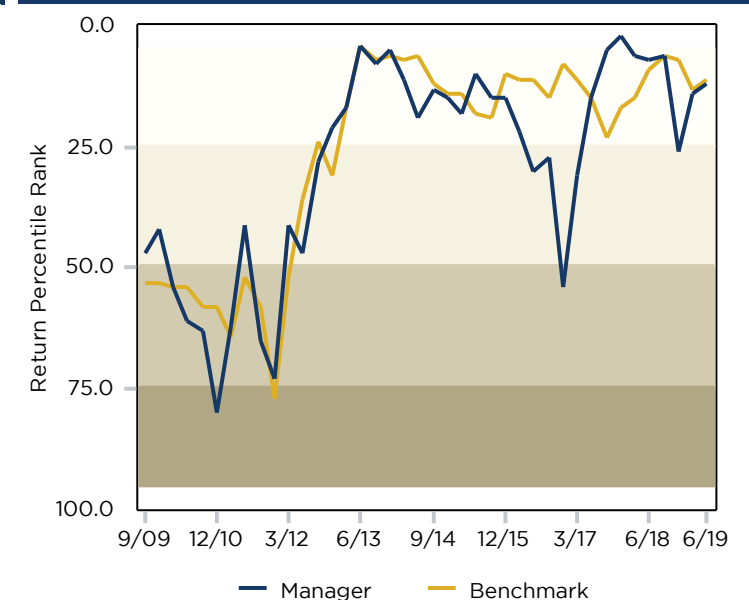


Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking



Top Holdings (%)

TIAA-CREF Growth & Income W	12.2
TIAA-CREF Large-Cap Growth W	11.0
TIAA-CREF Large-Cap Value W	10.7
TIAA-CREF Quant Large-Cap Growth	9.6
TIAA-CREF Quant Large-Cap Value	9.4
TIAA-CREF Quant Intl Eq W	6.5
TIAA-CREF Bond W	6.4
TIAA-CREF International Eq W	5.4
TIAA-CREF International Opps W	5.4
Tiaa Cref Real Property Fnd Lp	4.6



TIAA-CREF Lifecycle 2045 Institutional (TTFIX)

Index: CREF Lifecycle Composite 2045

Category: Target-Date 2045

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.27 (56)	16.21 (14)	3.59 (95)	11.60 (8)	7.04 (15)	11.38 (18)	-9.59 (92)	23.62 (1)	8.06 (61)	0.13 (7)
Benchmark	3.68	16.06	6.66	11.72	7.40	11.60	-7.27	21.18	9.72	-1.08
Peer Group	3.33	15.37	5.50	10.40	6.40	10.79	-8.20	20.38	8.47	-1.55
Population	501	499	482	419	336	209	488	481	485	428

Fund Information

Fund Inception	11-2007
Fund Assets	3,201 Million
Portfolio Assets	2,085 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	85.4 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	11 Years 7 Months
Turnover	13.0 %
Gross Expense (%)	0.6 %
Net Expense (%)	0.5 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,094 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

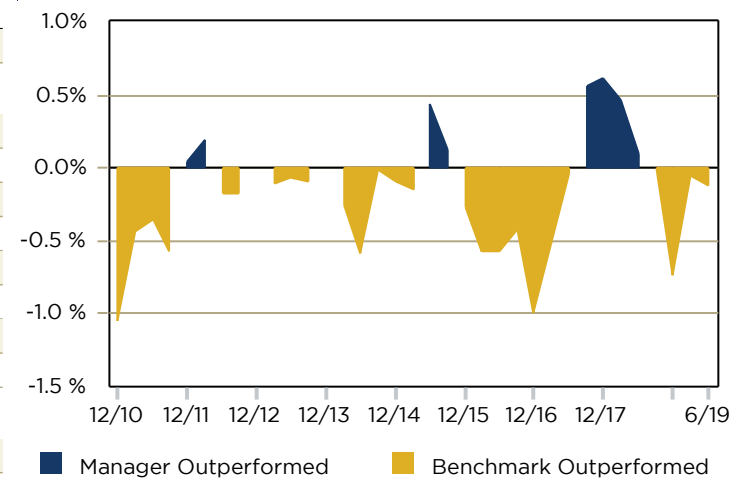
Fund Statistics

	3 Years	10 Years
Standard Deviation	11.13	12.58
vs. CREF Lifecycle Composite 2045		
Beta	1.06	1.06
Alpha	-0.77	-0.79
Information Ratio	-0.02	-0.07
Tracking Error	1.33	1.43
R-Squared	0.99	0.99
Up Market Capture	103.18	103.27
Down Market Capture	107.66	107.75
Consistency	52.78	52.50

vs. Risk Free

Sharpe Ratio	0.92	0.89
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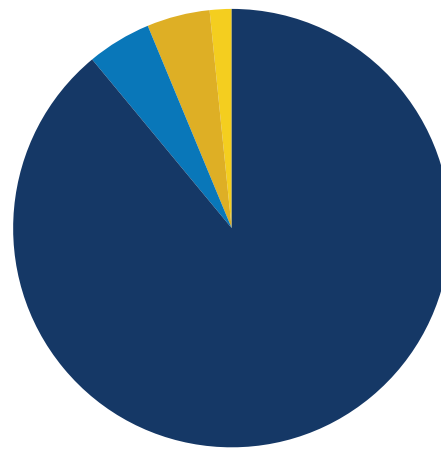
3 Years Rolling Excess Performance



Top Holdings (%)

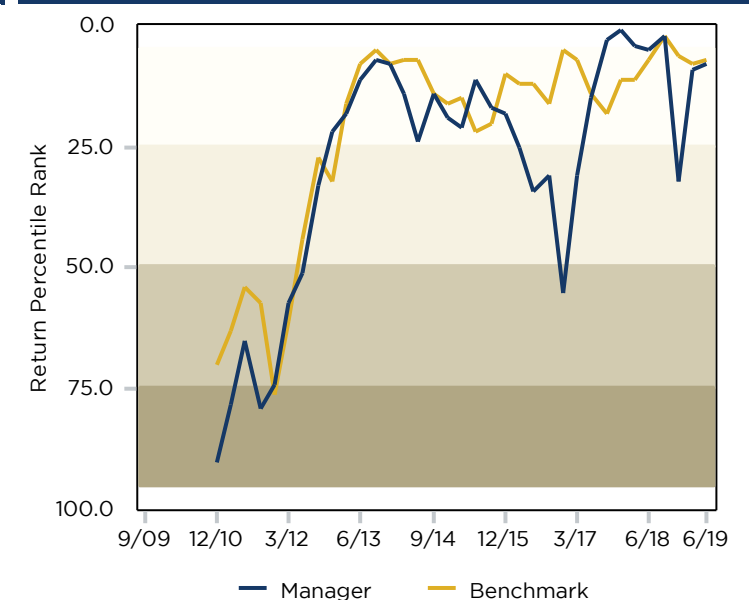
TIAA-CREF Growth & Income W	13.3
TIAA-CREF Large-Cap Growth W	12.0
TIAA-CREF Large-Cap Value W	11.6
TIAA-CREF Quant Large-Cap Growth	10.5
TIAA-CREF Quant Large-Cap Value	10.2
TIAA-CREF Quant Intl Eq W	7.0
TIAA-CREF International Eq W	5.9
TIAA-CREF International Opps W	5.8
TIAA-CREF Emerging Markets Eq W	4.6
Tiaa Cref Real Property Fnd Lp	4.6

Asset Allocation



■ Equity ■ Fixed Income
■ Other ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2050 Institutional (TFTIX)

Index: CREF Lifecycle Composite 2050

Category: Target-Date 2050

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.34 (54)	16.42 (12)	3.60 (91)	11.71 (7)	7.11 (11)	11.42 (18)	-9.82 (90)	24.04 (2)	8.10 (61)	0.18 (7)
Benchmark	3.68	16.19	6.62	11.84	7.49	11.64	-7.38	21.44	9.91	-1.08
Peer Group	3.36	15.47	5.40	10.48	6.44	10.91	-8.38	20.61	8.57	-1.53
Population	495	493	477	432	361	209	487	496	495	467

Fund Information

Fund Inception	11-2007
Fund Assets	2,167 Million
Portfolio Assets	1,389 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	86.4 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	11 Years 7 Months
Turnover	12.0 %
Gross Expense (%)	0.6 %
Net Expense (%)	0.5 %
New Investors	Open

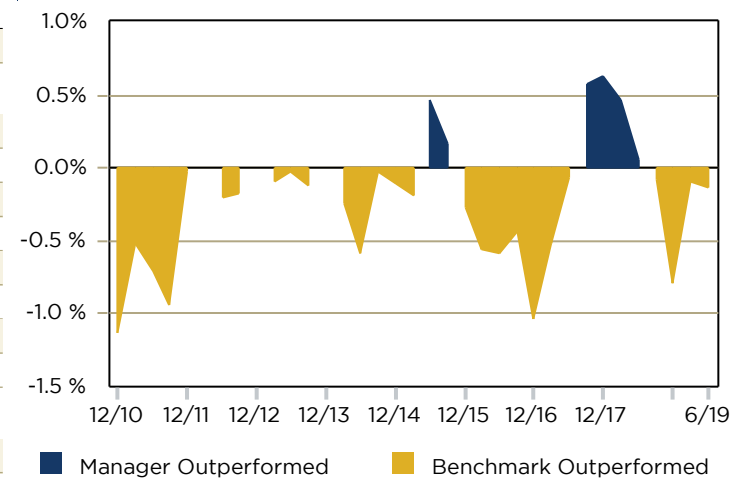
Equity Characteristics

Avg. Market Cap	45,092 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

Fund Statistics

	3 Years	10 Years
Standard Deviation	11.32	12.62
vs. CREF Lifecycle Composite 2050		
Beta	1.07	1.06
Alpha	-0.82	-0.80
Information Ratio	-0.02	-0.08
Tracking Error	1.35	1.45
R-Squared	0.99	0.99
Up Market Capture	103.22	103.22
Down Market Capture	107.78	107.69
Consistency	52.78	52.50
vs. Risk Free		
Sharpe Ratio	0.92	0.89

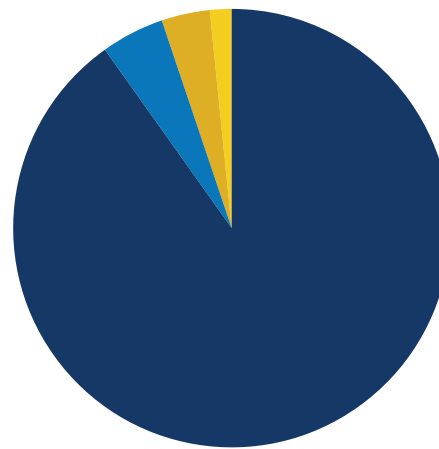
3 Years Rolling Excess Performance



Top Holdings (%)

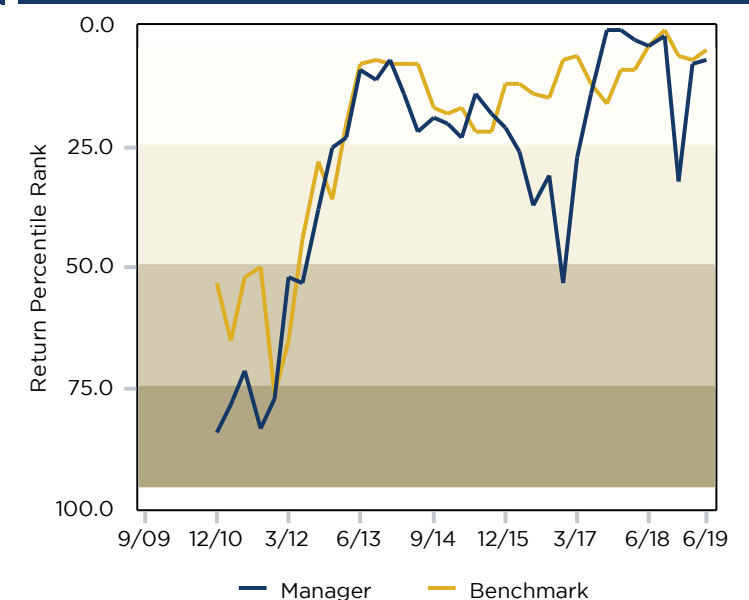
TIAA-CREF Growth & Income W	13.4
TIAA-CREF Large-Cap Growth W	12.1
TIAA-CREF Large-Cap Value W	11.7
TIAA-CREF Quant Large-Cap Growth	10.6
TIAA-CREF Quant Large-Cap Value	10.3
TIAA-CREF Quant Intl Eq W	7.1
TIAA-CREF International Eq W	5.9
TIAA-CREF International Opps W	5.9
TIAA-CREF Emerging Markets Eq W	4.7
Tiaa Cref Real Property Fnd Lp	4.6

Asset Allocation



■ Equity ■ Other
■ Fixed Income ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2055 Institutional (TTRIX)

Index: CREF Lifecycle Composite 2055

Category: Target-Date 2055

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.36 (48)	16.51 (10)	3.51 (94)	11.81 (6)	7.16 (12)	-	-9.86 (91)	24.23 (1)	8.27 (61)	0.13 (7)
Benchmark	3.68	16.33	6.58	11.97	7.57	-	-7.48	21.70	10.11	-1.08
Peer Group	3.34	15.71	5.48	10.60	6.48	-	-8.47	20.82	8.54	-1.55
Population	505	500	482	405	309	-	487	471	465	396

Fund Information

Fund Inception	04-2011
Fund Assets	773 Million
Portfolio Assets	453 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	87.5 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	8 Years 2 Months
Turnover	10.0 %
Gross Expense (%)	0.6 %
Net Expense (%)	0.5 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,101 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

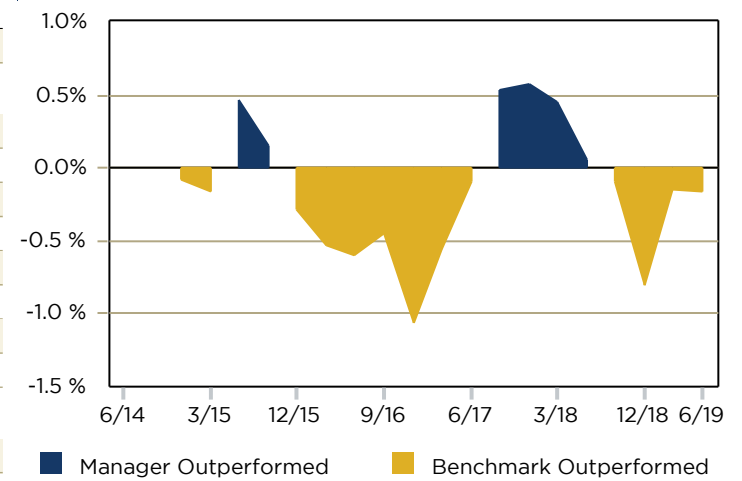
Fund Statistics

	3 Years	10 Years
Standard Deviation	11.41	-
vs. CREF Lifecycle Composite 2055		
Beta	1.06	-
Alpha	-0.78	-
Information Ratio	-0.04	-
Tracking Error	1.36	-
R-Squared	0.99	-
Up Market Capture	102.75	-
Down Market Capture	106.97	-
Consistency	52.78	-

vs. Risk Free

Sharpe Ratio	0.92	-
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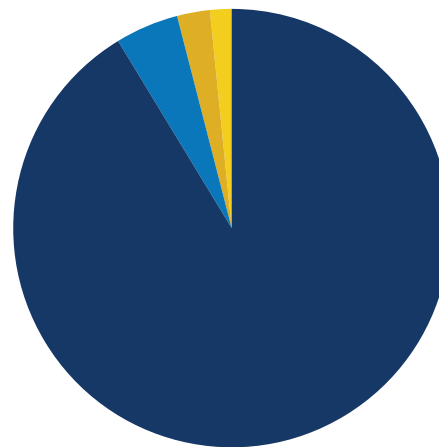
3 Years Rolling Excess Performance



Top Holdings (%)

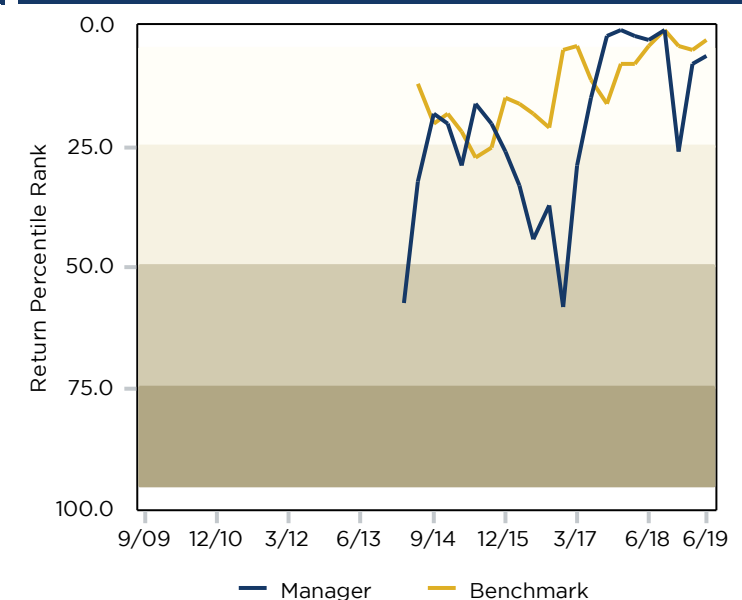
TIAA-CREF Growth & Income W	13.6
TIAA-CREF Large-Cap Growth W	12.3
TIAA-CREF Large-Cap Value W	11.9
TIAA-CREF Quant Large-Cap Growth	10.7
TIAA-CREF Quant Large-Cap Value	10.4
TIAA-CREF Quant Intl Eq W	7.2
TIAA-CREF International Eq W	6.0
TIAA-CREF International Opps W	6.0
TIAA-CREF Emerging Markets Eq W	4.7
Tiaa Cref Real Property Fnd Lp	4.6

Asset Allocation



■ Equity ■ Other
■ Fixed Income ■ Cash

3 Years Rolling Percentile Ranking





TIAA-CREF Lifecycle 2060 Institutional (TLXNX)

Index: CREF Lifecycle Composite 2060

Category: Target-Date 2060+

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.41 (52)	16.77 (9)	3.44 (94)	11.90 (7)	-	-	-10.06 (87)	24.40 (1)	8.39 (61)	0.19 (11)
Benchmark	3.69	16.46	6.55	12.09	-	-	-7.59	21.97	10.31	-1.08
Peer Group	3.42	15.78	5.50	10.77	-	-	-8.49	20.95	8.82	-1.30
Population	454	438	417	270	-	-	407	351	272	123

Fund Information

Fund Inception	09-2014
Fund Assets	146 Million
Portfolio Assets	93 Million
Total # of Holdings	19
% Assets in Top 10 Holdings	88.5 %
PM	Cunniff,J/Erickson,H/Sedmak,S
PM Tenure	4 Years 9 Months
Turnover	36.0 %
Gross Expense (%)	0.8 %
Net Expense (%)	0.5 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	45,109 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.1 %

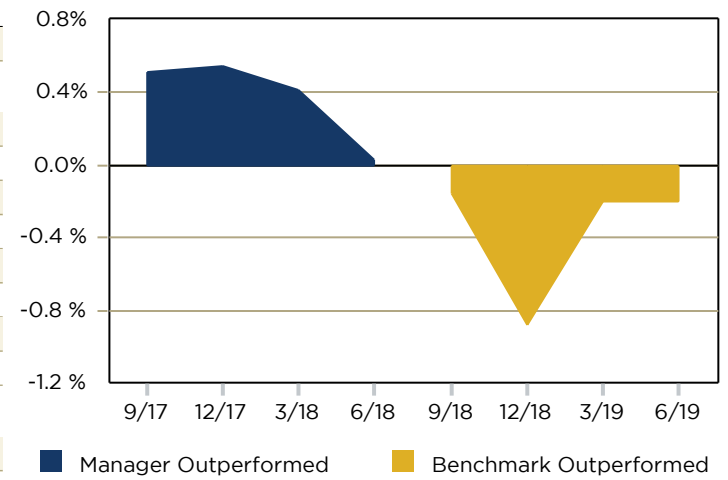
Fund Statistics

	3 Years	10 Years
Standard Deviation	11.61	-
vs. CREF Lifecycle Composite 2060		
Beta	1.06	-
Alpha	-0.86	-
Information Ratio	-0.06	-
Tracking Error	1.41	-
R-Squared	0.99	-
Up Market Capture	102.61	-
Down Market Capture	106.97	-
Consistency	52.78	-

vs. Risk Free

Sharpe Ratio	0.91	-
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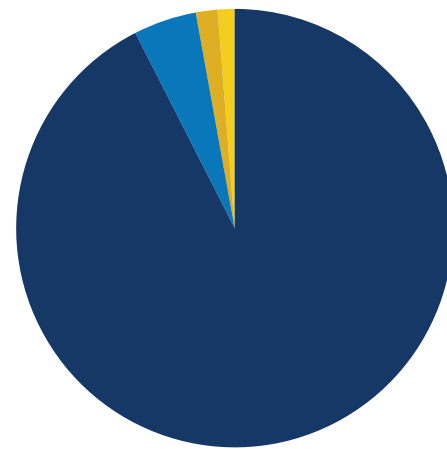
3 Years Rolling Excess Performance



Top Holdings (%)

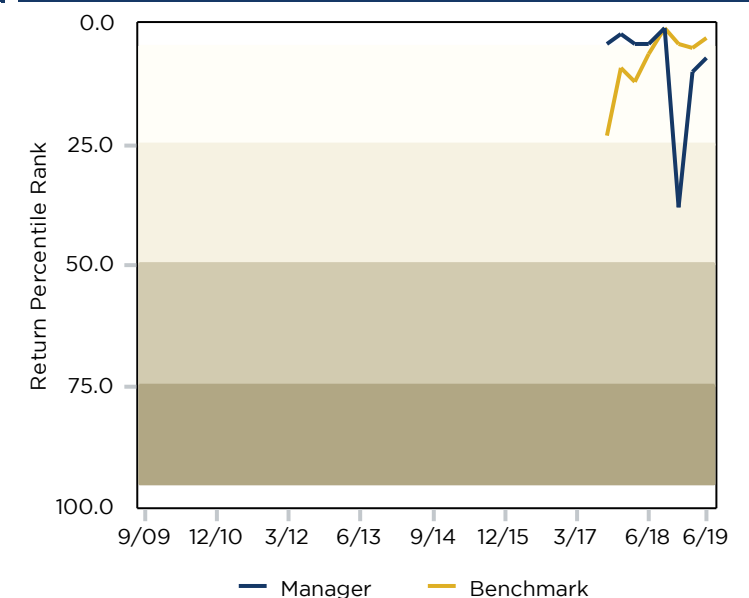
TIAA-CREF Growth & Income W	13.8
TIAA-CREF Large-Cap Growth W	12.4
TIAA-CREF Large-Cap Value W	12.1
TIAA-CREF Quant Large-Cap Growth	10.9
TIAA-CREF Quant Large-Cap Value	10.6
TIAA-CREF Quant Intl Eq W	7.3
TIAA-CREF International Eq W	6.1
TIAA-CREF International Opps W	6.1
TIAA-CREF Emerging Markets Eq W	4.8
Tiaa Cref Real Property Fnd Lp	4.6

Asset Allocation



■ Equity ■ Other
■ Cash ■ Fixed Income

3 Years Rolling Percentile Ranking



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Fund Factsheets: Voya Mandatory Plan



Voya Fixed Plus Account III

Index: Ryan 3 Yr GIC Master Index

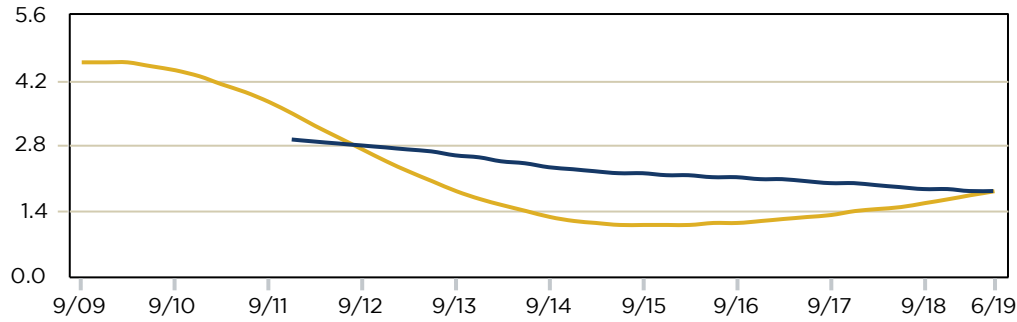
Category: Stable Value

Report Date: 06/30/2019

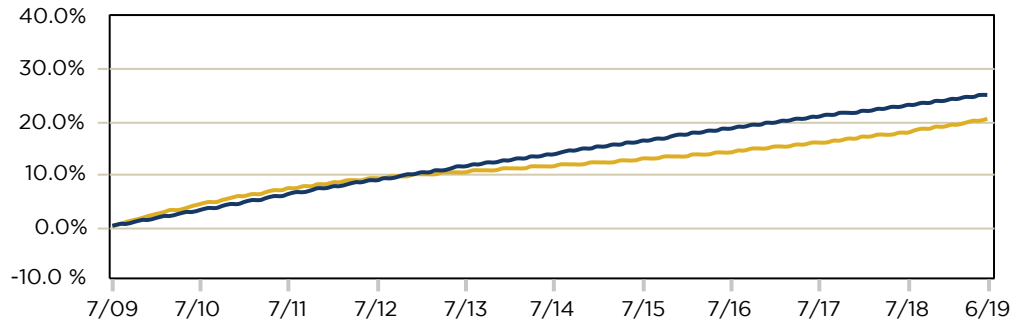
Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	0.49	0.99	2.00	2.04	2.17	2.52	2.00	2.00	2.06	2.12
Benchmark	0.58	1.15	2.20	1.81	1.56	1.89	1.96	1.60	1.39	1.16

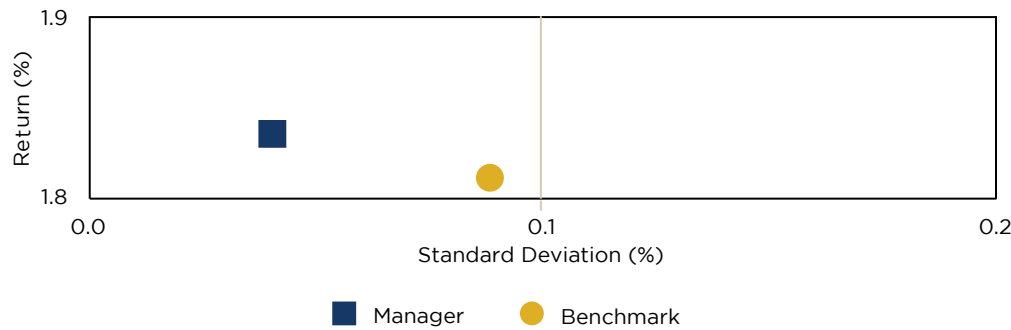
Return (Rolling 36 Months)



Growth of a Dollar



Risk-Reward





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.70 (34)	6.33 (17)	4.50 (36)	2.36 (17)	1.44 (34)	3.96 (5)	-1.97 (69)	3.92 (7)	5.04 (20)	-2.75 (79)
Benchmark	2.86	6.15	4.84	2.08	1.76	3.64	-1.26	3.01	4.68	-1.44
Peer Group	2.58	5.88	4.24	1.94	1.23	3.16	-1.51	2.74	4.42	-1.90
Population	329	328	323	297	288	187	325	331	337	338

Fund Information

Fund Inception	01/29/1997
Fund Assets	9,495 Million
Portfolio Assets	5,809 Million
Total # of Holdings	1021
% Assets in Top 10 Holdings	26.34 %
PM	Rodosky,S/Worah,M
PM Tenure	11 Years 6 Months
Turnover	254.00 %
Gross Expense (%)	0.98 %
Net Expense (%)	0.98 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	7.03 Years
Avg. Effective Maturity	6.86 Years
Avg. Credit Quality	
Avg. Weighted Coupon	2.79 %

Top Holdings (%)

Euro BUND Future June19	13.10
United States Treasury Notes 0.62%	10.40
United States Treasury Bonds 3.62%	7.69
United States Treasury Bonds 3.88%	7.06
United States Treasury Bonds 2.38%	6.09
Euro BOBL Future June19	5.52
Iro Usd 2y C 2.25000 M 03/26/20	5.41
Euro OAT June19	-6.51
US 10 Year Ultra Future June19	-7.08
Euro Schatz June19	-15.34

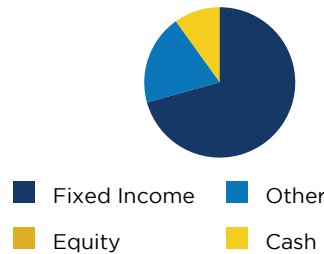
Fund Statistics

	3 Years	10 Years
Standard Deviation	2.96	4.92
vs. Bloomberg Barclays U.S. TIPS Index		
Beta	1.00	1.08
Alpha	0.28	0.04
Information Ratio	0.47	0.29
Tracking Error	0.60	1.16
R-Squared	0.96	0.95
Up Market Capture	100.51	110.28
Down Market Capture	91.99	111.39
Consistency	63.89	62.50

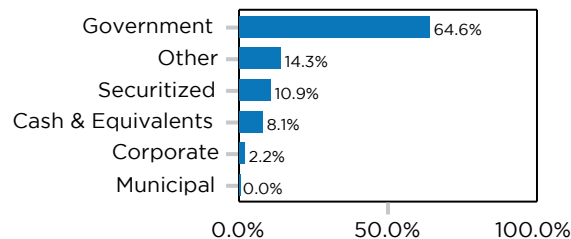
vs. Risk Free

Sharpe Ratio	0.35	0.72
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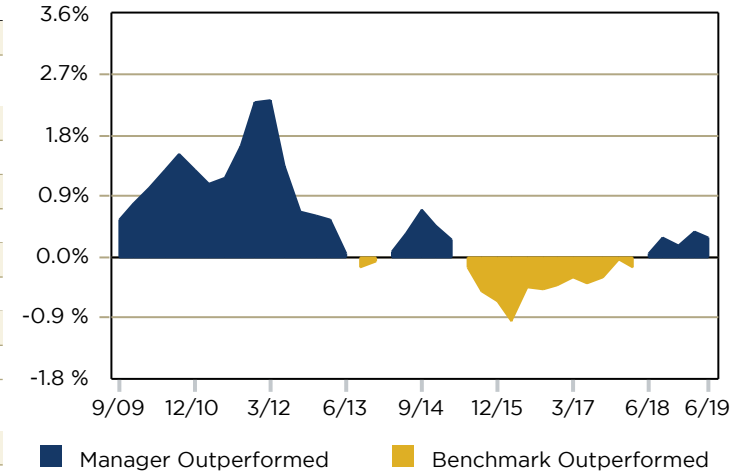
Asset Allocation



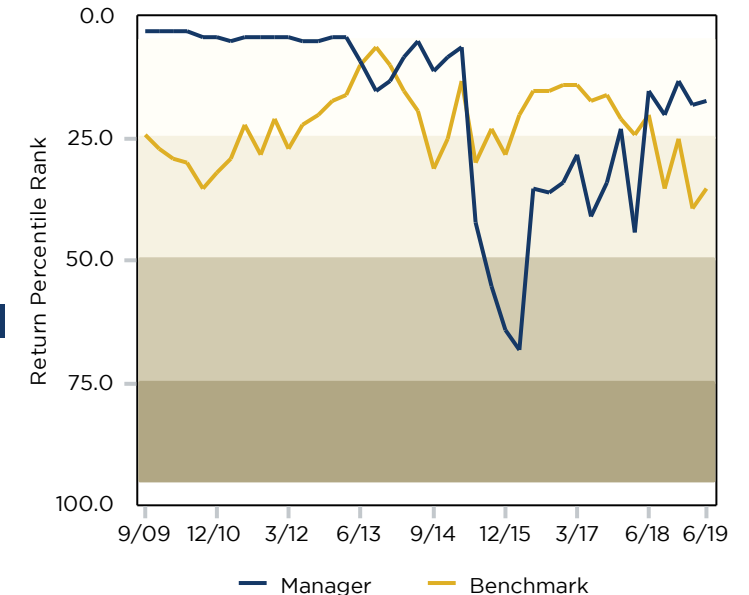
Sector Allocation



3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.21 (16)	6.08 (51)	7.64 (47)	3.18 (3)	3.02 (19)	4.69 (15)	-0.26 (48)	5.13 (2)	2.60 (49)	0.73 (17)
Benchmark	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55
Peer Group	2.98	6.08	7.57	2.21	2.70	3.90	-0.31	3.40	2.59	0.27
Population	920	900	829	660	613	532	817	783	822	832

Fund Information

Fund Inception	05/11/1987
Fund Assets	66,893 Million
Portfolio Assets	51,585 Million
Total # of Holdings	7539
% Assets in Top 10 Holdings	49.08 %
PM	Kiesel,M/Mather,S/Worah,M
PM Tenure	4 Years 9 Months
Turnover	723.00 %
Gross Expense (%)	0.71 %
Net Expense (%)	0.71 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	3.78 Years
Avg. Effective Maturity	4.92 Years
Avg. Credit Quality	
Avg. Weighted Coupon	4.26 %

Top Holdings (%)

US 5 Year Note (CBT) June19	33.57
Fin Fut Euribor Ice (Wht) 06/17/19	25.42
Euro BUND Future June19	10.09
US Ultra Bond (CBT) June19	9.32
US 10 Year Note (CBT) June19	8.16
Pimco Fds	7.73
U.S. Treasury Bond June19	-8.90
90 Day Eurodollar Future Sept20	-9.40
Long-Term Euro-BTP Futures June19	-9.62
90 Day Eurodollar Future June20	-17.30

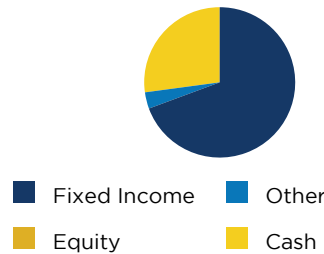
Fund Statistics

	3 Years	10 Years
Standard Deviation	2.85	3.38
vs. Blmbg. Barc. U.S. Aggregate Index		
Beta	0.90	0.97
Alpha	1.07	0.90
Information Ratio	0.88	0.41
Tracking Error	0.95	1.91
R-Squared	0.90	0.68
Up Market Capture	103.99	111.60
Down Market Capture	77.81	97.20
Consistency	66.67	65.00

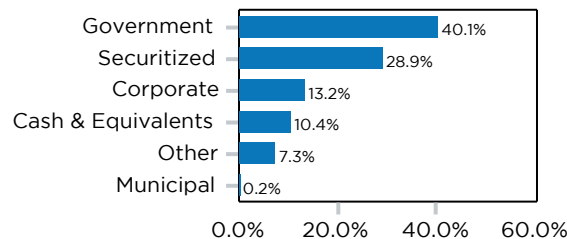
vs. Risk Free

Sharpe Ratio	0.65	1.24
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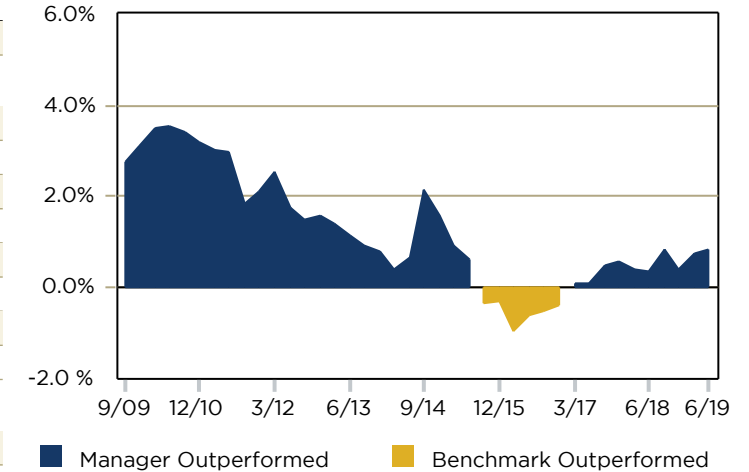
Asset Allocation



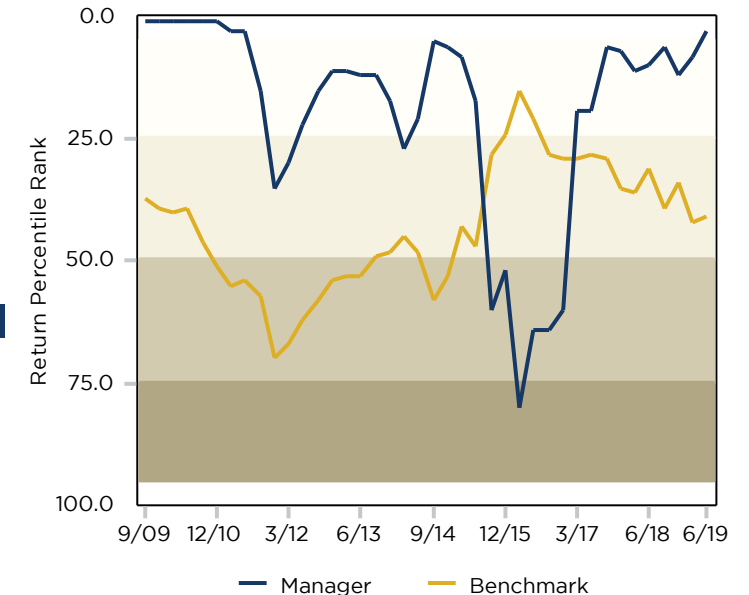
Sector Allocation



3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.09	4.56	5.65	2.31	-	-	0.11	2.68	2.56	-
Benchmark	3.16	6.98	8.74	3.73	-	-	0.27	4.31	4.01	-

Fund Information

Fund Inception	09/28/2015
Fund Assets	85 Million
Portfolio Assets	63 Million
Total # of Holdings	29
% Assets in Top 10 Holdings	40.38 %
PM	Drum,P/Fegley,B
PM Tenure	3 Years 9 Months
Turnover	23.00 %
Gross Expense (%)	0.62 %
Net Expense (%)	0.62 %
New Investors	Open

Fixed Income Characteristics

Avg. Effective Duration	3.39 Years
Avg. Effective Maturity	3.89 Years
Avg. Credit Quality	BB
Avg. Weighted Coupon	3.81 %

Top Holdings (%)

EMG Sukuk Ltd. 4.56%	4.28
KSA Sukuk Limited 3.63%	4.28
Equate Sukuk Spc	4.25
Oman Sovereign Sukuk S.A.O.C 4.4%	4.02
MAF Sukuk Ltd 4.64%	4.01
MAF Sukuk Ltd 4.5%	4.01
SoQ Sukuk A Q.S.C. 3.24%	3.96
Eib Sukuk	3.88
QIB Sukuk Ltd. 2.75%	3.85
Al Shindagha Sukuk Ltd 3.78%	3.84

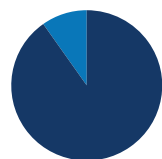
Fund Statistics

	3 Years	10 Years
Standard Deviation	1.69	-
vs. Sukuk Index		
Beta	0.70	-
Alpha	-0.27	-
Information Ratio	-1.59	-
Tracking Error	0.88	-
R-Squared	0.90	-
Up Market Capture	64.49	-
Down Market Capture	69.57	-
Consistency	30.56	-

vs. Risk Free

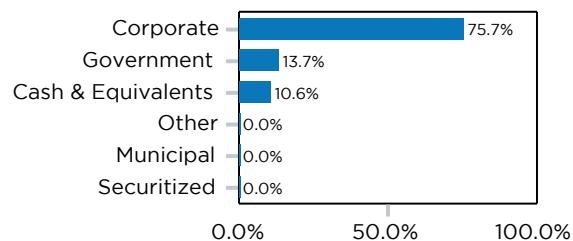
Sharpe Ratio	0.58	-
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Asset Allocation

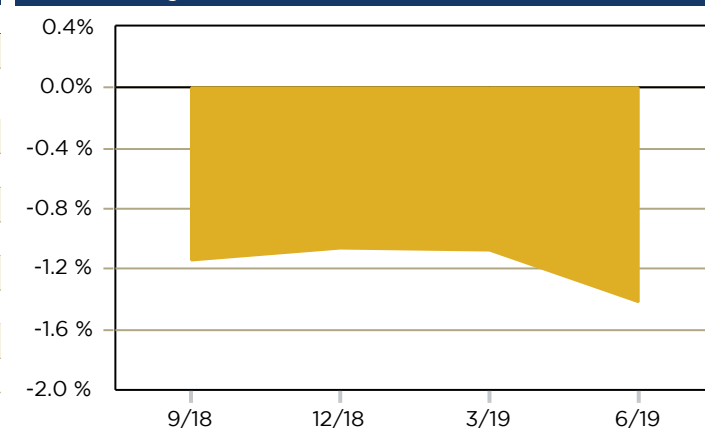


■ Fixed Income ■ Cash
■ Equity

Sector Allocation



3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.67 (11)	15.42 (41)	7.57 (37)	11.54 (21)	8.68 (13)	12.42 (43)	-7.17 (27)	16.76 (41)	16.21 (33)	-0.10 (10)
Benchmark	3.84	16.24	8.46	10.19	7.46	13.19	-8.27	13.66	17.34	-3.83
Peer Group	3.37	14.98	6.00	10.28	6.88	12.21	-8.90	16.17	14.59	-3.54
Population	1,843	1,817	1,744	1,491	1,408	1,209	1,774	1,659	1,720	1,670

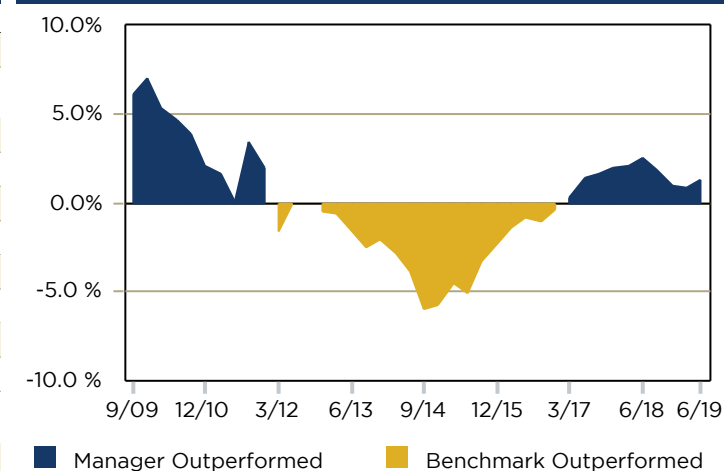
Fund Information

Fund Inception	11/29/1988
Fund Assets	19,268 Million
Portfolio Assets	9,982 Million
Total # of Holdings	103
% in Top 10	28.86 %
PM	DeSpirito,T/Tapia,F/Zhao,D
PM Tenure	4 Years 10 Months
Turnover	36.00 %
Gross Expense (%)	0.73 %
Net Expense (%)	0.73 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	11.56	11.72
vs. Russell 1000 Value Index		
Beta	0.95	0.88
Alpha	1.75	0.79
Information Ratio	0.47	-0.27
Tracking Error	2.49	3.17
R-Squared	0.96	0.95
Up Market Capture	100.09	89.56
Down Market Capture	89.14	85.04
Consistency	50.00	42.50

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	148,403	130,324
Median Mkt. Cap (\$M)	55,641	9,656
Price/Earnings ratio	16.1	17.4
Price/Book ratio	2.6	2.3
5 Yr. EPS Growth Rate (%)	7.2	7.1
Current Yield (%)	2.7	2.6
Beta (5 Years, Monthly)	0.95	1.00
Number of Stocks	83	722
Debt to Equity	1.5	0.8
Forecast P/E	13.3	14.9
Forecast EPS Growth	10.0	9.3
Return on Equity	0.0	0.0

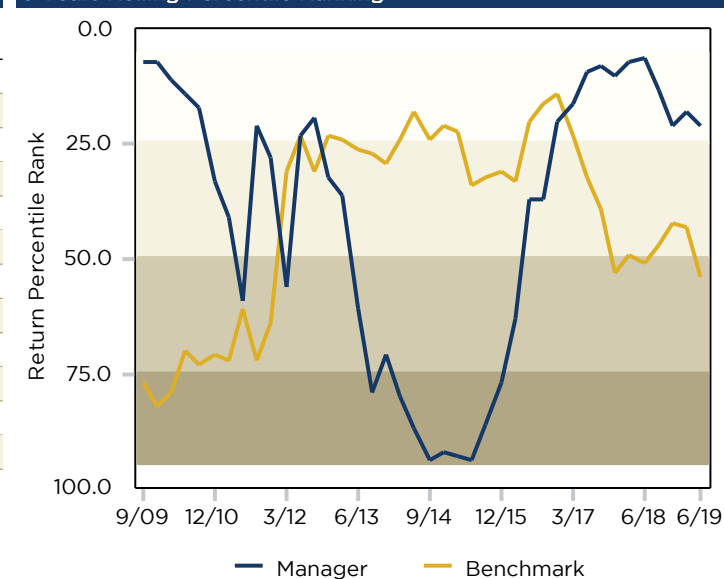
vs. Risk Free

Sharpe Ratio	0.89	1.02
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	6.7	7.1
Consumer Discretionary	3.5	5.3
Consumer Staples	8.6	7.8
Energy	11.1	9.0
Financials	28.5	22.5
Health Care	16.5	15.2
Industrials	7.0	8.0
Information Technology	12.0	9.7
Materials	3.2	4.0
Real Estate	0.0	5.0
Utilities	2.9	6.4
Total	100.0	100.0

