

Nevada System of Higher Education

First Quarter 2019 Discussion Guide

May 22, 2019

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Discussion Topics

Section 1	Capital Markets Review
Section 2	Performance Review
Section 3	Noteworthy Items
Section 4	William Blair & Company Flash Report
Section 5	Legal & Compliance Update

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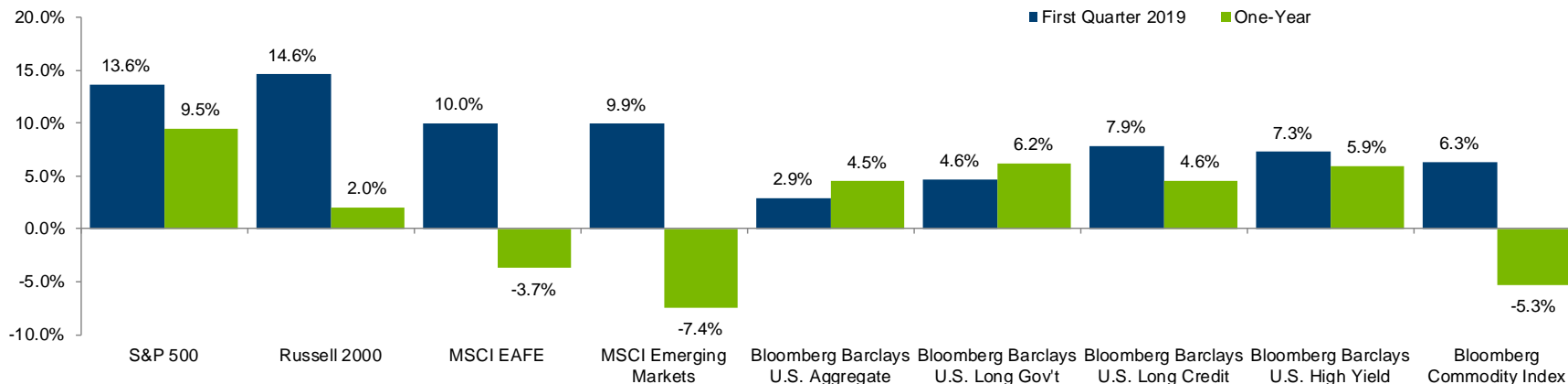
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Discussion Topics

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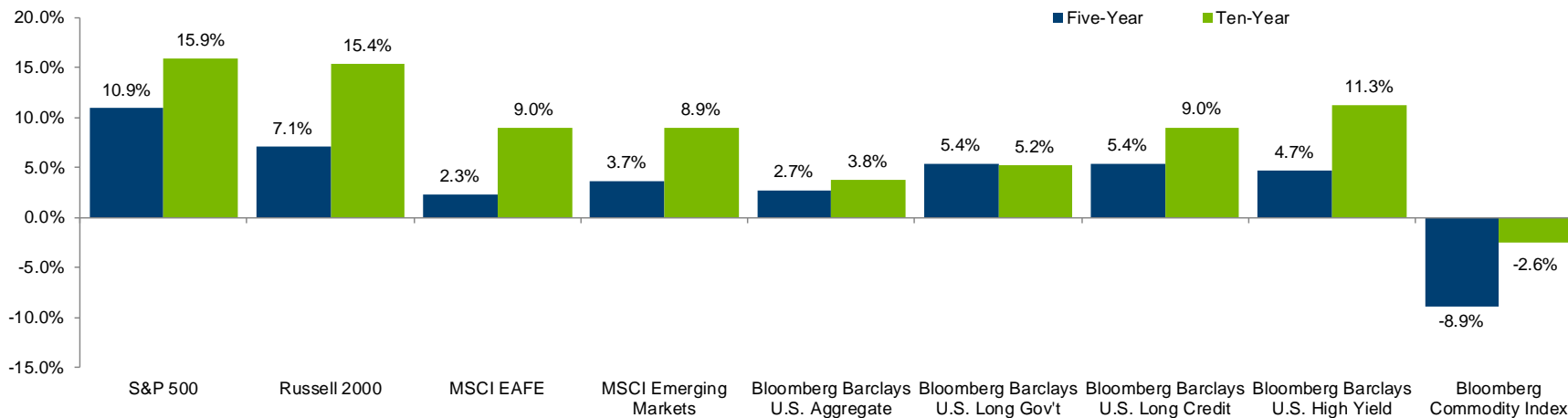
Market Highlights

SHORT TERM RETURNS AS OF 03/31/2019



Source: Russell, MSCI, Bloomberg Barclays, Bloomberg

LONG TERM ANNUALIZED RETURNS AS OF 03/31/2019



Source: Russell, MSCI, Bloomberg Barclays, Bloomberg

Market Highlights

Returns of the Major Capital Markets					
Period Ending 03/31/2019					
	First Quarter	1-Year	3-Year ¹	5-Year ¹	10-Year ¹
Equity					
MSCI All Country World IMI	12.29%	1.89%	10.58%	6.33%	12.27%
MSCI All Country World	12.18%	2.60%	10.67%	6.45%	11.98%
Dow Jones U.S. Total Stock Market	14.04%	8.66%	13.45%	10.29%	16.01%
Russell 3000	14.04%	8.77%	13.48%	10.36%	16.00%
S&P 500	13.65%	9.50%	13.51%	10.91%	15.92%
Russell 2000	14.58%	2.05%	12.92%	7.05%	15.36%
MSCI All Country World ex-U.S. IMI	10.30%	-4.96%	7.94%	2.66%	9.20%
MSCI All Country World ex-U.S.	10.31%	-4.22%	8.09%	2.57%	8.85%
MSCI EAFE	9.98%	-3.71%	7.27%	2.33%	8.96%
MSCI EAFE (Local Currency)	10.59%	2.83%	8.53%	5.98%	9.75%
MSCI Emerging Markets	9.92%	-7.41%	10.68%	3.68%	8.94%
Fixed Income					
Bloomberg Barclays Global Aggregate	2.20%	-0.38%	1.49%	1.04%	3.05%
Bloomberg Barclays U.S. Aggregate	2.94%	4.48%	2.03%	2.74%	3.77%
Bloomberg Barclays U.S. Long Gov't	4.64%	6.20%	1.54%	5.43%	5.19%
Bloomberg Barclays U.S. Long Credit	7.86%	4.58%	5.21%	5.38%	9.00%
Bloomberg Barclays U.S. Long Gov't/Credit	6.45%	5.24%	3.75%	5.35%	7.23%
Bloomberg Barclays U.S. TIPS	3.19%	2.70%	1.70%	1.94%	3.41%
Bloomberg Barclays U.S. High Yield	7.26%	5.93%	8.56%	4.68%	11.26%
Bloomberg Barclays Global Treasury ex U.S.	1.39%	-3.81%	0.91%	0.09%	2.18%
JP Morgan EMBI Global (Emerging Markets)	6.59%	3.52%	5.20%	4.80%	8.12%
Commodities					
Bloomberg Commodity Index	6.32%	-5.25%	2.22%	-8.92%	-2.56%
Goldman Sachs Commodity Index	14.97%	-3.04%	6.18%	-12.61%	-3.37%
Hedge Funds					
HFR1 Fund-Weighted Composite ²	5.88%	0.90%	5.12%	3.06%	5.48%
HFR1 Fund of Funds ²	4.99%	0.49%	4.05%	2.27%	3.58%
Real Estate					
NAREIT U.S. Equity REITS	16.33%	20.86%	6.13%	9.12%	18.28%
NCREIF NFI - ODCE	1.42%	7.52%	7.97%	10.17%	8.74%
FTSE Global Core Infrastructure Index	14.30%	17.72%	11.34%	8.69%	12.92%
Private Equity					
Burgiss Private iQ Global Private Equity ³	0.00%	17.51%	12.00%	13.67%	9.75%

MSCI Indices show net total returns. All other indices show gross total returns.

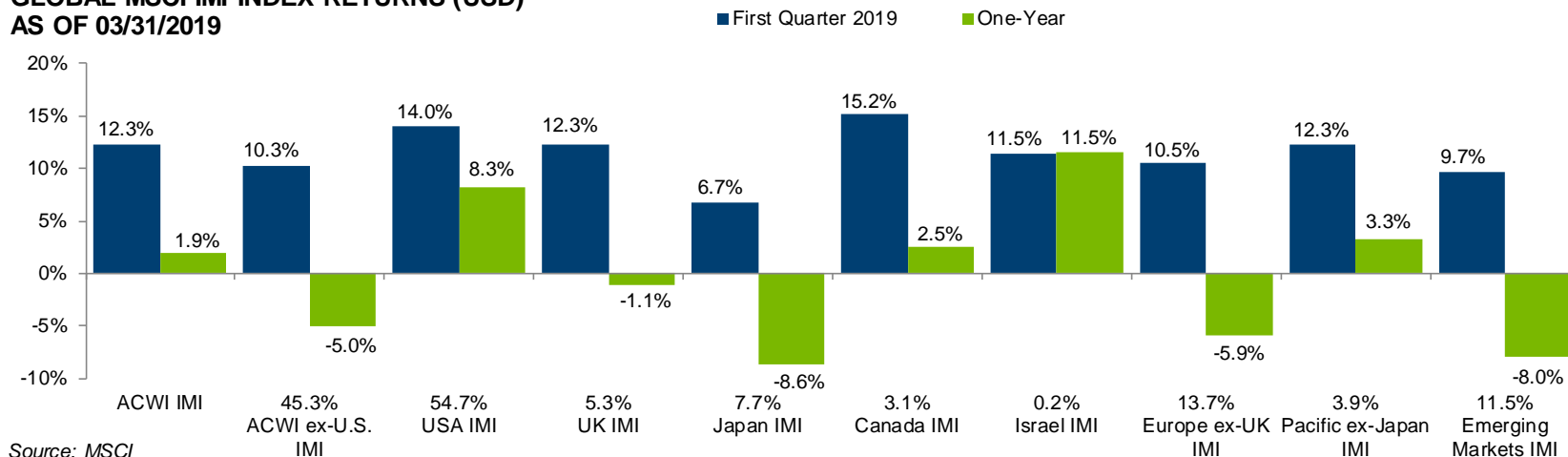
¹ Periods are annualized.

² Latest 5 months of HFR data are estimated by HFR and may change in the future.

³ Burgiss Private iQ Global Private Equity data is as at June 30, 2018

Global Equity Markets

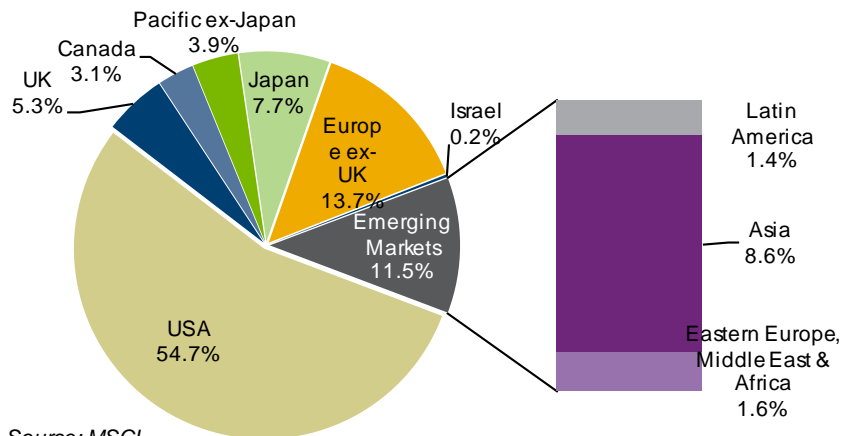
GLOBAL MSCI IMI INDEX RETURNS (USD) AS OF 03/31/2019



- Concerns of slowing global growth and trade wars partially eased during the first quarter of 2019, bolstering global equities in the process. In local currency terms, the MSCI AC World Investable Market Index returned 12.3%, not quite fully offsetting the previous quarter's decline.
- Rising oil prices and encouraging performance from Canadian financials and energy, combined with a strengthening of the Canadian dollar against the U.S. dollar, resulted in the Canadian equity market being the strongest performer (USD terms) over the quarter.
- Japanese and European (ex-UK) equities were predominantly boosted by valuation multiple expansion. This came despite deteriorating economic dataflow, with Japanese and eurozone PMIs moving into contractionary territory, weak industrial production and falling inflation.
- Strong sterling performance over the quarter on the back of increased possibility of a “no deal” Brexit scenario boosted UK equity market returns in USD terms. In local currency terms, however, UK equities largely lagged other markets.

Global Equity Markets

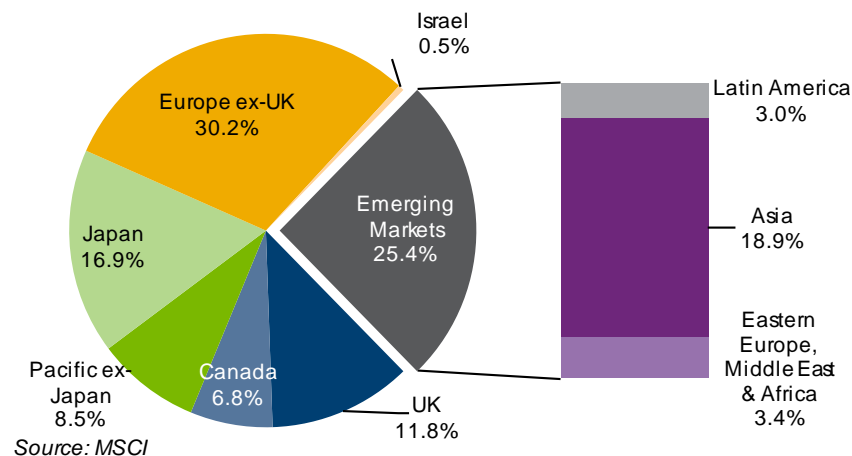
MSCI ALL COUNTRY WORLD IMI INDEX GEOGRAPHIC ALLOCATION AS OF 03/31/2019



Source: MSCI

- The two exhibits on this slide illustrate the percentage that each country/region represents of the global and international equity markets as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index, respectively.

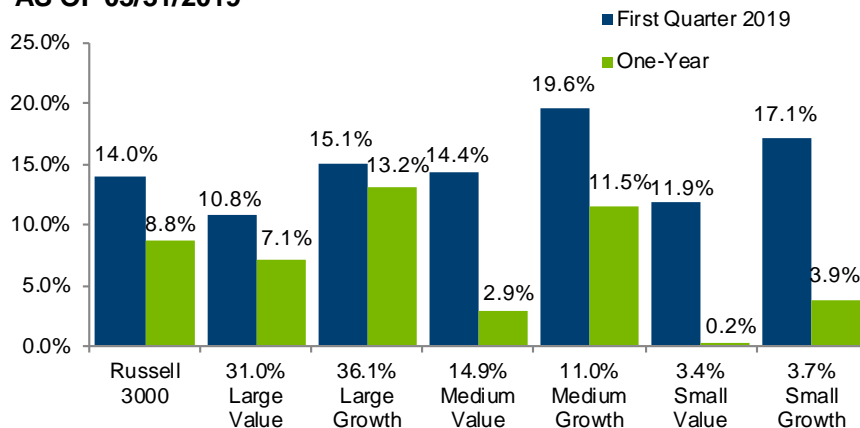
MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX GEOGRAPHIC ALLOCATION AS OF 03/31/2019



Source: MSCI

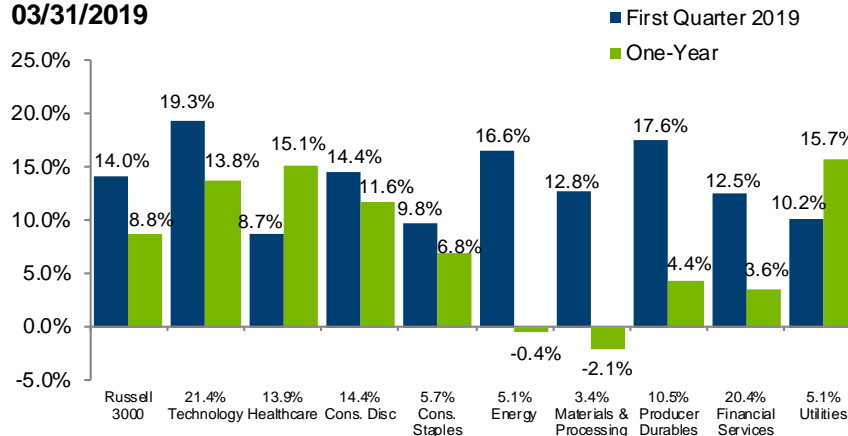
U.S. Equity Markets

**RUSSELL STYLE RETURNS
AS OF 03/31/2019**



Source: Russell Indexes

**RUSSELL GICS SECTOR RETURNS AS AT
03/31/2019**

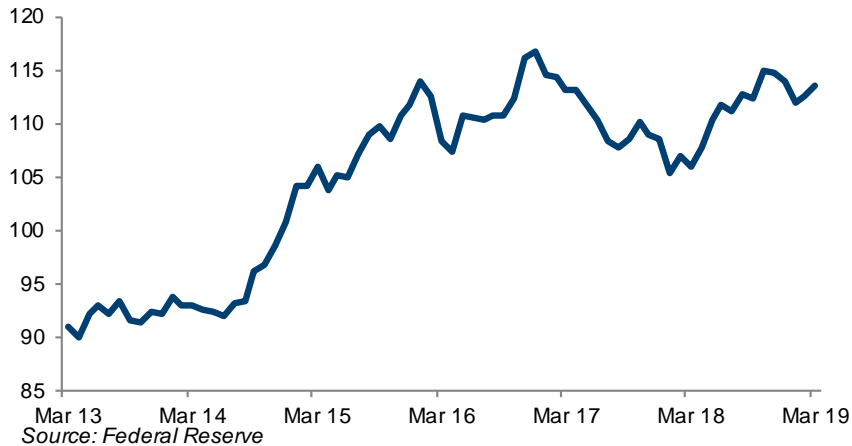


Source: Russell Indexes

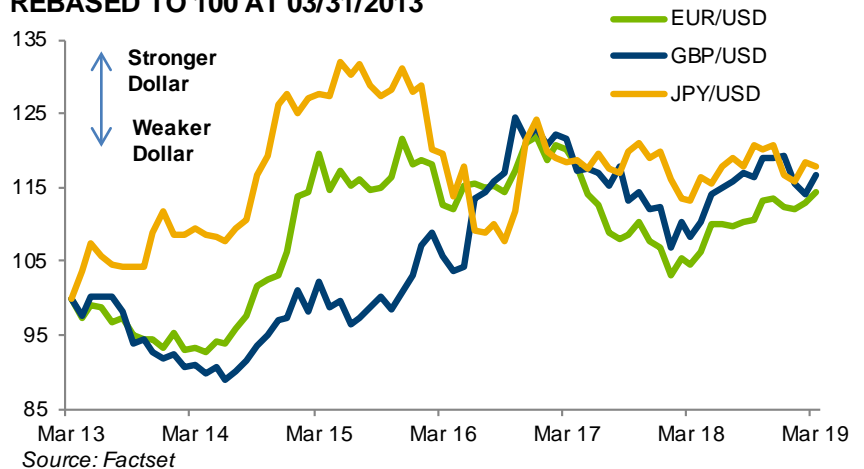
- With concerns of a slower U.S. economy abating and more promising steps to some U.S.-China trade reconciliation, it is unsurprising that drivers of the U.S. equity market upturn came from sectors traditionally thought to be cyclical or, at least, sensitive to the economic environment. The Dow Jones Total Stock Market Index rose by 14.0% over the quarter with the majority of the strong performance coming earlier in the quarter. The Russell 3000 Index rose 14.0% during the first quarter and 8.8% over the one-year period.
- All sectors generated positive returns over the quarter. In particular, technology (19.3%) and producer durables (17.6%) were the best performing sectors in Q1 2019.
- Performance was positive across the market capitalization spectrum over the quarter. In general, large cap stocks underperformed both medium and small cap stocks over the quarter. Growth stocks outperformed their value counterparts in Q1 2019; a continuation of a longer-lasting trend where value stocks have lagged their growth stock equivalents significantly over the last twelve months.

