

# STATE OF DELAWARE

09.30.2019 - Fiduciary Due Diligence Report

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## Due Diligence Begins with Careful Oversight

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# INTRODUCTION

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For most plan sponsors, concern over the fulfillment of fiduciary responsibilities continues to be a primary focus for the Retirement Plan Committee. Because of enhanced scrutiny, regulatory changes and the outcomes of highly publicized participant lawsuits, plan sponsor committees have worked to incorporate due diligence procedures and to implement best practices for the development, administration and oversight of their plans.

Cammack Retirement Group is dedicated to assisting you in meeting your fiduciary obligations, and in adopting and maintaining an ongoing process for review and management of your retirement program. We anticipate the potential problems for your plan and provide you with relevant, timely information to enable your committee to make decisions and take action.

Within the pages of the following comprehensive report, we have an analysis of the most salient issues confronting your plan related to: plan investments, fees and expenses, plan design, industry trends and regulations, participant communication, compliance and/or other topics that are vital to maintaining a plan to foster positive retirement outcomes for your participants.

Cammack Retirement Group also continues to improve its technological capabilities to bring you critical data in a clear and concise manner. We have invested in enhanced analytical tools and report-building technology to deliver more timely and robust information. In addition to better data reporting, this innovative technology will allow you to maintain a secure online file to capture and store the documents that are important to the fulfillment of your fiduciary responsibilities.

We appreciate your business, and we look forward to continuing to strengthen our relationship as your trusted partner in serving your retirement plan.

# CAMMACK RETIREMENT GROUP

## CONTACTS

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# EXECUTIVE SUMMARY

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## Plan Review

- As of September 30, 2019, the State of Delaware Deferred Compensation Plans held approximately \$849.3 million<sup>1</sup> in total active plan assets, representing an increase of approximately \$10.8 million (1.3% change) over total assets as of June 30, 2019. Quarterly contributions to the Plans were approximately \$18.6 million (Q3 2018 contributions totaled approximately \$17.0 million).
  - \$694.8 million was invested in the State of Delaware 457(b) Deferred Compensation Plan
  - \$132.6 million was invested in the State of Delaware 403(b) Plan
  - \$21.9 million was invested in the State of Delaware 401(a) Match Plan
- The weighted average expense ratio of the funds (excluding the Voya Fixed Plus Account) is 0.34%, as compared to the 2018 NAGDCA Perspectives in Practice Survey average of 0.49% for similarly sized Plans (\$500 million-\$1.5 billion).
- There is an asset-based fee of eight basis points (0.08%) charged to each participant; this fee pays for Voya recordkeeping and administrative services. There is an asset-based fee of five basis points (0.05%) (not to exceed \$200 annually) charged to each participant; this fee pays the State of Delaware's administrative fee.<sup>2</sup> In the 2018 NAGDCA Perspectives in Practice Survey, the average net administrative fee for similarly sized Plans (\$500 million-\$1.5 billion) was 0.16%.
- The Plan Expense Reimbursement Account balances as of September 30, 2019 were as follows:
  - \$204,003 in the State of Delaware 457(b) Deferred Compensation Plan
  - \$54,419 in the State of Delaware 403(b) Plan
  - \$3,850 in the State of Delaware 401(a) Match Plan

<sup>1</sup> Does not include assets held in individual accounts at previous/legacy providers/contracts. 403(b) legacy vendor assets are valued at approximately \$277.1 million as of 09.30.2019.

<sup>2</sup> Effective June 2019, the administrative fee will not be charged to 457 Plan participants for four quarters. This fee will be paid using legacy plan-level assets, the process will be re-evaluated by the Plans Management Board in June 2020.

## EXECUTIVE SUMMARY (CONTINUED)

### Investment Highlights

- Based on the analysis of funds under the Plans, using the criteria outlined in the Investment Policy Statement, the following fund recommendations are being made for consideration by the Committee:
  - Templeton Global Bond R6 – Place on Watch  
*During the February 2019 meeting, Cammack Retirement discussed potentially placing this fund on watch due to a recent manager change. The committee members discussed their opinions concluding not to place the fund on watch at that time. Although we are not overly concerned about the changes on the team as Michael Hasenstab remains the lead decision maker on the fund, we continue to recommend this fund for watch. Also of note, Morningstar reclassified this world bond strategy into its non-traditional bond category in Q3 2019. While the move is somewhat explainable in light of the fund's unconstrained mandate, we do not believe the peer group is directly comparable as most of the manager's in the category are domestic-oriented bond funds that aim for low volatility and invest primarily in corporate credit.*
  - JPMorgan US Small Company R6 – Continue on Watch (Placed on Watch Q1 2019)  
*The fund employs a quantitative and fundamental process to construct a portfolio of attractively valued companies with conservative management teams and high-quality earnings. The fund's longer-term performance is impacted negatively by the fund's bottom quartile performance in 2017, due primarily to the strong growth bias in the market. The increased volatility of the third quarter (as well as small caps rotation in September benefiting value overgrowth) benefited the strategy versus peers and its benchmark. The portfolio was positively impacted by stock selection in the consumer cyclical and software and services sectors. Contrastingly, the portfolio was negatively impacted by stock selection within the REITs and pharmaceutical sectors.*
  - American Funds Washington Mutual R6 and Target Date Series - Place on Watch  
*All funds managed by Capital Group are now on "Watch" due to compliance concerns regarding their investment staff. Effective September 9, 2019, Mark Denning was terminated with cause as a co-portfolio manager and is no longer with Capital Group. A BBC investigation revealed allegations of Denning's failure to disclose personal investments. We want to fully scrutinize the impact to investors and to evaluate the remedial actions taken by Capital Group to avoid similar situations in the future.*
- The recommendation for the remaining investments is: Not for Watch.
- No funds with a recommendation Not for Watch are performing in the bottom quartile for the 3-, 5-, or 10-year period.

## EXECUTIVE SUMMARY (CONTINUED)

### Investment Highlights (continued)

#### *Tier One Highlights (Target Date Suite)*

- Approximately \$638.6 million was invested in the American Funds Target Date Retirement Fund series (represents 75.2% of assets). The target date series is designated as the Plans' default investment, which is to be used in the event a participant does not make an investment election.
  - 90% of unique Plan participants (across all plans) were invested in the target date series (19,335 unique participants).
  - The target date series received approximately 75.6% (\$14.1 million) of new contributions within the quarter.
  - Across the target date series, the average annualized returns rank in the top quartile for the 3-year, 5-year, and 10-year performance periods for most vintages.<sup>3</sup>
    - The exceptions were the 3-year average annualized returns for the 2010, 2015, 2020, and 2025 vintages, and the 5-year average annualized return for the 2015 vintage, which ranked between the 29<sup>th</sup>- 47<sup>th</sup> percentile.
  - Across the target date series, the average Sharpe Ratio ranks in the top quartile for most vintages.<sup>3</sup>
    - The exceptions were the 3-year Sharpe Ratio for the 2010 and 2015 vintages, which ranked in the 31<sup>st</sup> -36<sup>th</sup> percentile.

#### *Tier Two Highlights (Core Fund Array)*

- \$190.4 million was invested in Tier Two (represents 22.4% of assets).
  - Tier Two received approximately 24.4% (\$4.5 million) of new contributions within the quarter.
- Approximately \$19.6 million was invested in the Voya Fixed Plus Account III (across all Plans)
  - Across all Plans, the crediting rate for the Voya Fixed Plus Account is 1.55%. The minimum guaranteed crediting rate is 1.00%.

<sup>3</sup>The 2055 vintage is excluded from 10-year rankings (introduced 2/1/2010), and the 2060 vintage is excluded from 5- and 10-year rankings (introduced 3/27/2015).