3 Years Rolling Percentile Ranking

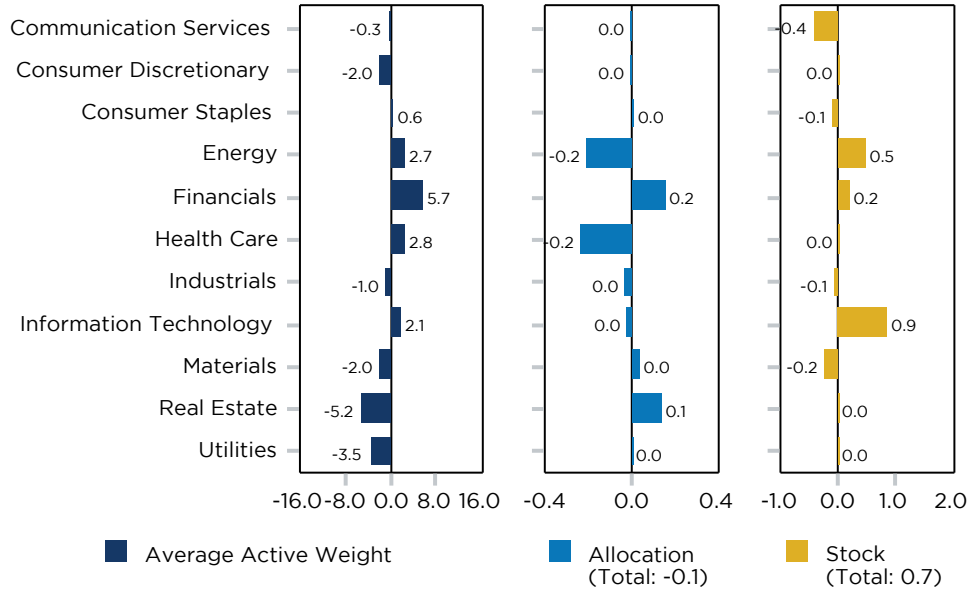


Country/Region Allocation

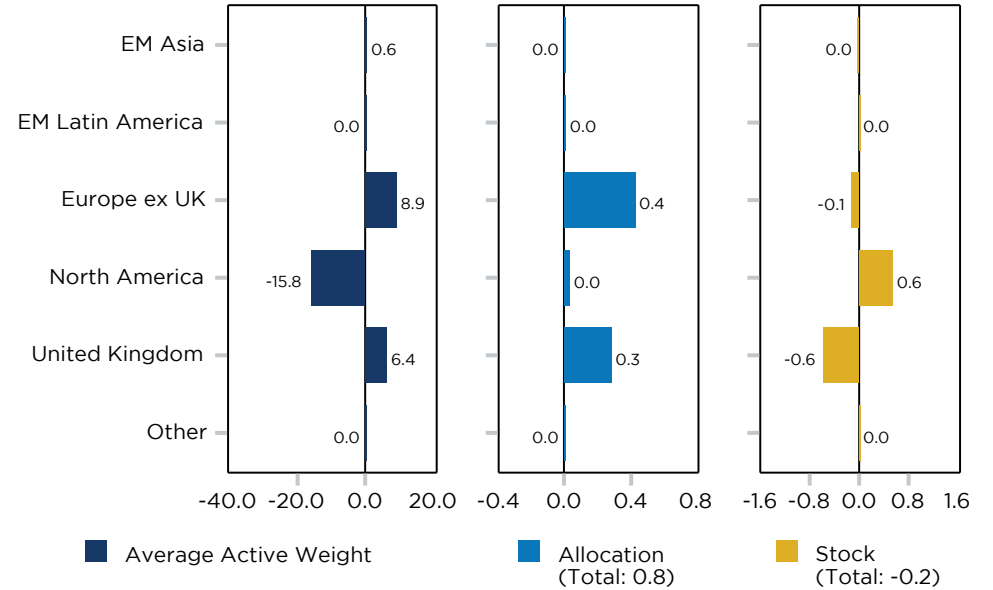
United States	77.3	95.3
Non-US Developed	22.1	4.6
Emerging Markets	0.6	0.1
Other	0.0	0.0
Total	100.0	100.0



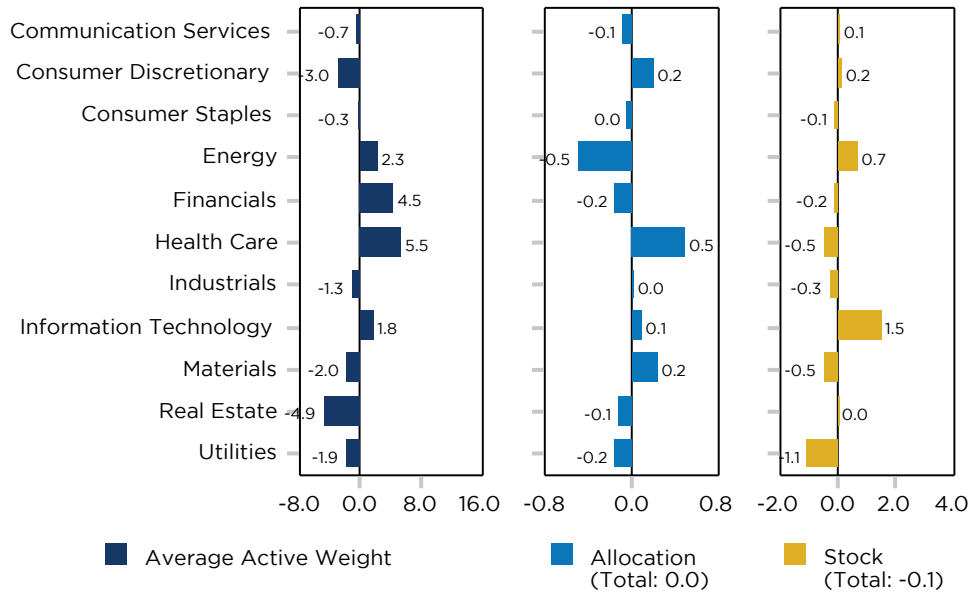
1 Quarter Sector Attribution



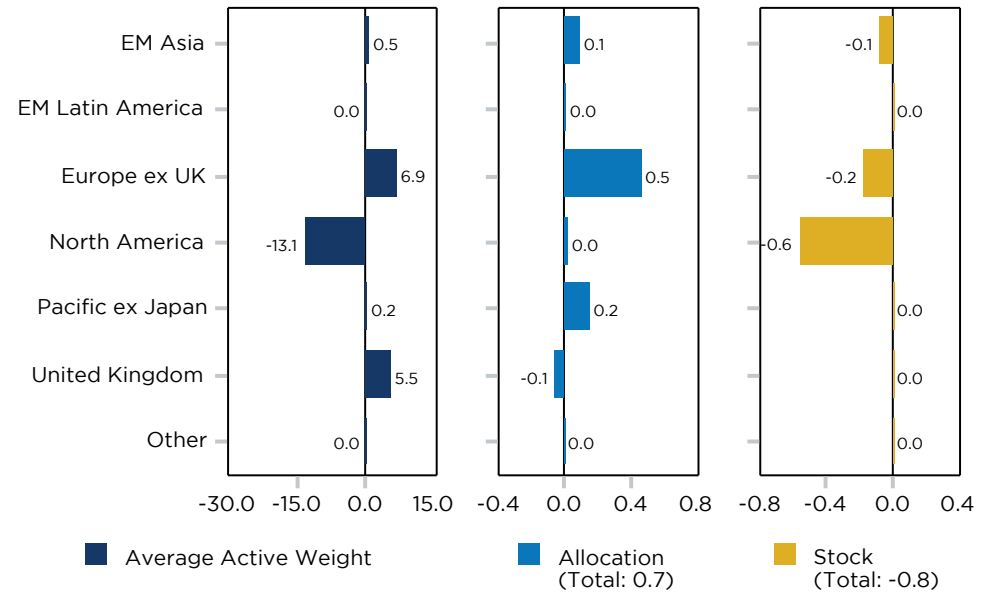
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

Verizon Communications Inc	4.1 %
JPMorgan Chase & Co	3.6 %
Wells Fargo & Co	3.4 %
Citigroup Inc	3.4 %
Bank of America Corporation	2.9 %
Microsoft Corp	2.5 %
BP PLC	2.4 %
Pfizer Inc	2.3 %
Medtronic PLC	2.2 %
Anthem Inc	2.1 %
Total	28.9 %

Asset Allocation (%)

Equity	92.3
Cash	7.7
Fixed Income	0.0

Market Capitalization (%)

Giant	50.7
Large	43.3
Medium	6.0
Small	0.0
Micro	0.0

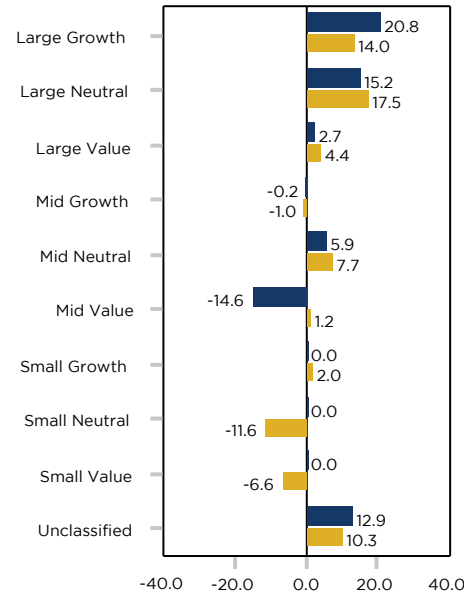
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
American Int'l Group Inc	1.73	0.25	0.31	24.48
Metlife Inc.	2.05	0.27	0.25	17.76
Microsoft Corp	2.65	0.36	0.23	14.00
QUALCOMM Inc.	1.25	0.53	0.22	34.62
Citigroup Inc	3.25	1.13	0.20	13.27
Anadarko Petroleum Corp	0.42	0.12	0.16	55.81
Motorola Solutions Inc	1.16	0.15	0.15	19.16
Philips Electronics NV	2.36	0.00	0.13	9.15
JPMorgan Chase & Co	3.73	2.57	0.09	11.28
Oracle Corp	3.07	0.90	0.06	6.54

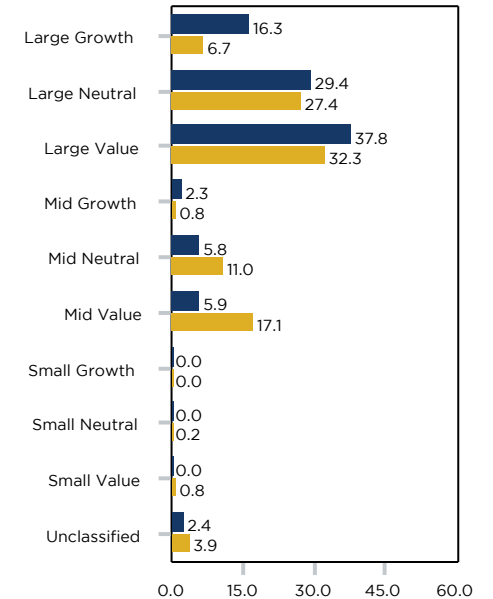
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Altria Group Inc	1.22	0.00	-0.25	-16.26
Verizon Communications Inc	4.46	1.88	-0.16	-2.39
State Street Corp	1.07	0.18	-0.16	-14.10
Suncor Energy Inc.	2.35	0.00	-0.16	-2.92
Cognizant Technology	1.00	0.03	-0.16	-12.22
Lowe's Cos Inc	0.91	0.00	-0.10	-7.43
3M Co	0.66	0.15	-0.10	-15.85
Marathon Petroleum Corp	1.18	0.31	-0.08	-5.67
Devon Energy Corp	0.72	0.11	-0.08	-9.32
DuPont De Nemours Inc	0.93	0.93	0.00	-20.61

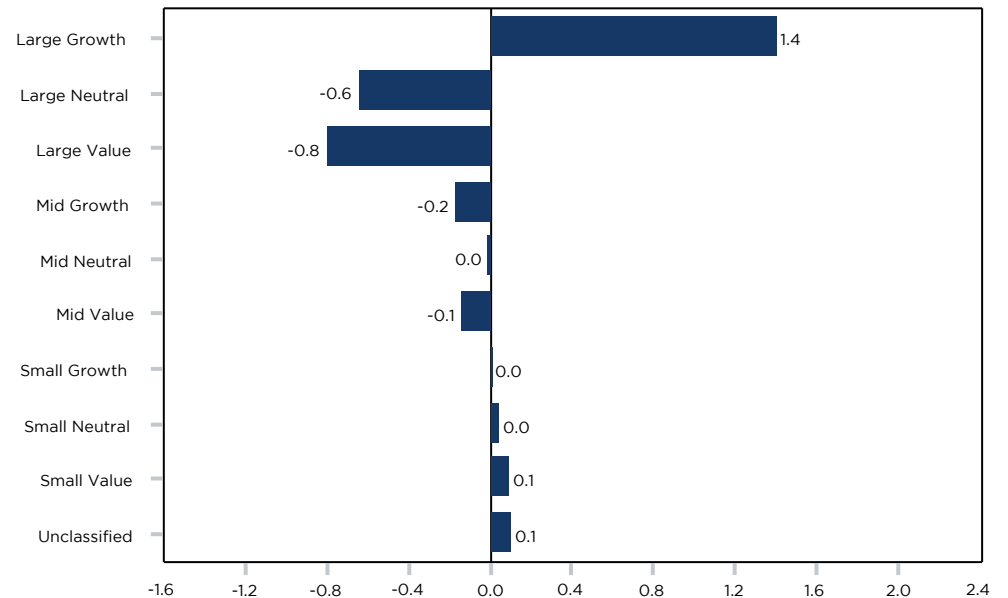
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





American Funds Fundamental Invs R6 (RFNGX)

Index: S&P 500 Index
 Category: Large Blend
 Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.88 (81)	15.27 (81)	5.72 (75)	13.16 (53)	10.12 (33)	13.82 (47)	-6.33 (60)	23.72 (10)	12.88 (17)	3.71 (5)
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38
Peer Group	4.10	18.04	8.93	13.27	9.42	13.67	-5.62	21.15	11.15	0.22
Population	2,339	2,286	2,158	1,791	1,663	1,430	2,153	2,009	2,064	2,049

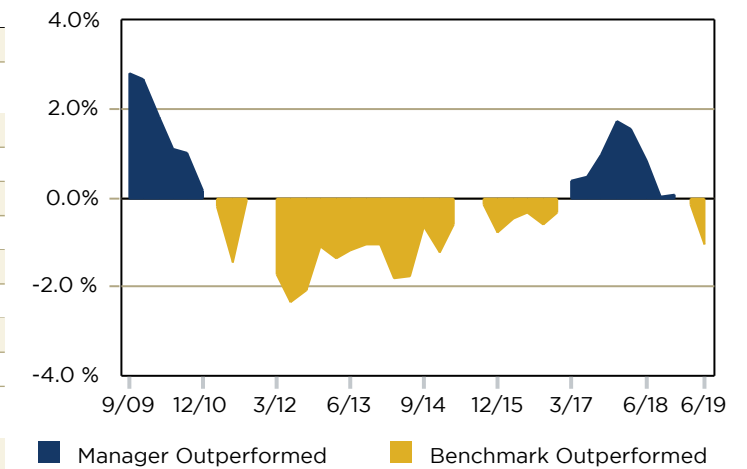
Fund Information

Fund Inception	05/01/2009
Fund Assets	101,301 Million
Portfolio Assets	16,672 Million
Total # of Holdings	258
% in Top 10	25.84 %
PM	Team Managed
PM Tenure	26 Years 3 Months
Turnover	34.00 %
Gross Expense (%)	0.30 %
Net Expense (%)	0.30 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	11.49	12.90
vs. S&P 500 Index		
Beta	0.93	1.00
Alpha	-0.02	-0.75
Information Ratio	-0.37	-0.32
Tracking Error	2.68	2.36
R-Squared	0.95	0.97
Up Market Capture	93.95	98.32
Down Market Capture	95.24	102.81
Consistency	44.44	43.33

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	216,257	238,882
Median Mkt. Cap (\$M)	42,596	22,707
Price/Earnings ratio	19.7	20.4
Price/Book ratio	3.5	3.5
5 Yr. EPS Growth Rate (%)	17.2	15.5
Current Yield (%)	2.0	2.0
Beta (5 Years, Monthly)	0.97	1.00
Number of Stocks	251	505
Debt to Equity	2.1	1.9
Forecast P/E	17.5	17.8
Forecast EPS Growth	14.1	12.1
Return on Equity	0.2	0.2

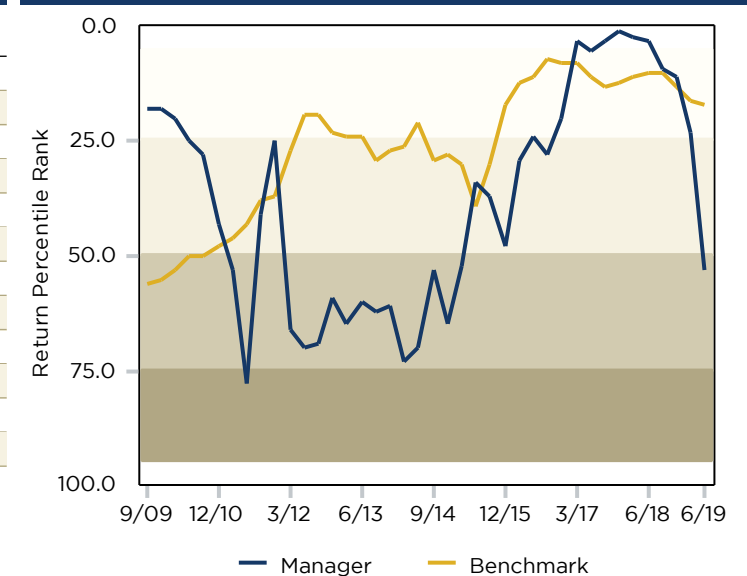
vs. Risk Free

Sharpe Ratio	1.02	1.04
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	11.6	10.2
Consumer Discretionary	9.2	10.2
Consumer Staples	7.0	7.3
Energy	6.8	5.0
Financials	12.8	13.1
Health Care	13.0	14.2
Industrials	11.0	9.4
Information Technology	22.3	21.5
Materials	3.8	2.8
Real Estate	1.9	3.1
Utilities	0.5	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking

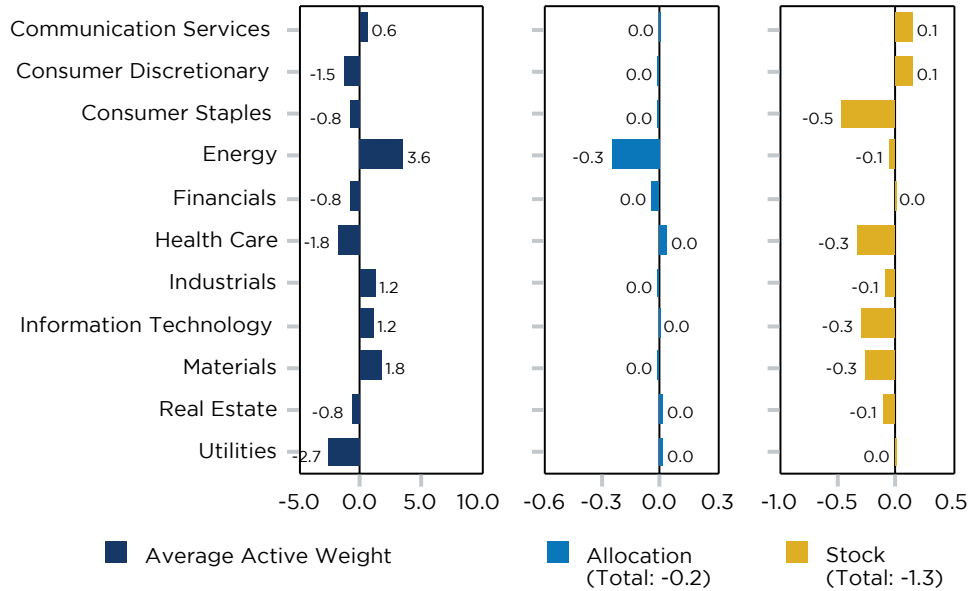


Country/Region Allocation

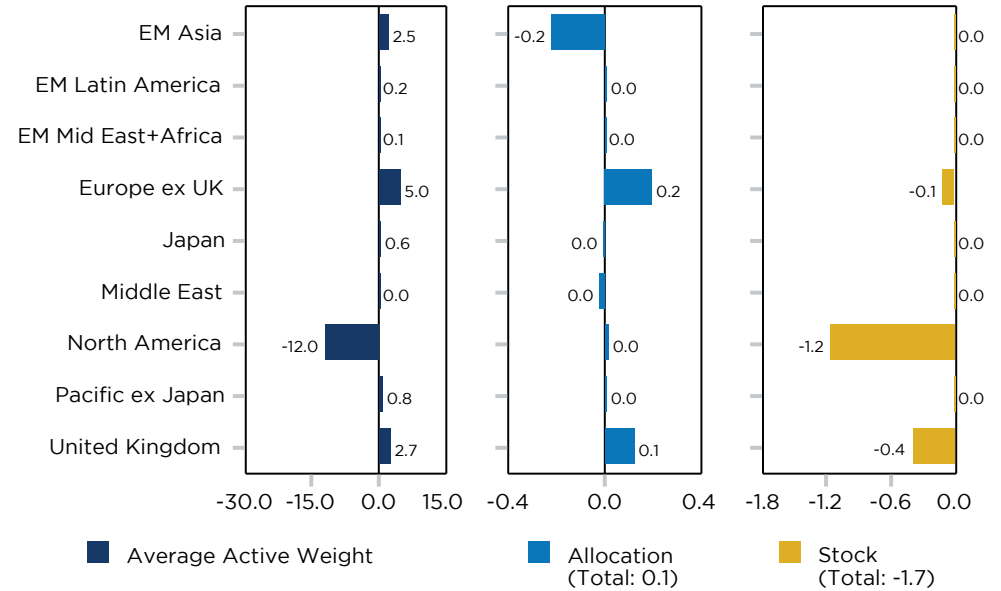
United States	82.5	96.5
Non-US Developed	15.0	3.5
Emerging Markets	2.5	0.0
Other	0.0	0.0
Total	100.0	100.0



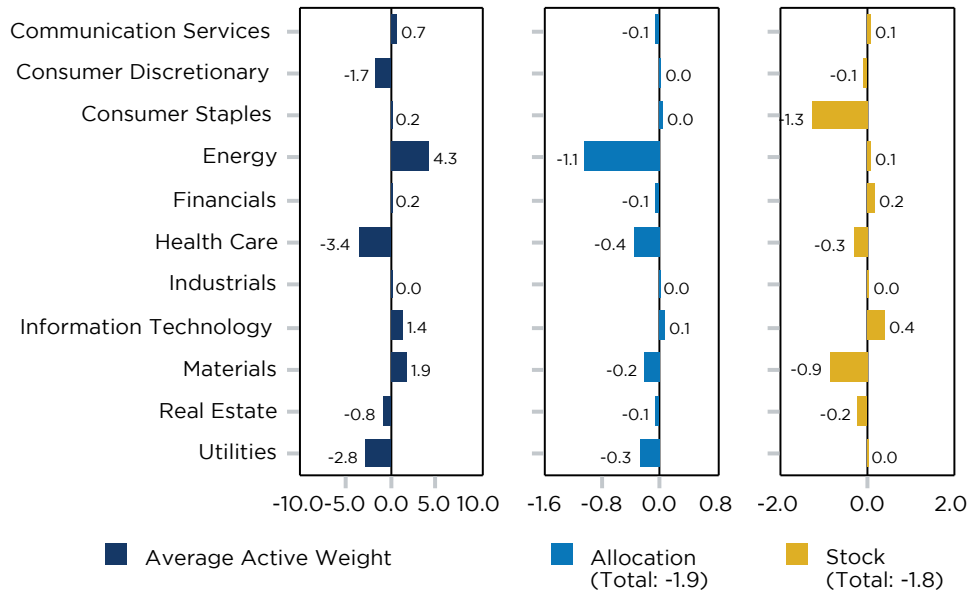
1 Quarter Sector Attribution



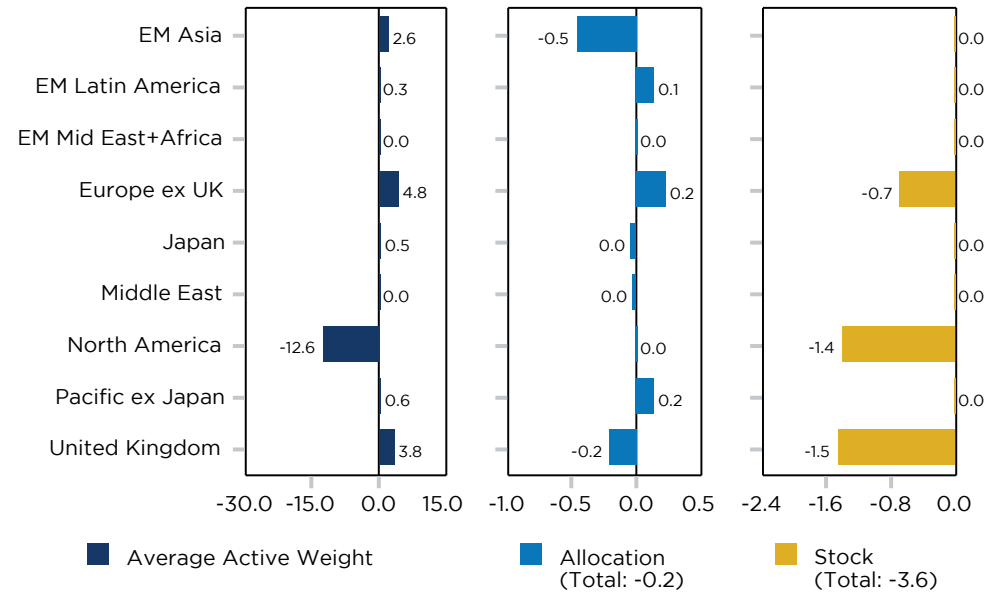
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

Microsoft Corp	5.3 %
Broadcom Inc	3.3 %
Facebook Inc A	2.7 %
Intel Corp	2.5 %
Berkshire Hathaway Inc A	2.4 %
Amazon.com Inc	2.4 %
UnitedHealth Group Inc	2.3 %
Charter Communications Inc A	2.1 %
The Home Depot Inc	1.4 %
Taiwan Semiconductor Manufacturing	1.4 %
Total	25.8 %

Asset Allocation (%)

Equity	95.1
Cash	4.9
Fixed Income	0.0

Market Capitalization (%)

Giant	58.8
Large	33.9
Medium	6.9
Small	0.4
Micro	0.0

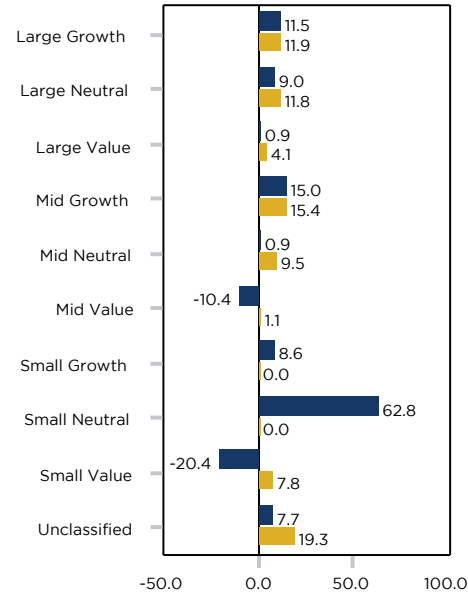
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Charter Communications Inc	1.92	0.32	0.15	13.91
Microsoft Corp	5.14	3.65	0.14	14.00
Facebook Inc	2.40	1.61	0.09	15.78
Boston Scientific Corp	1.00	0.21	0.06	11.99
CME Group Inc	0.64	0.24	0.06	18.38
QUALCOMM Inc.	0.44	0.28	0.05	34.62
Home Depot Inc. (The)	1.40	0.88	0.03	9.13
Berkshire Hathaway Inc	2.32	2.00	0.00	5.69
JPMorgan Chase & Co	1.39	1.34	0.00	11.28
Amazon.com Inc	2.55	3.53	-0.02	6.34

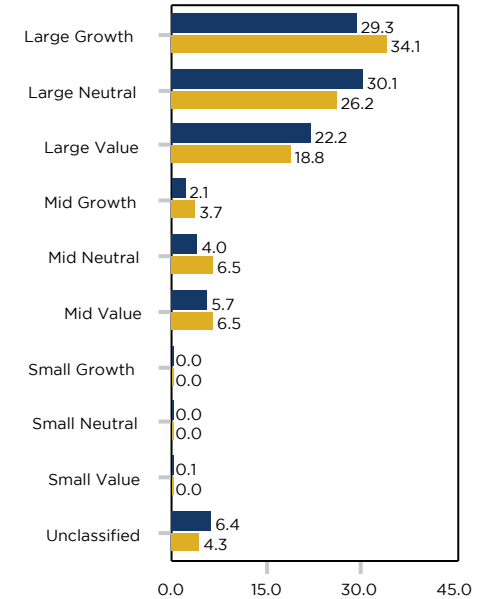
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
DuPont De Nemours Inc	1.91	0.49	-0.35	-20.61
Regeneron Pharma	1.14	0.18	-0.27	-23.77
Broadcom Inc	3.92	0.48	-0.26	-3.35
Intel Corp	2.59	0.98	-0.24	-10.31
British American Tobacco	1.25	0.00	-0.21	-12.77
Simon Property Group Inc.	1.02	0.23	-0.12	-11.30
Altria Group Inc	1.02	0.43	-0.12	-16.26
Philip Morris International Inc	1.36	0.55	-0.11	-9.84
Baidu Inc	0.34	0.00	-0.11	-28.81
Alphabet Inc	1.86	1.66	-0.02	-7.88

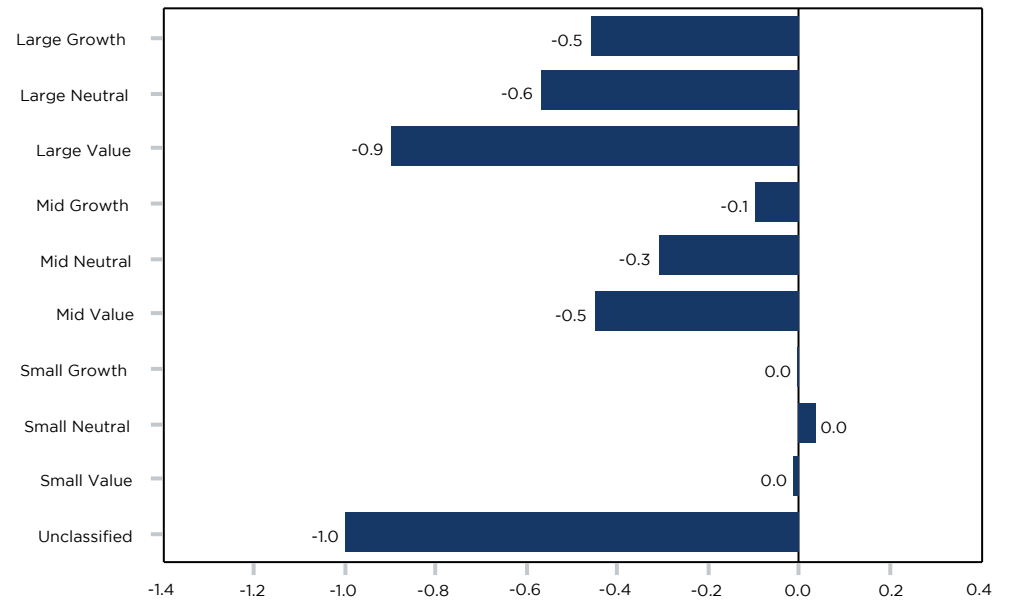
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	6.13 (4)	20.31 (9)	17.43 (2)	14.57 (11)	10.40 (21)	14.35 (26)	0.05 (2)	16.81 (88)	10.60 (57)	-0.33 (59)
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38
Peer Group	4.10	18.04	8.93	13.27	9.42	13.67	-5.62	21.15	11.15	0.22
Population	2,339	2,286	2,158	1,791	1,663	1,430	2,153	2,009	2,064	2,049

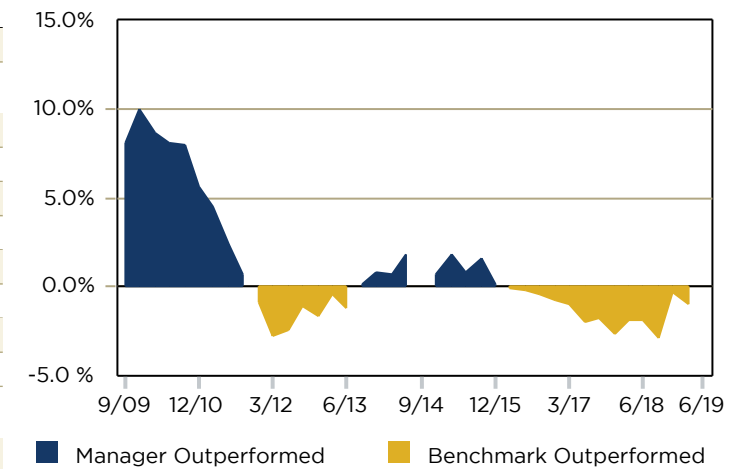
Fund Information

Fund Inception	04/28/2006
Fund Assets	17,366 Million
Portfolio Assets	7,810 Million
Total # of Holdings	40
% in Top 10	38.23 %
PM	Ahlsten,T/Allen,B
PM Tenure	18 Years 1 Month
Turnover	31.43 %
Gross Expense (%)	0.63 %
Net Expense (%)	0.63 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	10.82	11.43
vs. S&P 500 Index		
Beta	0.86	0.87
Alpha	2.15	1.51
Information Ratio	0.05	-0.13
Tracking Error	3.50	3.61
R-Squared	0.92	0.92
Up Market Capture	94.69	91.21
Down Market Capture	85.37	83.81
Consistency	41.67	45.83

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	171,981	238,882
Median Mkt. Cap (\$M)	44,188	22,707
Price/Earnings ratio	26.7	20.4
Price/Book ratio	4.7	3.5
5 Yr. EPS Growth Rate (%)	15.0	15.5
Current Yield (%)	1.5	2.0
Beta (5 Years, Monthly)	0.86	1.00
Number of Stocks	38	505
Debt to Equity	0.9	1.9
Forecast P/E	22.0	17.8
Forecast EPS Growth	10.5	12.1
Return on Equity	0.1	0.2

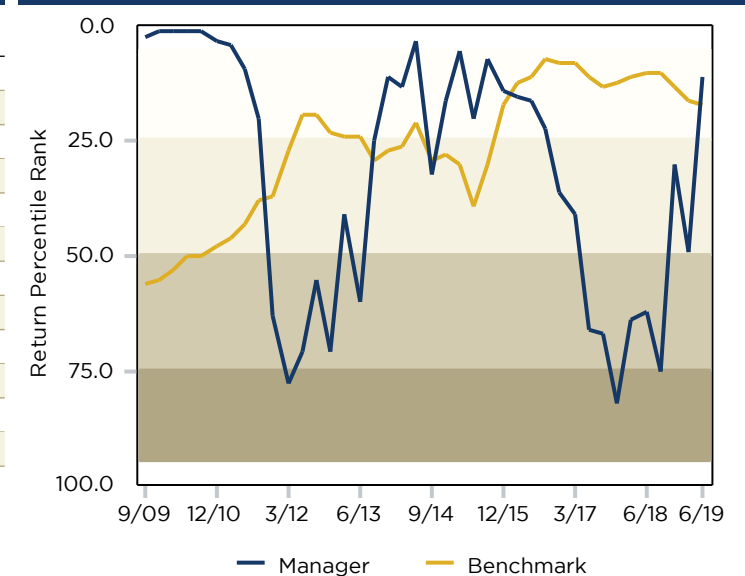
vs. Risk Free

Sharpe Ratio	1.19	1.20
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	7.6	10.2
Consumer Discretionary	5.5	10.2
Consumer Staples	14.6	7.3
Energy	0.0	5.0
Financials	9.6	13.1
Health Care	14.1	14.2
Industrials	15.4	9.4
Information Technology	25.8	21.5
Materials	2.6	2.8
Real Estate	4.8	3.1
Utilities	0.0	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking

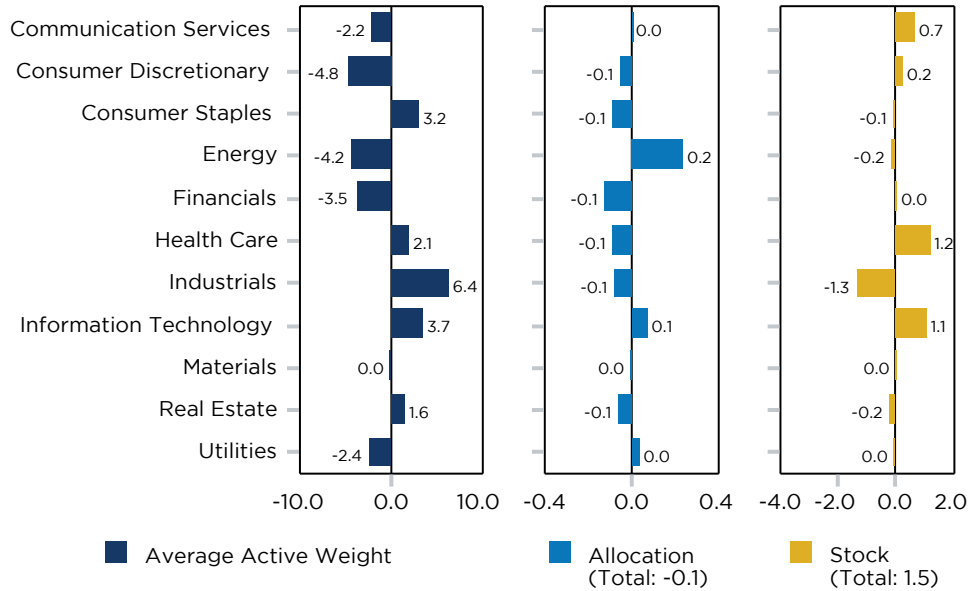


Country/Region Allocation

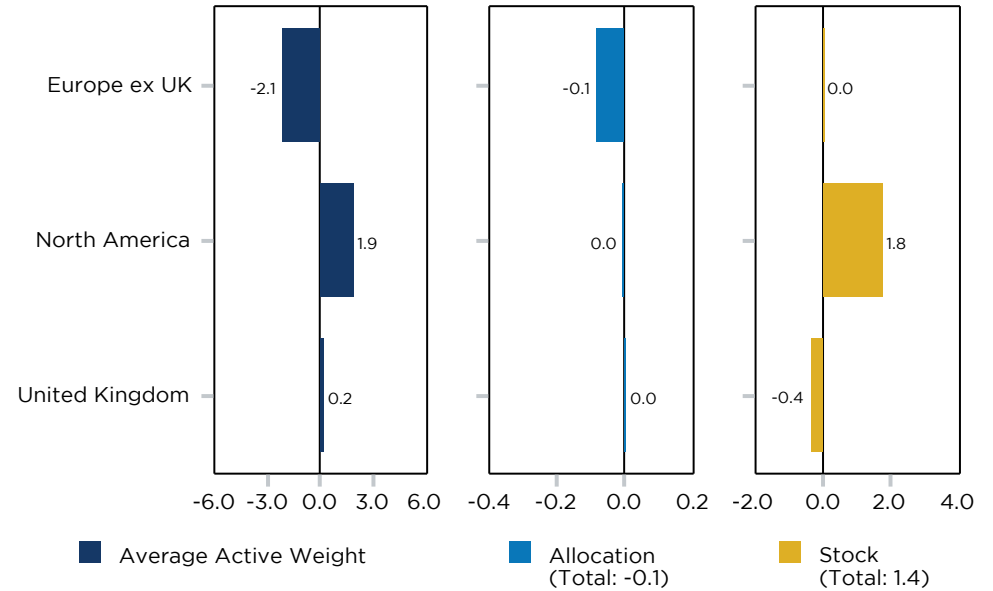
United States	98.8	96.5
Non-US Developed	1.2	3.5
Total	100.0	100.0



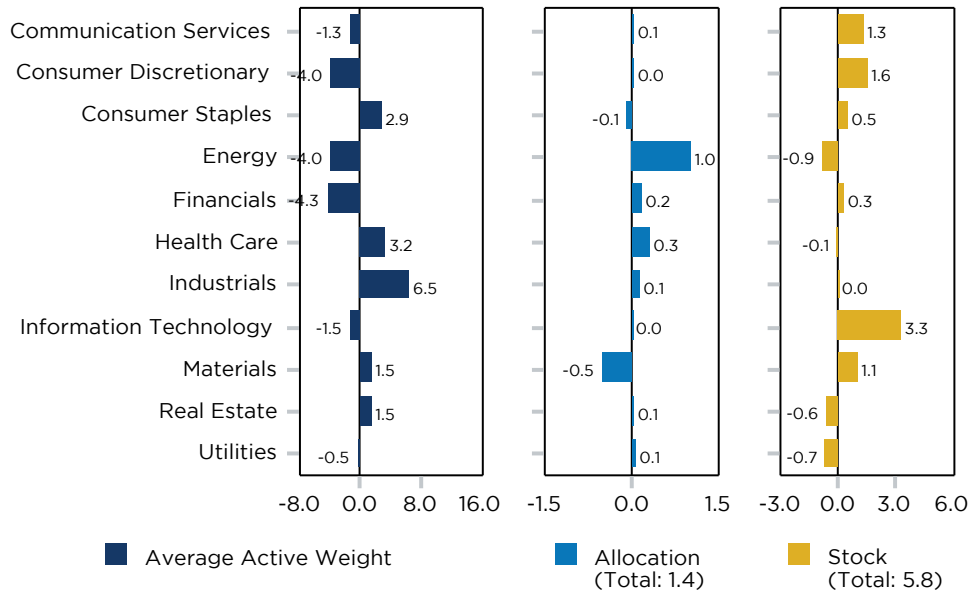
1 Quarter Sector Attribution



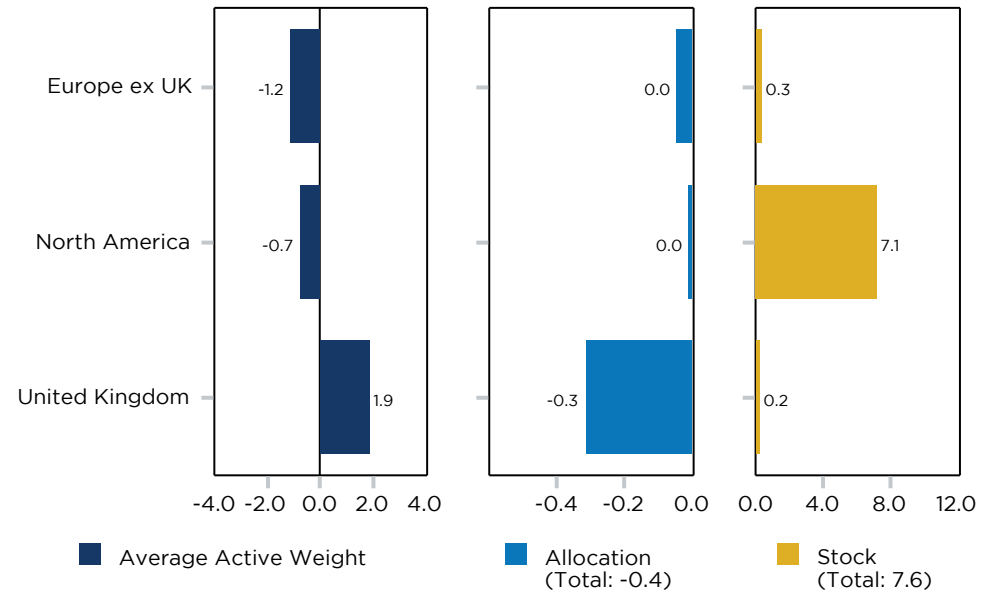
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



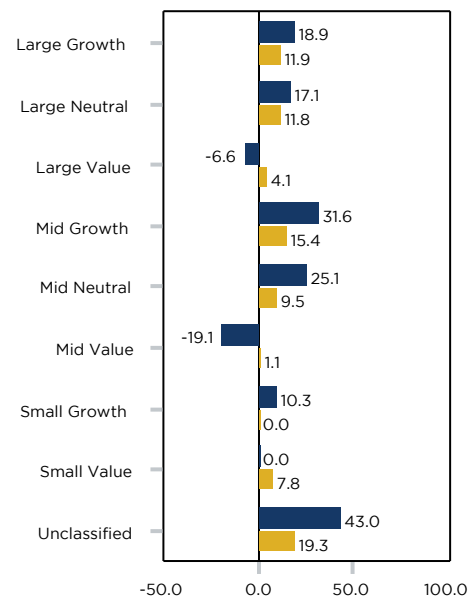


Top Ten Securities		Asset Allocation (%)	
Microsoft Corp	6.0 %	Equity	96.7
The Walt Disney Co	5.1 %	Cash	3.3
Linde PLC	3.9 %	Fixed Income	0.0
Danaher Corp	3.6 %		
Mastercard Inc A	3.5 %		
American Express Co	3.5 %	Market Capitalization (%)	
Clorox Co	3.2 %	Giant	40.9
Cadence Design Systems Inc	3.2 %	Large	46.0
Costco Wholesale Corp	3.1 %	Medium	13.1
Cerner Corp	3.1 %	Small	0.0
Total	38.2 %	Micro	0.0

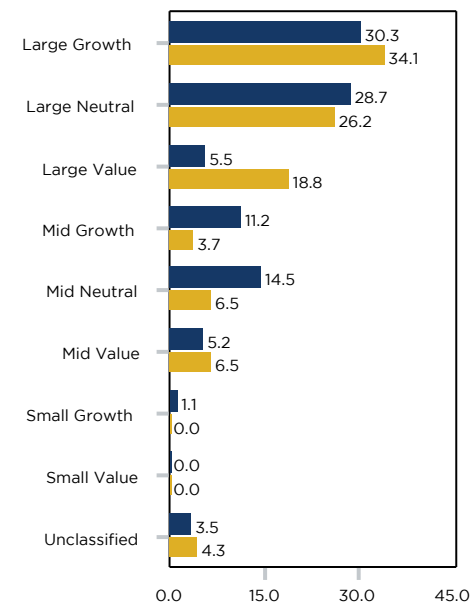
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Walt Disney Co (The)	4.74	0.81	0.84	25.77
Cerner Corp	3.17	0.07	0.75	28.45
Motorola Solutions Inc	2.42	0.09	0.35	19.16
Cadence Design Systems Inc	4.76	0.07	0.34	11.49
Synopsys Inc	4.18	0.07	0.31	11.76
American Express Co	3.57	0.37	0.29	13.34
Mastercard Inc	4.28	0.96	0.27	12.51
Waste Management Inc.	3.15	0.18	0.21	11.53
Verisk Analytics Inc	3.12	0.09	0.18	10.31
Microsoft Corp	3.32	3.65	-0.03	14.00