Currency

**TRADE WEIGHTED U.S. DOLLAR INDEX
(1973 = 100)**



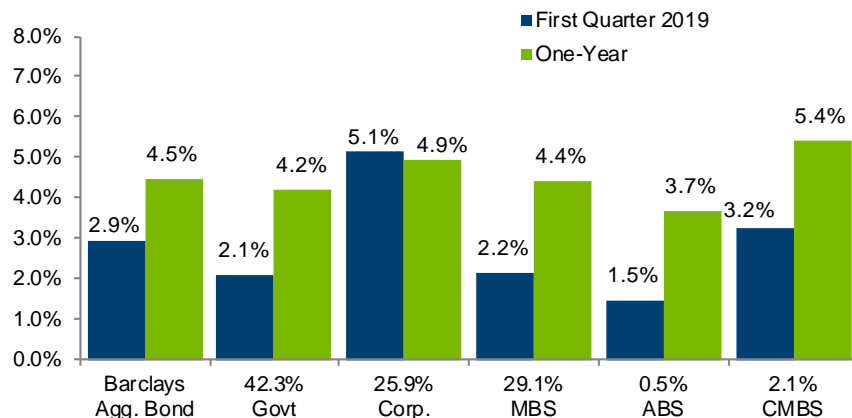
**U.S. DOLLAR RELATIVE TO EUR, GBP AND JPY
REBASED TO 100 AT 03/31/2013**



- The U.S. dollar had a mixed performance against major currencies over the quarter and ended marginally lower as it fell 0.4% on a trade-weighted basis over the quarter. U.S. dollar appreciated against euro and yen but depreciated against sterling and Canadian dollar.
- In the UK, it became clear over the quarter that a "no deal" Brexit scenario does not seem to have parliamentary backing, prompting sterling to find firmer footing. Sterling appreciated by 2.3% against the U.S. dollar.
- Alongside a more dovish ECB and a weaker economic outlook, the euro notably underperformed, falling against all major currencies. In particular, the euro depreciated by 1.8% against the U.S. dollar.

U.S. Fixed Income Markets

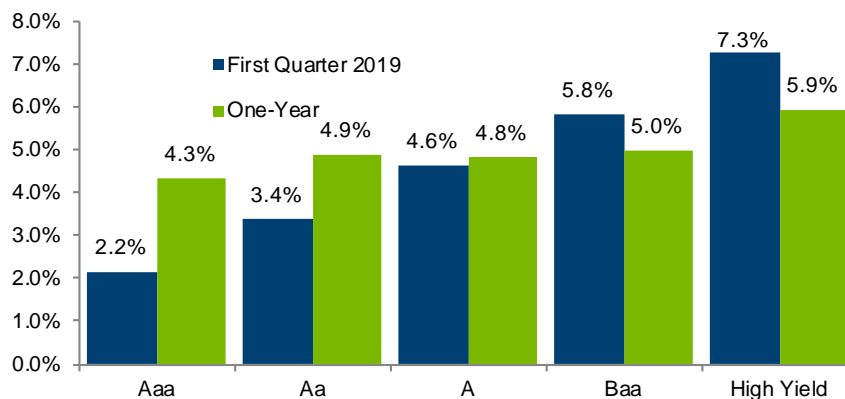
BLOOMBERG BARCLAYS AGGREGATE RETURNS BY SECTOR AS OF 03/31/2019



Source: FactSet

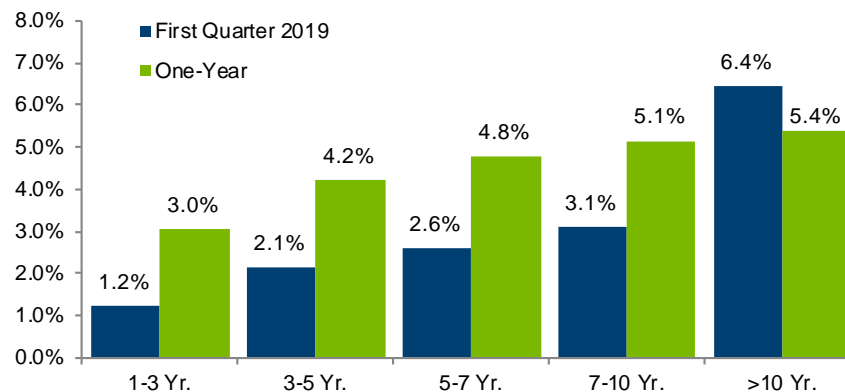
- The Bloomberg Barclays U.S. Aggregate Bond Index rose by 2.9% over the quarter. Corporate bonds were the best performers, returning 5.1% whilst ABS bonds underperformed with a return of 1.5%.
- Performance was positive across all credit grades. High yield bonds rose the most at 7.3%. Within investment grade bonds, Baa bonds outperformed with a return of 5.8%.
- Long-maturity bonds outperformed intermediate and short-maturity bonds over the quarter. Long-maturity bonds returned 6.4% while short-maturity bonds returned only 1.2% in Q1 2019.

BLOOMBERG BARCLAYS AGGREGATE RETURNS BY QUALITY AND HIGH YIELD RETURNS AS OF 03/31/2019



Source: FactSet

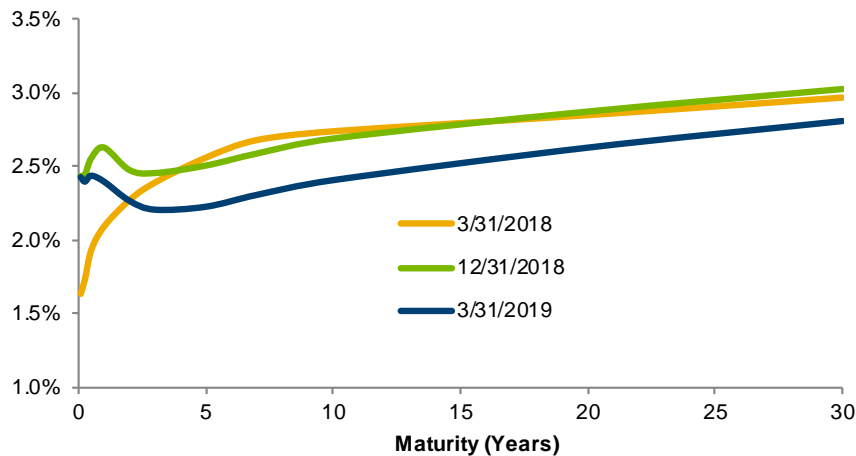
BLOOMBERG BARCLAYS AGGREGATE RETURNS BY MATURITY AS OF 03/31/2019



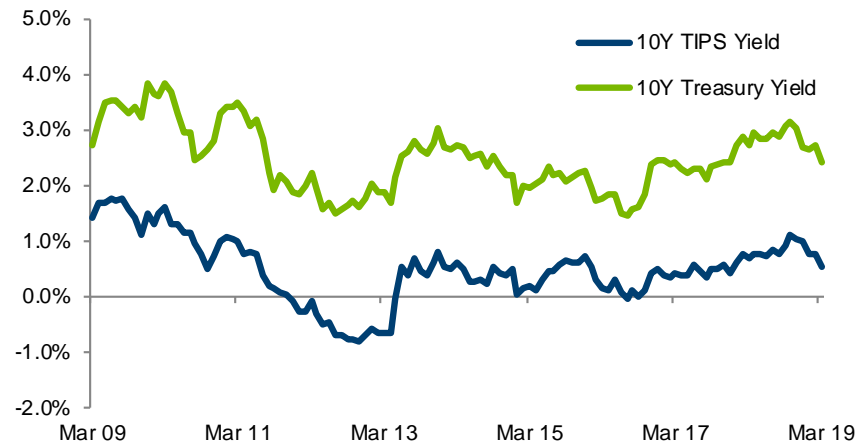
Source: FactSet

U.S. Fixed Income Markets

U.S. TREASURY YIELD CURVE



U.S. 10-YEAR TREASURY AND TIPS YIELDS



- The U.S. nominal yield curve shifted downwards over the quarter with yields falling across all maturities. The U.S. treasury yield curve flattened significantly in Q1. The difference between three-month and ten-year U.S. treasury yields (a key measure of the U.S. yield curve watched by the Fed and seen as an indicator of a coming recession) turned negative for the first time since August 2007.
- The 10-year U.S. Treasury yield ended the quarter at 2.41%, 28bps lower than at the start of the quarter in which the US Federal Reserve (Fed) decided to pause after hiking interest rates over the past year. Projected rate hikes for 2019 have been abandoned and pushed back later to 2020. Moreover, September is now earmarked as the end of the Fed's balance sheet tightening, while the pace of quantitative tightening will halve from May onwards (from \$30bn to \$15bn).
- The 10-year TIPS yield fell by 45bps over the quarter and ended the period at 0.53%.

Credit Spreads

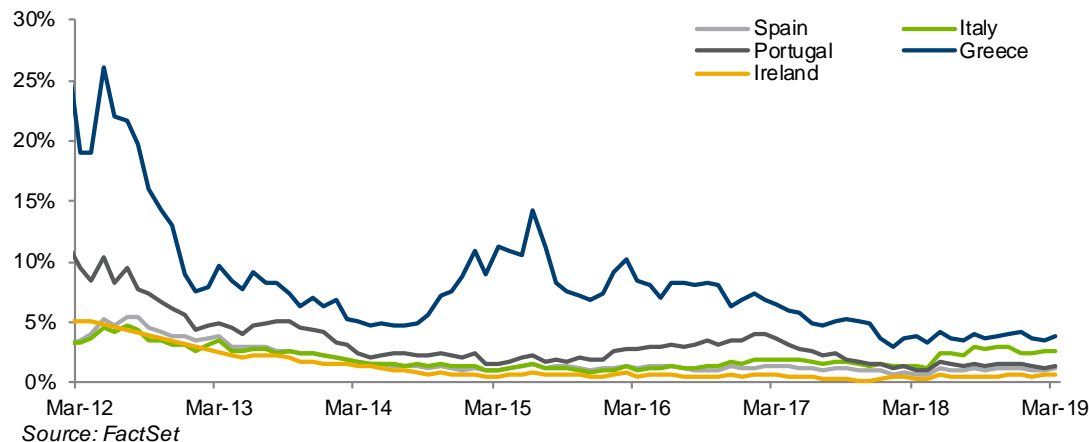
Spread (bps)	3/31/2019	12/31/2018	3/31/2018	Quarterly Change (bps)	1-Year Change (bps)
U.S. Aggregate	44	54	41	-10	3
Long Gov't	1	2	1	-1	0
Long Credit	172	200	148	-28	24
Long Gov't/Credit	99	113	88	-14	11
MBS	35	35	29	0	6
CMBS	69	86	67	-17	2
ABS	39	53	48	-14	-9
Corporate	119	153	109	-34	10
High Yield	391	526	354	-135	37
Global Emerging Markets	283	330	230	-47	53

Source: FactSet, Bloomberg Barclays

- Against a backdrop of improving risk appetite, credit spreads over U.S. Treasuries generally narrowed over the quarter.
- Broadly retracing the prior quarter's credit spread widening, high yield bond spreads narrowed significantly in Q1 2019, decreasing by 135bps.
- This was followed by global emerging markets bonds spreads, which narrowed by 47bps.

European Fixed Income Markets

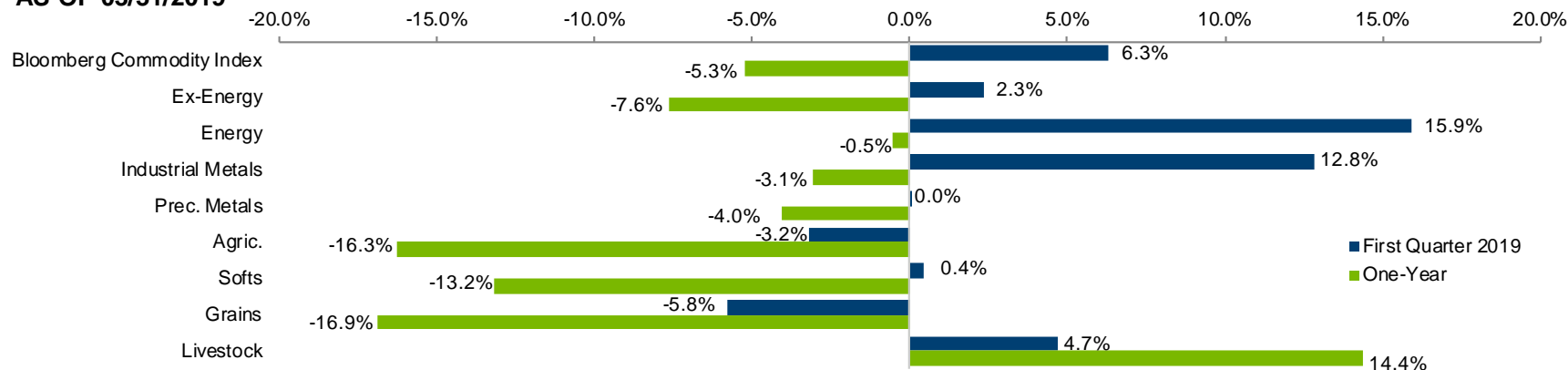
**EUROZONE PERIPHERAL BOND SPREADS
(10-YEAR SPREADS OVER GERMAN BUNDS)**



- Bond spreads over 10-year German bunds generally fell across the eurozone (except for Italy). The European Central Bank (ECB) pushed back its interest rate to 2020 at the earliest. The ECB announced the third iteration of the Targeted Long-Term Refinancing Operations (TLTRO), aimed at encouraging bank supply of credit. This comes just one quarter after the ECB ended its quantitative easing programme.
- German government bund yields fell by 31bps to -0.07% over the quarter with the yields falling below zero for the first time in two years after the country's manufacturing sector dived deeper into contraction territory. Italian government bond yields fell by 25bps to 2.49% over the quarter. Both Fitch and Moody's credit rating agencies kept their ratings unchanged for Italian sovereign bonds at BBB and Baa3 respectively, easing fears of a downgrade expected by some market participants.
- Portuguese government bond yields fell by 46bps to a record low of 1.25%, as Standard and Poor's upgraded the country's credit rating to BBB.
- Greek government bond yields fell by 62bps to 3.73% over the quarter which saw the successful release of the country's first new bond issuance since it exited its third bailout programme in August 2018.

Commodities

COMMODITY RETURNS AS OF 03/31/2019



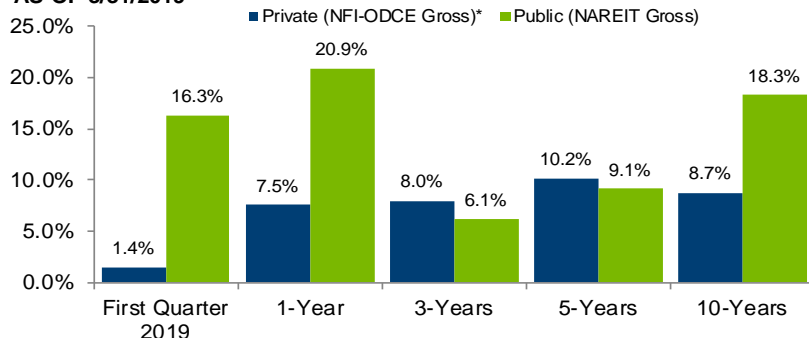
Source: Bloomberg

- Commodities rose over the quarter which saw the Bloomberg Commodity Index return 6.3%.
- Energy was the best performing sector over the quarter with a return of 15.9% as crude oil prices rose sharply. The cut in OPEC's crude oil production, as well as an unexpected fall in U.S. inventories, more than offset the potentially dampening effect on commodity demand from weakening economic growth and trade. The price of Brent crude oil rose by 27.1% to \$68/bbl. and WTI crude oil spot prices rose by 32.4% to \$60/bbl.
- Agriculture (-3.2%) was the worst performing sector in Q1 2019. Within the Agriculture sector, Softs rose by 0.4% whilst Grains fell by 5.8%.