## EXECUTIVE SUMMARY (CONTINUED)

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### Investment Highlights (continued)

#### *Tier Two Highlights (Continued)*

- Approximately \$170.8 million was invested in the Tier Two mutual fund options:
  - For the 3-year period, 85% of the funds (11 of 13 funds) rank above the median; 54% (7 of 13 funds) rank in the top-quartile; 8% (1 of 13 funds) rank in the bottom quartile
  - For the 5-year period, 77% of the funds (10 of 13 funds) rank above the median; 46% (6 of 13 funds) rank in the top-quartile; 8% (1 of 13 funds) rank in the bottom quartile
  - For the 10-year period, 85% of the funds (11 of 13 funds) rank above the median; 69% (9 of 13 funds) rank in the top-quartile; no funds rank in the bottom quartile
- As of September 30, 2019, there were approximately \$10.8 million (1.3% of total Plan assets) invested in the Managed Account feature, representing 476 participant accounts.

#### *Tier Three Highlights (Self Directed Brokerage Account)*

- The TD Ameritrade Self Directed Brokerage Account held approximately \$20.3 million (represents 2.4% of assets), across 486 participant accounts.



# 2019 BUSINESS PLANNING UPDATE

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## Fiduciary Best Practices

- Annual review of Investment Policy Statement (IPS) November 2019 Meeting
- Annual Fiduciary Training TBD\*

## Ongoing Review of Plan Investments

- Annual target date suite review Completed
- Annual investment structure review Completed

*\*To be completed with tax counsel*

# Economic Review

## PLAN FINANCIALS: ASSETS AND CONTRIBUTIONS

Fund Name	Ticker	Quarterly Contribution		Assets			
		07/01/2019 - 09/30/2019		09/30/2019		06/30/2019	
Fixed Account							
Voya Fixed Plus Account III		\$347,902	2%	\$19,630,114	2%	\$18,245,209	2%
Subtotal		\$347,902	2%	\$19,630,114	2%	\$18,245,209	2%
Money Market							
Vanguard Federal Money Market Investor	VMFXX	\$243,967	1%	\$14,511,241	2%	\$12,063,097	1%
Subtotal		\$243,967	1%	\$14,511,241	2%	\$12,063,097	1%
Bond							
PIMCO Total Return Instl	PTTRX	\$106,588	<1%	\$4,427,010	<1%	\$5,249,877	<1%
Vanguard Interm-Term Bond Index I	VBIMX	\$358,428	2%	\$16,257,465	2%	\$13,971,534	2%
Templeton Global Bond R6	FBNRX	\$74,499	<1%	\$2,249,964	<1%	\$2,847,058	<1%
Subtotal		\$539,514	3%	\$22,934,439	3%	\$22,068,468	3%
Large Cap Equity U.S.							
American Funds Washington Mutual R6	RWMGX	\$191,287	1%	\$9,758,503	1%	\$9,315,201	1%
Vanguard Institutional Index I	VINIX	\$1,388,244	7%	\$57,379,219	7%	\$57,501,053	7%
T. Rowe Price Blue Chip Growth I	TBCIX	\$611,624	3%	\$23,523,695	3%	\$23,021,433	3%
Subtotal		\$2,191,155	12%	\$90,661,417	11%	\$89,837,687	11%
Mid Cap Equity U.S.							
Vanguard Extended Market Index Instl	VIEIX	\$400,545	2%	\$15,310,490	2%	\$16,174,438	2%
Champlain Mid Cap Institutional	CIPIX	\$105,386	<1%	\$4,222,262	<1%	\$3,340,728	<1%
Subtotal		\$505,931	3%	\$19,532,753	2%	\$19,515,166	2%
Small Cap Equity U.S.							
JPMorgan US Small Company R6	JUSMX	\$181,151	<1%	\$5,509,141	<1%	\$5,413,575	<1%
Subtotal		\$181,151	<1%	\$5,509,141	<1%	\$5,413,575	<1%
International Equity							
Lazard International Equity R6	RLIEX	\$88,068	<1%	\$2,688,399	<1%	\$2,778,284	<1%
Vanguard Total Intl Stock Index I	VTSNX	\$356,856	2%	\$10,325,678	1%	\$10,272,401	1%
Subtotal		\$444,924	2%	\$13,014,077	2%	\$13,050,686	2%

Please note that due to rounding, percentages may not add up to 100%

Data Source: Voya as of 09.30.2019

Plan Number: 664095, 664093, 664094

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## PLAN FINANCIALS: ASSETS AND CONTRIBUTIONS

Fund Name	Ticker	Quarterly Contribution		Assets			
		07/01/2019 - 09/30/2019		09/30/2019		06/30/2019	
Specialty							
TIAA-CREF Real Estate Sec Instl	TIREX	\$83,236	<1%	\$4,628,104	<1%	\$3,871,384	<1%
Subtotal		\$83,236	<1%	\$4,628,104	<1%	\$3,871,384	<1%
Target Dates							
American Funds 2010 Trgt Date Retire R6	RFTTX	\$87,537	<1%	\$26,706,432	3%	\$28,460,273	3%
American Funds 2015 Trgt Date Retire R6	RFJTX	\$437,995	2%	\$46,315,928	5%	\$46,946,473	6%
American Funds 2020 Trgt Date Retire R6	RRCTX	\$1,752,026	9%	\$108,085,470	13%	\$108,029,360	13%
American Funds 2025 Trgt Date Retire R6	RFDTX	\$2,133,607	11%	\$114,329,910	13%	\$114,375,306	14%
American Funds 2030 Trgt Date Retire R6	RFETX	\$2,435,989	13%	\$106,990,632	13%	\$105,952,194	13%
American Funds 2035 Trgt Date Retire R6	RFFTX	\$2,361,332	13%	\$101,783,981	12%	\$100,071,784	12%
American Funds 2040 Trgt Date Retire R6	RFGTX	\$1,705,319	9%	\$62,444,424	7%	\$60,970,980	7%
American Funds 2045 Trgt Date Retire R6	RFHTX	\$1,457,187	8%	\$41,768,101	5%	\$40,502,786	5%
American Funds 2050 Trgt Date Retire R6	RFITX	\$974,201	5%	\$20,271,329	2%	\$19,591,346	2%
American Funds 2055 Trgt Date Retire R6	RFKTX	\$581,731	3%	\$7,575,732	<1%	\$7,905,823	<1%
American Funds 2060 Trgt Date Retire R6	RFUTX	\$161,941	<1%	\$2,293,147	<1%	\$2,091,932	<1%
Subtotal		\$14,088,865	76%	\$638,565,084	75%	\$634,898,256	76%
Other							
Self-Directed Brokerage		\$0	0%	\$20,278,825	2%	\$19,550,102	2%
Subtotal		\$0	0%	\$20,278,825	2%	\$19,550,102	2%
Totals		\$18,626,645	100%	\$849,265,195	100%	\$838,513,631	100%