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
3M Co	4.23	0.48	-0.76	-15.85
United Parcel Service Inc	3.17	0.31	-0.31	-6.69
Clorox Co (The)	3.76	0.08	-0.31	-3.98
Pentair plc	1.48	0.03	-0.29	-16.03
Schwab (Charles) Corp	3.09	0.23	-0.28	-5.65
National Oilwell Varco Inc	1.36	0.04	-0.27	-16.35
Iron Mountain Inc	1.74	0.04	-0.24	-10.03
NVIDIA Corp	2.01	0.44	-0.20	-8.43
First Republic Bank	2.80	0.07	-0.19	-2.62
Alphabet Inc	2.39	1.42	-0.12	-8.00

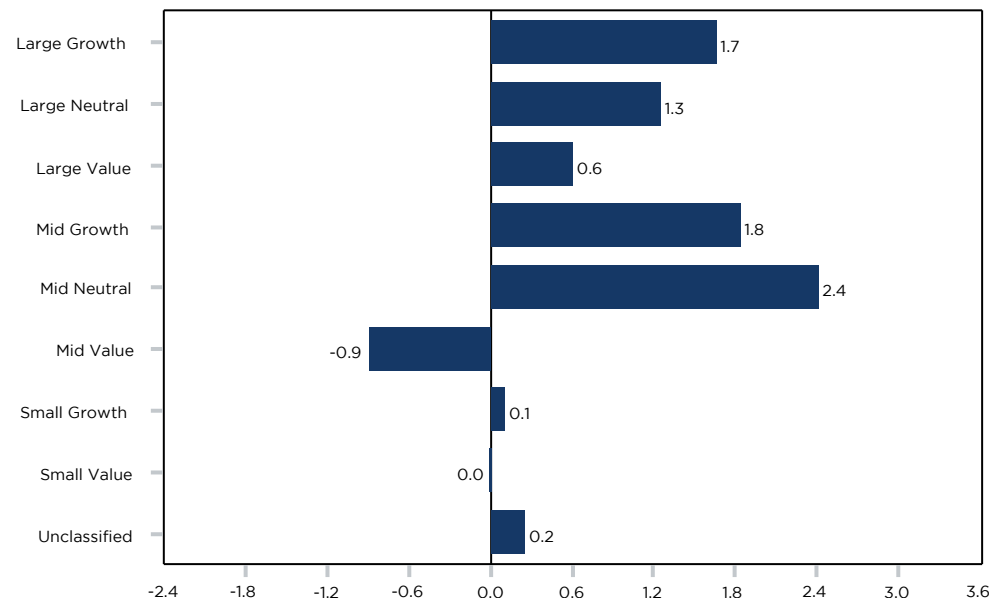
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.30 (34)	18.54 (31)	10.39 (26)	14.15 (19)	10.68 (11)	14.68 (12)	-4.42 (23)	21.79 (30)	11.93 (30)	1.37 (21)
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38
Peer Group	4.10	18.04	8.93	13.27	9.42	13.67	-5.62	21.15	11.15	0.22
Population	2,339	2,286	2,158	1,791	1,663	1,430	2,153	2,009	2,064	2,049

Fund Information

Fund Inception	07/31/1990
Fund Assets	230,815 Million
Portfolio Assets	113,792 Million
Total # of Holdings	511
% in Top 10	21.49 %
PM	Butler,D/Louie,M
PM Tenure	18 Years 6 Months
Turnover	6.00 %
Gross Expense (%)	0.04 %
Net Expense (%)	0.04 %
New Investors	Open

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	240,217	238,882
Median Mkt. Cap (\$M)	22,540	22,707
Price/Earnings ratio	20.5	20.4
Price/Book ratio	3.5	3.5
5 Yr. EPS Growth Rate (%)	15.5	15.5
Current Yield (%)	2.0	2.0
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	500	505
Debt to Equity	1.9	1.9
Forecast P/E	17.8	17.8
Forecast EPS Growth	12.2	12.1
Return on Equity	0.2	0.2

Country/Region Allocation

United States	97.0	96.5
Non-US Developed	3.0	3.5
Total	100.0	100.0

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.02	12.68
vs. S&P 500 Index		
Beta	1.00	1.00
Alpha	-0.03	-0.02
Information Ratio	-2.74	-1.31
Tracking Error	0.01	0.02
R-Squared	1.00	1.00
Up Market Capture	99.90	99.94
Down Market Capture	100.06	100.06
Consistency	19.44	28.33

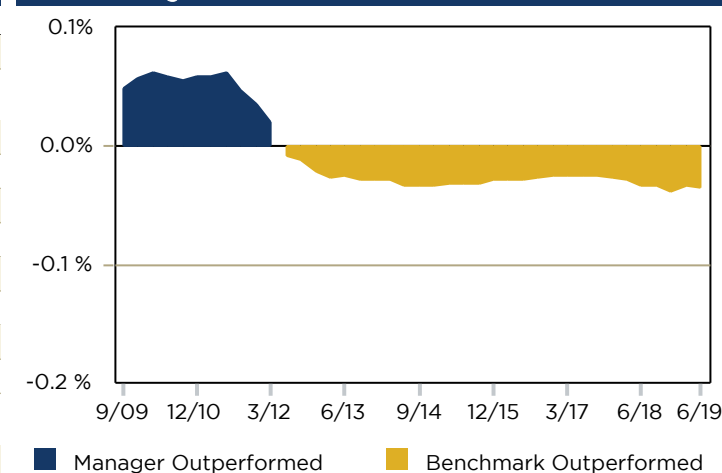
vs. Risk Free

Sharpe Ratio	1.05	1.11
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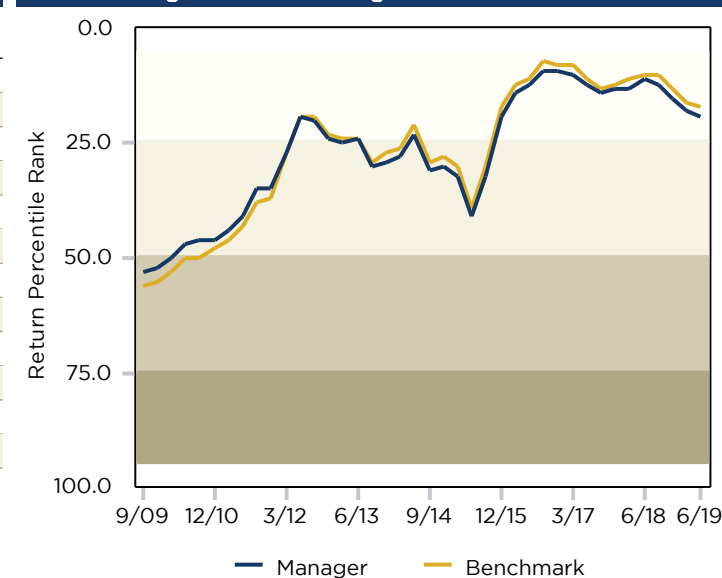
Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	10.2	10.2
Consumer Discretionary	10.3	10.2
Consumer Staples	7.3	7.3
Energy	5.1	5.0
Financials	13.2	13.1
Health Care	14.3	14.2
Industrials	9.5	9.4
Information Technology	21.7	21.5
Materials	2.1	2.8
Real Estate	3.1	3.1
Utilities	3.3	3.3
Total	100.0	100.0

3 Years Rolling Excess Performance

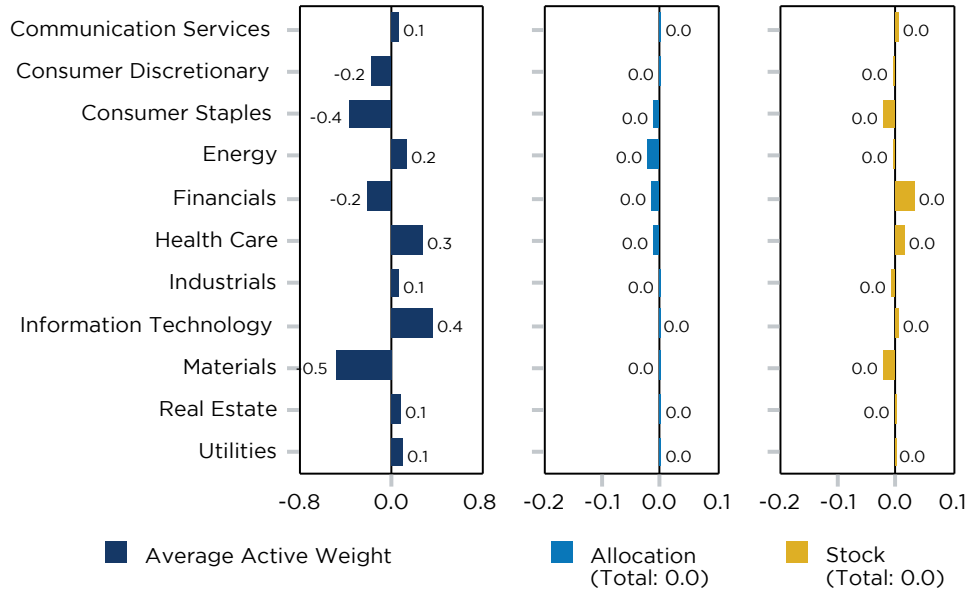


3 Years Rolling Percentile Ranking

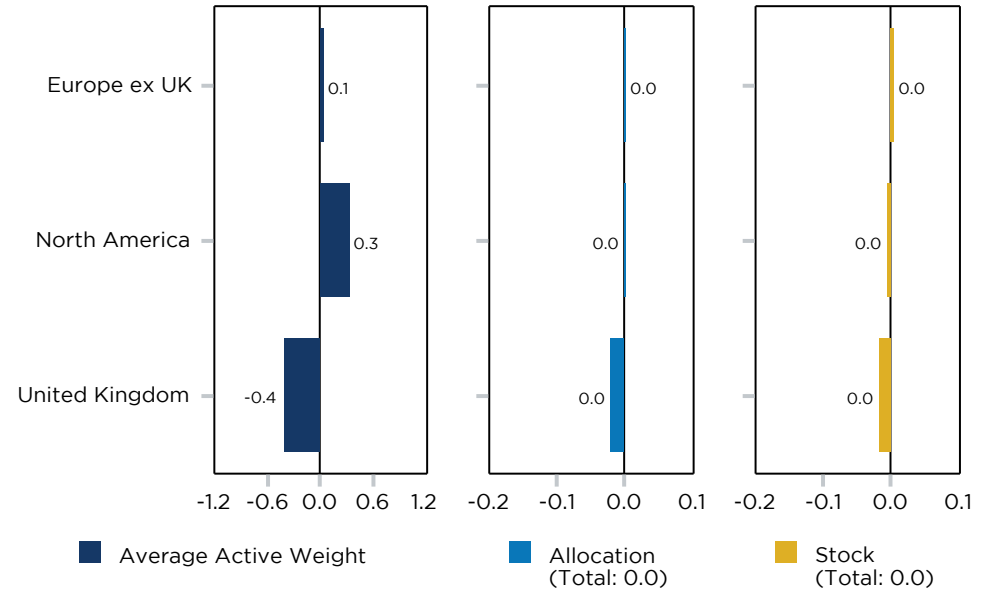




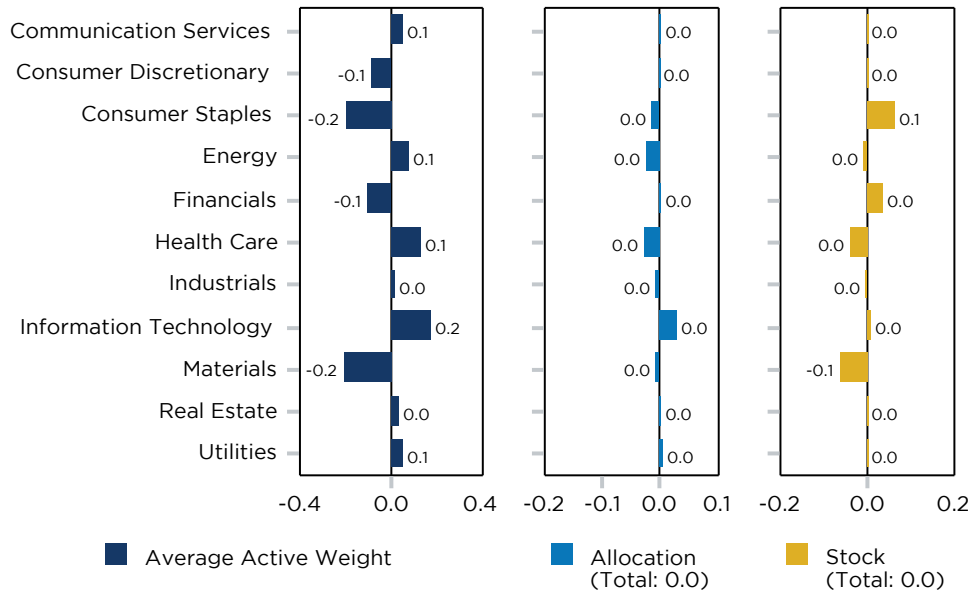
1 Quarter Sector Attribution



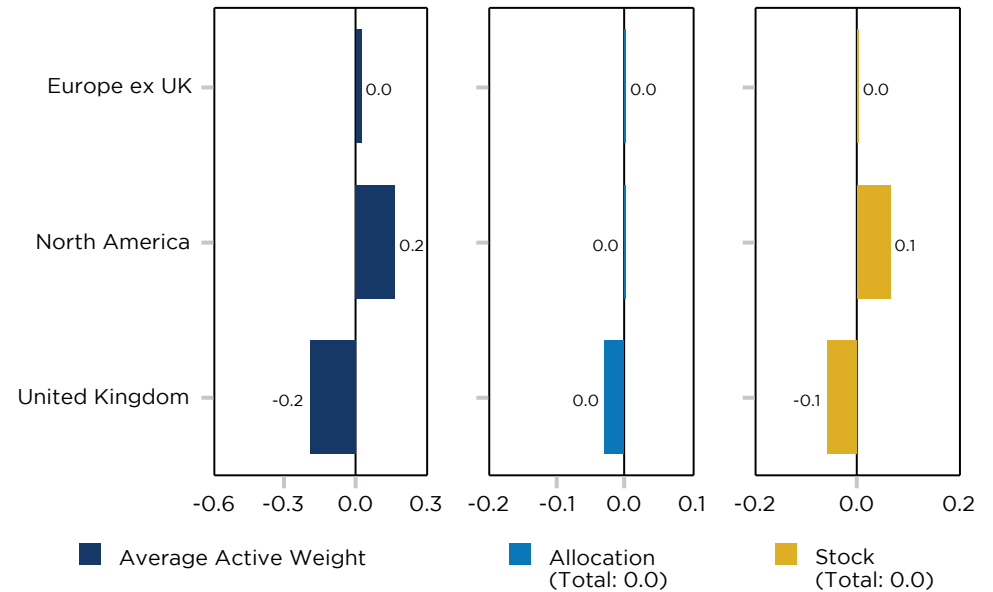
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution

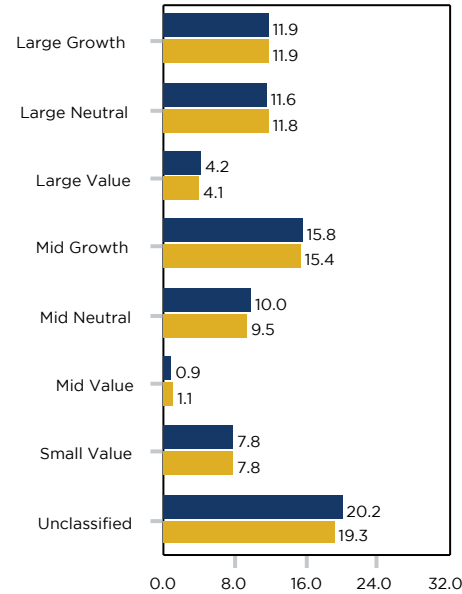


Top Ten Securities		Asset Allocation (%)	
Microsoft Corp	4.2 %	Equity	99.7
Apple Inc	3.5 %	Cash	0.3
Amazon.com Inc	3.2 %	Fixed Income	0.0
Facebook Inc A	1.9 %		
Berkshire Hathaway Inc B	1.7 %		
Johnson & Johnson	1.5 %	Market Capitalization (%)	
JPMorgan Chase & Co	1.5 %	Giant	56.1
Alphabet Inc Class C	1.4 %	Large	34.1
Exxon Mobil Corp	1.3 %	Medium	9.8
Alphabet Inc A	1.3 %	Small	0.0
Total	21.5 %	Micro	0.0

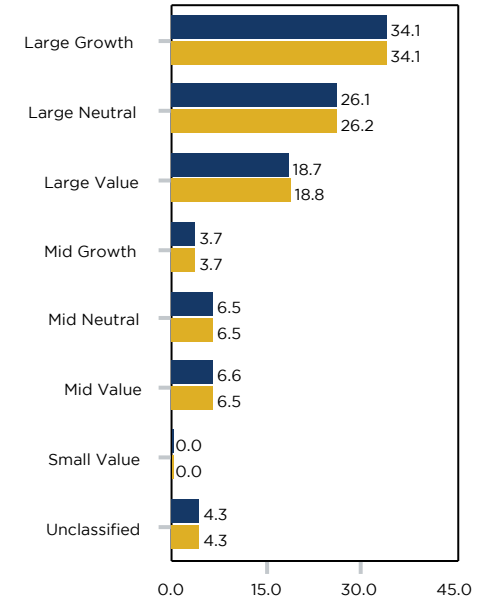
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Microsoft Corp	3.85	3.65	0.02	14.00
Facebook Inc	1.69	1.61	0.01	15.78
JPMorgan Chase & Co	1.41	1.34	0.00	11.28
Walt Disney Co (The)	0.83	0.81	0.00	25.77
Visa Inc	1.16	1.10	0.00	11.28
QUALCOMM Inc.	0.29	0.28	0.00	34.62
Apple Inc	3.62	3.62	0.00	4.60
Mastercard Inc	0.90	0.96	0.00	12.51
Berkshire Hathaway Inc	1.66	2.00	-0.01	6.11
Amazon.com Inc	3.13	3.53	-0.01	6.34

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Alphabet Inc	1.50	1.42	-0.01	-8.00
Intel Corp	1.03	0.98	-0.01	-10.31
Exxon Mobil Corp	1.46	1.38	-0.01	-4.08
Altria Group Inc	0.46	0.43	-0.01	-16.26
3M Co	0.51	0.48	-0.01	-15.85
DuPont De Nemours Inc	0.51	0.49	0.00	-20.61
Philip Morris International Inc	0.58	0.55	0.00	-9.84
Occidental Petroleum Corp	0.21	0.20	0.00	-22.81
Eli Lilly and Co	0.48	0.51	0.01	-14.15
Alphabet Inc	1.53	1.66	0.02	-7.88

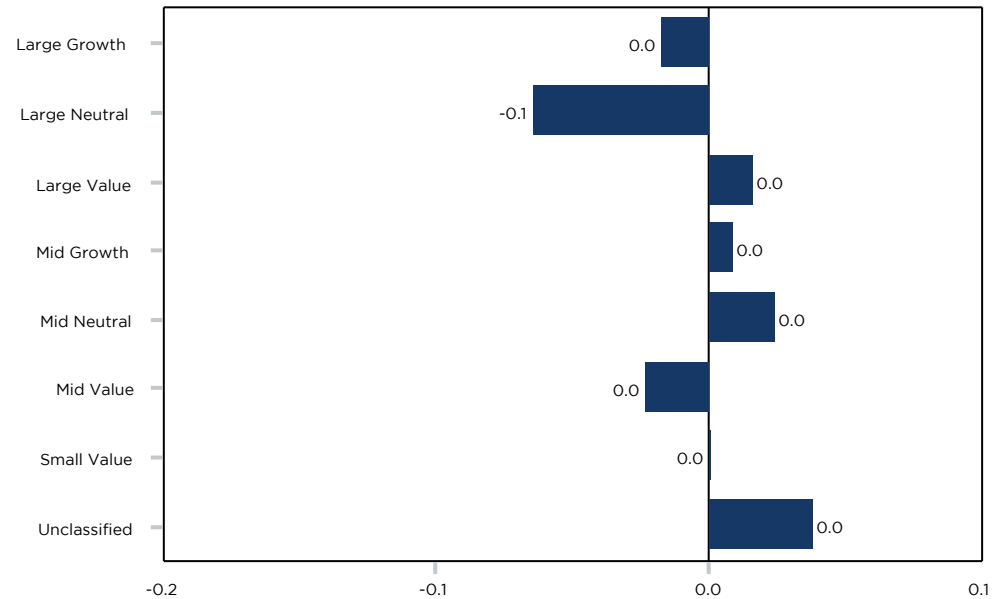
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.48 (80)	21.63 (45)	20.28 (3)	18.65 (34)	13.29 (28)	14.09 (73)	2.67 (11)	29.29 (46)	7.85 (16)	-0.21 (87)
Benchmark	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38
Peer Group	4.63	21.27	10.24	17.14	12.00	14.96	-1.81	28.69	2.90	4.49
Population	2,134	2,089	2,005	1,713	1,635	1,397	2,011	1,881	1,985	1,993

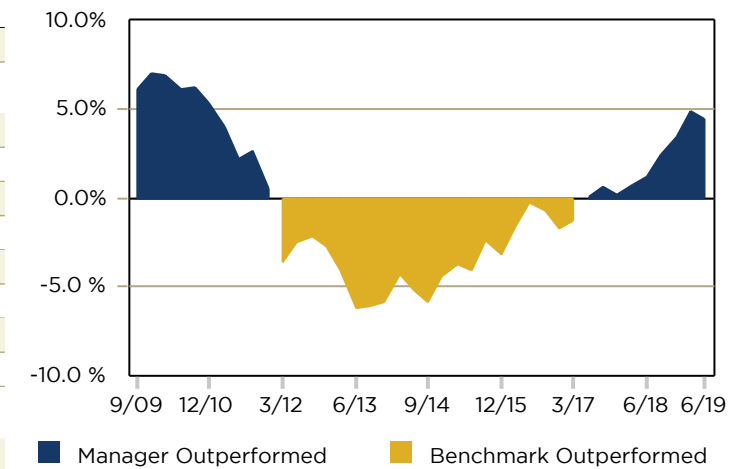
Fund Information

Fund Inception	09/25/2013
Fund Assets	2,130 Million
Portfolio Assets	781 Million
Total # of Holdings	34
% in Top 10	42.07 %
PM	Kaiser,N/Klimo,S/Salam,M
PM Tenure	25 Years 4 Months
Turnover	0.00 %
Gross Expense (%)	0.85 %
Net Expense (%)	0.85 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.44	12.35
vs. S&P 500 Index		
Beta	0.98	0.93
Alpha	4.30	0.42
Information Ratio	0.98	-0.15
Tracking Error	4.01	3.73
R-Squared	0.90	0.91
Up Market Capture	113.57	95.45
Down Market Capture	93.56	94.66
Consistency	50.00	44.17

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	131,159	238,882
Median Mkt. Cap (\$M)	67,748	22,707
Price/Earnings ratio	25.6	20.4
Price/Book ratio	7.5	3.5
5 Yr. EPS Growth Rate (%)	13.3	15.5
Current Yield (%)	1.5	2.0
Beta (5 Years, Monthly)	0.99	1.00
Number of Stocks	33	505
Debt to Equity	1.3	1.9
Forecast P/E	19.0	17.8
Forecast EPS Growth	11.9	12.1
Return on Equity	0.1	0.2

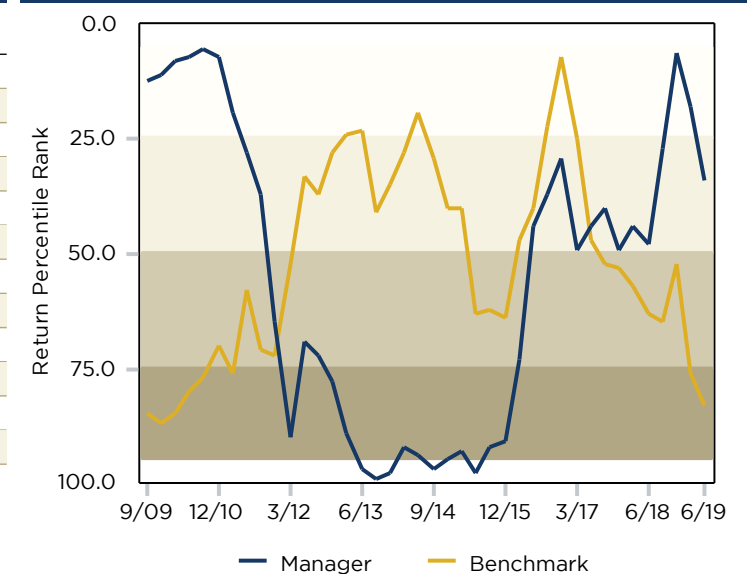
vs. Risk Free

Sharpe Ratio	1.34	1.10
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	0.0	10.2
Consumer Discretionary	5.9	10.2
Consumer Staples	12.5	7.3
Energy	0.0	5.0
Financials	0.0	13.1
Health Care	18.7	14.2
Industrials	16.2	9.4
Information Technology	46.7	21.5
Materials	0.0	2.8
Real Estate	0.0	3.1
Utilities	0.0	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking

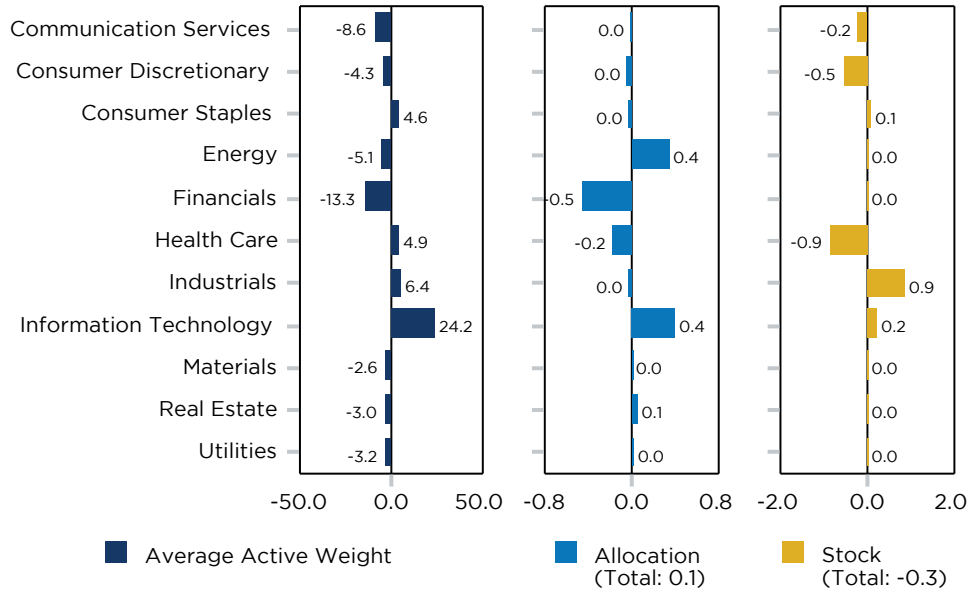


Country/Region Allocation

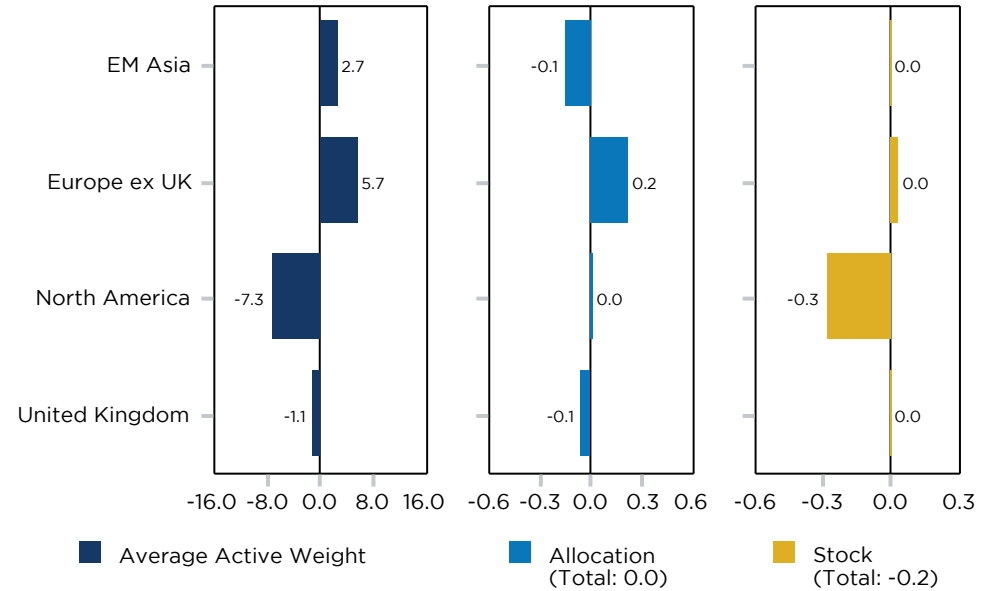
United States	89.3	96.5
Non-US Developed	8.2	3.5
Emerging Markets	2.5	0.0
Total	100.0	100.0



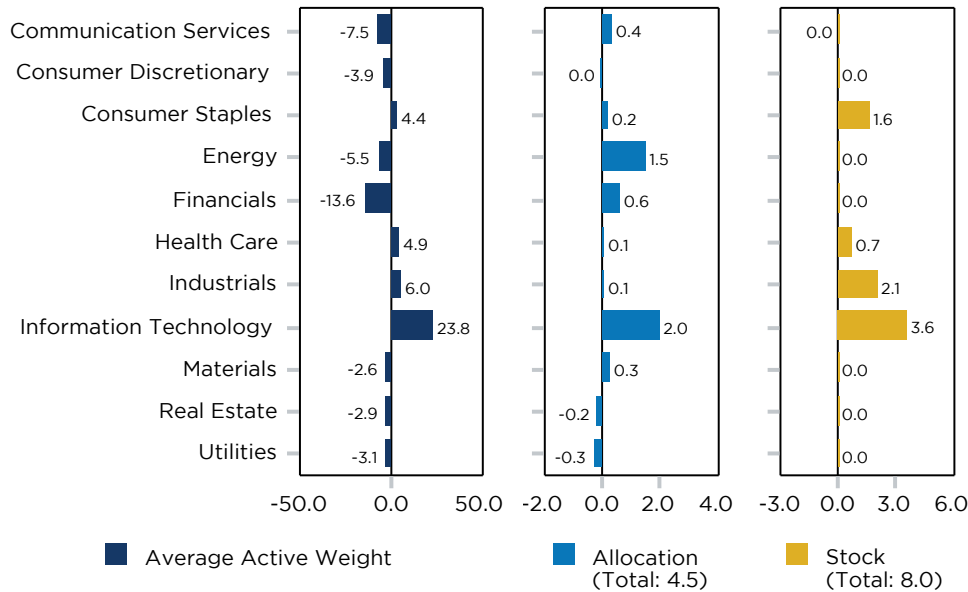
1 Quarter Sector Attribution



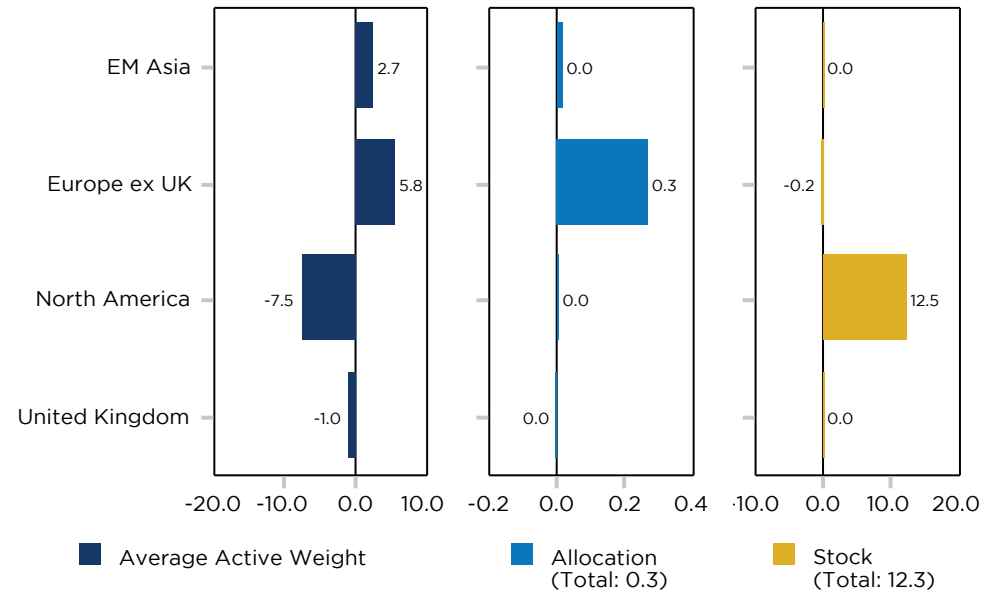
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



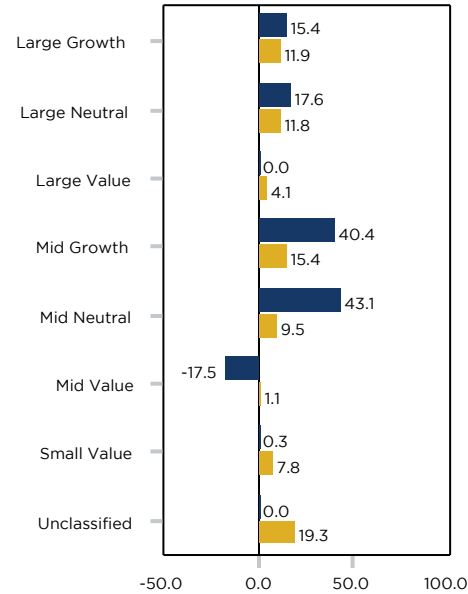


Top Ten Securities		Asset Allocation (%)	
Adobe Inc	6.3 %	Equity	91.3
Intuit Inc	5.6 %	Cash	8.7
Apple Inc	4.7 %	Fixed Income	0.0
Church & Dwight Co Inc	4.1 %		
The Estee Lauder Companies Inc	4.0 %		
Cisco Systems Inc	3.9 %	Market Capitalization (%)	
TJX Companies Inc	3.5 %	Giant	44.7
L3Harris Technologies Inc	3.5 %	Large	36.6
Xilinx Inc	3.3 %	Medium	18.8
Trimble Inc	3.2 %	Small	0.0
Total	42.1 %	Micro	0.0

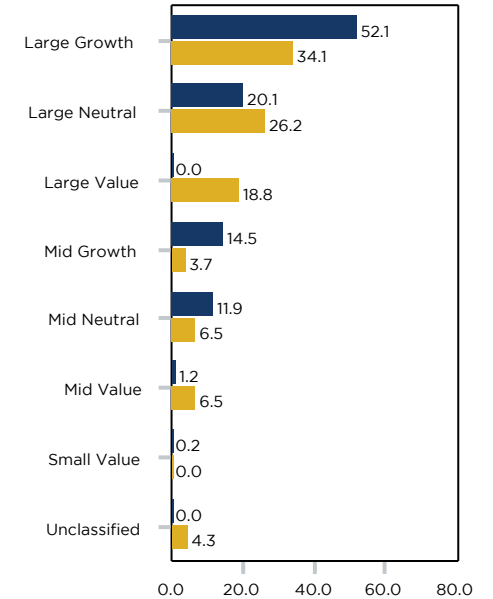
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
QUALCOMM Inc.	2.41	0.28	0.65	34.62
L3Harris Technologies Inc	3.29	0.08	0.47	18.86
EMCOR Group Inc.	2.64	0.00	0.43	20.68
Adobe Inc	6.34	0.52	0.36	10.57
SAP AG	1.93	0.00	0.30	20.02
Estee Lauder Companies Inc	4.02	0.15	0.26	10.89
Trimble Inc	3.20	0.00	0.24	11.66
ASML Holding NV	3.06	0.00	0.23	11.82
Norfolk Southern Corp	2.97	0.20	0.08	7.11
Apple Inc	5.06	3.62	0.00	4.60

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Xilinx Inc.	4.02	0.13	-0.43	-6.70
Agilent Technologies Inc	3.83	0.10	-0.42	-6.92
Eli Lilly and Co	2.40	0.51	-0.35	-14.15
Lowe's Cos Inc	2.32	0.35	-0.23	-7.43
Amgen Inc	3.57	0.48	-0.20	-2.17
Novo Nordisk A/S	2.77	0.00	-0.19	-2.43
Clorox Co (The)	2.12	0.08	-0.17	-3.98
Taiwan Semiconductor	2.65	0.00	-0.15	-1.32
Lincoln Electric Holdings Inc	1.60	0.00	-0.09	-1.27
Alphabet Inc	1.56	1.42	-0.02	-8.00

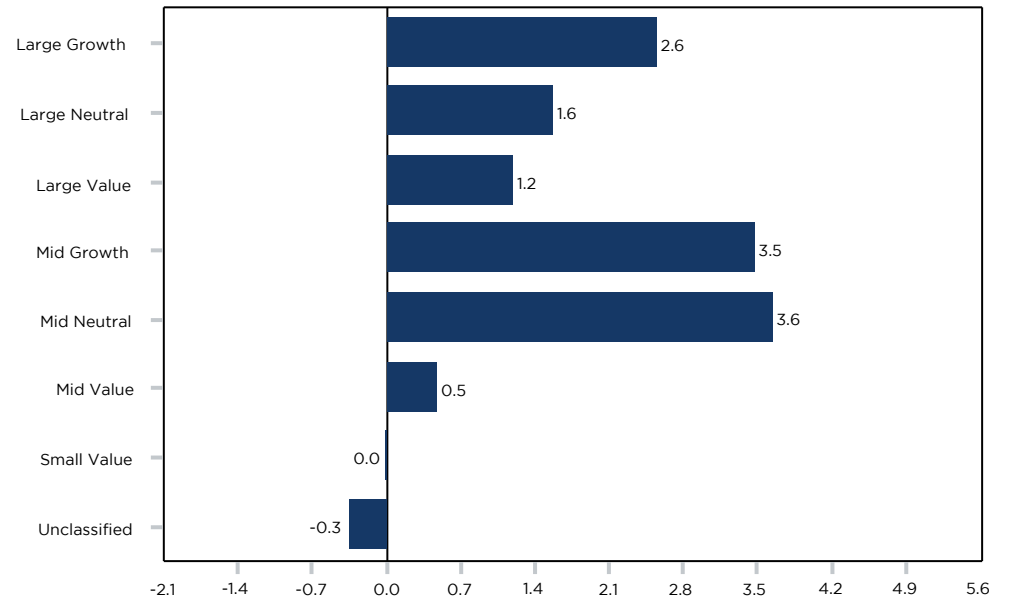
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





Voya Large Cap Growth Port I (IEOHX)

Index: Russell 1000 Growth Index

Category: Large Growth

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.82 (74)	19.29 (76)	11.01 (43)	16.95 (53)	12.65 (39)	16.01 (24)	-1.48 (46)	29.74 (42)	3.96 (44)	6.38 (32)
Benchmark	4.64	21.49	11.56	18.07	13.39	16.28	-1.51	30.21	7.08	5.67
Peer Group	4.63	21.27	10.24	17.14	12.00	14.96	-1.81	28.69	2.90	4.49
Population	2,134	2,089	2,005	1,713	1,635	1,397	2,011	1,881	1,985	1,993

Fund Information

Fund Inception	05-2005
Fund Assets	5,765 Million
Portfolio Assets	1,903 Million
Total # of Holdings	59
% Assets in Top 10 Holdings	41.3 %
PM	Bianchi,J/Pytosh,M
PM Tenure	9 Years
Turnover	85.0 %
Gross Expense (%)	0.7 %
Net Expense (%)	0.7 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	120,142 (Million)
Price/Earnings	24
Price/Book	7
Dividend Yield	1.2 %

Top Holdings (%)

Microsoft Corp	8.5
Amazon.com Inc	6.7
Alphabet Inc A	4.5
Apple Inc	4.4
Visa Inc Class A	4.1
UnitedHealth Group Inc	2.9
Philip Morris International Inc	2.8
Merck & Co Inc	2.7
Boeing Co	2.4
American Tower Corp	2.4

Top Countries (%)

United States	98.8
China	1.2

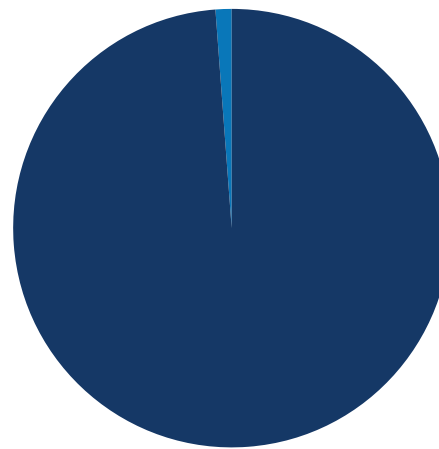
Fund Statistics

	3 Years	10 Years
Standard Deviation	12.37	13.46
vs. Russell 1000 Growth Index		
Beta	0.93	1.00
Alpha	0.22	-0.19
Information Ratio	-0.54	-0.10
Tracking Error	2.00	2.17
R-Squared	0.98	0.97
Up Market Capture	94.94	100.08
Down Market Capture	96.64	102.02
Consistency	50.00	49.17

vs. Risk Free

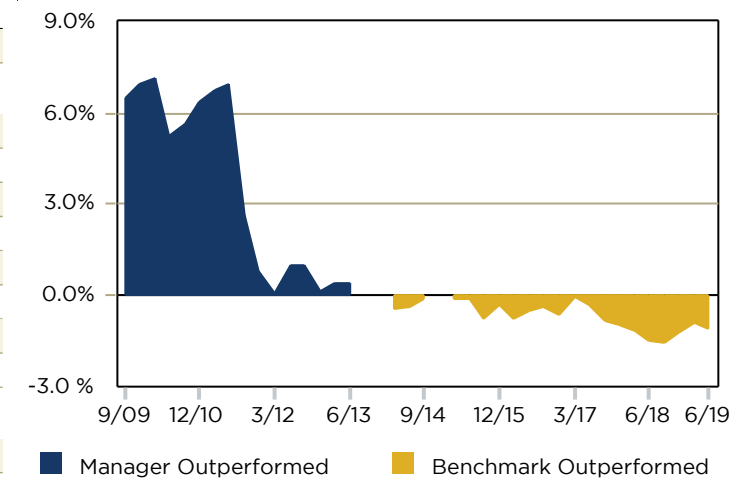
Sharpe Ratio	1.23	1.14
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Asset Allocation

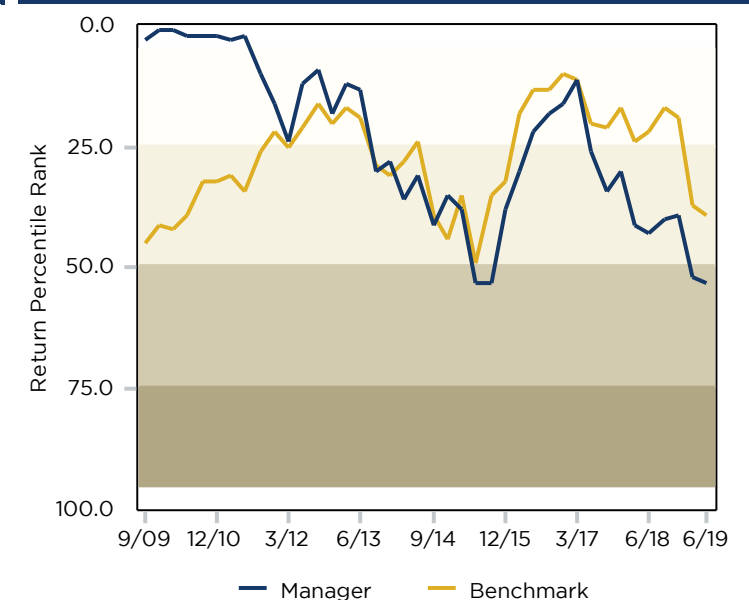


■ Equity ■ Cash
■ Fixed Income

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





American Century Mid Cap Value I (AVUAX)

Index: Russell Midcap Value Index

Category: Mid-Cap Value

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.47 (43)	17.26 (47)	2.97 (30)	8.29 (64)	7.96 (7)	13.97 (17)	-12.84 (40)	11.79 (70)	23.07 (14)	-1.36 (14)
Benchmark	3.19	18.02	3.68	8.95	6.72	14.56	-12.29	13.34	20.00	-4.78
Peer Group	3.16	17.16	0.59	8.80	5.48	12.80	-13.46	13.23	17.59	-4.55
Population	595	586	572	491	463	388	591	551	551	547

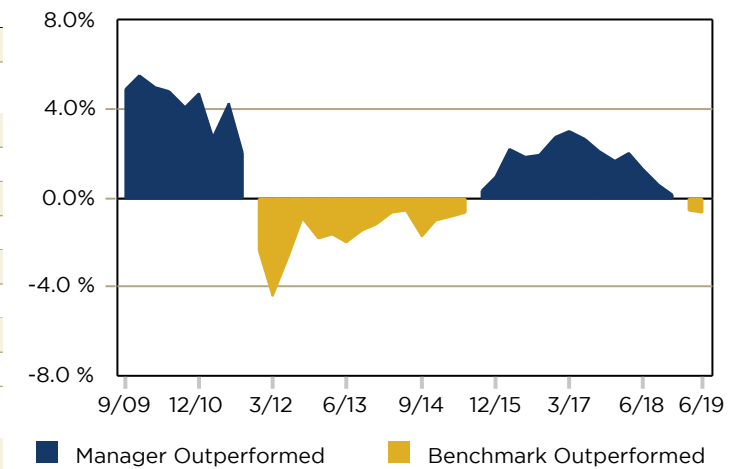
Fund Information

Fund Inception	08/02/2004
Fund Assets	7,957 Million
Portfolio Assets	2,369 Million
Total # of Holdings	106
% in Top 10	22.38 %
PM	Team Managed
PM Tenure	15 Years 3 Months
Turnover	53.00 %
Gross Expense (%)	0.78 %
Net Expense (%)	0.78 %
New Investors	Closed

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.27	12.47
vs. Russell Midcap Value Index		
Beta	1.00	0.86
Alpha	-0.55	1.32
Information Ratio	-0.21	-0.22
Tracking Error	2.78	3.38
R-Squared	0.96	0.95
Up Market Capture	96.47	90.27
Down Market Capture	98.50	84.83
Consistency	38.89	45.00