U.S. Commercial Real Estate Markets

PRIVATE VS. PUBLIC REAL ESTATE RETURNS

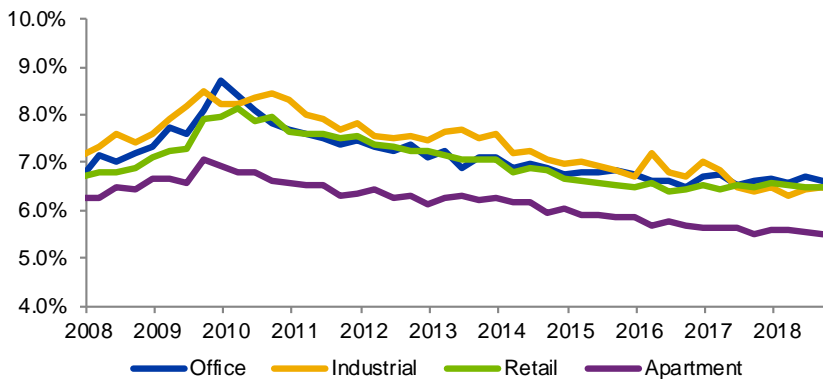
AS OF 3/31/2019



*Second quarter returns are preliminary

Sources: NCREIF, Factset

CAP RATES BY SECTOR



Sources: RCA, AON 12/31/2018

- U.S. Core real estate returned 1.42%* over the first quarter, equating to 7.5% total gross return year-over-year, including a 4.2% income return. Debt mark to market was a drag on the quarterly return as a result of declining interest rates. Net income growth is expected to be the larger driver of the total return on a go forward basis given the current point of the real estate cycle.
- Global property markets, as measured by the FTSE EPRA/NAREIT Global Developed Real Estate Index, returned 14.9% (USD) in aggregate during the first quarter. Sector strength was largely attributed to a broader equity market rally due to an abrupt shift in monetary policy across major economies. The EU restarted QE just 2 months after ceasing the program, and the US Fed communicated a general pause from increasing rates for 2019. REIT market performance was driven by Asia Pacific (15.6% USD), North America (16.0% USD) and Europe (12.2% USD). The U.S. REIT markets (FTSE NAREIT Equity REITs Index) gained 16.3% in the first quarter. U.S. 10-year Treasury bond yield fell to 2.41%, after hitting highs over 3% in 2018. the movement was supportive to REIT share prices. Similarly, the German 10-year bond yield fell from .24% back to -0.07% at the end of the quarter.
- According to RCA through February 2019, the U.S. property market has experienced price growth of 6.3% year-over-year across major sectors. In addition, transaction volume was down 4% over the same period.
- Return expectations have normalized, with go forward expectations in line with historical norms. Declining interest rates have led to a rally across various asset classes. According to Preqin, there remains a record amount of dry powder (\$326 billion) in closed-end vehicles seeking real estate exposure, which should continue to lend support to valuations and liquidity in the commercial real estate market.

*Indicates preliminary NFI-ODCE data gross of fees

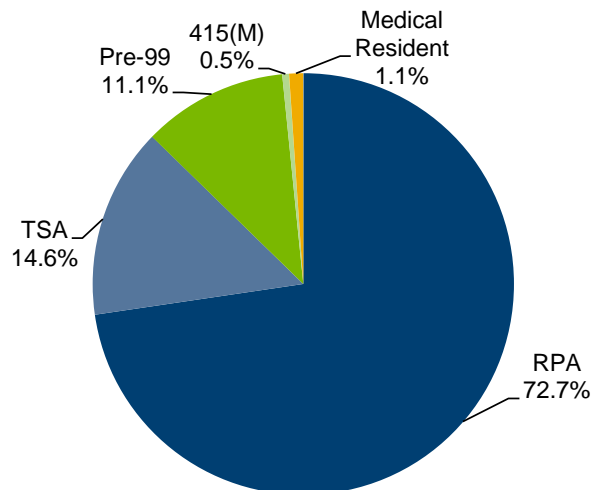
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Discussion Topics

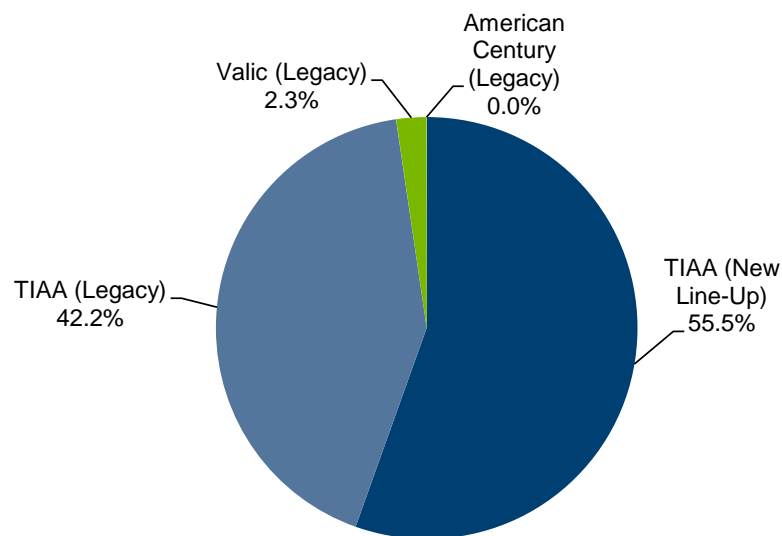
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Asset Allocation

Assets by Plan
As of March 31, 2019



Assets by Vendor
As of March 31, 2019



As of 3/31/2019

Plan	RPA		TSA		Pre-99		415(M)		Medical Resident		Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
TIAA (New Line-Up)	\$ 1,411,174,793	60.2%	\$ 298,363,799	63.2%	\$ 39,514,891	11.0%	\$ 15,457,391	91.8%	\$ 25,446,087	72.5%	\$ 1,789,956,961	55.5%
TIAA (Legacy)	\$ 888,468,403	37.9%	\$ 153,299,520	32.5%	\$ 318,473,934	88.9%	\$ 1,380,410	8.2%	\$ 164,109	0.5%	\$ 1,361,786,377	42.2%
Valic (Legacy)	\$ 44,861,058	1.9%	\$ 20,357,942	4.3%	\$ -	0.0%	\$ -	0.0%	\$ 9,491,257	27.0%	\$ 74,710,258	2.3%
American Century (Legacy)	\$ -	0.0%	\$ -	0.0%	\$ 304,494	0.1%	\$ -	0.0%	\$ -	0.0%	\$ 304,494	0.0%
Total	\$ 2,344,504,254	100.0%	\$ 472,021,261	100.0%	\$ 358,293,319	100.0%	\$ 16,837,802	100.0%	\$ 35,101,454	100.0%	\$ 3,226,758,089	100.0%
Other Assets*											\$ 2,052,910	0.1%
Grand Total	\$ 2,344,504,254	72.6%	\$ 472,021,261	14.6%	\$ 358,293,319	11.1%	\$ 16,837,802	0.5%	\$ 35,101,454	1.1%	\$ 3,228,810,999	100.0%

*Other Assets includes Loans and TIAA-CREF Money Market.

Source: TIAA

Tier I(a) Watch List

Tier I (a)

	1. Underperformed During Trailing 5 Years	2. Underperformed in 3 of 4 Trailing Calendar Quarters	3. Diverged from Strategy and/or Portfolio Characteristics	4. Adverse Change in Portfolio Manager	5. Weak Manager Research Rating	6. Significant Organizational Change	Watch List Status			
							1st Quarter 2019	4th Quarter 2018	3rd Quarter 2018	2nd Quarter 2018
Vanguard Target Retirement Income Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2015 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2020 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2025 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2030 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2035 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2040 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2045 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2050 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2055 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2060 Trust Plus	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2065 Trust Plus*	No	No	No	No	No (Buy)	No				

Negative tracking of greater than 0.2% constitutes underperformance for the Plan's target date retirement funds.

- **Notes on Table:** Changes in Watch List designations from the previous quarter are highlighted in red.
- **Yellow-Level Watch List.** An investment fund goes on the Watch List with a yellow designation when two of the above occur, or when item numbers 4, 5, or 6 occur.
- **Orange-Level Watch List.** An investment fund goes on the Watch List with an orange designation when it has been on the yellow watch list for two consecutive quarters or when three of the above occur.
- **Red-Level Watch List.** An investment fund goes on the Watch List with a red designation when it has been on the orange watchlist for two consecutive quarters or when four of the above occur. When an investment fund is placed on the Watch List with a red designation, a formal fund review will be conducted and a recommendation for action will be made.

* Since-inception returns were used since this fund does not have a trailing five-year return.

Tier I Watch List

Tier I

	1. Underperformed During Trailing 5 Years	2. Underperformed in 3 of 4 Trailing Calendar Quarters	3. Diverged from Strategy and/or Portfolio Characteristics	4. Adverse Change in Portfolio Manager	5. Weak Manager Research Rating	6. Significant Organizational Change	Watch List Status			
							1st Quarter 2019	4th Quarter 2018	3rd Quarter 2018	2nd Quarter 2018
Vanguard Target Retirement Income - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2015 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2020 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2025 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2030 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2035 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2040 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2045 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2050 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2055 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2060 - Instl.	No	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2065 - Instl.*	No	No	No	No	No (Buy)	No				

Negative tracking of greater than 0.2% constitutes underperformance for the Plan's target date retirement funds.

- **Notes on Table:** Changes in Watch List designations from the previous quarter are highlighted in red.
- **Yellow-Level Watch List.** An investment fund goes on the Watch List with a yellow designation when two of the above occur, or when item numbers 4, 5, or 6 occur.
- **Orange-Level Watch List.** An investment fund goes on the Watch List with an orange designation when it has been on the yellow watch list for two consecutive quarters or when three of the above occur.
- **Red-Level Watch List.** An investment fund goes on the Watch List with a red designation when it has been on the orange watchlist for two consecutive quarters or when four of the above occur. When an investment fund is placed on the Watch List with a red designation, a formal fund review will be conducted and a recommendation for action will be made.

* Since-inception returns were used since this fund does not have a trailing five-year return.

Tier II Watch List

Tier II

	1. <i>Underperformed During Trailing 5 Years</i>	2. <i>Underperformed in 3 of 4 Trailing Calendar Quarters</i>	3. <i>Diverged from Strategy and/or Portfolio Characteristics</i>	4. <i>Adverse Change in Portfolio Manager</i>	5. <i>Weak Manager Research Rating</i>	6. <i>Significant Organizational Change</i>	Watch List Status			
							1st Quarter 2019	4th Quarter 2018	3rd Quarter 2018	2nd Quarter 2018
Vanguard Total Bond Market Index Fund	No	No	No	No	No (Buy)	No				
Vanguard Total Stock Market Index Fund	No	No	No	No	No (Buy)	No				
Vanguard Institutional Index Fund	No	No	No	No	No (Buy)	No				
Vanguard FTSE Social Index Fund	Yes	No	No	No	No (Buy)	No				
Vanguard Extended Market Index Fund	No	No	No	No	No (Buy)	No				
Vanguard Total International Stock Index	No	No	No	No	No (Buy)	No				
Vanguard Developed Market Index Fund	No	No	No	No	No (Buy)	No				
Vanguard Emerging Markets Stock Index Fund	No	No	No	No	No (Buy)	No				
Vanguard Federal Money Market Fund	No	No	No	No	No (Buy)	No				
T. Rowe Price Stable Value Common Trust Fund A*	Yes	No	No	No	No (Buy)	No				
TIAA Traditional - RC	No	No	No	No	No (Buy)	No				
TIAA Traditional - RCP	No	No	No	No	No (Buy)	No				
PIMCO Total Return Fund	No	Yes	No	No	No (Buy)	No				
DFA Inflation-Protected Securities	No	No	No	No	No (Buy)	No				
American Century High Income	Yes	Yes	No	No	No (Buy)	No				
T. Rowe Price Intl. Large Cap Growth Fund	No	No	No	No	No (Buy)	No				
Diamond Hill Large Cap	No	No	No	No	No (Buy)	No				
William Blair Small/Mid Cap Growth Fund	No	No	No	No	No (Buy)	No				
DFA U.S. Targeted Value	Yes	Yes	No	No	No (Buy)	No				
Dodge & Cox Global Stock Fund	Yes	Yes	No	No	No (Buy)	No				
Harding Loewner International Equity Intl.	No	No	No	No	No (Buy)	No				
MFS International Value Fund	No	No	No	No	No (Buy)	No				
Cohen & Steers Intl Realty Shares	No	No	No	No	No (Buy)	No				

Negative tracking of greater than 0.1% for domestic equities and fixed income or 0.3% for non-U.S. equities constitutes underperformance for the Plan's index funds.

- **Notes on Table:** Changes in Watch List designations from the previous quarter are highlighted in red.
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- **Orange-Level Watch List.** An investment fund goes on the Watch List with an orange designation when it has been on the yellow watch list for two consecutive quarters or when three of the above occur.
- **Red-Level Watch List.** An investment fund goes on the Watch List with a red designation when it has been on the orange watchlist for two consecutive quarters or when four of the above occur. When an investment fund is placed on the Watch List with a red designation, a formal fund review will be conducted and a recommendation for action will be made.

* Since-inception returns were used since this fund does not have a trailing five-year return.

Tier I(a) Performance Summary

As of 3/31/2019

	Allocation		Performance(%)							Inception Date
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception		
Total Plan	3,228,810,999	100.0							03/01/2014	
Tier I (a)	804,534,168	24.9							03/01/2014	
Vanguard Target Retirement Income Trust Plus	23,851,976	0.7	5.6 (61)	4.0 (4)	5.0 (73)	4.2 (57)		5.1 (83)	09/01/2011	
Vanguard Target Retirement Income Trust I			5.6 (62)	4.0 (4)	5.0 (74)	4.2 (57)	6.8	5.1 (83)		
Vanguard Target Retirement Income Trust II			5.6 (62)	4.0 (4)	4.9 (74)	4.2 (57)	6.8	5.0 (83)		
Vanguard Target Income Composite Index			5.6 (61)	4.1 (4)	5.0 (65)	4.3 (54)	6.9	5.2 (82)		
Vanguard Target Retirement 2015 Trust Plus	52,784,112	1.6	6.5 (79)	3.9 (33)	6.3 (54)	5.1 (27)		6.9 (28)	09/01/2011	
Vanguard Target Retirement 2015 Trust I			6.5 (79)	3.9 (33)	6.3 (54)	5.0 (28)	9.3	6.9 (28)		
Vanguard Target Retirement 2015 Trust II			6.5 (79)	3.9 (34)	6.3 (57)	5.0 (30)	9.3	6.9 (30)		
Vanguard Target 2015 Composite Index			6.5 (78)	4.1 (31)	6.4 (50)	5.2 (21)	9.4	7.0 (17)		
Vanguard Target Retirement 2020 Trust Plus	93,676,835	2.9	7.9 (37)	3.9 (36)	7.5 (24)	5.8 (1)		7.8 (9)	09/01/2011	
Vanguard Target Retirement 2020 Trust I			7.9 (37)	3.9 (36)	7.5 (24)	5.7 (1)	10.3	7.8 (9)		
Vanguard Target Retirement 2020 Trust II			7.9 (37)	3.9 (36)	7.5 (24)	5.7 (1)	10.3	7.8 (10)		
Vanguard Target 2020 Composite Index			7.9 (36)	4.1 (30)	7.6 (21)	5.9 (1)	10.4	7.9 (5)		
Vanguard Target Retirement 2025 Trust Plus	106,868,266	3.3	8.8 (26)	3.9 (37)	8.3 (27)	6.2 (2)		8.5 (15)	09/01/2011	
Vanguard Target Retirement 2025 Trust I			8.8 (26)	3.9 (38)	8.3 (28)	6.2 (3)	11.0	8.5 (16)		
Vanguard Target Retirement 2025 Trust II			8.8 (26)	3.9 (38)	8.3 (28)	6.1 (3)	11.0	8.4 (17)		
Vanguard Target 2025 Composite Index			8.9 (26)	4.1 (31)	8.4 (25)	6.3 (1)	11.2	8.6 (7)		
Vanguard Target Retirement 2030 Trust Plus	129,685,202	4.0	9.6 (54)	3.8 (36)	9.0 (34)	6.5 (16)		9.1 (16)	09/01/2011	
Vanguard Target Retirement 2030 Trust I			9.6 (55)	3.8 (37)	8.9 (35)	6.5 (16)	11.7	9.0 (16)		
Vanguard Target Retirement 2030 Trust II			9.6 (55)	3.8 (37)	8.9 (35)	6.5 (16)	11.7	9.0 (17)		
Vanguard Target 2030 Composite Index			9.6 (53)	4.0 (31)	9.1 (33)	6.6 (8)	11.9	9.2 (14)		
Vanguard Target Retirement 2035 Trust Plus	129,679,774	4.0	10.3 (60)	3.7 (31)	9.6 (40)	6.8 (19)		9.6 (15)	09/01/2011	
Vanguard Target Retirement 2035 Trust I			10.3 (60)	3.7 (31)	9.6 (40)	6.8 (19)	12.4	9.6 (16)		
Vanguard Target Retirement 2035 Trust II			10.3 (60)	3.6 (31)	9.6 (40)	6.8 (20)	12.3	9.6 (17)		
Vanguard Target 2035 Composite Index			10.3 (59)	3.9 (24)	9.7 (37)	6.9 (15)	12.5	9.8 (12)		

Note: Trust II through October 31, 2017; Trust I through October 25, 2018; Trust Plus thereafter.

Tier I(a) Performance Summary (cont'd.)