Please note that due to rounding, percentages may not add up to 100%

Data Source: Voya as of 09.30.2019

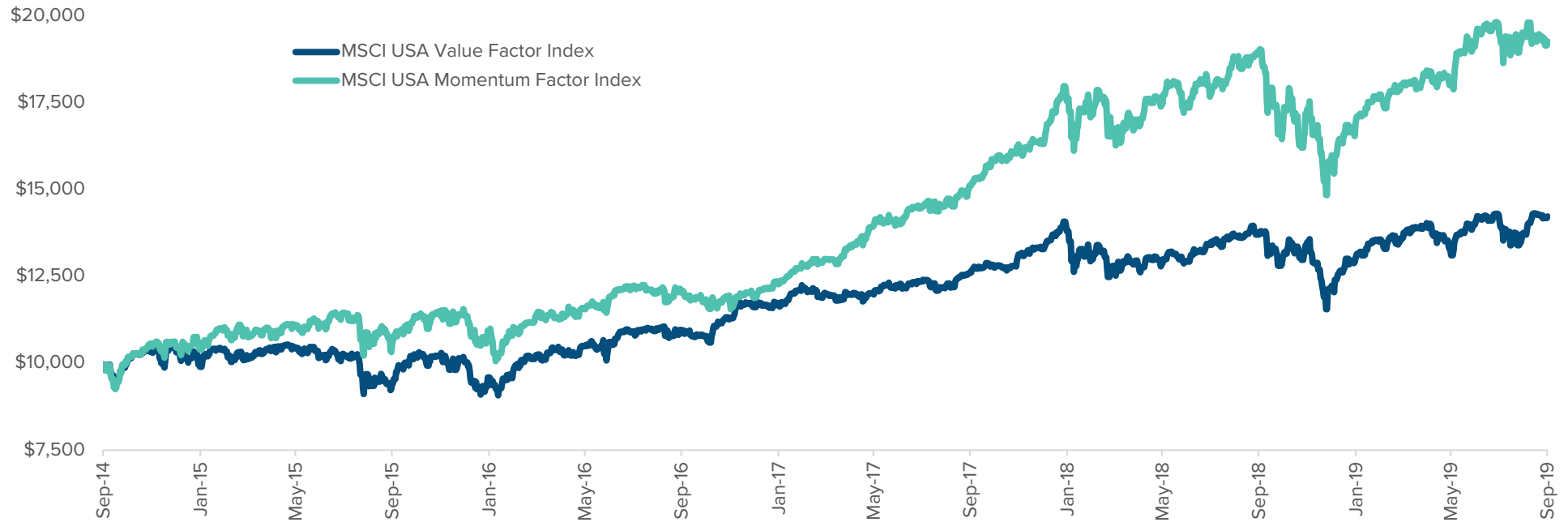
Plan Number: 664095, 664093, 664094

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## ECONOMIC REVIEW:

### MOMENTUM FACTORS CONTINUE TO TROUNCE VALUE FACTORS BY A WIDE MARGIN

#### Growth of \$10,000 over the last five years



Data Source: Morningstar as of 09.30.2019

#### Market Observations

- Asset managers often have exposure to certain “factors” as a result of their investment philosophy. Factors can be thought of as common attributes of a group of stocks. The momentum factor is defined as a group of stocks that tend to move with the strength of momentum. In other words, these are stocks that have had an acceleration upwards in their price. There is also the value factor, which is a group of stocks that are considered cheap compared to their fundamental value in terms of metrics such as P/B, dividends, and FCF.
- Investors looking for companies that have potential positive catalysts to their business find few opportunities in this slowing global environment. Growth and momentum stocks have been where investors have sought these opportunities. Contributing factors to the outperformance of momentum relative to value include low borrowing costs, scarcity of growth opportunities, slowing global GDP, and investors persistently pursuing stocks that have performed well.
- The question of when value will come back into favor relative to growth and the momentum factor will depend on the direction of the global economy and interest rates. Some weakness in the IPO (Uber and WeWork) market could portend trouble for growth and momentum. It’s worth noting that September 2019 saw value outperform the momentum factor amidst concerns such as the trade dispute with China and the shape of the yield curve. Should the economic backdrop change, especially for the worst, value would likely come back into favor. However, a change in economic conditions would need to be persistent rather than temporary in order to convince investors of a shift from momentum to value.

# Investment Analysis

## INVESTMENT ANALYSIS: VOYA FIXED PLUS ACCOUNT III - ALL PLANS

### RECOMMENDATION:

Not on Watch

### OBJECTIVE

- Stability of principal is the primary objective of this investment option

### LIQUIDITY

- Employer: If a full withdrawal is requested, the Voya Fixed Plus Account III will pay amounts with interest, in five annual payments
- Employee: No charges or restrictions for benefit sensitive withdrawals

### RESTRICTIONS

- Equity wash rules may apply if plan offers competing funds (money market, short-term high quality bond or brokerage window)
- Liquidity - restricts transfer of assets to outside providers

### Basic Characteristics

Product Type	General Account
Manager	Voya Retirement Insurance and Annuity Company
Guarantor	Voya Retirement Insurance and Annuity Company
Crediting Rate as of 09.30.2019	1.55%
Minimum Guarantee	1.00%

### Financial Strength – Ratings

Ratings		
Fitch	A	(6 <sup>th</sup> of 19)
Moody's	A2	(6 <sup>th</sup> of 21)
S&P	A+	(5 <sup>th</sup> of 22)

# INVESTMENT ANALYSIS: MONEY MARKET

## Vanguard Federal Money Market Investor

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio Vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Money Market-Taxable													
Vanguard Federal Money Market Investor	VMFXX	11.75	0.54	1.71	2.26(6)	1.46(4)	0.93(2)	0.47(5)	0.21	-1.73	92.04	0.11	-
Category Average		15.20	0.44	1.43	1.90	1.13	0.68	0.35	0.20	-6.55	65.42	0.47	-
FTSE Treasury Bill 3 Mon USD		-	0.56	1.78	2.36	1.52	0.96	0.52	0.22	-0.45	100	-	-

**Manager:** Vanguard Group, Inc.

**Market Value:** \$138.3 Billion

**Current Yield:** 1.84%

**Q3 2019 Recommendation:** Not on Watch

### Strategy

The fund seeks to provide current income while maintaining liquidity and a stable share price of \$1. The fund invests primarily in high-quality, short-term money market instruments issued by the U.S. government and its agencies and instrumentalities. The fund generally invests 100% of its assets in government securities and therefore, will satisfy the 99.5% requirement for designation as a government money market fund.

### Liquidity

By law, money market fund investments must mature within 397 days from the date of acquisition. Average weighted maturity must be 90 days or less. The "cost" of a money market fund is its expense ratio. Returns shown are "total returns", which are net of fees.

### Restrictions

If there is a fixed account also in the array, transfers between the fixed and money market accounts may be subject to an "equity wash" provision. Monies may not be able to move directly between the fixed and money market funds but must pass through an equity fund. Money market funds may also be the medium by which transfers to a brokerage account may be made.



# INVESTMENT ANALYSIS: SCORECARD

Fund Category	Fund Name	Ticker	Manager Tenure	Performance vs. Index			Category Ranking			Risk	Risk Adj Return	R-Squared	Expense Ratio vs. Peers	Overall Mstar Rating	Recommendation
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr						
Intermediate Core-Plus Bond	PIMCO Total Return Instl	PTTRX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	****	Not on Watch
Intermediate Core Bond	Vanguard Interm-Term Bond Index I	VBIMX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****	Not on Watch
Nontraditional Bond	Templeton Global Bond R6	FBNRX	✓	✓	✓	✓	✓	✗	✓	✗	✓	✗	✓	**	Watch
Large Blend	American Funds Washington Mutual R6	RWMGX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****	Watch
Large Blend	Vanguard Institutional Index I	VINIX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****	Not on Watch
Large Growth	T. Rowe Price Blue Chip Growth I	TBCIX	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	*****	Not on Watch
Mid-Cap Blend	Vanguard Extended Market Index Instl	VIEIX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	****	Not on Watch
Mid-Cap Growth	Champlain Mid Cap Institutional	CIPIX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****	Not on Watch
Small Blend	JPMorgan US Small Company R6	JUSMX	✓	✗	✗	✓	✗	✓	✓	✓	✗	✓	✓	***	Watch
Foreign Large Blend	Lazard International Equity R6	RLIEX	✓	✗	✓	✓	✗	✗	✓	✓	✗	✓	✓	***	Not on Watch
Foreign Large Blend	Vanguard Total Intl Stock Index I	VTSNX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	***	Not on Watch
Real Estate	TIAA-CREF Real Estate Sec Instl	TIREX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****	Not on Watch

The following funds are not included in this scorecard, but are shown on separate individual pages within the report: Voya Fixed Plus Account III, Vanguard Federal Money Market, and the American Funds Target Date Retirement Suite.