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	20,256	15,762
Median Mkt. Cap (\$M)	14,039	7,901
Price/Earnings ratio	16.3	18.7
Price/Book ratio	2.2	2.2
5 Yr. EPS Growth Rate (%)	6.6	8.9
Current Yield (%)	2.6	2.4
Beta (5 Years, Monthly)	0.96	1.00
Number of Stocks	99	587
Debt to Equity	0.6	0.6
Forecast P/E	14.8	15.8
Forecast EPS Growth	9.0	9.1
Return on Equity	0.0	0.0

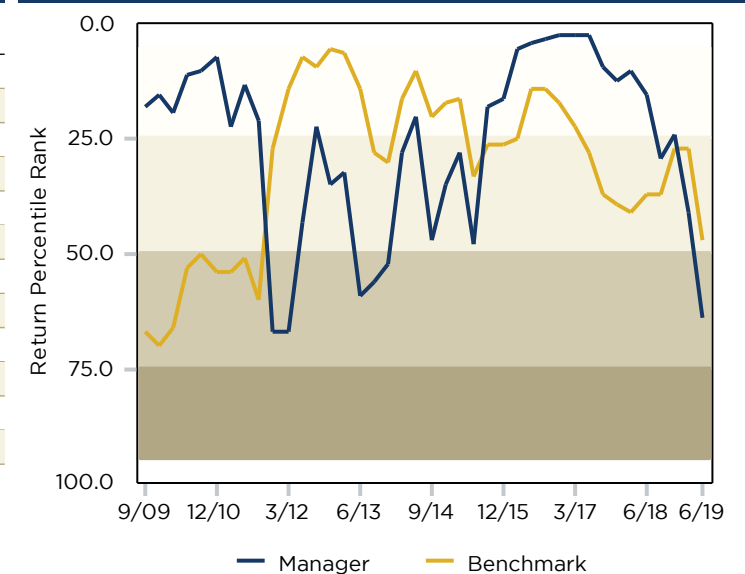
vs. Risk Free

Sharpe Ratio	0.57	1.08
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	0.0	3.2
Consumer Discretionary	8.8	8.4
Consumer Staples	7.6	4.7
Energy	4.3	5.4
Financials	22.7	17.8
Health Care	11.0	7.1
Industrials	18.3	12.7
Information Technology	6.1	9.0
Materials	3.1	6.0
Real Estate	5.1	14.0
Utilities	9.7	11.4
Total	96.7	100.0

3 Years Rolling Percentile Ranking

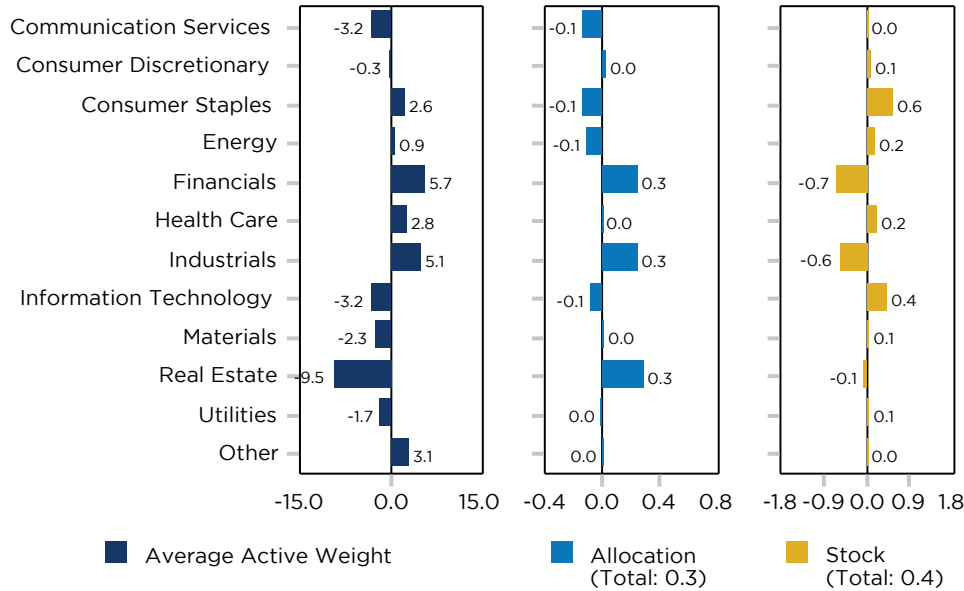


Country/Region Allocation

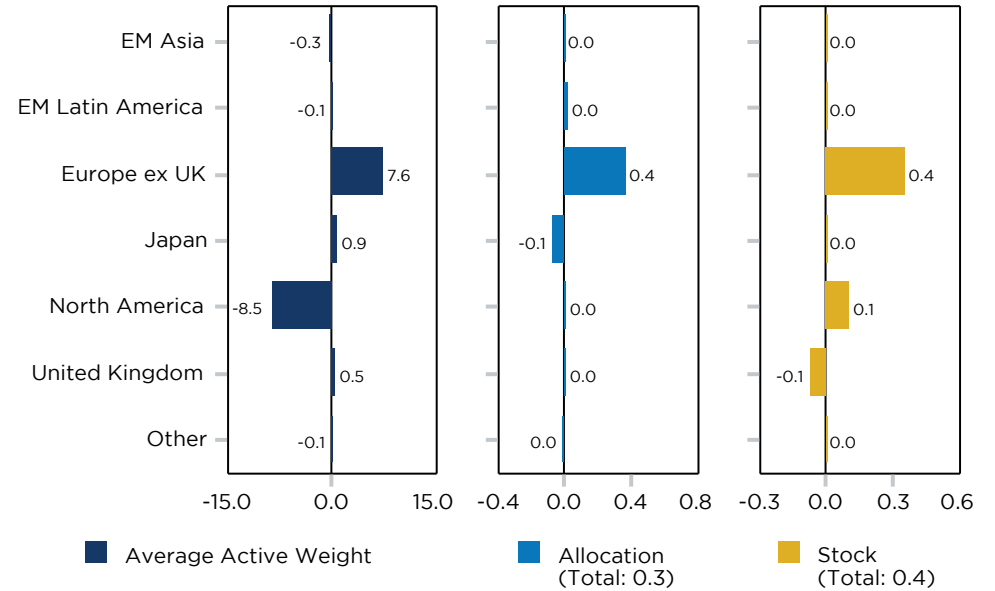
United States	84.3	95.1
Non-US Developed	15.7	4.4
Emerging Markets	0.0	0.4
Other	0.0	0.1
Total	100.0	100.0



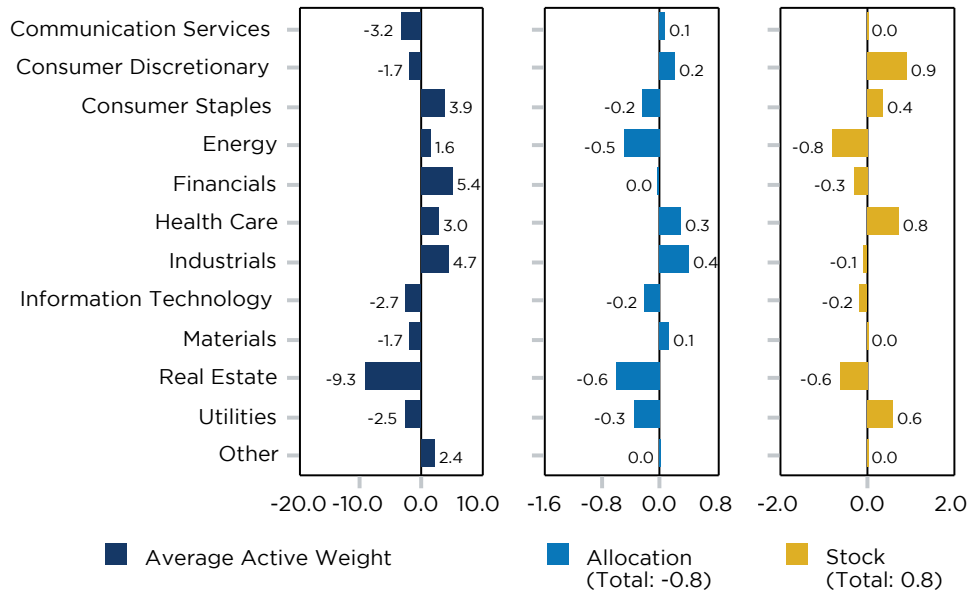
1 Quarter Sector Attribution



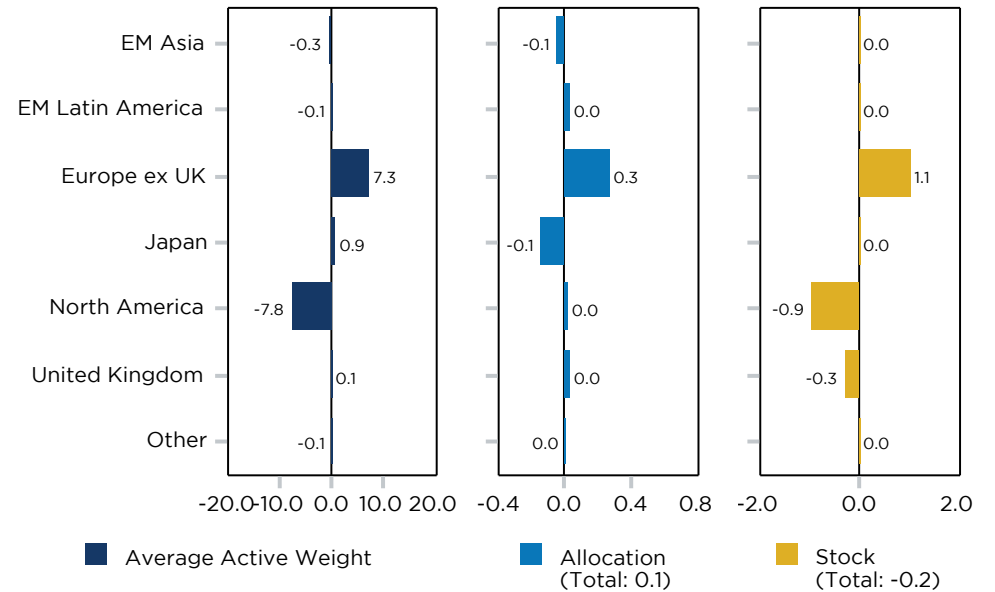
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

iShares Russell Mid-Cap Value ETF	3.2 %
Northern Trust Corp	3.0 %
Zimmer Biomet Holdings Inc	2.9 %
Hubbell Inc	2.3 %
BB&T Corp	2.2 %
Xcel Energy Inc	2.0 %
Weyerhaeuser Co	1.9 %
Emerson Electric Co	1.7 %
Applied Materials Inc	1.7 %
Southwest Airlines Co	1.5 %
Total	22.4 %

Asset Allocation (%)

Equity	97.3
Cash	2.7
Fixed Income	0.0

Market Capitalization (%)

Giant	3.1
Large	47.0
Medium	41.1
Small	8.9
Micro	0.0

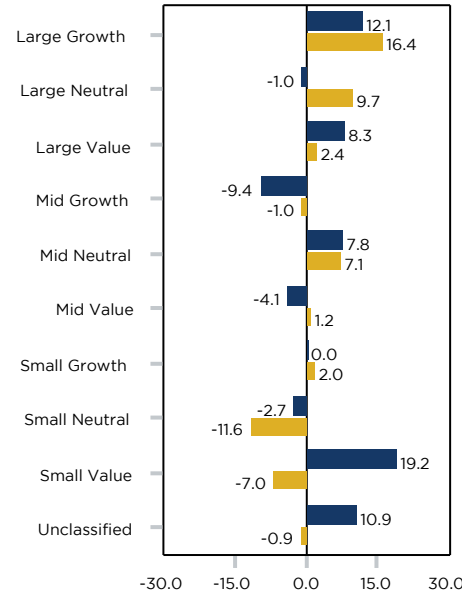
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Anadarko Petroleum Corp	0.71	0.00	0.37	55.81
Orkla ASA	1.38	0.00	0.23	19.99
Hubbell Inc	2.69	0.05	0.21	11.32
Cerner Corp	1.02	0.23	0.20	28.45
Johnson Controls Intl	1.76	0.00	0.16	12.56
TE Connectivity Ltd	1.02	0.00	0.16	19.24
Schneider Electric SA	0.84	0.00	0.13	19.23
Maxim Integrated Products Inc.	1.26	0.00	0.13	13.49
Ameriprise Financial Inc	1.54	0.35	0.13	14.06
Quest Diagnostics Inc	1.39	0.29	0.12	13.88

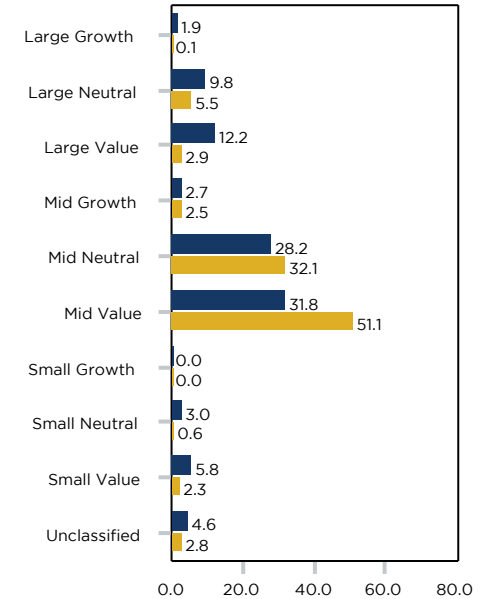
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Zimmer Biomet Holdings Inc	3.07	0.61	-0.27	-7.61
MSC Industrial Direct Co Inc.	1.41	0.05	-0.17	-9.56
EQT Corp	0.76	0.12	-0.17	-23.66
State Street Corp	0.95	0.00	-0.16	-14.10
Baker Hughes a GE Co	1.15	0.00	-0.16	-10.46
Halliburton Co	0.52	0.00	-0.13	-21.75
Advance Auto Parts Inc.	1.11	0.20	-0.12	-9.58
Cimarex Energy Co.	0.75	0.14	-0.11	-14.87
Noble Energy Inc	1.02	0.28	-0.09	-8.99
Devon Energy Corp	1.04	0.35	-0.09	-9.32

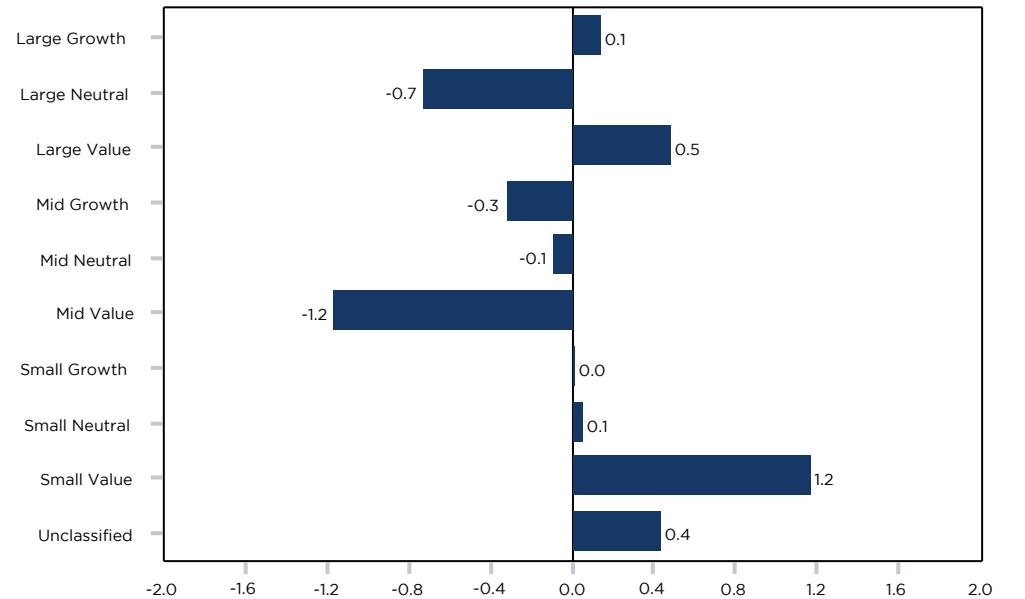
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.36 (23)	21.88 (8)	7.85 (13)	12.34 (22)	8.83 (8)	15.23 (4)	-9.24 (22)	19.29 (16)	11.23 (79)	-1.33 (15)
Benchmark	4.37	21.90	7.85	12.36	8.85	15.16	-9.22	19.30	11.25	-1.28
Peer Group	3.04	17.93	1.37	10.47	6.94	13.39	-11.33	16.08	15.95	-2.95
Population	703	693	664	557	510	429	662	624	630	614

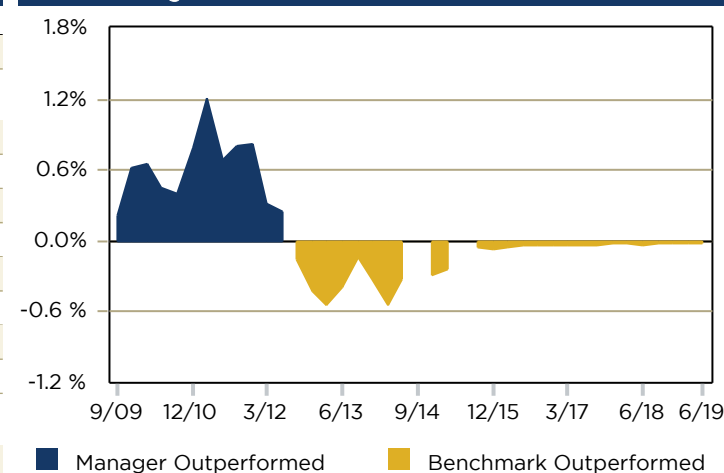
Fund Information

Fund Inception	05/21/1998
Fund Assets	109,098 Million
Portfolio Assets	20,069 Million
Total # of Holdings	377
% in Top 10	6.80 %
PM	Butler,D/Johnson,M
PM Tenure	21 Years 1 Month
Turnover	16.00 %
Gross Expense (%)	0.04 %
Net Expense (%)	0.04 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.11	14.40
vs. CRSP U.S. Mid Cap TR Index		
Beta	1.00	1.02
Alpha	-0.03	-0.15
Information Ratio	-0.52	0.15
Tracking Error	0.04	0.67
R-Squared	1.00	1.00
Up Market Capture	99.96	101.02
Down Market Capture	100.11	101.47
Consistency	41.67	48.33

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	17,043	17,003
Median Mkt. Cap (\$M)	12,920	13,043
Price/Earnings ratio	22.4	22.4
Price/Book ratio	3.1	3.1
5 Yr. EPS Growth Rate (%)	11.6	11.6
Current Yield (%)	1.6	1.6
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	363	358
Debt to Equity	0.6	0.6
Forecast P/E	18.6	18.6
Forecast EPS Growth	12.1	12.2
Return on Equity	0.0	0.0

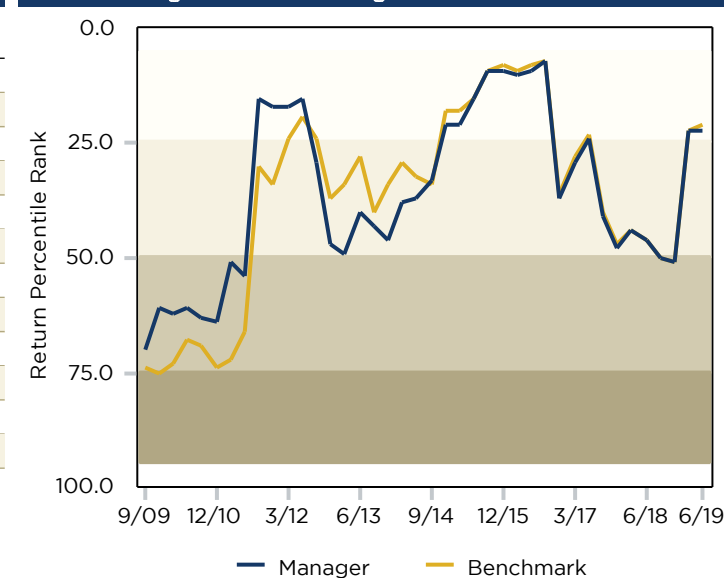
vs. Risk Free

Sharpe Ratio	0.85	1.03
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	4.7	4.7
Consumer Discretionary	11.7	11.7
Consumer Staples	3.3	3.3
Energy	4.5	4.5
Financials	12.5	12.6
Health Care	11.1	11.0
Industrials	13.3	13.3
Information Technology	19.1	19.2
Materials	5.6	5.6
Real Estate	7.7	7.7
Utilities	6.6	6.6
Total	100.0	100.0

3 Years Rolling Percentile Ranking

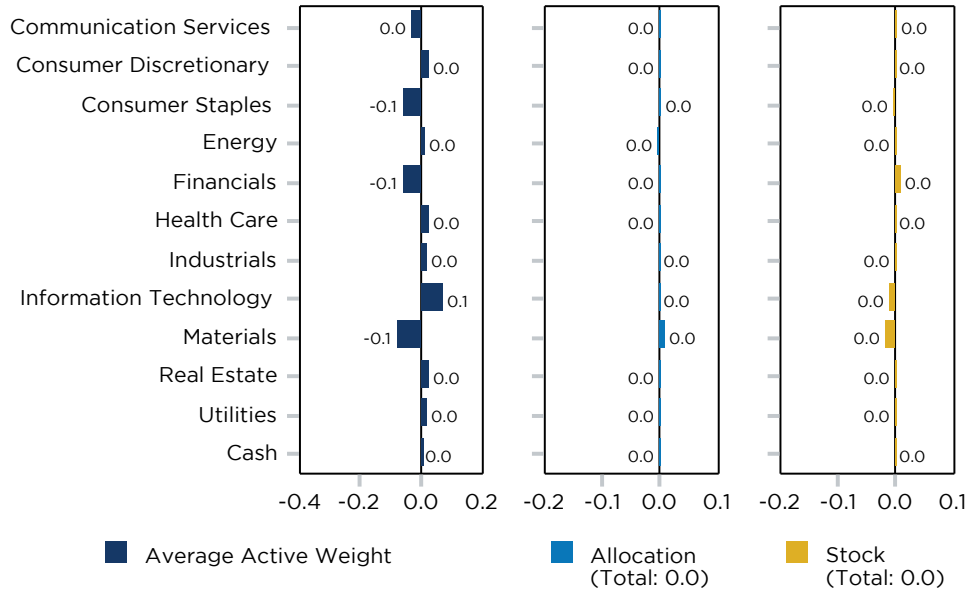


Country/Region Allocation

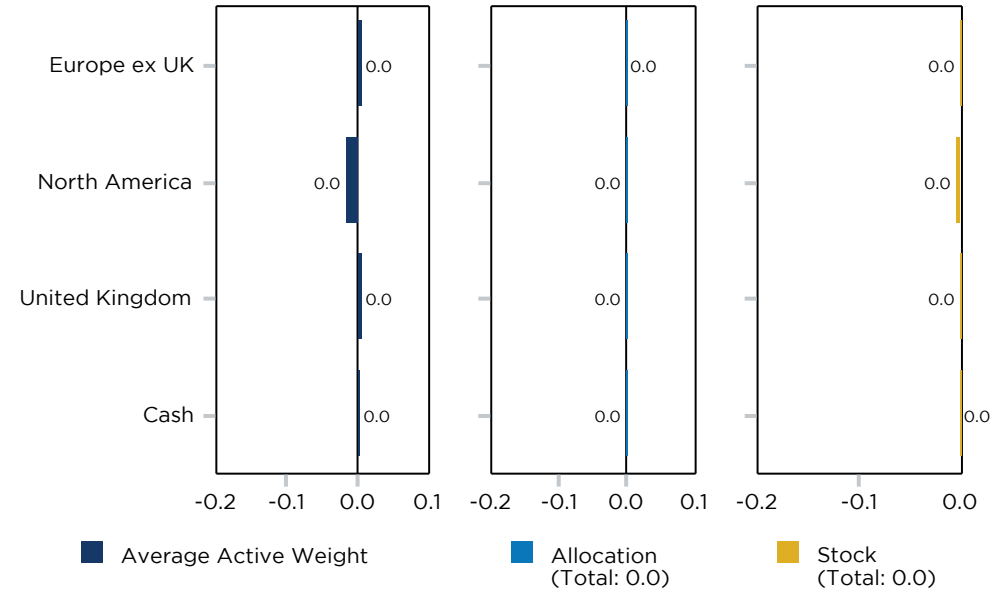
United States	95.1	95.1
Non-US Developed	4.9	4.9
Total	100.0	100.0



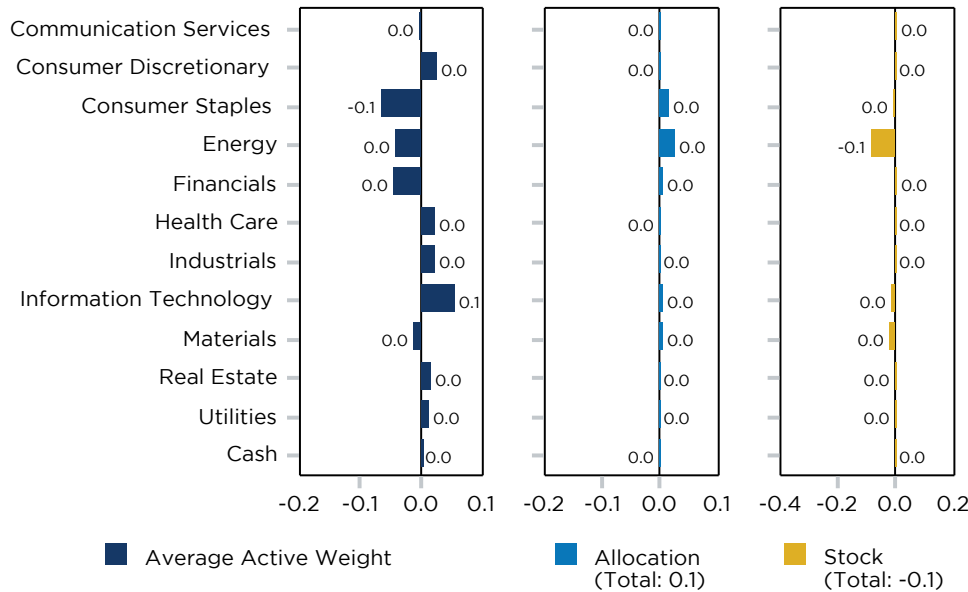
1 Quarter Sector Attribution



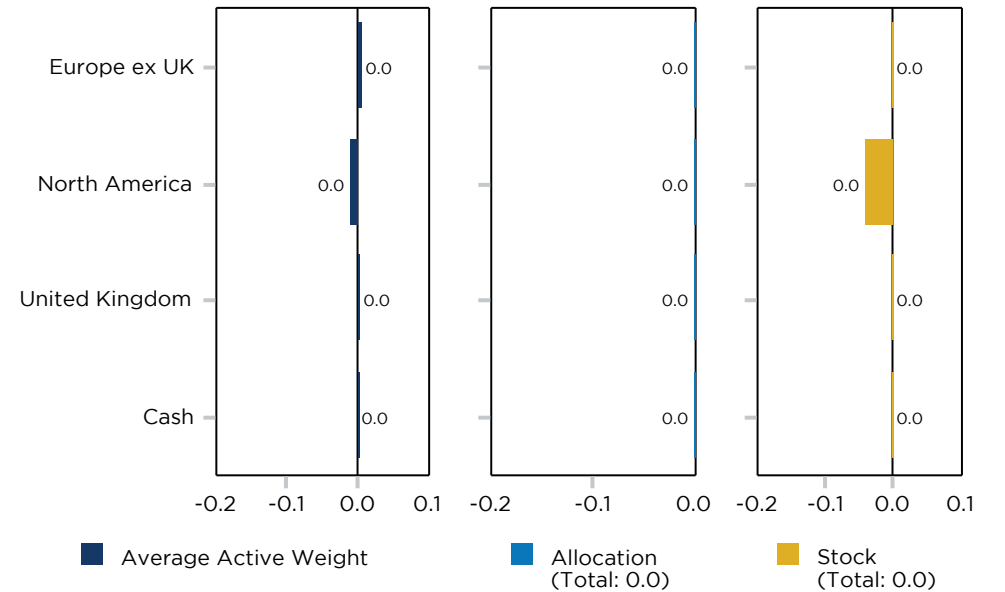
1 Quarter Region Attribution



1 Year Sector Attribution



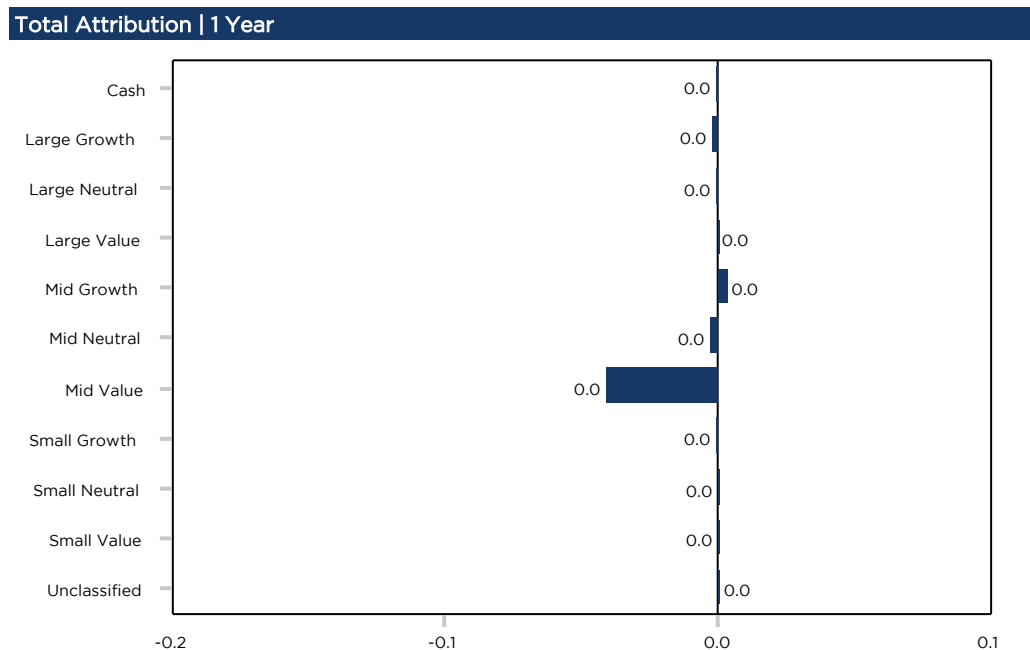
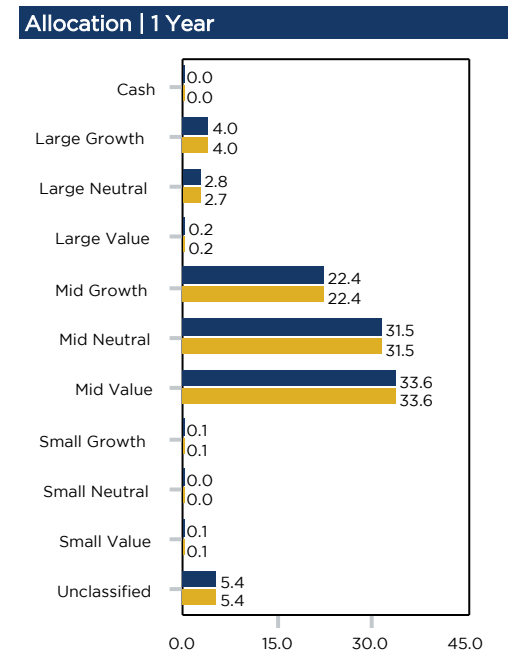
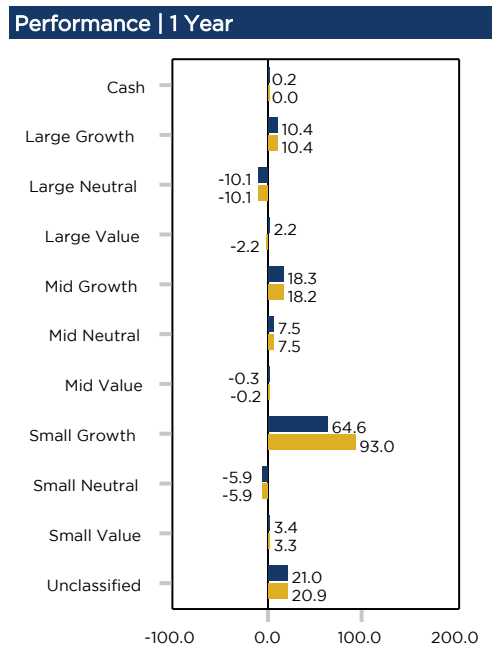
1 Year Region Attribution



Top Ten Securities		Asset Allocation (%)	
Fiserv Inc	0.8 %	Equity	99.0
Red Hat Inc	0.7 %	Cash	1.0
Newmont Goldcorp Corp	0.7 %	Fixed Income	0.0
Xilinx Inc	0.7 %		
Advanced Micro Devices Inc	0.7 %		
Amphenol Corp Class A	0.7 %	Market Capitalization (%)	
ONEOK Inc	0.7 %	Giant	0.0
Motorola Solutions Inc	0.6 %	Large	34.9
IQVIA Holdings Inc	0.6 %	Medium	65.2
WEC Energy Group Inc	0.6 %	Small	0.0
Total	6.8 %	Micro	0.0

Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Global Payments Inc.	0.52	0.51	0.00	17.30
Total System Services Inc.	0.36	0.36	0.00	35.14
Cerner Corp	0.42	0.42	0.00	28.45
IDEXX Laboratories Inc	0.46	0.46	0.00	23.13
Veeva Systems Inc	0.38	0.38	0.00	27.79
Motorola Solutions Inc	0.55	0.55	0.00	19.16
Advanced Micro Devices Inc	0.55	0.55	0.00	19.00
Ball Corp	0.47	0.47	0.00	21.26
L3Harris Technologies Inc	0.45	0.45	0.00	18.86
IHS Markit Ltd	0.49	0.49	0.00	17.18

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Mylan NV	0.18	0.17	0.00	-32.82
Apache Corp	0.32	0.31	0.00	-15.83
Palo Alto Networks Inc	0.52	0.52	0.00	-16.11
Kohl's Corp	0.27	0.27	0.00	-29.89
Arista Networks Inc	0.40	0.40	0.00	-17.44
Waters Corp	0.43	0.43	0.00	-14.49
Gap Inc	0.18	0.18	0.00	-30.71
Xilinx Inc.	0.77	0.77	0.00	-6.70
PVH Corp	0.22	0.22	0.00	-22.37
Marathon Oil Corp	0.33	0.33	0.00	-14.69



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.00 (92)	19.76 (92)	14.58 (31)	17.50 (33)	12.90 (14)	15.91 (26)	3.76 (6)	19.50 (88)	18.68 (3)	1.41 (33)
Benchmark	5.40	26.08	13.94	16.49	11.10	16.02	-4.75	25.27	7.33	-0.20
Peer Group	6.29	26.23	12.34	15.95	10.31	14.84	-5.54	24.67	5.85	-0.19
Population	907	891	854	730	693	624	854	793	826	830

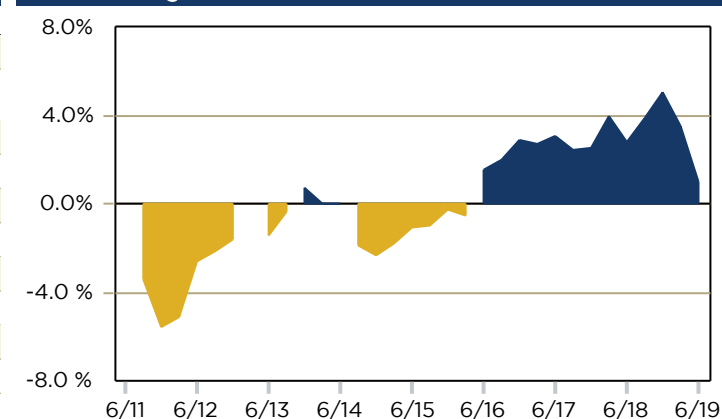
Fund Information

Fund Inception	01/03/2011
Fund Assets	3,615 Million
Portfolio Assets	2,747 Million
Total # of Holdings	67
% in Top 10	24.17 %
PM	Team Managed
PM Tenure	11 Years
Turnover	33.00 %
Gross Expense (%)	0.90 %
Net Expense (%)	0.90 %
New Investors	Closed

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.04	12.95
vs. Russell Midcap Growth Index		
Beta	0.80	0.83
Alpha	3.90	2.44
Information Ratio	0.12	-0.07
Tracking Error	4.82	4.88
R-Squared	0.89	0.90
Up Market Capture	85.20	86.67
Down Market Capture	58.46	73.15
Consistency	41.67	47.50

3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	14,149	18,181
Median Mkt. Cap (\$M)	11,409	8,972
Price/Earnings ratio	26.4	24.9
Price/Book ratio	4.0	6.1
5 Yr. EPS Growth Rate (%)	10.7	17.2
Current Yield (%)	0.9	0.9
Beta (5 Years, Monthly)	0.85	1.00
Number of Stocks	64	418
Debt to Equity	0.7	2.1
Forecast P/E	22.9	22.9
Forecast EPS Growth	14.4	15.9
Return on Equity	0.0	0.1

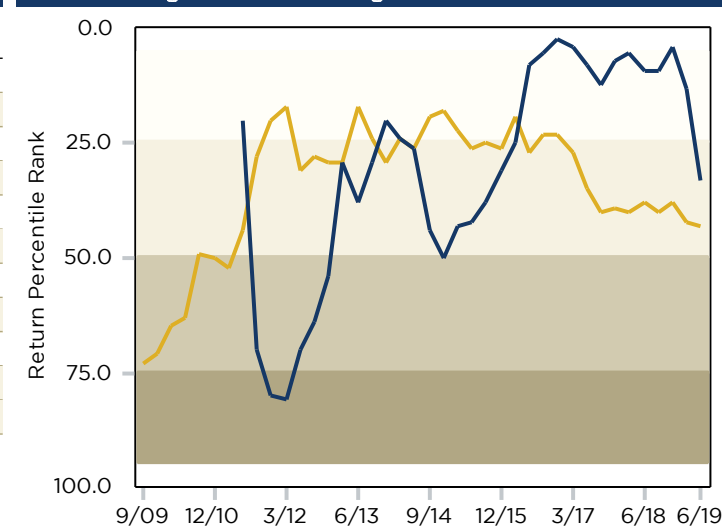
vs. Risk Free

Sharpe Ratio	1.30	1.18
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	1.2	3.9
Consumer Discretionary	6.6	16.3
Consumer Staples	12.0	2.9
Energy	0.0	1.3
Financials	13.1	6.8
Health Care	25.0	14.3
Industrials	16.1	15.7
Information Technology	20.6	32.8
Materials	5.6	3.5
Real Estate	0.0	2.3
Total	100.0	99.9

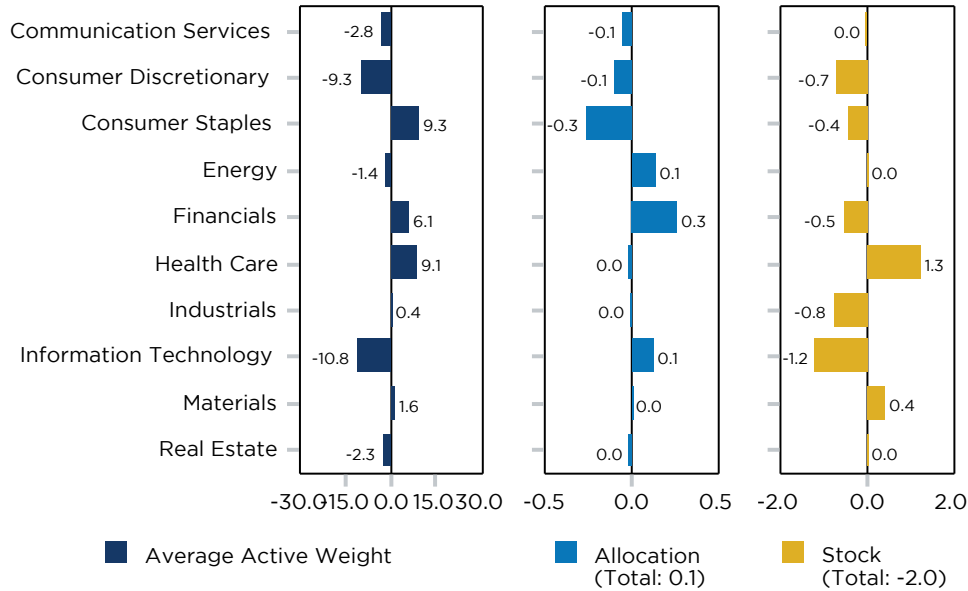
3 Years Rolling Percentile Ranking



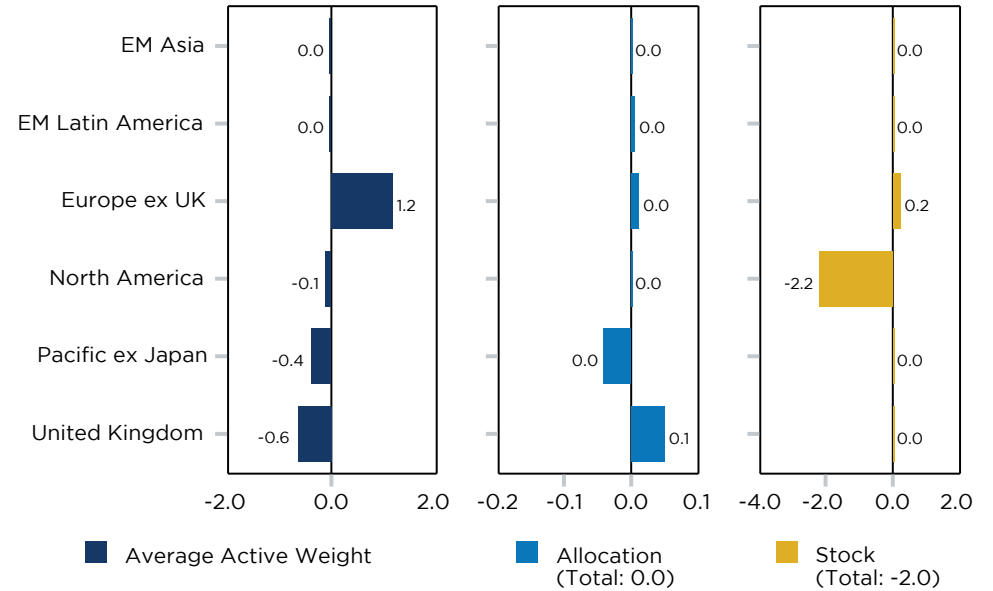
— Manager — Benchmark



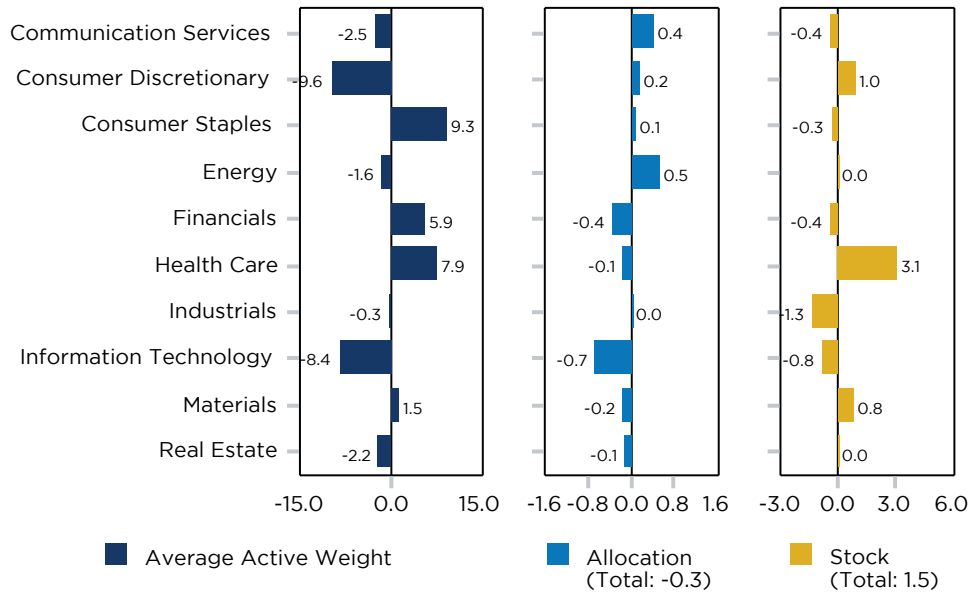
1 Quarter Sector Attribution



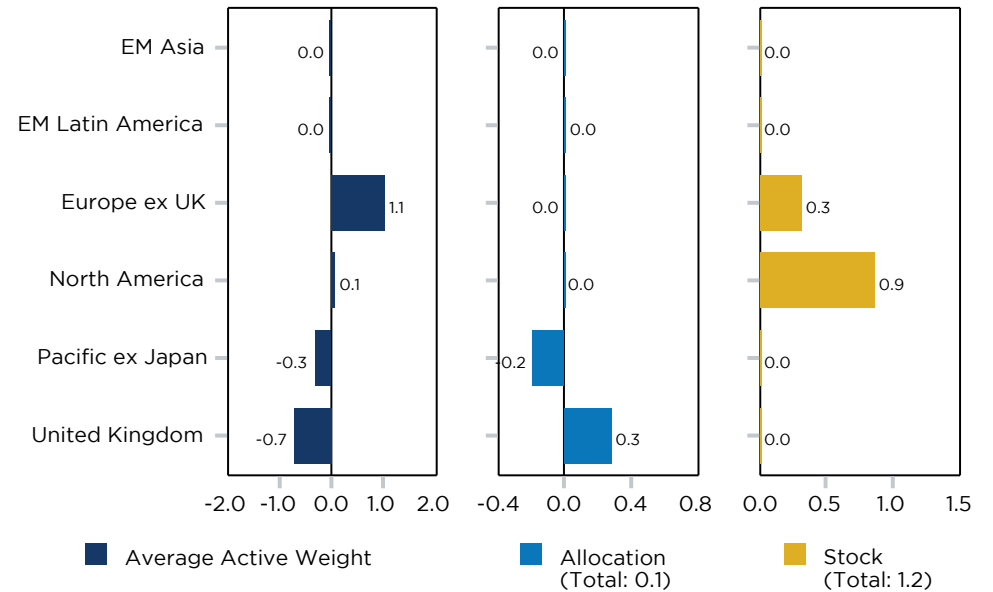
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