As of 3/31/2019

	Allocation		Performance(%)						
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Vanguard Target Retirement 2040 Trust Plus	117,477,593	3.6	11.0 (61)	3.5 (31)	10.3 (26)	7.1 (16)		10.0 (12)	09/01/2011
Vanguard Target Retirement 2040 Trust I			11.0 (62)	3.5 (32)	10.3 (26)	7.1 (19)	12.7	10.0 (13)	
Vanguard Target Retirement 2040 Trust II			11.0 (62)	3.5 (32)	10.3 (27)	7.0 (21)	12.6	10.0 (13)	
Vanguard Target 2040 Composite Index			11.0 (60)	3.7 (26)	10.4 (25)	7.2 (6)	12.8	10.2 (10)	
Vanguard Target Retirement 2045 Trust Plus	85,892,590	2.7	11.5 (52)	3.3 (33)	10.5 (26)	7.2 (10)		10.1 (15)	09/01/2011
Vanguard Target Retirement 2045 Trust I			11.5 (51)	3.3 (36)	10.5 (26)	7.2 (11)	12.7	10.1 (15)	
Vanguard Target Retirement 2045 Trust II			11.5 (52)	3.3 (36)	10.5 (27)	7.2 (13)	12.7	10.0 (15)	
Vanguard Target 2045 Composite Index			11.6 (49)	3.6 (26)	10.6 (21)	7.3 (7)	12.9	10.3 (12)	
Vanguard Target Retirement 2050 Trust Plus	45,643,317	1.4	11.5 (57)	3.3 (32)	10.5 (35)	7.2 (22)		10.1 (16)	09/01/2011
Vanguard Target Retirement 2050 Trust I			11.5 (58)	3.3 (32)	10.5 (36)	7.2 (24)	12.7	10.1 (17)	
Vanguard Target Retirement 2050 Trust II			11.5 (58)	3.3 (32)	10.5 (37)	7.1 (25)	12.7	10.0 (18)	
Vanguard Target 2050 Composite Index			11.6 (55)	3.6 (28)	10.6 (21)	7.3 (8)	12.9	10.3 (13)	
Vanguard Target Retirement 2055 Trust Plus	14,629,722	0.5	11.5 (63)	3.3 (34)	10.5 (43)	7.1 (22)			09/01/2011
Vanguard Target Retirement 2055 Trust I			11.5 (63)	3.3 (33)	10.5 (43)	7.1 (22)		10.1 (29)	
Vanguard Target Retirement 2055 Trust II			11.5 (64)	3.3 (35)	10.5 (44)	7.1 (26)		10.0 (30)	
Vanguard Target 2055 Composite Index			11.6 (62)	3.6 (28)	10.6 (27)	7.3 (11)		10.3 (22)	
Vanguard Target Retirement 2060 Trust Plus	4,333,314	0.1	11.5 (78)	3.4 (25)	10.5 (50)	7.2		9.3	04/01/2012
Vanguard Target Retirement 2060 Trust I			11.5 (80)	3.3 (28)	10.5 (53)	7.1		9.3	
Vanguard Target Retirement 2060 Trust II			11.5 (77)	3.4 (25)	10.5 (52)	7.1		9.3	
Vanguard Target 2060 Composite Index			11.6 (76)	3.6 (19)	10.6 (38)	7.3		9.4	
Vanguard Target Retirement 2065 Trust Plus	11,467	0.0	11.5 (77)	3.4 (23)				6.4 (26)	08/01/2017
Vanguard Target Retirement 2065 Trust I			11.6 (77)	3.4 (22)				6.4 (26)	
Vanguard Target Retirement 2065 Trust II			11.5 (77)	3.4 (23)				6.4 (27)	
Vanguard Target 2065 Composite Index			11.6 (76)	3.6 (19)				6.5 (24)	

Note: Trust II through October 31, 2017; Trust I through October 25, 2018; Trust Plus thereafter.

Tier I Performance Summary

As of 3/31/2019

	Allocation		Performance(%)						
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Tier I	139,860,662	4.3							02/01/2014
Vanguard Target Retirement Income - Instl.	10,796,028	0.3	5.6 (62)	4.0 (4)	5.0 (73)			4.3 (50)	07/01/2015
Vanguard Tgt Ret Inc;Inv (VTINX)			5.5 (63)	3.9 (5)	4.9 (76)	4.1	6.7	4.3 (51)	
Vanguard Target Income Composite Index			5.6 (61)	4.1 (4)	5.0 (65)	4.3	6.9	4.4 (48)	
Vanguard Target Retirement 2015 - Instl.	17,971,418	0.6	6.5 (81)	3.9 (33)	6.3 (54)			5.1 (34)	07/01/2015
Vanguard Tgt Ret2015;Inv (VTXVX)			6.5 (80)	3.9 (34)	6.3 (59)	5.0	9.3	5.0 (42)	
Vanguard Target 2015 Composite Index			6.5 (78)	4.1 (31)	6.4 (50)	5.2	9.4	5.2 (29)	
Vanguard Target Retirement 2020 - Instl.	23,516,006	0.7	7.8 (46)	3.9 (37)	7.4 (29)			5.7 (15)	07/01/2015
Vanguard Tgt Ret2020;Inv (VTWNX)			7.8 (45)	3.8 (37)	7.4 (32)	5.7	10.2	5.7 (16)	
Vanguard Target 2020 Composite Index			7.9 (36)	4.1 (30)	7.6 (21)	5.9	10.4	5.9 (1)	
Vanguard Target Retirement 2025 - Instl.	21,784,364	0.7	8.8 (34)	3.9 (38)	8.2 (31)			6.2 (13)	07/01/2015
Vanguard Tgt Ret2025;Inv (VTTVX)			8.8 (26)	3.8 (42)	8.2 (34)	6.1	11.0	6.2 (13)	
Vanguard Target 2025 Composite Index			8.9 (26)	4.1 (31)	8.4 (25)	6.3	11.2	6.4 (5)	
Vanguard Target Retirement 2030 - Instl.	18,948,537	0.6	9.6 (55)	3.8 (37)	8.9 (35)			6.6 (22)	07/01/2015
Vanguard Tgt Ret2030;Inv (VTHR3)			9.5 (55)	3.7 (41)	8.9 (38)	6.4	11.6	6.5 (23)	
Vanguard Target 2030 Composite Index			9.6 (53)	4.0 (31)	9.1 (33)	6.6	11.9	6.7 (18)	
Vanguard Target Retirement 2035 - Instl.	12,020,579	0.4	10.3 (60)	3.6 (32)	9.6 (40)			6.9 (27)	07/01/2015
Vanguard Tgt Ret2035;Inv (VTTHX)			10.2 (68)	3.6 (33)	9.5 (41)	6.7	12.3	6.8 (33)	
Vanguard Target 2035 Composite Index			10.3 (59)	3.9 (24)	9.7 (37)	6.9	12.5	7.1 (22)	

Note: Investor class shares through June 30, 2016; Institutional class shares thereafter.

Tier I Performance Summary (cont'd.)

As of 3/31/2019

	Allocation		Performance(%)						
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Vanguard Target Retirement 2040 - Instl.	10,827,111	0.3	11.0 (62)	3.4 (32)	10.2 (27)			7.2 (26)	07/01/2015
Vanguard Tgt Ret2040;Inv (VFORX)			11.0 (64)	3.4 (35)	10.2 (32)	7.0	12.6	7.2 (27)	
Vanguard Target 2040 Composite Index			11.0 (60)	3.7 (26)	10.4 (25)	7.2	12.8	7.4 (18)	
Vanguard Target Retirement 2045 - Instl.	10,056,108	0.3	11.5 (51)	3.3 (36)	10.5 (26)			7.4 (22)	07/01/2015
Vanguard Tgt Ret2045;Inv (VTIVX)			11.5 (55)	3.3 (44)	10.4 (33)	7.1	12.6	7.3 (25)	
Vanguard Target 2045 Composite Index			11.6 (49)	3.6 (26)	10.6 (21)	7.3	12.9	7.6 (17)	
Vanguard Target Retirement 2050 - Instl.	10,253,032	0.3	11.5 (58)	3.3 (34)	10.5 (38)			7.4 (25)	07/01/2015
Vanguard Tgt Ret2050;Inv (VFIFX)			11.5 (58)	3.3 (40)	10.4 (43)	7.1	12.6	7.3 (29)	
Vanguard Target 2050 Composite Index			11.6 (55)	3.6 (28)	10.6 (21)	7.3	12.9	7.6 (17)	
Vanguard Target Retirement 2055 - Instl.	3,279,968	0.1	11.5 (63)	3.4 (33)	10.5 (44)			7.4 (27)	07/01/2015
Vanguard Tgt Ret2055;Inv (VFFVX)			11.5 (64)	3.3 (37)	10.4 (51)	7.1		7.3 (31)	
Vanguard Target 2055 Composite Index			11.6 (62)	3.6 (28)	10.6 (27)	7.3		7.6 (19)	
Vanguard Target Retirement 2060 - Instl.	344,244	0.0	11.5 (63)	3.3 (35)	10.5 (45)			7.3 (28)	07/01/2015
Vanguard Tgt Ret2060;Inv (VTTSX)			11.5 (64)	3.3 (37)	10.4 (51)	7.0		7.3 (32)	
Vanguard Target 2060 Composite Index			11.6 (62)	3.6 (28)	10.6 (27)	7.3		7.6 (19)	
Vanguard Target Retirement 2065 - Instl.	63,267	0.0	11.5 (63)	3.3 (37)				6.3 (28)	08/01/2017
Vanguard Tgt Ret2065;Inv (VLXVX)			11.5 (68)	3.2 (39)				6.2 (31)	
Vanguard Target 2065 Composite Index			11.6 (62)	3.6 (28)				6.5 (26)	

Note: Investor class shares through June 30, 2016; Institutional class shares thereafter.

Tier II Performance Summary

As of 3/31/2019

	Allocation		Performance(%)							Inception Date
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception		
Tier II	825,841,399	25.6							03/01/2014	
Vanguard Total Bond Market Index Fund - Inst.	35,313,058	1.1	2.9 (75)	4.5 (25)	2.0 (70)	2.7 (49)	3.7 (75)	5.0 (32)	10/01/1995	
Performance Benchmark			3.0 (69)	4.5 (26)	2.0 (64)	2.7 (44)	3.8 (72)	5.1 (26)		
Vanguard Total Stock Market Index Fund - Inst.	50,136,268	1.6	14.0 (43)	8.8 (51)	13.5 (43)	10.3 (46)	16.1 (29)	7.5 (23)	08/01/1997	
Performance Benchmark			14.1 (42)	8.8 (50)	13.5 (43)	10.3 (46)	16.1 (29)	7.5 (24)		
Vanguard Institutional Index Fund - Instl. Plus	125,761,398	3.9	13.7 (7)	9.5 (13)	13.5 (10)	10.9 (1)	15.9 (1)	7.2 (1)	08/01/1997	
S&P 500 Index			13.6 (15)	9.5 (6)	13.5 (5)	10.9 (1)	15.9 (1)	7.2 (3)		
Vanguard FTSE Social Index Fund - Inv.	2,337,707	0.1	13.7 (47)	10.7 (34)	14.8 (32)	11.4 (31)	17.1 (15)	4.8 (77)	06/01/2000	
FTSE 4Good U.S. Select Index			13.8 (46)	10.8 (33)	15.0 (31)	11.6 (29)	17.3 (9)			
S&P 500 Index			13.6 (48)	9.5 (42)	13.5 (43)	10.9 (37)	15.9 (33)	5.8 (46)		
Vanguard Extended Market Index Fund - Inst.	38,693,581	1.2	16.0 (85)	5.0 (85)	13.3 (74)	7.9 (81)	16.6 (33)	8.4 (44)	08/01/1997	
Performance Benchmark			16.0 (85)	4.8 (85)	13.2 (75)	7.7 (81)	16.5 (40)			
Vanguard Total International Stock Index Fund - Inst.	10,038,558	0.3	10.3 (62)	-5.2 (55)	8.1 (26)	2.8 (29)		4.6 (68)	12/01/2010	
Performance Benchmark			10.2 (63)	-4.8 (49)	8.0 (27)	2.8 (29)		4.6 (68)		
Vanguard Developed Market Index Fund - Inst.	41,218,284	1.3	10.2 (62)	-4.7 (48)	7.6 (31)	2.7 (30)		5.7 (35)	02/01/2010	
Performance Benchmark			10.2 (62)	-4.1 (41)	7.7 (30)	2.9 (28)		5.6 (37)		
Vanguard Emerging Markets Stock Index Fund - Inst.	29,980,905	0.9	11.3 (32)	-6.8 (29)	9.9 (45)	3.6 (38)	8.7 (55)	7.3 (65)	07/01/2000	
Performance Benchmark			11.3 (32)	-6.1 (24)	9.9 (44)	3.7 (35)	8.9 (53)	7.2 (67)		
Vanguard Federal Money Market Fund - Inv.	25,546,234	0.8	0.6 (23)	2.0 (21)	1.1 (19)	0.7 (20)	0.4 (26)	2.9 (25)	11/01/1989	
FTSE 3 Month T-Bill			0.6 (15)	2.1 (15)	1.2 (17)	0.7 (18)	0.4 (20)	2.8 (40)		
T. Rowe Price Stable Value Common Trust Fund A	4,229,019	0.1	0.5 (33)	2.1 (28)				2.1 (25)	02/01/2018	
Hueler Stable Value Index			0.6 (8)	2.3 (11)				2.3 (9)		
TIAA Traditional - RC	109,522,124	3.4	1.0 (7)	4.1 (1)	4.2 (1)	4.2 (1)	4.3 (1)	4.5 (1)	08/01/2005	
Hueler Stable Value Index			0.6 (8)	2.3 (11)	2.0 (1)	1.9 (4)	2.2 (23)	2.9 (20)		
TIAA Traditional - RCP	79,600,972	2.5	0.8 (7)	3.4 (3)	3.4 (1)	3.5 (1)	3.5 (1)	3.7 (1)	06/01/2006	
Hueler Stable Value Index			0.6 (8)	2.3 (11)	2.0 (1)	1.9 (4)	2.2 (23)	2.8 (20)		
PIMCO Total Return Fund - Inst.	20,980,931	0.6	2.8 (86)	3.8 (78)	2.8 (20)	2.9 (27)	4.8 (38)	7.1	06/01/1987	
Blmbg. Barc. U.S. Aggregate			2.9 (76)	4.5 (23)	2.0 (65)	2.7 (43)	3.8 (73)	6.2		
DFA Inflation-Protected Securities Portfolio - I	17,841,012	0.6	3.6 (22)	3.4 (1)	1.7 (40)	2.1 (12)	3.6 (20)	4.0 (17)	10/01/2006	
Blmbg. Barc. Global Inflation-Linked: U.S. TIPS			3.2 (55)	2.7 (15)	1.7 (41)	1.9 (14)	3.4 (32)	3.8 (23)		

Tier II Performance Summary (cont'd)