# INVESTMENT ANALYSIS: COMMENTARY

## Templeton Global Bond R6 - Place on Watch

Fund Name	Ticker	Manager Tenure	Performance vs. Index			Category Ranking			Risk	Risk Adj Return	R-Squared	Expense Ratio vs. Peers	Overall Mstar Rating
			3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr					
Templeton Global Bond R6	FBNRX	✓	✓	✓	✓	✓	✗	✓	✗	✓	✗	✓	**

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio Vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Nontraditional Bond													
Templeton Global Bond R6	FBNRX	17.75	-3.31	-0.58	1.16(83)	3.99(28)	0.94(81)	3.82(41)	6.85	0.38	15.00	0.57	2
Category Average		7.19	0.39	4.91	3.17	3.08	2.27	3.48	3.06	0.71	10.26	1.22	3
FTSE WGBI USD		-	0.85	6.27	8.13	1.19	1.80	1.69	5.52	-0.04	100	-	-

### Q3 2019 Recommendation

We continue to recommend this fund for watch due to recent changes on the management team. Sonal Desai stepped down from her day-to-day responsibilities to take on an expanded role as Franklin Templeton's Chief Investment Officer late last year. Calvin Ho, one of the fund's long-tenured analysts, was elevated to co-manager. We are not overly concerned about the changes on the team as Hasenstab remains the lead decision maker on the fund. The watch recommendation is a precautionary measure due to changes on the management team. Of note, Morningstar reclassified this world bond strategy into its non-traditional bond category in Q3 2019. While the move is somewhat explainable in light of the fund's unconstrained mandate, we do not believe the peer group is directly comparable as most of the manager's in the category are domestic-oriented bond funds that aim for low volatility and invest primarily in corporate credit.

### Sector review, securities selection, and risk management

Templeton Global has significant flexibility relative to its prospectus benchmark, the FTSE World Government Bond Index, the mandate maintains a 25% max allowable allocation to below investment grade credit. Alpha opportunities are generated across three main sources, yield curve exposure, currencies, and sovereign credit. While alpha sources will vary over time, the fund has historically generated returns via currencies and to a lesser extent via its yield curve or country allocations. Unlike its former peers in the world bond category, the manager does not invest in the traditional developed market countries, such as Europe and Japan, and prefers to invest in high-real yielding countries with improving fundamentals. This key difference has often led to diverging performance relative to its benchmark and former peer group. The sharp decline in interest rates this year has been the key source of underperformance relative to its prospectus benchmark. While concerning, the strategy can make up lost ground quickly as the market environment shifts.

### Management and additional details

Michael Hasenstab has been the lead manager since 2001. Calvin Ho was elevated to co-manager following Sonal Desai's promotion in late-2018. Calvin Ho has worked on the Global Macro team since 2005.

# INVESTMENT ANALYSIS: COMMENTARY

## American Funds Washington Mutual R6 - Place on Watch

Fund Name	Ticker	Manager Tenure	Performance vs. Index			Category Ranking			Risk	Risk Adj Return	R-Squared	Expense Ratio vs. Peers	Overall Mstar Rating
			3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr					
American Funds Washington Mutual R6	RWMGX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	*****

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio Vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Large Blend													
American Funds Washington Mutual R6	RWMGX	22.17	1.69	16.96	6.14(19)	13.19(24)	10.09(36)	13.08(15)	10.50	1.09	95.48	0.27	5
Category Average		8.91	1.45	18.99	3.02	11.69	8.96	11.76	12.46	0.84	93.80	0.89	3
S&P 500 TR USD		-	1.70	20.55	4.25	13.39	10.84	13.24	12.18	0.97	100	-	-

### Q3 2019 Recommendation

We recommend placing this fund on watch primarily due to a manager change of a separate fund at Capital Group. All funds managed by Capital Group are now on "Watch" due to compliance concerns regarding their investment staff. Effective September 9, 2019, Mark Denning was terminated with cause as a co-portfolio manager and is no longer with Capital Group. A BBC investigation revealed allegations of Denning's failure to disclose personal investments. We want to fully scrutinize the impact to investors and to evaluate the remedial actions taken by Capital Group to avoid similar situations in the future.

# INVESTMENT ANALYSIS: COMMENTARY

## JPMorgan US Small Company R6 - Watch

Fund Name	Ticker	Manager Tenure	Performance vs. Index			Category Ranking			Risk	Risk Adj Return	R-Squared	Expense Ratio vs. Peers	Overall Mstar Rating
			3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr					
JPMorgan US Small Company R6	JUSMX	✓	✗	✗	✓	✗	✓	✓	✓	✗	✓	✓	***

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio Vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Small Blend													
JPMorgan US Small Company R6	JUSMX	15.08	-0.61	11.19	-9.67(70)	5.24(82)	6.88(59)	11.58(26)	17.22	0.29	98.26	0.73	3
Category Average		9.08	-1.27	14.25	-7.72	7.21	6.89	10.68	16.94	0.41	93.62	1.10	3
Russell 2000 TR USD		-	-2.40	14.18	-8.89	8.23	8.19	11.19	17.21	0.46	100	-	-

### Q3 2019 Recommendation

We recommend continuing this fund on watch due to underperformance versus the benchmark and the peer group. The fund employs a quantitative and fundamental process to construct a portfolio of attractively valued companies with conservative management teams and high-quality earnings. The fund's longer-term performance is impacted negatively by the fund's bottom quartile performance in 2017, due primarily to the strong growth bias in the market. Although the marketplace has rewarded momentum over value, we want to monitor the fund to see how management responds in a late-cycle environment.

### Sector review, securities selection, and risk management

The fund strategy is underpinned by the belief that investors are prone to behavioral biases that cause them to overreact to negative news and underreact to positive news. When analyzing risk, various indicators show that the fund has had above-average risk and below-average return for the past 3 years. The beta and the downside-capture ratios compare unfavorably to the peer group. Since the inception of the fund's mandate with the current team, the fund has delivered strong risk-adjusted returns. While we acknowledge that the valuation factor has hurt relative performance versus more growth-oriented peers, the magnitude of recent underperformance has caused us to continue to evaluate the fund and talk to management about outlook and strategy. The increased volatility of the third quarter (as well as small caps rotation in September benefiting value overgrowth) benefited the strategy versus peers and its benchmark. The portfolio was positively impacted by stock selection in the consumer cyclical and software and services sectors. Contrastingly, The portfolio was negatively impacted by stock selection within the REITs and pharmaceutical sectors.

### Management and additional details

The fund is managed by Dennis Ruhl and Phil Hart, with support from the U.S. Behavioral Finance Team. The team believes that investors overreact to negative news and underreact to good news, and look to exploit the pricing inefficiencies caused by investor behavior.