Top Ten Securities

Everest Re Group Ltd	2.9 %
Splunk Inc	2.7 %
Nordson Corp	2.5 %
Arthur J. Gallagher & Co	2.4 %
Palo Alto Networks Inc	2.4 %
Waters Corp	2.4 %
Fortive Corp	2.3 %
AptarGroup Inc	2.3 %
Northern Trust Corp	2.2 %
Integra Lifesciences Holdings Corp	2.2 %
Total	24.2 %

Asset Allocation (%)

Equity	94.5
Cash	5.5
Fixed Income	0.0

Market Capitalization (%)

Giant	0.0
Large	30.1
Medium	64.9
Small	4.9
Micro	0.0

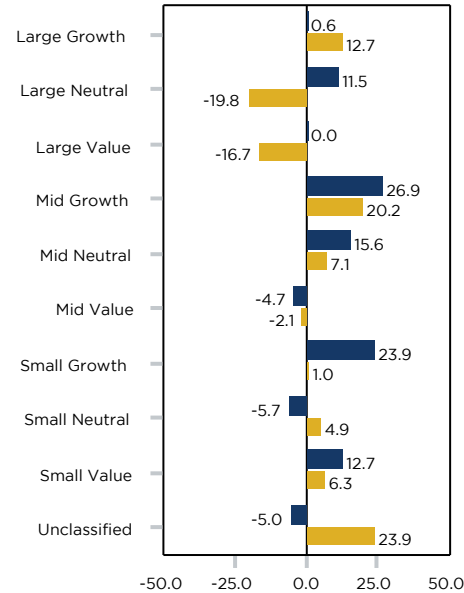
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Okta Inc	1.58	0.23	0.59	49.29
Catalent Inc	1.26	0.04	0.34	33.55
Veeva Systems Inc	2.02	0.51	0.34	27.79
AptarGroup Inc.	2.34	0.00	0.28	17.25
DENTSPLY SIRONA Inc	1.98	0.00	0.25	17.86
Everest Re Group Ltd	2.65	0.11	0.25	15.11
Medidata Solutions Inc	1.29	0.00	0.23	23.58
Arthur J. Gallagher & Co.	2.31	0.00	0.17	12.70
IDEX Corp	1.81	0.35	0.12	13.81
Tractor Supply Co	2.07	0.38	0.11	11.68

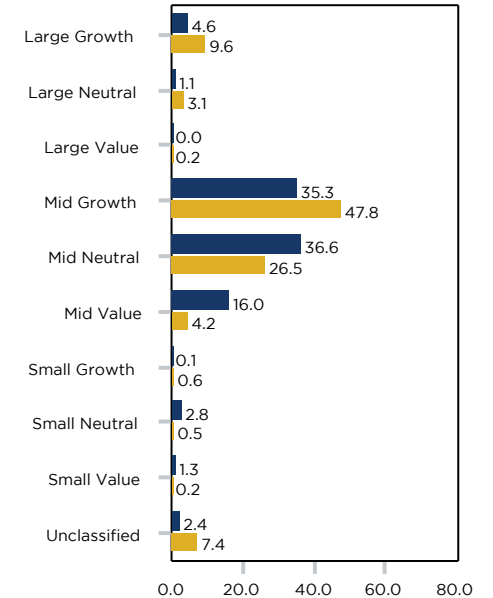
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Nutanix Inc	1.43	0.17	-0.46	-31.27
Waters Corp	2.88	0.56	-0.46	-14.49
Palo Alto Networks Inc	2.69	0.71	-0.43	-16.11
Pure Storage Inc	1.30	0.12	-0.42	-29.92
TreeHouse Foods Inc	1.77	0.00	-0.38	-16.19
Sally Beauty Holdings Inc	1.09	0.00	-0.36	-27.54
Gates Industrial Corp PLC	1.10	0.00	-0.28	-20.43
Hormel Foods Corp	1.56	0.00	-0.22	-8.97
Advance Auto Parts Inc.	1.52	0.12	-0.21	-9.58
Stericycle Inc	1.13	0.00	-0.20	-12.26

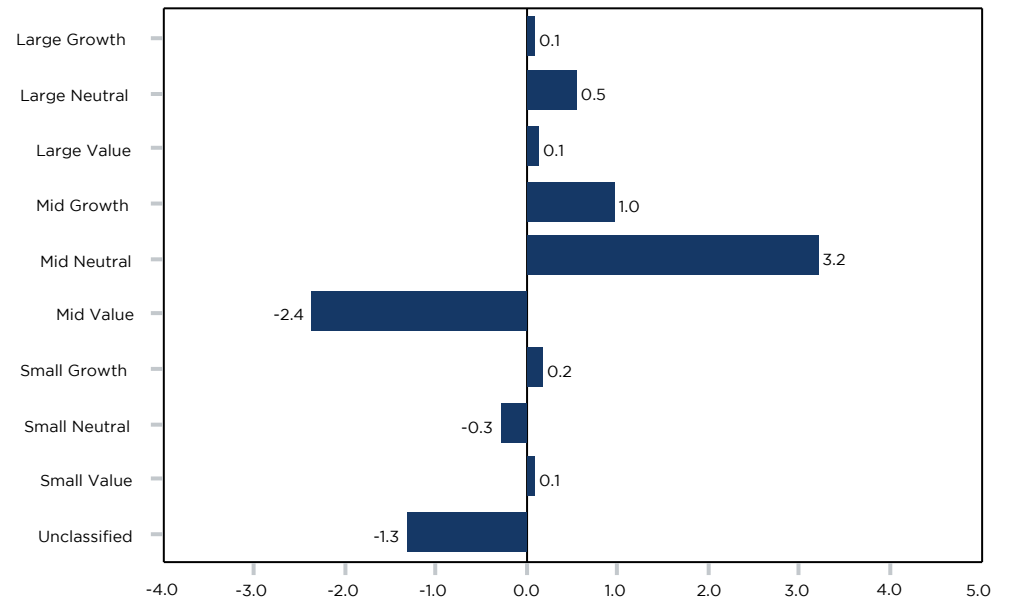
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





American Beacon Small Cp Val Inst (AVFIX)

Index: Russell 2000 Value Index

Category: Small Value

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	1.78 (43)	14.26 (42)	-7.61 (60)	8.60 (42)	4.77 (39)	13.04 (21)	-15.63 (54)	8.67 (53)	26.77 (40)	-5.04 (35)
Benchmark	1.38	13.47	-6.24	9.81	5.39	12.40	-12.86	7.84	31.74	-7.47
Peer Group	1.49	13.82	-6.85	8.24	4.32	12.13	-15.31	8.86	26.01	-6.40
Population	592	585	567	486	459	405	565	515	530	515

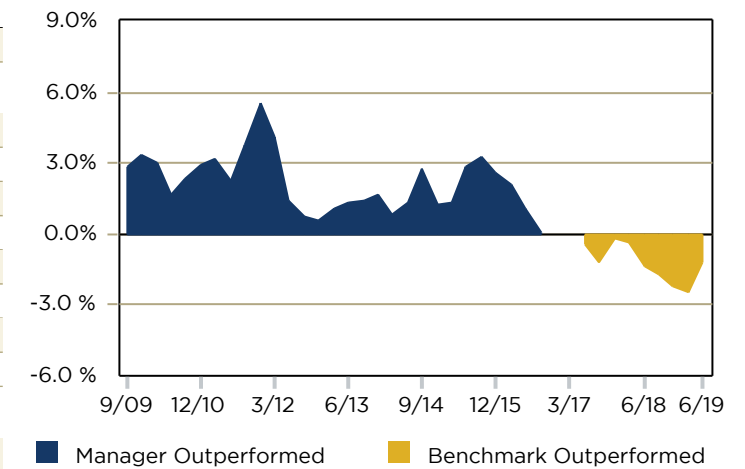
Fund Information

Fund Inception	12/31/1998
Fund Assets	6,369 Million
Portfolio Assets	4,230 Million
Total # of Holdings	538
% in Top 10	11.62 %
PM	Team Managed
PM Tenure	20 Years 6 Months
Turnover	69.00 %
Gross Expense (%)	0.81 %
Net Expense (%)	0.81 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	18.47	17.92
vs. Russell 2000 Value Index		
Beta	1.07	1.03
Alpha	-1.60	0.34
Information Ratio	-0.30	0.25
Tracking Error	2.89	2.82
R-Squared	0.98	0.98
Up Market Capture	101.92	102.72
Down Market Capture	108.17	100.82
Consistency	44.44	57.50

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,632	2,212
Median Mkt. Cap (\$M)	1,471	697
Price/Earnings ratio	13.7	15.2
Price/Book ratio	1.7	1.7
5 Yr. EPS Growth Rate (%)	10.5	9.3
Current Yield (%)	1.8	2.2
Beta (5 Years, Monthly)	1.03	1.00
Number of Stocks	724	1,347
Debt to Equity	1.2	1.1
Forecast P/E	12.2	14.0
Forecast EPS Growth	9.6	10.5
Return on Equity	0.0	0.0

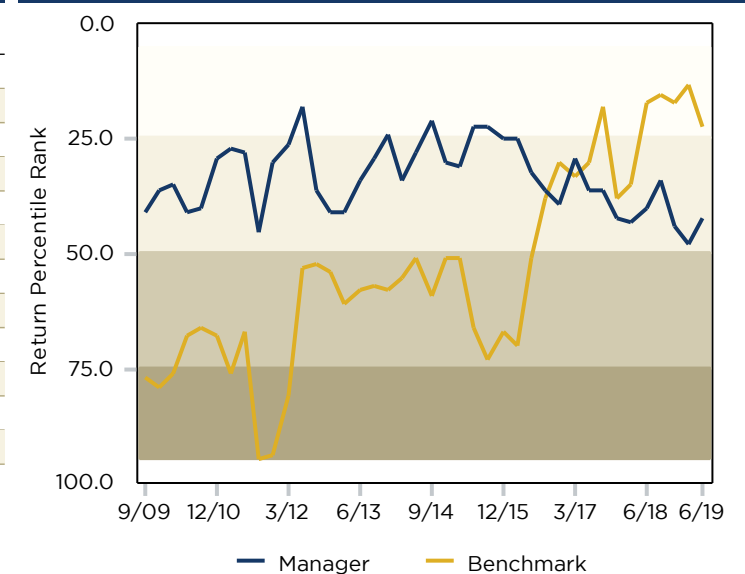
vs. Risk Free

Sharpe Ratio	0.47	0.75
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	2.2	2.9
Consumer Discretionary	12.0	8.5
Consumer Staples	2.1	2.4
Energy	5.4	5.1
Financials	28.7	29.4
Health Care	2.9	4.0
Industrials	20.1	11.8
Information Technology	13.3	11.8
Materials	5.4	4.2
Real Estate	5.0	12.3
Utilities	2.9	7.6
Total	100.0	100.0

3 Years Rolling Percentile Ranking

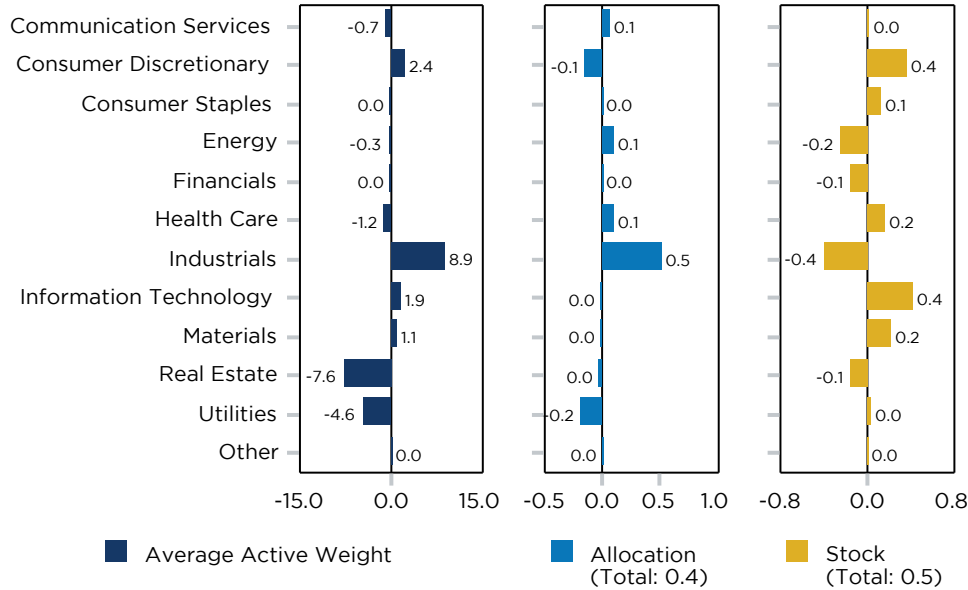


Country/Region Allocation

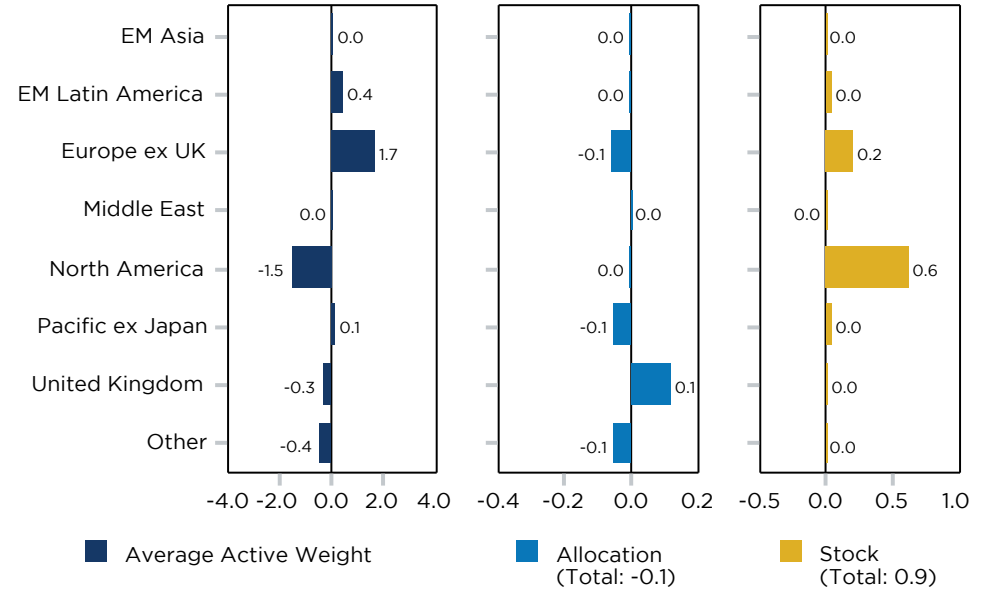
United States	94.5	96.6
Non-US Developed	4.5	2.5
Emerging Markets	0.9	0.5
Other	0.0	0.5
Total	100.0	100.0



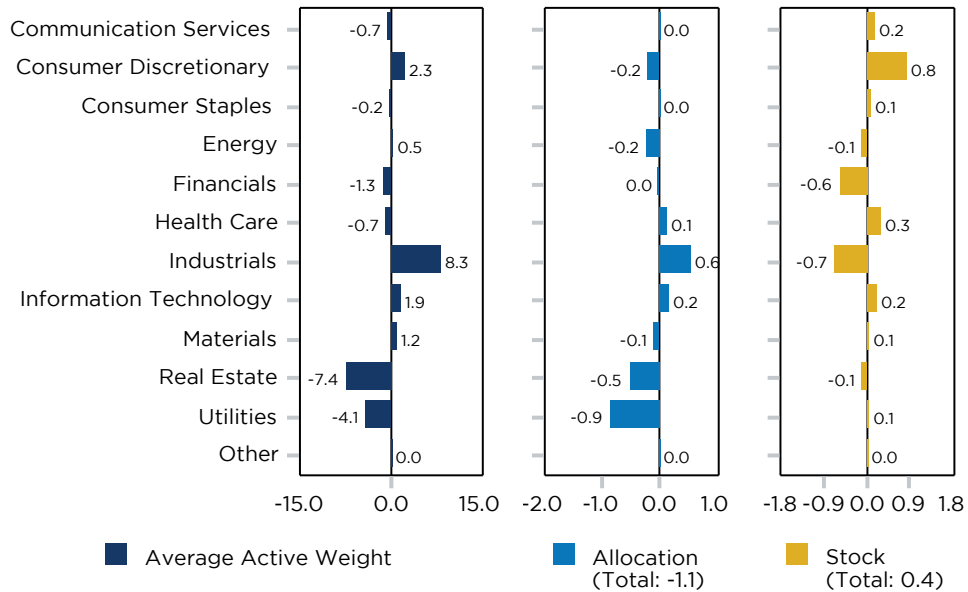
1 Quarter Sector Attribution



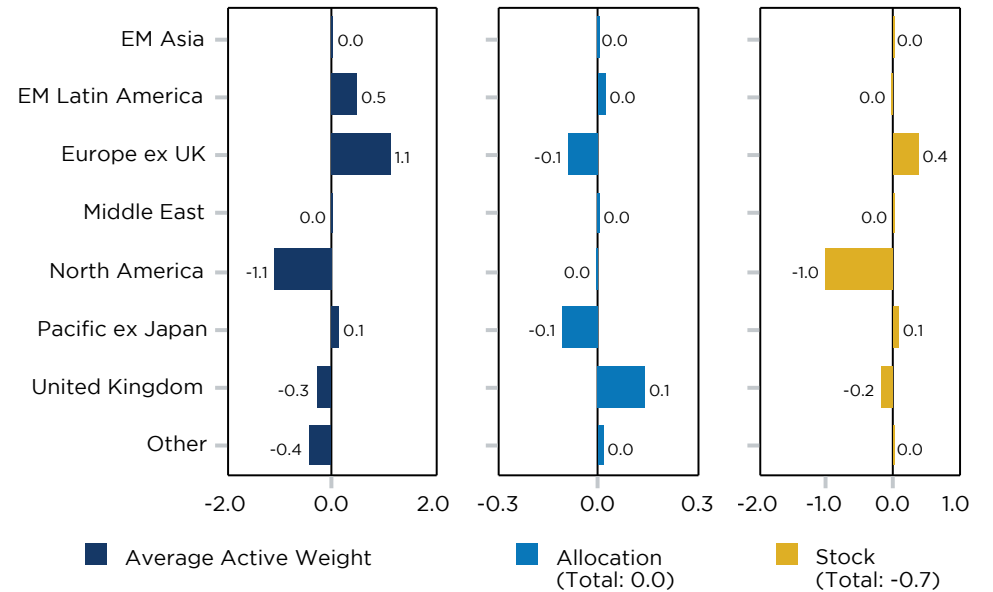
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Top Ten Securities

E-Mini Russ 2000 Sep19 Xcme 20	3.6 %
Portland General Electric Co	1.2 %
Diodes Inc	1.0 %
Brooks Automation Inc	1.0 %
Enstar Group Ltd	0.8 %
Avnet Inc	0.8 %
American Axle & Mfg Holdings Inc	0.8 %
Seritage Growth Properties Class	0.8 %
MGIC Investment Corp	0.8 %
First Hawaiian Inc	0.8 %
Total	11.6 %

Asset Allocation (%)

Equity	96.8
Cash	3.2
Fixed Income	0.0

Market Capitalization (%)

Giant	0.0
Large	0.8
Medium	22.8
Small	72.4
Micro	4.1

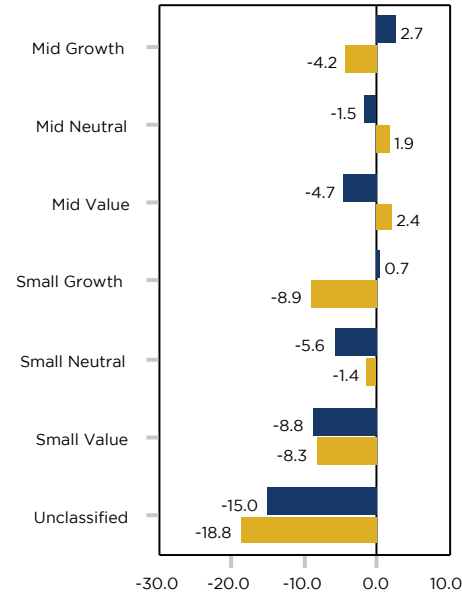
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Brooks Automation Inc	0.93	0.00	0.29	32.45
Sonic Automotive Inc.	0.28	0.04	0.14	58.34
KBR Inc	0.62	0.28	0.10	31.08
Texas Capital Bancshares Inc	0.89	0.00	0.10	12.42
Aerojet Rocketdyne Holdings Inc	0.33	0.00	0.08	26.01
FARO Technologies Inc	0.43	0.00	0.08	19.74
Williams-Sonoma Inc.	0.51	0.00	0.08	16.50
Simpson Manufacturing Co. Inc.	0.66	0.00	0.07	12.55
EMCOR Group Inc.	0.47	0.11	0.07	20.68
Cray Inc	0.28	0.09	0.06	33.67

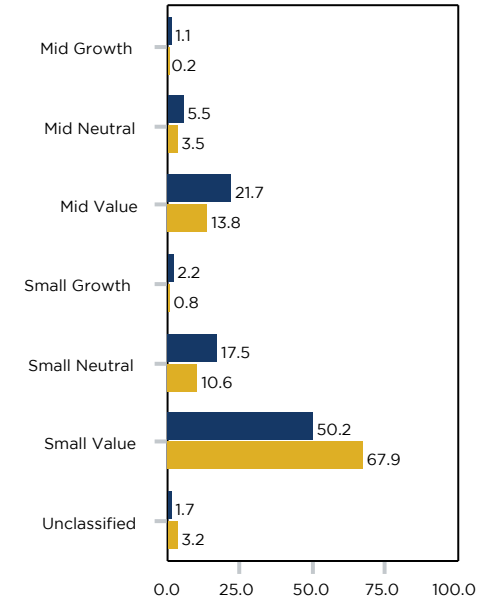
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
American Axle & Manufact	1.05	0.16	-0.11	-10.83
Office Depot Inc	0.44	0.20	-0.11	-42.54
United Therapeutics Corp	0.30	0.00	-0.10	-33.49
Whiting Petroleum Corp	0.25	0.00	-0.07	-28.54
Callon Petroleum Co/DE	0.65	0.18	-0.07	-12.72
Tutor Perini Corp	0.39	0.07	-0.07	-18.98
Invacare Corp	0.19	0.03	-0.06	-37.89
Vishay Intertechnology Inc.	0.79	0.25	-0.06	-10.01
C&J Energy Services Inc	0.30	0.10	-0.05	-24.10
Abercrombie & Fitch Co.	0.31	0.19	-0.05	-40.74

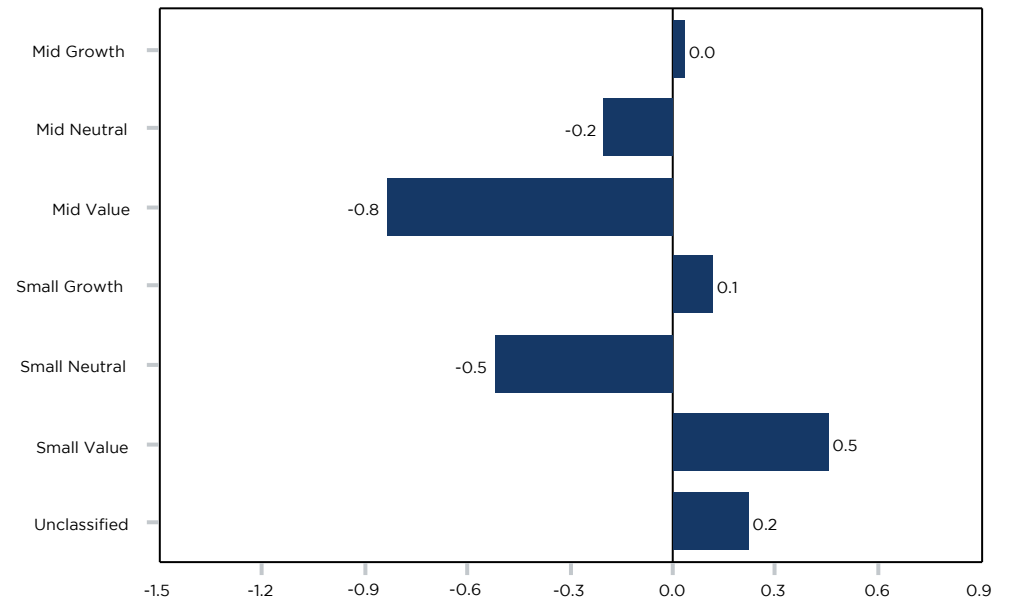
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.87 (34)	19.54 (14)	2.27 (11)	12.39 (18)	7.73 (17)	14.81 (5)	-9.32 (19)	16.25 (13)	18.32 (73)	-3.63 (38)
Benchmark	2.86	19.54	2.29	12.37	7.70	15.14	-9.33	16.24	18.26	-3.68
Peer Group	2.13	16.53	-3.53	10.85	6.30	13.08	-11.94	13.20	20.81	-4.36
Population	1,115	1,106	1,076	928	836	691	1,086	1,081	1,073	1,030

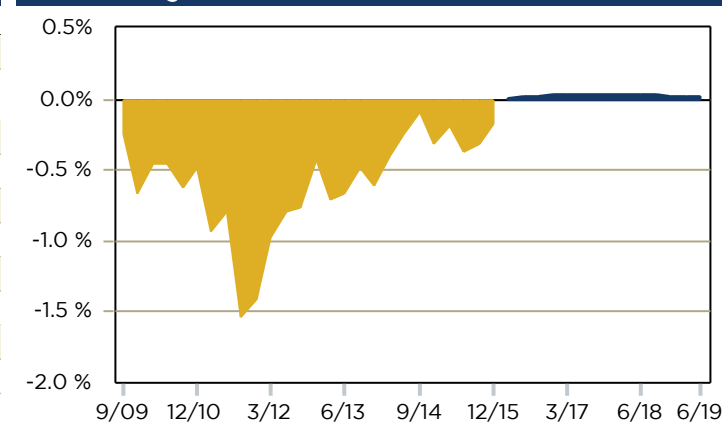
Fund Information

Fund Inception	07/07/1997
Fund Assets	96,750 Million
Portfolio Assets	17,689 Million
Total # of Holdings	1409
% in Top 10	3.20 %
PM	Coleman,W/O'Reilly,G
PM Tenure	3 Years 2 Months
Turnover	15.00 %
Gross Expense (%)	0.04 %
Net Expense (%)	0.04 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	15.45	16.46
vs. CRSP U.S. Small Cap TR Index		
Beta	1.00	1.01
Alpha	0.01	-0.44
Information Ratio	0.60	-0.36
Tracking Error	0.03	0.70
R-Squared	1.00	1.00
Up Market Capture	100.07	100.16
Down Market Capture	100.01	101.93
Consistency	61.11	53.33

3 Years Rolling Excess Performance



■ Manager Outperformed ■ Benchmark Outperformed

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	4,897	4,901
Median Mkt. Cap (\$M)	2,314	2,335
Price/Earnings ratio	19.2	19.2
Price/Book ratio	2.7	2.7
5 Yr. EPS Growth Rate (%)	14.1	14.1
Current Yield (%)	1.6	1.6
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	1,403	1,380
Debt to Equity	1.0	1.0
Forecast P/E	17.3	17.3
Forecast EPS Growth	12.8	12.8
Return on Equity	0.0	0.0

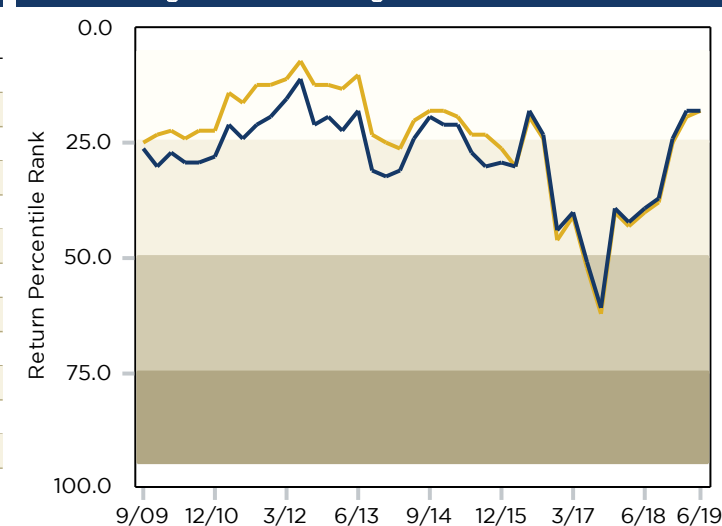
vs. Risk Free

Sharpe Ratio	0.75	0.90
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	3.0	3.0
Consumer Discretionary	11.4	11.4
Consumer Staples	2.7	2.7
Energy	3.1	3.1
Financials	15.0	15.1
Health Care	12.6	12.6
Industrials	15.7	15.7
Information Technology	17.5	17.5
Materials	4.9	4.9
Real Estate	10.4	10.5
Utilities	3.4	3.4
Total	99.8	99.8

3 Years Rolling Percentile Ranking

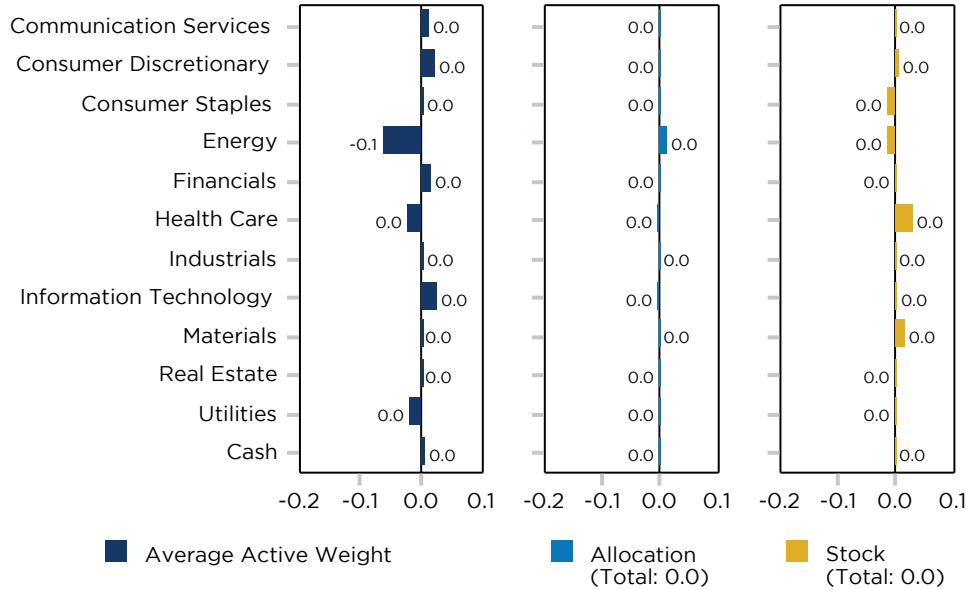


— Manager — Benchmark

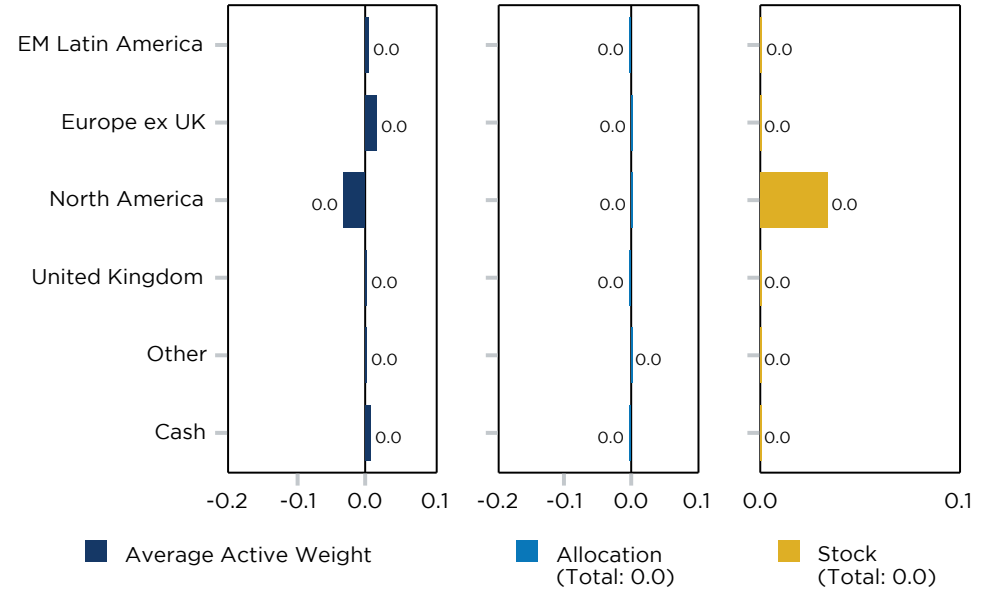
Country/Region Allocation

United States	96.6	96.6
Non-US Developed	3.0	3.0
Emerging Markets	0.2	0.2
Other	0.2	0.2
Total	100.0	100.0

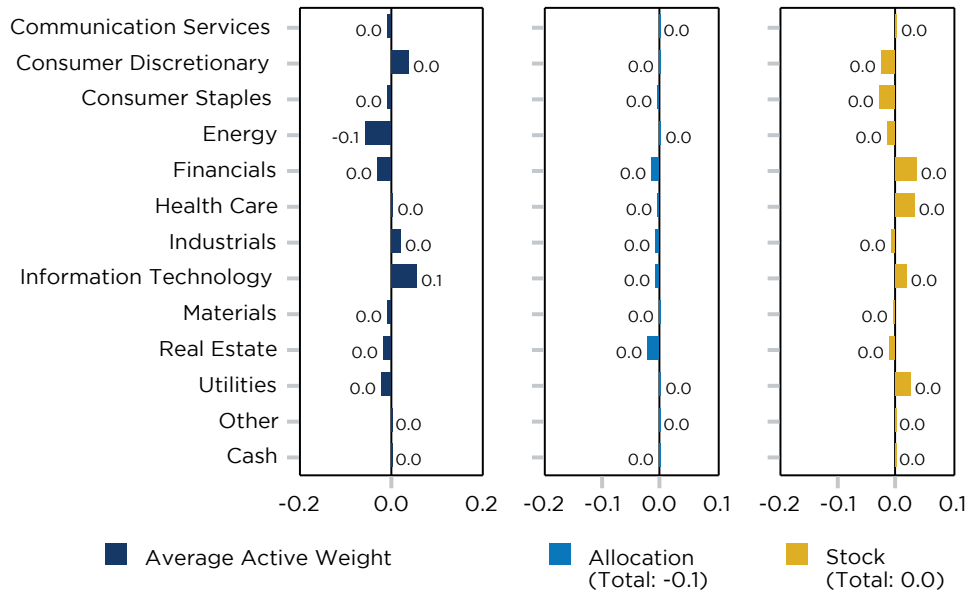
1 Quarter Sector Attribution



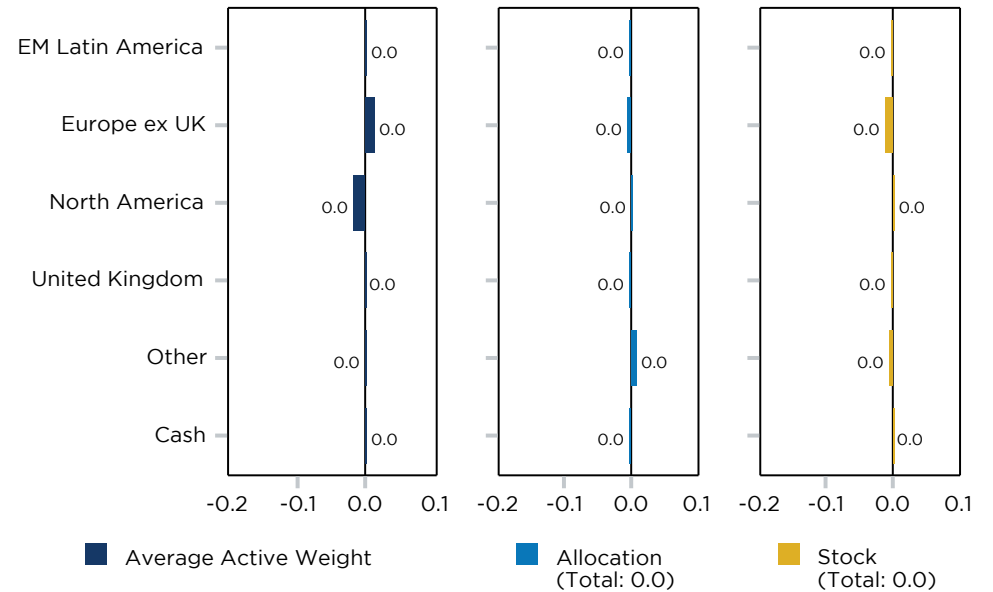
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution

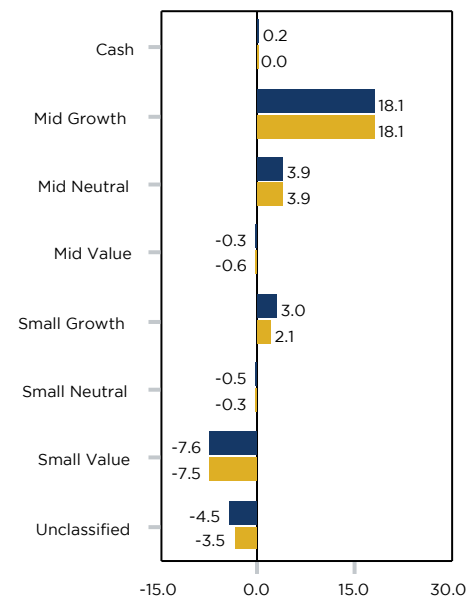


Top Ten Securities		Asset Allocation (%)	
IDEX Corp	0.4 %	Equity	97.6
Steris PLC	0.3 %	Cash	2.4
Tableau Software Inc A	0.3 %	Fixed Income	0.0
Atmos Energy Corp	0.3 %		
Leidos Holdings Inc	0.3 %		
MarketAxess Holdings Inc	0.3 %	Market Capitalization (%)	
Zebra Technologies Corp	0.3 %	Giant	0.0
Burlington Stores Inc	0.3 %	Large	0.4
Sun Communities Inc	0.3 %	Medium	59.7
PerkinElmer Inc	0.3 %	Small	38.8
Total	3.2 %	Micro	1.1

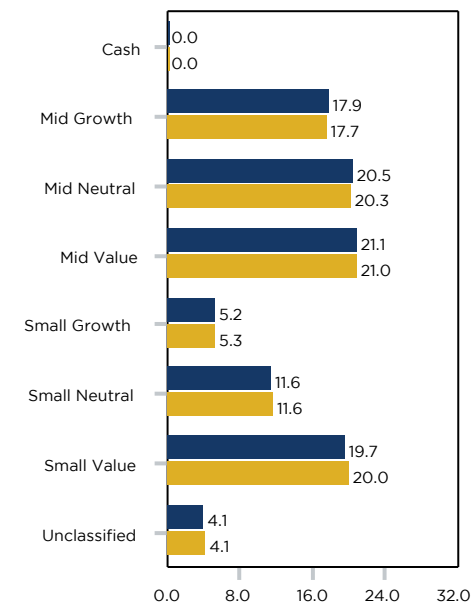
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Okta Inc	0.23	0.22	0.00	49.29
Array BioPharma Inc	0.15	0.15	0.00	90.03
EXACT Sciences Corp	0.32	0.32	0.00	36.27
MarketAxess Holdings Inc	0.28	0.28	0.00	30.85
Tableau Software Inc	0.26	0.26	0.00	30.44
Cypress Semiconductor Corp	0.16	0.16	0.00	49.80
Leidos Holdings Inc	0.27	0.27	0.00	25.10
Sarepta Therapeutics Inc	0.23	0.23	0.00	27.49
Coupa Software Inc	0.16	0.16	0.00	39.16
Catalent Inc	0.17	0.17	0.00	33.55

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Chemours Co (The)	0.18	0.18	0.00	-34.73
Ionis Pharmaceuticals Inc	0.29	0.29	0.00	-20.82
Foot Locker Inc.	0.20	0.20	0.00	-30.41
2U Inc	0.11	0.11	0.00	-46.87
bluebird bio Inc	0.25	0.25	0.00	-19.15
Nutanix Inc	0.15	0.15	0.00	-31.27
United Therapeutics Corp	0.14	0.14	0.00	-33.49
Pure Storage Inc	0.14	0.14	0.00	-29.92
Chesapeake Energy Corp	0.11	0.11	0.00	-37.10
Transocean Ltd	0.15	0.15	0.00	-26.41

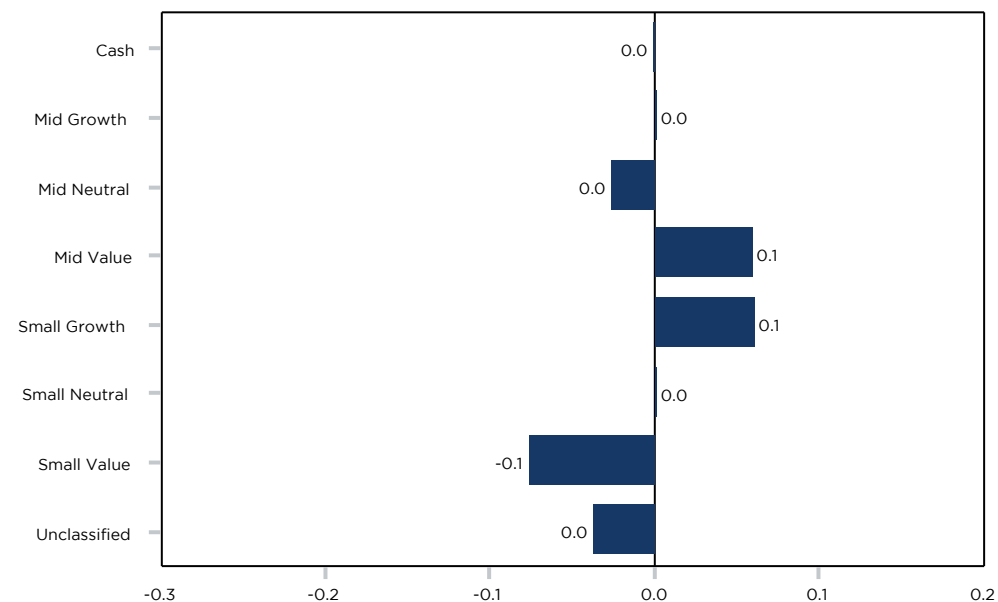
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.57 (75)	20.47 (59)	-4.50 (90)	10.62 (89)	6.86 (84)	14.10 (66)	-15.87 (95)	18.73 (68)	13.40 (32)	-0.91 (33)
Benchmark	2.75	20.36	-0.49	14.69	8.63	14.41	-9.31	22.17	11.32	-1.38
Peer Group	4.12	21.41	3.80	15.92	9.28	14.73	-6.09	21.87	10.91	-2.14
Population	1,006	988	942	801	773	674	938	875	906	898

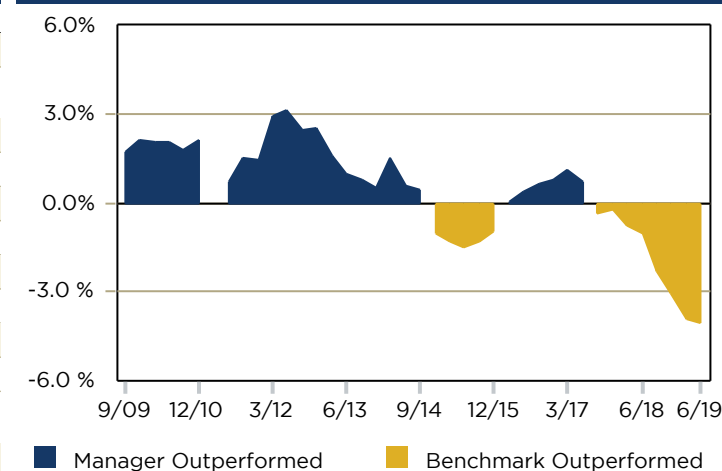
Fund Information

Fund Inception	05/06/1994
Fund Assets	349 Million
Portfolio Assets	205 Million
Total # of Holdings	144
% in Top 10	13.60 %
PM	Basset,J/Hasso,J
PM Tenure	10 Years 8 Months
Turnover	108.00 %
Gross Expense (%)	0.88 %
Net Expense (%)	0.88 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	17.71	17.16
vs. Russell 2000 Growth Index		
Beta	1.02	0.94
Alpha	-3.76	0.49
Information Ratio	-1.31	-0.13
Tracking Error	2.72	3.16
R-Squared	0.98	0.97
Up Market Capture	92.10	94.13
Down Market Capture	107.56	91.54
Consistency	33.33	46.67

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	3,352	2,889
Median Mkt. Cap (\$M)	2,821	884
Price/Earnings ratio	22.3	22.7
Price/Book ratio	3.5	4.0
5 Yr. EPS Growth Rate (%)	16.3	19.0
Current Yield (%)	0.8	0.7
Beta (5 Years, Monthly)	0.98	1.00
Number of Stocks	141	1,228
Debt to Equity	1.9	0.7
Forecast P/E	19.7	20.2
Forecast EPS Growth	12.7	16.3
Return on Equity	0.0	0.0

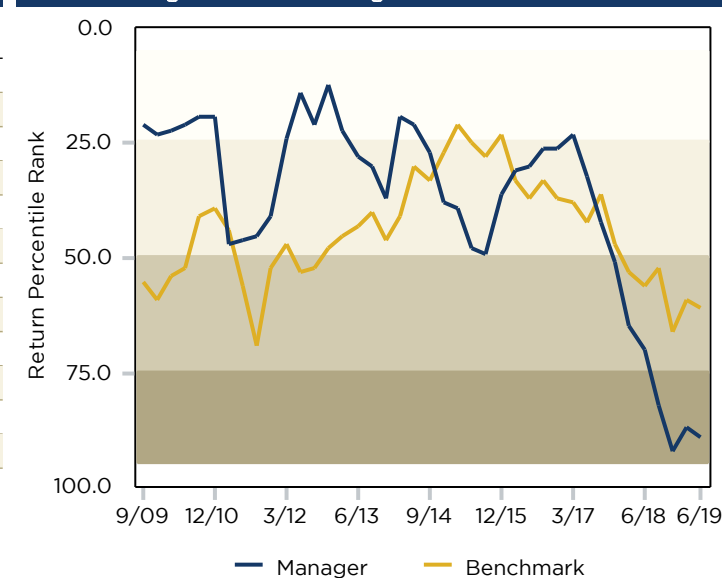
vs. Risk Free

Sharpe Ratio	0.58	0.83
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	3.4	3.1
Consumer Discretionary	11.4	14.6
Consumer Staples	3.0	2.9
Energy	1.2	1.7
Financials	6.7	7.1
Health Care	26.1	26.4
Industrials	20.0	18.6
Information Technology	19.3	18.5
Materials	4.4	3.4
Real Estate	3.9	3.2
Utilities	0.0	0.5
Total	99.4	100.0