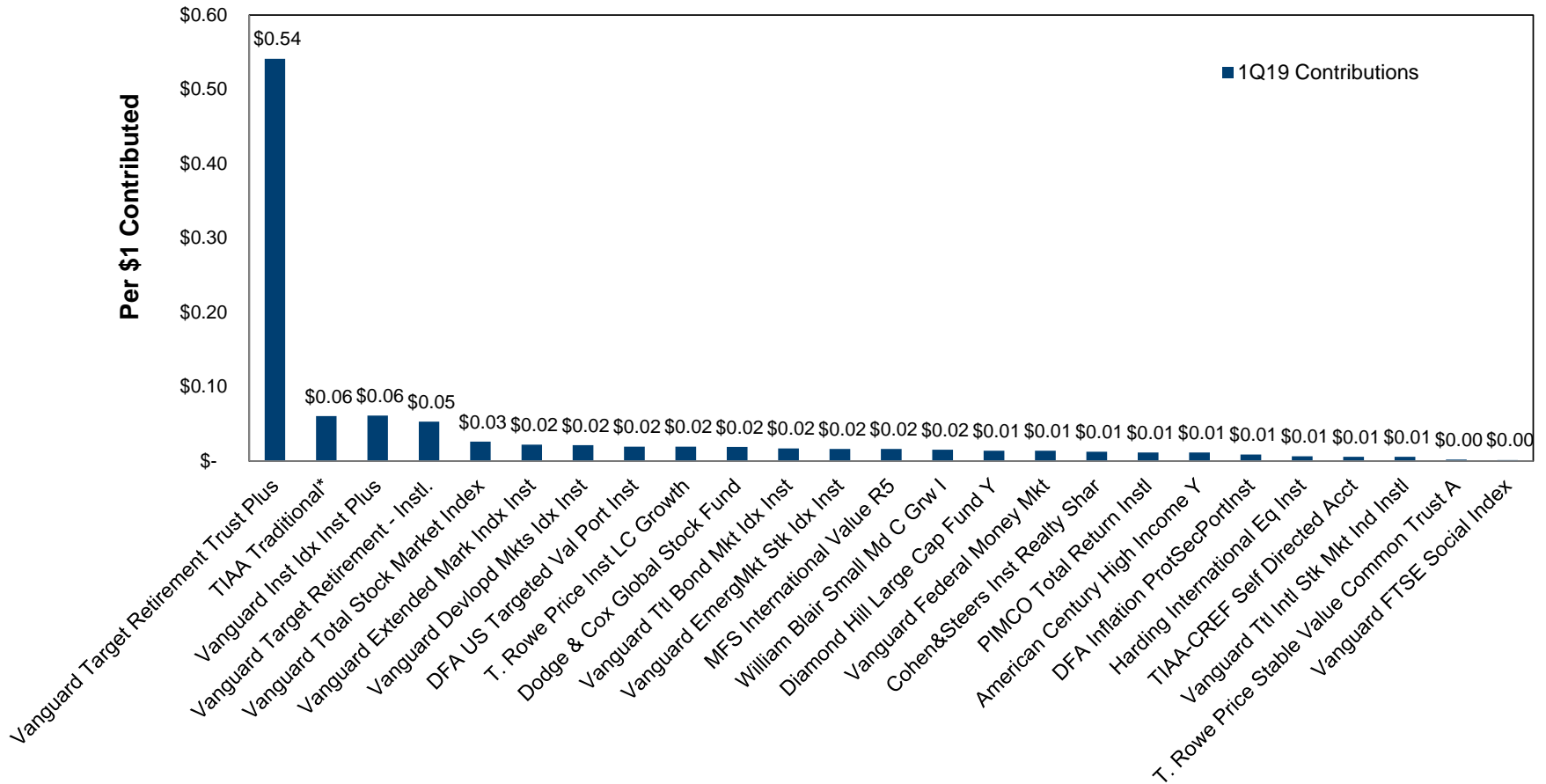
As of 3/31/2019

	Allocation		Performance(%)						
	Market Value (\$)	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
American Century High Income - Y	23,135,317	0.7	6.7 (50)	5.0 (44)	8.4 (16)	4.2 (26)		5.8 (6)	01/01/2013
ICE BofAML US High Yield Master II Constrained			7.4 (23)	5.9 (15)	8.7 (11)	4.7 (13)		5.4 (15)	
T. Rowe Price Instl. Large Cap Growth Fund	34,571,266	1.1	14.7 (82)	14.0 (25)	21.9 (2)	15.2 (6)	19.6 (6)	10.7 (2)	11/01/2001
Russell 1000 Growth Index			16.1 (50)	12.7 (41)	16.5 (44)	13.5 (32)	17.5 (19)	8.5 (36)	
Diamond Hill Large Cap - Y	23,449,323	0.7	13.2 (9)	6.4 (35)	11.8 (21)	8.9 (14)		12.9 (21)	01/01/2012
Russell 1000 Value Index			11.9 (38)	5.7 (45)	10.5 (62)	7.7 (51)		12.4 (37)	
William Blair Small/Mid Cap Growth Fund - I	29,531,201	0.9	17.1 (55)	8.9 (48)	17.5 (39)	12.2 (10)	17.9 (25)	11.1 (7)	01/01/2004
Russell 2500 Growth Index			19.0 (38)	7.5 (55)	15.6 (57)	9.7 (31)	17.5 (33)	9.9 (25)	
DFA U.S. Targeted Value - I	33,262,456	1.0	12.1 (67)	-3.4 (69)	8.6 (36)	4.5 (56)	15.3 (39)	10.7 (7)	03/01/2000
Russell 2500 Value Index			13.1 (45)	1.8 (18)	9.9 (27)	6.0 (18)	15.0 (40)	9.8 (28)	
Dodge & Cox Global Stock Fund	27,742,197	0.9	9.7 (91)	-1.5 (89)	11.4 (45)	5.3 (73)	14.3 (24)	5.2 (70)	05/01/2008
MSCI AC World Index (Net)			12.2 (63)	2.6 (68)	10.7 (56)	6.5 (55)	12.0 (50)	4.8 (87)	
Harding Loevner International Equity Instl.	11,695,123	0.4	11.6 (65)	-4.9 (67)	9.3 (22)	5.1 (16)	11.0 (14)	6.1	06/01/1994
MSCI AC World ex USA Growth (Net)			12.3 (49)	-3.0 (40)	8.4 (33)	4.0 (29)	9.5 (39)		
MFS International Value Fund - R6	28,516,198	0.9	12.2 (3)	2.9 (9)	9.7 (3)	7.8 (1)	13.2 (2)	7.2 (1)	06/01/2006
MSCI AC World ex USA Value (Net)			8.3 (91)	-5.4 (54)	7.7 (23)	1.1 (84)	8.2 (77)	2.6 (77)	
Cohen and Steers Instl. Realty Shares	22,738,270	0.7	17.1 (21)	20.4 (12)	7.2 (25)	9.8 (16)	18.5 (25)	12.0 (8)	03/01/2000
FTSE NAREIT Equity REIT Index			16.3 (49)	20.9 (9)	6.1 (41)	9.1 (36)	18.3 (36)	11.4 (34)	
Tier III	19,720,732	0.6							03/01/2014
Mutual Fund Window	19,720,732	0.6							03/01/2014
Orphan Accounts	1,436,801,129	44.5							
TIAA Orphan Accounts	1,361,786,377	42.2							
VALIC Orphan Accounts	74,710,258	2.3							
American Century Orphan Accounts	304,494	0.0							
Other Assets	2,052,910	0.1							03/01/2014
Loans	802,666	0.0							03/01/2014
Loans Deemed Distributed	634,861	0.0							03/01/2014
Plan Loan Default Fund	615,383	0.0							07/01/2014

Total Plan Contributions

As of 3/31/2019

Contributed Funds

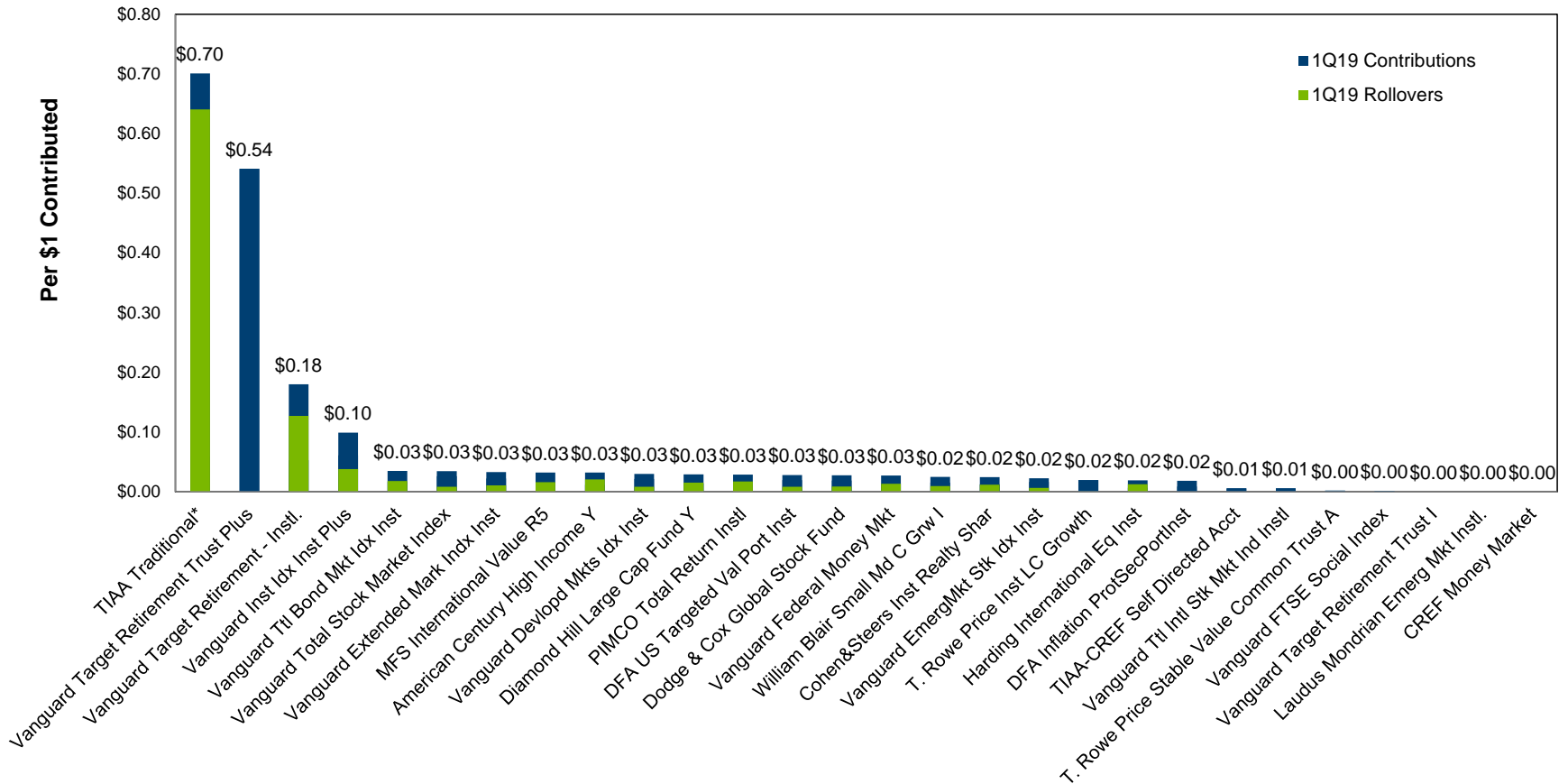


*TIAA RC 76% / TIAA RCP 24% Contribution Split
Source: TIAA

Total Plan Contributions (Including Rollovers)

As of 3/31/2019

Contributed Funds (Including Rollovers)



*TIAA RC 30% / TIAA RCP 70% Contribution and Rollover Split
Source: TIAA

Quarterly Participant Transfers

As of 3/31/2019

Investment	Transfers In	Transfers Out	Net Transfers	Ending Balance (3/31/2019)	Number of Participants
Vanguard Target Retirement Trust Plus Funds	\$4,971,564	(\$20,206,252)	(\$15,234,688)	\$804,534,168	4,044
Vanguard Target Retirement Mutual Funds	\$240,450	(\$5,596,333)	(\$5,355,883)	\$139,860,662	1,498
Vanguard Total Bond Market Index Inst	\$3,318,230	(\$559,962)	\$2,758,268	\$35,313,058	952
Vanguard Total Stock Market Index Inst	\$1,745,230	(\$3,189,696)	(\$1,444,466)	\$50,136,268	599
Vanguard Institutional Index Inst	\$7,088,642	(\$1,500,889)	\$5,587,753	\$125,761,398	1,578
Vanguard FTSE Social Index Fund	\$747,155	(\$202,689)	\$544,466	\$2,337,707	43
Vanguard Extended Market Index Inst	\$1,215,398	(\$1,925,567)	(\$710,169)	\$38,693,581	1,104
Vanguard Total International Stock Index Inst	\$549,800	(\$110,007)	\$439,794	\$10,038,558	171
Vanguard Developed Markets Index Ins	\$3,410,997	(\$594,413)	\$2,816,584	\$41,218,284	1,171
Vanguard Emerging Markets Stock Index Inst	\$1,482,783	(\$333,451)	\$1,149,333	\$29,980,905	1,395
Vanguard Federal Money Market Inv	\$2,990,840	(\$4,607,135)	(\$1,616,295)	\$25,546,234	214
T. Rowe Price Stable Value Common Trust A	\$1,114,445	(\$55,951)	\$1,058,494	\$4,229,019	202
TIAA Traditional	\$7,379,639	(\$3,474,852)	\$3,904,787	\$189,123,095	1,741
PIMCO Total Return Instl	\$1,218,167	(\$1,195,039)	\$23,128	\$20,980,931	738
DFA Inflation Protected Securities Portfolio Inst	\$1,364,014	(\$871,749)	\$492,265	\$17,841,012	903
American Century High Income	\$2,035,917	(\$646,552)	\$1,389,365	\$23,135,317	880
T. Rowe Price Inst LC Growth	\$3,027,626	(\$1,417,020)	\$1,610,606	\$34,571,266	388
Diamond Hill Large Cap Fund Y	\$315,647	(\$1,633,717)	(\$1,318,070)	\$23,449,323	989
William Blair Small Md C Grw I	\$1,813,584	(\$986,600)	\$826,985	\$29,531,201	1,048
DFA US Targeted Val Port Inst	\$1,426,836	(\$817,825)	\$609,011	\$33,262,456	1,177
Dodge & Cox Global Stock Fund	\$652,915	(\$3,410,448)	(\$2,757,533)	\$27,742,197	788
Harding International Equit Inst	\$736,020	(\$147,602)	\$588,418	\$11,695,123	783
MFS International Value R6	\$738,759	(\$1,781,774)	(\$1,043,014)	\$28,516,198	1,251
Cohen & Steers Inst Realty Shares	\$743,503	(\$759,136)	(\$15,633)	\$22,738,270	1,464
Mutual Fund Window	\$5,835,417	(\$138,922)	\$5,696,495	\$19,720,732	46
Total	\$56,163,581	(\$56,163,581)	\$0	\$1,789,956,961	

Source: TIAA

Annual Investment Fee Monitoring & Transparency – As of 3/31/2019

Investment Option	Market Value	Total Expense (%)	Total Expense (\$)	Revenue Sharing (%)	Revenue Sharing (\$)	Mgmt. Fee (%)	Mgmt. Fee (\$)	Administrative Fee (%)	Administrative Fee (\$)	Total Fee (%)	Total Fee (\$)
Vanguard Target Retirement Income Trust Plus	\$23,851,976	0.06%	\$14,311	0.00%	\$0	0.06%	\$14,311	0.039%	\$9,302	0.10%	\$23,613
Vanguard Target Retirement 2015 Trust Plus	\$52,784,112	0.06%	\$31,670	0.00%	\$0	0.06%	\$31,670	0.039%	\$20,586	0.10%	\$52,256
Vanguard Target Retirement 2020 Trust Plus	\$93,676,835	0.06%	\$56,206	0.00%	\$0	0.06%	\$56,206	0.039%	\$36,534	0.10%	\$92,740
Vanguard Target Retirement 2025 Trust Plus	\$106,868,266	0.06%	\$64,121	0.00%	\$0	0.06%	\$64,121	0.039%	\$41,679	0.10%	\$105,800
Vanguard Target Retirement 2030 Trust Plus	\$129,685,202	0.06%	\$77,811	0.00%	\$0	0.06%	\$77,811	0.039%	\$50,577	0.10%	\$128,388
Vanguard Target Retirement 2035 Trust Plus	\$129,679,774	0.06%	\$77,808	0.00%	\$0	0.06%	\$77,808	0.039%	\$50,575	0.10%	\$128,383
Vanguard Target Retirement 2040 Trust Plus	\$117,477,593	0.06%	\$70,487	0.00%	\$0	0.06%	\$70,487	0.039%	\$45,816	0.10%	\$116,303
Vanguard Target Retirement 2045 Trust Plus	\$85,892,590	0.06%	\$51,536	0.00%	\$0	0.06%	\$51,536	0.039%	\$33,498	0.10%	\$85,034
Vanguard Target Retirement 2050 Trust Plus	\$45,643,317	0.06%	\$27,386	0.00%	\$0	0.06%	\$27,386	0.039%	\$17,801	0.10%	\$45,187
Vanguard Target Retirement 2055 Trust Plus	\$14,629,722	0.06%	\$8,778	0.00%	\$0	0.06%	\$8,778	0.039%	\$5,706	0.10%	\$14,483
Vanguard Target Retirement 2060 Trust Plus	\$4,333,314	0.06%	\$2,600	0.00%	\$0	0.06%	\$2,600	0.039%	\$1,690	0.10%	\$4,290
Vanguard Target Retirement 2065 Trust Plus	\$11,467	0.06%	\$7	0.00%	\$0	0.06%	\$7	0.039%	\$4	0.10%	\$11
Vanguard Target Retirement Income - Instl.	\$10,796,028	0.09%	\$9,716	0.00%	\$0	0.09%	\$9,716	0.039%	\$4,210	0.13%	\$13,927
Vanguard Target Retirement 2015 - Instl.	\$17,971,418	0.09%	\$16,174	0.00%	\$0	0.09%	\$16,174	0.039%	\$7,009	0.13%	\$23,183
Vanguard Target Retirement 2020 - Instl.	\$23,516,006	0.09%	\$21,164	0.00%	\$0	0.09%	\$21,164	0.039%	\$9,171	0.13%	\$30,336
Vanguard Target Retirement 2025 - Instl.	\$21,784,364	0.09%	\$19,606	0.00%	\$0	0.09%	\$19,606	0.039%	\$8,496	0.13%	\$28,102
Vanguard Target Retirement 2030 - Instl.	\$18,948,537	0.09%	\$17,054	0.00%	\$0	0.09%	\$17,054	0.039%	\$7,390	0.13%	\$24,444
Vanguard Target Retirement 2035 - Instl.	\$12,020,579	0.09%	\$10,819	0.00%	\$0	0.09%	\$10,819	0.039%	\$4,688	0.13%	\$15,507
Vanguard Target Retirement 2040 - Instl.	\$10,827,111	0.09%	\$9,744	0.00%	\$0	0.09%	\$9,744	0.039%	\$4,223	0.13%	\$13,967
Vanguard Target Retirement 2045 - Instl.	\$10,056,108	0.09%	\$9,050	0.00%	\$0	0.09%	\$9,050	0.039%	\$3,922	0.13%	\$12,972
Vanguard Target Retirement 2050 - Instl.	\$10,253,032	0.09%	\$9,228	0.00%	\$0	0.09%	\$9,228	0.039%	\$3,999	0.13%	\$13,226
Vanguard Target Retirement 2055 - Instl.	\$3,279,968	0.09%	\$2,952	0.00%	\$0	0.09%	\$2,952	0.039%	\$1,279	0.13%	\$4,231
Vanguard Target Retirement 2060 - Instl.	\$344,244	0.09%	\$310	0.00%	\$0	0.09%	\$310	0.039%	\$134	0.13%	\$444
Vanguard Target Retirement 2065 - Instl.	\$63,267	0.09%	\$57	0.00%	\$0	0.09%	\$57	0.039%	\$25	0.13%	\$82
Vanguard Total Bond Market Index Fund	\$35,313,058	0.04%	\$14,125	0.00%	\$0	0.04%	\$14,125	0.039%	\$13,772	0.08%	\$27,897
Vanguard Total Stock Market Index Fund	\$50,136,268	0.04%	\$17,548	0.00%	\$0	0.04%	\$17,548	0.039%	\$19,553	0.07%	\$37,101
Vanguard Institutional Index Fund - Instl. Plus	\$125,761,398	0.02%	\$25,152	0.00%	\$0	0.02%	\$25,152	0.039%	\$49,047	0.06%	\$74,199
Vanguard FTSE Social Index Fund - Inv.	\$2,337,707	0.18%	\$4,208	0.00%	\$0	0.18%	\$4,208	0.039%	\$912	0.22%	\$5,120
Vanguard Extended Market Index Fund - Instl.	\$38,693,581	0.06%	\$23,216	0.00%	\$0	0.06%	\$23,216	0.039%	\$15,090	0.10%	\$38,307
Vanguard Total International Stock Index Fund	\$10,038,558	0.08%	\$8,031	0.00%	\$0	0.08%	\$8,031	0.039%	\$3,915	0.12%	\$11,946
Vanguard Developed Market Index Fund	\$41,218,284	0.06%	\$24,731	0.00%	\$0	0.06%	\$24,731	0.039%	\$16,075	0.10%	\$40,806
Vanguard Emerging Markets Stock Index Fund - Instl.	\$29,980,905	0.10%	\$29,981	0.00%	\$0	0.10%	\$29,981	0.039%	\$11,693	0.14%	\$41,673
Vanguard Federal Money Market Fund	\$25,546,234	0.11%	\$28,101	0.00%	\$0	0.11%	\$28,101	0.039%	\$9,963	0.15%	\$38,064
T. Rowe Price Stable Value Common Trust Fund A	\$4,229,019	0.48%	\$20,299	0.00%	\$0	0.48%	\$20,299	0.039%	\$1,649	0.52%	\$21,949
TIAA Traditional - RC & RCP	\$189,123,095	0.49%	\$536,658	0.15%	(\$164,283)	0.34%	\$372,375	0.039%	\$42,714	0.38%	\$415,089
PIMCO Total Return Fund	\$20,980,931	0.55%	\$115,395	0.00%	\$0	0.55%	\$115,395	0.039%	\$8,183	0.59%	\$123,578
DFA Inflation-Protected Securities Portfolio	\$17,841,012	0.12%	\$21,409	0.00%	\$0	0.12%	\$21,409	0.039%	\$6,958	0.16%	\$28,367
American Century High Income	\$23,135,317	0.59%	\$136,498	0.00%	\$0	0.59%	\$136,498	0.039%	\$9,023	0.63%	\$145,521
T. Rowe Price Instl. Large Cap Growth Fund	\$34,571,266	0.56%	\$193,599	0.00%	\$0	0.56%	\$193,599	0.039%	\$13,483	0.60%	\$207,082
Diamond Hill Large Cap	\$23,449,323	0.55%	\$128,971	0.00%	\$0	0.55%	\$128,971	0.039%	\$9,145	0.59%	\$138,117
William Blair Small/Mid Cap Growth Fund	\$29,531,201	1.10%	\$324,843	0.15%	(\$44,297)	0.95%	\$280,546	0.039%	\$11,517	0.99%	\$292,064
DFA U.S. Targeted Value	\$33,262,456	0.37%	\$123,071	0.00%	\$0	0.37%	\$123,071	0.039%	\$12,972	0.41%	\$136,043
Dodge & Cox Global Stock Fund	\$27,742,197	0.63%	\$174,776	0.10%	(\$27,742)	0.53%	\$147,034	0.039%	\$10,819	0.57%	\$157,853
Harding Loeven International Equity Instl.	\$11,695,123	0.81%	\$94,730	0.15%	(\$17,543)	0.66%	\$77,188	0.039%	\$4,561	0.70%	\$81,749
MFS International Value Fund	\$28,516,198	0.63%	\$179,652	0.00%	\$0	0.63%	\$179,652	0.039%	\$11,121	0.67%	\$190,773
Cohen and Steers Instl. Realty Shares	\$22,738,270	0.75%	\$170,537	0.00%	\$0	0.75%	\$170,537	0.039%	\$8,868	0.79%	\$179,405
Mutual Fund Window	\$19,720,732	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.039%	\$7,691	0.04%	\$7,691
Total	\$1,789,956,961	0.17%	\$3,004,128	-0.01%	(\$253,865)	0.16%	\$2,750,263	0.037%	\$667,039	0.19%	\$3,417,302
Without Brokerage	\$1,770,236,229	0.17%	\$3,004,128	-0.01%	(\$253,865)	0.16%	\$2,750,263	0.037%	\$659,348	0.19%	\$3,409,611