## INVESTMENT ANALYSIS:

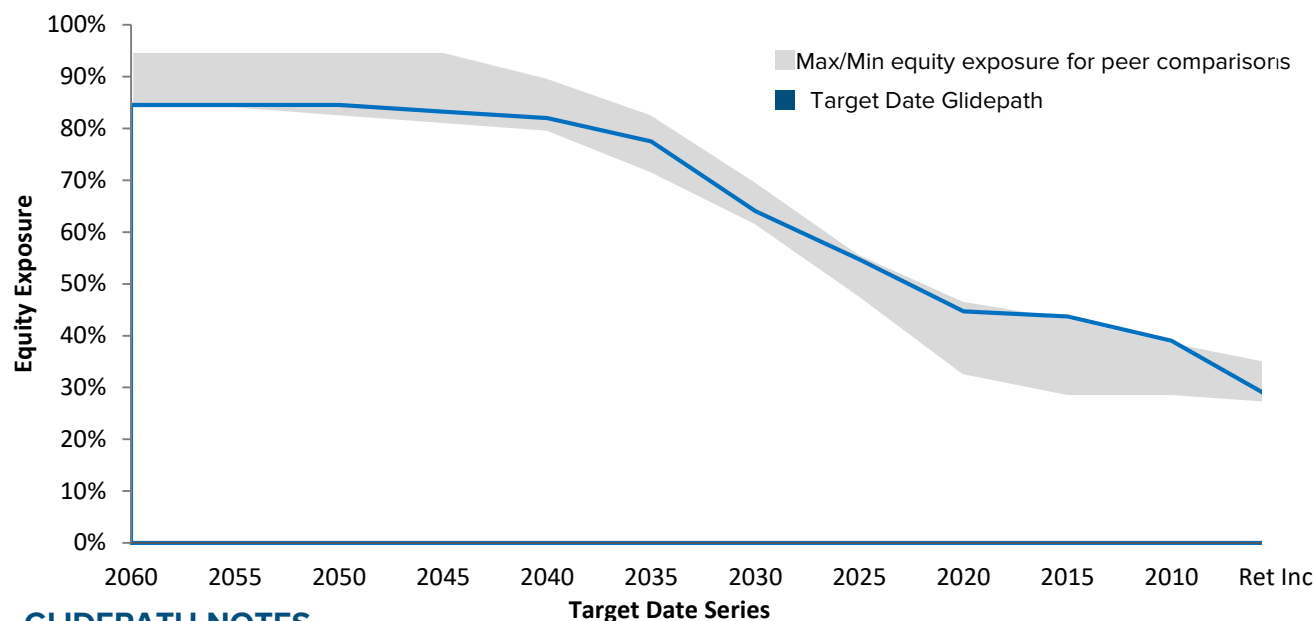
### TARGET DATE SUMMARY: AMERICAN FUNDS TARGET DATE RETIREMENT

**RECOMMENDATION :** Watch - All funds managed by Capital Group are now on “Watch” due to compliance concerns regarding their investment staff. Effective September 9, 2019, Mark Denning was terminated with cause as a co-portfolio manager and is no longer with Capital Group. A BBC investigation revealed allegations of Denning's failure to disclose personal investments. We want to fully scrutinize the impact to investors and to evaluate the remedial actions taken by Capital Group to avoid similar situations in the future.

#### CAMMACK RETIREMENT CLASSIFICATION

PRESERVATION OF CAPITAL			EXTENSION OF CAPITAL		
Target date series are managed more conservatively to provide downside protection			Target date series are managed more aggressively to address longevity risk		
Most Conservative	Conservative	Moderately Conservative	Moderately Aggressive	Aggressive	Most Aggressive

#### EQUITY GLIDEPATH



#### GLIDEPATH NOTES

- Equity at retirement (age 65) is 45% and Equity at landing point (age 95) is 30
- Glidepath-within-a-Glidepath: glidepath distinguishes between the types of equity or fixed income investments in terms of the role they can play in a portfolio
- Diversifies the type of equity throughout the glide-path by shifting over time from growth-oriented to dividend-focused funds. Equity gradually shifts to higher yielding funds with a history of lower volatility
- Deploys different types of bonds at various stages in the glide-path to mitigate risk but provide meaningful equity exposure approaching and throughout retirement without increasing volatility

#### ASSET ALLOCATION

##### Equity

U.S. Large Cap	A
U.S. Mid Cap	A
U.S. Small Cap	A
International Equity	A
Emerging Markets Equity	A

##### Fixed Income

U.S. Fixed Income	A
U.S. TIPs	A
High Yield	A
Emerging Markets Debt	A
International Fixed Income	A