3 Years Rolling Percentile Ranking

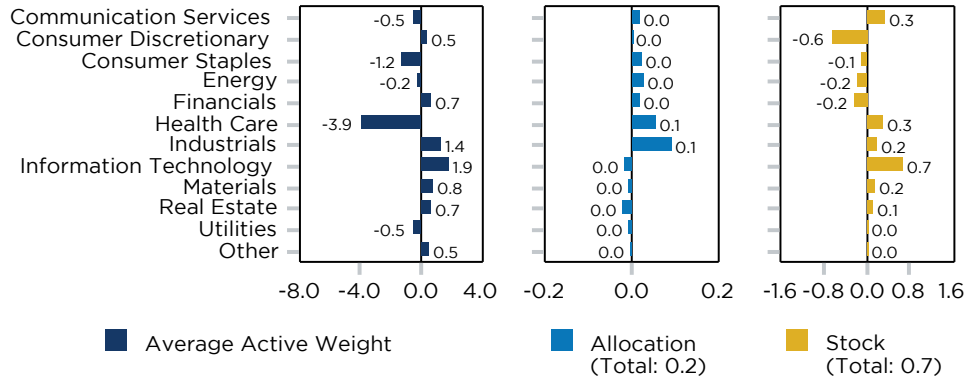


Country/Region Allocation

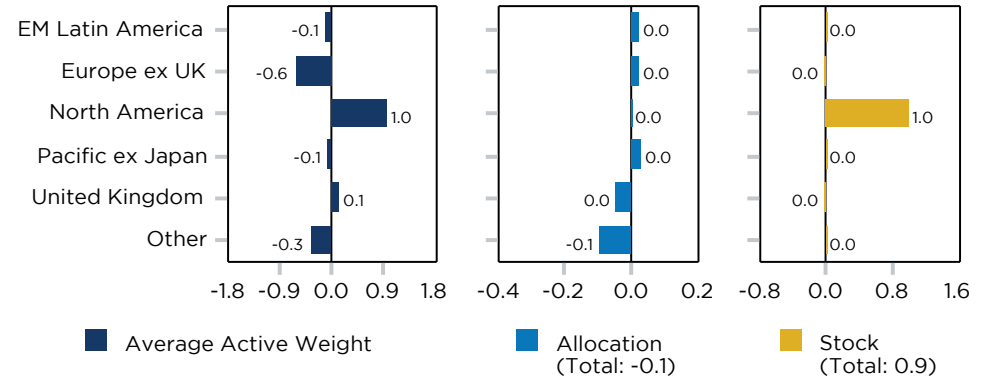
United States	98.6	97.5
Non-US Developed	1.4	2.0
Emerging Markets	0.0	0.1
Other	0.0	0.4
Total	100.0	100.0



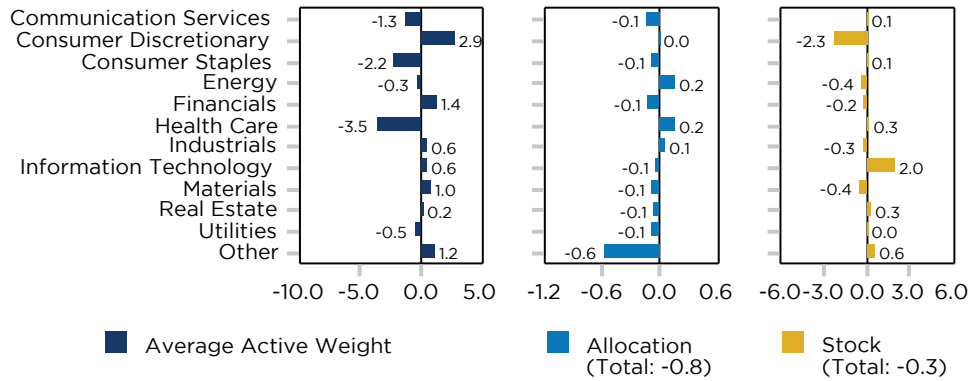
1 Quarter Sector Attribution



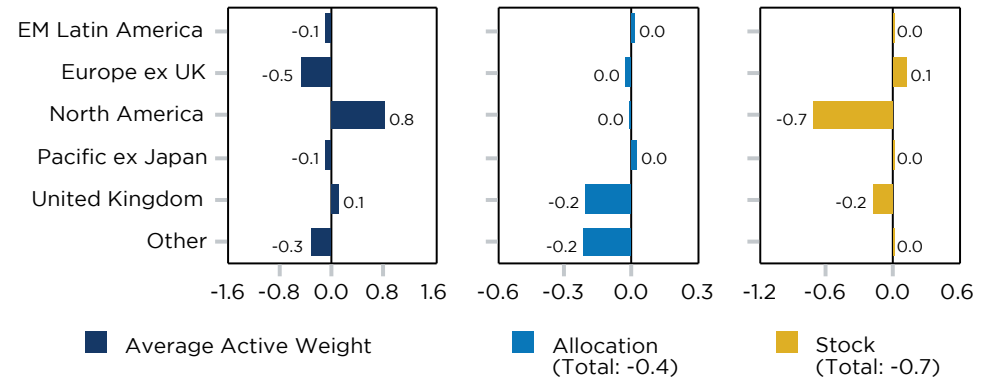
1 Quarter Region Attribution



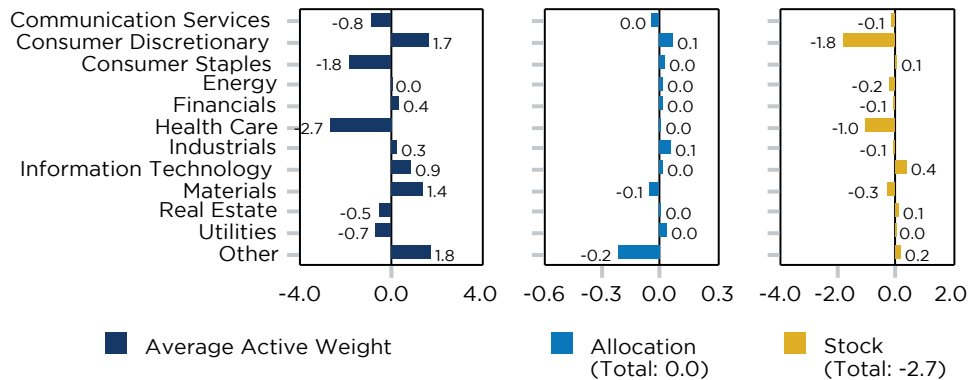
1 Year Sector Attribution



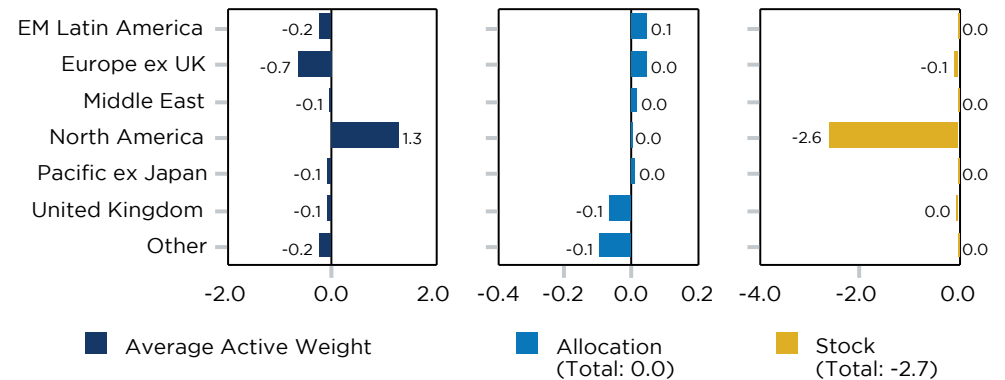
1 Year Region Attribution



3 Years Sector Attribution



3 Years Region Attribution

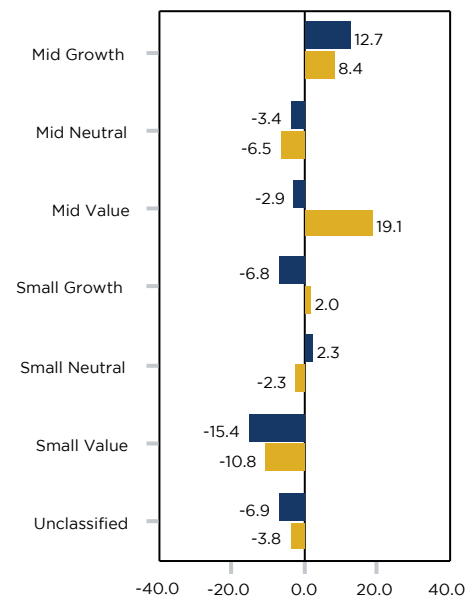


Top Ten Securities		Asset Allocation (%)	
iShares Russell 2000 Growth ETF	1.5 %	Equity	97.9
ACI Worldwide Inc	1.5 %	Cash	2.1
Generac Holdings Inc	1.5 %	Fixed Income	0.0
j2 Global Inc	1.5 %		
Amedisys Inc	1.3 %		
The Brink's Co	1.3 %	Market Capitalization (%)	
Cornerstone OnDemand Inc	1.3 %	Giant	0.0
Merit Medical Systems Inc	1.3 %	Large	0.0
Performance Food Group Co	1.3 %	Medium	38.4
EMCOR Group Inc	1.2 %	Small	60.8
Total	13.6 %	Micro	0.8

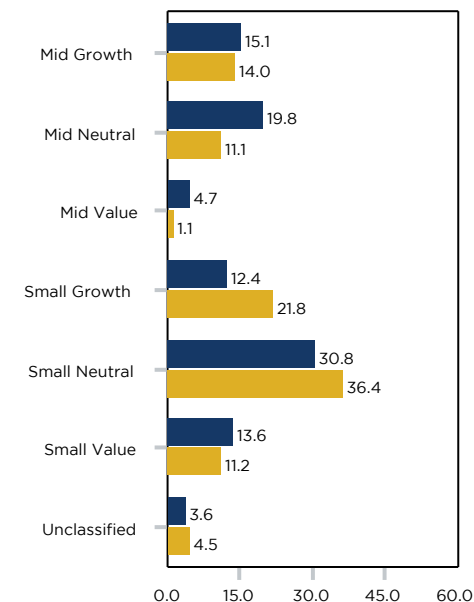
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Generac Holdings Inc	1.35	0.29	0.35	35.49
Array BioPharma Inc	0.78	0.48	0.26	90.03
Sotheby's	0.60	0.12	0.25	53.99
John Bean Technologies Corp	1.05	0.27	0.23	31.94
Cray Inc	0.74	0.02	0.22	33.67
G1 Therapeutics Inc	0.29	0.04	0.20	84.70
Silicon Laboratories Inc	1.09	0.33	0.19	27.88
Woodward Inc	1.44	0.48	0.16	19.43
EMCOR Group Inc.	1.11	0.30	0.15	20.68
Repligen Corp	0.52	0.22	0.13	45.48

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
At Home Group Inc	0.57	0.08	-0.32	-62.71
American Eagle Outfitters Inc.	1.11	0.30	-0.21	-23.29
Boingo Wireless Inc	0.89	0.09	-0.20	-22.81
Green Dot Corp	1.17	0.28	-0.20	-19.37
Cymbay Therapeutics Inc	0.37	0.06	-0.15	-46.08
Aerie Pharmaceuticals Inc	0.50	0.16	-0.14	-37.79
TherapeuticsMD Inc	0.35	0.08	-0.13	-46.61
LivaNova PLC	0.66	0.35	-0.09	-26.01
Intercept Pharmaceuticals Inc	0.48	0.23	-0.08	-28.87
Puma Biotechnology Inc	0.20	0.11	-0.06	-67.23

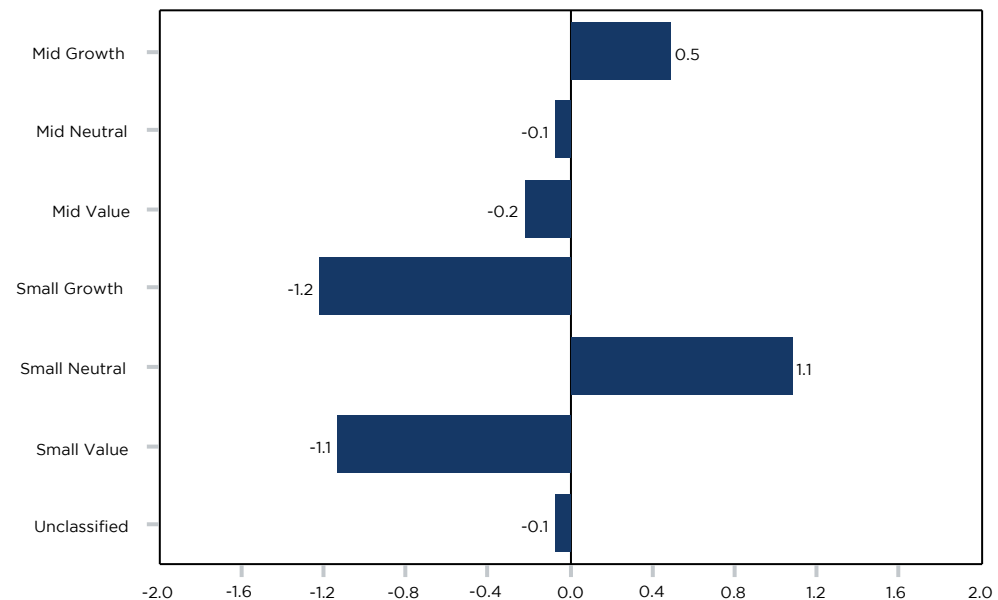
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)

Category: Foreign Large Growth

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.87 (71)	17.59 (60)	1.91 (48)	10.84 (32)	4.45 (36)	8.15 (48)	-14.91 (55)	31.17 (47)	1.01 (27)	-0.48 (63)
Benchmark	2.98	13.60	1.29	9.39	2.16	6.54	-14.20	27.19	4.50	-5.66
Peer Group	4.70	18.15	1.66	9.67	3.76	8.06	-14.47	30.93	-1.45	0.48
Population	725	715	678	580	530	429	672	631	630	606

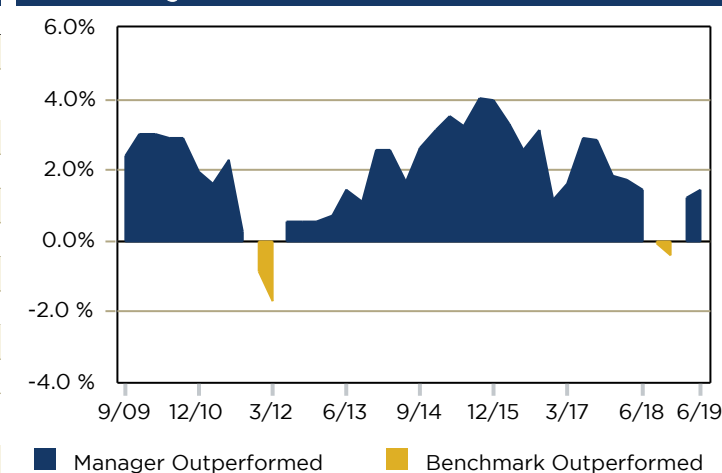
Fund Information

Fund Inception	05/01/2009
Fund Assets	159,588 Million
Portfolio Assets	70,131 Million
Total # of Holdings	330
% in Top 10	21.49 %
PM	Team Managed
PM Tenure	27 Years 6 Months
Turnover	35.00 %
Gross Expense (%)	0.49 %
Net Expense (%)	0.49 %
New Investors	Open

Fund Statistics

	3 Years	10 Years
Standard Deviation	12.20	14.41
vs. MSCI AC World ex USA (Net)		
Beta	1.06	0.95
Alpha	0.91	1.85
Information Ratio	0.50	0.45
Tracking Error	2.88	3.23
R-Squared	0.95	0.95
Up Market Capture	107.05	98.51
Down Market Capture	100.46	88.99
Consistency	55.56	50.83

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	79,437	67,766
Median Mkt. Cap (\$M)	19,820	7,982
Price/Earnings ratio	17.4	14.0
Price/Book ratio	2.9	2.2
5 Yr. EPS Growth Rate (%)	18.4	9.7
Current Yield (%)	1.8	3.4
Beta (5 Years, Monthly)	0.93	1.00
Number of Stocks	306	2,206
Debt to Equity	0.5	1.1
Forecast P/E	14.8	13.1
Forecast EPS Growth	16.1	10.4
Return on Equity	0.0	0.0

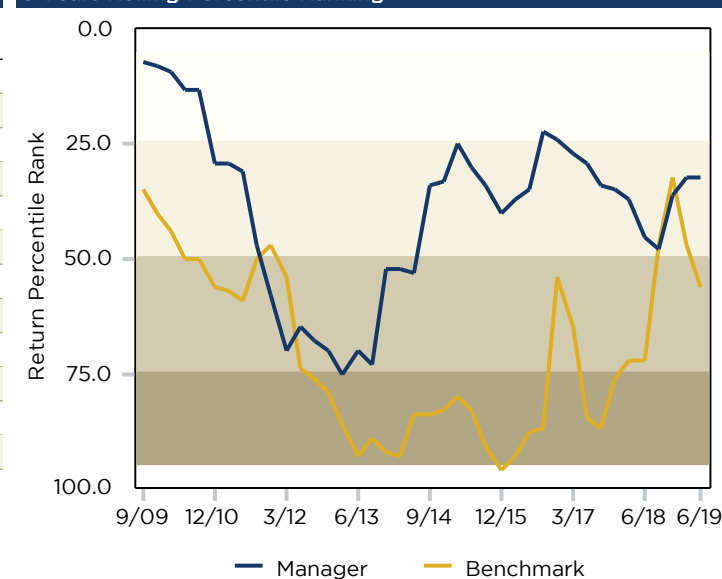
vs. Risk Free

Sharpe Ratio	0.79	0.59
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	6.0	6.9
Consumer Discretionary	16.0	11.3
Consumer Staples	5.4	9.8
Energy	6.3	7.1
Financials	20.1	21.9
Health Care	9.4	8.3
Industrials	11.7	11.9
Information Technology	11.1	8.5
Materials	9.0	7.6
Real Estate	1.6	3.3
Utilities	3.3	3.3
Total	100.0	100.0

3 Years Rolling Percentile Ranking



Country/Region Allocation

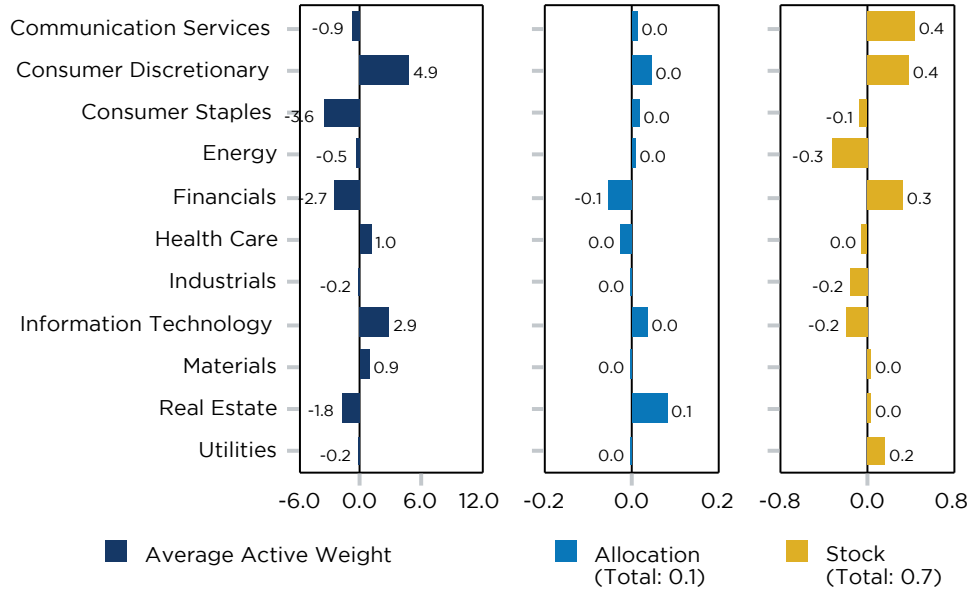
United States	0.6	0.1
Non-US Developed	68.5	76.7
Emerging Markets	29.8	22.9
Frontier Markets	0.1	0.0
Other	1.1	0.3



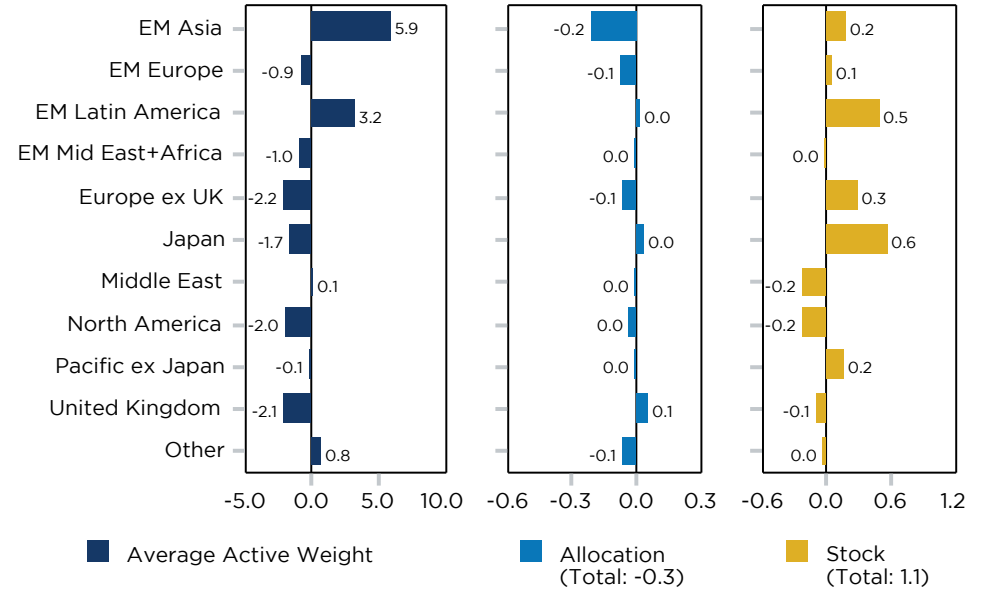
American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)
Return Date: 06/30/2019

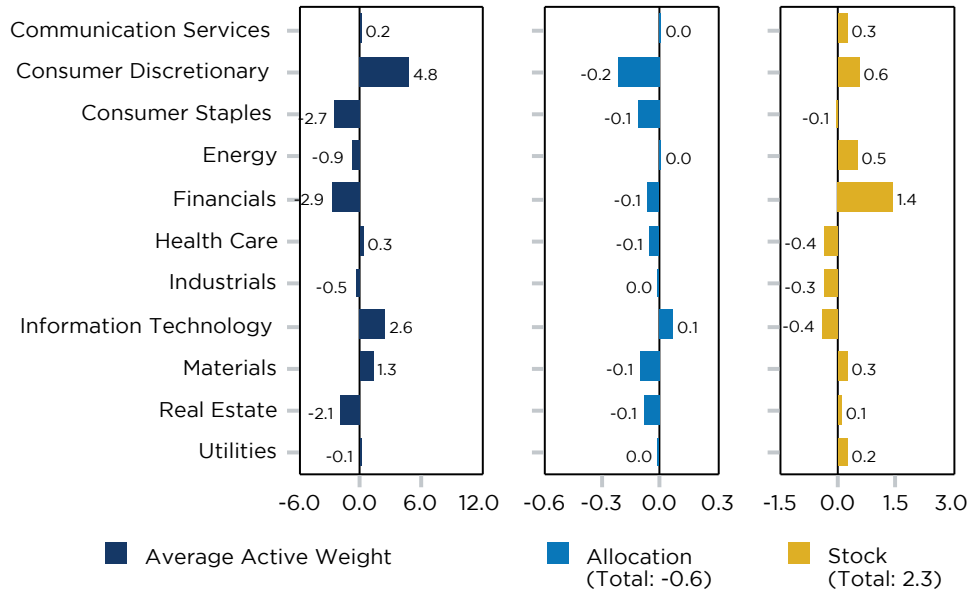
1 Quarter Sector Attribution



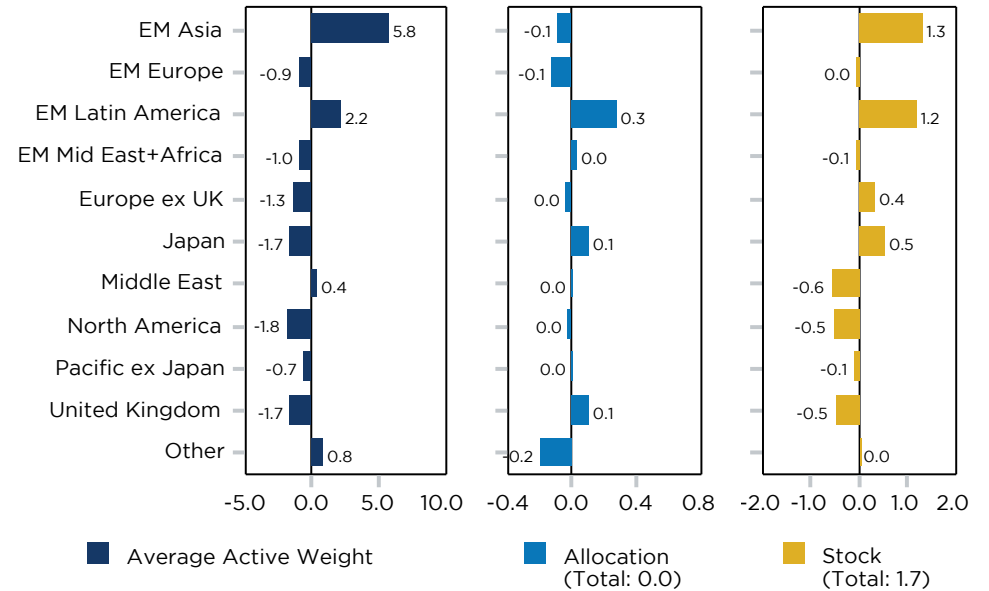
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





American Funds Europacific Growth R6 (RERGX)

Index: MSCI AC World ex USA (Net)
Return Date: 06/30/2019

Top Ten Securities

AIA Group Ltd	3.0 %
Airbus SE	2.9 %
HDFC Bank Ltd	2.5 %
Alibaba Group Holding Ltd ADR	2.4 %
Nintendo Co Ltd	2.3 %
Reliance Industries Ltd	2.2 %
Samsung Electronics Co Ltd	1.7 %
ASML Holding NV	1.6 %
Vale SA ADR	1.5 %
Tencent Holdings Ltd	1.4 %
Total	21.5 %

Asset Allocation (%)

Equity	92.9
Cash	6.9
Fixed Income	0.3

Market Capitalization (%)

Giant	64.4
Large	24.7
Medium	10.7
Small	0.2
Micro	0.0

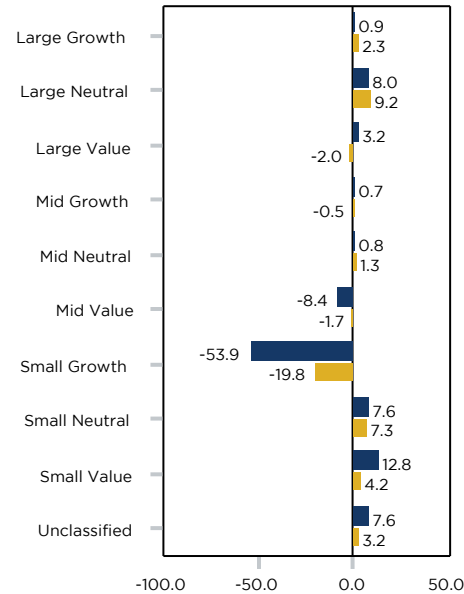
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Nintendo Co Ltd	1.84	0.16	0.43	28.64
MercadoLibre Inc	1.24	0.00	0.22	20.49
AIA Group Ltd	3.22	0.59	0.18	9.71
Adidas AG	0.86	0.22	0.17	28.78
European Aeronautic	3.03	0.38	0.15	8.73
Sony Corp	0.90	0.26	0.15	26.25
PagSeguro Digital Ltd	0.52	0.00	0.14	30.55
ASML Holding NV	1.56	0.38	0.11	12.69
Louis Vuitton Moet Hennessy	1.22	0.50	0.10	17.07
H D F C Bank Ltd	2.68	0.00	0.10	6.59

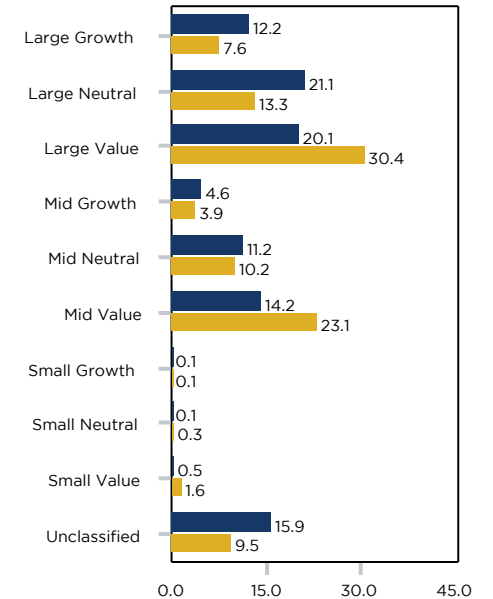
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Reliance Industries Ltd	2.76	0.28	-0.26	-7.60
Teva Pharmaceutical	0.59	0.07	-0.23	-41.14
Alibaba Group Holding Ltd	2.77	1.17	-0.16	-7.13
SK Hynix Inc	1.41	0.19	-0.13	-7.94
Ryohin Keikaku Co Ltd	0.39	0.03	-0.11	-28.65
Yamato Holdings Co	0.47	0.04	-0.10	-21.21
Glencore Plc	0.75	0.23	-0.09	-14.09
Just Eat plc	0.38	0.00	-0.08	-18.79
British American Tobacco	0.89	0.47	-0.07	-12.77
Takeda Pharmaceutical Co Ltd	0.63	0.30	-0.05	-13.07

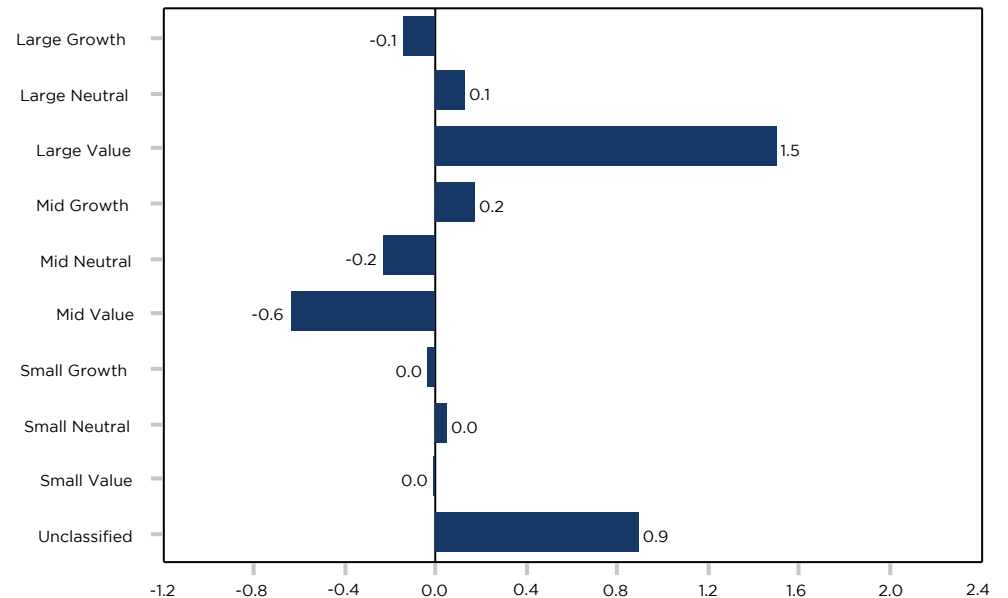
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year



Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.98 (39)	21.50 (13)	3.57 (63)	16.21 (7)	7.98 (22)	12.17 (15)	-13.19 (82)	36.49 (5)	0.22 (87)	4.13 (13)
Benchmark	4.20	17.38	6.94	12.39	7.20	11.33	-8.20	23.07	8.15	-0.32
Peer Group	3.58	16.29	4.74	10.96	5.85	10.24	-9.71	23.71	5.53	-1.35
Population	1,327	1,302	1,214	964	844	615	1,231	1,095	1,096	1,049

Fund Information

Fund Inception	05-2002
Fund Assets	1,488 Million
Portfolio Assets	1,183 Million
Total # of Holdings	74
% Assets in Top 10 Holdings	35.2 %
PM	Delano, J
PM Tenure	2 Years 3 Months
Turnover	17.0 %
Gross Expense (%)	0.8 %
Net Expense (%)	0.8 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	59,605 (Million)
Price/Earnings	19
Price/Book	3
Dividend Yield	1.8 %

Top Holdings (%)

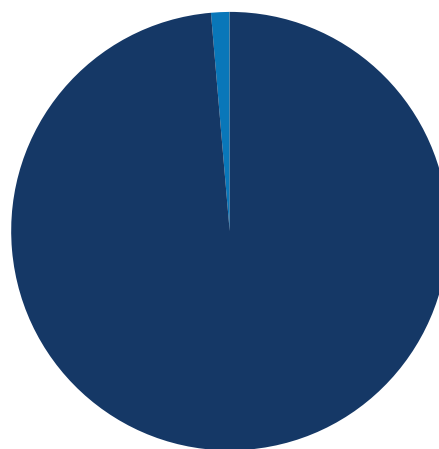
Alphabet Inc A	6.0
LVMH Moet Hennessy Louis Vuitton	4.2
Airbus SE	4.2
Facebook Inc A	3.3
Intuit Inc	3.2
Adobe Inc	3.2
S&P Global Inc	3.1
SAP SE	3.0
Anthem Inc	2.6
Kering SA	2.4

Fund Statistics

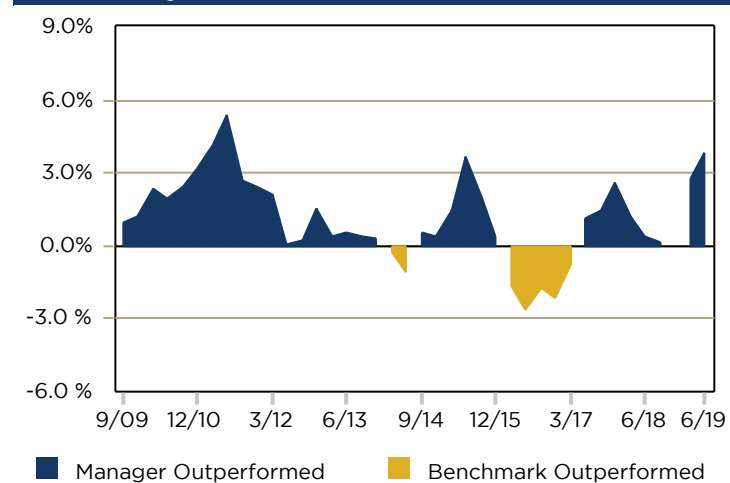
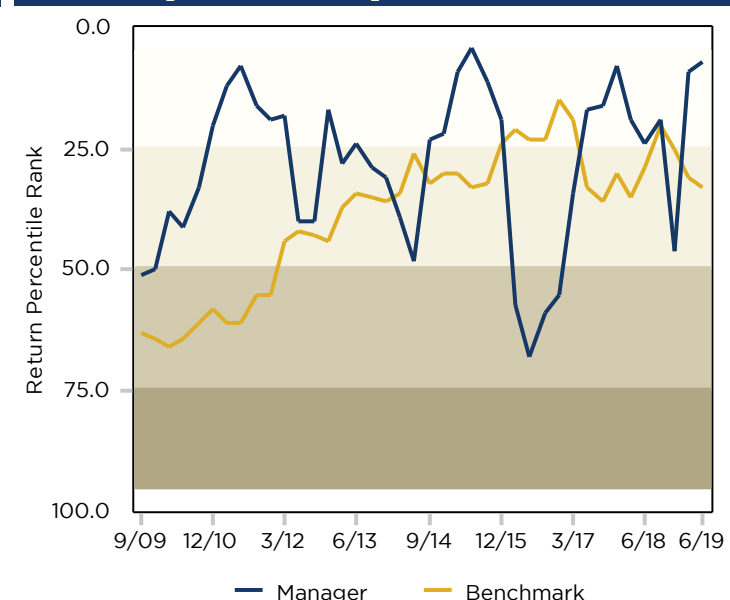
	3 Years	10 Years
Standard Deviation	14.02	15.41
vs. MSCI World Index		
Beta	1.22	1.13
Alpha	1.07	-0.46
Information Ratio	0.87	0.26
Tracking Error	4.29	4.04
R-Squared	0.94	0.94
Up Market Capture	124.49	112.55
Down Market Capture	117.09	115.63
Consistency	58.33	55.00

vs. Risk Free

Sharpe Ratio	1.05	0.80
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Asset Allocation


■ Equity ■ Cash
■ Fixed Income

3 Years Rolling Excess Performance

3 Years Rolling Percentile Ranking




Oppenheimer Developing Markets I (ODVIX)

Index: MSCI Emerging Markets (Net) Index

Category: Diversified Emerging Mkts

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.86 (23)	15.65 (18)	3.14 (30)	12.57 (8)	2.89 (29)	8.29 (4)	-11.79 (8)	35.33 (54)	7.38 (60)	-13.67 (46)
Benchmark	0.61	10.59	1.21	10.66	2.49	5.81	-14.58	37.28	11.19	-14.92
Peer Group	1.46	12.05	0.98	9.49	2.10	5.73	-16.32	35.93	8.87	-14.01
Population	1,196	1,176	1,103	926	794	456	1,116	1,043	1,079	1,009

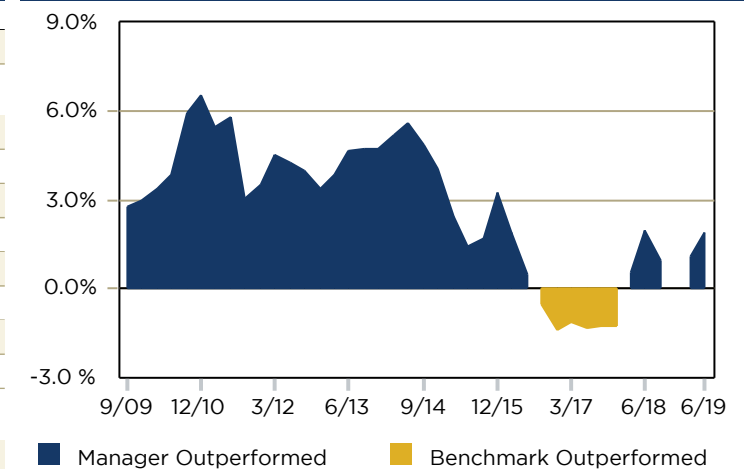
Fund Information

Fund Inception	12/29/2011
Fund Assets	41,628 Million
Portfolio Assets	16,785 Million
Total # of Holdings	93
% in Top 10	39.77 %
PM	Leverenz, J
PM Tenure	12 Years 1 Month
Turnover	36.00 %
Gross Expense (%)	0.85 %
Net Expense (%)	0.85 %
New Investors	Closed

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.17	16.57
vs. MSCI Emerging Markets (Net) Index		
Beta	0.93	0.92
Alpha	2.48	2.83
Information Ratio	0.46	0.46
Tracking Error	3.61	4.72
R-Squared	0.93	0.93
Up Market Capture	99.38	97.08
Down Market Capture	86.84	84.96
Consistency	44.44	53.33

3 Years Rolling Excess Performance



Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	93,951	81,469
Median Mkt. Cap (\$M)	11,371	5,440
Price/Earnings ratio	21.9	12.0
Price/Book ratio	3.3	2.3
5 Yr. EPS Growth Rate (%)	15.5	14.0
Current Yield (%)	1.7	3.0
Beta (5 Years, Monthly)	0.89	1.00
Number of Stocks	88	1,194
Debt to Equity	0.9	0.9
Forecast P/E	12.2	11.6
Forecast EPS Growth	17.2	15.5
Return on Equity	0.0	0.0

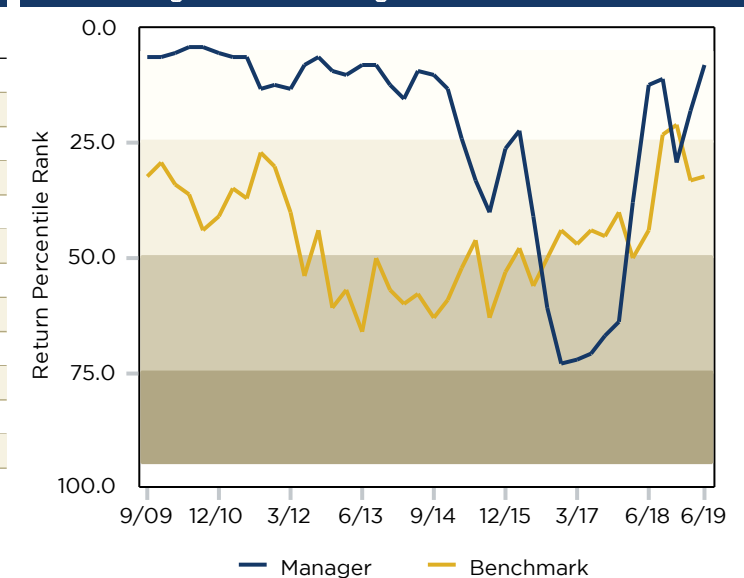
vs. Risk Free

Sharpe Ratio	0.86	0.54
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Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)
Communication Services	5.7	11.7
Consumer Discretionary	28.0	13.4
Consumer Staples	8.4	6.6
Energy	6.5	7.9
Financials	26.6	25.2
Health Care	3.9	2.6
Industrials	4.7	5.3
Information Technology	6.3	13.9
Materials	7.5	7.6
Real Estate	2.2	3.0
Utilities	0.0	2.7
Total	100.0	100.0

3 Years Rolling Percentile Ranking

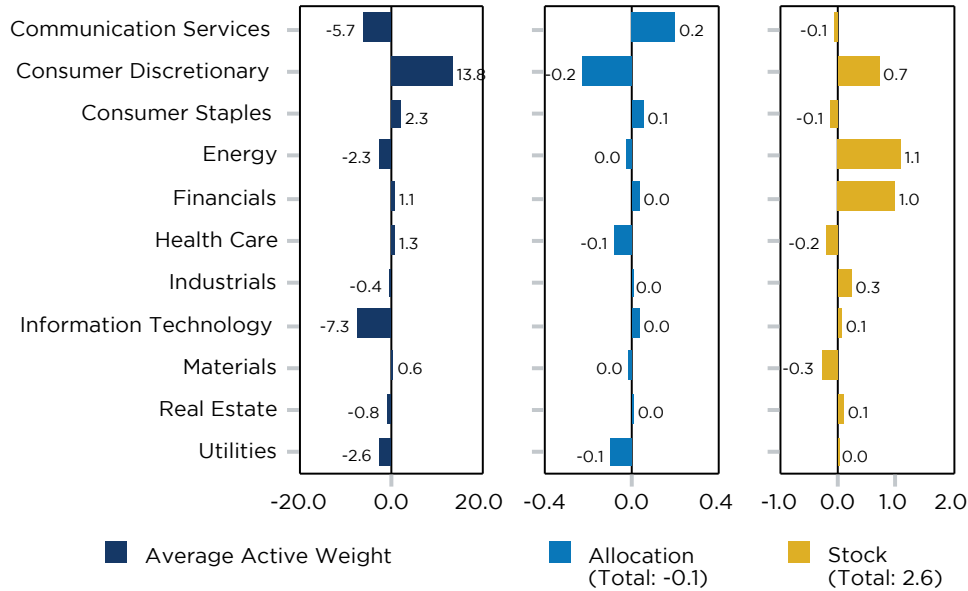


Country/Region Allocation

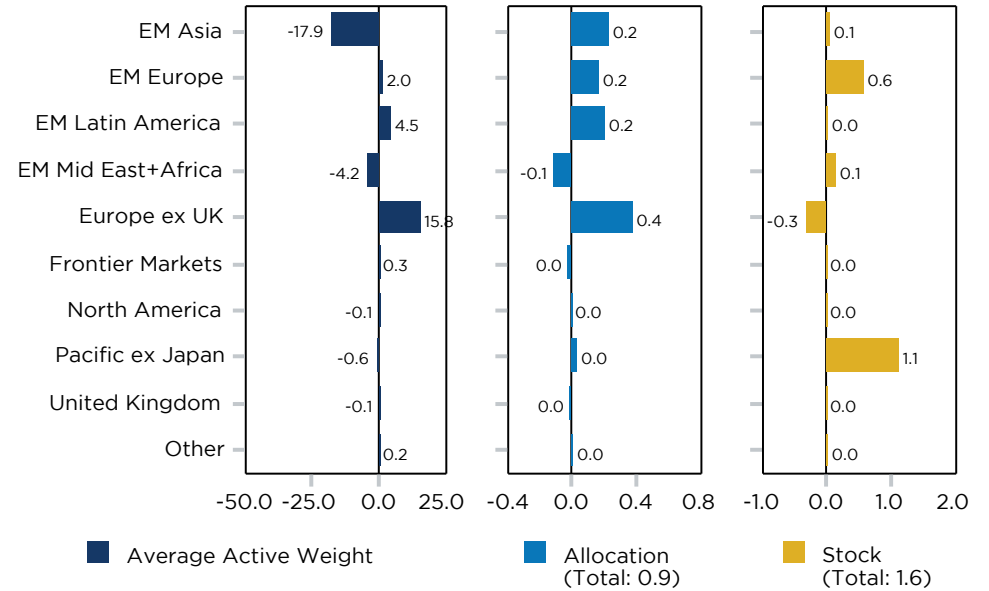
United States	0.0	0.1
Non-US Developed	30.7	13.3
Emerging Markets	68.7	86.5
Frontier Markets	0.3	0.0
Other	0.3	0.2