Source: TIAA

Morningstar Model Portfolios – RC Performance

As of 3/31/2019

	Performance(%)				
	1 Quarter	1 Year	3 Years	Since Inception	Inception Date
RC					
Very Conservative RC	3.7	4.7	4.6	3.9	04/01/2014
<i>Very Conservative Benchmark RC</i>	3.5	4.3	4.4	3.8	
Conservative RC	5.4	3.6	6.2	4.5	04/01/2014
<i>Conservative Benchmark RC</i>	5.5	4.1	6.1	4.8	
Moderately Conservative RC	7.2	4.5	7.8	6.2	04/01/2014
<i>Moderately Conservative Benchmark RC</i>	7.3	4.5	7.4	5.7	
Moderate RC	8.9	4.1	8.4	6.2	04/01/2014
<i>Moderate Benchmark RC</i>	8.8	4.2	8.5	6.2	
Moderately Aggressive RC	10.2	3.5	9.3	6.5	04/01/2014
<i>Moderately Aggressive Benchmark RC</i>	10.1	3.8	9.4	6.6	
Aggressive RC	13.1	4.3	10.7	7.3	04/01/2014
<i>Aggressive Benchmark RC</i>	11.5	3.3	10.5	7.1	
Very Aggressive RC	13.1	2.5	10.9	7.2	04/01/2014
<i>Very Aggressive Benchmark RC</i>	13.0	3.1	11.3	7.4	
RC Ex-TIAA					
Very Conservative RC Ex-TIAA	3.8	3.8	3.3	3.1	04/01/2014
<i>Very Conservative Benchmark RC Ex-TIAA</i>	4.4	4.4	3.5	3.2	
Conservative RC Ex-TIAA	5.7	3.6	5.5	4.3	04/01/2014
<i>Conservative Benchmark RC Ex-TIAA</i>	6.2	4.2	5.3	4.3	
Moderately Conservative RC Ex-TIAA	7.6	4.2	7.1	5.6	04/01/2014
<i>Moderately Conservative Benchmark RC Ex-TIAA</i>	7.9	4.6	6.7	5.2	
Moderate RC Ex-TIAA	9.1	3.9	7.8	5.8	04/01/2014
<i>Moderate Benchmark RC Ex-TIAA</i>	9.2	4.3	8.0	5.8	
Moderately Aggressive RC Ex-TIAA	10.4	3.3	8.7	6.2	04/01/2014
<i>Moderately Aggressive Benchmark RC Ex-TIAA</i>	10.4	3.9	9.0	6.4	
Aggressive RC Ex-TIAA	11.7	2.8	10.0	6.8	04/01/2014
<i>Aggressive Benchmark RC Ex-TIAA</i>	11.7	3.3	10.3	6.9	
Very Aggressive RC Ex-TIAA	13.1	2.5	10.9	7.3	04/01/2014
<i>Very Aggressive Benchmark RC Ex-TIAA</i>	13.0	3.1	11.3	7.4	

Morningstar Model Portfolios – RC Allocations

As of 3/31/2019

RC

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	12%	10%	9%	7%	6%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	4%	4%	4%	5%
DFA Inflation-Protected Securities I	9%	7%	7%	4%	3%	3%	-
DFA US Targeted Value I	-	3%	3%	4%	5%	7%	8%
Diamond Hill Large Cap Y	-	-	-	-	-	-	-
Harding International Eq Inst	-	-	-	3%	3%	3%	4%
MFS International Value R6	3%	3%	3%	3%	3%	5%	4%
PIMCO Total Return Instl	-	-	-	-	-	-	-
T. Rowe Price Stable Value Fund	9%	7%	4%	3%	-	-	-
TIAA Traditional	40%	34%	30%	22%	15%	7%	-
Vanguard Developed Markets Idx Instl	-	3%	7%	10%	13%	15%	19%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	-	3%	4%	6%	3%	4%
Vanguard Institutional Index Instl PI	3%	14%	16%	23%	27%	31%	35%
Vanguard Total Bond Market Index I	19%	13%	6%	4%	4%	3%	-
William Blair Small-Mid Cap Gr I	5%	3%	5%	4%	4%	9%	9%

RC Ex-TIAA

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	11%	10%	9%	7%	6%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	4%	5%
DFA Inflation-Protected Securities I	10%	9%	7%	5%	3%	3%	-
DFA US Targeted Value I	-	3%	3%	3%	6%	7%	8%
Diamond Hill Large Cap Y	-	-	-	-	-	-	-
Harding International Eq Inst	-	-	-	3%	3%	4%	4%
MFS International Value R6	-	3%	3%	3%	3%	4%	5%
PIMCO Total Return Instl	39%	17%	-	5%	-	-	-
T. Rowe Price Stable Value Fund	24%	18%	14%	11%	7%	4%	-
Vanguard Developed Markets Idx Instl	-	3%	7%	10%	14%	16%	18%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	-	3%	10%	6%	7%	4%
Vanguard Institutional Index Instl PI	3%	13%	16%	23%	27%	31%	35%
Vanguard Total Bond Market Index I	8%	18%	26%	12%	11%	5%	-
William Blair Small-Mid Cap Gr I	5%	3%	5%	-	3%	5%	9%

*Full allocation history can be found in the Appendix of AHIC's Quarterly Investment Review.

Morningstar Model Portfolios – RC Benchmarks

As of 3/31/2019

RC Benchmarks

Index	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
Blmbg. Barc. Global Inflation-Linked US TIPS	11%	7%	7%	5%	3%	3%	-
Blmbg. Barc. US Agg. Bond	27%	19%	12%	9%	6%	3%	-
Blmbg. Barc. US Corp HY	9%	7%	6%	4%	3%	-	-
Citi Treasury Bill 3 Mo.	3%	3%	-	-	-	-	-
FTSE NAREIT All Equity REITs	-	-	3%	3%	3%	3%	4%
MSCI EAFE GR	4%	7%	11%	15%	19%	23%	26%
MSCI EM GR	-	3%	4%	6%	8%	11%	13%
Russell 1000 Growth	-	4%	7%	9%	11%	13%	15%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	4%
Russell 2000 Value	-	3%	3%	3%	4%	5%	6%
Russell Mid Cap Growth	3%	3%	3%	4%	5%	6%	7%
Russell Mid Cap Value	-	3%	3%	5%	7%	7%	8%
TIAA Traditional	40%	34%	30%	22%	15%	7%	-

RC Ex-TIAA Benchmarks

Index	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
Blmbg. Barc. Global Inflation-Linked US TIPS	11%	9%	7%	5%	3%	3%	-
Blmbg. Barc. US Agg. Bond	71%	54%	42%	31%	21%	10%	-
Blmbg. Barc. US Corp HY	8%	7%	6%	4%	3%	-	-
Citi Treasury Bill 3 Mo.	-	-	-	-	-	-	-
FTSE NAREIT All Equity REITs	-	-	3%	3%	3%	3%	4%
MSCI EAFE GR	4%	7%	11%	15%	19%	23%	26%
MSCI EM GR	-	3%	4%	6%	8%	11%	13%
Russell 1000 Growth	-	4%	7%	9%	11%	13%	15%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	4%
Russell 2000 Value	-	3%	3%	3%	4%	5%	6%
Russell Mid Cap Growth	3%	3%	3%	4%	5%	6%	7%
Russell Mid Cap Value	-	3%	3%	5%	7%	7%	8%

*Full allocation history can be found in the Appendix of the Quarterly Investment Review.

Morningstar Model Portfolios – RCP Performance

As of 3/31/2019

	Performance(%)				
	1 Quarter	1 Year	3 Years	Since Inception	Inception Date
RCP					
Very Conservative RCP	3.3	4.1	4.2	3.6	04/01/2014
<i>Very Conservative Benchmark RCP</i>	3.2	3.7	4.0	3.4	
Conservative RCP	5.4	3.6	5.8	4.2	04/01/2014
<i>Conservative Benchmark RCP</i>	5.4	3.7	5.8	4.5	
Moderately Conservative RCP	7.4	4.0	7.3	5.7	04/01/2014
<i>Moderately Conservative Benchmark RCP</i>	7.3	4.2	7.0	5.4	
Moderate RCP	9.1	3.8	8.0	5.9	04/01/2014
<i>Moderate Benchmark RCP</i>	8.9	4.0	8.2	5.9	
Moderately Aggressive RCP	10.4	3.5	8.9	6.5	04/01/2014
<i>Moderately Aggressive Benchmark RCP</i>	10.3	3.7	9.2	6.4	
Aggressive RCP	11.7	2.9	10.1	6.9	04/01/2014
<i>Aggressive Benchmark RCP</i>	11.6	3.3	10.4	7.0	
Very Aggressive RCP	13.1	2.5	11.0	7.3	04/01/2014
<i>Very Aggressive Benchmark RCP</i>	13.0	3.1	11.3	7.4	
RCP Ex-TIAA					
Very Conservative RCP Ex-TIAA	4.4	4.9	3.7	3.4	04/01/2014
<i>Very Conservative Benchmark RCP Ex-TIAA</i>	4.3	4.3	3.4	3.2	
Conservative RCP Ex-TIAA	6.1	3.7	5.4	4.2	04/01/2014
<i>Conservative Benchmark RCP Ex-TIAA</i>	6.1	4.2	5.3	4.3	
Moderately Conservative RCP Ex-TIAA	8.0	4.4	7.1	5.6	04/01/2014
<i>Moderately Conservative Benchmark RCP Ex-TIAA</i>	7.8	4.5	6.7	5.2	
Moderate RCP Ex-TIAA	9.3	4.0	7.7	5.7	04/01/2014
<i>Moderate Benchmark RCP Ex-TIAA</i>	9.2	4.3	8.0	5.8	
Moderately Aggressive RCP Ex-TIAA	10.6	3.6	8.7	6.2	04/01/2014
<i>Moderately Aggressive Benchmark RCP Ex-TIAA</i>	10.4	3.9	9.0	6.4	
Aggressive RCP Ex-TIAA	11.9	2.9	10.0	6.8	04/01/2014
<i>Aggressive Benchmark RCP Ex-TIAA</i>	11.7	3.3	10.3	6.9	
Very Aggressive RCP Ex-TIAA	13.1	2.5	11.0	7.3	04/01/2014
<i>Very Aggressive Benchmark RCP Ex-TIAA</i>	13.0	3.1	11.3	7.4	

Morningstar Model Portfolios – RCP Allocations

As of 3/31/2019

RCP

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	9%	9%	9%	8%	6%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	4%	4%	4%	5%
DFA Inflation-Protected Securities I	9%	7%	7%	4%	3%	-	-
DFA US Targeted Value I	-	4%	4%	4%	5%	7%	8%
Diamond Hill Large Cap Y	-	14%	-	-	-	-	-
Harding International Eq Inst	-	-	-	3%	3%	3%	4%
MFS International Value	3%	-	3%	3%	3%	5%	5%
PIMCO Total Return Instl	29%	14%	8%	-	-	-	-
TIAA Traditional	40%	32%	25%	16%	10%	5%	-
Vanguard Developed Markets Idx Instl	-	6%	8%	9%	14%	15%	18%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	3%	8%	4%	6%	3%	4%
Vanguard Federal Money Market Inv	4%	3%	-	-	-	-	-
Vanguard Institutional Index Instl PI	3%	-	15%	24%	27%	31%	35%
Vanguard Total Bond Market Index I	-	5%	6%	12%	8%	8%	-
William Blair Small-Mid Cap Gr I	3%	-	-	4%	4%	9%	9%

RCP Ex-TIAA

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	13%	10%	11%	8%	6%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	4%	4%	4%	5%
DFA Inflation-Protected Securities I	10%	8%	6%	5%	3%	3%	-
DFA US Targeted Value I	-	3%	3%	4%	5%	6%	8%
Diamond Hill Large Cap Y	-	-	-	-	-	-	-
Harding International Eq Inst	-	-	-	3%	3%	4%	4%
MFS International Value	-	3%	3%	3%	3%	4%	4%
PIMCO Total Return Instl	32%	15%	-	5%	3%	-	-
Vanguard Developed Markets Idx Instl	-	3%	6%	9%	14%	16%	19%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	-	4%	4%	6%	9%	4%
Vanguard Federal Money Market Inv	4%	3%	-	-	-	-	-
Vanguard Institutional Index Instl PI	3%	13%	17%	23%	27%	31%	35%
Vanguard Total Bond Market Index I	33%	36%	39%	23%	15%	9%	-
William Blair Small-Mid Cap Gr I	5%	3%	4%	4%	4%	4%	9%

*Full allocation history can be found in the Appendix of AHIC's Quarterly Investment Review.