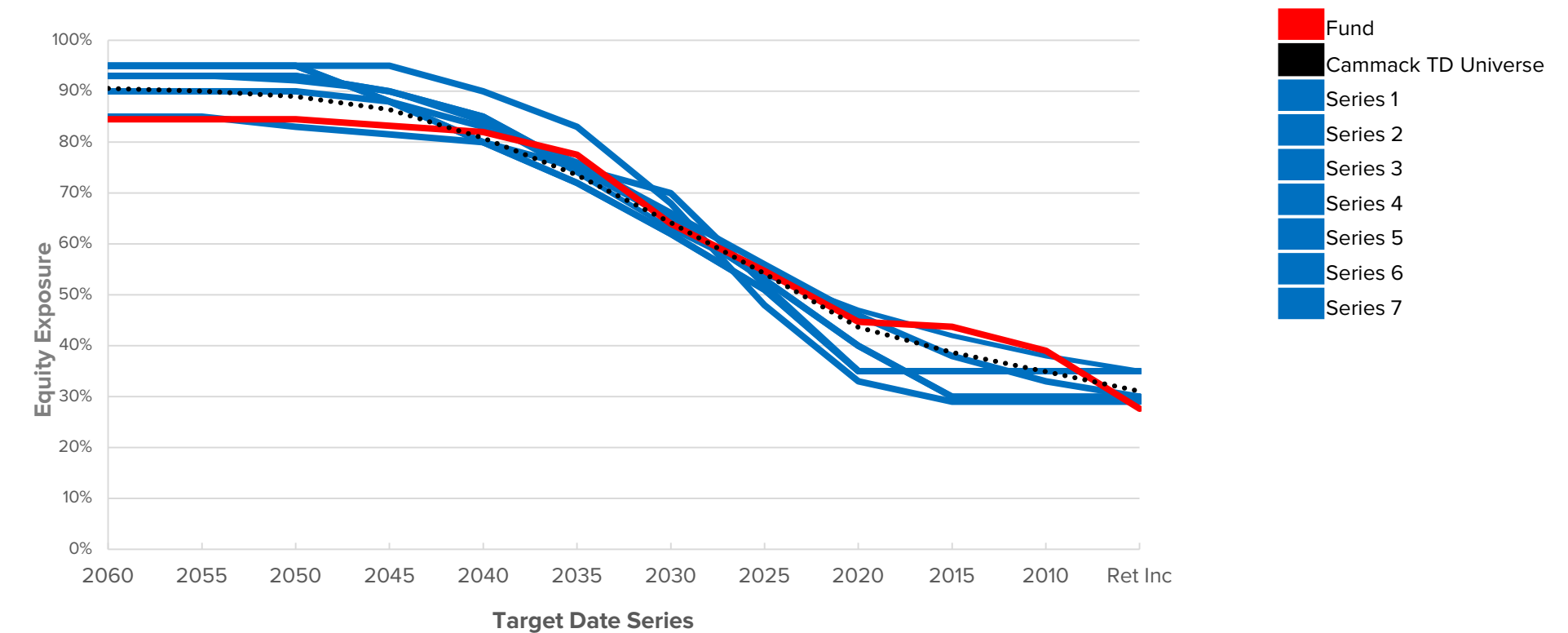
##### Alternative

Commodities	
Real Estate	A

A = Active Management  
P = Passive Management

INVESTMENT ANALYSIS:  
TARGET DATE SUMMARY: AMERICAN FUNDS TARGET DATE RETIREMENT

PRESERVATION OF CAPITAL – MODERATELY CONSERVATIVE



## INVESTMENT ANALYSIS DETAILS: PERFORMANCE VS. BENCHMARKS

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return						Risk	Risk Adj Return	R-Squared	Expense Ratio vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Target-Date 2000-2010													
American Funds 2010 Trgt Date Retire R6	RFTTX	12.59	0.81	9.68	5.68	5.69	5.05	7.09	4.47	0.92	68.75	0.33	4
Category Average			1.27	10.42	6.69	4.84	4.30	5.71	4.28	0.77	77.92	0.26	2
DJ Target 2010 TR USD			0.96	6.64	5.25	3.00	3.07	4.31	2.62	0.57	100	-	-
Target-Date 2015													
American Funds 2015 Trgt Date Retire R6	RFJTX	12.59	0.85	10.29	5.65	6.06	5.34	7.52	4.89	0.92	70.48	0.33	4
Category Average			1.19	11.14	5.91	5.49	4.91	6.57	4.99	0.79	74.58	0.33	2
DJ Target 2015 TR USD			1.03	7.65	5.71	3.44	3.65	5.05	3.20	0.60	100	-	-
Target-Date 2020													
American Funds 2020 Trgt Date Retire R6	RRCTX	12.59	0.70	10.57	5.18	6.66	5.80	8.15	5.33	0.95	79.61	0.34	5
Category Average			0.96	11.26	5.09	6.04	4.99	6.70	5.38	0.84	82.63	0.46	3
DJ Target 2020 TR USD			1.01	9.27	6.23	4.50	4.36	5.98	3.95	0.75	100	-	-
Target-Date 2025													
American Funds 2025 Trgt Date Retire R6	RFDTX	12.59	0.43	11.55	4.50	7.52	6.33	9.08	6.45	0.92	91.43	0.36	5
Category Average			0.71	12.44	4.22	6.94	5.64	7.82	6.69	0.81	92.10	0.47	3
DJ Target 2025 TR USD			0.80	10.42	5.50	5.53	5.05	6.94	4.95	0.81	100	-	-
Target-Date 2030													
American Funds 2030 Trgt Date Retire R6	RFETX	12.59	0.27	12.72	3.86	8.67	7.15	9.74	7.69	0.92	96.26	0.38	5
Category Average			0.53	13.59	3.37	7.80	6.15	8.28	7.97	0.79	96.64	0.48	3
DJ Target 2030 TR USD			0.58	11.83	4.48	6.72	5.80	7.86	6.40	0.81	100	-	-
Target-Date 2035													
American Funds 2035 Trgt Date Retire R6	RFFTX	12.59	0.00	14.16	3.03	9.61	7.75	10.07	9.11	0.89	97.45	0.39	5
Category Average			0.31	14.46	2.54	8.42	6.56	8.79	9.08	0.77	97.93	0.49	3
DJ Target 2035 TR USD			0.36	13.23	3.38	7.70	6.35	8.59	7.92	0.78	100	-	-

## INVESTMENT ANALYSIS DETAILS: PERFORMANCE VS. BENCHMARKS

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return						Risk	Risk Adj Return	R-Squared	Expense Ratio vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Target-Date 2040													
American Funds 2040 Trgt Date Retire R6	RFGTX	12.59	-0.13	14.62	2.70	9.93	7.95	10.22	9.61	0.87	97.59	0.40	5
Category Average			0.24	15.01	2.06	8.77	6.70	9.05	9.76	0.75	98.25	0.50	3
DJ Target 2040 TR USD			0.17	14.41	2.44	8.51	6.80	9.13	9.26	0.76	100	-	-
Target-Date 2045													
American Funds 2045 Trgt Date Retire R6	RFHTX	12.59	-0.19	14.75	2.52	10.12	8.09	10.28	9.83	0.87	97.34	0.40	5
Category Average			0.15	15.30	1.65	8.92	6.83	9.13	10.22	0.74	98.21	0.50	3
DJ Target 2045 TR USD			0.02	15.20	1.66	9.02	7.08	9.42	10.25	0.74	100	-	-
Target-Date 2050													
American Funds 2050 Trgt Date Retire R6	RFITX	12.59	-0.26	14.84	2.39	10.21	8.14	10.32	9.95	0.87	97.14	0.41	5
Category Average			0.13	15.44	1.58	8.97	6.84	9.00	10.37	0.74	98.14	0.50	3
DJ Target 2050 TR USD			-0.07	15.63	1.22	9.24	7.20	9.50	10.79	0.73	100	-	-
Target-Date 2055													
American Funds 2055 Trgt Date Retire R6	RFKTX	9.59	-0.20	14.90	2.40	10.19	8.13	-	9.99	0.87	97.22	0.42	5
Category Average			0.12	15.39	1.55	8.95	6.98	9.12	10.36	0.73	98.14	0.50	3
DJ Target 2055 TR USD			-0.09	15.70	1.16	9.24	7.20	9.50	10.88	0.73	100	-	-
Target-Date 2060+													
American Funds 2060 Trgt Date Retire R6	RFUTX	4.50	-0.23	14.88	2.38	10.16	-	-	9.96	0.87	97.24	0.44	5
Category Average			0.27	15.84	2.25	9.22	-	-	10.30	0.76	98.20	0.51	3
DJ Target 2060 TR USD			-0.09	15.70	1.16	9.24	7.20	9.50	10.88	0.73	100	-	-



## Investment Analysis Details

## INVESTMENT ANALYSIS DETAILS: PERFORMANCE VS. BENCHMARKS

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Intermediate Core-Plus Bond													
PIMCO Total Return Instl	PTTRX	5.00	2.36	8.58	10.08(30)	3.56(24)	3.58(33)	4.32(53)	3.23	0.64	91.91	0.71	4
Category Average			1.94	8.49	9.16	3.19	3.28	4.39	2.97	0.59	85.28	0.78	3
BBgBarc US Agg Bond TR USD			2.27	8.52	10.30	2.92	3.38	3.75	3.35	0.43	100	-	-
Intermediate Core Bond													
Vanguard Interm-Term Bond Index I	VBIMX	11.42	2.41	10.30	12.46(1)	3.12(18)	3.96(1)	4.81(4)	4.08	0.41	99.57	0.05	5
Category Average			1.99	7.89	9.35	2.58	2.95	3.59	3.08	0.35	94.06	0.65	3
BBgBarc US 5-10Y GovCredit FIAdj TR USD			2.28	10.23	12.49	3.18	4.01	4.84	4.06	0.43	100	-	-
Nontraditional Bond													
Templeton Global Bond R6	FBNRX	17.75	-3.31	-0.58	1.16(83)	3.99(28)	0.94(81)	3.82(41)	6.85	0.38	15.00	0.57	2
Category Average			0.39	4.91	3.17	3.08	2.27	3.48	3.06	0.71	10.26	1.22	3
FTSE WGBI USD			0.85	6.27	8.13	1.19	1.80	1.69	5.52	-0.04	100	-	-
Large Blend													
American Funds Washington Mutual R6	RWMGX	22.17	1.69	16.96	6.14(19)	13.19(24)	10.09(36)	13.08(15)	10.50	1.09	95.48	0.27	5
Category Average			1.45	18.99	3.02	11.69	8.96	11.76	12.46	0.84	93.80	0.89	3
S&P 500 TR USD			1.70	20.55	4.25	13.39	10.84	13.24	12.18	0.97	100	-	-
Vanguard Institutional Index I	VINIX	18.75	1.69	20.54	4.23(34)	13.36(19)	10.81(13)	13.22(8)	12.18	0.97	100.00	0.04	5
Category Average			1.45	18.99	3.02	11.69	8.96	11.76	12.46	0.84	93.80	0.89	3
S&P 500 TR USD			1.70	20.55	4.25	13.39	10.84	13.24	12.18	0.97	100	-	-
Large Growth													
T. Rowe Price Blue Chip Growth	TBCIX	26.25	-1.60	19.00	2.11(49)	18.31(9)	14.26(8)	15.85(6)	14.29	1.14	81.91	0.57	5
Category Average			-0.47	20.53	1.86	14.60	11.00	13.08	13.82	0.96	85.25	1.05	3
S&P 500 TR USD			1.70	20.55	4.25	13.39	10.84	13.24	12.18	0.97	100	-	-
Mid-Cap Blend													
Vanguard Extended Market Index Instl	VIEIX	21.75	-1.60	17.60	-3.78(69)	9.97(32)	8.54(27)	12.44(18)	15.32	0.60	100.00	0.06	4
Category Average			0.08	17.69	-1.39	8.47	6.61	10.94	14.33	0.54	89.57	1.00	3
S&P Completion TR USD			-1.64	17.53	-3.96	9.83	8.40	12.30	15.33	0.59	100	-	-