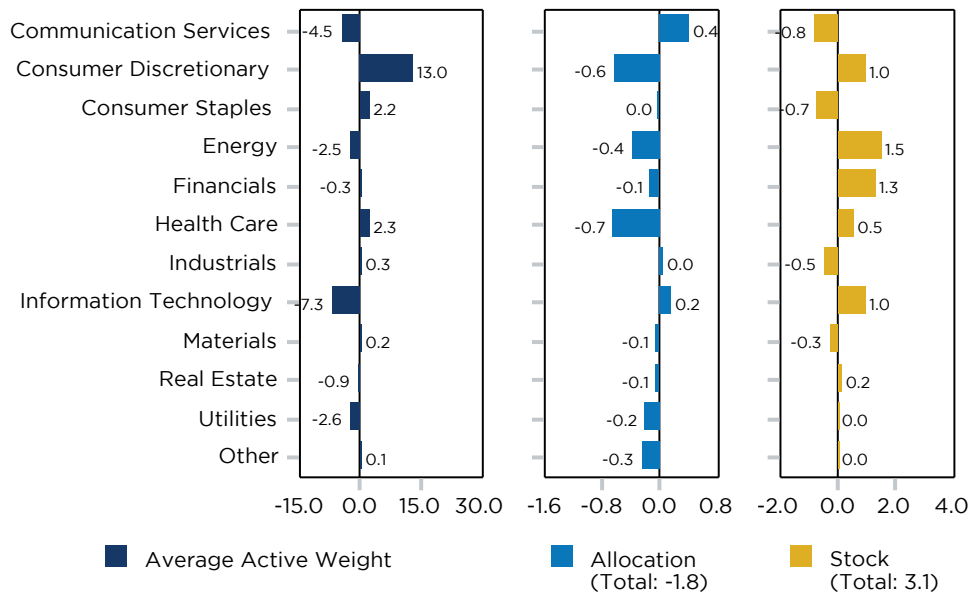
1 Quarter Sector Attribution



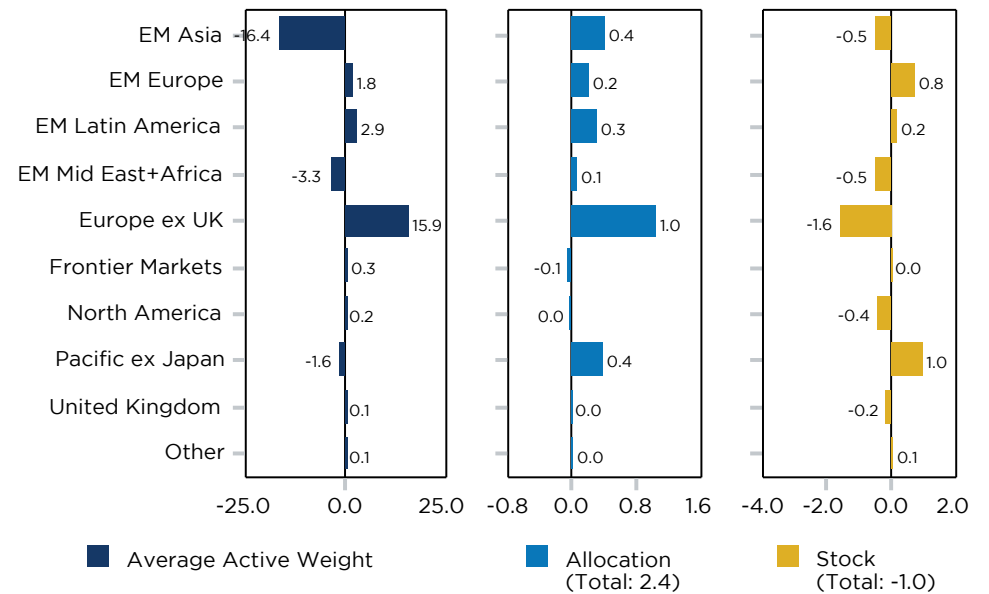
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution





Oppenheimer Developing Markets I (ODVIX)

Index: MSCI Emerging Markets (Net) Index
Return Date : 06/30/2019

Top Ten Securities

Alibaba Group Holding Ltd ADR	6.7 %
Master China Series 1	4.7 %
NOVATEK PJSC GDR	4.6 %
Kering SA	4.1 %
Housing Development Finance Corp	3.7 %
Taiwan Semiconductor Manufacturing	3.6 %
Kotak Mahindra Bank Ltd	3.2 %
AIA Group Ltd	3.1 %
Tencent Holdings Ltd	3.1 %
Glencore PLC	3.0 %
Total	39.8 %

Asset Allocation (%)

Equity	91.0
Cash	4.3
Fixed Income	0.0

Market Capitalization (%)

Giant	63.6
Large	28.7
Medium	7.3
Small	0.4
Micro	0.0

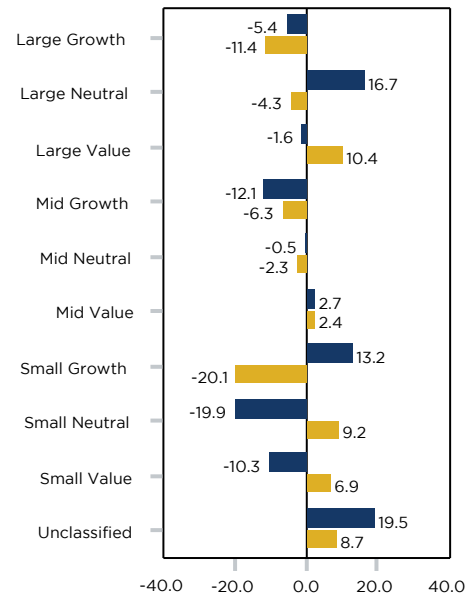
Top Ten Contributors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Novatek JSC	4.08	0.29	1.15	31.00
Meituan Dianping	1.99	0.04	0.58	30.14
Louis Vuitton Moet Hennessy	2.31	0.00	0.38	17.07
Kotak Mahindra Bank Ltd	3.49	0.00	0.37	11.26
HDFC	3.98	0.88	0.35	11.96
AIA Group Ltd	3.34	0.00	0.30	9.71
MercadoLibre Inc	1.33	0.00	0.26	20.49
B3 S.A.-Brasil Bolsa Balcao	1.52	0.32	0.22	19.28
Firstrand Ltd	1.64	0.28	0.18	13.51
Sberbank of Russia OJSC	1.05	0.67	0.09	23.48

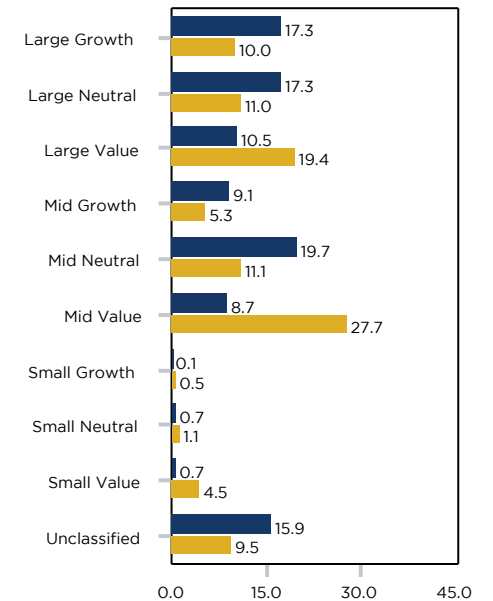
Top Ten Detractors

	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Glencore Plc	4.01	0.00	-0.59	-14.09
Huazhu Group Ltd	2.90	0.10	-0.41	-13.98
Zee Entertainment Ent	1.21	0.06	-0.28	-23.59
Alibaba Group Holding Ltd	7.37	4.46	-0.22	-7.13
Sinopharm Group Co	1.37	0.09	-0.21	-15.48
alabella	1.16	0.11	-0.13	-11.52
Lg Household & Health Care Ltd	1.40	0.22	-0.11	-8.93
Biocon Ltd	0.59	0.00	-0.11	-17.50
Amorepacific Corp	0.66	0.10	-0.08	-14.23
Hutchison China MediTech Ltd	0.31	0.03	-0.08	-28.06

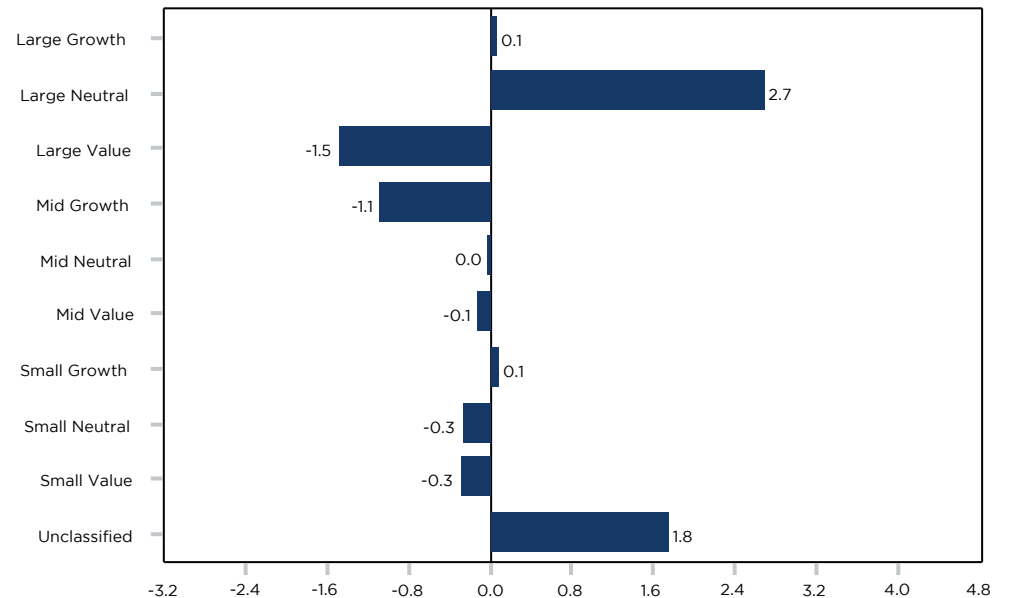
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	1.76 (56)	19.35 (29)	12.26 (29)	4.05 (51)	7.71 (37)	15.49 (21)	-5.93 (58)	4.93 (60)	8.51 (17)	2.45 (65)
Benchmark	1.76	19.34	12.20	4.12	7.80	15.54	-5.88	5.07	8.60	2.52
Peer Group	1.97	18.53	10.58	4.05	7.35	14.75	-5.41	5.37	6.31	3.09
Population	388	380	371	330	311	262	370	370	387	372

Fund Information

Fund Inception	12/02/2003
Fund Assets	66,674 Million
Portfolio Assets	9,029 Million
Total # of Holdings	191
% in Top 10	41.79 %
PM	Nejman,W/O'Reilly,G
PM Tenure	23 Years 1 Month
Turnover	24.00 %
Gross Expense (%)	0.10 %
Net Expense (%)	0.10 %
New Investors	Open

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	26,001	19,171
Median Mkt. Cap (\$M)	2,777	3,285
Price/Earnings ratio	33.4	30.6
Price/Book ratio	2.8	2.5
5 Yr. EPS Growth Rate (%)	20.3	21.5
Current Yield (%)	3.6	4.0
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	187	151
Debt to Equity	1.6	1.4
Forecast P/E	38.9	38.7
Forecast EPS Growth	8.3	5.8
Return on Equity	0.0	0.0

Country/Region Allocation

United States	99.9	100.0
Non-US Developed	0.0	0.0
Other	0.0	0.0
Total	100.0	100.0

Fund Statistics

	3 Years	10 Years
Standard Deviation	13.00	16.35
vs. MSCI U.S. REIT Index		
Beta	0.99	1.00
Alpha	-0.06	-0.03
Information Ratio	-0.12	-0.13
Tracking Error	0.80	0.44
R-Squared	1.00	1.00
Up Market Capture	99.06	99.76
Down Market Capture	99.38	99.89
Consistency	44.44	46.67

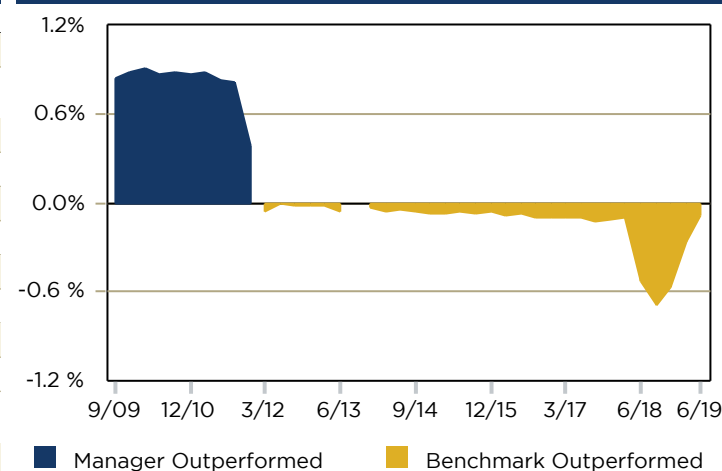
vs. Risk Free

Sharpe Ratio	0.27	0.94
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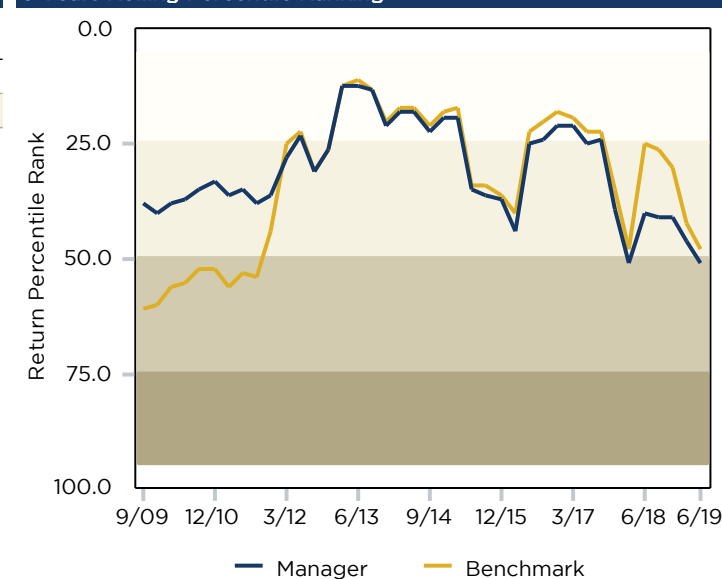
Sector Allocation

Sector	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)
Real Estate	100.0	100.0	0.0
Total	100.0	100.0	0.0

3 Years Rolling Excess Performance

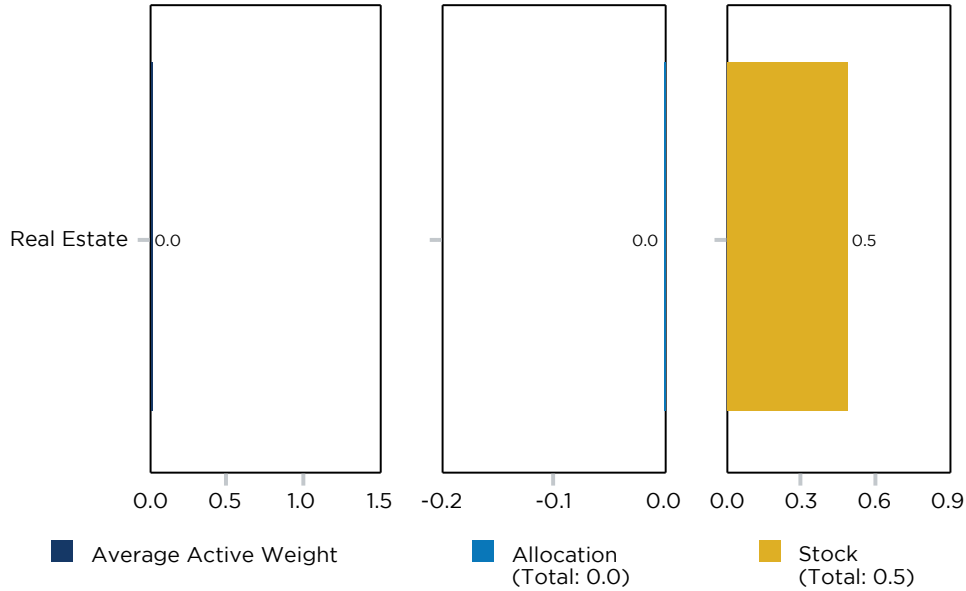


3 Years Rolling Percentile Ranking

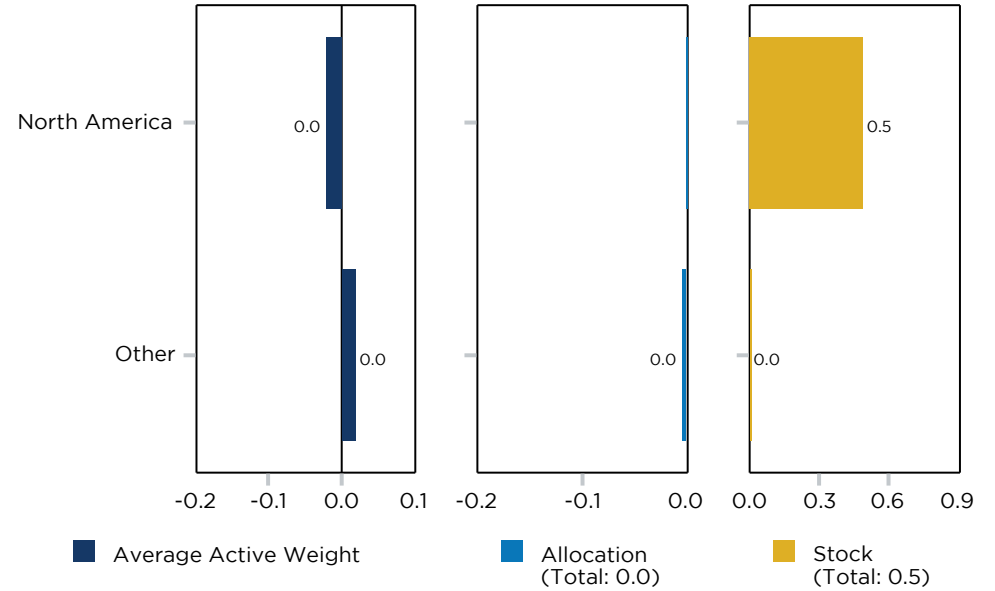




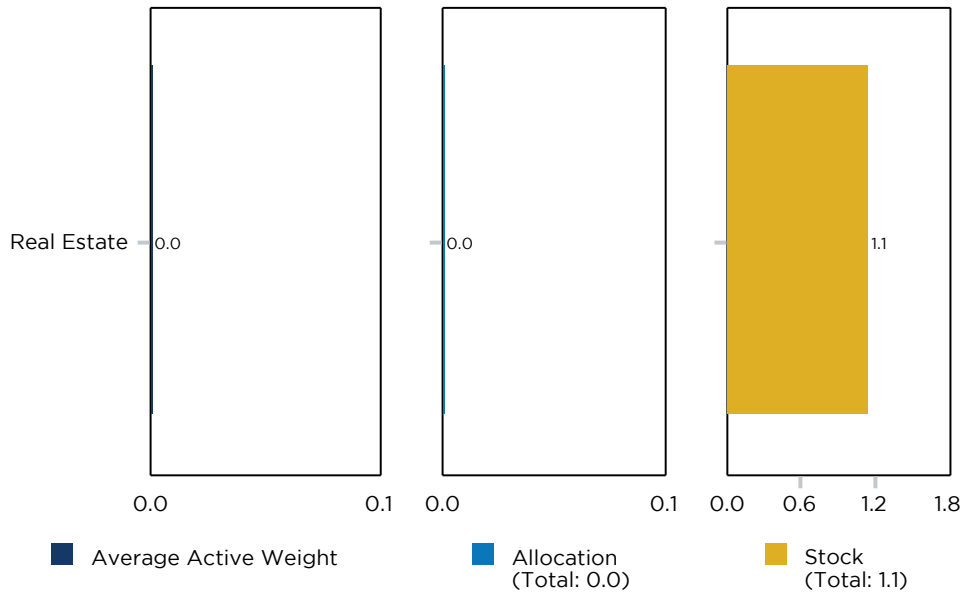
1 Quarter Sector Attribution



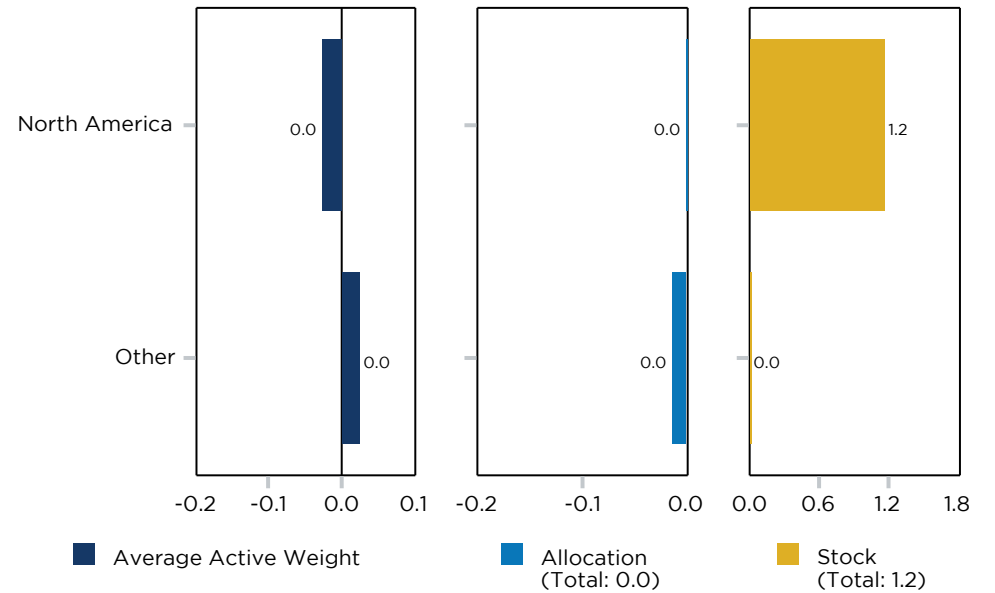
1 Quarter Region Attribution



1 Year Sector Attribution



1 Year Region Attribution



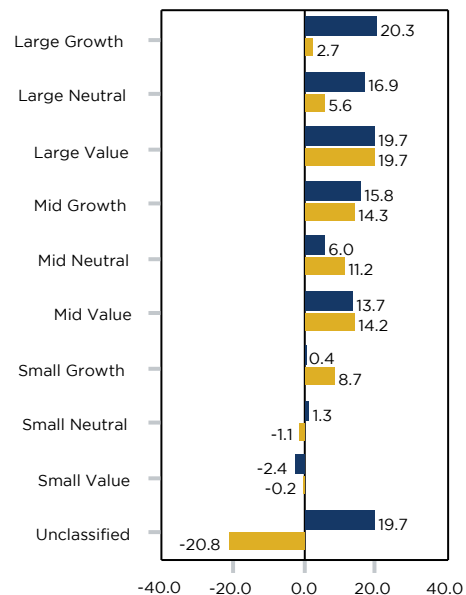


Top Ten Securities		Asset Allocation (%)	
Vanguard Real Estate II Index	11.1 %	Equity	98.5
American Tower Corp	6.8 %	Cash	1.5
Crown Castle International Corp	4.1 %	Fixed Income	0.0
Prologis Inc	3.8 %		
Simon Property Group Inc	3.7 %		
Equinix Inc	3.0 %	Market Capitalization (%)	
Public Storage	2.8 %	Giant	7.7
Welltower Inc	2.4 %	Large	38.8
AvalonBay Communities Inc	2.1 %	Medium	40.8
Equity Residential	2.1 %	Small	11.7
Total	41.8 %	Micro	0.9

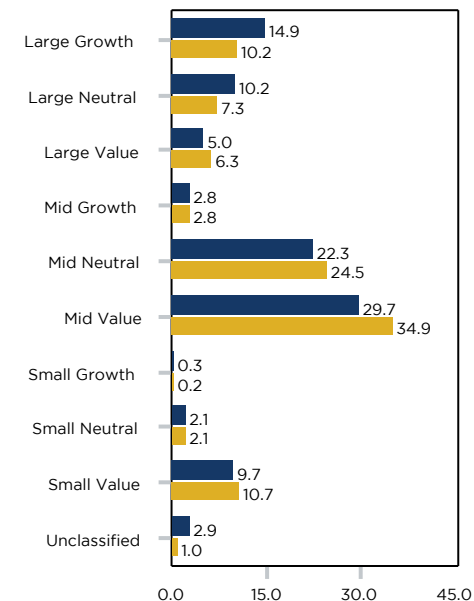
Top Ten Contributors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
American Tower Corp	7.57	0.00	0.26	4.67
SBA Communications Corp	1.97	0.00	0.22	12.61
Crown Castle International Corp	4.63	0.00	0.07	2.70
Sun Communities Inc.	0.89	1.12	-0.02	8.80
Mid-America Apartment Communities Inc	1.08	1.36	-0.02	8.65
Welltower Inc	2.54	3.19	-0.03	6.24
Ventas Inc.	1.98	2.49	-0.04	8.36
Public Storage	2.98	3.74	-0.07	10.27
Equinix Inc	3.18	3.99	-0.09	11.85
Prologis Inc	3.95	4.96	-0.11	12.08

Top Ten Detractors				
	Portfolio Weight (%)	Benchmark Weight (%)	Contrib. to Rel. Rtn. (%)	Quarterly Return (%)
Jones Lang LaSalle Inc	0.61	0.00	-0.06	-8.46
Park Hotels & Resorts Inc	0.55	0.69	0.02	-9.87
Taubman Centers Inc.	0.28	0.35	0.02	-21.60
SL Green Realty Corp.	0.67	0.84	0.02	-9.67
Boston Properties Inc	1.81	2.27	0.02	-2.93
Senior Housing Properties Trust	0.24	0.31	0.02	-28.50
Macerich Co (The)	0.40	0.50	0.02	-21.31
Iron Mountain Inc	0.84	1.06	0.02	-10.03
Realty Income Corp.	1.89	2.38	0.03	-5.32
Simon Property Group Inc.	4.92	6.18	0.16	-11.30

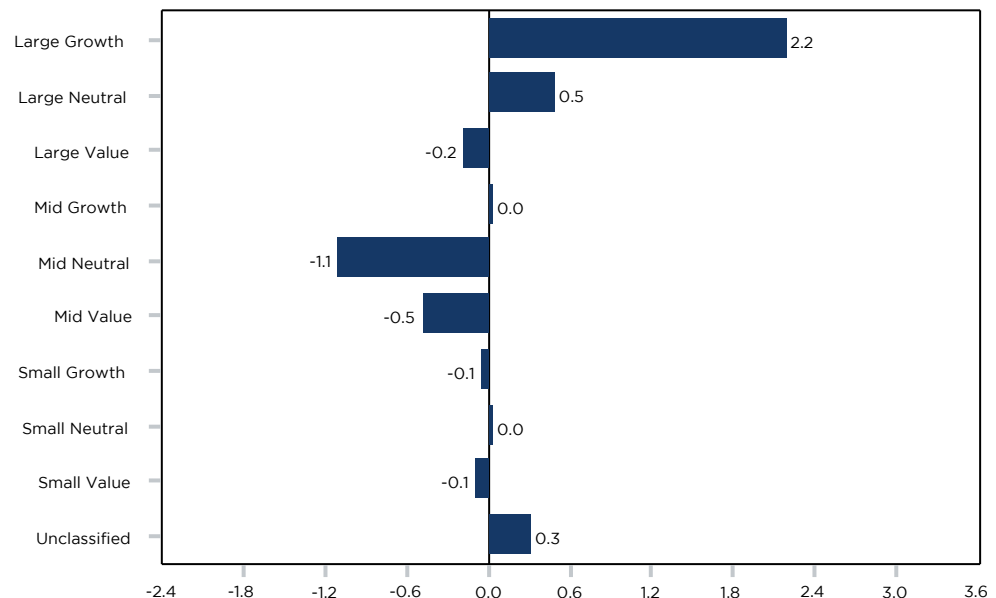
Performance | 1 Year



Allocation | 1 Year



Total Attribution | 1 Year





VY® T. Rowe Price Capital Apprec I (ITRIX)

Index: 40% BBg US Agg | 60% SP500
 Category: Allocation--50% to 70% Equity
 Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	4.92 (2)	17.44 (2)	15.26 (1)	11.98 (2)	10.37 (1)	13.03 (1)	0.74 (1)	15.39 (27)	8.31 (26)	5.47 (1)
Benchmark	3.96	13.64	9.87	9.51	7.75	10.50	-2.35	14.21	8.31	1.28
Peer Group	3.04	12.11	5.66	7.90	5.22	9.01	-5.67	14.21	6.81	-1.14
Population	1,595	1,529	1,381	1,135	1,047	797	1,406	1,235	1,279	1,231

Fund Information

Fund Inception	05-2003
Fund Assets	7,151 Million
Portfolio Assets	1,570 Million
Total # of Holdings	316
% Assets in Top 10 Holdings	26.8 %
PM	Giroux,D
PM Tenure	12 Years 11 Months
Turnover	75.0 %
Gross Expense (%)	0.6 %
Net Expense (%)	0.6 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	69,219 (Million)
Price/Earnings	24
Price/Book	4
Dividend Yield	1.2 %

Top Holdings (%)

Microsoft Corp	3.4
PerkinElmer Inc	3.1
Danaher Corp	3.0
Fiserv Inc	2.9
Visa Inc Class A	2.6
Marsh & McLennan Companies Inc	2.5
General Electric Co	2.4
Becton, Dickinson and Co	2.4
United States Treasury Notes 2.5%	2.3
Texas Instruments Inc	2.2

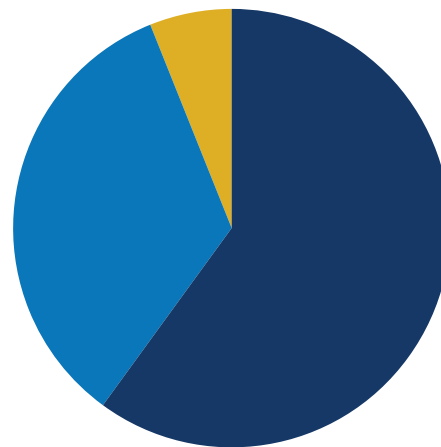
Fund Statistics

	3 Years	10 Years
Standard Deviation	7.47	8.59
vs. 40% BBg US Agg 60% SP500		
Beta	1.00	1.11
Alpha	2.28	1.29
Information Ratio	1.19	1.03
Tracking Error	1.91	2.31
R-Squared	0.93	0.94
Up Market Capture	108.47	115.09
Down Market Capture	83.19	101.67
Consistency	66.67	62.50

vs. Risk Free

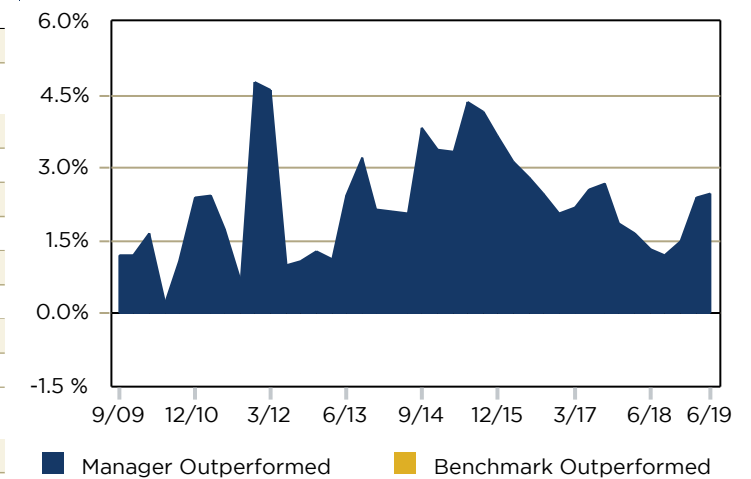
Sharpe Ratio	1.38	1.42
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Asset Allocation

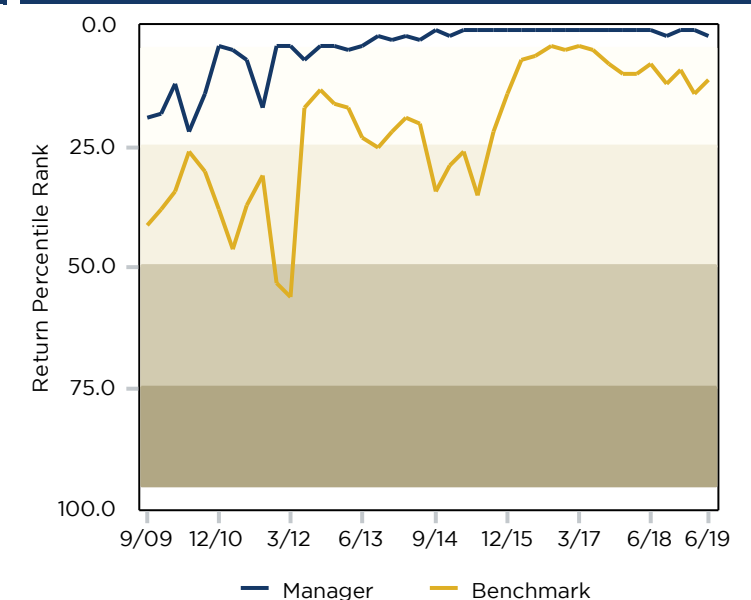


■ Equity ■ Fixed Income
 ■ Cash

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement Income Inv (VTINX)

Index: Vanguard Target Income Composite Index

Category: Target-Date Retirement

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	2.97 (34)	8.63 (56)	6.54 (25)	5.24 (45)	4.18 (21)	6.36 (33)	-1.99 (15)	8.47 (59)	5.25 (51)	-0.17 (12)
Benchmark	3.04	8.81	6.69	5.42	4.35	6.50	-1.97	8.68	5.35	0.13
Peer Group	2.81	8.76	5.88	5.12	3.62	5.88	-3.35	8.85	5.26	-1.12
Population	479	472	435	386	294	226	458	447	453	407

Fund Information

Fund Inception	10-2003
Fund Assets	16,765 Million
Portfolio Assets	16,765 Million
Total # of Holdings	6
% Assets in Top 10 Holdings	99.9 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	6.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	43,023 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Bond Market II Idx	37.1
Vanguard Total Stock Mkt Idx Inv	18.3
Vanguard Shrt-Term Infl-Prot Sec	16.6
Vanguard Total Intl Bd Idx Investor	15.9
Vanguard Total Intl Stock Index	12.1

Top Countries (%)

United States	69.7
Japan	5.5
United Kingdom	2.9
France	2.8
Germany	2.4

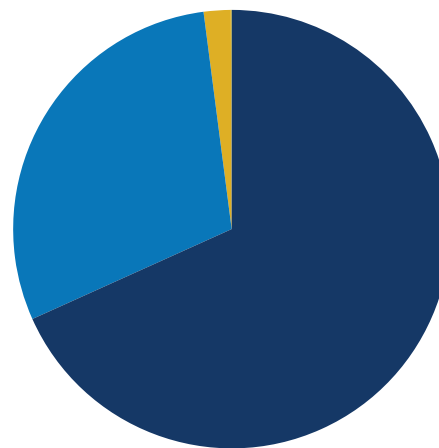
Fund Statistics

	3 Years	10 Years
Standard Deviation	3.73	4.22
vs. Vanguard Target Income Composite Index		
Beta	0.99	1.00
Alpha	-0.13	-0.10
Information Ratio	-0.86	-0.54
Tracking Error	0.20	0.24
R-Squared	1.00	1.00
Up Market Capture	98.29	98.80
Down Market Capture	101.03	100.48
Consistency	41.67	45.83

vs. Risk Free

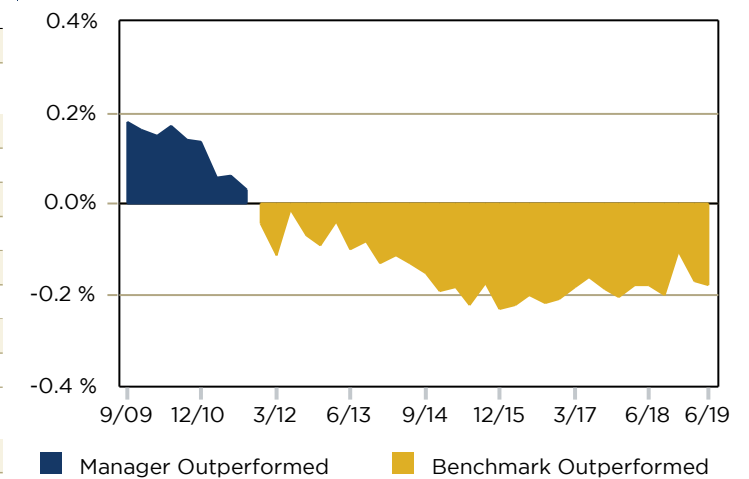
Sharpe Ratio	1.03	1.37
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Asset Allocation

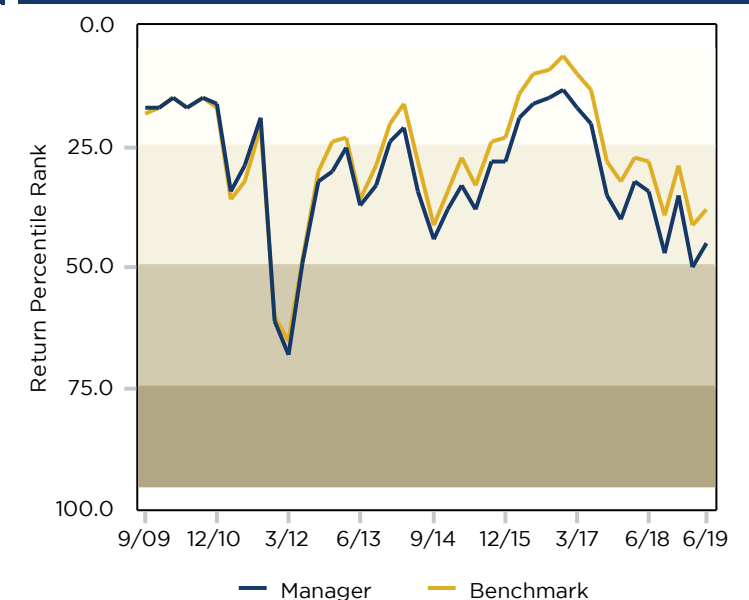


■ Fixed Income ■ Equity
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2015 Inv (VTXVX)

Index: Vanguard Target 2015 Composite Index

Category: Target-Date 2015

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.05 (36)	9.74 (61)	6.48 (32)	6.66 (44)	4.89 (36)	8.33 (37)	-2.97 (17)	11.50 (48)	6.16 (62)	-0.46 (26)
Benchmark	3.14	9.88	6.65	6.86	5.09	8.46	-2.87	11.61	6.40	-0.22
Peer Group	2.94	9.92	5.91	6.38	4.48	8.13	-3.82	11.43	6.46	-0.91
Population	294	293	280	246	213	156	290	296	321	309

Fund Information

Fund Inception	10-2003
Fund Assets	15,775 Million
Portfolio Assets	15,775 Million
Total # of Holdings	6
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	7.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,868 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Bond Market II Idx	33.9
Vanguard Total Stock Mkt Idx Inv	23.1
Vanguard Total Intl Stock Index	15.4
Vanguard Total Intl Bd Idx Investor	14.6
Vanguard Shrt-Term Infl-Prot Sec	13.0

Top Countries (%)

United States	67.9
Japan	5.8
United Kingdom	3.2
France	2.8
Germany	2.5

Fund Statistics

	3 Years	10 Years
Standard Deviation	4.75	6.94

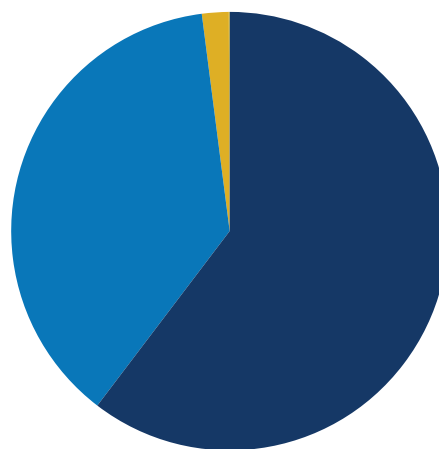
vs. Vanguard Target 2015 Composite Index

Beta	0.99	1.00
Alpha	-0.15	-0.09
Information Ratio	-0.82	-0.38
Tracking Error	0.23	0.33
R-Squared	1.00	1.00
Up Market Capture	98.20	98.93
Down Market Capture	100.06	99.53
Consistency	38.89	45.00

vs. Risk Free

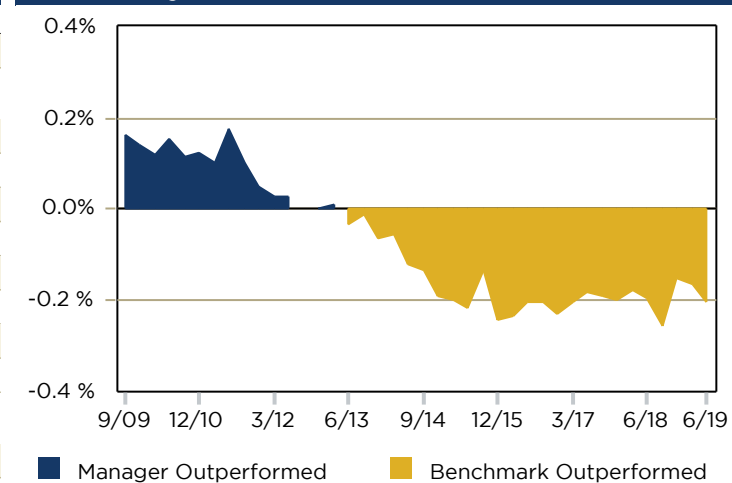
Sharpe Ratio	1.10	1.12
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Asset Allocation

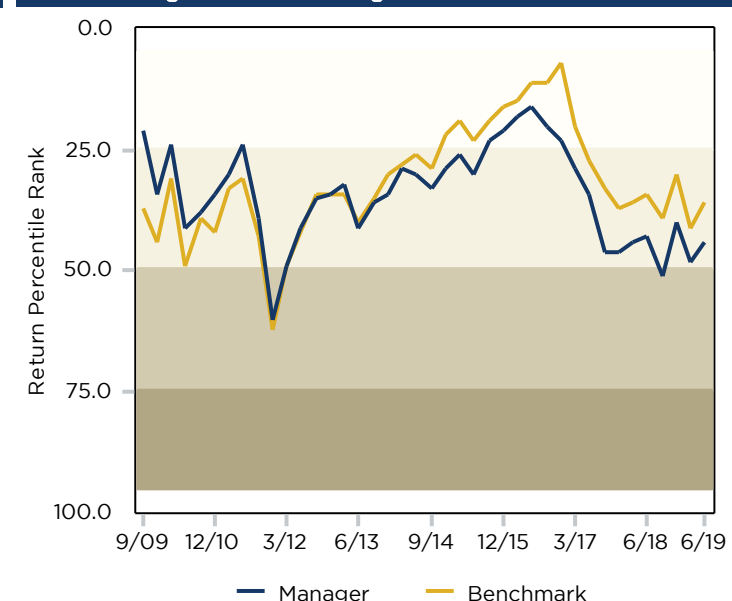


■ Fixed Income ■ Equity
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2020 Inv (VTWNX)

Index: Vanguard Target 2020 Composite Index

Category: Target-Date 2020

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.21 (28)	11.28 (30)	6.50 (27)	7.81 (23)	5.54 (13)	9.15 (21)	-4.24 (45)	14.08 (19)	6.95 (35)	-0.68 (37)
Benchmark	3.31	11.45	6.71	8.05	5.75	9.38	-4.13	14.22	7.17	-0.40
Peer Group	3.06	10.60	5.96	6.91	4.65	8.55	-4.39	12.68	6.52	-1.13
Population	514	512	497	451	388	266	507	515	519	492

Fund Information

Fund Inception	06-2006
Fund Assets	32,892 Million
Portfolio Assets	32,892 Million
Total # of Holdings	6
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	10.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,896 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	31.3
Vanguard Total Bond Market II Idx	28.9
Vanguard Total Intl Stock Index	20.9
Vanguard Total Intl Bd Idx Investor	12.4
Vanguard Shrt-Term Infl-Prot Sec	6.5

Top Countries (%)

United States	65.1
Japan	6.2
United Kingdom	3.6
France	2.9
Canada	2.6

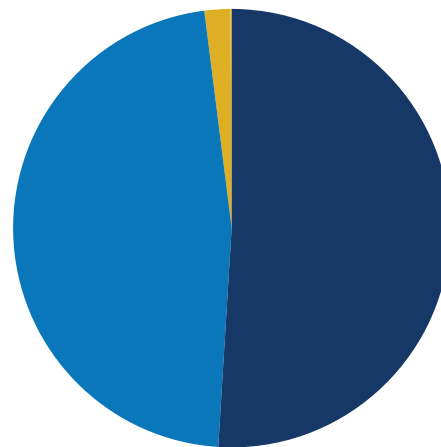
Fund Statistics

	3 Years	10 Years
Standard Deviation	6.13	8.13
vs. Vanguard Target 2020 Composite Index		
Beta	1.00	1.00
Alpha	-0.21	-0.22
Information Ratio	-0.88	-0.58
Tracking Error	0.25	0.36
R-Squared	1.00	1.00
Up Market Capture	98.37	98.95
Down Market Capture	100.25	100.60
Consistency	38.89	37.50

vs. Risk Free

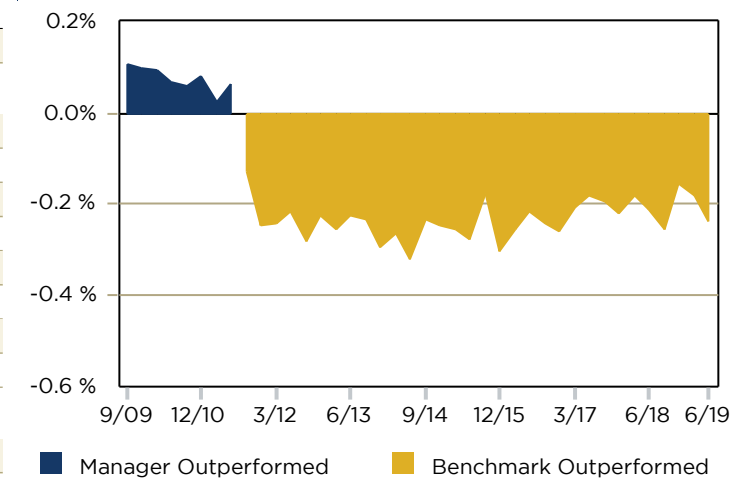
Sharpe Ratio	1.04	1.06
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Asset Allocation