Morningstar Model Portfolios – RCP Benchmarks

As of 3/31/2019

RCP Benchmarks

Index	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
Blmbg. Barc. Global Inflation-Linked US TIPS	11%	7%	7%	5%	3%	-	-
Blmbg. Barc. US Agg. Bond 1-3 Years	22%	15%	12%	9%	6%	4%	-
Blmbg. Barc. US Corp HY	8%	7%	6%	4%	3%	-	-
Blmbg. Barc. US Long Govt./Credit	6%	6%	5%	6%	5%	4%	-
Citi Treasury Bill 3 Mo.	3%	3%	-	-	-	-	-
FTSE NAREIT All Equity REITs	-	-	3%	3%	3%	3%	4%
MSCI EAFE GR	4%	7%	11%	15%	19%	23%	26%
MSCI EM GR	-	3%	4%	6%	8%	11%	13%
Russell 1000 Growth	-	4%	7%	9%	11%	13%	15%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	4%
Russell 2000 Value	-	3%	3%	3%	4%	5%	6%
Russell Mid Cap Growth	3%	3%	3%	4%	5%	6%	7%
Russell Mid Cap Value	-	3%	3%	5%	7%	7%	8%
TIAA Traditional	40%	32%	25%	16%	10%	5%	-

RCP Ex-TIAA Benchmarks

Index	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
Blmbg. Barc. Global Inflation-Linked US TIPS	11%	8%	6%	5%	3%	3%	-
Blmbg. Barc. US Agg. Bond	64%	51%	40%	31%	21%	10%	-
Blmbg. Barc. US Corp HY	9%	7%	6%	4%	3%	-	-
Citi Treasury Bill 3 Mo.	6%	4%	3%	-	-	-	-
FTSE NAREIT All Equity REITs	-	-	3%	3%	3%	3%	4%
MSCI EAFE GR	4%	7%	11%	15%	19%	23%	26%
MSCI EM GR	-	3%	4%	6%	8%	11%	13%
Russell 1000 Growth	-	4%	7%	9%	11%	13%	15%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	4%
Russell 2000 Value	-	3%	3%	3%	4%	5%	6%
Russell Mid Cap Growth	3%	3%	3%	4%	5%	6%	7%
Russell Mid Cap Value	-	3%	3%	5%	7%	7%	8%

*Full allocation history can be found in the Appendix of the Quarterly Investment Review.

Morningstar Model Portfolios – Static Allocation Performance

As of 3/31/2019

	Performance(%)				
	1 Quarter	1 Year	3 Years	Since Inception	Inception Date
RC					
Very Conservative RC (Static)	3.3	4.3	4.3	3.9	04/01/2014
<i>Very Conservative Benchmark RC (Static)</i>	3.3	4.1	4.3	3.7	
Conservative RC (Static)	5.4	4.0	6.1	4.9	04/01/2014
<i>Conservative Benchmark RC (Static)</i>	5.5	4.2	6.2	4.8	
Moderately Conservative RC (Static)	7.0	4.7	7.6	5.8	04/01/2014
<i>Moderately Conservative Benchmark RC (Static)</i>	7.3	4.6	7.2	5.6	
Moderate RC (Static)	8.8	4.9	8.9	6.5	04/01/2014
<i>Moderate Benchmark RC (Static)</i>	8.9	4.4	8.5	6.1	
Moderately Aggressive RC (Static)	10.0	4.7	10.1	7.1	04/01/2014
<i>Moderately Aggressive Benchmark RC (Static)</i>	10.3	4.2	9.4	6.6	
Aggressive RC (Static)	11.4	4.6	11.6	7.8	04/01/2014
<i>Aggressive Benchmark RC (Static)</i>	11.8	3.9	10.4	7.0	
Very Aggressive RC (Static)	12.6	3.3	11.9	7.5	04/01/2014
<i>Very Aggressive Benchmark RC (Static)</i>	13.2	3.6	11.3	7.3	
RCP					
Very Conservative RCP (Static)	3.7	4.3	4.2	3.7	04/01/2014
<i>Very Conservative Benchmark RCP (Static)</i>	3.3	3.8	4.0	3.4	
Conservative RCP (Static)	5.3	3.8	5.9	4.6	04/01/2014
<i>Conservative Benchmark RCP (Static)</i>	5.5	4.0	5.9	4.6	
Moderately Conservative RCP (Static)	7.0	4.6	7.3	5.5	04/01/2014
<i>Moderately Conservative Benchmark RCP (Static)</i>	7.3	4.4	6.9	5.3	
Moderate RCP (Static)	8.9	4.8	8.7	6.3	04/01/2014
<i>Moderate Benchmark RCP (Static)</i>	9.0	4.2	8.2	5.9	
Moderately Aggressive RCP (Static)	10.1	4.6	9.9	6.9	04/01/2014
<i>Moderately Aggressive Benchmark RCP (Static)</i>	10.4	4.1	9.2	6.4	
Aggressive RCP (Static)	11.4	4.6	11.5	7.8	04/01/2014
<i>Aggressive Benchmark RCP (Static)</i>	11.9	3.9	10.4	7.0	
Very Aggressive RCP (Static)	12.6	3.3	11.9	7.5	04/01/2014
<i>Very Aggressive Benchmark RCP (Static)</i>	13.2	3.6	11.3	7.3	

Discussion Topics

Section 1	Capital Markets Review
Section 2	Performance Review
Section 3	Noteworthy Items
Section 4	William Blair & Company Flash Report
Section 5	Legal & Compliance Update

Vanguard Target Retirement Trusts/Funds

- Each of the Vanguard Target Retirement Funds generated results that closely approximated the return of its respective performance benchmarks during the quarter
 - Returns ranged from 5.6% for the Income Trust to 11.5% for the 2065 Trust
- For the twelve months ended March 31, 2019, the Funds exhibited a modest level of tracking error across the series
 - Returns ranged from 4.0% for the Income Trust to 3.4% for the 2065 Trust
 - Detractions from “fair value” pricing adjustments and the negative impact of fees detracted from relative results
- Longer-term results continued to exhibit a modest level of tracking error but ranked favorably among their respective peer-group averages
 - Fair value pricing adjustments along with the impact of statistical sampling and the underlying component Fund’s investment management fees detracted from results
- The Vanguard Target Retirement Funds remain “Buy” rated by our Global Investment Management Research Team

American Century High Income Fund

- The Fund registered “Yellow” on the Watch List during the first quarter
 - Due to the Fund’s historical underperformance relative to its benchmark over the trailing five-year period and in three of the four most recent trailing calendar quarters
- The Fund’s performance trailed the return of its benchmark, the ICE BofAML US High Yield Master II Constrained Index, by 0.7 percentage point during the first quarter
- The Fund’s relative underperformance was primarily attributable to:
 - Negative security selection within the energy sector
 - Holdings within the exploration & production, wireless telecom, health facilities, and gas distribution sectors
- Partially offsetting the period’s negative relative results was positive security selection within the advertising, packaging, software/services, and pharmaceuticals sector
- For the twelve months ended March 31, 2019, the Fund generated a return of 5.0% versus the benchmark’s return of 5.9%
- Longer-term results remained favorable relative to the Fund’s benchmark and peer group average
- The strategy remains “Buy” rated by our Global Investment Management Research Team
- We continue to closely monitor the Fund’s positioning and performance but recommend the Committee take no action as the investment team remains consistent and continues to execute on its historic philosophy and process

William Blair Small/Mid Cap Growth Fund

- On May 1 2019, William Blair & Company announced changes to their mutual fund suite of products including the creation of a Retirement (R6) share class for all of their strategies already available in a mutual fund vehicle
- Concurrent with the introduction of Class R6 shares:
 - Changes have occurred to the net expense ratios including the reduction of the expense ratios by varying amounts
 - The minimums have been adjusted to \$1 million with no minimum required for qualified retirement plans as described in the prospectus
- We recommend the Committee take no action at this time as the arrangement where TIAA rebates revenue sharing back to participants remains more favorable for participants at this time

Investment Option	Ticker	Total Expense (%)	Revenue Sharing Credit (%)	Mgmt. Fee (%)
William Blair Small/Mid Cap Growth Fund - I	WSMDX	1.10%	0.15%	0.95%
William Blair Small/Mid Cap Growth Fund – R6	WSMRX	1.04%	0.00%	1.04%

- A Flash Report detailing our observations is included in Section 4 of this presentation

DFA U.S. Targeted Value Fund

- The Fund registered “Yellow” on the Watch List during the first quarter
 - Due to the Fund’s historical underperformance relative to its benchmark over the trailing five-year period and in three of the four most recent trailing calendar quarters
- The Fund’s performance trailed the return of its benchmark, the Russell 2500 Value Index, by 1.0 percentage point during the first quarter
- The Fund’s relative underperformance was primarily attributable to:
 - An overweight allocation to small-cap stocks relative to mid caps
 - An underweight allocation to REITs
- Partially offsetting the period’s negative relative results was positive stock selection within consumer discretionary and information technology sectors
- For the twelve months ended March 31, 2019, the Fund generated a return of -3.4% versus the benchmark’s return of 1.8%
 - Performance was driven by a combination of security selection and allocation decisions
- Longer-term results remain mixed relative to the Fund’s benchmark and peer group average
- The strategy remains “Buy” rated by our Global Investment Management Research Team
- We continue to closely monitor the Fund’s positioning and performance but recommend the Committee take no action as the investment team remains consistent and continues to execute on its historic philosophy and process

Dodge & Cox Global Stock Fund

- The Fund continued to register “Yellow” on the Watch List during the first quarter
 - Due to the Fund’s historical underperformance relative to its benchmark over the trailing five-year period and in three of the four most recent trailing calendar quarters
- The Fund’s performance trailed the return of its benchmark, the MSCI All Country World Index, by 2.5 percentage points during the first quarter
- The Fund’s relative outperformance was primarily attributable to:
 - An overweight allocation and negative stock selection within the health care sector
 - Notable detractors included CVS Health (-17%) and Cigna (-15%)
 - An overweight allocation to the financial sector
- For the twelve months ended March 31, 2019, the Fund generated a return of -1.5% versus the benchmark’s return of 2.6%
 - The manager’s value-oriented approach detracted from results as growth stocks outperformed
- Longer-term performance remained mixed relative to the Fund’s performance benchmark and peer group average
- The strategy remains “Buy” rated by our Global Investment Management Research Team
- We continue to closely monitor the Fund’s positioning and performance but recommend the Committee take no action as the investment team remains consistent and continues to execute on its historic philosophy and process

Discussion Topics

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Flash Report

William Blair & Company New Retirement Share Classes

Recommendation

As a result of this announcement, we recommend clients assess their current investments in the William Blair suite of mutual fund products to determine if moving to a Retirement (R6) share class is best suited for their needs. If a client decides to migrate to the Retirement share class for a fund in which they are currently invested, they can do so by notifying their William Blair client service contact.

If you have any questions, please contact a member of the Aon Global Equity Manager Research Team.

Background

On May 1, 2019, the Aon Global Equity Manager Research Team learned that, effective immediately, William Blair has made some changes to their mutual fund suite of products including creating Retirement share classes for all of their strategies already available in a mutual fund vehicle. For William Blair Funds with the Institutional (J) Share Class, those shares have been re-designated as Class R6 shares. No changes occurred to the identifiers (cusip, ticker, ISIN) in Funds where the Institutional (J) Class was re-designated as Class R6 shares. For all other William Blair Funds, Class R6 Shares have been added. Concurrent with the introduction of Class R6 shares, the minimums have been adjusted to \$1 million with no minimum required for qualified retirement plans as described in the prospectus.

In addition to the share class enhancements referenced above, changes have occurred to the net expense ratios of select William Blair funds including the reduction of the expense ratios by varying amounts. The table below summarizes the potential fee savings in moving to the Retirement share class based on the expense ratios for each corresponding fund:

Buy Rated William Blair Mutual Funds	Institutional*	Expense Ratio	Retirement	Expense Ratio	Savings
Growth (All Cap Growth)	BGFIX	0.90%	BGFRX	0.83%	0.07%
Mid Cap Growth	WCGIX	1.05%	WCGJX	0.90%	0.15%
Small-Mid Cap Growth	WSMDX	1.10%	WSMRX	1.04%	0.06%
Small Cap Growth	WBSIX	1.25%	WBSRX	1.15%	0.10%
Small-Mid Cap Value	WSMIX	1.10%	BSMRX	0.95%	0.15%
Small Cap Value	BVDIX	1.25%	BVDRX	1.16%	0.09%
International Leaders	WILJX	0.90%	SAME*	0.85%	0.05%
International Growth	BIGIX	1.13%	WBIRX	1.05%	0.08%
International Small Cap Growth	WIISX	1.30%	SAME*	1.08%	0.22%
Emerging Markets Leaders	WELIX	1.15%	SAME*	1.10%	0.05%
Emerging Markets Growth	BIEMX	1.41%	SAME*	1.19%	0.22%

*Indicates the Institutional J share class has migrated to Institutional R6 share class status. Ticker will remain the same.

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Aon Quarterly Update

First Quarter 2019

Retirement Legal Consulting & Compliance

In this Issue

- 2 How Will Your Retirement Plan Respond to Cybersecurity Threats?
- 3 New Litigation Challenges How Pension Plans Define Actuarial Equivalence
- 4 Application of Proposed Hardship Distribution Regulations to 403(b) Plans
- 4 Compliance Update for Plan Sponsors
- 5 Relief from 403(b) "Once-In-Always-In" Rule for Part-Time Employees
- 6 Quarterly Roundup of Other New Developments
- 7 Recent Publications

Prior Issues

To access prior issues, [click here](#) and select "Newsletters"

Notes From Your Editors

We are pleased to announce that Susan Motter has joined our editorial staff as co-editor of the *Quarterly Update*. Susan brings a lot of experience to the team, and we are thrilled to have her on board.

This issue begins with an article about cybersecurity risks for retirement plans. We've developed a questionnaire to assist plan fiduciaries with evaluating whether an ERISA-covered plan is a good candidate for a cybersecurity risk assessment. Please see the article for more information and to obtain a copy of the questionnaire.

The retirement plan community is buzzing about recent lawsuits filed against plan sponsors and fiduciaries of pension plans challenging the actuarial equivalence factors used for converting benefits into optional forms and for early retirement reductions. While the IRS has provided specific factors to be used for some purposes such as calculating lump sums, plan sponsors aren't required to use those factors for the purposes described in the lawsuits. Since these lawsuits are at the initial filing stage, the merits of the claims have not yet been addressed. While we haven't seen any responses or defenses asserted by the plan sponsors or fiduciaries as we go to press, we will be following these cases closely in the coming weeks.

Plans covered under Section 403(b) of the Internal Revenue Code (relating to plans of certain tax-exempt organizations) have been getting more attention lately. In this issue we discuss how the proposed hardship regulations apply differently to these plans than to other defined contribution plans. We also cover the relief granted by the Internal Revenue Service for plan sponsors that may have misinterpreted the rules that apply to excluding part-time employees from participation. This should be very helpful to plan sponsors.

Each year we publish a Compliance Calendar that lists the significant compliance milestones and due dates that apply to qualified retirement and health and welfare plans having a calendar year plan year. Feedback on the calendar has been very positive as many plan sponsors rely upon it to make sure not to miss compliance deadlines. We have published an article about the Compliance Calendar that includes a link that can be followed to obtain a copy.

If you have any questions or need any assistance with the topics covered, please contact the author of the article or Tom Meagher, our practice leader.

Regards,

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Partner
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How Will Your Retirement Plan Respond to Cybersecurity Threats?

By Hitz Burton, Dick Hinman, and Tom Meagher



Retirement plans are attractive targets for cyber criminals. With the technology available today, cyber criminals may be able to gain access to plan participant information and use it to acquire plan assets, in many cases without the plan sponsor or fiduciary becoming aware until it is too late. In one instance, for example, cyber thieves were able to steal more than \$2 million from a retirement plan by creating fraudulent plan loans. Additionally, cyber threats to plan administrative systems (successful or unsuccessful) may result in delays and inaccuracies involving administrative records and related services for retirement plans.

Retirement plans routinely store participants' personal information such as dates of birth, Social Security numbers, and home addresses—the type of information that may make a plan a likely target for identity theft by cyber criminals. A retirement plan's vulnerabilities, including cyber threats associated with email, may also compromise other plans (e.g., health and welfare plans) so a comprehensive review of the safeguards applicable to an employer's benefit plans is often desirable—and prudent. Moreover, from an Employee Retirement Income Security Act of 1974 (ERISA) standpoint, there is a growing concern that plan fiduciaries will be held accountable for a data breach involving the unauthorized disclosure of participant information and that such information may be considered a plan asset subject to ERISA's protections, including the need for prudent safeguards approved by the plan fiduciaries.

▶ **Retirement plans routinely store participants' personal information such as dates of birth, Social Security numbers, and home addresses—the type of information that may make a plan a likely target for identity theft by cyber criminals.**

From an ERISA standpoint, it is becoming more and more apparent that plan fiduciaries may be found to have a fiduciary duty to maintain adequate cybersecurity with respect to plan information. In November 2016, for example, the ERISA Advisory Council on Employee Welfare and Pension Benefit Plans published a report recommending that plans adopt cybersecurity risk management strategies. More recently, DOL field agents have asserted on audit that participant data is a “plan asset” subject to the same fiduciary protections under ERISA as plan investments, including ERISA's prudent person and exclusive benefit protections.

Most ERISA plan fiduciaries who exercise discretion or control over plan investments have long since settled on the idea that regular periodic review of plan investments is essential to their prudent oversight of such assets. Likewise, fiduciaries may need to periodically assess their plans' cybersecurity safeguards and document that they have determined that such safeguards are appropriate in the current environment. As an initial first step in that analysis, fiduciaries should consider developing a baseline assessment of their plans' current cybersecurity safeguards. A baseline assessment, for example, would help fiduciaries understand the risks associated with whom (both inside and outside the employer) has access to participants' and beneficiaries' personal identifiable information, for how long, and under what conditions.

To help you evaluate whether your plan is a good candidate for an initial baseline assessment of its current cybersecurity protections, Aon has developed a very brief questionnaire. The questionnaire is designed to focus plan sponsors and fiduciaries on the various uses and disclosures of retirement plan data—both inside and outside the company—and help them determine if they should, at a minimum, evaluate the safeguards that are in place and intended to cover retirement plan data. Please contact linda.lee.2@aon.com to obtain a copy of the questionnaire or to schedule an appointment with a member of Aon's cybersecurity team.

New Litigation Challenges How Pension Plans Define Actuarial Equivalence

by Hitz Burton, Eric Keener, and Alan Parikh



A series of lawsuits seeking class-action status recently were filed against sponsors and fiduciaries of defined benefit pension plans challenging, among other things, the use of mortality tables created in the 1970s or 1980s to define actuarial equivalence for calculating optional payment forms or early retirement benefits. The complaints allege that the plan sponsors and fiduciaries breached their obligations under the Employee Retirement Income Security Act of 1974 (ERISA) by using old mortality tables (alone or in combination with low interest rates), or explicit plan-defined factors, that are no longer reasonable, resulting in an improper forfeiture of benefits. Below, we discuss further considerations regarding these calculations.