## INVESTMENT ANALYSIS DETAILS: PERFORMANCE VS. BENCHMARKS

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Mid-Cap Growth													
Champlain Mid Cap Institutional	CIPIX	11.25	-0.79	18.82	5.14(31)	15.27(26)	13.21(10)	14.26(17)	12.64	1.07	90.90	0.90	5
Category Average			-1.80	22.76	1.10	13.10	9.89	12.56	15.13	0.81	85.03	1.15	3
Russell Mid Cap TR USD			0.48	21.93	3.19	10.69	9.10	13.07	13.44	0.71	100	-	-
Small Blend													
JPMorgan US Small Company R6	JUSMX	15.08	-0.61	11.19	-9.67(70)	5.24(82)	6.88(59)	11.58(26)	17.22	0.29	98.26	0.73	3
Category Average			-1.27	14.25	-7.72	7.21	6.89	10.68	16.94	0.41	93.62	1.10	3
Russell 2000 TR USD			-2.40	14.18	-8.89	8.23	8.19	11.19	17.21	0.46	100	-	-
Foreign Large Blend													
Lazard International Equity R6	RLIEX	27.66	-1.54	13.74	0.30(18)	4.77(73)	2.71(62)	5.44(17)	10.55	0.35	92.04	0.80	3
Category Average			-1.28	12.12	-2.04	5.55	2.93	4.55	11.55	0.40	92.20	0.97	2
MSCI EAFE NR USD			-1.07	12.80	-1.34	6.48	3.27	4.90	11.07	0.48	100	-	-
Vanguard Total Intl Stock Index I	VTSNX	11.08	-1.61	11.47	-1.53(42)	6.09(39)	3.17(42)	4.55(53)	11.51	0.44	98.78	0.08	3
Category Average			-1.28	12.12	-2.04	5.55	2.93	4.55	11.55	0.40	92.26	0.97	2
FTSE Global All Cap ex US TR USD			-1.58	11.79	-1.35	6.50	3.49	5.13	11.35	0.48	100	-	-
Real Estate													
TIAA-CREF Real Estate Sec Instl	TIREX	13.75	7.97	30.33	22.62(11)	10.55(3)	11.85(3)	13.87(5)	12.05	0.77	98.22	0.51	5
Category Average			6.89	26.43	17.26	7.22	9.27	12.15	12.44	0.52	90.67	1.12	3
FTSE Nareit All Equity REITs TR USD			7.73	28.49	20.70	9.03	11.07	13.59	12.47	0.64	100	-	-

## INVESTMENT ANALYSIS DETAILS: PERFORMANCE VS. BENCHMARKS - PASSIVE ONLY

Peergroup/ Investment Name	Ticker	Manager Tenure	Total Return(% rank in peergroup)						Risk	Risk Adj Return	R-Squared	Expense Ratio vs-Peers	Overall Mstar Rating
			Qtr	YTD	1 Year	3 Year	5 Year	10 Year					
Intermediate Core Bond													
Vanguard Interm-Term Bond Index I	VBIMX	11.42	2.41	10.30	12.46(2)	3.12(2)	3.96(1)	4.81(1)	4.08	0.41	99.57	0.05	5
Category Passive Average*			2.18	8.34	10.10	2.62	3.10	3.47	3.39	0.33	96.80	0.28	2
BBgBarc US 5-10Y GovCredit FIAdj TR USD			2.28	10.23	12.49	3.18	4.01	4.84	4.06	0.43	100	-	-
Large Blend													
Vanguard Institutional Index I	VINIX	18.75	1.69	20.54	4.23(37)	13.36(24)	10.81(17)	13.22(7)	12.18	0.97	100.00	0.04	5
Category Passive Average*			1.75	20.25	4.55	12.74	10.26	12.82	12.28	0.93	96.77	0.40	3
S&P 500 TR USD			1.70	20.55	4.25	13.39	10.84	13.24	12.18	0.97	100	-	-
Mid-Cap Blend													
Vanguard Extended Market Index Instl	VIEIX	21.75	-1.60	17.60	-3.78(74)	9.97(30)	8.54(43)	12.44(23)	15.32	0.60	100.00	0.06	4
Category Passive Average*			-0.18	17.80	-1.29	9.30	7.95	11.98	14.42	0.59	93.49	0.44	3
S&P Completion TR USD			-1.64	17.53	-3.96	9.83	8.40	12.30	15.33	0.59	100	-	-
Foreign Large Blend													
Vanguard Total Intl Stock Index I	VTSNX	11.08	-1.61	11.47	-1.53(62)	6.09(65)	3.17(50)	4.55(59)	11.51	0.44	98.78	0.08	3
Category Passive Average*			-0.95	12.08	-1.02	6.42	3.46	4.62	10.94	0.49	92.85	0.39	3
FTSE Global All Cap ex US TR USD			-1.58	11.79	-1.35	6.50	3.49	5.13	11.35	0.48	100	-	-

\*Category Passive Average includes only index investment options

Data Sources: Morningstar as of 09.30.2019

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# Appendices

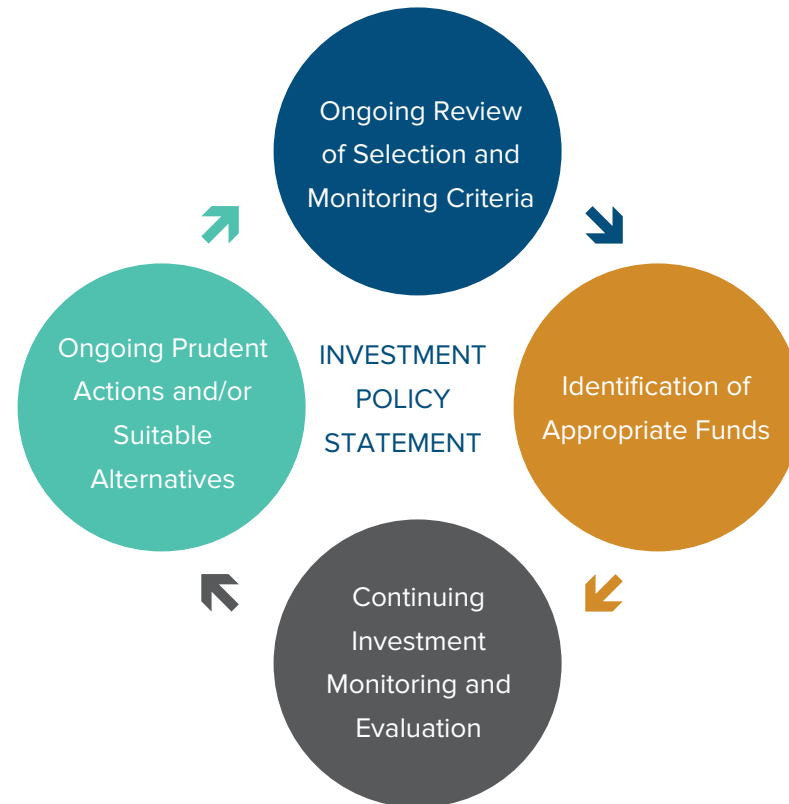
# Due Diligence Methodology and Process

## INVESTMENT ANALYSIS: MONITORING CRITERIA

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In evaluating investments, the process is driven by your Investment Policy Statement. We review:

- Performance vs. Peers (Category)
- Performance vs. Indexes
- Risk Characteristics
- Expenses vs. Peers
- Style Purity
- Investment Objectives
- Manager Tenure
- Management Team



# INVESTMENT ANALYSIS: SCORECARD METHODOLOGY

## SCORECARD

Tests	Requirement to Pass Screen
Manager Tenure	Lead Manager with greater than two years of experience with fund or similar asset class.
Performance vs.Benchmark Index:3-,5- and 10-Year	Returns no worse than 100 bps below the respective index over 3-,5- and 10- year periods
Category Ranking:3-,5- and 10-Year	Ranking of less than or equal to 60th percentile over 3-,5- and 10- year periods(the lower the category rank percentile, the better)
Risk(3-Year Standard Deviation)	Standard Deviation less than or equal to 1.1x the respective benchmark
Risk-Adjusted Return(3-Year Sharpe)	Returns greater than or equal to 0.9x the respective benchmark
R-Squared	Greater than or equal to R-Squared value of 70 when compared to respective index
Expense Ratio(Prospectus Net)	Expense ratio below the Morningstar peer group average
Morningstar Rating(Overall)	Rating greater than or equal to 3 Stars.