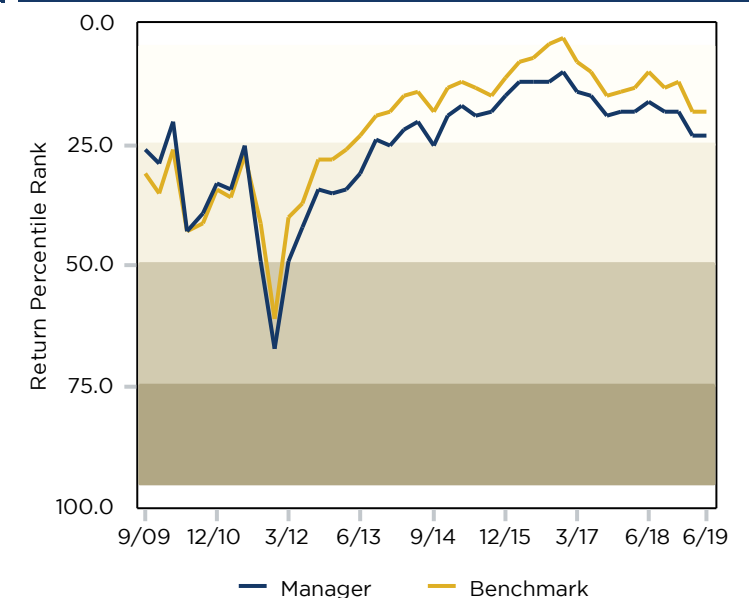


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2025 Inv (VTVX)

Index: Vanguard Target 2025 Composite Index

Category: Target-Date 2025

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.35 (25)	12.46 (29)	6.61 (18)	8.69 (24)	5.94 (11)	9.79 (29)	-5.15 (45)	15.94 (22)	7.48 (34)	-0.85 (38)
Benchmark	3.45	12.62	6.79	8.94	6.15	10.02	-5.00	16.08	7.67	-0.58
Peer Group	3.17	11.88	5.98	7.85	5.22	9.38	-5.37	14.88	7.12	-1.19
Population	510	508	491	427	345	224	498	490	494	436

Fund Information

Fund Inception	10-2003
Fund Assets	43,560 Million
Portfolio Assets	43,560 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	8.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	43,005 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	37.3
Vanguard Total Bond Market II Idx	26.7
Vanguard Total Intl Stock Index	24.6
Vanguard Total Intl Bd Idx Investor	11.4

Top Countries (%)

United States	62.6
Japan	6.6
United Kingdom	3.9
France	3.0
Canada	2.7

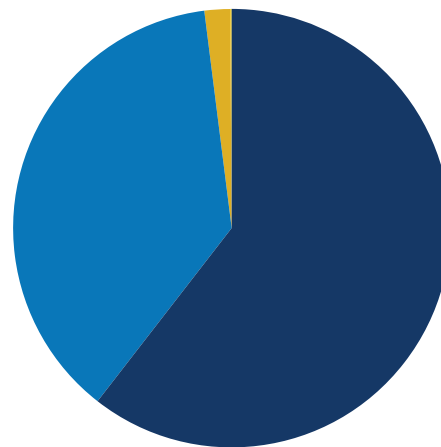
Fund Statistics

	3 Years	10 Years
Standard Deviation	7.12	9.17
vs. Vanguard Target 2025 Composite Index		
Beta	1.00	1.00
Alpha	-0.23	-0.23
Information Ratio	-0.76	-0.50
Tracking Error	0.30	0.41
R-Squared	1.00	1.00
Up Market Capture	98.80	99.16
Down Market Capture	100.89	100.73
Consistency	47.22	43.33

vs. Risk Free

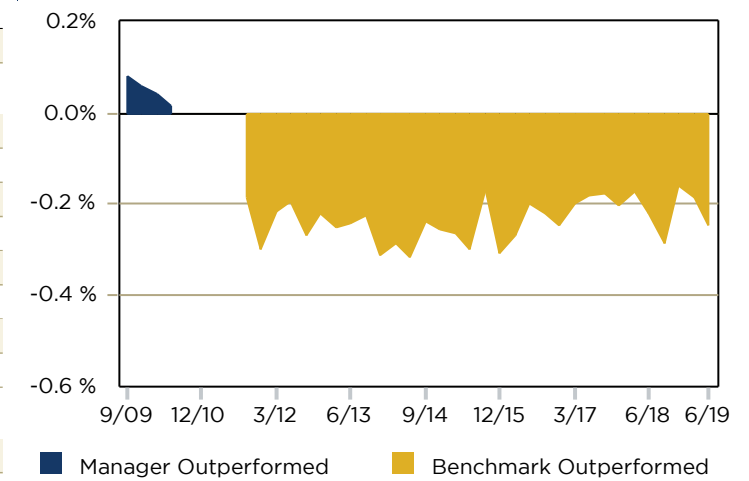
Sharpe Ratio	1.02	1.02
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Asset Allocation

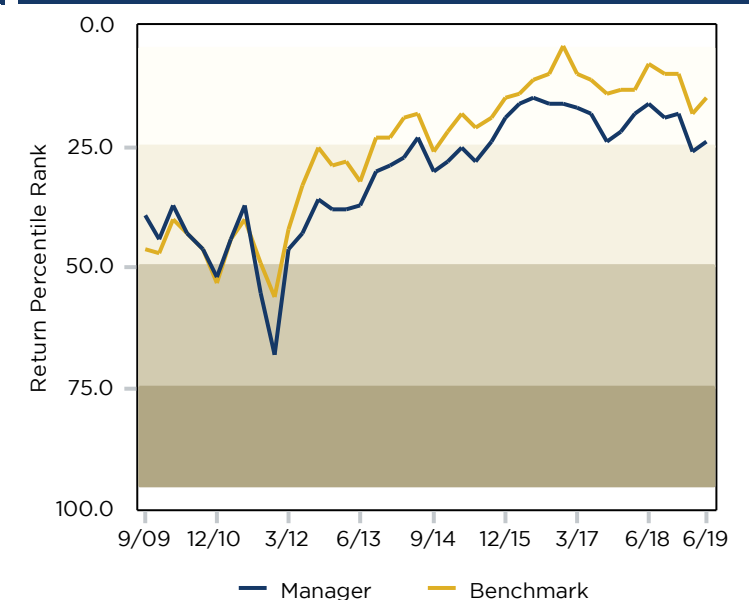


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2030 Inv (VTHR)

Index: Vanguard Target 2030 Composite Index

Category: Target-Date 2030

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.41 (31)	13.27 (40)	6.42 (26)	9.39 (30)	6.22 (23)	10.35 (31)	-5.86 (38)	17.52 (33)	7.85 (41)	-1.03 (42)
Benchmark	3.48	13.40	6.60	9.66	6.44	10.59	-5.72	17.66	8.11	-0.79
Peer Group	3.24	13.06	5.92	8.73	5.64	9.95	-6.24	16.75	7.60	-1.32
Population	502	500	485	439	375	256	494	504	507	480

Fund Information

Fund Inception	06-2006
Fund Assets	38,692 Million
Portfolio Assets	38,692 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	9.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,988 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	41.6
Vanguard Total Intl Stock Index	27.5
Vanguard Total Bond Market II Idx	21.7
Vanguard Total Intl Bd Idx Investor	9.1

Top Countries (%)

United States	62.3
Japan	6.6
United Kingdom	4.1
France	2.9
Canada	2.7

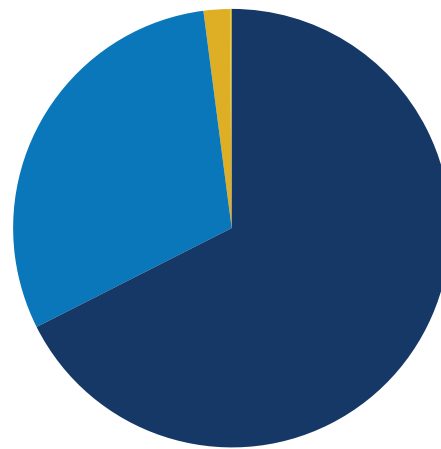
Fund Statistics

	3 Years	10 Years
Standard Deviation	7.95	10.15
vs. Vanguard Target 2030 Composite Index		
Beta	1.00	1.00
Alpha	-0.25	-0.23
Information Ratio	-0.75	-0.51
Tracking Error	0.33	0.43
R-Squared	1.00	1.00
Up Market Capture	98.81	99.29
Down Market Capture	100.80	100.90
Consistency	44.44	42.50

vs. Risk Free

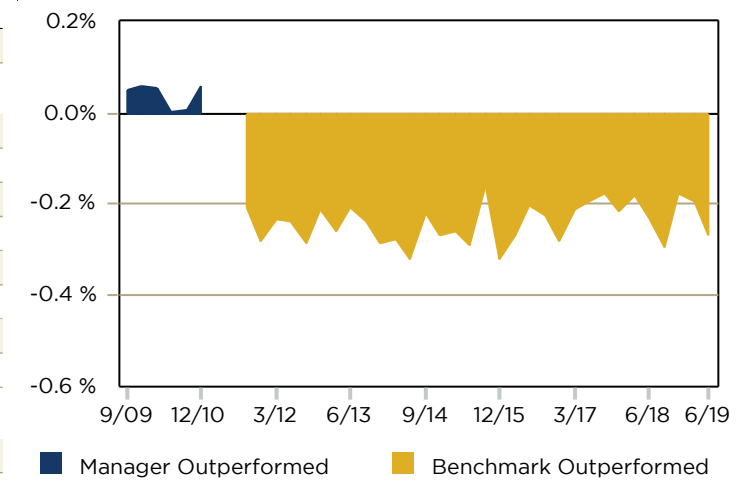
Sharpe Ratio	1.00	0.98
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Asset Allocation

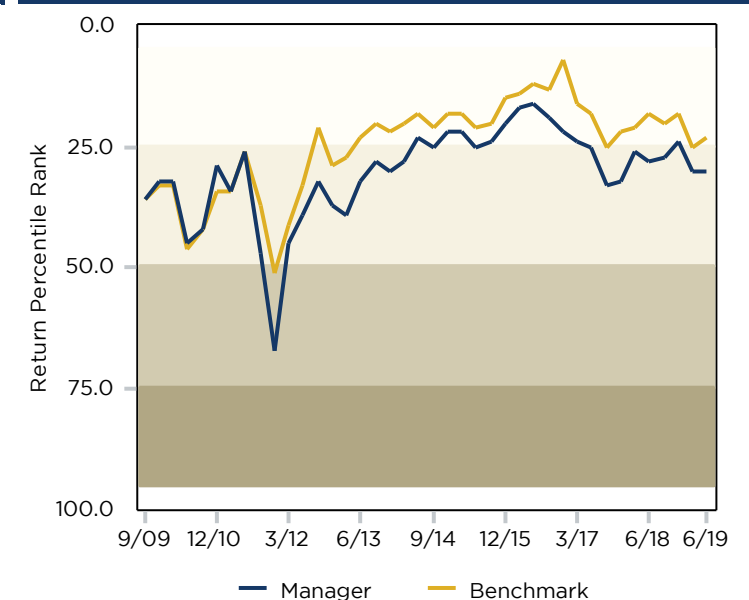


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2035 Inv (VTTHX)

Index: Vanguard Target 2035 Composite Index

Category: Target-Date 2035

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.42 (34)	13.97 (58)	6.22 (27)	10.09 (32)	6.48 (25)	10.87 (26)	-6.58 (33)	19.12 (35)	8.26 (43)	-1.26 (47)
Benchmark	3.52	14.18	6.40	10.38	6.72	11.13	-6.46	19.25	8.55	-1.02
Peer Group	3.26	14.10	5.73	9.51	6.01	10.43	-7.14	18.49	8.04	-1.43
Population	503	501	484	420	337	217	491	483	488	429

Fund Information

Fund Inception	10-2003
Fund Assets	36,493 Million
Portfolio Assets	36,493 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	8.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,940 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	46.0
Vanguard Total Intl Stock Index	30.5
Vanguard Total Bond Market II Idx	16.5
Vanguard Total Intl Bd Idx Investor	7.0

Top Countries (%)

United States	61.9
Japan	6.6
United Kingdom	4.2
France	2.8
Canada	2.7

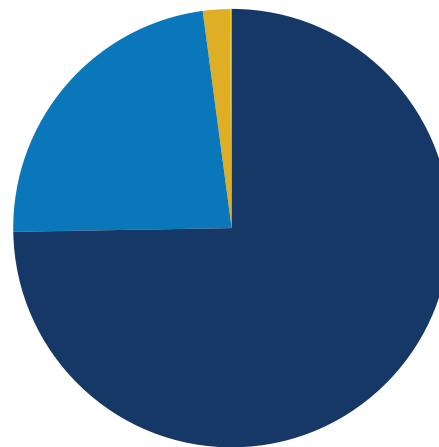
Fund Statistics

	3 Years	10 Years
Standard Deviation	8.78	11.14
vs. Vanguard Target 2035 Composite Index		
Beta	1.00	1.00
Alpha	-0.26	-0.25
Information Ratio	-0.65	-0.48
Tracking Error	0.39	0.49
R-Squared	1.00	1.00
Up Market Capture	98.94	99.34
Down Market Capture	100.94	100.93
Consistency	44.44	41.67

vs. Risk Free

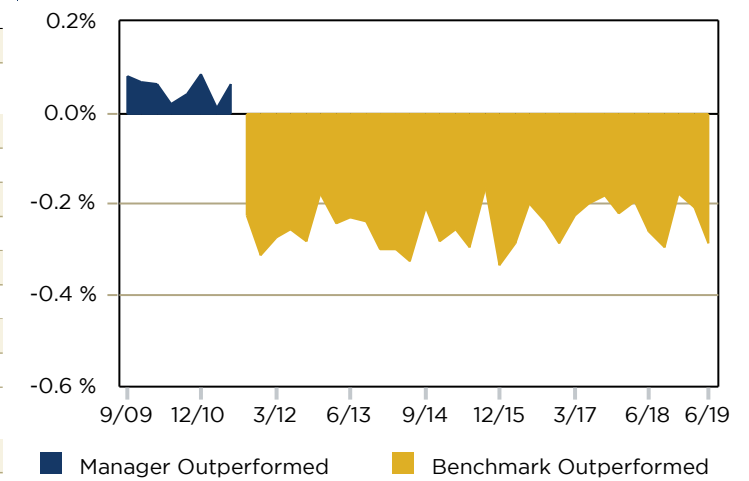
Sharpe Ratio	0.99	0.94
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Asset Allocation

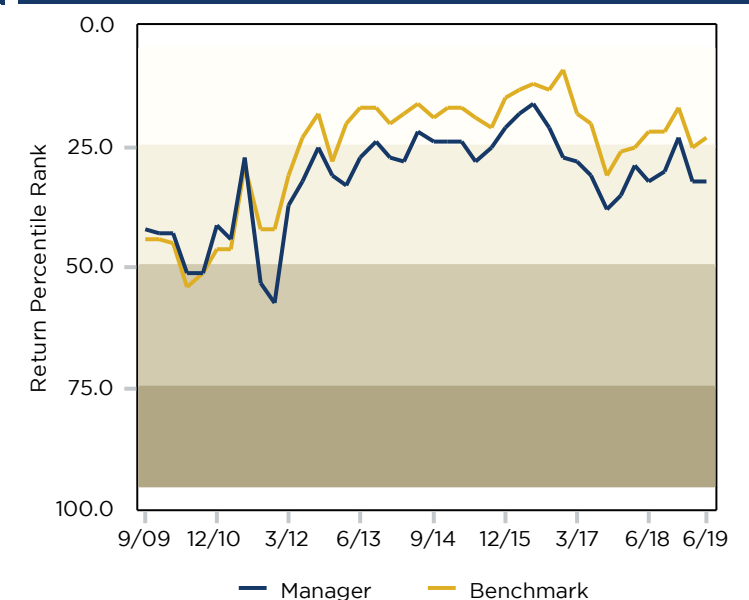


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2040 Inv (VFORX)

Index: Vanguard Target 2040 Composite Index

Category: Target-Date 2040

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.46 (35)	14.79 (52)	6.00 (30)	10.79 (25)	6.72 (24)	11.17 (23)	-7.32 (38)	20.71 (26)	8.73 (38)	-1.59 (52)
Benchmark	3.55	14.97	6.19	11.08	6.98	11.44	-7.22	20.86	8.98	-1.25
Peer Group	3.31	14.81	5.49	10.07	6.21	10.58	-7.87	19.56	8.30	-1.56
Population	500	498	483	436	374	254	493	503	505	479

Fund Information

Fund Inception	06-2006
Fund Assets	28,706 Million
Portfolio Assets	28,706 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	8.0 %
Gross Expense (%)	0.1 %
Net Expense (%)	0.1 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,907 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	50.3
Vanguard Total Intl Stock Index	33.5
Vanguard Total Bond Market II Idx	11.5
Vanguard Total Intl Bd Idx Investor	4.7

Top Countries (%)

United States	61.5
Japan	6.6
United Kingdom	4.4
France	2.8
Canada	2.7

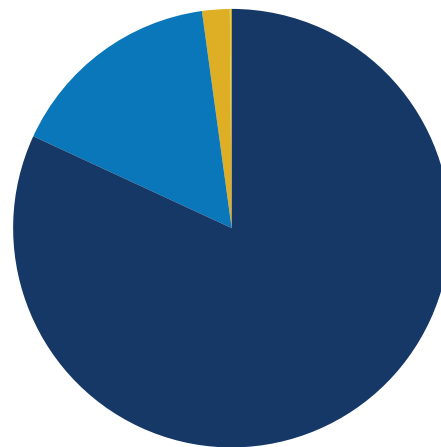
Fund Statistics

	3 Years	10 Years
Standard Deviation	9.62	11.64
vs. Vanguard Target 2040 Composite Index		
Beta	1.00	1.00
Alpha	-0.27	-0.26
Information Ratio	-0.64	-0.48
Tracking Error	0.40	0.51
R-Squared	1.00	1.00
Up Market Capture	99.00	99.24
Down Market Capture	100.81	100.72
Consistency	41.67	40.83

vs. Risk Free

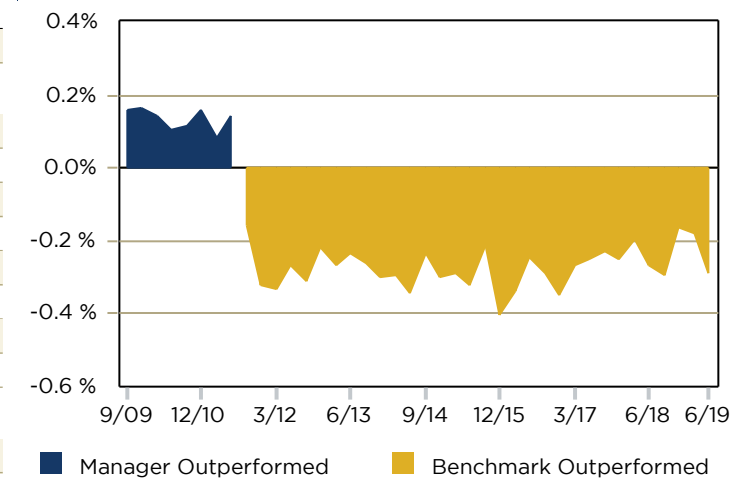
Sharpe Ratio	0.97	0.93
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Asset Allocation

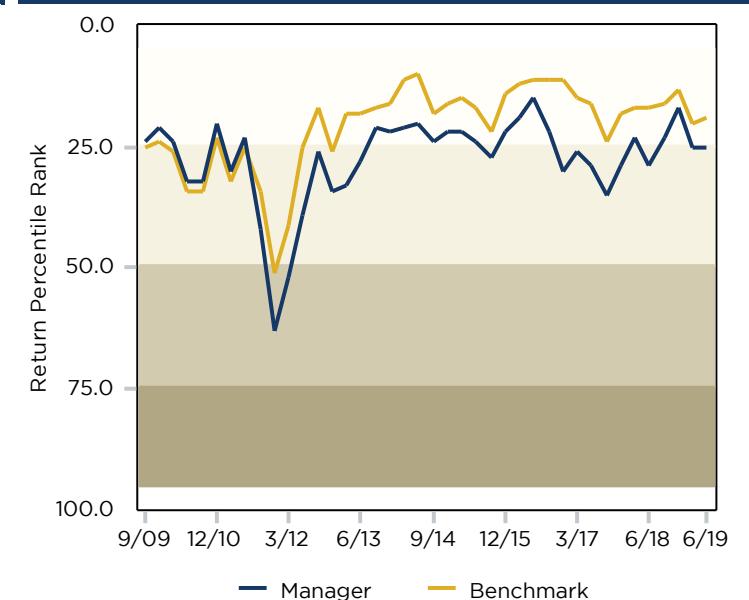


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2045 Inv (VTIVX)

Index: Vanguard Target 2045 Composite Index

Category: Target-Date 2045

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.51 (31)	15.39 (50)	5.90 (34)	11.05 (25)	6.86 (24)	11.24 (24)	-7.90 (40)	21.42 (21)	8.87 (40)	-1.57 (51)
Benchmark	3.57	15.56	6.06	11.33	7.12	11.51	-7.77	21.55	9.13	-1.25
Peer Group	3.33	15.37	5.50	10.40	6.40	10.79	-8.20	20.38	8.47	-1.55
Population	501	499	482	419	336	209	488	481	485	428

Fund Information

Fund Inception	10-2003
Fund Assets	26,144 Million
Portfolio Assets	26,144 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	7.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,919 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	54.0
Vanguard Total Intl Stock Index	35.9
Vanguard Total Bond Market II Idx	7.1
Vanguard Total Intl Bd Idx Investor	3.0

Top Countries (%)

United States	61.2
Japan	6.6
United Kingdom	4.5
Canada	2.8
France	2.7

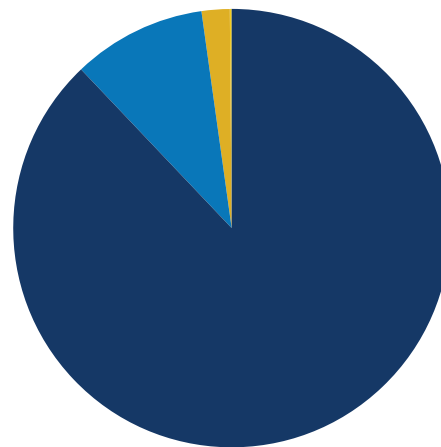
Fund Statistics

	3 Years	10 Years
Standard Deviation	10.19	11.80
vs. Vanguard Target 2045 Composite Index		
Beta	1.00	1.00
Alpha	-0.27	-0.25
Information Ratio	-0.63	-0.48
Tracking Error	0.40	0.51
R-Squared	1.00	1.00
Up Market Capture	99.04	99.28
Down Market Capture	100.70	100.74
Consistency	36.11	41.67

vs. Risk Free

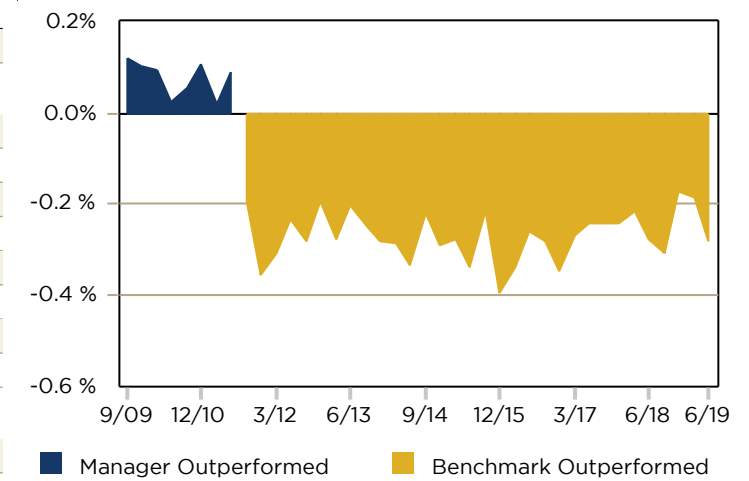
Sharpe Ratio	0.95	0.93
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Asset Allocation

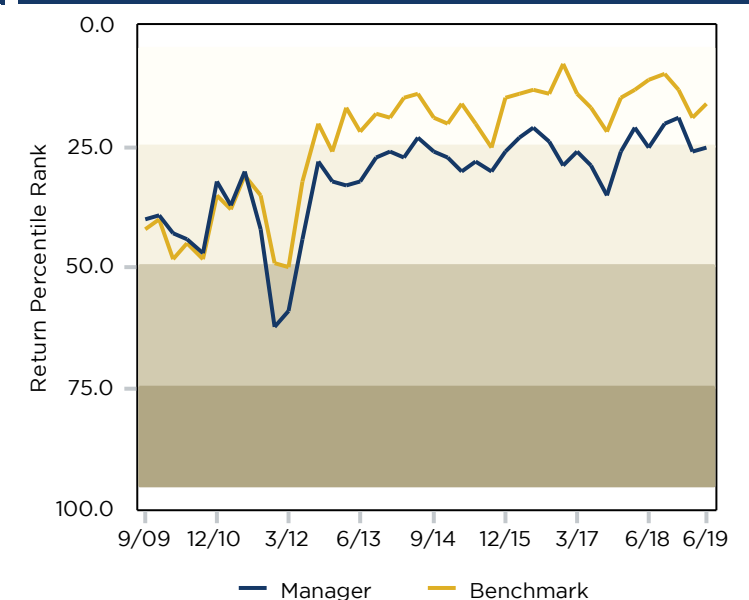


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2050 Inv (VFIFX)

Index: Vanguard Target 2050 Composite Index

Category: Target-Date 2050

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.47 (37)	15.38 (56)	5.86 (35)	11.03 (30)	6.85 (26)	11.23 (26)	-7.90 (34)	21.39 (27)	8.85 (43)	-1.58 (52)
Benchmark	3.57	15.56	6.06	11.33	7.12	11.51	-7.77	21.55	9.13	-1.25
Peer Group	3.36	15.47	5.40	10.48	6.44	10.91	-8.38	20.61	8.57	-1.53
Population	495	493	477	432	361	209	487	496	495	467

Fund Information

Fund Inception	06-2006
Fund Assets	19,084 Million
Portfolio Assets	19,084 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	100.0 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	7.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,925 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	54.0
Vanguard Total Intl Stock Index	35.9
Vanguard Total Bond Market II Idx	7.0
Vanguard Total Intl Bd Idx Investor	3.0

Top Countries (%)

United States	61.2
Japan	6.7
United Kingdom	4.5
Canada	2.8
France	2.7

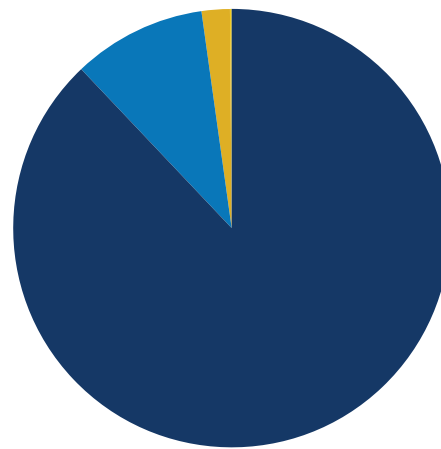
Fund Statistics

	3 Years	10 Years
Standard Deviation	10.21	11.80
vs. Vanguard Target 2050 Composite Index		
Beta	1.00	1.00
Alpha	-0.31	-0.26
Information Ratio	-0.63	-0.48
Tracking Error	0.43	0.53
R-Squared	1.00	1.00
Up Market Capture	99.07	99.23
Down Market Capture	100.98	100.72
Consistency	44.44	42.50

vs. Risk Free

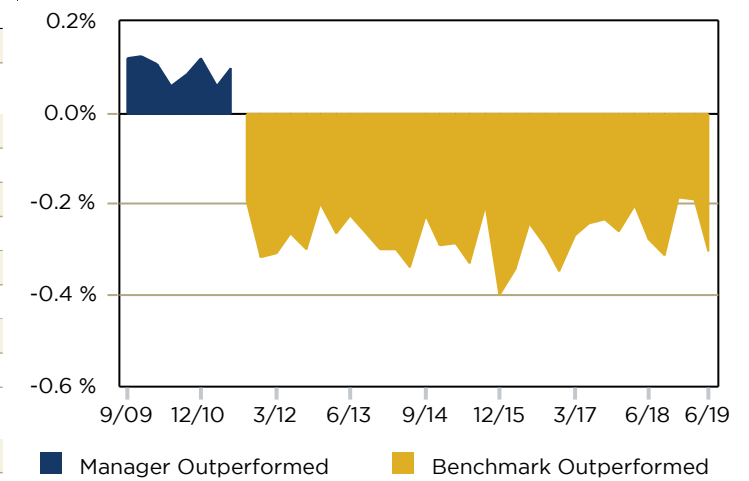
Sharpe Ratio	0.95	0.92
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Asset Allocation

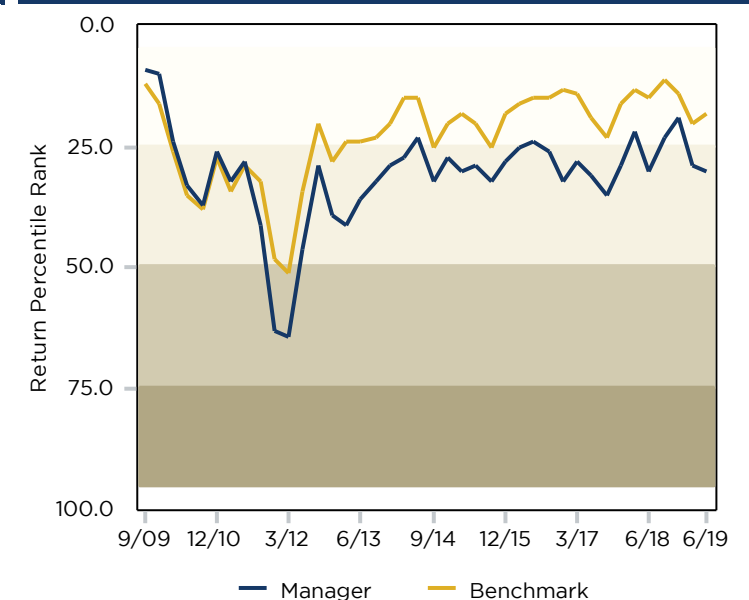


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2055 Inv (VFFVX)

Index: Vanguard Target 2055 Composite Index

Category: Target-Date 2055

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.48 (36)	15.38 (64)	5.88 (34)	11.04 (32)	6.82 (34)	-	-7.89 (29)	21.38 (31)	8.88 (41)	-1.72 (58)
Benchmark	3.57	15.56	6.06	11.33	7.12	-	-7.77	21.55	9.13	-1.25
Peer Group	3.34	15.71	5.48	10.60	6.48	-	-8.47	20.82	8.54	-1.55
Population	505	500	482	405	309	-	487	471	465	396

Fund Information

Fund Inception	08-2010
Fund Assets	9,862 Million
Portfolio Assets	9,862 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	99.9 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	5.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,905 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	54.0
Vanguard Total Intl Stock Index	35.9
Vanguard Total Bond Market II Idx	7.1
Vanguard Total Intl Bd Idx Investor	2.9

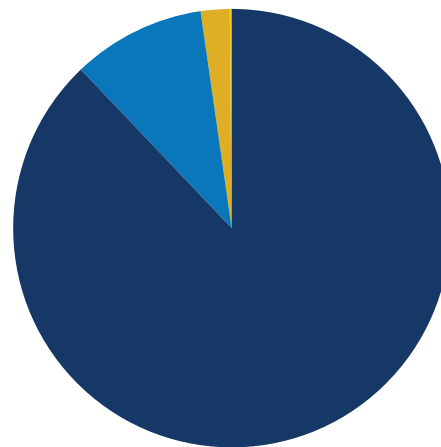
Top Countries (%)

United States	61.2
Japan	6.7
United Kingdom	4.5
Canada	2.8
France	2.7

Fund Statistics

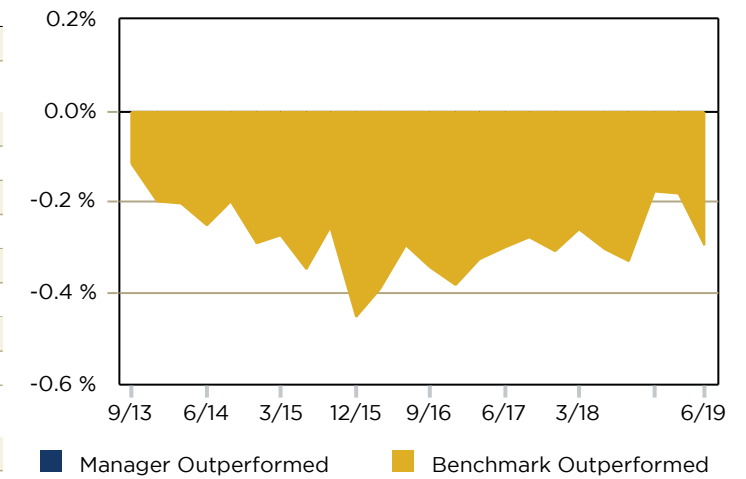
	3 Years	10 Years
Standard Deviation	10.18	-
vs. Vanguard Target 2055 Composite Index		
Beta	1.00	-
Alpha	-0.28	-
Information Ratio	-0.65	-
Tracking Error	0.41	-
R-Squared	1.00	-
Up Market Capture	98.97	-
Down Market Capture	100.68	-
Consistency	41.67	-
vs. Risk Free		
Sharpe Ratio	0.95	-

Asset Allocation

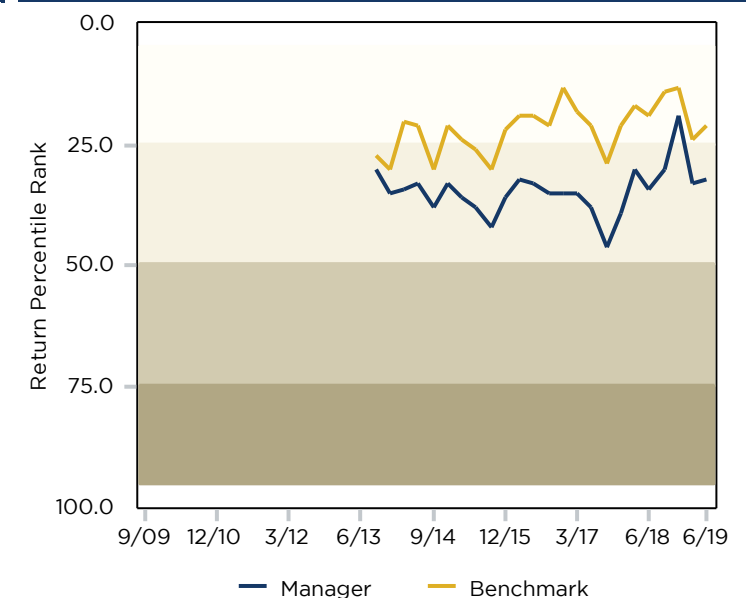


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking





Vanguard Target Retirement 2060 Inv (VTTSX)

Index: Vanguard Target 2060 Composite Index

Category: Target-Date 2060+

Report Date: 06/30/2019

Trailing Performance

	1 Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015
Manager	3.48 (45)	15.36 (68)	5.86 (35)	11.03 (41)	6.81 (44)	-	-7.87 (29)	21.36 (35)	8.84 (50)	-1.68 (67)
Benchmark	3.57	15.56	6.06	11.33	7.12	-	-7.77	21.55	9.13	-1.25
Peer Group	3.42	15.78	5.50	10.77	6.76	-	-8.49	20.95	8.82	-1.30
Population	454	438	417	270	49	-	407	351	272	123

Fund Information

Fund Inception	01-2012
Fund Assets	4,173 Million
Portfolio Assets	4,173 Million
Total # of Holdings	5
% Assets in Top 10 Holdings	99.9 %
PM	Coleman,W/Nejman,W
PM Tenure	6 Years 4 Months
Turnover	3.0 %
Gross Expense (%)	0.2 %
Net Expense (%)	0.2 %
New Investors	Open

Equity Characteristics

Avg. Market Cap	42,930 (Million)
Price/Earnings	16
Price/Book	2
Dividend Yield	2.6 %

Top Holdings (%)

Vanguard Total Stock Mkt Idx Inv	54.1
Vanguard Total Intl Stock Index	35.9
Vanguard Total Bond Market II Idx	7.0
Vanguard Total Intl Bd Idx Investor	3.0

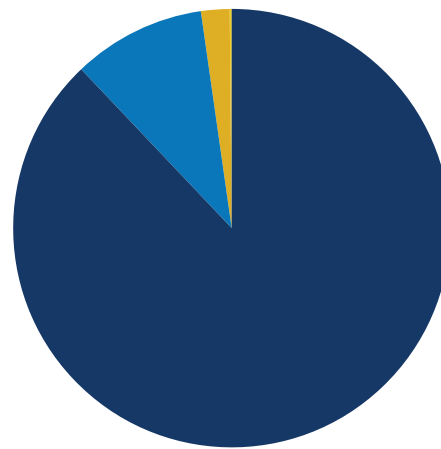
Top Countries (%)

United States	61.2
Japan	6.7
United Kingdom	4.5
Canada	2.8
France	2.7

Fund Statistics

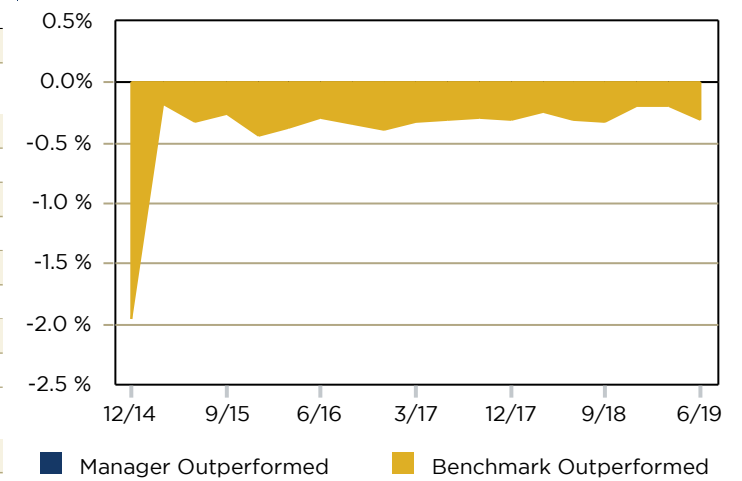
	3 Years	10 Years
Standard Deviation	10.20	-
vs. Vanguard Target 2060 Composite Index		
Beta	1.00	-
Alpha	-0.30	-
Information Ratio	-0.64	-
Tracking Error	0.43	-
R-Squared	1.00	-
Up Market Capture	99.04	-
Down Market Capture	100.90	-
Consistency	44.44	-
vs. Risk Free		
Sharpe Ratio	0.95	-

Asset Allocation

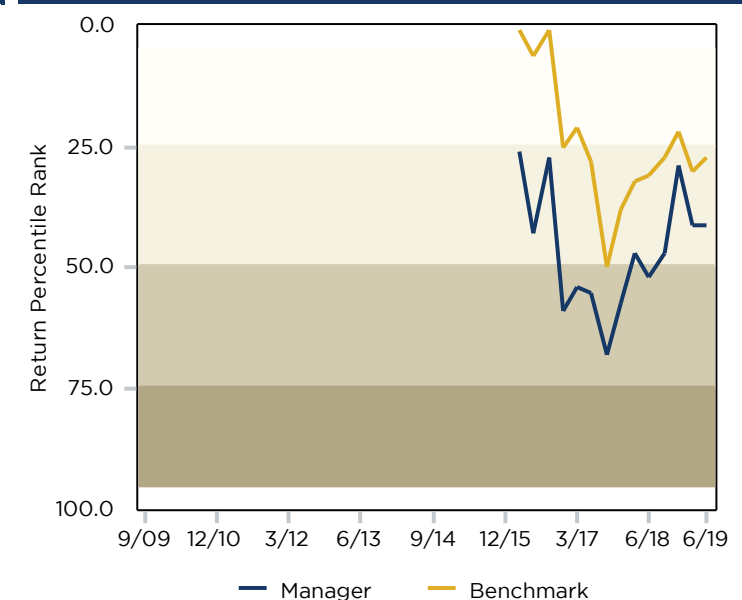


■ Equity ■ Fixed Income
■ Cash ■ Other

3 Years Rolling Excess Performance



3 Years Rolling Percentile Ranking



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Appendix



Broad Benchmark Descriptions

Listed below are descriptions of a selection of commonly used broad market indices. Each broad market index has a variety of sub-indices which represent segments within a given broad market universe (e.g., Russell 1000 Value, Russell 1000 Growth).

Domestic Equities

S&P 500 Index (Standard & Poor's 500): Includes 500 U.S. companies chosen on the basis of market capitalization, liquidity, industry, among other factors.

Russell 3000 Index: Contains 3000 U.S. companies representing nearly the entire investable U.S. equity market. The index consists of large, mid and small cap companies with the vast majority of exposure weighted to large cap companies.

Russell 1000 Index: Contains the largest 1000 companies in the Russell 3000 by market capitalization, generally representing more than 90% of the investable U.S. equity market.

Russell 2000 Index: Contains the smallest 2000 companies in the Russell 3000 by market capitalization representing substantially less than 10% of the investable U.S. equity market.

International Equities

MSCI ACWI ex U.S. Index (All Country World ex U.S. Index): Consists of 46 country indexes, including 22 developed (excluding the U.S.) and 23 emerging markets around the world. Developed countries are defined by MSCI as nations that meet economic development sustainability, size and liquidity, and market accessibility criteria. Developing or emerging markets are markets that meet slightly lower size and liquidity, and market accessibility criteria.

MSCI EAFE Index (Europe, Australasia and Far East): Represents the performance of large and mid-cap companies in 21 developed markets around the world, excluding U.S. and Canada.

MSCI EM Index (Emerging Market): Consists of 23 emerging market economies around the world, representing 10% of the world market capitalization.

Fixed Income

Bloomberg Barclays US Aggregate: Represents investment grade bonds (rating of Baa3 or higher from Moody's, rating of BBB- or higher from S&P) traded in the U.S. The index includes government, agency, and corporate credits.

ICE BofAML US HY Master II: Represents the performance of below investment grade bonds (rating of Ba1 or lower from Moody's, rating of BB+ or lower from S&P) publicly issued in the US domestic market.

% Assets in Top 10 Holdings: The aggregate assets, expressed as a percentage, of the fund's top 10 portfolio holdings.

Alpha: A measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a mutual fund and compares its risk-adjusted performance to a benchmark index. The excess return of the fund relative to the return of the benchmark index is a fund's alpha.

Beta: A measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Down Market Capture: Downside Capture Ratio measures manager's performance in down markets. A down-market is defined as those periods (months or quarters) in which market return is less than 0. In essence, it tells you what percentage of the down-market was captured by the manager. For example, if the ratio is 110%, the manager has captured 110% of the down-market and therefore underperformed the market on the downside.

Expense Ratio: A measure of what it costs an investment company to operate a mutual fund. An expense ratio is determined through an annual calculation, where a fund's operating expenses are divided by the average dollar value of its assets under management. Operating expenses are taken out of a fund's assets and lower the return to a fund's investors.

Information Ratio: A ratio of portfolio returns above the returns of a benchmark to the volatility of those returns. The information ratio (IR) measures a portfolio manager's ability to generate excess returns relative to a benchmark, but also attempts to identify the consistency of the investor. The higher the IR the more consistent a manager is.

PM Tenure: This represents the number of years that the current portfolio manager has been managing the fund. For funds with more than one manager, the average tenure is shown.

Price/Book Ratio: The price/book (P/B) ratio compares a stock's market price with its book value. (Book value is the equity balance on a firm's balance sheet divided by the number of shares outstanding.) Conservative investors often prefer the P/B ratio, because it offers a more tangible measure of a company's value than earnings do. Legendary investor Benjamin Graham, one of Warren Buffett's mentors, was a big advocate of book value and P/B in valuing stocks.

Price/Cash Flow Ratio: The price/cash flow (P/CF) ratio is not as commonly used or as well known as the other measures we've discussed. It's calculated similarly to P/E, except that it uses operating cash flow instead of net income as the denominator. Cash flow can be less subject to accounting shenanigans than earnings because it measures actual cash, not paper or accounting profits. P/CF can be helpful for firms such as utilities and cable companies, which can have more cash flow than reported earnings. P/CF can also be used in place of P/E when there are so many one-time expenses that reported earnings are negative.

Price/Earnings Ratio: The price/earnings (P/E) ratio is the most popular valuation ratio used by investors. It is equal to a stock's market price divided by the earnings per share for the most recent four quarters. The nice thing about P/E is that accounting earnings are a much better proxy for cash flow than sales. Moreover, earnings per share results and estimates about the future are easily available from just about any financial data source.

Sharpe Ratio: A ratio developed by Nobel Laureate William F. Sharpe to measure risk-adjusted performance. The Sharpe ratio is calculated by subtracting the risk-free rate (such as that of the 10-year U.S. Treasury bond) from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns.

Standard Deviation: A risk statistic that measures an investment's volatility around the mean return. A highly volatility investment will have a higher standard deviation. A fund's returns fell within 1 standard deviation of the average 68% of the time and within 2 standard deviations 95% of the time for the time period measured.

Upside Capture Ratio: This ratio measures a manager's performance in up markets relative to the market (benchmark) itself. It is calculated by taking the security's upside capture return and dividing it by the benchmark's upside capture return.

Weighted Average Market Cap: The average market capitalization of a fund's equity portfolio gives you a measure of the size of the companies in which the fund invests. Market capitalization is calculated by multiplying the number of a company's shares outstanding by its price per share.



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