While Treasury Regulations require plans to use “reasonable” actuarial factors when converting an accrued benefit into optional payment forms or adjusting for early commencement, they have not mandated specific mortality tables or interest rates for these situations. This is in direct contrast to the applicable mortality table and interest rate used for lump sum and other benefit determinations defined in Section 417(e)(3) of the Internal Revenue Code (417(e) Factors). In addition to using reasonable actuarial factors, plan sponsors are required to provide participants with information about the relative value of the different optional forms of benefit offered under a plan. The relative value regulations recognize that different (non-417(e)) actuarial factors may be used to develop certain payment forms under the plan.

Because of this recent litigation and the uncertainty it presents, many plan sponsors and fiduciaries are evaluating possible responses. Among other considerations, plan sponsors and fiduciaries may wish to periodically review how their plans define actuarial equivalence and to confirm that the definition continues to be reasonable. For example, it may be prudent for plan sponsors and fiduciaries to compare optional annuity payment forms and early retirement benefits determined using plan factors to the results that would be obtained using the 417(e) Factors. Any resulting differences could then be evaluated.

It is important to note that, while the 417(e) Factors may be considered reasonable for benefit calculation purposes, there is no guidance stating that they are (or should be) the baseline for “reasonableness” determinations. The 417(e) Factors are based on a 50% male-50% female blend of life expectancies for a mixed blue-collar and white-collar population and the yields currently available on high-quality corporate bonds. For a plan with different demographics (e.g., a heavily male or female population), the use of the 417(e) Factors may produce benefits higher or lower than what factors based on the plan’s own demographics would produce. Similarly, a plan’s actuarial equivalence interest rate may be based on something other than high-quality corporate bonds (e.g., if the plan has a different investment strategy), and this may produce benefits higher or lower than what the 417(e) Factors would produce. It may be appropriate for sponsors and fiduciaries to consider these issues in assessing whether plan actuarial factors are reasonable. However, regardless of a plan’s circumstances, a periodic review of the plan’s existing assumptions for benefit calculation purposes may be advisable to confirm their continuing appropriateness. In addition, a review of the assumptions used for relative value disclosures may also be appropriate to ensure that these disclosures provide participants with sufficient information to support decisions regarding time and form of benefit commencement.

▶ While Treasury Regulations require plans to use “reasonable” actuarial factors when converting an accrued benefit into optional payment forms or adjusting for early commencement, they have not mandated specific mortality tables or interest rates for these situations.

While the recent litigation described above has raised several issues for plan sponsors and fiduciaries to consider, it is important to note that plan sponsors and fiduciaries may have valid defenses to a claim that plan factors are out-of-date. For example, a plan sponsor or fiduciary may have determined that the factors defined in their plan are not materially different from the 417(e) Factors, or that the assumptions used are more appropriate than the 417(e) Factors given the specific population covered by the plan. In response to fiduciary breach allegations, plan fiduciaries may be able to demonstrate that the process utilized to evaluate a plan’s actuarial factors was reasonable and prudent and that, as a result, no breach of an ERISA fiduciary duty occurred.

We will continue to monitor this litigation as it proceeds. Please contact your Aon consultant to discuss the implications of the above litigation or for assistance with reviewing the actuarial factors contained in your plans.

Application of Proposed Hardship Distribution Regulations to 403(b) Plans

by Dan Schwallie

In the **Fourth Quarter** issue of the *Quarterly Update*, we described recent proposed regulations affecting 401(k) plan hardship distributions and briefly noted that the proposed regulations are more restrictive as applied to 403(b) plans. This article describes the different rules applicable to hardship distributions from 403(b) plans.

► **Sponsors of 403(b) plans should review the proposed regulations along with existing statutory and regulatory guidance to determine whether any modifications of their 403(b) plans' hardship distribution provisions and plan administration are needed or desired.**

Essentially, the rules are different for 403(b) plans because the Bipartisan Budget Act of 2018 (BBA) and the Tax Cuts and Jobs Act (TCJA) did not amend Section 403(b) of the Internal Revenue Code (Code). BBA and TCJA expanded access for 401(k) plan hardship distributions to include income on elective deferrals among other changes. While Code Section 403(b)(11)(B) allows access to elective deferrals for hardship distributions, it expressly excludes income on such contributions. Because TCJA and BBA did not amend this statutory language, income attributable to 403(b) elective deferrals continues to be ineligible for hardship distributions.

In addition, BBA and TCJA expanded access for 401(k) plan hardship distributions to qualified nonelective contributions (QNECs) and qualified matching contributions (QMACs). For 403(b) plans invested in custodial accounts (rather than annuity contracts), Code Section 403(b)(7)(A)(ii) only allows access to elective deferrals for hardship distributions. TCJA and BBA did not amend this statutory language, so QNECs and QMACs in a 403(b) custodial account continue to be ineligible for hardship distributions even if later transferred to an annuity contract. As a result, many 403(b) plans limit hardship distributions to elective deferrals.

Sponsors of 403(b) plans should review the proposed regulations along with existing statutory and regulatory guidance to determine whether any modifications of their 403(b) plans' hardship distribution provisions and plan administration are needed or desired. Modifications to consider include changes to the safe harbor list of eligible expenses and the rules for determining whether a distribution is necessary to satisfy an immediate and heavy financial need (e.g., the six-month deferral suspension requirement and the requirement to first take a loan before taking a hardship distribution). In addition, sponsors may desire to weigh expanding the contribution sources from which hardship distributions are made from annuity contracts against the burden of tracking transfers to annuity contracts of amounts other than elective deferrals from custodial accounts. Aon's Retirement Legal Consulting & Compliance consultants can assist plan sponsors in assessing what changes to make and how best to communicate such changes.

Compliance Update for Plan Sponsors

by Linda M. Lee



Plan sponsors must keep their qualified retirement and health and welfare plans in compliance with all relevant legal obligations. Aon's annual Compliance Calendar provides plan sponsors and other interested parties with significant Internal Revenue Service (IRS), Department of Labor, and other regulatory agency due dates and deadlines for benefit-related compliance obligations. This calendar is

designed to help plan sponsors maintain compliance with these due dates, thereby avoiding costly penalties for noncompliance due to missing these critical deadlines.

Following is an overview of the topics addressed by the 2019 Compliance Calendar:

- Timing of participant communications and notices (e.g., summaries of material modifications, pension benefit statements, and summaries of benefits and coverage);
- Changes to health plan reporting obligations;
- Plan contribution due dates; and
- Filing dates for IRS forms (e.g., Forms W-2 and 1099-R).

The Aon 2019 Compliance Calendar helps promote timely disclosure and compliance with related filing obligations. Download your complimentary copy of the 2019 Compliance Calendar [here](#).

Relief from 403(b) “Once-In-Always-In” Rule for Part-Time Employees

by Dan Schwallie



Nondiscrimination and participation rules for elective deferrals made to 403(b) plans differ from the rules for other defined contribution plans and frequently have been misinterpreted by plan sponsors. Internal Revenue Service (IRS) Notice 2018-95 provides transition relief for plan sponsors who have not operated their plans in accordance with a specific provision of the rules surrounding the

exclusion of part-time employees from participation. Specifically, the notice addresses the “once-in-always-in” (OIAI) condition for excluding part-time employees from making elective deferrals under a 403(b) plan.

Elective deferrals under 403(b) plans are subject to a universal availability rule requiring these plans to allow all employees to make elective deferrals if any employee has the right to do so, with certain limited exceptions. A part-time employee may be excluded from participation unless that part-time employee works at least 1,000 hours in any year (or if the employee was reasonably expected to work at least 1,000 hours in the first year of employment). Some employers interpreted the part-time employee exclusion rule to mean that a part-time employee could be excluded from making elective deferrals for any particular year if the employee did not work 1,000 hours in the preceding year. In other words, some employers thought part-time employees could pop in and out of eligibility to make elective deferrals, depending on how many hours the employees worked in the preceding year.

Final Treasury Regulations related to 403(b) plans, issued in 2007 and generally effective for taxable years beginning after December 31, 2008, provided that a part-time employee (i.e., an employee who normally works fewer than 20 hours per week) can be excluded from making elective deferrals if the following conditions are satisfied:

- **First-year Exclusion Condition.** The employer must reasonably expect the employee to work fewer than 1,000 hours during the employee’s first year of employment.
- **Preceding-year Exclusion Condition.** For each exclusion year ending after the end of the first-year exclusion, the employee must have actually worked fewer than 1,000 hours in the preceding 12-month period.

In 2015, the IRS issued a Listing of Required Modifications (LRM) that surprised many employers. The LRM specifically highlighted the OIAI condition regarding the exclusion of part-time employees from participating in 403(b) plans. Under this condition, the employee may be excluded if and only if, in the employee’s first year of employment, the employee meets the first-year exclusion condition, and, in each

year ending after the first year of employment, the employee meets the preceding-year exclusion condition. The effect of the OIAI exclusion condition is that if an employee fails to satisfy either of the exclusion conditions—whether in the first year of employment or for any subsequent year, the employee cannot be excluded from making elective deferrals in the future. Commenters requested transition relief, arguing that many employers were not aware of the rule until it was highlighted by the 2015 LRM.

In response, the Treasury Department and the IRS issued Notice 2018-95 providing transition relief during a “relief period,” as well as a fresh-start opportunity when the relief period ends. The relief period starts with taxable years beginning after December 31, 2008, and ends for all employees on the last day of the last exclusion year that ends before December 31, 2019. A plan will not be treated as failing the part-time employee exclusion rule merely because the plan did not provide an employee with an opportunity during the relief period to make elective deferrals for each year after the year in which the employee worked at least 1,000 hours. The notice also provides an optional fresh-start opportunity whereby the part-time employee rule is applied as if it first became effective January 1, 2018.

➤ **Some employers interpreted the part-time employee exclusion rule to mean that a part-time employee could be excluded from making elective deferrals for any particular year if the employee did not work 1,000 hours in the preceding year.**

An employer with an individually designed 403(b) plan has until March 31, 2020 to amend the plan, if needed, to reflect that the OIAI condition of the part-time employee rule was not applied during the relief period. Amendments to pre-approved 403(b) plan documents are not required. For periods after the relief period ends, both pre-approved and individually designed plan documents that provide for the part-time employee exclusion must expressly include language that, once an employee has worked 1,000 hours in a year, the employee must be eligible to make elective deferrals each year thereafter. Aon’s Retirement Legal Consulting & Compliance consultants can assist employers with understanding how the transition relief may apply and what amendments may be needed by March 31, 2020.

Quarterly Roundup of Other New Developments

by Teresa Kruse, Jan Raines, and Bridget Steinhart

Managing Retirement Plan Outflows

Plan participants take loans from their retirement plans for many reasons, such as buying a house or a car, paying off credit cards, or paying for a vacation. Unfortunately, the downside of taking a plan loan is a potential reduction in retirement savings and possible tax implications if the loan is not timely repaid. When a participant with a loan changes or loses a job, full repayment of the outstanding balance of the loan may become due and payable. If the participant is unable to repay the loan, the plan sponsor will treat the loan as a taxable distribution to the participant and a 10% additional tax penalty may also apply. Corporate actions such as mergers or acquisitions can also adversely affect plan participants with loans and cause a loan to be payable in full long before anticipated by the participant. This outflow of retirement savings is detrimental to participants' retirement security.

There are many ways plan sponsors can combat the outflow of retirement funds:

- **Education Is Key.** Review the financial education programs offered through your retirement plan provider to confirm loan and debt-management education is included. Make this topic a priority.
- **Provide Alternatives.** Offer emergency savings accounts or short-term emergency loans as part of the benefit package. Payments can be made through payroll deduction.
- **Review Plan Design.** Assess your plan design to determine whether you can reduce circumstances where participants take out loans, such as reducing the number of loans that participants can take or increasing the wait time between loans.
- **Understand Impact of M&A Transactions.** Understand how corporate transactions can affect your retirement plan and participants with loans. If the transaction will result in termination of the retirement plan, educate participants regarding their options.



Aon consultants can help identify ways to structure your defined contribution plan to maximize your employees' retirement savings and tax advantages.

New Tactics Deployed by Plaintiffs' Attorneys (or Forewarned is Forearmed)

Plaintiffs' attorneys have been trying new tactics in Employee Retirement Income Security Act of 1974 (ERISA) litigation such as:

- **Demanding a Jury Trial.** Defendant plan sponsors and fiduciaries have long argued, and courts have traditionally agreed, that there is no statutory or constitutional right to a jury trial in ERISA cases. Instead, these cases are decided by judges in courts of equity, which only provide for equitable remedies for a fiduciary breach (such as the cessation of a practice that specifically violates ERISA or any provision of a plan subject to ERISA). Several plan sponsors and fiduciaries are potentially facing jury trials for alleged breaches based on a new legal theory that an attempt to hold the plan's fiduciaries personally liable for losses by the plan may be the type of claim that should be brought before a jury. If this new legal theory holds, it may change how cases are presented in the future. *Cassell v. Vanderbilt Univ.*, No. 3:16-cv-02086 (M.D. Tenn. report and recommendation filed 10/22/2018); *Moitoso v. FMR LLC*, No. 1:18-cv-12122-WGY (D. Mass., amended demand for jury trial filed 1/15/2019); *Cunningham v. Cornell Univ.*, No. 1:16-cv-06525-PKC (S.D.N.Y. def.'s letter to judge filed 9/21/2018).
- **Questioning Which Party Has the Burden of Proof.** Putnam Investments LLC intends to petition the U.S. Supreme Court to review a court's decision regarding its 401(k) plan. Specifically, Putnam is asking the Supreme Court to address which party—plaintiffs or defendants—have the burden of proving (or disproving) that a plan loss is due to fiduciary misconduct. *Brotherston v. Putnam Invs., LLC*, No. 17-01711 (1st Cir. mot. to stay mandate 10/24/18).
- **Initiating Fee Litigation Against Smaller Plans.** Fee litigation against retirement plans is moving down-market. The most recent example is a lawsuit against Kaleida Heath's 401(k) and 403(b) retirement plans, which have \$81.4 million and \$444.8 million in assets, respectively, as of December 31, 2017 (as reported on Form 5500). *Lutz v. Kaleida Health*, No. 1:18-cv-01112-EAW (W.D.N.Y. complaint filed 10/10/2018).

These most recent tactics by plaintiffs' attorneys potentially affect retirement plans of all sizes and underscore the importance of sound governance processes, including fiduciary training, regular investment fund and plan expense reviews, and appropriate documentation of the fiduciaries' work in their areas of responsibility. Aon consultants are available to help review governance processes, provide fiduciary training, provide for appropriate recordkeeping of actions taken and develop an annual fiduciary checklist.

Retirement Plan Litigation Update

Retirement plan litigation has been prevalent over the past decade affecting corporate plan sponsors, plan fiduciaries, financial institutions that are also plan sponsors, and universities sponsoring 403(b) plans. Defined contribution plan cases generally fall into the following three areas: inappropriate or imprudent investment choices, excessive fees, and self-dealing. Recently, several cases involving financial institutions and universities have been dismissed (in full or in part) or settled, including:

- Financial Institutions
 - *Sims v. BB&T*—Case settled for \$24 million
 - *Rozo v. Principal*—Case settled for \$3 million
 - *Pease v. Jackson National*—Case settled for \$4.5 million
 - *Bekker v. Neuberger Berman Grp.*—Case partially dismissed

- Universities
 - *Daugherty v. Univ. of Chicago*—Case settled for \$6.5 million
 - *Davis v. Wash. Univ.*—Case fully dismissed

Plan sponsors seeking to reduce their litigation risk liability use a variety of strategies including increasing the number of passive funds in their plans and implementing better fee transparency. *Sims v. BB&T Corp.*, No. 1:15-cv-00732-CCE-JEP (M.D.N.C. Dec. 13, 2018); *Rozo v. Principal Life Ins. Co.*, No. 4:14-cv-00463-JAJ (S.D. Iowa Sept. 12, 2018); *Pease v. Jackson Nat'l Life Ins. Co.*, No. 1:17-cv-00284-JTN-ESC (W.D. Mich. Nov. 1, 2018); *Bekker v. Neuberger Berman Grp. LLC*, No. 1:16-cv-06123-LTS-BCM, 2018 BL 351830 (S.D.N.Y. Sept. 27, 2018); *Daugherty v. Univ. of Chicago*, No. 1:2017-cv-03736 (N.D. Ill. Sept. 12, 2018); *Davis v. Wash. Univ. in St. Louis*, No. 4:17-cv-01641 (E.D. Mo. Sept. 28, 2018).

Please see the applicable Disclosures and Disclaimers on page 8.

Recent Publications

Retirement Plan Benefits for Reducing Student Loan Debt: Are Mortgages Next?

By Daniel Schwallie

Journal of Pension Planning & Compliance (First Quarter 2019)

A recent IRS private letter ruling opens the door to plan designs that provide retirement benefits for employees who pay down their student loan debt, but also raises some unanswered questions.

Click [here](#) to read the article.

Special Coverage and Nondiscrimination Testing Rules for 403(b) Plans

By Daniel Schwallie

Journal of Pension Planning & Compliance (First Quarter 2019)

Coverage and nondiscrimination testing of 403(b) plans sponsored by 501(c)(3) tax-exempt organizations involves special rules for determining controlled groups, testing elective deferrals, and testing when non-403(b) plans are included in a controlled group.

Click [here](#) to read the article.

Preapproved Plan Pros and Cons

By Daniel Schwallie

Benefits Quarterly (First Quarter 2019)

An IRS preapproved plan document can be a cost-effective document solution with the ability to rely on an IRS opinion letter. However, a preapproved plan has limited flexibility for plan design compared with an individually drafted document and is also not available for all plan types.

Click [here](#) to read the article.

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