# Glossary and Standard Disclosures

## GLOSSARY AND STANDARD DISCLOSURES

### CREATING CAMMACK LARHETTE ADVISORS' PROPRIETARY TARGET DATE ANALYSIS

<b>STEP 1:</b>	Break down each TDF suite using Morningstar asset classes, based on equity exposure.
<b>STEP 2:</b>	Take the average equity exposure for each Morningstar category & calculate the deviation from that average for each fund.
<b>STEP 3:</b>	Weight the deviations based on the position within the glide path (e.g., weighting the age 45–65 age period more heavily than deviations at younger ages).
<b>STEP 4:</b>	Calculate a score for each target date series based on the individual asset weighting scores (standard deviation x weighting) for each fund within the target date series. The Cammack Target Date Universe is the average of 47 Target Date fund families.
<b>STEP 5:</b>	<p>Assign each TDF to one of the six categories, based on their relative scores.</p> <p><u>Preservation – Most Conservative:</u> Invesco Balanced Risk Retirement, Great-West Lifetime Conservative, JHancock Multi-Index Preservation, Harbor Target Retirement, USAA Target Retirement, Manning &amp; Napier, Dimensional Target Date Retirement</p> <p><u>Preservation – Conservative:</u> T. Rowe Price Target, American Century One Choice, Goldman Sachs Target Date, JP Morgan SmartRetirement® Blend, JPMorgan Smart Retirement®, MassMutual RetireSMART, PIMCO RealPath Blend, Putnam RetirementReady</p> <p><u>Preservation – Moderately Conservative:</u> Voya Solution Portfolio, Voya Index Solution Portfolio, Franklin LifeSmart Retirement Target, AllianzGI Retirement, American Funds Target Date Retirement, Wells Fargo Target Date, MFS Lifetime, Great-West Lifetime</p> <p><u>Extension – Moderately Aggressive:</u> TIAA-CREF Lifecycle Retirement, MainStay Retirement, Schwab Target Index Series, Schwab Target, Principal LifeTime, Principal Lifetime Hybrid, Mutual of America Retirement, TIAA-CREF Lifecycle Index Retirement</p> <p><u>Extension – Aggressive:</u> Vanguard Target Retirement, BlackRock® LifePath Smartbeta, BlackRock® Lifepath Index, BlackRock® LifePath Dynamic, Great-West SecureFoundation®, T. Rowe Price Retirement, Fidelity Freedom®, Fidelity Freedom® Index Investor</p> <p><u>Extension – Most Aggressive:</u> BMO Target Retirement, AB Multimanager Select, JHancock Multi-Index Lifetime, JHancock Multimanager Lifetime, Wells Fargo Dynamic Target Date, GuideStone Funds MyDestination, Nationwide Destination</p>

## TARGET DATE ANALYSIS DEFINITIONS

Terms	Definition & Application
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**Target Date Index**

Dow Jones S&P Target Date Indices are designed to measure the performance of multi-asset-class portfolios. The indices were designed as benchmarks for the growing category of "lifecycle" funds, which are typically used to plan for retirement or other long-term savings goals. The indices automatically adjust their asset allocations over time to reflect reductions in potential risk as an investor's target date approaches.

**Target Date Index Asset Allocation**

	Equity	Fixed Income
Dow Jones Target Today Index	20.00%	80.00%
Dow Jones Target 2005	20.00%	80.00%
Dow Jones Target 2010	22.11%	77.89%
Dow Jones Target 2015	28.19%	71.81%
Dow Jones Target 2020	37.50%	62.50%
Dow Jones Target 2025	48.92%	51.08%
Dow Jones Target 2030	61.08%	38.92%
Dow Jones Target 2035	72.50%	27.50%
Dow Jones Target 2040	81.81%	18.19%
Dow Jones Target 2045	87.89%	12.11%
Dow Jones Target 2050	90.00%	10.00%
Dow Jones Target 2055	90.00%	10.00%
Dow Jones Target 2060	90.00%	10.00%

## DEFINITIONS

Terms	Definition and Application
Alpha	Alpha is a measure of a manager's effectiveness. It is the difference between a fund's actual returns and its expected performance, given its level of risk as measured by beta. Positive alpha indicates that the fund has performed better than its beta would predict. Negative alpha indicates the fund underperformed given the expectations established by the fund's beta.
Beta	Beta is a measure of the volatility of a security compared to the market as a whole. The market holds a beta of 1. When beta is greater than 1, the fund will move ahead of its indexed market when the market is moving up, ultimately performing better than the market; however, when the market moves down, the fund will underperform the market. When beta is less than 1 the opposite is true. The higher the beta, the greater the volatility. The lower the beta, the lower the volatility.
Down Capture	Calculated by taking the fund's monthly return during the periods of negative benchmark performance and dividing it by the benchmark return. A ratio of less than 100 indicates that a fund has lost less than its benchmark in periods when the benchmark has been in the red.
Up Capture	Calculated by taking the fund's monthly return during the periods of positive benchmark performance and dividing it by the benchmark return. A ratio higher than 100 indicates the fund has outperformed the benchmark during periods of positive returns for the benchmark.
Effective Duration	Duration adjusted for embedded options. A measure of a bond's price sensitivity to interest rate movement.
Effective Maturity	Maturity adjusted for embedded options.
Information ratio	Information Ratio is a benchmark related statistic and measures a fund's outperformance and consistency. The information ratio should be positive. A range between 0.40 and 0.60 equates to a good value while a value of 1.00 is exceptional and rare. This metric is a measure of relative risk and not absolute risk.
Net Expense Ratio	Represents the percentage of a fund's assets that are used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund. Brokerage costs and sales charges are not included. Value should be lower than the fund's respective Morningstar peer group.
Overall Morningstar Rating	Proprietary Morningstar data point. Values are from 1 (lowest) to 5 (highest) and are based on how well the fund has performed, after adjusting for risk and accounting sales charges, in comparison to similar funds.

## DEFINITIONS(cont.)

Terms	Definition and Application
Risk/Return	Graph that charts risk (as defined by standard deviation) on the X-axis and return on the Y-axis. It shows the fund's return per unit of risk taken. The higher and to left on the graph depicts higher returns for less risk.
R-Squared	Reflects the percentage of a fund's movements that can be explained by movements in its benchmark index. A value near 100 indicates all movements can be explained by movements in the benchmark index. An index fund will be close to 100. A low value indicates that very few of the fund's movements can be explained by movements in the benchmark index.
Sharpe Ratio	Also known as risk-adjusted return. This is a risk-adjusted measure that is calculated by using standard deviation and excess return to determine reward per unit of risk. Calculated for a past 36-month period by dividing a fund's annualized excess returns (excess returns are defined by the fund's actual returns minus a risk-free rate) by the standard deviation of a fund's annualized excess returns. The higher the value, the better the fund's historical risk-adjusted performance. The lower the value, the worse the fund's historical risk-adjusted performance.
Standard Deviation	Statistical measurement of dispersion about an average, which, for a mutual fund, depicts how widely the returns varied over a certain period of time. This metric is used to try and predict the range of returns for a given fund. A high value signifies greater volatility, as the predicted range of performance is wide. A low value signifies lower volatility, as the predicted range of performance is more focused.
Style Drift	The movement of a mutual fund from one asset category into another. This graph charts inconsistency with style, as defined by a fund's stated category. The smaller dots on the graph represent the starting point for the time period shown and the larger dots represent the most recent time periods.
Turnover Ratio	A measure of a fund's trading activity, calculated by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by the average monthly net assets. A ratio of 100% or higher represents considerable buying and selling of securities. A low ratio indicates a buy-and-hold strategy.

## GLOSSARY AND STANDARD DISCLOSURES

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Morningstar information was obtained from "Morningstar, Inc."

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The asset information included in this report is provided by the plan vendor(s) based on raw data. It has not been subjected to a validation process or any manual controls. There may be variances between the raw data reports and the comparative financials that are subjected to the processes detailed in an SSAE 16 (formerly SAS 70 report). The information should be used for the purposes of this report alone, and cannot be relied upon for other usages.

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